

**NETWORK
CONNECTIVITY
SOLUTIONS
CATALOG—
WW-NCCB04**
(replaces SA-NC10CB01A)

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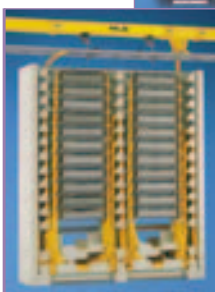
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^ Windows is a registered trademark of Microsoft Corp.
 * ST is a registered trademark of Lucent Technologies

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SYSTEM OVERVIEW

PANDUIT® is the global leader in network connectivity, delivering end-to-end system solutions in support of your most demanding network requirements. The *PAN-NET*™ System provides high performance solutions with *Future Ready* features for system upgradability. These products are engineered to meet the requirements of applications such as Voice over IP (VoIP), Ethernet to the home or office, and security. *PANDUIT* products are developed with breakthrough technology due to our continued focus on the needs of the customer and sustained high level of investment in state of the art product development tools. These products are developed with the following features.



- World-class quality
- High performance and reliability
- Upgradable, modular design
- Support of emerging network requirements
- Reduction in total cost of ownership
- Designed to meet and exceed the latest TIA/EIA standards

PANDUIT solutions include; modular twisted pair and fiber optic connectors, zone cabling systems, outlets, network rack systems, physical layer management systems, raceway systems, fiber routing systems, network grounding systems, network cable ties and accessories and network identification systems.

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GLOBAL SERVICES AND SUPPORT

PACT PROGRAM

The *PACT* Program brings together a community of best in class partners who share a vision — to provide the optimum business-focused network solutions based on a framework of open architecture, designed specifically to support critical network applications and address unique vertical market considerations.

Under a traditional, vertically integrated business model, customers typically looked to one vendor to satisfy all their requirements, from building services and network management to consultancy and deployment. This approach not only limits choices, but also the level of product and technology innovation available, ultimately restricting the customer's ability to compete and deliver a competitive return on investment.

PANDUIT® is working with customers to develop application driven product solution sets, in support of Voice over IP (VOIP), Ethernet to the home or office, and storage area networking deployment. Industry standards help to ensure that solutions work together. However, the unified approach goes one step further by testing the solutions for interoperability, functionality and performance, providing a further assurance that the end-to-end system will function at an optimum level.

PANDUIT CERTIFIED INSTALLER PROGRAM

The *PANDUIT* Certified Installer (PCI) Program was created to ensure that end-to-end *PANDUIT* Cabling Systems are installed properly and 100% tested to verify compliance with EIA/TIA industry standards. In support of these objectives, systems installed by *PANDUIT* Certified Installers are eligible for coverage under *PANDUIT CERTIFICATION PLUS*™ Warranty Program.

PANDUIT Certified Installers share our belief in providing high quality products and service. They have a BICSI RCDD or equivalent on staff, who understands structured cabling requirements to ensure a proper installation. In addition, theoretical and hands-on training is provided initially upon entrance into the PCI Program and repeated regularly to help *PANDUIT*PCIs provide the best installation service in the industry.

The PCI Program provides high-end design and installation companies with the training and support required to install and maintain leading edge *PANDUIT* Network Connectivity Solutions. What makes this program unique is the establishment of a global network of consistently trained, qualified organizations to help you quickly and efficiently deploy a network infrastructure you can trust to support your toughest applications.

PANDUIT CERTIFIED DESIGNER PROGRAM

The *PANDUIT* Network Connectivity Group offers the *PANDUIT* Certified Designer (PCD) Program — an initiative designed to support the designer in providing high quality, state-of-the-art solutions in today's rapidly evolving communications market.

PANDUIT aims to develop a responsive and collaborative relationship with the certified designer. By creating a relationship with our certified designers, we work together to specify best in-class cabling solutions for each unique infrastructure application.

Specifying *PANDUIT* products provides customers with a broad spectrum of integrated cabling components that meet and surpass diverse national and multinational requirements. Around the world, *PANDUIT* leverages local expertise to customize our structured cabling solutions to the customer's needs.

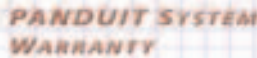
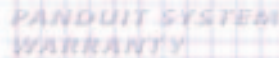
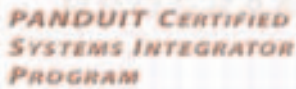
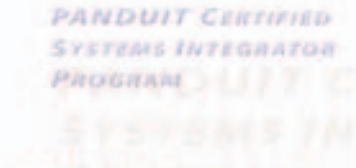


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PANDUIT® CERTIFIED SYSTEMS INTEGRATOR PROGRAM

The *PANDUIT* Certified Systems Integrator (PCSI) Program is designed to create a network of partners who promote and design *PANDUIT* solutions with other technologies, services and products. This program gives security to end-users by offering them a single source integrator from the physical to the application layers. PCSIs may provide additional assurance by offering the *PANDUIT CERTIFICATION PLUS*™ Warranty package on the systems they install.

The PCSI program offers valuable training and certifications, presenting the Systems Integrator with the opportunity to differentiate their services from the competition. Through this program, Systems Integrators can increase their scope of service, control of the network, and their value to the end user. This exclusive program is offered by *PANDUIT* to first class Systems Integrators to deliver best in class solutions to the end user.



PANDUIT SYSTEM WARRANTY

The *PANDUIT CERTIFICATION PLUS*™ Warranty Program provides a complete product and system warranty to guarantee high performance cabling systems that meet the demands of today and tomorrow.

The *PANDUIT CERTIFICATION PLUS*™ Warranty Programs is an inclusive commitment that guarantees:

- 100% product coverage and support sponsored by *PANDUIT* Corp.
- Warranty covering both COMPONENTS and LABOR to repair or replace covered components and cable
- One point of contact for all cable and component questions
- Warranty direct from *PANDUIT* to the end-customer

PANDUIT ensures:

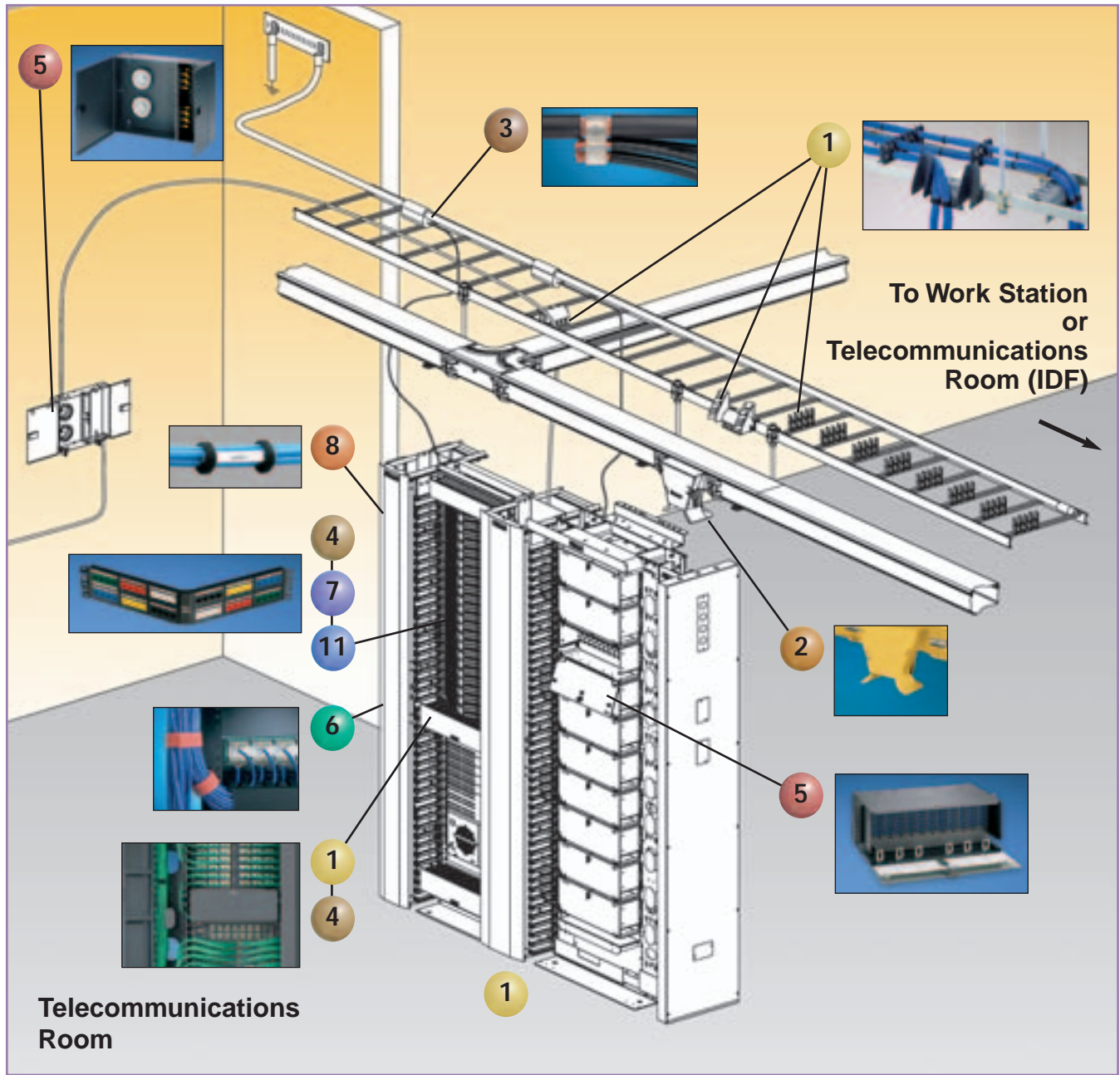
- Structuring Cabling System will support all current and all future network applications
- Structuring Cabling System will be free of defects in materials and workmanship
- Structuring Cabling System will meet or exceed applicable performance requirements defined in the Commercial Building Telecommunications Cabling Standards

Ease of registration:

- Register warranty information at warranty@panduit.com using our electronic e-form process
- No minimum link requirement
- Technical staff available
- Allows freedom of cable choice*

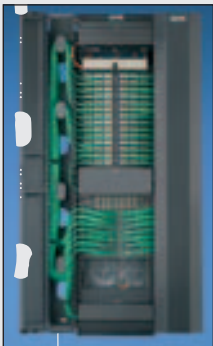

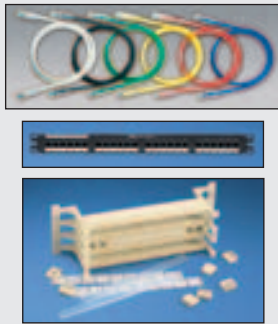


*Consult *PANDUIT* Technical Support (866-405-6654 or ncginfo@panduit.com) for approved cable manufacturers and program details. System must be registered by *PANDUIT* to activate warranty.

PANDUIT® provides a wide variety of infrastructure solutions to support layouts such as these below.

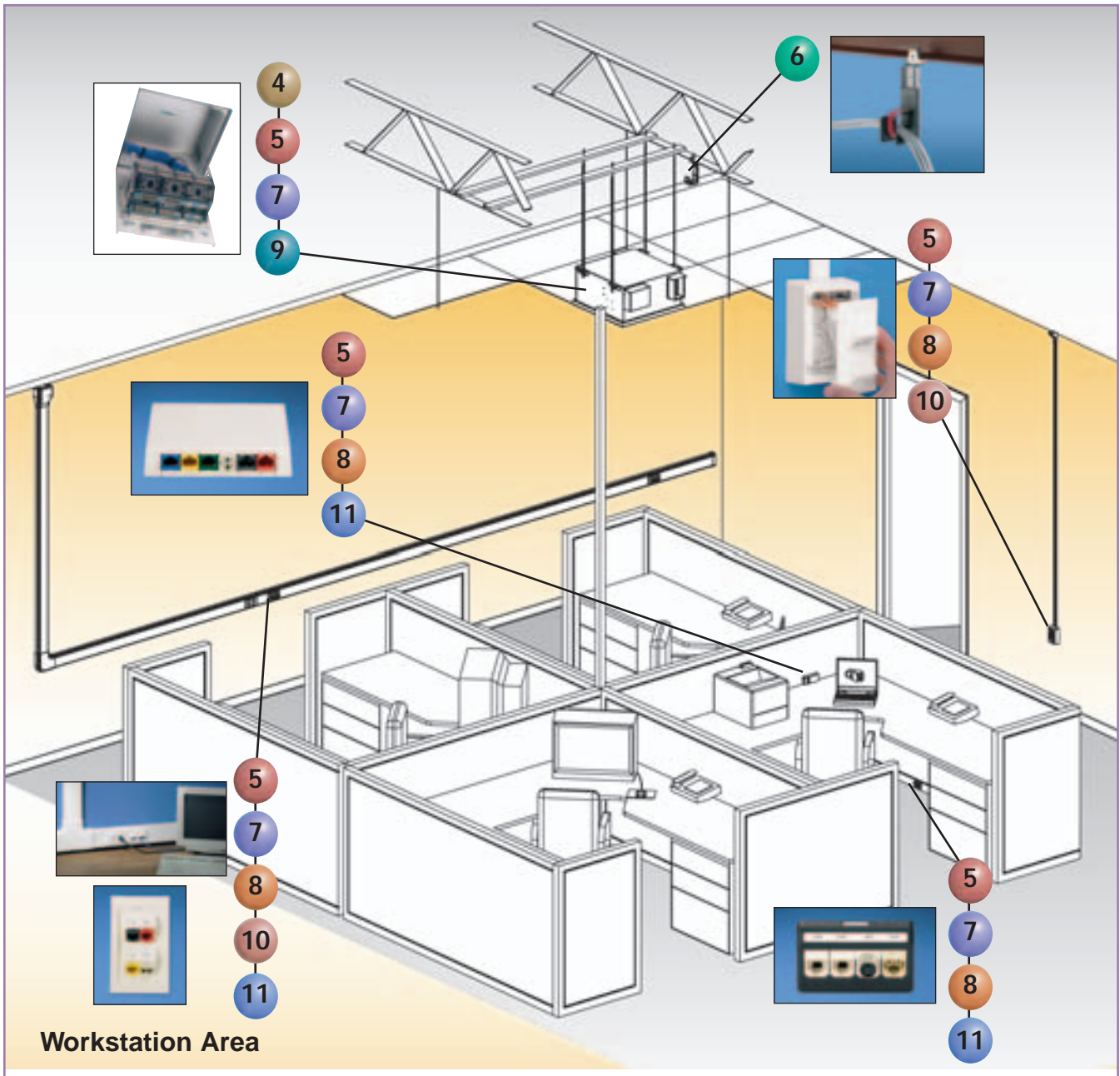


Telecommunications Room

To Work Station or Telecommunications Room (IDF)

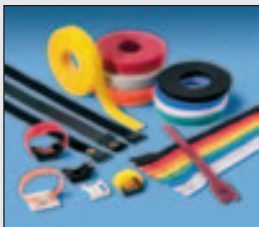
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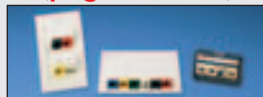
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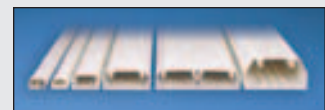
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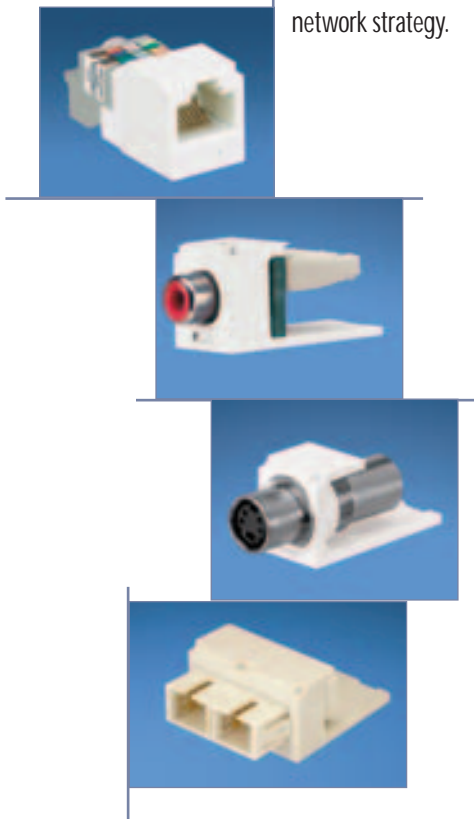


11 Labeling and Administration (pages K1-K6)



MODULES

The *PANDUIT*® Network Connectivity Group offers solutions for copper, fiber and audio video cabling applications. *MINI-COM*® modules exceed the latest TIA/EIA-568-B requirements for maximum performance and reliability and are designed for fast moves, adds and changes. Multiple module colors allow color-coding for network segregation to accommodate your specific network strategy.



- Modules are interchangeable within *PANDUIT MINI-COM* outlets, boxes and patch panels
- Copper TX Style Jack Modules feature *GIGA-TX*™ Technology which optimizes performance by reducing conductor untwists along with reducing installation expense. TX Style Jack Modules utilize a forward motion termination, placing no impact on critical internal components for maximum reliability
- Punchdown and pass-through versions are available for both RCA and S-Video modules
- Fiber adapters are available with phosphor bronze or zirconia ceramic split sleeves for use with multimode or singlemode connectors and patch cords

Copper modules include *TX6™ PLUS*, *TX5e™* and Category 3 jack modules. Fiber optic adapter modules include LC, SC, ST*, MT-RJ and FC versions. Audio video adapters are also available for BNC, F-Type Connectors, RCA and S-Video applications.

*ST is a registered trademark of Lucent Technologies

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MINI-COM® TX6™ PLUS Jack Module

- Designed to meet TIA/EIA-568-B.2-1 Category 6 standard
- ETL tested and approved for Category 6 component compliance
- 100% tested to ensure NEXT performance
- Forward motion termination speeds installation and places no impact on critical internal components for maximum reliability
- No punchdown tool required, optional termination tool (CGJT) ensures conductors are fully terminated
- Utilizes patented *GIGA-TX*™ Technology to optimize performance by reducing conductor untwist to less than 1/8"
- Terminates 4-pair 24 and 22 AWG 100 ohm solid unshielded twisted pair cable
- Can be re-terminated a minimum of 10 times
- Termination cap provides excellent strain relief, helps control cable bend radius and securely retains wires
- Termination cap is color coded for T568A and T568B wiring schemes
- Accepts 6 and 8 position modular plugs without damage
- Ivory colored module base and Category 6 designator designates Category 6 performance with *GIGA-TX* Technology
- Can be clearly identified with optional labels and icons
- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CJ688TPIW	Category 6, 8 position, 8 wire universal module.	1	Off White	1	50

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray), BL (Black), OR (Orange), RD (Red), BU (Blue), GR (Green), YL (Yellow) or VL (Violet).
Optional termination tool available on [page B11](#).

To ensure optimal performance, *PANDUIT*® recommends use with other *PANDUIT* Category 6 *PLUS* components.



MINI-COM TX6 PLUS Shielded Jack Module

- Designed to meet TIA/EIA-568-B.2-1 Category 6 standard
- One piece shield provides conductive path for grounding
- Meets TIA/EIA shielding effectiveness requirement
- 100% tested to ensure NEXT performance
- Forward motion termination speeds installation and places no impact on critical internal components for maximum reliability
- No punchdown tool required, optional termination tool (CGJT) ensures conductors are fully terminated
- Utilizes patented *GIGA-TX* Technology to optimize performance by reducing conductor untwist to less than 1/8"
- Terminates 4-pair 24 and 22 AWG 100 ohm solid shielded twisted pair cable
- Can be re-terminated a minimum of 10 times
- Termination cap provides excellent strain relief, helps control cable bend radius and securely retains wires
- Termination cap is color coded for T568A and T568B wiring schemes
- Accepts 6 and 8 position modular plugs without damage
- Cinch clip ensures strain relief for shielded cable
- Can be clearly identified with optional labels and icons
- Compatible with *MINI-COM* all metal modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Std. Pkg. Qty.	Std. Ctn. Qty.
CJS688TP	Category 6, 8 position, 8 wire universal module with one piece shield.	1	1	50

Optional termination tool available on [page B11](#).

Shield grounding requires proper installation of shielded jack module and the use of shielded patch cords and cable.

Grounding kit available for shielded applications on [page H4](#).

To ensure optimal performance, *PANDUIT* recommends use with other *PANDUIT* Category 6 *PLUS* components.

Component Labels for *MINI-COM TX6 PLUS* Jack Modules

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Module Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
All TX6 Modules	C138X019FJJ	C138X019FJ6	—

For complete labeling solutions and product information, reference charts on pages [K5-K6](#).



MINI-COM® TX5e™ Jack Module

- Exceeds TIA/EIA-568-B.2 Category 5e standard
- Forward motion termination speeds installation and places no impact on critical internal components for maximum reliability
- No punchdown tool required, optional termination tool (CGJT) insures conductors are fully terminated
- Utilizes patented *GIGA-TX*™ Technology to optimize performance by reducing conductor untwist to less than 1/8"
- Terminates 4-pair 24 and 22 AWG 100 ohm solid unshielded twisted pair cable
- Can be re-terminated a minimum of 10 times
- Termination cap provides excellent strain relief, helps control cable bend radius and securely retains wires
- Termination cap is color coded for T568A and T568B wiring schemes
- Accepts 6 and 8 position modular plugs without damage
- Red colored module base designates Category 5e performance with *GIGA-TX* Technology
- Can be clearly identified with optional labels and icons
- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CJ5E88TIW	Category 5e, 8 position, 8 wire universal module.	1	Off White	1	50

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray), BL (Black), OR (Orange), RD (Red), BU (Blue), GR (Green), YL (Yellow) or VL (Violet).
Optional termination tool available on [page B11](#).



MINI-COM TX5e Shielded Jack Module

- Exceeds TIA/EIA-568-B.2 Category 5e standard
- One piece shield provides conductive path for grounding
- Meets TIA/EIA shielding effectiveness requirement
- Forward motion termination speeds installation and places no impact on critical internal components for maximum reliability
- No punchdown tool required, optional termination tool (CGJT) ensures conductors are fully terminated
- Utilizes patented *GIGA-TX* Technology to optimize performance by reducing conductor untwist to less than 1/8"
- Terminates 4-pair 24 and 22 AWG 100 ohm solid shielded twisted pair cable
- Can be re-terminated a minimum of 10 times
- Termination cap provides excellent strain relief, helps control cable bend radius and securely retains wires
- Termination cap is color coded for T568A and T568B wiring schemes
- Accepts 6 and 8 position modular plugs without damage
- Cinch clip ensures strain relief for shielded cable
- Can be clearly identified with optional labels and icons
- Compatible with *MINI-COM* all metal modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Std. Pkg. Qty.	Std. Ctn. Qty.
CJS5E88T	Category 5e, 8 position, 8 wire shielded module with one piece shield.	1	1	50

Optional termination tool available on [page B11](#).
Grounding kit available for shielded applications on [page H4](#).

Component Labels for MINI-COM TX5e Jack Modules

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Module Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAČEA™ LS7 Hand-Held Printer Label
All TX5e Modules	C138X019FJJ	C138X019FJ6	—

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

Industrial TX5e™ Connectors

- Exceeds TIA/EIA-568-B.2 standard for Category 5e requirements
- Meet all ODVA Ethernet/IP electrical and mechanical performance requirements including approved bayonet style, quick connect, interface
- Protect and seal connections against dust and moisture
- Vibration, temperature and chemical resistant, shielding further enhanced electromagnetic performance
- Provides IEC 529/IP 67 sealed industrial ethernet connection
- Available with protective cap to seal connector during unmated conditions
- Secondary seal provides additional environment barrier

Jack Specific Features

- Forward termination speeds installation and places no impact on critical components for maximum reliability
- No punchdown tool required, optional tool (CGJT) ensures conductors are full terminated
- Terminate 4-pair 24 and 22 AWG 100 ohm solid twisted pair cable

- Termination cap is color coded for T568A and T568B wiring schemes
- Module mounting nut holds bulkhead safely and securely from inside of enclosure
- Bulkhead anti-rotation washer maintains proper connector orientation
- Bulkhead module fits standard NEMA 1-13/16" diameter knockout
- Utilizes patented *G/GA-TX*™ Technology to optimize performance by reducing conductor untwist to less than 1/8"

Plug Specific Features

- Terminate 4-pair 24 AWG stranded or solid conductor twisted pair cable with max. conductor insulation diameter of .040"
- Exceed FCC Part 68 and IEC 60603-7 specifications
- Contacts plated with 50 microinches of gold
- Equipped with protective, bend radius control strain relief cable seal



CJI5E88T



MPI588T

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Industrial TX5e Jack			
CJI5E88T	Category 5e, 8 position, 8 wire industrial connector with protective cover.	1	10
Industrial TX5e Plug			
MPI588T	Category 5e industrial plug with protective cover.	1	10
Industrial TX5e Shielded Jack			
CJSI5E88T	Category 5e, 8 position, 8 wire shielded industrial connector with protective cover.	1	10
Industrial TX5e Shielded Plug			
MPSI588T	Category 5e shielded industrial plug with protective cover.	1	10

Industrial stainless steel faceplate available on [page C25](#).



MINI-COM® TX5™ Jack Module

- Exceeds Annex N of TIA/EIA-568B.2 Category 5 requirements
- Forward motion termination speeds installation and places no impact on critical internal components for maximum reliability
- No punchdown tool required, optional termination tool (CGJT) ensures conductors are fully terminated
- Termination cap provides excellent strain relief, helps control cable bend radius and securely retains wires
- Utilizes patented *GIGA-TX*™ Technology to optimize performance by reducing conductor untwist to less than 1/8"
- Terminates 4-pair 24 and 22 AWG 100 ohm solid unshielded twisted pair cable
- Can be re-terminated a minimum of 10 times
- Termination cap is color coded for T568A and T568B wiring schemes
- Accepts 6 and 8 position modular plugs without damage
- Gray colored module base designates Category 5 performance with *GIGA-TX* Technology
- Can be clearly identified with optional labels and icons
- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CJ588TIW	Category 5, 8 position, 8 wire universal module.	1	Off White	1	50

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray), BL (Black), OR (Orange), RD (Red), BU (Blue), GR (Green), YL (Yellow) or VL (Violet).
Optional termination tool available on [page B11](#).



MINI-COM TX5 Shielded Jack Module

- Exceeds TIA/EIA-568-B.2 Category 5e standard
- One piece shield provides conductive path for grounding
- Meets TIA/EIA shielding effectiveness requirement
- Forward motion termination speeds installation and places no impact on critical internal components for maximum reliability
- No punchdown tool required, optional termination tool (CGJT) ensures conductors are fully terminated
- Utilizes patented *GIGA-TX* Technology to optimize performance by reducing conductor untwist to less than 1/8"
- Terminates 4-pair 24 and 22 AWG 100 ohm solid shielded twisted pair cable
- Can be re-terminated a minimum of 10 times
- Termination cap provides excellent strain relief, helps control cable bend radius and securely retains wires
- Termination cap is color coded for T568A and T568B wiring schemes
- Accepts 6 and 8 position modular plugs without damage
- Cinch clip ensures strain relief for shielded cable
- Can be clearly identified with optional labels and icons
- Compatible with *MINI-COM* all metal modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Std. Pkg. Qty.	Std. Ctn. Qty.
CJS588T	Category 5, 8 position, 8 wire universal module with one piece shield.	1	1	50

Optional termination tool available on [page B11](#).
Shield grounding requires proper installation of shielded jack module and the use of shielded patch cords and cable.
Grounding kit available for shielded applications on [page H4](#).

Component Labels for *MINI-COM TX5* Jack Modules

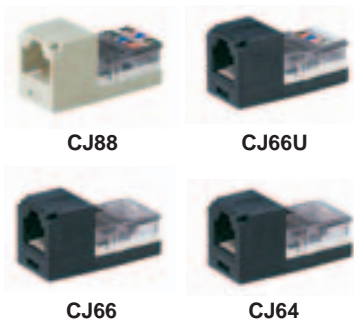
Suggested Label Solutions for TIA/EIA-606-A Compliance			
Module Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAĀEA™ LS7 Hand-Held Printer Label
All TX5 Modules	C138X019FJJ	C138X019FJ6	—

For complete labeling solutions and product information, reference charts on pages [K5-K6](#).



MINI-COM® MINI-JACK™ Category 3 Jack Modules

- Patented lead frame termination style ensures twists are maintained to within 1/2"
- No punchdown tool required, optional termination tool (CJT-X) insures conductors are fully terminated
- Termination cap provides excellent strain relief, helps control cable bend radius and securely retains wires
- Clear, removable termination cap provides easy troubleshooting
- Terminates 4-pair 24 and 22 AWG 100 ohm solid unshielded twisted pair cable
- Accepts 6 and 8 position modular plugs without damage
- White colored module base designates Category 3 performance
- Can be clearly identified with optional labels and icons
- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CJ88IW	Category 3, 8 position, 8 wire universal module. Termination cap is color coded for T568A and T568B wiring schemes.	1	Off White	1	50
CJ66UIW	Category 3, 6 position, 6 wire module. Termination cap is color coded for USOC wiring scheme.	1	Off White	1	50
CJ66IW	Category 3, 6 position, 6 wire module.	1	Off White	1	50
CJ64IW	Category 3, 6 position, 4 wire module.	1	Off White	1	50

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).
Optional termination tool available on [page B11](#).

Component Labels for *MINI-COM MINI-JACK* Category 3 Jack Modules

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Module Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAČEA™ LS7 Hand-Held Printer Label
All Cat 3 Modules	C138X019FJJ	C138X019FJ6	—

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).



MINI-COM® BNC Coax Coupler Modules

- Accept BNC plugs
- Available in 50 and 75 ohm versions
- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CMBA75IW	Module supplied with industry standard 75 ohm BNC coupler.	1	Off White	1	10
CMBAIW	Module supplied with industry standard 50 ohm BNC coupler.	1	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).



MINI-COM Self-Terminating F-Type Module

- Eliminates need for termination cap on connector
- Automatically puts 75 ohm load on cable run when cable is disconnected
- Reduces noise and interference on the line
- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



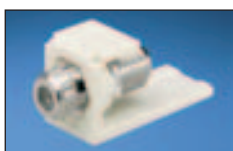
Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CMFSRIW	Module supplied with 75 ohm self terminating F-Type coupler.	1	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).



MINI-COM F-Type Module

- Perfect for use in CATV applications
- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CMFBIAW	Module supplied with industry standard F-Type bulkhead coupler.	1	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).



MINI-COM RCA 110 Punchdown Modules

- Terminate 24 and 22 AWG solid or stranded conductors
- Utilize Category 5 or higher network cable facilitating a common, easy and cost effective cabling installation. Only 2 of the 8 network cable conductors need to be terminated per cable.
- Include wire retention cap
- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



CJRR

Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CJRRIW	Module supplied with one RCA connector with red insert.	1	Off White	1	10
CJRYIW	Module supplied with one RCA connector with yellow insert.	1	Off White	1	10
CJRWIW	Module supplied with one RCA connector with white insert.	1	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).

Optional punchdown termination tool available on [page B11](#).



MINI-COM® RCA Pass-through Module

- Supplied with one RCA coupler

- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



CMRPR

Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CMRPRIW	Module supplied with one RCA pass-through coupler with red insert.	1	Off White	1	10
CMRPYIW	Module supplied with one RCA pass-through coupler with yellow insert.	1	Off White	1	10
CMRPWIW	Module supplied with one RCA pass-through coupler with white insert.	1	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).



MINI-COM S-Video Punchdown Module

- Terminates 24 and 22 AWG solid or stranded conductors
- Utilizes Category 5 or higher network cable facilitating a common, easy and cost effective cabling installation. Only 4 of the 8 network cable conductors need to be terminated per cable.

- Includes wire retention cap
- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CJSVIW	Module supplied with one SVHS connector.	1	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).

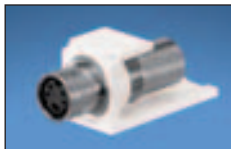
Optional punchdown termination tool available on [page B11](#).



MINI-COM S-Video Pass-Through Module

- Supplied with one 4 pin mini din coupler

- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CMSVCIW	Module insert supplied with one S-Video pass-through coupler.	1	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).



MINI-COM Module Base for D-Subminiature Connectors

- Accepts 9 pin or 15 pin high density connector, male or female, solder or crimp type

- Compatible with select *MINI-COM* modular patch panels, faceplates and surface mount boxes



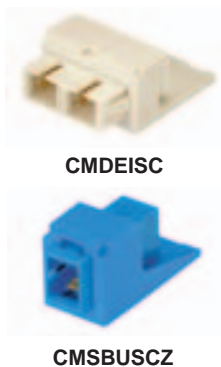
Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CMDBIW-X	Two position module base which accepts 9 pin and 15 pin high density D-subminiature connectors.	2	Off White	10	100

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).

Connector not included.

MINI-COM® SC Fiber Optic Adapter Modules

- FOCIS-3 TIA/EIA-568-B.3 compliant adapter
- Compatible with *MINI-COM* products for complete modularity
- Improved protective cap fully surrounds split sleeve opening
- Can be used with multimode or singlemode connectors and patch cords
- Choice of phosphor bronze or zirconia ceramic split sleeves to fit specific network requirements; zirconia ceramic split sleeves are recommended for singlemode performance
- Q.C. number and split sleeve material laser marked on every adapter assures 100% traceability and quick and easy identification of split sleeve material
- *MINI-COM* SC Simplex Adapter Modules are commonly used with *MINI-COM* Patch Panels
- *MINI-COM* SC Duplex Adapter Modules are commonly used with *MINI-COM* Surface Mount Boxes
- SC Simplex and Duplex Adapters are also available separately on [page F12](#), and in patch panels or fiber adapter panels to provide a complete SC system solution



Part Number	Part Description	No. of Module Spaces	Module Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CMDEISCEI	Module supplied with one SC duplex fiber optic adapter with phosphor bronze split sleeves.	2	Electric Ivory	1	10
CMDBUSCZBU	Module supplied with one SC duplex fiber optic adapter with zirconia ceramic split sleeves.	2	Blue	1	10
CMSEISCEI	Module supplied with one SC simplex fiber optic adapter with phosphor bronze split sleeve.	1	Electric Ivory	1	10
CMSBUSCZBU	Module supplied with one SC simplex fiber optic adapter with zirconia ceramic split sleeve.	1	Blue	1	10

‡ For other colors, replace suffix EI (Electric Ivory) or BU (Blue) with BL (Black), IW (Off White), or AW (Arctic White).

MINI-COM LC Sr./Sr. Fiber Optic Adapter Modules

- FOCIS-10 TIA/EIA-568-B.3 compatible adapter
- Mini duplex adapter design fits into single module space
- Compatible with *MINI-COM* products for complete modularity
- Sr./Sr. (Senior/Senior) adapter modules have a FOCIS-10 senior adapter interface at each end
- Accepts all FOCIS-10 compatible LC connectors
- Choice of phosphor bronze or zirconia ceramic split sleeves to fit specific network requirements; zirconia ceramic split sleeves are required for singlemode performance
- *MINI-COM* LC Duplex Adapter Modules are commonly used with *MINI-COM* Faceplates and Surface Mount Boxes
- LC Simplex and Duplex Adapters are also available separately on [page F13](#), and in patch panels or fiber adapter panels to provide a complete LC system solution



Part Number	Part Description	No. of Module Spaces	Module Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CMDSLCEI	Module supplied with one LC Sr./Sr. mini duplex multimode fiber optic adapter with phosphor bronze split sleeves.	1	Electric Ivory	1	10
CMDSLCZBU	Module supplied with one LC Sr./Sr. mini duplex singlemode fiber optic adapter with zirconia ceramic split sleeves.	1	Blue	1	10

‡ For other colors replace suffix EI (Electric Ivory) or BU (Blue) with BL (Black), IW (Off White), or AW (Arctic White).

MINI-COM® FC Fiber Optic Adapter Modules

- FOCIS-4 TIA/EIA-568-B.3 compliant adapter
- Compatible with *MINI-COM* products for complete modularity
- Can be used with multimode or singlemode connectors and patch cords
- Choice of phosphor bronze or zirconia ceramic split sleeves to fit specific network requirements; zirconia ceramic split sleeves are required for singlemode performance
- *MINI-COM* FC Simplex Adapter Modules are commonly used with *MINI-COM* Patch Panels
- FC Simplex Adapters are also available in patch panels and fiber adapter panels to provide a complete FC system solution



CMFC

Part Number	Part Description	No. of Module Spaces	Module Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CMFCEI	Module supplied with one FC multimode fiber optic adapter with phosphor bronze split sleeve.	1	Electric Ivory	1	10
CMFCZBU	Module supplied with one FC singlemode fiber optic adapter with zirconia ceramic split sleeve.	1	Blue	1	10

‡ For other colors replace suffix EI (Electric Ivory) or BU (Blue) with BL (Black), IW (Off White), or WH (White).



MINI-COM Blank Module

- Seals off openings in outlet to prevent tampering
- Compatible with *MINI-COM* modular patch panels, faceplates and surface mount boxes



Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CMBIW-X	One position, reserves space for future use.	1	Off White	10	50

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).

Module Termination Tools



CGJT



CJT-X



CWST



CFAST



AVPDB

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
CGJT	Terminates <i>GIGA-TX™</i> Style Jack Modules.	1	50
CJT-X	Terminates <i>MINI-COM MINI-JACK™</i> Jack Modules.	10	50
CWST	Copper wire snipping tool, cuts conductors flush for improved performance.	1	0
CFAST	Adjustable, single handed stripping tool, strips outer jacket of 4-pair UTP and ScTP cable.	1	0
AVPDB	Audio Video Punchdown Base used to assist in terminating <i>MINI-COM</i> S-Video and RCA punchdown modules.	1	50

THE *ULTIMATE ID*™ NETWORK LABELING SYSTEM

Permanent labeling is critical for all network cabling system installations. The TIA/EIA-606-A standard has created a unified system that specifies a “common” method of labeling the complete telecommunication infrastructure. The *ULTIMATE ID* System will support your standards compliant installation with a wide selection of *MINI-COM*® products. *PANDUIT*™ *ULTIMATE ID* products provide a clean and efficient way to label according to the TIA/EIA-606-A standard. The *ULTIMATE ID* System will save time and money since the system standardizes on a common label height across all *ULTIMATE ID* products. The fewer the components, the lower the cost of the system. The faceplates, surface mount boxes and patch panels are modular and accept all *MINI-COM* Modules for multi-media applications.

All products are designed to hold printed labels and are supplied with flush label covers and mounting screws, where applicable.



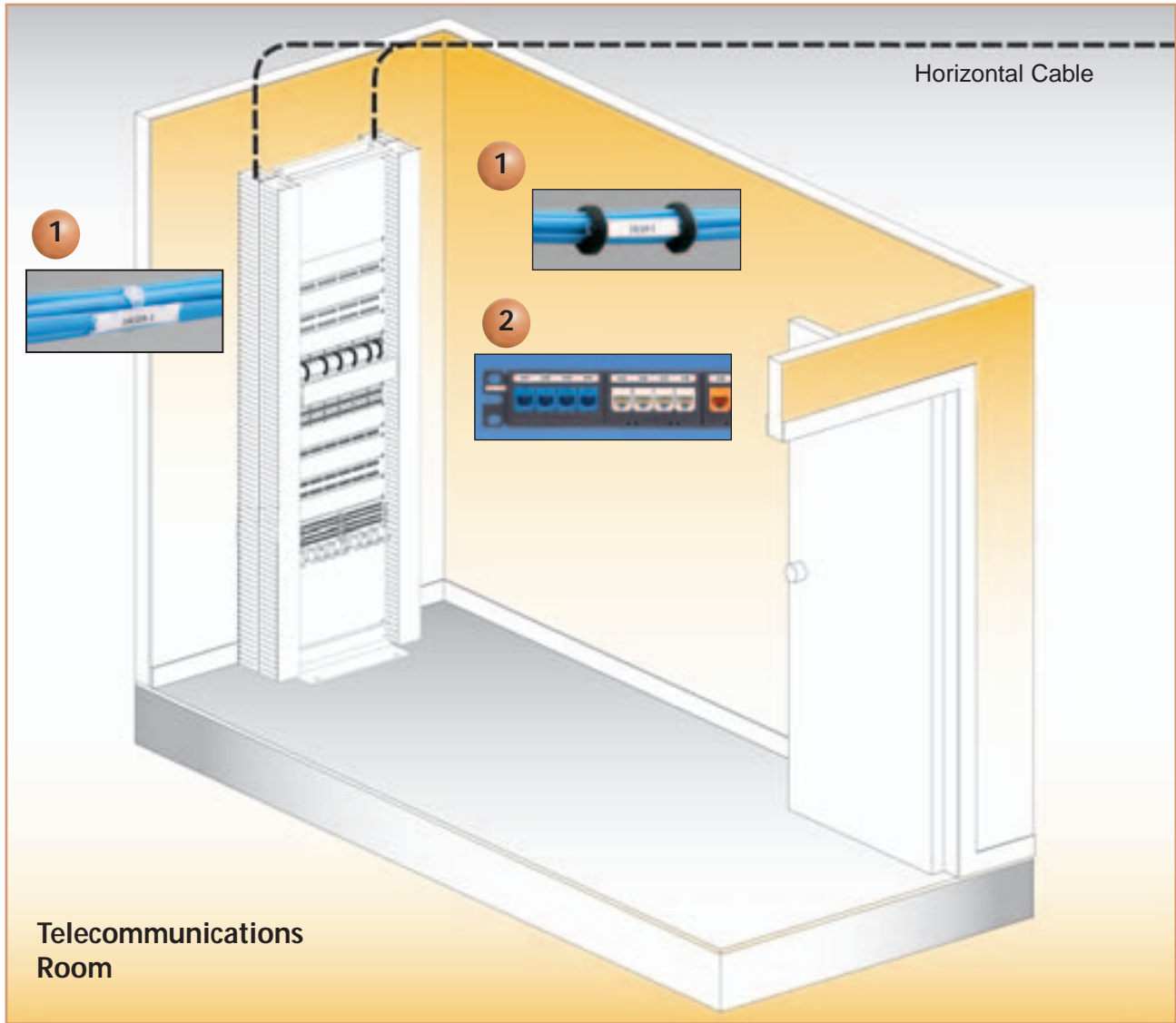
- All labels are protected by a transparent plastic cover
- All labels are positioned adjacent to, centered and parallel to the port they are identifying
- All labels have the same compact height to enhance the appearance of the installation
- All labels are made of a durable, multi-layered, non-adhesive construction that makes installation and removal quick and easy
- The label cover surface is flush with the adjacent faceplate surface

To maximize legibility, the TIA/EIA-606-A standard states that all labels shall be printed or generated by a “mechanical” device. *ULTIMATE ID* labeling solutions are available for a variety of printers, including desktop, as well as the *PANDUIT PANACEA*™ LS7 Hand-held Thermal Transfer Printer. The *PANACEA* LS7 printer makes compliant labeling fast and easy. Built-in programming lets you line up your legends on patch panel and faceplate labels without guessing how many spaces are needed, which makes the *PANACEA* LS7 printer the best solution for on-site network connectivity labeling. For detailed printing instructions for *ULTIMATE ID* labels with the *PANACEA* LS7 Hand-held Thermal Transfer Printer, request SA-IDSP01. *ULTIMATE ID* Labeling Software for WINDOWS^ is designed for fast and easy creation of labels for *ULTIMATE ID* Network System patch panels, faceplates, surface mount boxes, and marker ties. *ULTIMATE ID* Labeling Software for WINDOWS offers an on-line help function file that includes the TIA/EIA-606-A Labeling Compliance Brochure (SA-IDCB03) which assists with complying to the TIA/EIA-606-A standard labeling requirements.

^WINDOWS is a registered trademark of Microsoft Corp.

System Overview
Modules
Ultimate ID System & Work Area
Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
Racks & Cable Management
Grounding & Bonding
Fiber Routing
Surface Raceway
Labeling & Administration
Cable Ties & Accessories
Supplementary Technical Information
Glossary & Index

ULTIMATE ID™ Roadmap



1 **ULTIMATE ID** Marker Ties (page C11)



Nylon Cable Tie



Single Tie Hook & Loop



Double Tie Hook & Loop

2 **MINI-COM® ULTIMATE ID** Modular Patch Panels (pages C8 - C9)



24 port Modular Patch Panel



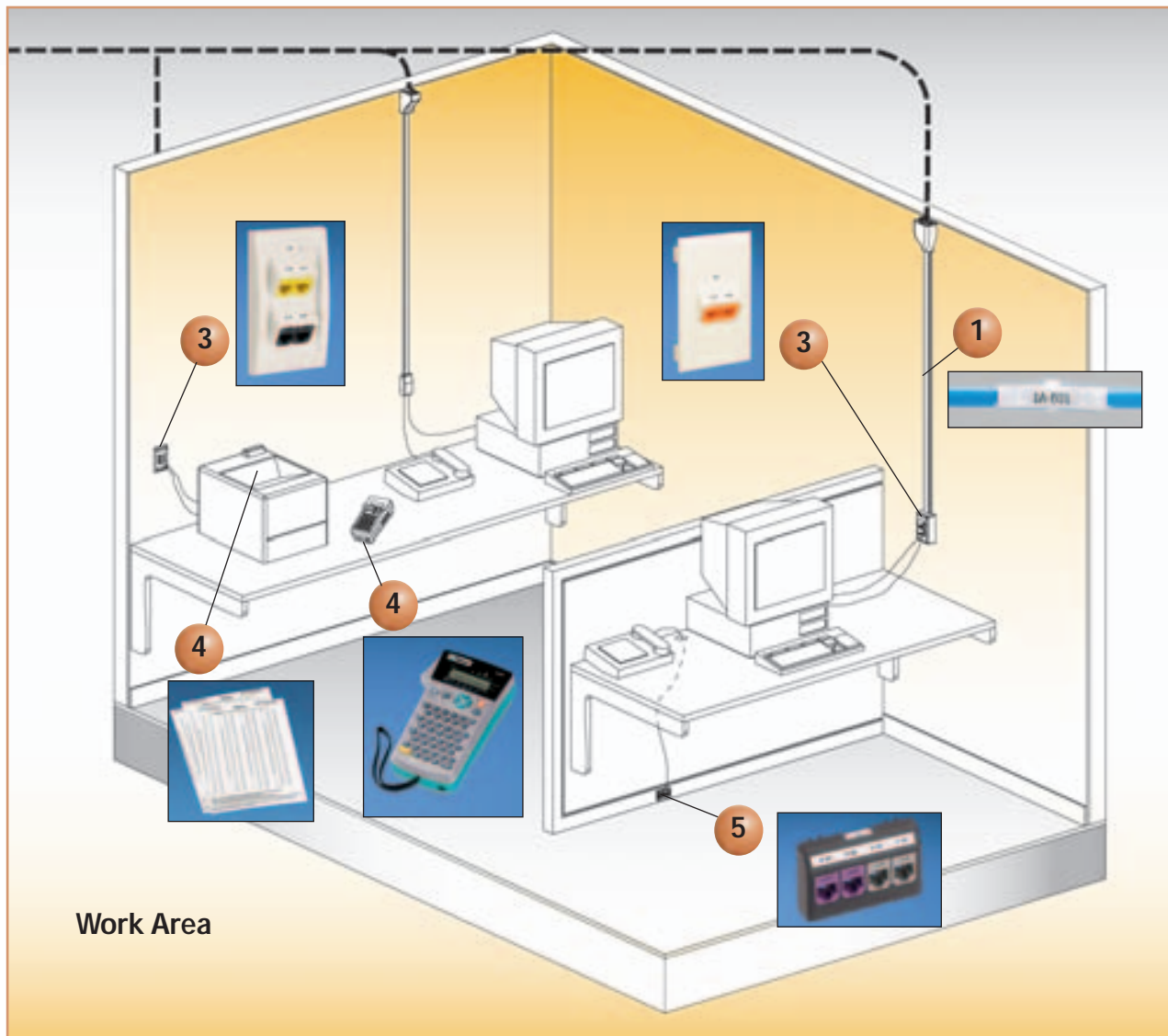
48 port Modular Patch Panel



24 port Angled Modular Patch Panel



48 port Angled Modular Patch Panel



Work Area

3 *MINI-COM*® *ULTIMATE ID*™ Faceplates (pages C4 - C6)



Executive Series Faceplate



Classic Series Faceplate



Snap-On Faceplate



Tamper Resistant Faceplate

4 *PANAČEA*™ LS7 Hand-Held Thermal Transfer Printer (page C13) and Laser/Ink Jet Labels (page C14)



PANAČEA LS7 Printer and Accessories



Laser/Ink Jet Labels

5 *MINI-COM* *ULTIMATE ID* Modular Furniture Faceplate (page C7)



How ULTIMATE ID™ Network Labeling System for Outlets (Faceplates / Surface Mount Boxes) assists in compliance with the TIA/EIA-606-A Standard.

Section 5.1.2 States

A horizontal link identifier, unique within the building, shall be assigned to each horizontal link and to its elements. In the work area, each individual telecommunications outlet/connector shall be labeled with the horizontal link identifier. The labeling shall appear on the connector, faceplate, or MuTOA, in a way that clearly identifies the individual connector associated with the particular identifier. A horizontal link identifier shall have a format of "fs-an" where:

- f = numeric character(s) identifying the floor of the building occupied by the TS (telecommunications space)
- s = alpha character(s) uniquely identifying the TS on floor f, or the building area in which the space is located
- a = one to two alpha characters uniquely identifying a single patch panel, a group of patch panels with sequentially numbered ports, an IDC connector, or a group of IDC connectors, serving as part of the horizontal cross-connect
- n = two to four numeric characters designating the port on a patch panel in the TS

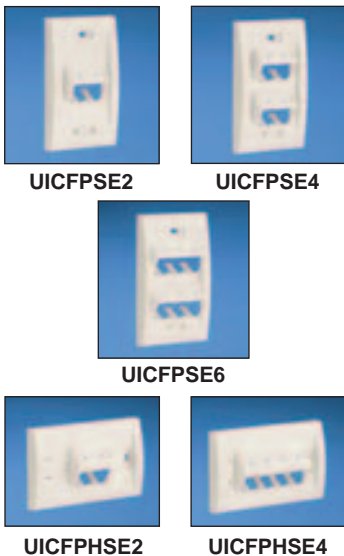
Each ULTIMATE ID faceplate/outlet is designed in a way that allows you to center the "an" identifier clearly over each outlet/connector, while the "fs" identifier can be placed in the station space.



MINI-COM® ULTIMATE ID Executive Series Faceplates



- Designed to efficiently support TIA/EIA-606-A standard labeling requirements
- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Supplied with color coordinated screw cover and clear station and port label covers, labels sold separately
- Can be clearly identified with the *PANAĀEA™* LS7 Hand-held Thermal Transfer Printer
- Computer printable label sheets for desktop printers and write-on labels available
- Replacement screw covers and label covers available
- Optional icons available



Part Number	Part Description	Color ‡	Labels Required	Std. Pkg. Qty.	Std. Ctn. Qty.
UICFPSE2IW	Single gang, vertical sloped faceplate holds up to two <i>MINI-COM</i> Modules.	Off White	1-One Port 1-Two Port	1	10
UICFPSE4IW	Single gang, vertical sloped faceplate holds up to four <i>MINI-COM</i> Modules.	Off White	1-One Port 2-Two Port	1	10
UICFPSE6IW	Single gang, vertical sloped faceplate holds up to six <i>MINI-COM</i> Modules. Requires min. 1.9" wide in wall box or wallboard adapter for proper installation.	Off White	1-One Port 2-Three Port	1	10
UICFPHSE2IW	Single gang, horizontal sloped faceplate holds up to two <i>MINI-COM</i> Modules.	Off White	1-One Port 1-Two Port	1	10
UICFPHSE4IW	Single gang, horizontal sloped faceplate holds up to four <i>MINI-COM</i> Modules.	Off White	1-One Port 1-Four Port	1	10

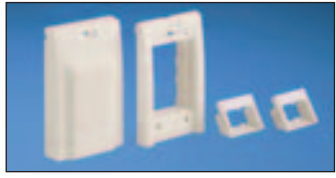
‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory) or WH (White).
All faceplates supplied with mounting screws.
Computer printable labels found on [page C14](#).



★ NEW! *MINI-COM*® *ULTIMATE ID*™ Tamper Resistant Faceplate Kit

- Designed to efficiently support TIA/EIA-606-A standard labeling requirements
- Includes tamper resistant screw to prevent unauthorized access to the connections
- Front accessible inserts are recessed and provide a 30° slope to protect the cable bend radius
- Requires minimum in wall box depth of 2.125"
- Accepts *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes

- Supplied with color coordinated screw cover
- Can be clearly identified with the *PANACEA*™ LS7 Hand-held Thermal Transfer Printer
- Computer printable label sheets for desktop printers and write-on labels available
- Replacement screw covers and label covers available
- Optional icons available



Part Number	Part Description	Color ‡	Labels Required	Std. Pkg. Qty.	Std. Ctn. Qty.
UICFPRT4IW	Tamper Resistant Faceplate Kit includes faceplate frame, two recessed modular inserts, faceplate cover with additional outlet station identifier and tamper resistant screw. Holds up to four <i>MINI-COM</i> Modules.	Off White	1-One Port 2-Two Port	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory) or WH (White). All faceplates supplied with mounting screws. 1/16" hex key required for installation of tamper resistant screw. Computer printable labels found on [page C14](#).



UL LISTED **SP** **★ NEW!** *MINI-COM* *ULTIMATE ID* Classic Series Faceplates

- Designed to efficiently support TIA/EIA-606-A standard labeling requirements
- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Supplied with color coordinated screw cover and clear station and port label covers, labels sold separately

- Can be clearly identified with the *PANACEA* LS7 Hand-held Thermal Transfer Printer
- Computer printable label sheets for desktop printers and write-on labels available
- Replacement screw covers and label covers available
- Optional icons available



Part Number	Part Description	Color ‡	Labels Required	Std. Pkg. Qty.	Std. Ctn. Qty.
UICFP2IW	Single gang, vertical faceplate holds up to two <i>MINI-COM</i> Modules.	Off White	1-One Port 1-Two Port	1	10
UICFP4IW	Single gang, vertical faceplate holds up to four <i>MINI-COM</i> Modules.	Off White	1-One Port 2-Two Port	1	10
UICFP6IW	Single gang, vertical faceplate holds up to six <i>MINI-COM</i> Modules. Requires min. 1.9" wide in wall box or wallboard adapter for proper installation.	Off White	1-One Port 2-Three Port	1	10
UICFPH2IW	Single gang, horizontal faceplate holds up to two <i>MINI-COM</i> Modules.	Off White	1-One Port 1-Two Port	1	10
UICFPH4IW	Single gang, horizontal faceplate holds up to four <i>MINI-COM</i> Modules.	Off White	1-One Port 1-Four Port	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory) or WH (White). All faceplates supplied with mounting screws. Computer printable labels found on [page C14](#).



MINI-COM® ULTIMATE ID™ Sloped Snap-On Faceplates



- Designed to efficiently support TIA/EIA-606-A standard labeling requirements
- For use with *PANDUIT*® Raceways* : LD, T-45, T-70, Twin-70, TG-70, TE-70, Cove, *PAN-POLE*™ Outlet Pole and *FAST-SNAP*™ Outlet Boxes
- Snap into raceway channel or outlet box and requires no additional mounting hardware or adapters - greatly reducing installation time
- Meet stringent UL5A standard for non-metallic raceways
- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Can be clearly identified with the *PANACEA*™ LS7 Hand-held Thermal Transfer Printer
- Computer printable label sheets for desktop printers and write-on labels available
- Supplied with clear station and port label covers, labels sold separately
- Replacement label covers available
- Optional icons available



UIT70FH2



UIT70FH4



UIT70FV2



UIT70FV4

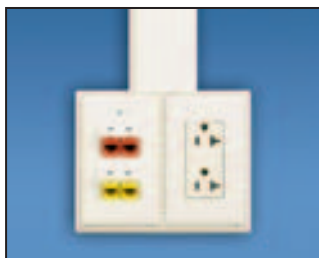
Part Number	Part Description	Color ‡	Labels Required	Std. Pkg. Qty.	Std. Ctn. Qty.
UIT70FH2IW	Single gang, horizontal sloped communication snap-on faceplate accepts up to two <i>MINI-COM</i> Modules.	Off White	1-One Port 1-Two Port	1	10
UIT70FH4IW	Single gang, horizontal sloped communication snap-on faceplate accepts up to four <i>MINI-COM</i> Modules.	Off White	1-One Port 1-Four Port	1	10
UIT70FV2IW	Single gang, vertical sloped communication snap-on faceplate accepts up to two <i>MINI-COM</i> Modules.	Off White	1-One Port 1-Two Port	1	10
UIT70FV4IW	Single gang, vertical sloped communication snap-on faceplate accepts up to four <i>MINI-COM</i> Modules.	Off White	1-One Port 2-Two Port	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White) or IG (International Gray).

* See Surface Raceway section for more detailed information on Panduit Non-Metallic Surface Raceway.

Computer printable labels found on [page C14](#).

ULTIMATE ID Sloped Snap-On Faceplates on PANDUIT Raceways:



PAN-WAY® FAST-SNAP Outlet Boxes using UIT70FV4IW



PAN-WAY T-70 Workstation Outlet Center using UIT70FH4IW

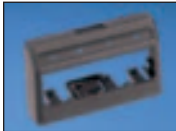


MINI-COM® ULTIMATE ID™ Modular Furniture Faceplate



- Designed to efficiently support TIA/EIA-606-A standard labeling requirements
- Accepts *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Supplied with clear station and port label covers, labels sold separately
- Can be clearly identified with the *PANAĀEA*™ LS7 Hand-held Thermal Transfer Printer

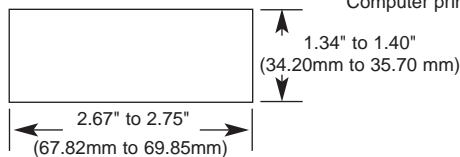
- Computer printable label sheets for desktop printers and write-on labels available
- Replacement label covers available
- Optional icons available
- Fits standard furniture openings



Part Number	Part Description	Color ‡	Labels Required	Std. Pkg. Qty.	Std. Ctn. Qty.
UICFFP4BL	Faceplate snaps into standard knockouts found on modular furniture. Holds up to four <i>MINI-COM</i> Modules. See panel cutout requirement.	Black	1-One Port 1-Four Port	1	10

‡ For other colors replace suffix BL (Black) with EI (Electric Ivory), IG (International Gray) or IW (Off White). Computer printable labels found on [page C14](#).

Panel Cutout Requirement



Maximum Panel Thickness: .09" (2.29mm)



MINI-COM ULTIMATE ID Surface Mount Box



- Designed to efficiently support TIA/EIA-606-A standard labeling requirements and TIA/EIA-568-B MuTOA requirements
- Accepts *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Features twelve ports, six on each side, angled to improve bend radius control
- Offset stacking capability with use of self threading screw (not included)
- Includes two knockouts which are compatible with *PANDUIT*® LD5 and LD10 Raceway

- Mounts to single or double gang opening
- Mounts easily with supplied mounting screws, adhesive tape or optional magnet (CSBM-X)
- Supplied with clear station and port label covers, labels sold separately
- Can be clearly identified with the *PANAĀEA*™ LS7 Hand-held Thermal Transfer Printer
- Computer printable label sheets for desktop printers and write-on labels available
- Replacement label covers available
- Optional icons available



Part Number	Part Description	Color ‡	Labels Required	Std. Pkg. Qty.	Std. Ctn. Qty.
UICBXA12IW-A	12 port angled multi-media surface mount box accepts up to twelve <i>MINI-COM</i> Modules and includes built-in figure eight spool to help manage fiber cable.	Off White	2-Four Port 2-Six Port	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory) or WH (White). All surface mount boxes supplied with mounting screws. Computer printable labels found on [page C14](#).

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

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How *ULTIMATE ID*™ Network Labeling System Patch Panels assist in compliance with the TIA/EIA-606-A Standard.

Section 5.1.2 States

A horizontal link identifier, unique within the building, shall be assigned to each horizontal link and to its elements. In the TS, each patch panel port shall be labeled with the "an" portion of the identifier. *ULTIMATE ID* patch panels are available with panel and port spaces separated as well as consolidated spaces. Custom *ULTIMATE ID* patch panels with separated panel and port spaces allow you to center the "n" identifier over each port, while the "a" identifier can be placed in the panel space. Pre-configured *ULTIMATE ID* patch panels with consolidated spaces allow you to center the "a" and the "n" identifier over each port.

a = one to two alpha characters uniquely identifying a single patch panel, or a group of patch panels with sequentially numbered ports

n = two to four numeric characters designating the port on a patch panel in the TS

Each pre-configured ULTIMATE ID patch panel is designed in a way that allows you to center the "an" identifier over each port.



Patch panel with consolidated spaces allows the "a" and "n" identifier to be centered over each port. See pre-configured patch panels below for available options.



MINI-COM® ULTIMATE ID Modular Patch Panels



- Designed to efficiently support TIA/EIA-606-A standard labeling requirements
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket
- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Can be clearly identified with the *PANACEA*™ LS7 Hand-held Thermal Transfer Printer
- Computer printable label sheets for desktop printers and write-on labels available
- Replacement label covers available
- Labels sold separately



UICMPP24BL



UICMPPA24BL



UICMPP48BL



UICMPPA48BL

Part Number	Part Description	No. of Rack Spaces [^]	Labels Required	Std. Pkg. Qty.	Std. Ctn. Qty.
UICMPP24BL	24 port patch panel with 6 UICPPL4BL <i>MINI-COM ULTIMATE ID</i> faceplates.	1	6-Four Port	1	10
UICMPP48BL	48 port patch panel with 12 UICPPL4BL <i>MINI-COM ULTIMATE ID</i> faceplates.	2	12-Four Port	1	10
UICMPPA24BL	24 port angled patch panel with 6 UICPPL4BL <i>MINI-COM ULTIMATE ID</i> faceplates.	1	6-Four Port	1	10
UICMPPA48BL	48 port angled patch panel with 12 UICPPL4BL <i>MINI-COM ULTIMATE ID</i> faceplates.	2	12-Four Port	1	10

[^] One rack space = 1.75" (44.45mm)

M6 and #12-24 mounting screws included.

Modular Patch Panels shown include labels installed, labels sold separately.

Computer printable labels found on [page C14](#).



Patch panel with separate panel and port spaces allows the “n” identifier to be centered over each port, while the “a” identifier can be placed in the panel space. Custom options can be achieved by utilizing patch panel frames and faceplates below.

MINI-COM® ULTIMATE ID™ Modular Patch Panel Frames

- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket
- For use with *MINI-COM ULTIMATE ID* Patch Panel Faceplates
- Allow for custom configuration



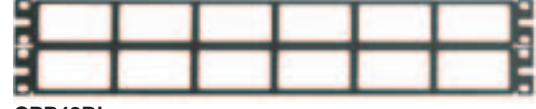
CPPA24BL



CPP24BL



CPPA48BL



CPP48BL

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
CPPA24BL	Angled metal panel, accepts 6 UICPP2L4BL or UICPPL4BL <i>ULTIMATE ID</i> Patch Panel Faceplates.	1	1	10
CPPA48BL	Angled metal panel, accepts 12 UICPP2L4BL or UICPPL4BL <i>ULTIMATE ID</i> Patch Panel Faceplates.	2	1	10
CPP24BL	Flat metal panel, accepts 6 UICPP2L4BL or UICPPL4BL <i>ULTIMATE ID</i> Patch Panel Faceplates.	1	1	10
CPP48BL	Flat metal panel, accepts 12 UICPP2L4BL or UICPPL4BL <i>ULTIMATE ID</i> Patch Panel Faceplates.	2	1	10

[^] One rack space=1.75" (44.45mm).
M6 and #12-24 mounting screws included.

MINI-COM ULTIMATE ID Patch Panel Faceplates for Modular Patch Panel Frames



- Designed to efficiently support TIA/EIA-606-A standard labeling requirements
- Used with faceplate ready modular patch panel frames
- Allows for custom configuration
- Supplied with label covers, labels sold separately
- Can be clearly identified with the *PANACEA*™ LS7 Hand-held Thermal Transfer Printer
- Computer printable label sheets for desktop printers and write-on labels available
- Replacement label covers available



UICPP2L4BL



UICPPL4BL

Part Number	Part Description	Labels Required	Std. Pkg. Qty.	Std. Ctn. Qty.
UICPP2L4BL	Patch panel faceplate with two label pockets, accepts up to four <i>MINI-COM</i> Modules.	2-Four Port	1	10
UICPPL4BL	Patch panel faceplate with one label pocket, accepts up to four <i>MINI-COM</i> Modules.	1-Four Port	1	10

Faceplates shown include labels installed, labels sold separately.
Computer printable labels found on [page C14](#).

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- Patch Panels Copper Patch Cords & Punchdowns
- Fiber Connectors Enclosures & Patch Cords
- Racks & Cable Management
- Grounding & Bonding
- Fiber Routing
- Surface Raceway
- Labeling & Administration
- Cable Ties & Accessories
- Supplementary Technical Information
- Glossary & Index

How ULTIMATE ID™ Network Labeling System cable identification products assist in compliance with the TIA/EIA-606-A Standard.

Section 5.1.2 States:

A horizontal link identifier, unique within the building, shall be assigned to each horizontal link and to its elements. Each end of a horizontal cable shall be labeled within 300 mm (12 in) of the end of the cable jacket with the horizontal link identifier, which shall be visible on the exposed part of the cable jacket. This shall include each cable in the TS, at the work area, and at a CP (consolidation point), if present. A horizontal link identifier shall have a format of "fs-an" where:

- f = numeric character(s) identifying the floor of the building occupied by the TS
- s = alpha character(s) uniquely identifying the TS on floor f, or the building area in which the space is located
- a = one to two alpha characters uniquely identifying a single patch panel, a group of patch panels with sequentially numbered ports
- n = two to four numeric characters designating the port on a patch panel in the TS

Section 6.1.1 States:

A unique building backbone cable identifier shall be assigned to each backbone cable between two TSs in one building and it shall have a format of "fs1/fs2-n", where:

- fs1 = TS identifier for the space containing the termination of one end of the backbone cable
- fs2 = TS identifier for the space containing the termination of the other end of the backbone cable
- n = One to two alphanumeric characters identifying a single cable with one end terminated in the TS designated fs1 and the other end terminated in the TS designated fs2

In this format, the TS with the lesser alphanumeric identifier shall be listed first. If the entire cable is within one TS, the format may be fs1/fs2-n.

All building backbone cable identifiers in a single infrastructure should have the same format where possible.

The backbone cable identifier shall be marked on each end of the backbone cable within 300 mm (12 in) of the end of the cable jacket.

Each cable or bundle can be easily identified with ULTIMATE ID marker ties, or the LABELCORE™ Fiber Optic Cable Identification System.

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ULTIMATE ID™ Marker Ties

- Designed to efficiently support TIA/EIA-606-A standard labeling requirements
- Available in three styles:
 - Nylon 6.6 material
 - Hook & Loop material - single tie
 - Hook & Loop material - double tie
- Protective snap-on covers (P/N: UILC2CL-L, [page C15](#)) included for Hook & Loop parts
- Excellent solution for identifying and bundling UTP and fiber optic cable bundles
 - Use labels for the *PANACEA*™ LS7 Hand-held Thermal Transfer Printer (P/N: UILS7BW, [page C13](#))
 - Use computer printable label sheets for desktop printers (P/N: UIIJ2, [page C14](#))
 - Use write-on labels (P/N: UIWOL2-L, [page C15](#))[^]

Part Number	Length		Max. Bundle Dia.		Min. Loop Tensile Str.		Material	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	Lbs.*	N			
UICBM1M-C	4.4	112	1.00	25	18	80	Nylon 6.6	100	1000
UIHL12-X0	5.6	142	1.00	25	15	67	Hook & Loop	10	100
UIHL22-X0	5.6	142	1.00	25	15	67	Hook & Loop	10	100

* Minimum 2" overlap required to achieve loop tensile rating on UIHL (Hook & Loop) parts. Marker ties shown include labels installed, labels sold separately.
[^] The TIA/EIA-606-A standard states that all labels shall be mechanically generated. Write-on labels are not standard compliant.



UICBM1M



UIHL12



UIHL22

LABELCORE™ Fiber Optic Cable Identification System

- Made of flexible PVC material
- Provides a larger labeling surface on small cables allowing legends to be clearly seen
- Locate on straight section of cable at least 2" from fiber boot



Part Number	Part Description	Std. Pkg. Qty.*	Std. Ctn. Qty.
Sleeves			
NWSLC-2	Cable identification sleeve, 2mm cable, yellow.	100	1000
NWSLC-3	Cable identification sleeve, 3mm cable, orange.	100	1000
NWSLC-7	Cable identification sleeve for 3mm duplex fiber cable, white.	100	1000

* Order number of sleeves required in multiples of Std. Pkg. Qty.

Self-Laminating Labels for LABELCORE Fiber Optic Cable Identification System

Suggested Label Solutions for TIA/EIA-606-A Compliance			
LABELCORE Sleeve Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA LS7 Hand-Held Printer Label
NWSLC-2	S100X160FAJ	S100X160FA6	LS7-75NL-1
NWSLC-3			
NWSLC-7	S100X225FAJ	S100X225FA6	LS7-75NL-1

For complete labeling solutions and product information, reference charts are [pages K5-K6](#).



Apply LABELCORE Sleeve to cable



Wrap self-laminating label around LABELCORE Sleeve

ULTIMATE ID™ Network Labeling System Identification Products

A world leader in identification solutions, **PANDUIT**® designs and manufactures labeling products, software and printers to assist you with TIA/EIA-606-A compliance. The **PANDUIT ULTIMATE ID** system includes a full line of TIA/EIA-606-A standard compliant labeling products for network cabling identification from the point of building entry to the workstation. Properly identifying your network allows moves, adds, changes, trouble shooting and repairs to be accomplished faster and more efficiently.



How ULTIMATE ID Network Labeling System, PANACEA™ LS7 Hand-held Thermal Transfer Printer and Laser/Ink Jet Labels assist in compliance with the TIA/EIA-606-A Standard.

Section 10.1. States

The size, color, and contrast of all labels should be selected to ensure that the identifiers are easily read. Labels should be visible during the installation of and normal maintenance of the infrastructure. Labels should be resistant to the environmental conditions at the point of installation (such as moisture or heat), and should have a design life equal to or greater than that of the labeled component.

Section 10.2 States

To maximize legibility, all labels shall be printed or generated by a mechanical device.

PANDUIT label materials for the PANACEA LS7 Hand-held Thermal Transfer Printer as well as Laser/Ink Jet products are generated by a mechanical device and are made of durable polymer construction that will withstand the effects of moisture, heat and time.

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PANACEA™ LS7 Hand-Held Thermal Transfer Printer and Label Cassettes

- Multi-purpose printer supports *Ultimate ID™* System and additional network labeling requirements. For detailed printing instructions to create *Ultimate ID* labels using the PANACEA LS7 printer, request SA-IDSP01
- High quality thermal transfer print for professional looking labels that will not smear
- Fast loading label cassette includes both label material and ribbon to make changing labels easy
- No more spacing and guess work - length function aligns legends with ports
- Advanced functions including serialization, vertical and horizontal lines, symbol library and memory
- Six AA alkaline batteries and hardside case included



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
LS7	LS7 Thermal Transfer Hand-Held Printer Kit: Includes printer, 3/4" (18mm) non-laminated black/white cassette, hardside carrying case, wrist strap, batteries, label separator tool and operator's manual.	1	4
LS7-ACS	120V AC adapter*	1	6
LS7-CLN	Cleaning cassette	1	20

*Cannot be used to charge batteries.

Component Cassettes for PANACEA LS7 Hand-Held Thermal Transfer Printer

Part Number	Part Description	Height		Length		Std. Pkg. Qty.*	Std. Ctn. Qty.
		In.	mm	ft.	M		

ULTIMATE ID Non-Laminated Label Cassette

For use with ULTIMATE ID applications.

UILS7BW	Non-laminated polyester label cassette	.236	6.0	26.2	8.0	1	20
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Laminated Adhesive Label Cassettes

For flat label applications only.

LS7-25-1^	Black/white laminated polyester label cassette	.236	6.0	26.2	8.0	1	20
LS7-25-2	LS7 laminated tape	.236	6.0	26.2	8.0	1	20
LS7-38-1‡	Black/white laminated polyester label cassette	.354	9.0	26.2	8.0	1	20
LS7-38-2	LS7 laminated tape	.354	9.0	26.2	8.0	1	20
LS7-50-1	Black/white laminated polyester label cassette	.472	12.0	26.2	8.0	1	20
LS7-50-2	LS7 laminated tape	.472	12.0	26.2	8.0	1	20

Cable Marking Cassettes for PANACEA LS7 Hand-Held Thermal Transfer Printer

Part Number	Part Description	Width		Length		Std. Pkg. Qty.*	Std. Ctn. Qty.
		In.	mm	ft.	M		

Non-Laminated Adhesive Label Cassettes

For cable identification and flat label applications.

LS7-75NL-1	Black/white non-laminated polyester label cassette	.708	18.0	26.2	8.0	1	20
LS7-75NL-2	Black/clear non-laminated polyester label cassette	.708	18.0	26.2	8.0	1	20

^ Faceplates and patch panels which are not part of the *ULTIMATE ID* Network Labeling System can be identified by utilizing the LS7-25-1 label cassette as an adhesive label.

‡ Non *ULTIMATE ID* faceplates which accept .4 inch high labels can be identified by utilizing the LS7-38-1 label cassette as a non-adhesive label.

All LS7 Label Cassettes contain 26.2 feet of label material.

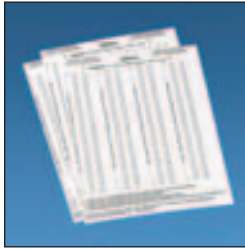
For non-adhesive labeling solution, do not remove liner from label.

* Order number of cassettes required.



ULTIMATE ID™ Laser/Ink Jet Labels

- Designed to efficiently support TIA/EIA-606-A standard labeling requirements
- Laser/Ink Jet labels for use with *ULTIMATE ID* faceplates, patch panels, marker ties, modular furniture faceplate and surface mount boxes
- Durable multi layer construction
- Each standard package contains five 8.5" x 11" sheets
- Non-adhesive labels are easily removed from label sheets
- Unique die-cut non-adhesive material configuration leaves no exposed adhesive remains on sheets after labels are removed



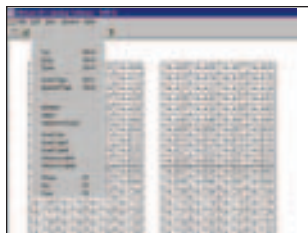
Part Number‡	Part Description	Width		Height		Std. Pkg. Qty.*	Std. Ctn. Qty.
		In.	mm	In.	mm		
UILJ1	One port, white non-adhesive polyester labels, 264 per sheet.	.680	17.27	.236	5.99	5	50
UILJ2	Two port, white non-adhesive polyester labels, 132 per sheet.	1.315	33.40	.236	5.99	5	50
UILJ3	Three port, white non-adhesive polyester labels, 99 per sheet.	1.950	49.53	.236	5.99	5	50
UILJ4	Four port, white non-adhesive polyester labels, 66 per sheet.	2.585	65.66	.236	5.99	5	50
UILJ6	Six port, white non-adhesive polyester labels, 66 per sheet.	3.855	97.92	.236	5.99	5	50
UILJCOMBO	Combination sheet with 40 one port, 60 two port, 3 three port and 24 four port, white non-adhesive polyester labels per page.	—	—	—	—	5	50

‡ For Electrical Ivory labels, add EI to end of part number.

* Order number of labels required in multiples of Std. Pkg. Qty.

ULTIMATE ID Labeling Software for WINDOWS^

- Fast and easy creation of labels for *ULTIMATE ID* Network Labeling System patch panels, faceplates, surface mount boxes, and marker ties
- Automatically aligns legends with ports on patch panels and faceplates
- Create alpha and numeric serializations
- Vertical line function enables users to separate legends
- ODBC (Open Data-Base Connectivity) allows importing of information from electronic databases such as EXCEL^ and ACCESS^ directly onto the label formats
- Automatic font sizing
- *ULTIMATE ID* formats are preloaded and ready to use
- Supports most WINDOWS printer drivers and is compatible with standard desktop laser and ink jet printers
- On-line help function files, including the TIA/EIA-606-A Labeling Compliance Brochure that assists in understanding the TIA/EIA-606-A standard and insure network labeling compliance
- Easy to install and supplied on CD-ROM
- **System Requirements:**
- Image library that includes commonly used symbols for fax, data and voice
- WINDOWS 95, 98, Me, 2000, NT 4.x, and XP; minimum 486 processor; minimum 10MB of RAM; 30 MB hard drive space



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
UISW	Windows labeling software, CD-ROM, Compatible with WINDOWS 95, 98, Me, 2000, NT 4.x and XP	1	10

^WINDOWS, EXCEL, and ACCESS are registered trademarks of Microsoft Corp.

ULTIMATE ID™ Write-On Labels

- For use with *ULTIMATE ID* faceplates, surface mount boxes and patch panels



Part Number	Part Description	Width		Height		Std. Pkg. Qty.*	Std. Ctn. Qty.
		In.	mm	In.	mm		
UIWOL1-L	One port, white non-adhesive polyester write-on label.	.680	17.3	.236	5.99	50	250
UIWOL2-L	Two port, white non-adhesive polyester write-on label.	1.315	26.7	.236	5.99	50	250
UIWOL3-L	Three port, white non-adhesive polyester write-on label.	1.950	27.4	.236	5.99	50	250
UIWOL4-L	Four port, white non-adhesive polyester write-on label.	2.585	65.6	.236	5.99	50	250
UIWOL6-L	Six port, white non-adhesive polyester write-on label.	3.855	97.9	.236	5.99	50	250

The TIA/EIA-606-A standard states that all labels shall be mechanically generated, write-on labels are not standard compliant.

* Order number of labels required in multiples of Std. Pkg. Qty.

Permanent Marking Pens

- Fast drying permanent ink
- Can be used with write-on labels shown above



Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
PFX-0	Permanent marking pen, fine tip	Black	12	144
PFX-2	Permanent marking pen, fine tip	Red	12	144

The TIA/EIA-606-A standard states that all labels shall be mechanically generated. Write-on labels are not standard compliant.

ULTIMATE ID Replacement Label Covers and Screw Covers

- For use with *ULTIMATE ID* faceplates, patch panels, hook & loop marker ties and surface mount boxes



Part Number	Part Description	Color ‡	Std. Pkg. Qty.	Std. Ctn. Qty.
UILC1CL-L	One port label or screw cover.	Clear	50	250
UILC2CL-L	Two port label cover.	Clear	50	250
UILC3CL-L	Three port label cover.	Clear	50	250
UILC4CL-L	Four port label cover.	Clear	50	250
UILC6CL-L	Six port label cover.	Clear	50	250

‡ For other colors replace CL (Clear) with appropriate color designation to match *ULTIMATE ID* component. See page C38 for *MINI-COM*® replacement screw covers and replacement label covers.

ULTIMATE ID Icons

- Provide port identification of data and voice applications
- Snap into *ULTIMATE ID* surface mount boxes and work area faceplates



Part Number	Part Description	Color ‡	Std. Pkg. Qty.	Std. Ctn. Qty.
UICIDIW-C	Plastic snap-in icon with data image.	Off White	100	1000
UICIPIW-C	Plastic snap-in icon with phone image.	Off White	100	1000

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray), BL (Black), OR (Orange), RD (Red), BU (Blue), GR (Green), YL (Yellow) or VL (Violet). *ULTIMATE ID* Icons are not TIA/EIA-606-A standard compliant.

See page C37 for *MINI-COM* Icons.

NOTES

System Overview	Modules	Ultimate ID System & Work Area	Zone Cabling	Patch Panels Copper Patch Cords & Punchdowns	Fiber Connectors Enclosures & Patch Cords	Racks & Cable Management	Grounding & Bonding	Fiber Routing	Surface Raceway	Labeling & Administration	Cable Ties & Accessories	Supplementary Technical Information	Glossary & Index
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WORK AREA OUTLET SOLUTIONS

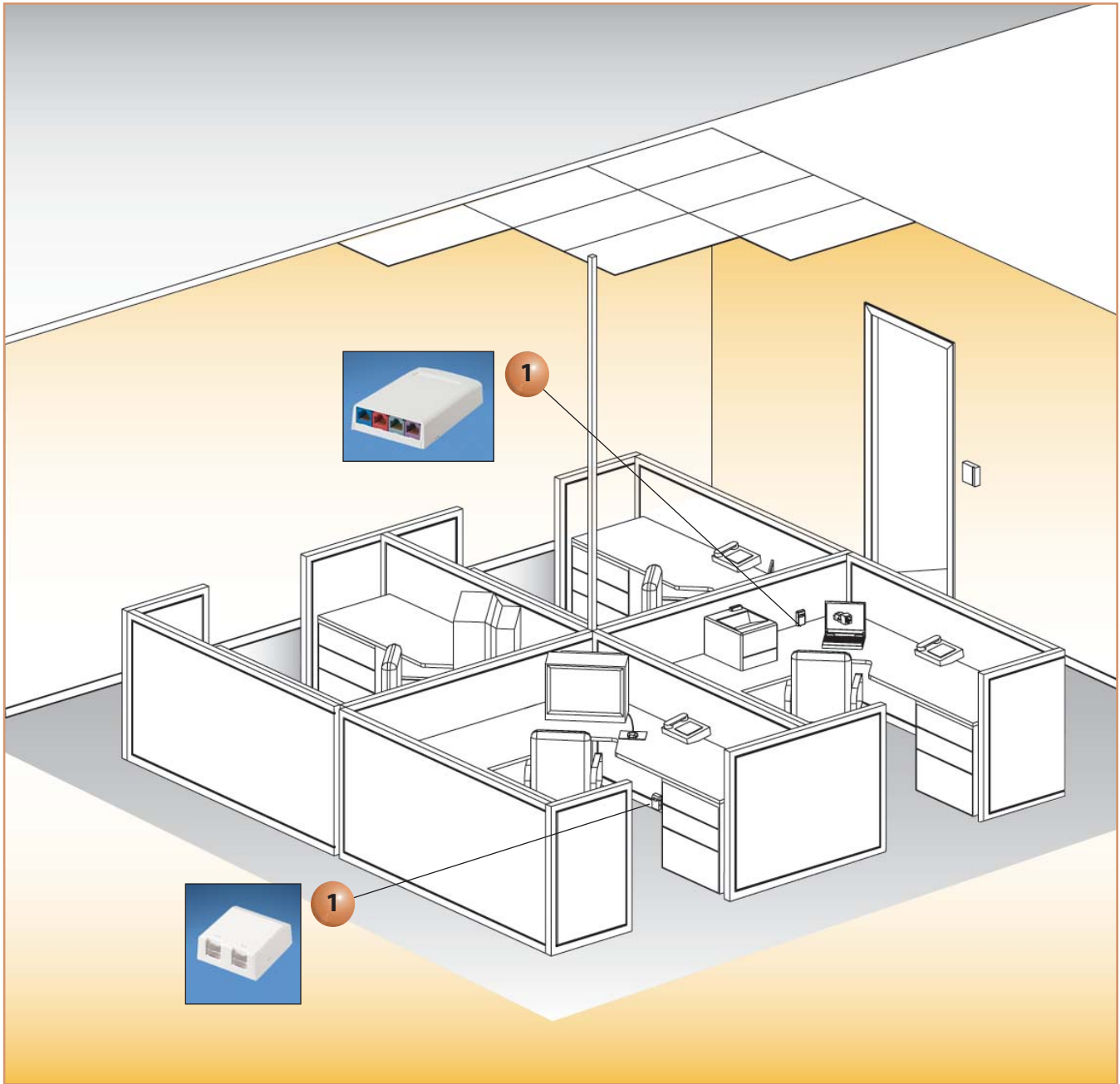
The *PANDUIT*® Network Connectivity Group offers the market's most complete selection of communications outlets as part of the *PAN-NET*® Network System offering. Count on *PANDUIT* to streamline and support your entire infrastructure.



- Completely modular, accepting all *MINI-COM*® Modules for copper, fiber, coax and audio video applications
- Superior design provides lower profile, higher density outlet products, creating a cost effective solution for easy moves, adds and changes
- Outlet solutions consist of a variety of faceplate styles and port densities, including tamper resistant and water resistant options. Surface mount boxes are available in shuttered and non-shuttered version

Work Area Outlet products provide a broad range of solutions that are easily installed and offer absolute modularity. All products provide an aesthetically pleasing solution that will compliment all types of work areas (office, schools, factories, etc.).

Workstation Roadmap



1 *MINI-COM*® Surface Mount Boxes (pages C34 - C36)



System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Endlosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

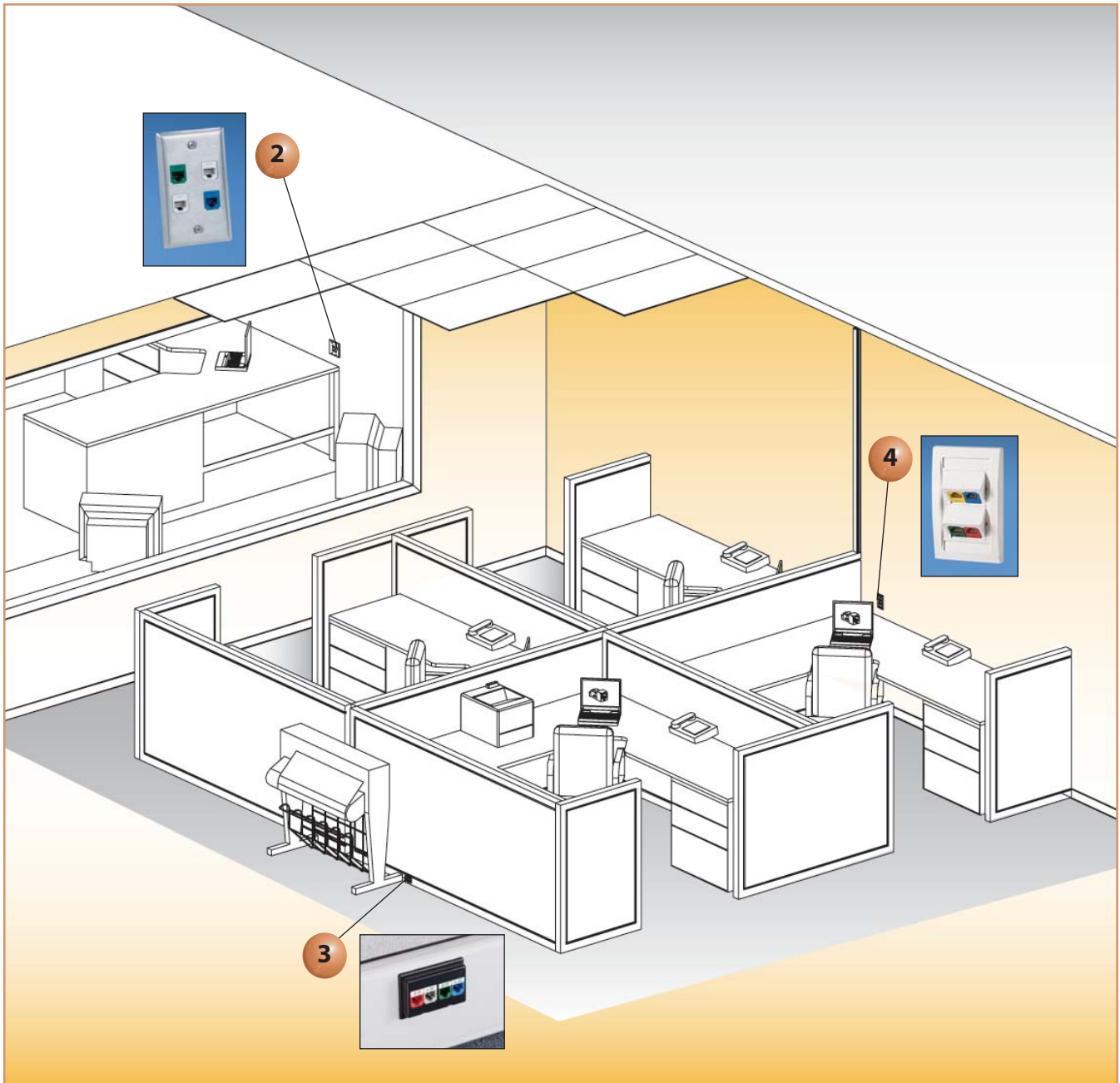
Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index



2 MINI-COM® Stainless Steel Faceplates (page C24)



3 MINI-COM Modular Furniture Faceplates (page C32)



4 MINI-COM Faceplates (pages C20 - C24)



UL **SP** **MINI-COM**® Classic Series Faceplates with Label and Label Cover

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Includes label/label covers for easy port identification, replacement label/label covers available



CFPL2

CPFL3



CPFL4

CPFL6

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFPL2IW	Single gang, vertical faceplate accepts two <i>MINI-COM</i> Modules.	Off White	1	10
CFPL3IW	Single gang, vertical faceplate accepts three <i>MINI-COM</i> Modules.	Off White	1	10
CFPL4IW	Single gang, vertical faceplate accepts four <i>MINI-COM</i> Modules.	Off White	1	10
CFPL6IW	Single gang, vertical faceplate accepts six <i>MINI-COM</i> Modules.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White) or IG (International Gray). All faceplates supplied with mounting screws.

UL **SP** **MINI-COM** Classic Series Sloped Faceplates with Label and Label Cover

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Includes label/label covers for easy port identification, replacement label/label covers available
- Optional icons available



CFPSL2

CFPSL4



CFPSL6

CFPHSL4

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFPSL2IW	Single gang, sloped vertical faceplate accepts two <i>MINI-COM</i> Modules.	Off White	1	10
CFPSL4IW	Single gang, sloped vertical faceplate accepts four <i>MINI-COM</i> Modules.	Off White	1	10
CFPSL6IW	Single gang, sloped vertical faceplate accepts six <i>MINI-COM</i> Modules. Requires minimum 1.9" wide electrical box for proper mounting.	Off White	1	10
CFPHSL4IW	Single gang, sloped horizontal faceplate accepts four <i>MINI-COM</i> Modules.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White) or IG (International Gray). All faceplates supplied with mounting screws.

Component Labels for *MINI-COM* Classic Series Faceplates and Classic Series Sloped Faceplates with Label and Label Cover

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
All CFPL*	C195X040Y1J	C195X040Y16	LS7-38-1**
All CFPSL*			
CFPHSL4	C261X035Y1J	C261X035Y16	LS7-38-1**

For complete labeling solutions and product information, reference charts on pages K5-K6.

* All CFPL and CFPSL parts on this page.

** For non-adhesive labeling solution, do not remove liner from label.

UL **SP** **MINI-COM**® Classic Series Faceplates

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Optional adhesive labels available



CFP1 CFP2 CFP4



CFPH2 CFPH4

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFP1IW	Single gang, vertical faceplate accepts one <i>MINI-COM</i> Module.	Off White	1	10
CFP2IW	Single gang, vertical faceplate accepts two <i>MINI-COM</i> Modules.	Off White	1	10
CFP4IW	Single gang, vertical faceplate accepts four <i>MINI-COM</i> Modules.	Off White	1	10
CFPH2IW	Single gang, horizontal faceplate accepts two <i>MINI-COM</i> Modules.	Off White	1	10
CFPH4IW	Single gang, horizontal faceplate accepts four <i>MINI-COM</i> Modules.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White) or IG (International Gray). All faceplates supplied with mounting screws.

Component Labels for *MINI-COM* Classic Series Faceplates

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CFP1	C061X030FJJ	C061X030FJ6	LS7-25-1
CFP2	C125X030FJJ	C125X030FJ6	LS7-25-1
CFP4			
CFPH2			
CFPHSL4	C252X030FJJ	C252X030FJ6	LS7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index



MINI-COM® Executive Series Faceplates

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Includes label/label covers for easy port identification



CFPE1



CFPE2



CFPE4



CFPE6



CFPE10**

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFPE1IW	Single gang, vertical faceplate accepts one <i>MINI-COM</i> Module.	Off White	1	10
CFPE2IW	Single gang, vertical faceplate accepts two <i>MINI-COM</i> Modules.	Off White	1	10
CFPE4IW	Single gang, vertical faceplate accepts four <i>MINI-COM</i> Modules.	Off White	1	10
CFPE6IW	Single gang, vertical faceplate accepts six <i>MINI-COM</i> Modules. Requires minimum 1.9" wide electrical box for proper mounting.	Off White	1	10
CFPE10IW-2G	Double gang, vertical faceplate accepts ten <i>MINI-COM</i> Modules.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White) or IG (International Gray). Faceplates supplied with mounting screws.

Component Labels for *MINI-COM* Executive Series Faceplates

Faceplate Part Number	Suggested Label Solutions for TIA/EIA-606-A Compliance		
	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CFPE1IW	C195X040Y1J	C195X040Y16	LS7-38-1**
CFPE2IW			
CFPE4IW			
CFPE6IW			
CFPE10IW-2G	C288X040Y1J	C288X040Y1J	LS7-38-1**

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

** For non-adhesive labeling solution, do not remove liner from label.



MINI-COM Classic Series Faceplate Kits

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Inserts are front releasable
- Optional adhesive labels available



CFPS4



CFPF12**

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFPS4IW	Single gang, vertical faceplate frame and two sloped inserts (2 module spaces each). Accepts four <i>MINI-COM</i> Modules.	Off White	1	10
CFPF12IW-2G	Double gang, vertical faceplate frame and six flat inserts (2 module spaces each). Accepts twelve <i>MINI-COM</i> Modules.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White) or IG (International Gray). All faceplates supplied with mounting screws.

Component Labels for *MINI-COM* Classic Series Faceplate Kits

Faceplate Part Number	Suggested Label Solutions for TIA/EIA-606-A Compliance		
	Laser/Ink Jet Desktop Printer Label	VIPER LS6 Portable Printer Label	PAN-ACEA LS7 Hand-Held Printer Label
CFPS4IW	C125X030FJJ	C125X030FJ6	LS7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).



MINI-COM® Sloped Executive Series Faceplate Kit

- Accepts *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Sloped inserts are front releasable
- Includes label/label covers for easy port identification



Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFPSE4IW	Single gang, vertical faceplate frame and two sloped inserts (2 module spaces each). Accepts four <i>MINI-COM</i> Modules.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White) or IG (International Gray). Faceplates supplied with mounting screws.

Component Labels for *MINI-COM* Sloped Executive Series Faceplate Kits

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CFPSE4IW	C195X040Y1J	C195X040Y16	LS7-38-1**

For complete labeling solutions and product information, reference charts on pages K5-K6.

** For non-adhesive labeling solution, do not remove liner from label.



MINI-COM Tamper Resistant Faceplate

- Includes two tamper resistant screws to prevent unauthorized access to the connections
- Sloped design improves bend radius control
- Made of impact resistant material
- Optional icons available
- Two piece hinged design
- Mounts to single gang opening
- Accepts *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes



Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFPTR4IW	Single gang, vertical tamper resistant faceplate accepts four <i>MINI-COM</i> Modules. Dimensions 5.8"H x 3.1"W x 1.5"D (147.32mm x 78.74mm x 38.10mm)	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) BL (Black), CIG (International Gray base with Clear cover) or CL (Clear base and cover).

All faceplates supplied with mounting screws.

Fiber modules are not recommended for use in bottom two module spaces due to bend radius control requirements.

Can be clearly identified with labels, reference chart on page C24.

MINI-COM Water Resistant Faceplate

- Includes unique gaskets that will prevent water from entering and damaging connections
- Meets the level of protection required for an IP56 enclosure
- Sloped design improves bend radius control
- Made of impact resistant material
- Optional icons available
- Two piece hinged design
- Mounts to single gang opening
- Accepts *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes



Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFPWR4CIG	Single gang, vertical water resistant faceplate accepts four <i>MINI-COM</i> Modules. Dimensions 5.8"H x 3.1"W x 1.5"D (147.32mm x 78.74mm x 38.10mm)	Clear Cover and International Gray Base	1	10

‡ For other colors replace suffix CIG (Clear cover with International Gray base) with IG (International Gray) or CL (Clear base and cover).

All faceplates supplied with mounting screws.

Fiber modules are not recommended for use in bottom two module spaces due to bend radius control requirements.

Can be clearly identified with labels, reference chart on page C24.

Component Labels for *MINI-COM*™ Tamper Resistant Faceplates and Water Resistant Faceplates

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CFPTR4IW	C125X030FJJ	C125X030FJ6	LS7-25-1
CFPWR4CIG			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).



MINI-COM Stainless Steel Faceplates

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Optional adhesive labels available
- Impact resistant for light industrial environments



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
CFP2S	Single gang, vertical faceplate accepts two <i>MINI-COM</i> Modules.	1	10
CFP4S	Single gang, vertical faceplate accepts four <i>MINI-COM</i> Modules. Requires minimum 1.9" wide electrical box for proper mounting.	1	10
CFP6S	Single gang, vertical faceplate accepts six <i>MINI-COM</i> Modules. Requires minimum 1.9" wide electrical box for proper mounting.	1	10
CFP4S-2G	Double gang, vertical faceplate accepts four <i>MINI-COM</i> Modules.	1	10
CFP8S-2G	Double gang, vertical faceplate accepts eight <i>MINI-COM</i> Modules.	1	10
CFP10S-2G	Double gang, vertical faceplate accepts ten <i>MINI-COM</i> Modules.	1	10

All faceplates include mounting screws.

Component Labels for *MINI-COM* Stainless Steel Faceplates

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER LS6 Portable Printer Label	PAN-ACEA LS7 Hand-Held Printer Label
CFP2S	C061X030FJJ	C061X030FJ6	LS7-25-1
CFP4S			
CFP4S-2G			
CFP8S-2G	C125X030FJJ	C125X030FJ6	LS7-25-1
CFP6S	C188X030FJJ	C188X030FJ6	LS7-25-1
CFP10S-2G	C315X030FJJ	C315X030FJ6	LS7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

Industrial Stainless Steel Faceplate

- Accepts one Industrial TX5e™ Industrial Connector (CJI5E88T)
- Impact resistant for light industrial environments
- Rear gasket provides tight seal



Part Number	Part Description	No. of Module Spaces	Std. Pkg. Qty.	Std. Ctn. Qty.
CIFP1S	Vertical faceplate accepts one Industrial TX5e Connector.	1	1	10

All faceplates include mounting screws.
Industrial TX5e Connector available on [page B4](#).

Component Labels for Industrial Stainless Steel Faceplates

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CIFP1S	C061X030FJJ	C061X030FJ6	LS7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).



MINI-COM® Classic and Executive Faceplate Frames

- Accept inserts which snap in and out of faceplate frames
- Allow custom installations with your choice of inserts
- All inserts are front releasable
- Optional adhesive labels available



CB



CB**-2G



CBE



CBE**-2G

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CBIW	Single gang faceplate frame accepts two 1/2 size module inserts or three 1/3 size module inserts.	Off White	1	10
CBIW-2G	Double gang faceplate frame accepts up to four 1/2 size module inserts or six 1/3 size module inserts.	Off White	1	10
CBEIW	Single gang faceplate frame accepts up to two 1/2 size module inserts or three 1/3 size module inserts. Supplied with labels and label cover/screw covers.	Off White	1	10
CBEIW-2G	Double gang faceplate frame which accepts up to four 1/2 size module inserts or six 1/3 size module inserts. Supplied with labels and label cover/screw covers.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).
All faceplate frames supplied with mounting screws.

Component Labels for MINI-COM Classic and Executive Faceplate Frames

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER LS6 Portable Printer Label	PAN-ACEA LS7 Hand-Held Printer Label
CBEIW	C195X040Y1J	C195X040Y16	LS7-38-1**
CBEIW-2G	C288X040Y1J	C288X040Y16	LS7-38-1**

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

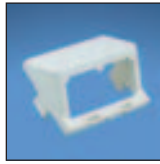
** For non-adhesive labeling solution, do not remove liner from label.



MINI-COM® Inserts

- Compatible with Classic and Executive Faceplate Frames
- Front releasable

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for frequent moves, adds and changes



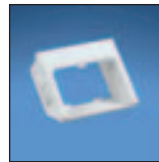
CHS2



CHS2S



CHF2



CHSRE2



CHS1S



CHB2



CHF2M



CHB2M

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CHS2IW-X	2 module space, 1/2 size, sloped insert accepts two <i>MINI-COM</i> Modules.	Off White	10	50
CHS2SIW-X	2 module space, 1/2 size, sloped shuttered insert accepts two <i>MINI-COM</i> Modules. Shutters are spring loaded and rotate out of the way for cable connections.	Off White	10	50
CHF2IW-X	2 module space, 1/2 size, flat insert accepts two <i>MINI-COM</i> Modules.	Off White	10	50
CHSRE2IW-X	2 module space, 1/2 size, 30° sloped recessed insert accepts two <i>MINI-COM</i> Modules.	Off White	10	50
CHS1SIW-X	1 module space, 1/2 size, sloped shuttered insert accepts one <i>MINI-COM</i> Module.	Off White	10	50
CHB2IW-X	1/2 blank insert. Reserves space for future upgrades.	Off White	10	50
CHF2MIW-X	2 module space, 1/3 size, flat insert accepts two <i>MINI-COM</i> Modules.	Off White	10	50
CHB2MIW-X	1/3 blank insert. Reserves space for future upgrades.	Off White	10	50

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).

Shuttered door inserts are not recommended for use with protruding modules.

Component Labels for *MINI-COM* Inserts

Faceplate Part Number	Suggested Label Solutions for TIA/EIA-606-A Compliance		
	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CHS1SIW-X	C061X030FJJ	C061X030FJ6	LS7-25-1
CHB2MIW-X			
CHS2IW-X	C125X030FJJ	C125X030FJ6	LS7-25-1
CHS2SIW-X			
CHF2IW-X			
CHSRE2IW-X			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

MINI-COM® D-Subminiature Inserts

- Insert includes female to female coupler for use in VGA applications
- Compatible with CB and CBE faceplate frames



CHD9C



CHD15HDC

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CHD9CIW	1/3 insert with 9 pin female to female coupler.	Off White	1	10
CHD15HDCIW	1/3 insert with 15 pin high density female to female coupler.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).

Component Labels for MINI-COM D-Subminiature Inserts

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CHD9CIW	C125X030FJJ	C125X030FJ6	LS7-25-1
CHD15HDCIW			

For complete labeling solutions and product information, reference charts on pages K5-K6.



MINI-COM In-Wall Fiber Spool

- 1" internal bend radius
- Cable entry/exit from rear, top and bottom helps maintain external bend radius
- Designed for use with single or double gang wall board adapter
- Stores up to 12 meters of unjacketed fiber cable or 2 meters of jacketed fiber cable
- 3.65" (92.7mm) depth from rear of faceplate, not for use with in-wall boxes or in shallow walls



Standards: TIA/EIA-568-B requires a minimum 1 meter slack and a fiber spool for in-wall installations.

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFS2IW	For use with MINI-COM faceplates, faceplate frames and inserts, and modular patch panels.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).



MINI-COM® “GFCI” Decora Module Frames

- Mount behind any standard GFCI electrical faceplate
- Optional adhesive labels available
- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes



CFG1

CFG2



CFG4

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFG1IW	Module frame accepts one <i>MINI-COM</i> Module.	Off White	1	10
CFG2IW	Module frame accepts two <i>MINI-COM</i> Modules.	Off White	1	10
CFG4IW	Module frame accepts four <i>MINI-COM</i> Modules.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).
All frames include mounting screws.

Component Labels for *MINI-COM* “GFCI” Decora Module Frames

Faceplate Part Number	Suggested Label Solutions for TIA/EIA-606-A Compliance		
	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CFG1IW	C061X030FJJ	C061X030FJ6	LS7-25-1
CFG2IW			
CFG4IW	C125X030FJJ	C125X030FJ6	LS7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).



MINI-COM 106 Duplex Module Frames

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds, and changes
- Mount behind standard 106 NEMA faceplates



CF1062



CF1064

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CF1062IW	Module frame accepts two <i>MINI-COM</i> Modules.	Off White	1	10
CF1064IW	Module frame accepts four <i>MINI-COM</i> Modules.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).
All frames supplied with mounting screws.



Classic Series Faceplates for Power or Communication Applications

- Designed for on-wall power and communication applications



CP106**



CP106**-2G



CPG**



CPG**-2G

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CP106IW	Screw-on single gang rectangular faceplate - covers one NEMA standard 106 duplex electrical outlet or one standard 106 communication module frame. Supplied with one mounting screw.	Off White	1	10
CP106IW-2G	Screw-on double gang rectangular faceplate - covers two NEMA standard 106 duplex electrical outlets or two standard 106 communication module frames. Supplied with two mounting screws.	Off White	1	10
CPGIW	Screw-on single gang rectangular faceplate - covers one NEMA standard rectangular electrical outlet or one standard rectangular communication module frame. Supplied with two mounting screws.	Off White	1	10
CPGIW-2G	Screw-on double gang rectangular faceplate - covers two NEMA standard rectangular electrical outlets or two standard rectangular communication module frames. Supplied with two mounting screws.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White) or IG (International Gray). All faceplates supplied with mounting screws.

Component Labels for Classic Series Faceplates for Power and Communication Applications

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CPGIW	C125X030FJJ	C125X030FJ6	LS7-25-1
CPGIW-2G			

For complete labeling solutions and product information, reference charts on pages K5-K6.

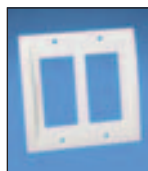


Executive Series Faceplates for Power or Communication Applications

- Designed for in-wall box applications



ECPG



ECPG**-2G

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
ECPGIW	Covers one NEMA standard rectangular electrical receptacle. In communication applications accepts one <i>MINI-COM</i> ® GFCI Module Frame.	Off White	1	10
ECPGIW-2G	Covers two NEMA standard rectangular or TVSS electrical receptacle. In communication applications accepts two <i>MINI-COM</i> GFCI Module Frames.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White) or IG (International Gray). Not for use with wall board adapters. All faceplates supplied with mounting screws.

Component Labels for Executive Series Faceplates for Power or Communication Applications

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER LS6 Portable Printer Label	PAN-ACEA LS7 Hand-Held Printer Label
ECPGIW	C125X030FJJ	C125X030FJJ	LS7-25-1
ECPGIW-2G			

For complete labeling solutions and product information, reference charts on pages K5-K6.

UL LISTED SP Bulk Package Faceplates

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Contain 50 faceplates and mounting screws in an easy to carry package
- Eliminates opening individual bags



Part Number	Part Description	Color‡	Std. Pkg. Qty.
MINI-COM Executive Series Faceplates			
CFPE2IW-L	Two module space.	Off White	50
CFPE4IW-L	Four module space.	Off White	50
MINI-COM Classic Series Faceplates			
CFP2IW-L	Two module space.	Off White	50
CFP4IW-L	Four module space.	Off White	50
CFPL2IW-L	Two module space with labels.	Off White	50
CFPL4IW-L	Four module space with labels.	Off White	50

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory) or WH (White).

Component Labels for Bulk Package Faceplates

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CFPE2IW-L	C195X040Y1J	C195X040Y16	LS7-38-1**
CFPE4IW-L			
CFP2IW-L	C125X030FJJ	C125X030FJ6	LS7-25-1
CFP4IW-L			
CFPL2IW-L	C195X040Y1J	C195X040Y16	LS7-38-1**
CFPL4IW-L			

For complete labeling solutions and product information, reference charts on pages K5-K6.

** For non-adhesive labeling solution, do not remove liner from label.

UL LISTED SP PAN-WAY® Stainless Steel Faceplates



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
WPS-20	Stainless steel single gang rectangular screw-on faceplate - covers one NEMA standard 106 duplex electrical outlet or one standard 106 communication module frame. Supplied with one mounting screw.	1	10
WPS-202	Stainless steel double gang rectangular screw-on faceplate - covers two NEMA standard 106 duplex electrical outlets or two standard 106 communication module frames. Supplied with two mounting screws.	1	10



Keystone Phone Plate with Module

- Stainless steel construction
- Includes mounting studs on plate which are positioned to mount standard wall mount telephones with keystone adaptation flush to wall surface



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
KWP5E	Stainless steel phone plate with <i>GIGA-TX™</i> Style Category 5e Keystone Jack Module.	1	10
KWP6P	Stainless steel phone plate with <i>GIGA-TX</i> Style Category 6 Keystone Jack Module.	1	10

Contact technical support to verify mounting holes when using IP or console type telephones. All faceplates supplied with mounting screws.

Component Labels for Keystone Phone Plate with Modules

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
KWP5E	C061X030FJJ	C061X030FJ6	LS7-25-1
KWP6P			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).



Wall Board Adapters

- Provide a mounting surface for single or double gang faceplates



MWBA1



MWBA-2G

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
MWBA1	An alternative for single gang in-wall box in communication applications. Mounting hole spacing of 3.28" (83.5mm).	1	10
MWBA-2G	An alternative for double gang in-wall boxes in communication applications. Mounting hole spacing of 3.28" (83.5mm).	1	10

Adapters supplied with mounting screws.



In-Wall Box Adapters

- Allow horizontal or vertical mounting

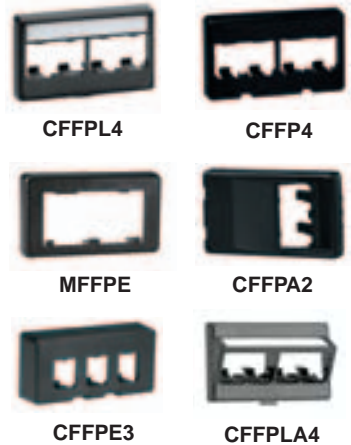


Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
MIWBIAW	Allows mounting of <i>MINI-COM®</i> single gang faceplates and surface mount boxes to double gang in-wall boxes and box eliminators.	Off White	1	10

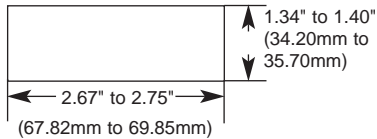
‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black). Adapters supplied with mounting screws.

UL LISTED **SP** **MINI-COM**® Snap-On Modular Furniture Faceplates

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Select faceplates feature label/label covers included for easy port identification, replacement label/label covers available
- Optional adhesive labels available



Panel Cutout Requirements for CFFPL4, CFFP4, MFFPE, CFFPA2, CFFPE3 & CFFPLA4

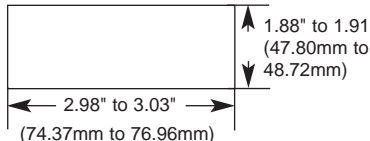


Maximum Panel Thickness: .09" (2.29mm)



CFFPHM4

Panel Cutout Requirements for CFFPHM4

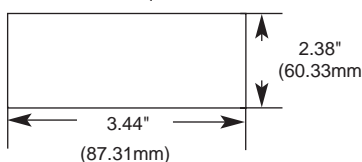


Maximum Panel Thickness: .09" (2.29mm)



CFFPEBSL4

Panel Cutout Requirements for CFFPEBSL4



Maximum Panel Thickness: .05" (1.27mm)

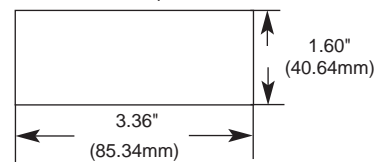
Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
4 Module Space Modular Furniture Snap-On Faceplate with Labels				
CFFPL4BL	Faceplate snaps into industry standard knockouts found on modular furniture. Accepts up to four <i>MINI-COM</i> Modules. Supplied with write-on label and label cover.	Black	1	10
4 Module Space Modular Furniture Snap-On Faceplate				
CFFP4BL	Faceplate snaps into industry standard knockouts found on modular furniture. Accepts up to four <i>MINI-COM</i> Modules.	Black	1	10
Snap-On Modular Furniture Faceplate Extender				
MFFPEBL	For use when depth inside modular furniture base is limited. Extends plate approximately 1/2" (12.7mm). Accepts CFFPL4 and CFFP4 modular faceplates.	Black	1	10
2 Module Space Angled Modular Furniture Snap-On Faceplate				
CFFPA2BL	Angled faceplate snaps into industry standard knockouts found on modular furniture. Accepts up to two <i>MINI-COM</i> Modules.	Black	1	10
3 Module Space Extended Furniture Snap-On Faceplate				
CFFPE3BL	Faceplate snaps into knockouts found on Knoll Morrison Furniture as well as industry standard knockouts. Accepts up to three <i>MINI-COM</i> Modules.	Black	1	10
4 Module Space Angled Modular Furniture Snap-On Faceplate with Labels				
CFFPLA4BL	Angled faceplate snaps into industry standard knockouts found on modular furniture. Accepts up to four <i>MINI-COM</i> Modules. Supplied with write-on label and label cover.	Black	1	10
4 Module Space Herman Miller® Furniture Snap-On Faceplate				
CFFPHM4BL	Faceplate snaps into knockouts found on Herman Miller furniture such as Action Office Series 2 and 3 and Ethospace Baseline. Accepts up to four <i>MINI-COM</i> Modules.	Black	1	10
4 Module Space Herman Miller Ethospace Beltline Furniture Snap-On Faceplate				
CFFPEBSL4BL	Sloped faceplate snaps into knockouts found on Herman Miller furniture such as Ethospace Beltline. Accepts up to four <i>MINI-COM</i> Modules. Supplied with write-on label and label cover and icon slots.	Black	1	10
3 Module Space Knoll Morrison Furniture Snap-On Faceplate				
CFFPKE3BL	Faceplate snaps into knockouts found on Knoll Morrison Furniture as well as industry standard knockouts. Accepts up to three <i>MINI-COM</i> Modules.	Black	1	10

‡ For other colors replace suffix BL (Black) with IG (International Gray) or IW (Off White). Can be clearly identified with labels, reference chart on [page C33](#).



CFFPKE3

Panel Cutout Requirements for CFFPKE3



Maximum Panel Thickness: .040" (1.02mm)

®Herman Miller™ is a trademark of Herman Miller, Inc., Zeeland, MI.

Component Labels for *MINI-COM*® Snap-On Modular Furniture Faceplates

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CFFPE3BL	C061X030FJJ	C061X030FJ6	LS7-25-1
CFFPKE3BL			
CFFP4BL	C125X030FJJ	C125X030FJ6	LS7-25-1
CFFPA2BL			
CFFPHM4BL			
CFFPL4BL	C261X030FJJ	C261X030FJ6	LS7-38-1**
CFFPLA4BL			
CFFBSPL4BL			
CFFPEBSL4BL			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).
 ** For non-adhesive labeling solution, do not remove liner from label.

Tombstone Floor Box Adapter Plate

- Allows *MINI-COM* Snap-on Modular Furniture Faceplates to be mounted to Walker** floor box
- Faceplate opening accepts *PANDUIT*® CFFPL4, CFFP4 and CFFPE3



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
MSP500W	Stainless steel adapter plate mounts to Walker floor box service fitting. (Walker part no. 500)	1	10

** Walker™ is a trademark of The Wiremold Co.

Round Faceplates

- Accept *MINI-COM*® Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Optional adhesive labels available



CRFPA2

CFFPR1

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CRFPA2BL	2 module space, 2" round in-floor outlet adapter.	Black	1	10
CFFPR1BL-X	1 module space 1.57" round furniture faceplate with screw.	Black	10	50

‡For other colors substitute suffix BL (Black) with EI (Electric Ivory) or IG (International Gray).

Component Labels for Round Faceplates

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER LS6 Portable Printer Label	PAN-ACEA LS7 Hand-Held Printer Label
CFFPR1BL-X	C061X030FJJ	C061X030FJ6	LS7-25-1
CRFPA2BL	C125X030FJJ	C125X030FJ6	LS7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

One Position *MINI-COM* Adapters

- Snap into plastic or metal opening
- Ideal for applications when single module needs to be mounted in a discrete location



CMNZA

CMAA1

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CMNZABL-X	Adapter snaps into 0.827" x 0.827" (21mm x 21mm) opening and accepts one <i>MINI-COM</i> Module. For snug fit, panel thickness shall be .046" to .056".	Black	10	50
CMAA1IW-X	Adapter snaps into 1" x 1" (25mm x 25mm) opening and accepts one <i>MINI-COM</i> Module. For snug fit, panel thickness shall be .06" to .08".	Off White	10	100

‡ For other colors substitute suffix BL (Black) or IW (Off White) with WH (White).

UL LISTED SP MINI-COM® Surface Mount Boxes

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Mount easily with supplied mounting screws, adhesive tape or optional magnet (CBM-X)
- Cable entry from side and rear knockouts and from opening in center of base
- Optional adhesive labels available



Part Number	Part Description	Color‡	Used with PAN-WAY® Raceway	Std. Pkg. Qty.	Std. Ctn. Qty.
CBX1IW-A	Surface mount box accepts one <i>MINI-COM</i> Module. Dimensions: .9"H x 1.01"W x 1.88"L (22.86mm x 25.65mm x 47.75mm)	Off White	LD3, LDP3, LDS3*	1	10
CBXJ2IW-A	Surface mount box accepts two <i>MINI-COM</i> Modules. Dimensions: .91"H x 1.77"W x 2.44"L (23.11mm x 44.96mm x 61.98mm)	Off White	LD3, LDP3, LD5, LDP5*	1	10
CBX2IW-A	Surface mount box accepts two <i>MINI-COM</i> Modules. 1.06"H x 1.95"W x 3.65"L (26.92mm x 49.53mm x 92.71mm)	Off White	LD3, LDP3, LD5, LDP5	1	10
CBXC4IW-A	Surface mount box accepts four <i>MINI-COM</i> Modules. Dimensions: .91"H x 3.20"W x 3.20"L (23mm x 80mm x 80mm)	Off White	LDP5	1	10
CBX4IW-A	Surface mount box accepts four <i>MINI-COM</i> Modules. Provides slots that accept cable ties for strain relief. Supplied with label holder/screw cover. Dimensions: 1.1"H x 2.9"W x 4.5"L (27.94mm x 73.66mm x 114.30mm)	Off White	LD3, LDP3, LD5, LDP5	1	10
CBXD6IW-A	Surface mount box accepts six <i>MINI-COM</i> Modules. Provides slots that accept cable ties for strain relief. Provides bend radius control. Supplied with label holder/screw cover. 1.04"H x 4.95"W x 3.79"L (26.42mm x 125.73mm x 96.27mm)	Off White	LD3, LD5, LD10	1	10
CBX12IW-A	Surface mount box accepts twelve <i>MINI-COM</i> Modules six on each side. Supplied with label holder/screw cover. 1.04"H x 5.71"W x 5.45"L (26.42mm x 145.03mm x 138.43mm)	Off White	LD5, LD10	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).
 *Raceway does not enter box.
 Surface mount boxes do not accept icons.

Component Labels for *MINI-COM* Surface Mount Boxes

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CBX1IW-A	C061X030FJJ	C061X030FJ6	LS7-25-1
CBXJ2IW-A	C125X030FJJ	C125X030FJ6	LS7-25-1
CBX2IW-A			
CBXC4IW-A	C252X030FJJ	C252X030FJ6	LS7-25-1
CBX4IW-A			
CBXD6IW-A	C379X030FJJ	C379X030FJ6	LS7-25-1
CBX12IW-A			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

System Overview
 Modules
 Ultimate ID System & Work Area
 Zone Cabling
 Patch Panels Copper Patch Cords & Punchdowns
 Fiber Connectors Enclosures & Patch Cords
 Racks & Cable Management
 Grounding & Bonding
 Fiber Routing
 Surface Raceway
 Labeling & Administration
 Cable Ties & Accessories
 Supplementary Technical Information
 Glossary & Index



MINI-COM® Shuttered Surface Mount Boxes

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), FJ® Fiber Optic Jack Modules and flush Fiber Optic Adapter Modules, which snap in and out for easy moves, adds and changes
- Clear shuttered doors for easy view of modules

- Cable entry from side, rear and base knockouts
- Mount easily with supplied mounting screws, adhesive tape or optional magnet (CSBM-X)
- Optional icons available
- Optional adhesive labels available



Part Number	Part Description	Color‡	Used with PAN-WAY® Raceway	Std. Pkg. Qty.	Std. Ctn. Qty.
CBXS1IW-A	Shuttered surface mount box accepts one <i>MINI-COM</i> Module. .62"H x 1.64"W x 2.47"L (15.75mm x 41.66mm x 62.73mm)	Off White	LD5/LDP5*	1	10
CBXS2IW-A	Shuttered surface mount box accepts two <i>MINI-COM</i> Modules. .94"H x 2.40"W x 2.5"L (23.88mm x 60.96mm x 63.50mm)	Off White	LD3/LDP5*	1	10
CBXS4IW-A	Shuttered surface mount box accepts four <i>MINI-COM</i> Modules. .94"H x 4.65"W x 3.28"L (23.88mm x 118.11mm x 83.31mm)	Off White	LD3/LDP3 LD5/LDP5	1	10
CBXS6IW-A	Shuttered surface mount box accepts six <i>MINI-COM</i> Modules. .94"H x 6.7"W x 3.28"L (23.88mm x 170.18mm x 83.31mm)	Off White	LD3/LDP3 LD5/LDP5	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).

*Raceway does not enter box.

Component Labels for *MINI-COM* Shuttered Surface Mount Boxes

Faceplate Part Number	Suggested Label Solutions for TIA/EIA-606-A Compliance		
	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CBXS1IW-A	C061X030FJJ	C061X030FJ6	LS7-25-1
CBXS2IW-A			
CBXS4IW-A			
CBXS6IW-A			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

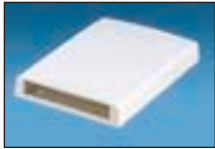
Supplementary Technical Information

Glossary & Index

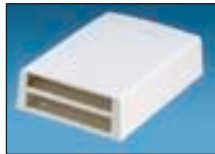


MINI-COM® Multi-Media/Fiber Surface Mount Boxes

- Accept *MINI-COM* Modules for STP and UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Mount easily with supplied mounting screws or adhesive tape
- Cable tie slots for improved cable management
- Tamper resistant screw for added security
- Unique built in fiber spool design secures cable in place and stores up to 78.8 feet (24 meters) of buffered fiber optic cable
- Cable entry from side and rear knockouts and from opening in bottom of base
- Optional adhesive labels available
- Includes label/label covers for easy identification



CBXF6



CBXF12

Part Number	Part Description	Color‡	Used with PAN-WAY® Raceway	Std. Pkg. Qty.	Std. Ctn. Qty.
CBXF6IW-A	Surface mount box accepts up to six <i>MINI-COM</i> Modules. Icons slots available for optional icons. .99"H x 4.71"W x 6.67"L (25mm x 120mm x 170mm)	Off White	LD3/LD5	1	10
CBXF12IW-A	Surface mount box accepts up to twelve <i>MINI-COM</i> Modules. 1.81"H x 4.71"W x 6.67"L (46mm x 120mm x 170mm)	Off White	LD3/LD5 /LD10	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).

Component Labels for *MINI-COM* Multi-Media/Fiber Surface Mount Boxes

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PAN-ACEA™ LS7 Hand-Held Printer Label
CBXF61W-A	C379X030FJJ	C379X030FJ6	LS7-25-1
CBXF12IW-A			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

★ NEW! I-Beam Bracket and Loop

- Durable steel I-beam bracket for use on existing I-Beams in industrial facilities
- Three sets of mounting holes on each side of bracket allows mounting at different depths, mounting clamps included
- Optional cable loop (CIBCL) available to manage cables



CIBB



CIBCL

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
CIBB	I-beam bracket.	1	—
CIBCL	Loop used to manage cable with I-beam bracket.	1	10

Optional Magnets

- Used to mount surface mount boxes to metal surfaces



CBM-X



CSBM-X

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
CBM-X	Magnet for non-shuttered version surface mount boxes.	10	100
CSBM-X	Magnet for shuttered version surface mount boxes.	10	100

Icons

- Provide port identification of data and voice installations
- Offered in a variety of colors for color coding requirements
- Snap into select *MINI-COM*® modules, surface mount boxes and faceplates



Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CIW-C	Plastic snap-in icon with phone image.	Off White	100	1000
CIDW-C	Plastic snap-in icon with data image.	Off White	100	1000

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray), BL (Black), OR (Orange), RD (Red), BU (Blue), GR (Green), YL (Yellow) or VL (Violet). Icons with lettering available, contact technical support. See page C15 for *ULTIMATE ID*™ Icons.

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index

Replacement Screw Cover

- For use in place of clear label covers for select surface mount boxes and single gang faceplates



Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CSCIW-X	Screw cover has a textured surface and blends with the faceplates and surface mount boxes for improved aesthetics.	Off White	10	100

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), WH (White), IG (International Gray) or BL (Black).
See [page C15](#) for *ULTIMATE ID*™ replacement screw covers.

Replacement Label/Label Cover Kits

- For use with Executive and Classic Series Faceplates with Labels, select *MINI-COM*® modular furniture faceplates and select *MINI-COM* modular patch panels



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Label/Label Cover Kit			
CSGLLC-L	Single gang <i>MINI-COM</i> label/label cover kit. Each kit contains 50 labels and 50 clear label covers.	50	250
Label/Label Cover Kits with Screws			
EFPK-X	Single gang label/label cover and two screws. Also works with select surface mount boxes.	10	50
EFPK102G-X	Double gang label/label cover and four screws.	10	50

See [page C15](#) for *ULTIMATE ID* replacement label covers.

Depth to Rear of Module Reference Guide

Part Number	TX Style Modules		Shielded TX Style Modules		Fiber with Boot		Lead Frame Modules		Shielded Lead Frame Modules	
	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
MINI-COM® Classic Series Faceplates with Label and Label Cover										
CFPL2**, CFPL3**, CFPL4**, CFPL6**	1.16	29.50	1.43	36.30	1.89	48.00	1.11	28.20	1.29	32.80
MINI-COM Classic Series Dedicated Sloped Faceplates										
CFPHS2**, CFPSL2**, CFPHSL4**, CFPSL4**, CFPSL6**	.56	14.10	.56	17.50	.92	23.40	.53	13.50	.62	15.70
MINI-COM Classic Series Vertical Faceplates										
CFP1**, CFP2**, CFP4**	1.17	29.70	1.44	36.60	1.90	48.30	1.12	30.50	1.30	33.20
MINI-COM Classic Series Horizontal Faceplates										
CFPH2**, CFP4**	1.17	29.70	1.44	36.60	1.90	48.30	1.12	30.50	1.30	33.20
MINI-COM Classic Series Faceplate Kits										
CFPS4**	.56	14.10	.56	17.50	.92	23.40	.53	13.50	.62	15.70
CFPF12**-2G	1.17	29.70	1.44	36.60	1.90	48.30	1.12	30.50	1.30	33.20
MINI-COM Executive Series Faceplates										
CFPE1**, CFPE2**, CFPE4**, CFPE6**, CFPE10**-2G	.92	23.40	1.19	30.20	1.65	41.90	.87	22.10	1.05	26.70
MINI-COM Executive Series Faceplate Kit										
CFPSE4**	.66	16.80	.79	20.00	1.02	25.90	0.63	16.00	.72	1.83
MINI-COM Industrial Faceplates										
CFPWR4**, CFPTR4**	1.34	34.04	1.61	40.89	2.07	52.58	1.29	32.77	1.47	37.34
MINI-COM Faceplate Frames for Sloped, Flat and Blank Module Inserts										
CB**-2G										
Flat	1.17	29.70	1.44	36.60	1.90	48.30	1.12	28.40	1.30	33.20
Sloped	.56	14.10	.69	17.50	.92	23.40	.53	13.50	.62	15.70
Recessed	1.36	34.50	1.49	37.80	1.72	43.70	1.33	33.80	1.42	36.10
30 degree insert	1.79	45.47	1.90	48.26	2.15	54.61	1.77	44.96	1.86	47.24
CBE**-2G										
Flat	.92	23.40	1.19	30.20	1.65	41.90	.87	22.10	1.05	26.70
Sloped	.66	16.80	.79	20.10	1.02	25.90	.63	16.00	.72	18.30
Recessed	1.46	37.10	1.59	40.40	1.82	46.20	1.43	36.30	1.52	38.60
30 degree insert	1.54	39.12	1.65	41.91	1.90	48.26	1.52	38.61	1.61	40.89
MINI-COM 106 Duplex Module Frames										
CF1062**	1.17	29.70	1.44	36.60	1.90	48.30	1.12	28.40	1.30	28.40
CF1064**	1.19	30.20	1.46	37.10	1.92	48.80	1.14	28.90	1.32	28.90
Classic Series Faceplates for Power or Communication Applications										
CP106**, CP106**-2G, CPG**, CPG**-2G	1.17	29.70	1.44	25.60	1.90	48.30	1.12	28.40	1.30	28.40
Executive Series Faceplates										
ECPG**, ECPG**-2G	.90	22.90	1.17	29.70	1.63	41.40	.85	21.60	1.03	26.20
Stainless Steel Faceplates										
WPS-20	1.17	21.70	1.44	35.60	1.90	48.30	1.12	28.40	1.30	28.40
WPS-202	1.17	21.70	1.44	35.60	1.90	48.30	1.12	28.40	1.30	28.40
CFP2S	1.19	30.20	1.46	37.10	1.97	48.80	1.14	28.90	1.32	28.90
CFP4S	1.19	30.20	1.46	37.10	1.97	48.80	1.14	28.90	1.32	28.90
CFP6S	1.19	30.20	1.46	37.10	1.97	48.80	1.14	28.90	1.32	28.90
CFP4S-2G	1.19	30.20	1.46	37.10	1.97	48.80	1.14	28.90	1.32	28.90
CFP8S-2G	1.19	30.20	1.46	37.10	1.97	48.80	1.14	28.90	1.32	28.90
CFP10S-2G	1.19	30.20	1.46	37.10	1.97	48.80	1.14	28.90	1.32	28.90
In-Wall Box Adapter										
MIWBA**	Subtract .22" or 5.6mm from depth to rear of module modular furniture faceplate measurement									
MINI-COM Snap-On Modular Furniture Faceplates										
CFFFL4**	1.01	25.70	1.28	32.50	1.74	44.20	.96	24.40	1.14	28.90
CFFFP4**	1.01	25.70	1.28	32.50	1.74	44.20	.96	24.40	1.14	28.90
CFFFPA2**	.63	15.90	.76	19.30	.99	25.10	.60	15.20	.69	17.30
MFFPE**	Subtract .50" or 12.7mm from depth to rear of module modular furniture faceplate measurement									
CFFFPHM4**	1.01	25.70	1.28	32.50	1.74	44.20	.96	24.40	1.14	28.90
CFFFPEBSL4**	.49	12.40	0.76	16.30	1.22	31.00	.44	11.20	.62	15.70
CFFFPSL4**	.44	11.20	0.57	14.50	.86	20.30	.41	10.40	.50	12.70
2" Round Faceplate										
CRFFPA2**	1.42	36.10	1.69	42.90	2.15	54.60	1.37	34.80	1.55	39.40
CRFFPR1**-X	1.43	36.30	1.70	43.20	2.16	54.90	1.38	35.10	1.56	39.60
MINI-COM ULTIMATE ID™ Executive Series Faceplates:										
UICFPSE2**	1.16	29.50	1.43	36.30	1.89	48.00	1.11	28.20	1.29	32.80
UICFPSE4**	1.16	29.50	1.43	36.30	1.89	48.00	1.11	28.20	1.29	32.80
UICFPSE6**	1.16	29.50	1.43	36.30	1.89	48.00	1.11	28.20	1.29	32.80
UICFPHS2**	1.16	29.50	1.43	36.30	1.89	48.00	1.11	28.20	1.29	32.80
UICFPHS4**	1.03	26.12	1.30	32.92	1.76	44.62	.98	24.82	1.16	29.42
MINI-COM ULTIMATE ID Tamper Resistant Faceplate										
UICFPRTR4										
Flat	1.43	36.32	1.70	43.18	2.16	54.86	1.38	35.05	1.56	39.62
Sloped	.82	20.83	.95	24.13	1.18	29.97	.79	20.07	.88	22.35
Recessed	1.62	41.15	1.75	44.45	1.98	50.29	1.59	40.39	1.68	42.67
30 degree insert	1.67	42.42	1.81	45.97	2.06	52.32	1.68	47.67	1.77	44.96
MINI-COM ULTIMATE ID Classic Series Faceplates										
UICFP2**, UICFP4**, UICFP6**, UICFPH2**, UICFPH4**	1.16	29.50	1.43	36.30	1.89	48.00	1.11	28.20	1.29	32.80
MINI-COM ULTIMATE ID Modular Furniture Faceplate										
UICFFP4BL	.79	19.98	1.06	26.79	1.52	38.49	.74	18.69	.92	23.19
Keystone Phone Plate with Keystone Module										
	Inches	mm								
KWP5E and KWP6P	1.00	25.40								

System Overview
Modules
Ultimate ID System & Work Area
Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
Racks & Cable Management
Grounding & Bonding
Fiber Routing
Surface Raceway
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Cable Ties & Accessories
Supplementary Technical Information
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PANZONE™ ZONE CABLING SOLUTIONS

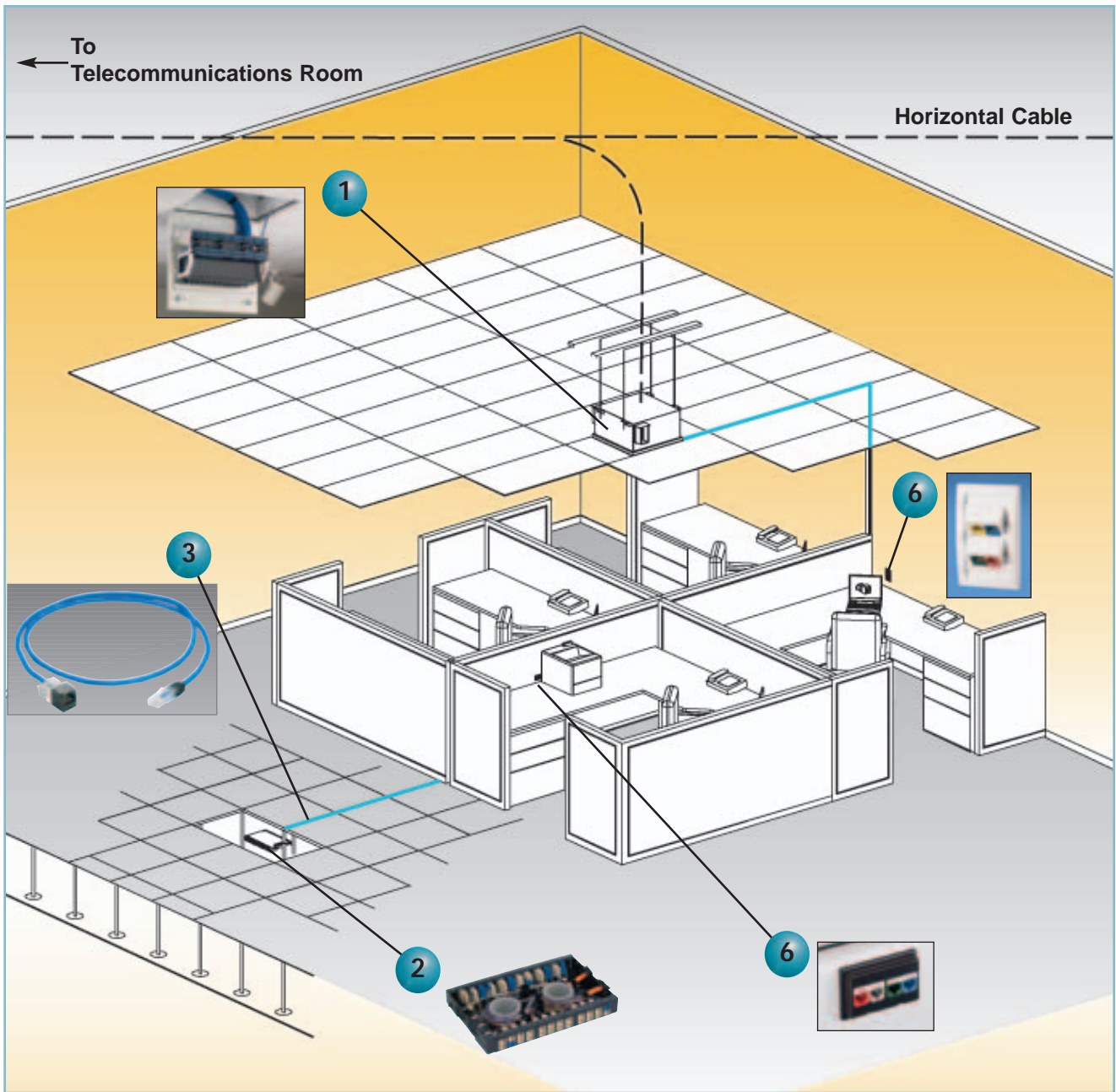
PANDUIT® provides a complete line of Zone Cabling products for workspace environments, including open office architecture and industrial applications. Each zone cabling product serves as a high capacity main cable distribution point for a particular zone, feeding workstation outlets with short cable runs for voice, data and video connections.



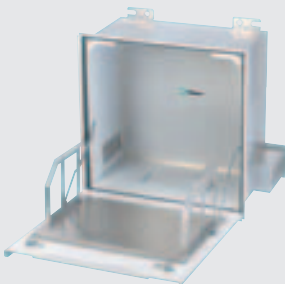
- Provide flexibility to reconfigure offices to meet frequently changing organizational requirements
- Provide the ability to make moves, adds and changes quickly and easily
- Reduce network downtime when changes are required

Active and Passive Zone Cabling provides the potential to reduce long term maintenance costs by facilitating easy moves, adds and changes. Active Zone Cabling, where network electronics are deployed in a zone, can solve communications room congestion problems and provide the optimum hardware solution by extending the backbone. PANDUIT Zone Cabling products accommodate multi-media solutions and can be used in floor, ceiling and wall mount applications.

Zone Cabling Roadmap



1 **PANZONE™ In-Ceiling Zone Cabling Boxes**
(page D5)

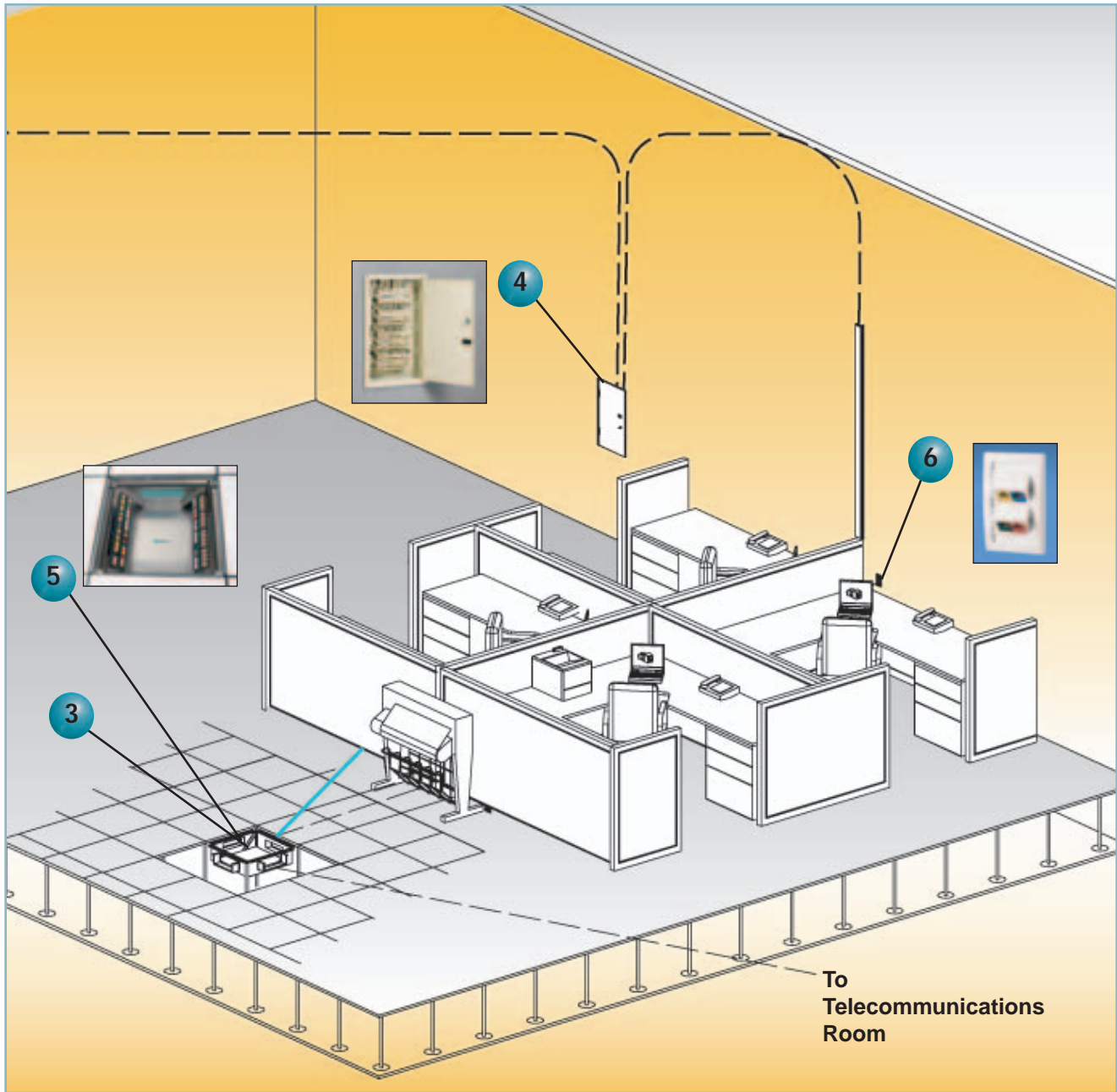


2 **Consolidation Point Enclosures**
(page D4)



3 **PANZONE Cable Assemblies**
(page D6)





1

PANZONE™
Enclosure & Doors
(page D6)



2

PANZONE In-floor
Zone Cabling Boxes
(page D5)



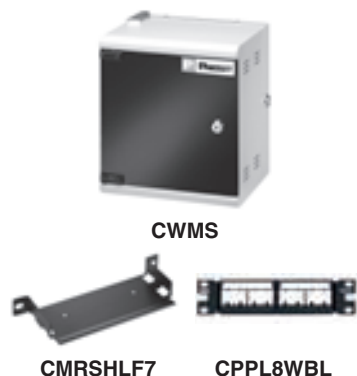
3

MINI-COM® Faceplates
(pages C21 - C22, C30)
& Surface Mount Boxes
(pages C32 - C34)



Mini Wall Mount Enclosure and Accessories

- Provide top, bottom and rear cable access
- Can be used as a MuTOA or Consolidation Point
- Support up to 40 *MINI-COM*® Modules



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
CWMS	Mini Wall Mount Enclosure - two bay construction allows for easy installation and maintenance. Lock on rear and front door for added security. Ideal for the small office installation. Dimensions: 10.69"H x 9.25"W x 7.94"D (271.53mm x 234.95mm x 201.68mm)	1	—
CMRSHLF7	Mini Wall Mount Shelf supports mini hubs or switches for network connections. Mounting accessories included. Dimensions: .95"H x 7.94"W x 2.99"D (24.13mm x 201.68mm x 75.95mm)	1	10

Punchdown Consolidation Point Enclosure

- Includes *TAK-TY*® Hook & Loop Cable Ties, grommets and a choice of punchdown bases
- Follows TIA/EIA-568-B standard
- Mounts to wall above and below ceiling
- UL2043 approved for use in air-handling spaces



Part Number	Part Description	Std. Pkg. Qty.
WMCPEPBL	Fully assembled aluminum enclosure, which includes 110 pair <i>PAN-PUNCH</i> ™ base and <i>TAK-TY</i> Hook & Loop Cable Ties. Dimensions: 3.44"H x 9.47"W x 13.22"L (86.36mm x 240.54mm x 335.79mm)	1
WMCPEBL	Aluminum enclosure with <i>TAK-TY</i> Hook & Loop Cable Ties. Dimensions: 3.44"H x 9.47"W x 13.22"L (86.36mm x 240.54mm x 335.79mm)	1

Consolidation Point Boxes and Fiber Conversion Kit

- UL2043 approved for use in air-handling spaces
- Supports *MINI-COM* Modules
- Supplied with cable management accessories
- Suitable for wall mount and under floor applications
- Optional fiber conversion kit available for use in both boxes



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
CUFMB24BL	24 Port Aluminum Under Floor Consolidation Point Box includes pre-printed numbered labels with writable surface on back when pre-numbered labels are not applicable. Dimensions: 1.69"H x 10.85" W x 10.67"L (42.92mm x 275.59mm x 271.01mm)	1	—
CUFB48BL	48 Port Under Floor Consolidation Point Box made of 16 gauge rugged steel for long term durability. Dimensions: 1.63"H x 10.00" W x 14.88"L (41.40mm x 254.0mm x 377.95mm)	1	—
CUFF-KIT	Optional fiber conversion kit to be used with CUFB48BL and CUFMB24BL. Kit includes: 4 <i>PANDUIT PAN-TY</i> ® Cable Ties, 4 wire saddles, 2 adhesive fiber spools, 2 support brackets to hold fiber cable, 1 grounding lug, 1 laser warning label, 1 fiber warning label and 2 rubber grommets.	1	10



PANZONE™ In-floor Zone Cabling Boxes

- Accept all flat *MINI-COM*® Patch Panels
- UL2043 approved for use in air-handling spaces
- Work with standard 24" x 24" raised floor panels
- Meet NEC standards
- Plenum rated foam kit and mounting bracket included



CIFZC11

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
CIFZC4	Fully assembled In-floor Zone Cabling Box which requires 6" minimum access floor. Accepts up to 4 RU of 19" standard patch panels. Dimensions: 24"L x 24"W x 4"D (609.60mm x 609.60mm x 101.60mm)	4	1
CIFZC8	Fully assembled In-floor Zone Cabling Box which requires 8" minimum access floor. Accepts up to 8 RU of 19" standard patch panels. Dimensions: 24"L x 24"W x 6"D (609.60mm x 609.60mm x 152.40mm)	8	1
CIFZC11	Fully assembled In-floor Zone Cabling Box which requires 14" minimum access floor. Accepts up to 11 RU of 19" standard patch panels. Dimensions: 24"L x 24"W x 12"D (609.60mm x 609.60mm x 304.80mm)	11	1

[^] One rack space = 1.75" (44.45mm)



PANZONE In-ceiling Zone Cabling Box

- UL2043 approved for use in air-handling spaces
- Meets NEC standards
- Plenum rated foam kit included
- Optional bracket (CICZCBRKT) allows zone cabling box to accept all *MINI-COM* patch panels



CICZC2X2



CICZCBRKT

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
CICZC2X2	Fully assembled In-ceiling Zone Cabling Box. Accepts up to six 100 pair punchdown bases. With optional brackets (CICZCBRKT) this box also accepts up to 9 RU of 19" standard patch panels. Mounts in 2x2, 2x4, and 2x6 ceiling panels. Dimensions: 24"L x 24"W x 12"D (609.60mm x 609.60mm x 304.80mm)	—	1	—
CICZCBRKT	In-ceiling zone cabling bracket designed to accept up to 9 RU of 19" standard patch panels and mounts inside an In-ceiling zone cabling box (CICZC2X2), sold separately.	9	1	10

[^] One rack space = 1.75" (44.45mm)

PANZONE Active In-ceiling Zone Cabling Box

- Designed to accept up to 3 RU of active electronics as deep as 15.5" and up to 6 RU of 19" standard passive connectivity
- AC power ready (receptacle not included)
- UL2043 approved for use in air-handling spaces
- Meets NEC standards
- 25 pound door weight capacity
- Includes doorplate, equipment mounting bracket, plenum rated foam kit and 9 CFM fan (fan provides in excess of 100 air changes per hour)



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
CICZC2X2A	Fully assembled In-ceiling Zone Cabling Box. Mounts in 2x2, 2x4 and 2x6 ceiling panels. Dimensions: 23.50"L x 23.50"W x 12.13"D (596.90mm x 596.90mm x 308.10mm)	9	1

[^] One rack space = 1.75" (44.45mm)

PANZONE™ Enclosures

- Can be directly mounted to a wall, recessed into a wall or used in under floor applications
- Include grommet edging, labels and *TAK-TY*® Hook & Loop Cable Ties
- Accommodate up to four 100 pair punchdown bases or optional patch panel bracket (PZBPPB) can be used to accommodate up to 2 RU of standard 19" patch panels
- Conduit knockouts of 1 3/4 - 2" are available on top and bottom. Side conduit knockouts of 1 1/2" are available on the sides
- Option of flat cover or hinged lockable door (each sold separately)



PZB4 with PZB4-HC

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
PANZONE Enclosure			
PZB4	PANZONE Enclosure can be mounted directly to wall, recessed into a wall or used in under floor applications. Hinged door or flat cover sold separately. Dimensions: 25"H x 14.5"W x 4.65"D (635.00mm x 368.30mm x 118.11mm)	1	—
PZB4-HC	Hinged door to be used with PANZONE Enclosure (PZB4) when mounting to a wall or under floor. Reversible door can hinge from either side and includes lock with tab release.	1	—
PZB4-FC	Flat cover to be used with PANZONE Enclosure (PZB4) when mounting to wall or under floor. Cover includes four screw slots and screws.	1	—
Optional PANZONE Bracket			
PZBPPB	PanZONE Patch Panel Bracket accommodates up to 2RU of standard 19" patch panels. Includes one pair of brackets.	1	10

PANZONE Cable Assemblies

- PANZONE Category 6 Solid UTP Cable Assemblies for use in Zone Cabling applications
- Available in plug to jack module and plug to plug configurations
- Available plenum or non-plenum cable
- T568B wired



UPBU



UJPBU

Part Number	Part Description	Length		Cable Color	Std. Pkg. Qty.
		Ft.	M		
Plug to Plug Cable Assemblies					
Plenum					
UPPBU20	Plenum Category 6 UTP Solid Cable with <i>TX6</i> ™ PLUS Modular Plug on each end.	20	6.1	Blue	1
UPPBU50		50	15.2	Blue	1
UPPBU100		100	30.5	Blue	1
Non-Plenum					
UPBU20	Non-Plenum Category 6 UTP Solid Cable with <i>TX6</i> PLUS Modular Plug on each end.	20	6.1	Blue	1
UPBU50		50	15.2	Blue	1
UPBU40M		131.2	40	Blue	1
UPBU100		100	30.5	Blue	1
Plug to Jack Module Cable Assemblies					
Plenum					
UJPBU20BL	Plenum Category 6 UTP Solid Cable with <i>TX6</i> PLUS Modular Plug on one end and a black <i>MINI-COM</i> ™ <i>TX6</i> PLUS Jack Module on the other.	20	6.1	Blue	1
UJPBU30BL		30	9.1	Blue	1
UJPBU40BL		40	12.2	Blue	1
UJPBU50BL		50	15.2	Blue	1
Non-Plenum					
UJBU10BL	Non-Plenum Category 6 UTP Solid Cable with <i>TX6</i> PLUS Modular Plug on one end and a black <i>MINI-COM</i> ™ <i>TX6</i> PLUS Jack Module on the other.	10	3.0	Blue	1
UJBU15BL		15	4.6	Blue	1
UJBU20BL		20	6.1	Blue	1
UJBU40BL		40	12.2	Blue	1
UJBU10MBL		32.8	10	Blue	1
UJBU20MBL		65.6	20	Blue	1

PATCH PANELS, COPPER PATCH CORDS & PUNCHDOWNS

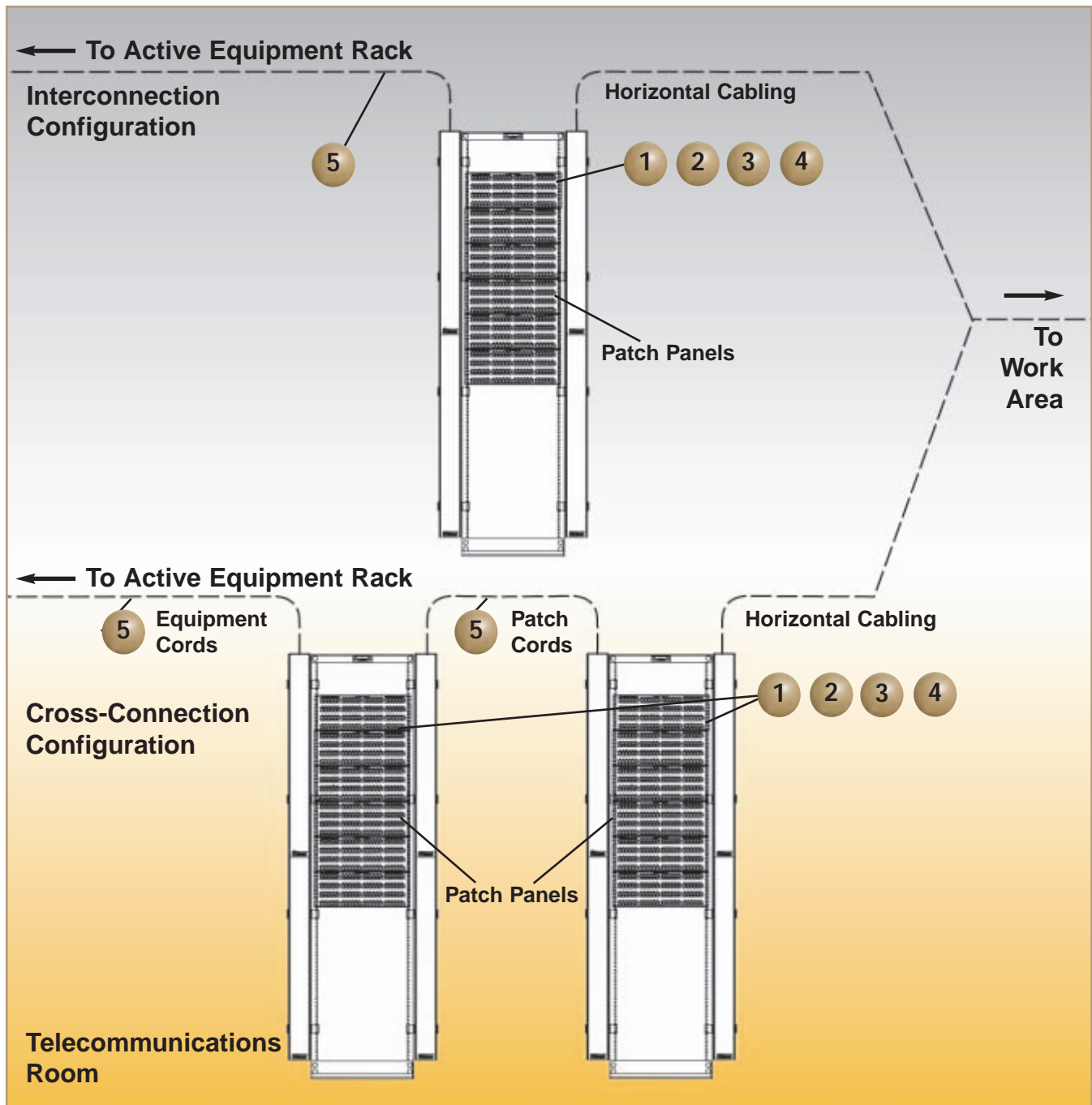
The *PANDUIT*® Network Connectivity Group offers solutions for all twisted pair copper cabling applications. Systems are designed to exceed the latest industry standards, providing assurance of network reliability. The *PANDUIT* solution will support emerging technologies, including Voice over IP and Gigabit Ethernet.



- Modular system eases installation and moves, adds and changes
- High density conserves valuable rack space
- Backwards compatibility support existing infrastructure
- Products support worldwide applications
- Continual investment in research & development

The *TX6™ PLUS* Copper Connectivity System includes the *MINI-COM® TX6 PLUS* Modules, *DP6™ PLUS* Patch Panels, *TX6 PLUS* Category 6 Patch Cords, *GP6™ PLUS* Punchdown System and *TX6 PLUS* Modular Plugs. *PANDUIT* also offers solutions for reliable Category 5e performance with the *MINI-COM TX5e™* Jack Modules, *DP5e™* Patch Panels, Category 5e Patch Cords, *PAN-PUNCH™* Punchdown System and *PAN-PLUG®* Modular Plugs. *PANDUIT* solutions are designed with the flexibility to support your growing and changing network requirements.

Copper Connectivity System



Complete Solutions for both Category 5e and Category 6

1

MINI-COM[®] Jack Modules
(pages B2 - B3)



2

MINI-COM Modular Patch Panels
(pages E4 - E8)



3

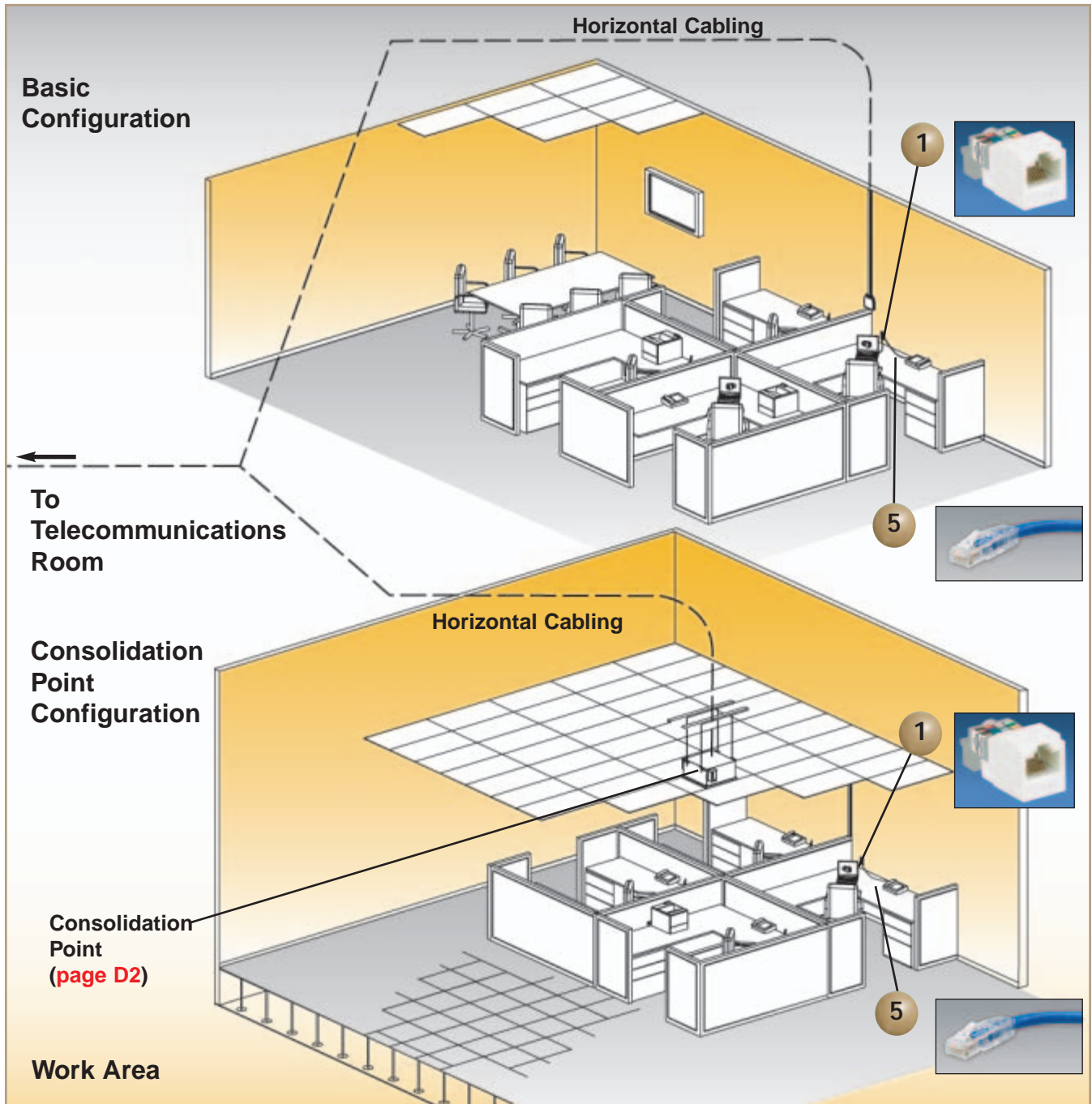
Punchdown Patch Panels
(pages E9 - E10)



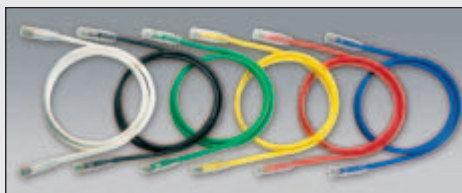
4

Punchdown Rack Mount Panels
(pages E18, E23 - E24)





5 Patch Cords (pages E14 - E15)



UL LISTED **SP** **MINI-COM**® Modular Faceplate Patch Panels

- Allow front access to installed modules for easy moves, adds and changes
- Accept *MINI-COM* Modules for UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves adds and changes
- Label versions available for easy port identification; replacement label/label covers available
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
MINI-COM Modular Patch Panels with Labels				
CPPL24WBL	24 port patch panel with labels, supplied with 6 CFFPL4 type snap-in faceplates.	1	1	10
CPPL48WBL	48 port patch panel with labels, supplied with 12 CFFPL4 type snap-in faceplates.	2	1	10

MINI-COM Modular Patch Panels				
CPP24WBL	24 port patch panel supplied with 6 CFFP4 type snap-in faceplates.	1	1	10
CPP48WBL	48 port patch panel supplied with 12 CFFP4 type snap-in faceplates.	2	1	10

Replacement Labels for <i>MINI-COM</i> Modular Patch Panels				
C4PPLK*	Replacement label/label cover kit for <i>MINI-COM</i> Modular Patch Panels with Label/Label Covers (CPPL24WRBL, CPPL48WRBL, CPPL24WBL, CPPL48WBL) and <i>MINI-COM</i> Modular Furniture Faceplates (CFFPL4, CFPHSL4, CFFPEBSL4). Each kit contains 6 labels and 6 clear label covers per bag.	—	1	10

[^] One rack space = 1.75" (44.45mm)
M6 and #12-24 mounting screws included.
ULTIMATE ID™ Modular Patch Panels can be found on [page C8](#).
* The TIA/EIA-606-A Standard states that all labels shall be mechanically generated, write-on labels are not standard compliant.

Component Labels for *MINI-COM* Modular Faceplate Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Panel Part Number	Laser/Ink Jet Desktop Printer Label	<i>VIPER</i> ™ LS6 Portable Printer Label	<i>PANAČEA</i> ™ LS7 Hand-Held Printer Label
CPPL24WBL CPPL48WBL	C261X035Y1J	C261X035Y16	LS7-38-1‡
CPP24WBL CPP48WBL	C125X030FJJ	C125X030FJ6	LS7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).
‡For non-adhesive labeling solution, do not remove liner from label.

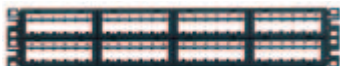


MINI-COM® M6 Style Modular Faceplate Patch Panels

- Allow front access to installed modules for easy moves, adds and changes
- Accept *MINI-COM* Modules for UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Include pre-printed numbered labels with writable surface on back when pre-numbered labels are not applicable
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket



CPPL24M6BL



CPPL48M6BL



C6PPLK1-24



C6PPLK25-48

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
MINI-COM Modular 6 Port Faceplate Patch Panel				
CPPL24M6BL	24 port patch panel, supplied with 4 CFPLM6BL snap-in faceplates.	1	1	10
CPPL48M6BL	48 port patch panel, supplied with 8 CFPLM6BL snap-in faceplates.	2	1	10

Replacement Labels for *MINI-COM* Modular Patch Panels

C6PPLK1-24*	Replacement labels for <i>MINI-COM</i> Modular 6 port Faceplate Patch Panels with Label/Label Covers (CPPL24M6BL). Labels are pre-printed 1-24 on one side and write on area on reverse side.	–	1	10
C6PPLK25-48*	Replacement labels for <i>MINI-COM</i> Modular 6 port Faceplate Patch Panels with Label/Label Covers (CPPL**M6BL). Labels are pre-printed 25-48 on one side and write on area on reverse side.	–	1	10

[^] One rack space = 1.75" (44.45mm)
M6 and #12-24 mounting screws included.

* The TIA/EIA-606-A Standard states that all labels shall be mechanically generated, write-on labels are not standard compliant.

Component Labels for *MINI-COM* M6 Style Modular Faceplate Patch Panels

Patch Panel Part Number	Suggested Label Solutions for TIA/EIA-606-A Compliance		
	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAČEA™ LS7 Hand-Held Printer Label
CPPL24M6BL CPPL48M6BL	C261X035Y1J	C261X035Y16	LS7-38-1‡

For complete labeling solutions and product information, reference charts on pages K5-K6.

‡For non-adhesive labeling solution, do not remove liner from label.



MINI-COM High Density Modular Faceplate Patch Panels

- Accept *MINI-COM* Modules for UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket



CPP48HDWBL



CPPL72WBL

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
CPP48HDWBL	48 port patch panel supplied with 6 eight snap-in faceplates. Ports are pre-printed 1 - 48 on patch panel.	1	1	10
CPPL72WBL	72 port patch panel with labels, supplied with 6 twelve port front removable snap-in faceplates. Pre-printed numbered labels include a writable surface on back when pre-numbered labels are not applicable.	2	1	10

[^] One rack space = 1.75" (44.45mm)
M6 and #12-24 mounting screws included.

Component Labels for *MINI-COM* High Density Modular Faceplate Patch Panels

Patch Panel Part Number	Suggested Label Solutions for TIA/EIA-6060A Compliance		
	Laser/Ink Jet Desktop Printer Label	VIPER LS6 Portable Printer Label	PANAČEA LS7 Hand-Held Printer Label
CPPL72WBL	C282X030Y1J	C282X030Y16	LS7-25-1‡

For complete labeling solutions and product information, reference charts on pages K5-K6.

‡For non-adhesive labeling solution do not remove liner from label.

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Racks & Cable Management
Grounding & Bonding
Fiber Routing
Surface Raceway
Labeling & Administration
Cable Ties & Accessories
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MINI-COM® Angled High Density Modular Patch Panel

- Quadruple Patch Panel Density
- Angled Patch Panel eliminates need for horizontal cable manager
- High Density Patch Panel provide 48 port in one rack space
- Result is 48 ports in one rack space vs. 24 ports in two rack spaces
- Allows port identification to be visible at all times

- Accept *MINI-COM* Modules for UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket
- Vertical cable managers in the *PANDUIT*® *PATCHRUNNER*™ Cable Management System utilize molded cable management fingers and integral bend radius control. These features coupled with Angled Patch Panels provide the ultimate high density cable management system.



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
CPQA48HDWBL	48 port angled patch panel supplied with 6 eight port snap-in faceplates. Ports are pre-printed 1 - 48 on patch panel.	1	1	10

[^] One rack space = 1.75" (44.45mm)
M6 and #12-24 mounting screws included.



MINI-COM Angled Modular Faceplate Patch Panels



- Angled design allows cable to flow to each side of the rack and eliminates the need for horizontal cable managers by enabling patch cords to be routed directly into vertical cable managers
- Allow labeling scheme and port identification to be visible at all times
- Allow front access to installed modules for easy moves, adds and changes

- Accept *MINI-COM* Modules for UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket
- Compatible with *PATCHRUNNER* Network Cable Management System



CPPLA24WBL



CPPLA48WBL



CPPLA72WBL

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
CPPLA24WBL	24 port angled patch panel with labels, supplied with 6 CFFPL4 type front removable snap-in faceplates.	1	1	10
CPPLA48WBL	48 port angled patch panel with labels, supplied with 12 CFFPL4 type front removable snap-in faceplates.	2	1	10
CPPLA72WBL	72 port angled patch panel with labels, supplied with 6 twelve port front removable snap-in faceplates. Pre-printed numbered labels include a writable surface on back when pre-numbered labels are not applicable.	2	1	10

[^] One rack space = 1.75" (44.45mm)
M6 and #12-24 mounting screws included.
ULTIMATE ID™ Angled Modular Patch Panels can be found on [page C8](#).

Component Labels for *MINI-COM* Angled Modular Faceplate Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Panel Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAĀEA™ LS7 Hand-Held Printer Label
CPPLA24WBL CPPLA48WBL	C261X035Y1J	C261X035Y16	LS7-38-1‡
CPPLA72WBL	C282X030Y1J	C282X030Y16	LS7-25-1‡

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).
‡For non-adhesive labeling solution do not remove liner from label.



MINI-COM® Recessed Modular Faceplate Patch Panels

- 3" recessed feature eliminates patch cord interference with cabinet doors and improves bend radius protection
- Release snap feature on faceplate allows front access to installed modules for easy adds, moves and changes
- Accept *MINI-COM* Modules for UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves, adds and changes
- Label patch panels available for easy port identification, replacement label/label covers available
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket



CPPL24WRBL



CPPL48WRBL

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
CPPL24WRBL	24 port recessed patch panel with labels, supplied with 6 CFFPL4 type front removable snap-in faceplates. Designed for use with racks and cabinets.	1	1	10
CPPL48WRBL	48 port recessed patch panel with labels, supplied with 12 CFFPL4 type front removable snap-in faceplates. Designed for use with racks and cabinets.	2	1	10

[^] One rack space = 1.75" (44.45mm)
M6 and #12-24 mounting screws included.

Component Labels for *MINI-COM* Recessed Modular Faceplate Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Panel Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAĀEA™ LS7 Hand-Held Printer Label
CPPL24WRBL CPPL48WRBL	C261X035Y1J	C261X035Y16	LS7-38-1‡

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).
‡For non-adhesive labeling solution do not remove liner from label.



MINI-COM 12 Port Modular Faceplate Patch Panels

- Accept *MINI-COM* Modules for UTP (including Category 5e and Category 6), Fiber Optic and Coax, which snap in and out for easy moves adds, and changes
- Mount directly onto wall
- Modular design for easy cabling revisions



CWPP12WBL



CPP12WBL



WB89D

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
CWPP12WBL	12 port patch panel supplied with 3 CFFP4 snap-in faceplates.	1	10
CPP12WBL	12 port patch panel supplied with 3 CFFP4 snap-in faceplates. Mounts to standard 89D bracket (WB89D).	1	10
WB89D	Wall mount bracket accepts 12 port snap-in faceplate patch panel. Can also be used to mount industry standard 66 blocks.	1	10

Component Labels for *MINI-COM* 12 Port Modular Faceplate Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Panel Part Number	Laser/Ink Jet Desktop Printer Label	VIPER Ls6 Portable Printer Label	PANAĀEA LS7 Hand-Held Printer Label
CWPP12WBL CPP12WBL	C125X030FJJ	C125X030FJ6	LS7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

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Fiber Routing

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MINI-COM® All Metal Shielded Modular Patch Panels

- Accept *MINI-COM* Modules for grounded shielded applications
- Provide write-on areas for port identification
- Not recommended in applications where moves, adds and changes are frequent
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket
- For non-shielded applications use *MINI-COM* Modular Patch Panels found on [pages E4-E7](#)



CP16BL



CP24BL



CP48BL



CP72BL



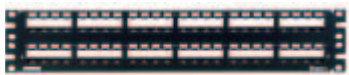
CP96BL



CP16WSBL



CP24WSBL



CP48WSBL



PGK

PGK96



PGKE

PGKE96

Part Number	Part Description	No. of Rack Spaces ^A	Std. Pkg. Qty.	Std. Ctn. Qty.
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MINI-COM All Metal Modular Patch Panels

CP16BL	16 port all metal modular patch panel.	1	1	10
CP24BL	24 port all metal modular patch panel.	1	1	10
CP48BL	48 port all metal modular patch panel.	2	1	10
CP72BL	72 port all metal modular patch panel. Rear cable management is required to prevent twisting.	2	1	10
CP96BL	96 port all metal modular patch panel.	4	1	10

MINI-COM All Metal Modular Patch Panels with Strain Relief Bar

CP16WSBL	16 port all metal modular patch panel with strain relief bar.	1	1	10
CP24WSBL	24 port all metal modular patch panel with strain relief bar.	1	1	10
CP48WSBL	48 port all metal modular patch panel with strain relief bar.	2	1	10

Grounding Kits for All Metal Modular Patch Panel

PGK	Attaches CP**BL panel to grounding bus for use with painted racks in shielded applications. Insulated #12 AWG stranded copper wire 8" long.	—	1	10
PGK96	Attaches CP**BL panel to grounding bus for use with painted racks in shielded applications. Insulated #12 AWG stranded copper wire 96" long. Lug installed on one end with additional lug included to cut and crimp to desired length.	—	1	10
PGKE	Attaches CP**WSBL panel to grounding bus when used with painted racks in shielded applications. Insulated #10 AWG stranded copper wire 8" long.	—	1	10
PGKE96	Attaches CP**WSBL panel to grounding bus for use with painted racks in shielded applications. Insulated #10 AWG stranded copper wire 96" long. Lug installed on one end with additional lug included to cut and crimp to desired length.	—	1	10

^A One rack space = 1.75" (44.45mm)
M6 and #12-24 mounting screws included.
Each patch panel includes the CPT tool to ease removal of *MINI-COM* Shielded Jack Modules.

Component Labels for *MINI-COM* All Metal Shielded Modular Patch Panels

Patch Panel Part Number	Suggested Labels Solutions for TIA/EIA-606-A Compliance		
	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAČEA™ LS7 Hand-Held Printer Label
CP16BL	C061X030FJJ	C061X030FJ6	LS7-25-1
CP24BL	C252X030FJJ	C252X030FJ6	LS7-25-1
CP48BL			
CP72BL			
CP96BL			
CP16WSBL			
CP24WSBL			
CP48WSBL			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

UL LISTED **SP** **DP6™ PLUS Patch Panels**

- Designed to meet TIA/EIA-568-B.2-1 Category 6 standard
- ETL tested and approved for Category 6 component compliance
- Printed circuit board design with protective cover
- Removable 6-port design with integral cable tie mounts for improved cable management
- High performance *GP6™ PLUS* punchdown style termination on back of panel
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket
- Write-on areas for port and panel identification available with optional covers (DPLT and DPLF)
- Can be clearly identified with labels and icons
- Universal label is color coded for T568A and T568B wiring schemes
- Terminate with GPST punchdown tool
- Terminate most 22-26 AWG solid or stranded IWC cable



DP12688TP



DP24688TP



DP48688TP



DP96688TP

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
DP12688TP	12 port patch panel 8 position, 8 wire <i>GP6 PLUS</i> style punchdown patch panel. Mounts to 89D bracket.	–	1	10
DP24688TP	24 port patch panel 8 position, 8 wire <i>GP6 PLUS</i> style punchdown patch panel.	1	1	10
DP48688TP	48 port patch panel 8 position, 8 wire <i>GP6 PLUS</i> style punchdown patch panel.	2	1	10
DP96688TP	96 port patch panel 8 position, 8 wire <i>GP6 PLUS</i> style punchdown patch panel.	4	1	10

[^] One rack space = 1.75" (44.45mm)
 M6 and #12-24 mounting screws included.
 Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.
 To ensure optimal performance, *PANDUIT*® recommends use with other *PANDUIT* Category 6 *PLUS* components.

Component Labels for DP6 PLUS Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Panel Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAČEA™ LS7 Hand-Held Printer Label
DP12688TP DP24688TP DP48688TP DP96688TP	C379X030FJJ	C379X030FJ6	LS7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

UL **SR** **DP5e™ Patch Panels**

- Exceed TIA/EIA-568-B.2 Category 5e standard
- Printed circuit board design with protective cover
- 110 style termination on back
- Removable 6 pack printed circuit board design with integral cable tie mounts for improved cable management
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket
- Write-on areas for port and panel identification available with optional covers (DPLT and DPLF)
- Can be clearly identified with labels and icons
- Universal label is color coded for T568A and T568B wiring schemes
- Use PDT110 for punchdown termination
- Terminate most 22-26 AWG solid or stranded IWC cable



DP125E88110U



DP245E88110U



DP485E88110U



DP965E88110U

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
DP125E88110U	12 port patch panel 8 position, 8 wire 110 style punchdown patch panel. Mounts to 89D bracket.	–	1	10
DP245E88110U	24 port patch panel 8 position, 8 wire 110 style punchdown patch panel.	1	1	10
DP485E88110U	48 port patch panel 8 position, 8 wire 110 style punchdown patch panel.	2	1	10
DP965E88110U	96 port patch panel 8 position, 8 wire 110 style punchdown patch panel.	4	1	10

[^] One rack space = 1.75" (44.45mm)
 M6 and #12-24 mounting screws included.
 Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.

Component Labels for DP5e Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Panel Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAĀEA™ LS7 Hand-Held Printer Label
DP125E88110U DP245E88110U DP485E88110U DP965E88110U	C379X030FJJ	C379X030FJ6	LSL7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).



DATA-PATCH™ 10/100 Base-T Patch Panels

- Consist of female telco 50 pin/25 pair connectors with VELCRO® fasteners wired per RJ21 industry standard for backward compatibility
- Each port is wired for 10/100 Base-T Ethernet utilizing pins 1, 2 and 3, 6
- Category 5 Powersum rated (in the channel) when used with PANDUIT® Category 5 25 pair cable assemblies

- Does not require use of a punchdown tool
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket
- Write-on areas for port and panel identification available with optional covers (DPLT and DPLF)
- Can be clearly identified with labels and icons



DP24584TV25



DP48584TV25

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
DP24584TV25	24 port patch panel.	1	1	10
DP48584TV25	48 port patch panel.	2	1	10

[^] One rack space = 1.75" (44.45mm)

M6 and #12-24 mounting screws included.

* VELCRO is a registered trademark of Velcro Industries B.V.

Component Labels for DATA-PATCH 10/100 Base-T Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Panel Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAČEA™ LS7 Hand-Held Printer Label
DP24584TV25 DP48584TV25	C379X030FJJ	C379X030FJ6	LS7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).



DATA-PATCH 10/100 Base-T Cable Assemblies

- Category 5 Powersum rated 25 pair Connectorized Cable Assemblies are enhanced performance patch cords featuring 25 pair Power Sum Category 5 solid cable with Category 5 25 pair plugs on either end

- System also includes Category 5 Powersum rated 25 pair Hydra with Category 5, 25 pair male connectors on one end and 12 PAN-PLUG® modular plugs terminated to the 10/100 Base-T Ethernet pins (1, 2, 3, and 6) on the other end
- All cords are 100% factory tested for wiring sequence and continuity



UTPCH8



UTPCH812PP25

Part Number	Part Description	Length (ft)	Std. Pkg. Qty.	Std. Ctn. Qty.
UTPCH8SR25	Straight, 110° right orientation.	8	1	10
UTPCH8SL25	Straight, 110° left orientation.	8	1	10
UTPCH8L25	Both 110° left orientation.	8	1	10
UTPCH8R25	Both 110° right orientation.	8	1	10
UTPCH8LR25	110° Left, 110° right.	8	1	10
UTPCH812PP25	12 PAN-PLUG Modular Plugs, straight.	8	1	10

Cable lengths of 6, 10, 15, and 20 ft. are also available. Replace 8 in part number with desired lengths. For example: UTPCH15SR25 is a 15 foot straight and right 25 pair Connectorized Cable Assembly.

Self-Laminating Labels for DATA-PATCH 10/100 Base-T Cable Assemblies

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Panel Part Number	Laser/Ink Jet Desktop Printer Label	VIPER LS6 Portable Printer Label	PANAČEA LS7 Hand-Held Printer Label
All UTPCH8*	S100X400FAJ	S100X400FA6	LS7-75NL-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

*All UTPCH8 parts on this page.

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- Fiber Connectors Enclosures & Patch Cords
- Racks & Cable Management
- Grounding & Bonding
- Fiber Routing
- Surface Raceway
- Labeling & Administration
- Cable Ties & Accessories
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Voice Patch Panel

- Consists of single female telco 50 pin/25 pair connector with VELCRO* fasteners wired for common active voice equipment
- 24 RJ45 ports with pins 4 and 5 active in each port
- VELCRO screw connector accommodates 180, 110 or 90 degree patch cord connectors on back of patch panel
- Does not require use of a punchdown tool
- Mounts to standard TIA/EIA 19" rack or 23" racks with optional extender bracket
- Write-on areas available for port identification
- Can be clearly identified with optional labels and icons



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
VP24382TV25	24 RJ45 port patch panel with pins 4 and 5 active in each port and one female RJ21 connector on back of panel.	1	1	10

[^] One rack space = 1.75" (44.45mm)
M6 and #12-24 mounting screws included.
* VELCRO is a registered trademark of Velcro Industries B.V.

Component Labels for Voice Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Panel Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAĀEA™ LS7 Hand-Held Printer Label
VP24382TV25	C379X030FJJ	C379X030FJ6	LS7-25-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).



Coupler Patch Panels

- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket
- Include write-on areas for panel identification
- Include pre-printed numbers for port identification



CPKC24BL



CP48BNCBL

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
CPKC24BL	24 port patch panel with 24 pre-installed RJ45 keystone couplers. Complies with Category 5e channel performance requirements.	1	1	10
CP48BNCBL	48 port patch panel with 48 pre-installed 75 ohm BNC couplers.	1	1	10

[^] One rack space = 1.75" (44.45mm)
M6 and #12-24 mounting screws included.

Strain Relief Bar for Patch Panels

- Mounts to standard TIA/EIA 19" rack
- Ideal for high density patch panels to support excess cable
- **TAK-TY**® Hook & Loop Cable Ties can be used for additional cable management



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
SRB19BL	Cable strain relief bar extends 2" off back of rack to support cables in punchdown or modular applications.	1	10

#12-24 mounting screws included.



TX6™ PLUS Modular Plug

- Patented tangle free latch prevents snags and provides easy release saving time on frequent moves, adds and changes
- Meets FCC Part 68 and exceeds IEC 60603-7 specifications
- Used in UTPSP series patch cords providing Category 6 performance



- Slender strain relief boot provides easy access in high density applications
- Integral pair manager optimizes performance and consistency by reducing untwist at plug
- Contacts plated with 50 microinches of gold
- Terminates 24 gauge stranded conductor with max. conductor insulation diameter of .040"

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
SP688-C	8 position, 8 wire modular plug featuring tangle free latch. MPT5-8 crimp tool required for termination.	100	1000

To ensure optimal performance, *PANDUIT*® recommends use with other *PANDUIT* Category 6 *PLUS* components.

PAN-PLUG® High Performance Modular Plugs

- Patented tangle free plug latch prevents snags and provides easy release saving time on frequent moves adds and changes
- Meets FCC Part 68 and exceeds IEC 60603-7 specifications
- Used in UTPCH series patch cords providing Category 5e performance



- Simplified termination due to a unique process which requires no loading bar. Guide ramp facilitates easy conductor insertion and termination.
- Contacts plated with 50 microinches of gold
- Terminates 24 gauge stranded or solid conductor with max. conductor insulation diameter of .040"

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
MP588-C	8 position, 8 wire modular plug featuring tangle free latch. MPT5-8 crimp tool required for termination.	100	1000

Modular Plug Termination Tools

- WPT-8 arranges all eight conductors in the proper sequence and provides proper gauge length for trimming conductors for MP588



WPT-8



MPT5-8

- MPT5-8 required for modular plug termination

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Wire Prep Tool			
WPT-8	Separates and holds conductors in position prior to insertion into modular plug for termination. For use with <i>PAN-PLUG</i> Modular Plug (MP588) only.	1	10
Modular Plug Installation Tools			
MPT5-8	Crimp tool for <i>TX6 PLUS</i> and <i>PAN-PLUG</i> Modular Plugs.	1	—
MPD5-8	Replacement crimp die.	1	—

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TX6™ PLUS Category 6 Patch Cords

- Exceeds TIA/EIA-568-B.2-1 Category 6 standard
- ETL tested and approved for Category 6 component compliance
- Plug performance in center of TIA/EIA component range, ensuring interoperability and optimal performance
- Constructed of Category 6 24 AWG UTP stranded cable and TX6 PLUS Modular Plugs for superior performance
- Plug contacts plated with 50 microinches of gold for improved durability
- Patented tangle free latch prevents snags and provides easy release, saving time on frequent moves, adds and changes
- Slender strain relief boot provides easy access in high density applications
- Integral pair manager optimizes performance and consistency by reducing untwist at plug
- Labels on patch cords provide identification of performance level, length and quality control number
- Each patch cord is 100% performance tested
- Offered in a variety of lengths and colors to meet individual length and color coding requirements



Part Number	Part Description	Cable Color‡	Length (ft)*	Std. Pkg. Qty.	Std. Ctn. Qty.
UTPSP3	Category 6 patch cord with TX6 PLUS Modular Plug on both ends.	Off White	3	1	10
UTPSP5		Off White	5	1	10
UTPSP7		Off White	7	1	10
UTPSP10		Off White	10	1	10
UTPSP14		Off White	14	1	10
UTPSP20		Off White	20	1	10

‡ For additional standard cable colors available from stock, add suffix BL (Black), BU (Blue), GR (Green), RD (Red) or YL (Yellow) to end of part number. For other standard non-stocked cable colors VL (Violet) or OR (Orange), typical shipping lead time is 20 working days from receipt of order and minimum order quantity is 10 (1 carton each) for these colors.

* For non-stocked lengths 3 to 20 feet (increments of 1 foot) change the length designation in the part number to the desired length. Typical shipping lead time is 20 working days from receipt of order and minimum order quantity is 10 (1 carton each) for these lengths.

For shielded patch cords, contact customer service.

To ensure optimal performance, PANDUIT® recommends use with other PANDUIT Category 6 PLUS components.

Self-Laminating Labels for TX6 PLUS Patch Cords

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAĀEA™ LS7 Hand-Held Printer Label
All UTPSP*	S100X125FAJ	S100X125FA6	LS7-75NL-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

*All UTPSP parts on this page.

Self-Laminating Cable Marker Holders for Large Cables or Cable Bundles

- Quick and easy TIA/606A compliance for a wide range of cables and cable bundles
- Can be applied as a wrap-around marker (parallel to cable) or flag marker (45° or 90° to cable)
- Attach with *PANDUIT*® Intermediate or Standard Cross-Section Cable Ties
- Can also be used with *PANDUIT* 0.33" and 0.50" width *TAK-TY*® Hook and Loop Cable Ties in the 90° flag application



SLCT-WH



SLCT-OR

Part Number	Part Description	Width		Height		Std. Pkg. Qty.*	Std. Ctn. Qty.
		In.	mm	In.	mm		
SLCT-WH	White, self-laminating cable marker holder, 25 tags/pkg	3.00	76.2	1.31	33.3	1	4
SLCT-OR	Orange, self-laminating cable marker holder, 25 tags/pkg	3.00	76.2	1.31	33.3	1	4
SLCT-YL	Yellow, self-laminating cable marker holder, 25 tags/pkg	3.00	76.2	1.31	33.3	1	4
SLCT-IG	Gray, self-laminating cable marker holder, 25 tags/pkg	3.00	76.2	1.31	33.3	1	4

*Order number of packages required, in multiples of Standard Package Quantity.

Component Labels for Self-Laminating Cable Marker Holders for Large Cables or Cable Bundles

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Cable Marker Holder Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAĀEA™ LS7 Hand-Held Printer Label
All SLCT*	C200X100FJJ	C200X100FJ6	LS7-75NL-1

For complete labeling solutions and product information, reference charts on pages K5-K6.

*All SLCT parts on this page.

Category 5e Patch Cords

- Exceeds TIA/EIA-568-B.2 Category 5e standard
- Patented tangle free latch prevents snags and provides easy release, saving time on frequent moves, adds and changes
- Exceeds FCC Part 68 and IEC 60603-7 specifications
- Constructed of Category 5e 24 AWG UTP stranded cable and *PAN-PLUG*® Modular Plug for superior performance
- Plug contacts plated with 50 microinches of gold for improved durability



Part Number	Part Description	Length (ft)*	Cable Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
UTPCH3	Category 5e UTP stranded patch cord with <i>PAN-PLUG</i> modular plugs on both ends.	3	Off White	1	10
UTPCH5		5	Off White	1	10
UTPCH7		7	Off White	1	10
UTPCH10		10	Off White	1	10
UTPCH14		14	Off White	1	10
UTPCH20		20	Off White	1	10

‡ For additional standard cable colors available from stock, add suffix BL (Black), BU (Blue), GR (Green), RD (Red) or YL (Yellow) to end of part number. For other standard non-stocked cable colors VL (Violet) or OR (Orange), typical shipping lead time is 20 working days from receipt of order and minimum order quantity is 10 (1 carton each) for these colors.

* For non-stocked lengths 3 to 20 feet change the length designation in the part number to the desired length. Typical shipping lead time is 20 working days from receipt of order and minimum order quantity is 10 (1 carton each) for these lengths.

For Category 5 shielded patch cords, contact customer service.

Self-Laminating Labels for Category 5e Patch Cords

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER LS6 Portable Printer Label	PANAĀEA LS7 Hand-Held Printer Label
All UTPCH*	S100X125FJJ	S100X125FJ6	LS7-75NL-1

For complete labeling solutions and product information, reference charts on pages K5-K6.

*All UTPCH parts on this page.

GP6™ PLUS Punchdown System



- Exceeds TIA/EIA-568-B.2-1 Category 6 standard
- Increases wiring capacity by 44% over standard 110 systems
- Accommodates round and crescent cable
- Uses industry standard 110 contacts and assembly methods



GP6 PLUS Category 6 High Density Kits

- Exceed TIA/EIA-568-B.2-1 Category 6 standard
- Ideal for use in cross connects and consolidation point applications
- Provides pre-packaged components necessary for termination
- Kit includes required quantity of bases and 4-pair connecting blocks, label holders and labels
- Highly visible color-coded wiring slots ease wiring



GPKBW144



GPKBW432

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
GPKBW144	144-pair (36 port) high density field termination kit with legs.	1	10
GPKBW432	432-pair (108 port) high density field termination kit with legs.	1	10

Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.

Termination tool available on page E21.

To ensure optimal performance, PANDUIT® recommends use with other PANDUIT Category 6 PLUS components.

Component Labels for GP6 PLUS Systems

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Punchdown System Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
GPKBW144	C788X050Y1J	C788X050Y16	LS7-50-1‡
GPKBW432			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

‡For non-adhesive labeling solution, do not remove liner from label.



GP6™ PLUS Category 6 Standard Density Kits

- Exceed TIA/EIA-568-B.2-1 Category 6 standard
- Ideal for use in cross connects and consolidation point applications
- Provides pre-packaged components necessary for termination

- Kit includes required quantity of bases and 4-pair connecting blocks, label holders and labels
- Highly visible color-coded wiring slots ease wiring



GPKBW24



GPKBW72

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
GPKBW24	96-pair (24 port) base field termination kit with legs.	1	10
GPKBW72	288-pair (72 port) base field termination kit with legs.	1	10

Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.

Termination tool available on [page E21](#).

To ensure optimal performance, **PANDUIT®** recommends use with other **PANDUIT** Category 6 **PLUS** components. For labeling solutions, reference chart on [page E16](#).

GP6 PLUS Category 6 High Density Rack Mount Panel Kits

- Exceed TIA/EIA-568-B.2-1 Category 6 standard
- Ideal for use in cross connects and consolidation point applications
- Provide pre-packaged components necessary for termination

- Includes required quantity of bases and 4-pair connecting blocks, label holders and labels
- Highly visible color-coded wiring slots ease wiring
- Mount to standard TIA/EIA 19" racks



GPB2884R2



GPB2884R4WJ

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
GPB2884R2	Two 144-pair (36 port) bases premounted to a panel with 4-pair connector kit included.	2	1	10
GPB2884R4WJ	Two 144-pair (36 port) bases and jumper troughs premounted to a panel with 4-pair connector kit included.	4	1	10

[^] One rack space = 1.75" (44.45mm)

M6 and #12-24 mounting screws included.

Termination tool available on [page E21](#).

Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.

To ensure optimal performance, **PANDUIT** recommends use with other **PANDUIT** Category 6 **PLUS** components. For labeling solutions, reference chart on [page E16](#).

UL LISTED **SP** **GP6™ PLUS Category 6 Standard Density Rack Mount Panel Kits**

- Exceed TIA/EIA-568-B.2-1 Category 6 standard
- Ideal for use in cross connects and consolidation point applications
- Provide pre-packaged components necessary for termination
- Includes required quantity of bases and 4-pair connecting blocks, label holders and labels
- Highly visible color-coded wiring slots ease wiring
- Mount to standard TIA/EIA 19" racks



GPB484R2



GPB484R4WJ

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
GPB484R2	Two 96-pair (24 port) bases premounted to panel with 4-pair connector kit included.	2	1	10
GPB484R4WJ	Two 96-pair (24 port) bases and jumper troughs premounted to panel with 4-pair connector kit included.	4	1	10

[^] One rack space = 1.75" (44.45mm)
 M6 and #12-24 mounting screws included.
 Termination tool available on [page E21](#).
 Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.
 To ensure optimal performance, **PANDUIT**® recommends use with other **PANDUIT** Category 6 **PLUS** components.
 For labeling solutions, reference chart on [page E16](#).

UL LISTED **SP** **GP6 PLUS Category 6 Connecting Blocks**

- Exceed TIA/EIA-568-B.2-1 Category 6 standard
- Available in 4 or 5 pair connection blocks
- Highly visible color-coded wiring slots ease wiring
- Can be terminated with single or multiple position punchdown tools
- Can be utilized with discrete wires or **GP6 PLUS** patch cord connector
- Constructed of UL 94V-0 high impact polycarbonate material
- Patented single piece robust construction
- Optional four pair retaining clip (GPCR4) available which provides added conductor retention and minimizes errors during moves, adds and changes



GPCB4



GPCB5

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
4-Pair Connecting Block			
GPCB4-X	4-pair connecting block.	10	1000
GPCB4-C	4-pair connecting block.	100	1000
5-Pair Connecting Block			
GPCB5-X	5-pair connecting block.	10	1000
GPCB5-C	5-pair connection block.	100	1000

Termination tool available on [page E21](#).
 Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.
 To ensure optimal performance, **PANDUIT** recommends use with other **PANDUIT** Category 6 **PLUS** components.



GP6™ PLUS Category 6 High Density Bases

- Exceed TIA/EIA-568-B.2-1 Category 6 standard
- Ideal for use in cross connects and consolidation point applications
- Highly visible color-coded wiring slots eases wiring
- Sturdy one piece design
- Available with or without mounting legs for a variety of mounting options
- Multiple mounting holes available



Part Number	Part Description	Std. Pkg. Qty.	Std. Pkg. Qty.
144-Pair (36 Port) Base			
GPB144-X	Positions and holds UTP wire for termination with Category 6 connecting blocks.	10	10
144-Pair (36 Port) Base - With Legs			
GPBW144-X	Positions and holds UTP wire for termination with Category 6 connecting blocks, includes mounting legs.	10	10
432-Pair (108 Port) Base			
GPB432-X	Positions and holds UTP wire for termination with Category 6 connecting blocks.	10	10
432-Pair (108 Port) Base - With Legs			
GPBW432-X	Positions and holds UTP wire for termination with Category 6 connecting blocks, includes mounting legs.	10	10

Termination tool available on [page E21](#).
 For rack mount applications see [page E23](#), [E24](#).
 Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.
 To ensure optimal performance, *PANDUIT*® recommends use with other *PANDUIT* Category 6 *PLUS* components.



GP6 PLUS Category 6 Standard Density Bases

- Exceed TIA/EIA-568-B.2-1 Category 6 standard
- Ideal for use in cross connects and consolidation point applications
- Highly visible color-coded wiring slots ease wiring
- Sturdy one piece design
- Available with or without mounting legs for a variety of mounting options
- Multiple mounting holes available



Part Number	Part Description	Std. Pkg. Qty.
96-Pair (24 Port) Base		
GPB24-X	Positions and holds UTP wire for termination with Category 6 connecting blocks.	10
96-Pair (24 Port) Base - With Legs		
GPBW24-X	Positions and holds UTP wire for termination with Category 6 connecting blocks, includes mounting legs.	10
288-Pair (72 Port) Base		
GPB72-X	Positions and holds UTP wire for termination with Category 6 connecting blocks.	10
288-Pair (72 Port) Base - With Legs		
GPBW72-X	Positions and holds UTP wire for termination with Category 6 connecting blocks, includes mounting legs.	10

Termination tool available on [page E21](#).
 For rack mount applications see [page E23](#), [E24](#).
 Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.
 To ensure optimal performance, *PANDUIT* recommends use with other *PANDUIT* Category 6 *PLUS* components.

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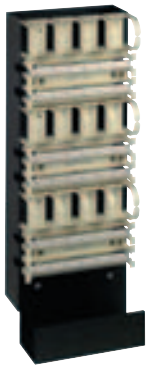
Cable Ties & Accessories

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GP6™ PLUS Standard Density Tower Kit

- Ideal for use in cross connects, consolidation point and wall mount applications
- Tower provides vertical feeder cable management
- Supplied with tower, bases, 4-pair connecting blocks, label and label holders



Part Number	Part Description	Std. Pkg. Qty.
GPKT724	288-pair (72 port) standard density GP6 PLUS Tower Kit.	1

Termination tool available on [page E21](#).
 Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.
 To ensure optimal performance, PANDUIT® recommends use with other PANDUIT Category 6 PLUS components. For labeling solutions, reference chart on [page E16](#).

Jumper Troughs

- Available with or without legs for a variety of mounting options
- Unique finger design maintains cable bend radius
- Provides optimum cable management when used with GP6 PLUS and PAN-PUNCH™ Bases



Part Number	Part Description	Std. Pkg. Qty.
P110JTW-X	Jumper trough with legs.	10
P110JT-X	Jumper trough.	10

GP6™ PLUS Termination Tools and Accessories

- Terminate wires on both cable and cross-connect sides of 110 connecting blocks
- Reversible blade provides option of terminating without cutting wire
- Five pair punchdown tool seats 4 or 5-pair connecting blocks



GPDTM



GPST

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
4-Pair Punchdown Tool			
GPDTM	Inserts and cuts off up to 4-pairs at a time, for use with GP6 PLUS system only.	1	10
4-Pair Replacement Head Assembly			
GPDTMH	Replacement head assembly for GP6 PLUS 4-pair Punchdown Tool.	1	10
4-Pair Replacement Blade			
GPDTMB	Replacement blade for GP6 PLUS 4-pair Punchdown Tool.	1	10
Single Wire Punchdown Tool			
GPST	Inserts and cuts off one wire at a time, for use with GP6 PLUS system only.	1	—
Single Wire Replacement Blade			
GPSTB	Replacement blade for GP6 PLUS Single Wire Punchdown Tool.	1	—



GP6 PLUS Patch Connectors

- Field terminable
- Cable clamp on cover facilitates easier wiring
- IDCs provide reliable, gas-tight connections
- Strain relief reduces stress on cable
- Contain two piece, snap together housing
- Polarized to prevent reverse installation to connector block
- Clear polycarbonate cover keeps conductors visible after termination
- Cover also provides proper wiring sequence



GPC5E1-X



GPC5E2-X

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
GPC5E1-X	Terminates 1 pair 24 AWG solid or stranded cable.	10	100
GPC5E2-X	Terminates 2 pair 24 AWG solid or stranded cable.	10	100

To ensure optimal performance, PANDUIT® recommends use with other PANDUIT Category 6 PLUS components.

UL LISTED SP PAN-PUNCH™ 110 Category 5e System Kits

- Exceed TIA/EIA-568-B.2 Category 5e standard
- Field terminable
- Ideal for use in cross connects and consolidation point applications
- Provide pre-packaged components necessary for termination
- Includes required quantity of bases and connecting blocks, label holders and labels
- Available in 100 or 300 pair bases with 3, 4, or 5-pair connecting blocks



100 Pair



300 Pair

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
100 Pair Termination Kits			
P110KB1004	Field terminated. Includes a base, 4-pair connector kit with five 4-pair connectors and one 5-pair connector per row of 25 pairs, two-label holders, and two white designation labels.	1	10
P110KB1005	Field terminated. Includes a base, 5-pair connector kit with five 5-pair connectors per row of 25 pairs, two label holders, and two white designation labels.	1	10
300 Pair Termination Kits			
P110KB3004	Field terminated. Includes a base, 4-pair connector kit with 5 four pair connectors and 1 five pair connector per row of 25 pairs, two label holders, and two white designation labels.	1	10
P110KB3005	Field terminated. Includes a base, 5-pair connector kit with 5 five pair connectors per row of 25 pairs, two label holders, and two white designation labels.	1	10

It is common practice to completely fill each 25-pair wire strip with connecting blocks. Each kit contains the adequate number of connecting blocks to do so. Example: P110KB1004 includes five 4-pair and one 5-pair connecting block per 25-pair wiring strip for a total of twenty 4-pair and four 5-pair connecting blocks as well as two label holders and two white designation labels.

Termination tool available on [page E28](#).

Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.

For labeling solutions, reference chart on [page E16](#).

Part Number	Component Quantity per PAN-PUNCH 110 Category 5e Kits						
	Bases		Connecting Blocks			Label Holders	Labels
	P110BW300	P110BW100	P110CB3	P110CB4	P110CB5	P110LH	DSL110
P110KB1004	—	1	—	20	4	2	2
P110KB1005	—	1	—	—	20	2	2
P110KB3004	1	—	—	60	12	6	6
P110KB3005	1	—	—	—	60	6	6

19" Punchdown Rack Mount Panels

- Accept punchdown bases for rack mount applications



P110B100R2B



P110B100R4B

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
P110B100R2B	Panel accepts up to 2 RU of punchdown bases.	2	1	10
P110B100R4B	Panel accepts up to 4 RU of punchdown bases.	4	1	10

[^] One rack space = 1.75" (44.45mm)
Includes mounting screws.

PAN-PUNCH Category 5e 19" Rack Mount Panels

- Exceed TIA/EIA-568-B.2 Category 5e standard
- Ideal for use in cross connects and consolidation point applications
- Mount to standard TIA/EIA 19" racks
- Exclusive deeper channel to facilitate TIA/EIA Category 5e cabling installations
- Ideal for use in cross connects and consolidation point applications



P110B100R2



P110B100R4WJ

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
P110B100R2	Two 100 pair bases premounted to panel.	2	1	10
P110B100R4WJ	Two 100 pair bases with jumper troughs premounted to panel.	4	1	10

[^] One rack space = 1.75" (44.45mm)
Includes mounting screws.
Termination tool available on [page E28](#).
For connecting blocks see [page E25](#).
For labeling solutions reference chart on [page E16](#).

PAN-PUNCH™ Category 5e 19" Rack Mount Panel Kits

- Exceed TIA/EIA-568-B.2 Category 5e standard
- Field terminable
- Ideal for use in cross connects and consolidation point applications
- Provide pre-packaged components necessary for termination
- Includes required quantity of bases and connecting blocks, label holders and labels
- Available with 4 or 5-pair connecting blocks



P110B1004R2



P110B1004R4WJ

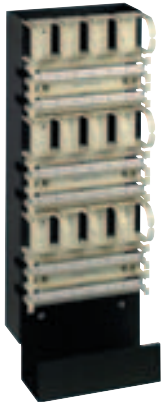
Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
Rack Mount Panel Kit with Bases and Connecting Blocks				
P110B1004R2	Two 100 pair bases premounted to panel. 4-pair connector kit included with five 4-pair connectors and one 5-pair connector per row of 25 pairs.	2	1	10
P110B1005R2	Two 100 pair bases premounted to panel. 5-pair connector kit included with five 5-pair connectors per row of 25 pairs.	2	1	10
Rack Mount Panel Kit with Bases, Connecting Blocks and Jumper Troughs				
P110B1004R4WJ	Two 100 pair bases and jumper troughs premounted to 19" rack mount panel. 4-pair connector kit included with five 4-pair connectors and one 5-pair connector per row of 25 pairs.	4	1	10
P110B1005R4WJ	Two 100 pair bases and jumper troughs premounted to 19" rack mount panel with 5-pair connector kit included with five 5-pair connectors per row of 25 pairs.	4	1	10

[^] One rack space = 1.75" (44.45mm)
Includes mounting screws.
Termination tool available on [page E28](#).
For labeling solutions reference chart on [page E16](#).

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UL LISTED **SP** **PAN-PUNCH™ 110 Category 5e Tower System**

- Provides a complete cross-connect system
- Designed for wall mount applications
- Available in 300 and 900 pair configurations with 3, 4, or 5-pair connecting blocks
- Supplied jumper troughs provide horizontal cable management
- Tower provides vertical feeder cable management



P110KT300

Part Number	Part Description	Std. Pkg. Qty.
PAN-PUNCH 300 Pair Tower Kits		
P110KT3004	Convenient packaging includes all of the components required to completely wire a 110 base.	1
P110KT3005	Convenient packaging includes all of the components required to completely wire a 110 base.	1
PAN-PUNCH 900 Pair Tower Kits		
P110KT9004	Convenient packaging includes all of the components required to completely wire a 110 base.	1
P110KT9005	Convenient packaging includes all of the components required to completely wire a 110 base.	1
PAN-PUNCH Towers		
P110T300	300 pair tower. Components sold separately.	1
P110T900	900 pair tower. Components sold separately.	1

Each tower system contains adequate connecting blocks to complete each 25-pair wiring strip.
 Example: P110KT3004 includes five 4-pair and one 5-pair connecting block per 25-pair wiring strip for a total of sixty 4-pair and twelve 5-pair connecting blocks.
 GP6™ PLUS system can be installed on individual towers, not recommended for use with GP6 PLUS high density bases.
 Termination tool available on [page E28](#).
 Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.
 For labeling solutions, reference chart on [page E16](#).

UL LISTED **SP** **Vertical Cable Managers for Tower Systems**

- Finger design allows for easy changes
- Can be mounted between towers
- Compatible with GP6 PLUS or 110 Tower Systems
- Designed for wall mount or 19" rack mount applications
- Facilitates vertical cable management
- Rugged all metal construction



P110VCM300



P110VCM



P110VCM900

Part Number	Part Description	Color	Std. Pkg. Qty.
Vertical Cable Manager For Use With 300 Pair Tower System			
P110VCM300	Mounts adjacent to 300 pair tower system.	Black	1
Vertical Cable Manager For Use With 900 Pair Tower System			
P110VCM900	Mounts adjacent to 900 pair tower system.	Black	1
Vertical Cable Manager For Use With Backboard Mounting			
P110VCM	Mounts to plywood backboard and adjacent to bases and jumper troughs. White metal backboard and large D-rings, designed for wall mount vertical or horizontal cable management.	White	1

UL LISTED SP 19" Rack Mount Bracket Kits

- Used to attach Tower Systems and Vertical Cable Managers to 19" racks

- Use two towers side by side or a tower and a vertical wire manager side by side
- Includes brackets and mounting screws

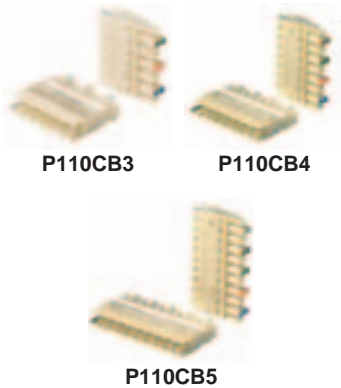


Part Number	Part Description	Std. Pkg. Qty.
P110TB300	Kit for 300-pair tower or vertical wire management.	1
P110TB900	Kit for 900-pair tower or vertical wire management.	1

UL LISTED SP PAN-PUNCH™ 110 Category 5e Connecting Blocks

- Exceeds TIA/EIA-568-B.2 Category 5e standard
- Available in 3, 4 or 5 pair connection blocks
- Dual IDC terminates UTP cable on 110 base and UTP cable or 110 patch cords for cross connecting
- Highly visible color-coded wiring slots ease wiring
- Can be used with single or multiple punchdown tools

- Can be utilized with discrete wires or *PAN-PUNCH* patch cord connector
- Constructed of UL 94V-0 high impact polycarbonate material
- Patented single piece robust construction



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
3-Pair 110 Connecting Blocks			
P110CB3-X	3-pair connecting block.	10	1000
P110CB3-C		100	1000
4-Pair 110 Connecting Blocks			
P110CB4-X	4-pair connecting block.	10	1000
P110CB4-C		100	1000
5-Pair 110 Connecting Blocks			
P110CB5-X	5-pair connecting block.	10	1000
P110CB5-C		100	1000

Termination tool available on [page E28](#).

Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated.

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index

UL LISTED SF PAN-PUNCH™ 110 Category 5e Bases

- Exclusive deeper channel to facilitate TIA/EIA Category 5e cabling installations
- Ideal for use in cross connects and consolidation point applications
- Available with or without legs for various mounting options
- Sturdy one piece design
- Highly visible color coded wiring strip

Part Number	Part Description	Std. Pkg. Qty.
100 Pair Base - With Legs		
P110BW100-X	Positions and holds UTP cable for termination with <i>PAN-PUNCH</i> 110 Connecting Blocks. Legs allow cables to be routed behind bases.	10
300 Pair Base - With Legs		
P110BW300-X	Positions and holds UTP cable for termination with <i>PAN-PUNCH</i> 110 Connecting Blocks. Legs allow cables to be routed behind bases.	10
100 Pair Base		
P110B100-X	Positions and holds UTP cable for termination with <i>PAN-PUNCH</i> 110 Connecting Blocks. For frame or rack mount wiring behind bases.	10
300 Pair Base		
P110B300-X	Positions and holds UTP cable for termination with <i>PAN-PUNCH</i> 110 Connecting Blocks. For frame or rack mount wiring behind bases.	10

Cable requirement: terminates most 22-26 AWG solid or stranded IWC wire with a .050" (1.27mm) max o.d., either PVC or plenum rated..

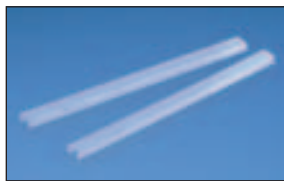
UL LISTED SF Jumper Troughs

- Available with or without legs for a variety of mounting options
- Unique finger design maintains cable bed radius
- Provides optimum cable management when used with *GP6™ PLUS* and *PAN-PUNCH* Bases



Part Number	Part Description	Std. Pkg. Qty.
P110JTW-X	Jumper trough with legs.	10
P110JT-X	Jumper trough.	10

110 Punchdown Designation Label Holder



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
P110LH	Label holder snaps into standard and high density 110 bases	6	60

Component Labels for 110 Punchdown Designation Label Holders

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Punchdown System Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
P110LH	C750X050Y1J	C750X050Y16	LS7-50-1‡

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).
 ‡For non-adhesive labeling solution, do not remove liner from label.

UL LISTED **SP** **GP6™ PLUS Patch Cord Assemblies**



GPPC4IG



GPPC4IG*A



GPPC4IG*B

Part Number	Part Description	Length (ft)	Std. Pkg. Qty.	Std. Ctn. Qty.
GPPC4IG3	One 4 pair <i>GP6 PLUS</i> Connector on each end.	3	1	10
GPPC4IG5		5	1	10
GPPC4IG7		7	1	10
GPPC4IG9		9	1	10
GPPC4IG14		14	1	10
GPPC4IG20		20	1	10
GPPC4IG3A		One 4 pair <i>GP6 PLUS</i> Connector wired to a RJ45 <i>PAN-PLUG</i> ® 568A Wiring.	3	1
GPPC4IG5A	5		1	10
GPPC4IG7A	7		1	10
GPPC4IG9A	9		1	10
GPPC4IG14A	14		1	10
GPPC4IG20A	20		1	10
GPPC4IG3B	One 4 pair <i>GP6 PLUS</i> Connector wired to a RJ45 <i>PAN-PLUG</i> 568B Wiring.		3	1
GPPC4IG5B		5	1	10
GPPC4IG7B		7	1	10
GPPC4IG9B		9	1	10
GPPC4IG14B		14	1	10
GPPC4IG20B		20	1	10

Self-Laminating Labels for *GP6 PLUS* Patch Cord Assemblies

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	<i>VIPER</i> ™ LS6 Portable Printer Label	<i>PANAĀEA</i> ™ LS7 Hand-Held Printer Label
All GPPC4IG*	S100X125FAJ	S100X125FA6	LS7-75NL-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

System Overview

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Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index

GIGA-PUNCH™ 1 and 2 Pair Patch Cord Assemblies

- Factory assembled patch cord assembly
- Available in a variety of lengths
- Ideal for use in cross connect applications



GPPC1IG



GPPC2IG

Part Number	Part Description	Length (ft)	Std. Pkg. Qty.	Std. Ctn. Qty.
GPPC1IG3	One 1 pair <i>GIGA-PUNCH</i> Connector on each end. Meets Category 5e performance requirements.	3	1	10
GPPC1IG5		5	1	10
GPPC1IG7		7	1	10
GPPC1IG9		9	1	10
GPPC1IG14		14	1	10
GPPC1IG20		20	1	10
GPPC2IG3	One 2 pair <i>GIGA-PUNCH</i> Connector on each end. Meets Category 5e performance requirements.	3	1	10
GPPC2IG5		5	1	10
GPPC2IG7		7	1	10
GPPC2IG9		9	1	10
GPPC2IG14		14	1	10
GPPC2IG20		20	1	10

Self-Laminating Labels for *GIGA-PUNCH* 1 and 2 Pair Patch Cord Assemblies

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANAČEA™ LS7 Hand-Held Printer Label
All GPPC*	S100X125FAJ	S100X125FA6	LS7-75NL-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

PAN-PUNCH™ Punchdown Tools and Accessories

- Terminate wires on both cable and cross-connect sides of 110 connecting blocks
- Reversible blade provides option of terminating without cutting wire
- Five pair punchdown tool seats 3, 4, or 5-pair connecting blocks onto 110 base



PDT110M

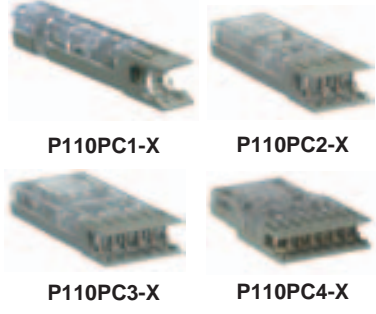


PDT110

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
5-Pair Punchdown Tool			
PDT110M	5-pair punchdown tool, can terminate up to 5 pairs at a time.	1	10
Replacement Blade			
PDH110M	Replacement head assembly for 5-pair punchdown tool.	1	10
Replacement Head Assembly			
PDB110M	Replacement blade for 5-pair punchdown tool.	1	10
Single Punchdown Tool			
PDT110	Punchdown tool and blade for 110 style IDCs.	1	—
Replacement Blade			
PDTH110	Replacement blade for single pair punchdown tool.	1	—

UL LISTED **SR** **PAN-PUNCH™ 110 Patch Connectors**

- Contains two piece, snap together housing
- Field terminable
- Cable clamp on cover provides easier wiring
- IDC's provide reliable gas-tight connections
- Strain relief reduces stress on cable
- Polarized to prevent reverse installation to connector block
- Clear polycarbonate cover keeps conductors visible after termination



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
P110PC1-X	Terminates 1 pair, 24 AWG solid or stranded cable.	10	100
P110PC2-X	Terminates 2 pairs, 24 AWG solid or stranded cable.	10	100
P110PC3-X	Terminates 3 pairs, 24 AWG solid or stranded cable.	10	100
P110PC4-X	Terminates 4 pairs, 24 AWG solid or stranded cable.	10	100

UL LISTED **SR** **PAN-PUNCH 110 Patch Cord Assemblies**

- Factory assembled patch cord assembly
- Ideal for use in cross connect applications
- Available in a variety of lengths



Part Number	Part Description	Length‡ (ft)	Std. Pkg. Qty.	Std. Ctn. Qty.
P110PC1IG2	1-pair 110 connector on each end. Meets Category 3 performance requirements.	2	1	10
P110PC1IG4		4	1	10
P110PC1IG5		5	1	10
P110PC1IG6		6	1	10
P110PC2IG2	2-pair 110 connector on each end. Meets Category 5 performance requirements.	2	1	10
P110PC2IG4		4	1	10
P110PC2IG5		5	1	10
P110PC2IG6		6	1	10
P110PC4IG2	4-pair 110 connector on each end. Meets Category 5e performance requirements.	2	1	10
P110PC4IG4		4	1	10
P110PC4IG5		5	1	10
P110PC4IG6		6	1	10
P110PC4IG2A	4-pair 110 connector to PAN-PLUG® RJ45 modular plug - T568A wired. Meets Category 5e performance requirements.	2	1	10
P110PC4IG4A		4	1	10
P110PC4IG5A		5	1	10
P110PC4IG6A		6	1	10
P110PC4IG2B	4-pair 110 connector to PAN-PLUG RJ45 modular plug - T568B wired. Meets Category 5e performance requirements.	2	1	10
P110PC4IG4B		4	1	10
P110PC4IG5B		5	1	10
P110PC4IG6B		6	1	10

‡ For other lengths replace last number in part number with desired foot length 7, 8, 9, 12, 15 and 19.

Self-Laminating Labels for GIGA-PUNCH™ 1 and 2 Pair Patch Cord Assemblies

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
P110PC1&2	S100X125FAJ	S100X125FA6	LS7-75NL-1
P110PC4	S100X150FAJ	S100X150FAJ	LS7-75NL-1

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

FIBER CONNECTORS, ENCLOSURES & PATCH CORDS

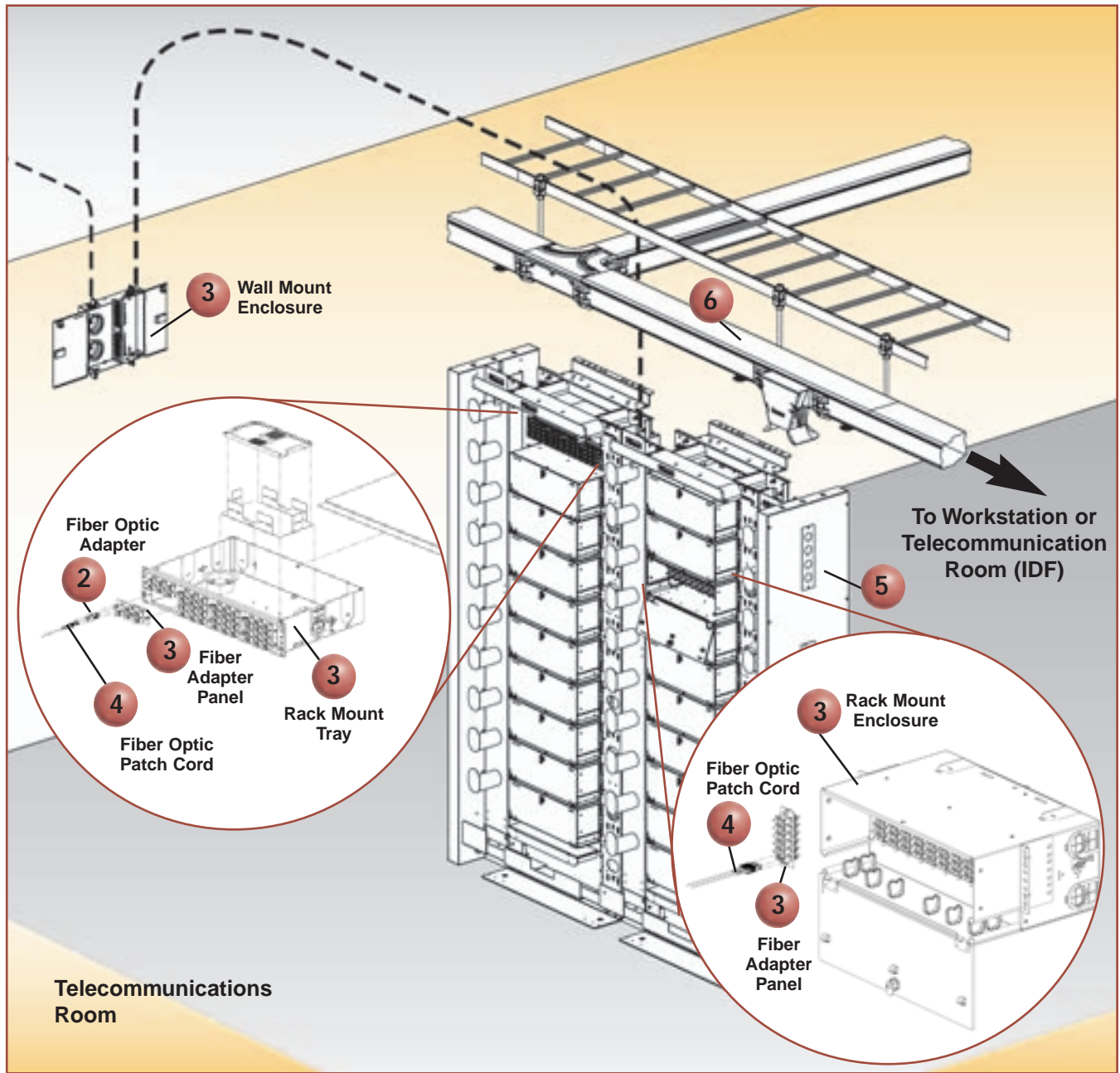
PANDUIT® offers a full line of innovative fiber connectivity products that meet the most demanding industry requirements for data and telecommunication applications. *PANDUIT* fiber systems provide modular solutions for applications including LANs, Public Networks, Storage Area Networks, Fiber-to-the-desk and 10Gb/s Ethernet. End-to-end high performance solutions are available for central offices, data centers, telecommunication rooms, workstations, and entrance facilities.



- Adaptable system design provides flexibility for current and future network growth
- Modular high-density design maximizes valuable space and simplifies system updates
- Compatible with *MINI-COM*® products for complete modularity
- Fast, easy field installation of system components at the lowest installed cost
- Creates a complete fiber management system that effectively manages fiber optic connectivity
- Complete line of fiber connectivity to fit your specific network strategy

The *PANDUIT* fiber system includes a diverse selection of connectors, adapter modules, adapter panels, enclosures, patch cords, cable assemblies and accessories for both singlemode and multimode applications. These fiber system components provide the greatest value by assuring reliability and providing the foundation for future network growth. Achieve total fiber integration now and for the future by installing *PANDUIT* fiber end-to-end system solutions.

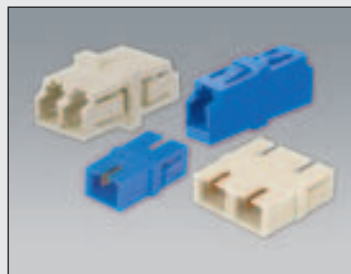
Fiber Optic Connectors, Enclosures and Patch Cords Roadmap



1 Fiber Optic Connectors, FJ[®] Jack Modules and Plugs SC, ST*, LC, FJ (pages F4-F12)



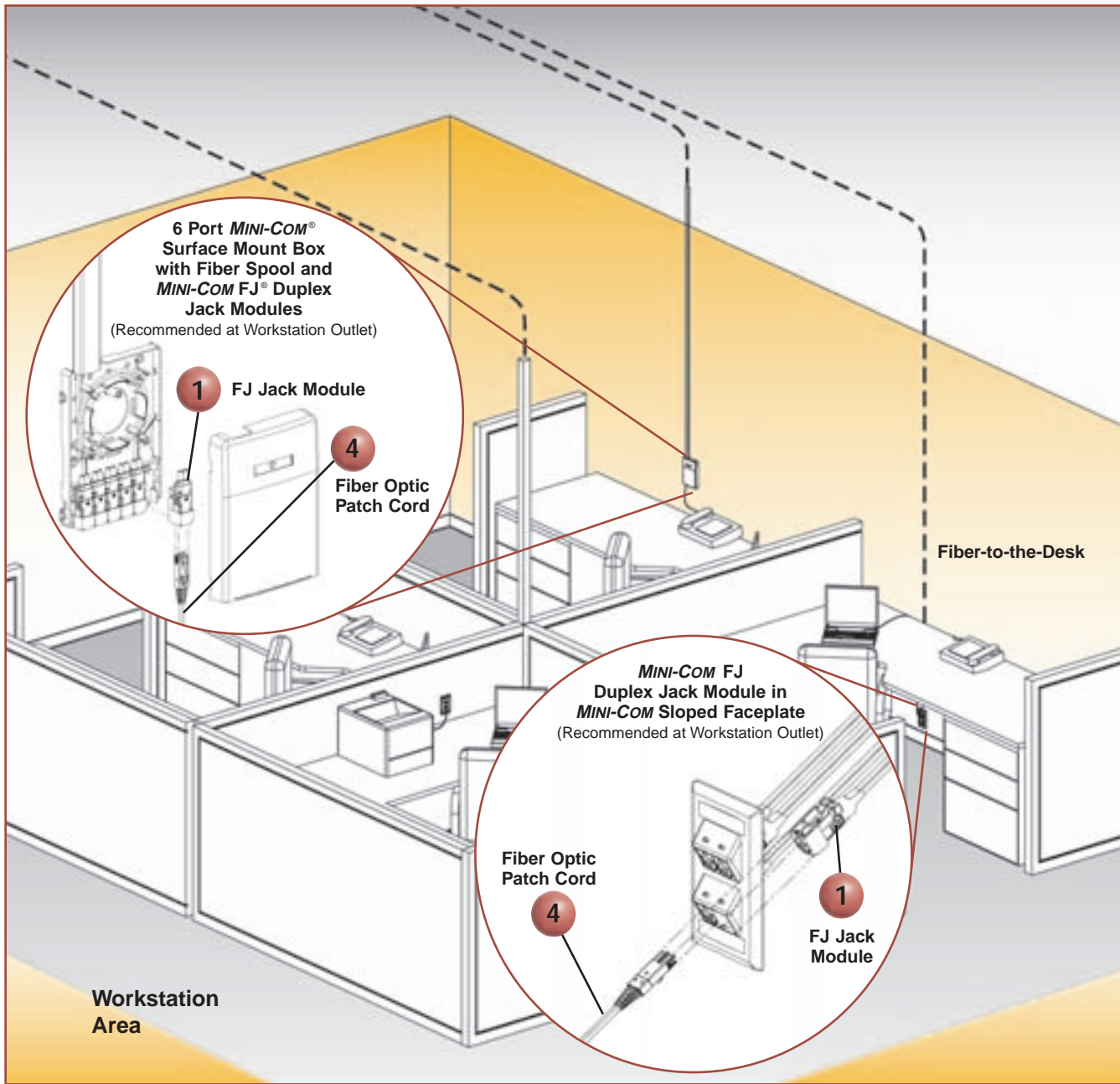
2 Fiber Optic Adapters SC, LC (pages F12-F13)



3 Fiber Optic Enclosures, Trays, Fiber Adapter Panels and Pre-terminated Cassettes (pages F16-F24)



* ST is a registered trademark of Lucent Technologies



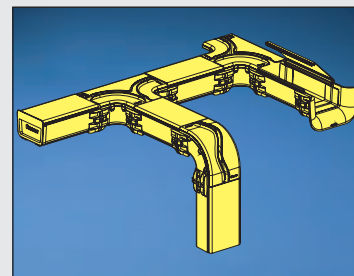
4 Fiber Optic Patch Cords and Cable Assemblies (pages F25-F33)



5 Racks and Cable Management (pages G1-G38)

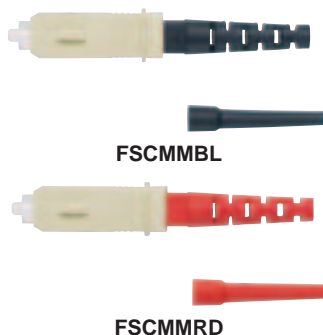


6 Fiber Routing (pages I1-I47)



SC *OPTI-CRIMP*™ Fiber Optic Connectors - Pre-polished Crimp

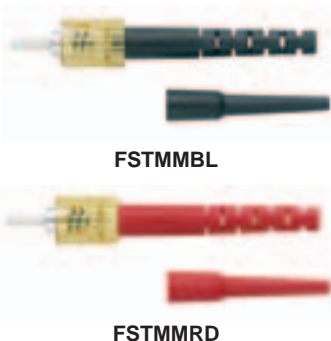
- FOCIS-3 TIA/EIA-568-B.3 compliant connector
- Insertion loss: .3dB typical (62.5/125µm), .35dB typical (50/125µm)
- Return loss: >20dB
- Pre-polished mechanical crimp termination eliminates polishing and adhesive, reducing installation time by 50% over field polish SC connectors
- Non-optical disconnect maintains data transmission under tensile loads (jacketed cable only)
- Mechanical crimp cable retention consistently provides higher than industry standard cable retention
- SC *OPTI-CRIMP* connectors and crimp tool allow visual verification of optimal continuity during crimp termination with the FVFLKIT Visual Fault Locator Kit (included in FJMVKIT Termination Kit)
- Each connector includes transparent inner housing assembly with pre-polished fiber stub, outer housing, crimp sleeve, one boot for 900µm tight-buffered fiber, one boot for 3mm jacketed cable and one dust cap
- Fiber cable type: tight-buffered only
- Fiber cable size: 3.0mm jacketed cable or 900µm tight-buffered fiber
- Ferrule type: 2.5mm zirconia ceramic (highest durability for repeated matings)
- Use *OPTI-CRIMP* Termination Kit (FJMVKIT) on [page F14](#)



Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FSCMMBL	SC <i>OPTI-CRIMP</i> 62.5/125µm multimode fiber optic connector.	Black	1	10
FSCMMRD		Red	1	10
FSCMM50BL	SC <i>OPTI-CRIMP</i> 50/125µm multimode fiber optic connector.	Black	1	10
FSCMM50RD		Red	1	10

ST* *OPTI-CRIMP* Fiber Optic Connectors - Pre-polished Crimp

- FOCIS-2 TIA/EIA-568-B.3 compliant connector
- Insertion loss: .3dB typical (62.5/125µm), .35dB typical (50/125µm)
- Return loss: >20dB
- Pre-polished mechanical crimp termination eliminates polishing and adhesive, reducing installation time by 50% over field polish ST connectors
- Mechanical crimp cable retention consistently provides higher than industry standard cable retention
- ST *OPTI-CRIMP* connectors and crimp tool allow visual verification of optimal continuity during crimp termination with the FVFLKIT Visual Fault Locator Kit (included in FJMVKIT Termination Kit)
- Each connector includes connector body/ferrule assembly with pre-polished fiber stub, spring, bayonet, crimp sleeve, one boot for 900µm tight-buffered fiber, one boot for 3mm jacketed cable and one dust cap
- Fiber cable type: tight-buffered only
- Fiber cable size: 3.0mm jacketed cable or 900µm tight-buffered fiber
- Ferrule type: 2.5mm zirconia ceramic (highest durability for repeated matings)
- Use *OPTI-CRIMP* Termination Kit (FJMVKIT) on [page F14](#)



Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FSTMMBL	ST* <i>OPTI-CRIMP</i> 62.5/125µm multimode fiber optic connector.	Black	1	10
FSTMMRD		Red	1	10
FSTMM50BL	ST* <i>OPTI-CRIMP</i> 50/125µm multimode fiber optic connector.	Black	1	10
FSTMM50RD		Red	1	10

*ST is a registered trademark of Lucent Technologies

MINI-COM® FJ® OPTI-CRIMP™ Duplex Jack Modules - Pre-polished Crimp

- FOCIS-6 TIA/EIA-568-B.3 compliant connector
- Insertion loss: .3dB typical (62.5/125µm), .35dB typical (50/125µm)
- Return loss: >20dB
- Pre-polished mechanical crimp termination eliminates polishing and adhesive, reducing installation time by 70% over field polish FJ jack modules
- Non-optical disconnect maintains data transmission under tensile loads
- Mechanical crimp cable retention consistently provides higher than industry standard cable retention
- FJ OPTI-CRIMP jack modules and crimp tool allow visual verification of optimal continuity during crimp termination with the FVFLKIT Visual Fault Locator Kit (included in FJMVKIT Termination Kit)
- RJ-45 small form factor duplex jack module — double the port density in one module space
- MINI-COM module snaps into or out of all MINI-COM closet products and work area outlets
- Each duplex jack module includes housing, cover, two ferrule assemblies with pre-polished fiber stubs, two crimp sleeves, one boot for 900µm buffered fiber, one boot for 3mm jacketed cable, and one dust cap
- Can be clearly identified with labels shown below, and icons on [page C37](#)
- Fiber cable type: tight-buffered only
- Fiber cable size: 3.0mm jacketed cable or 900µm tight-buffered fiber
- Ferrule type: 2.5mm zirconia ceramic (highest durability for repeated matings)
- Corresponding FJ Plugs found on [page F11](#)
- Use OPTI-CRIMP Termination Kit (FJMVKIT) on [page F14](#)



FJJSMM

Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
FJJSMM5CEI	FJ OPTI-CRIMP 62.5/125µm multimode duplex fiber optic jack module with phosphor bronze split sleeves.	1	Electric Ivory	1	10
FJJSMM50CEI	FJ OPTI-CRIMP 50/125µm multimode duplex fiber optic jack module with phosphor bronze split sleeves.	1	Electric Ivory	1	10

‡For other colors, replace suffix EI (Electric Ivory) with BL (Black), BU (Blue), IW (Off White) or AW (Arctic White).

Component Labels for MINI-COM FJ OPTI-CRIMP Duplex Jack Modules – Pre-polished Crimp

Suggested Label Solutions for TIA/EIA 606-A Compliance			
Jack Module Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
All MINI-COM Jack Modules	C138X019FJJ	C138X019FJ6	—

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

MINI-COM® FJ® OPTI-CRIMP™ Keyed Duplex Jack Modules - Pre-polished Crimp

- Includes all of the same features as the FJ OPTI-CRIMP Jack Modules (listed on page F5) with the added benefit of mechanical network security
- Insertion loss: .3dB typical (62.5/125µm), .35dB typical (50/125µm)
- Return loss: >20dB (multimode)
- Mechanical keyed configurations prevent unintentional insertion into segregated network ports
- Color-coded for network identification
- Corresponding FJ Keyed Plugs found on [page F11](#)



FJJSMM5CWBL



FJJSMM5CXRD



FJJSMM50CWBL



FJJSMM50CZYL

Part Number	Part Description	No. of Module Spaces	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FJJSMM5CWBL	FJ OPTI-CRIMP 62.5/125µm keyed (W) multimode duplex fiber optic jack module with phosphor bronze split sleeves.	1	Black	1	10
FJJSMM5CXRD	FJ OPTI-CRIMP 62.5/125µm keyed (X) multimode duplex fiber optic jack module with phosphor bronze split sleeves.	1	Red	1	10
FJJSMM5CYOR	FJ OPTI-CRIMP™ 62.5/125µm keyed (Y) multimode duplex fiber optic jack module with phosphor bronze split sleeves.	1	Orange	1	10
FJJSMM5CZYL	FJ OPTI-CRIMP 62.5/125µm keyed (Z) multimode duplex fiber optic jack module with phosphor bronze split sleeves.	1	Yellow	1	10
FJJSMM50CWBL	FJ OPTI-CRIMP 50/125µm keyed (W) multimode duplex fiber optic jack module with phosphor bronze split sleeves.	1	Black	1	10
FJJSMM50CXRD	FJ OPTI-CRIMP 50/125µm keyed (X) multimode duplex fiber optic jack module with phosphor bronze split sleeves.	1	Red	1	10
FJJSMM50CYOR	FJ OPTI-CRIMP 50/125µm keyed (Y) multimode duplex fiber optic jack module with phosphor bronze split sleeves.	1	Orange	1	10
FJJSMM50CZYL	FJ OPTI-CRIMP 50/125µm keyed (Z) multimode duplex fiber optic jack module with phosphor bronze split sleeves.	1	Yellow	1	10

Can be clearly identified with labels; reference chart on [page F5](#).

Replacement Ferrule Assemblies for FJ OPTI-CRIMP Jack Modules

- Eliminates the need to purchase complete FJ OPTI-CRIMP Jack Modules or FJ OPTI-CRIMP Keyed Jack Modules if necessary to re-terminate
- Dust caps are color-coded: clear for 62.5/125µm and orange for 50/125µm
- Includes ten ferrule assemblies, crimp sleeves and dust caps



FJJSMM

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
FJJSMMFRL-X	Replacement ferrule assembly, crimp sleeve and clear dust cap for FJ OPTI-CRIMP 62.5/125µm multimode duplex jack modules.	10	50
FJJSMM50FRL-X	Replacement ferrule assembly, crimp sleeve and orange dust cap for FJ OPTI-CRIMP 50/125µm multimode duplex jack module.	10	50

SC Fiber Optic Connectors - Field Polish

- FOCIS-3 TIA/EIA-568-B.3 compliant connector
- Insertion loss: .10dB typical (multimode), .15dB typical (singlemode)
- Return loss: >20dB (multimode), >40dB (singlemode)
- Non-optical disconnect maintains data transmission under tensile loads (jacketed cable only)
- Free floating housing ensures complete latching even when inserted by the boot, beneficial in high density spacing applications
- Pre-assembled inner housing simplifies assembly
- Each connector includes inner housing assembly, outer housing, crimp sleeve, one boot for 900µm buffered fiber, one boot for 3mm jacketed cable and one dust cap
- Fiber cable type: tight-buffered recommended
- Fiber cable size: 3.0mm jacketed cable or 900µm buffered fiber
- Ferrule type: 2.5mm zirconia ceramic (highest durability for repeated matings)
- Field polish termination — *PANDUIT*® recommends anaerobic adhesive on [page F15](#)
- Use Field Polish Termination Kit (FJKITG) on [page F15](#)

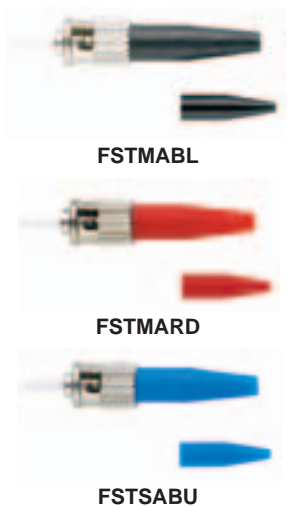


Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FSCMBL	SC multimode fiber optic connector — 62.5/125µm or 50/125µm fiber.	Black	1	10
FSCMRD		Red	1	10
FSCSBU	SC singlemode fiber optic connector.	Blue	1	10

To comply with industry standards the connector housing is blue for all singlemode connectors, and electric ivory for all multimode connectors.

ST* Fiber Optic Connectors - Field Polish

- FOCIS-2 TIA/EIA-568-B.3 compatible connector
- Insertion loss: .15dB typical (multimode), .20dB typical (singlemode)
- Return loss: >20dB (multimode), >40dB (singlemode)
- Each connector includes metal connector body/ferrule assembly, spring, metal bayonet, crimp sleeve, one boot for 900µm buffered fiber, one boot for 3mm jacketed cable and one dust cap
- Fiber cable type: tight-buffered recommended
- Fiber cable size: 3.0mm jacketed cable or 900µm buffered fiber
- Ferrule type: 2.5mm zirconia ceramic (highest durability for repeated matings)
- Field polish termination — *PANDUIT* recommends anaerobic adhesive on [page F15](#)
- Use Field Polish Termination Kit (FJKITG) on [page F15](#)



Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FSTMABL	ST* multimode fiber optic connector — 62.5/125µm or 50/125µm fiber.	Black	1	10
FSTMARD		Red	1	10
FSTSABU	ST* singlemode fiber optic connector.	Blue	1	10

*ST is a registered trademark of Lucent Technologies

LC Simplex Fiber Optic Connectors - Field Polish

- FOCIS-10 TIA/EIA-568-B.3 compatible connector
- Non-optical disconnect maintains data transmission under tensile loads (jacketed cable only)
- Each connector includes connector body/ferrule assembly, crimp sleeve, one boot for 900µm buffered fiber, one boot for 1.6mm or 2.0mm jacketed cable and one dust cap
- Fiber cable type: tight-buffered recommended
- Fiber cable size: 1.6mm or 2.0mm jacketed cable or 900µm buffered fiber
- Ferrule type: 1.25mm zirconia ceramic (highest durability for repeated matings)
- Field polish termination — *PANDUIT*® recommends anaerobic adhesive on [page F15](#)
- Use LC Field Polish Termination Kit (FLPKIT)



FLCSMEI



FLCSSBU

Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FLCSMEI	LC multimode simplex fiber optic connector — 62.5/125µm or 50/125µm fiber.	Electric Ivory	1	10
FLCSSBU	LC singlemode simplex fiber optic connector.	Blue	1	10

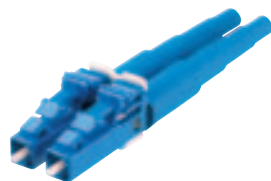
Available 3rd quarter, 2003.

LC Duplex Fiber Optic Connectors - Field Polish

- FOCIS-10 TIA/EIA-568-B.3 compatible connector
- Non-optical disconnect maintains data transmission under tensile loads (jacketed cable only)
- Each duplex connector includes two connector body/ferrule assemblies, two crimp sleeves, two boots for 1.6mm or 2.0mm jacketed cable, two dust caps and one duplexing clip
- Fiber cable type: tight-buffered recommended
- Fiber cable size: 1.6mm or 2.0mm jacketed cable
- Ferrule type: 1.25mm zirconia ceramic (highest durability for repeated matings)
- Field polish termination — *PANDUIT*® recommends anaerobic adhesive on [page F15](#)
- Use LC Field Polish Termination Kit (FLPKIT)



FLCDMEI



FLCDSBU

Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FLCDMEI	LC multimode duplex fiber optic connector — 62.5/125µm or 50/125µm fiber.	Electric Ivory	1	10
FLCDSBU	LC singlemode duplex fiber optic connector.	Blue	1	10

Available 3rd quarter, 2003.

MINI-COM® FJ® Duplex Jack Modules - Field Polish

- FOCIS-6 TIA/EIA-568-B.3 compliant connector
- Insertion loss: .1dB typical (multimode), .2dB typical (singlemode)
- Return loss: >20dB (multimode), >40dB (singlemode)
- RJ45 small form factor duplex jack module — double the port density in one module space
- Non-optical disconnect maintains data transmission under tensile loads
- *MINI-COM* module snaps into or out of all *MINI-COM* telecommunications room products and work area outlets
- Each duplex jack module includes housing, cover, two ferrule assemblies, two crimp sleeves, one boot for 900µm buffered fiber, one boot for 3mm jacketed cable, and one dust cap

- Can be clearly identified with labels below and icons on [page C35](#)
- Fiber cable type: tight-buffered recommended
- Fiber cable size: 3.0mm jacketed cable or 900µm buffered fiber
- Ferrule type: 2.5mm zirconia ceramic (highest durability for repeated matings)
- Corresponding FJ® Plugs found on [page F11](#)
- Field polish termination — *PANDUIT*® recommends anaerobic adhesive on [page F15](#)
- Use Field Polish Termination Kit (FJKITG) on [page F15](#)



FJGM5CEI



FJGS9CBU

Part Number	Part Description	No. of Module Spaces	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
FJGM5CEI	FJ multimode duplex fiber optic jack module with phosphor bronze split sleeves — 62.5/125µm or 50/125µm fiber.	1	Electric Ivory	1	10
FJGS9CBU	FJ singlemode duplex fiber optic jack module with zirconia ceramic split sleeves.	1	Blue	1	10

To comply with industry standards, the housing, cover and boots are blue for singlemode jack modules and electric ivory for multimode jack modules.

‡For other colors replace suffix EI (Electric Ivory) or BU (Blue) with BL (Black), IW (Off White), or AW (Arctic White).

Can be clearly identified with labels; reference chart on [page F5](#).

MINI-COM® FJ® Keyed Duplex Jack Modules - Field Polish

- Includes all of the same features as the FJ Jack Modules (listed on page F9) with the added benefit of mechanical network security
- Insertion loss: .1dB typical (multimode)
- Return loss: >20dB (multimode)
- Mechanical keyed configurations prevent unintentional insertion into segregated network ports
- Color-coded for network identification
- Corresponding FJ Keyed Plugs found on [page F11](#)



FJJGM5CWBL



FJJGM5CXRD



FJJGM5CYOR



FJJGM5CZYL

Part Number	Part Description	No. of Module Spaces	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FJJGM5CWBL	FJ keyed (W) multimode duplex fiber optic jack module with phosphor bronze split sleeves — 62.5/125µm or 50/125µm fiber.	1	Black	1	10
FJJGM5CXRD	FJ keyed (X) multimode duplex fiber optic jack module with phosphor bronze split sleeves — 62.5/125µm or 50/125µm fiber.	1	Red	1	10
FJJGM5CYOR	FJ keyed (Y) multimode duplex fiber optic jack module with phosphor bronze split sleeves — 62.5/125µm or 50/125µm fiber.	1	Orange	1	10
FJJGM5CZYL	FJ keyed (Z) multimode duplex fiber optic jack module with phosphor bronze split sleeves — 62.5/125µm or 50/125µm fiber.	1	Yellow	1	10

Can be clearly identified with labels; reference chart on [page F5](#).

Replacement Ferrule Assemblies for FJ Field Polish Jack Modules

- Eliminates the need to purchase complete FJ Field Polish Jack Modules or FJ Field Polish Keyed Jack Modules if necessary to re-terminate
- Includes ten ferrule assemblies, crimp sleeves and dust caps

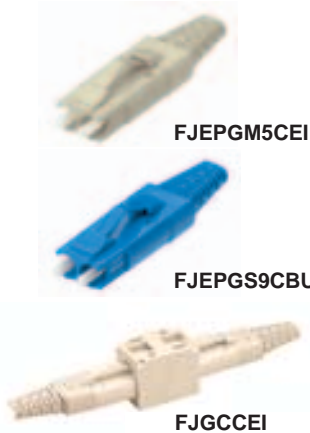


FJJ

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
FJJ9FRL-X	Replacement ferrule assembly, crimp sleeve and dust cap for FJ field polish singlemode duplex jack module.	10	50
FJJFRL-X	Replacement ferrule assembly, crimp sleeve and dust cap for FJ field polish multimode duplex jack module — 62.5/125µm or 50/125µm fiber.	10	50

FJ® Duplex Fiber Optic Plugs - Field Polish

- FOCIS-6 TIA/EIA-568-B.3 compliant connector
- Insertion loss: .1dB typical (multimode), .2dB typical (singlemode)
- Return loss: >20dB (multimode), >40dB (singlemode)
- RJ45 small form factor duplex plug
- Non-optical disconnect maintains data transmission under tensile loads
- Each duplex plug includes housing, insert, two ferrule assemblies, two crimp sleeves, one boot for 3mm jacketed cable, and two dust caps
- Fiber cable type: tight-buffered recommended
- Fiber cable size: 3.0mm jacketed cable
- Ferrule type: 2.5mm zirconia ceramic (highest durability for repeated matings)
- Corresponding FJ *OPTI-CRIMP*™ Jack Modules found on [page F5](#) and FJ Field Polish Jack Modules found on [page F9](#)
- Field polish termination — *PANDUIT*® recommends anaerobic adhesive on [page F15](#)
- Use Field Polish Termination Kit (FJKITG) on [page F15](#)

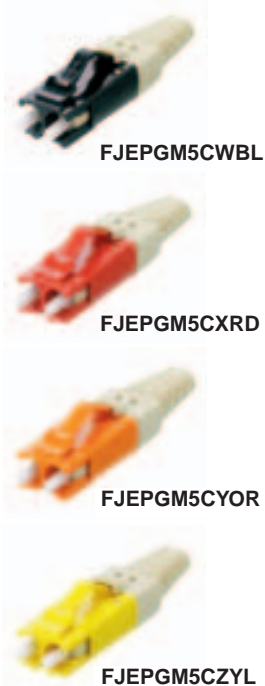


Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FJEPGM5CEI	FJ multimode duplex fiber optic plug — 62.5/125µm or 50/125µm fiber.	Electric Ivory	1	10
FJEPGS9CUBU	FJ singlemode duplex fiber optic plug.	Blue	1	10
FJGCCEI	Adapter to mate two FJ Duplex Fiber Optic Multimode or Singlemode Plugs. Used for the calibration of test cables and equipment and for FJ plug-to-plug cross connects. Includes two dust caps. (Not for use in <i>MINI-COM</i> ® Surface Mount Boxes.)	Electric Ivory	1	10

To comply with industry standards, the housing, insert and boot are blue for singlemode plugs and electric ivory for multimode plugs.

FJ Keyed Duplex Fiber Optic Plugs - Field Polish

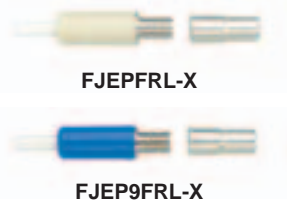
- Includes all of the same features as the FJ Plugs (listed above) with the added benefit of mechanical network security
- Insertion loss: .1dB typical (multimode)
- Return loss: >20dB (multimode)
- Mechanical keyed configurations prevent unintentional insertion into segregated network ports
- Color-coded for network identification
- Universal keyed plug available
- Corresponding FJ *OPTI-CRIMP* Keyed Jack Modules found on [page F6](#) and FJ Field Polish Keyed Jack Modules found on [page F10](#)



Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FJEPGM5CWBL	FJ keyed (W) multimode duplex fiber optic plug — 62.5/125µm or 50/125µm fiber.	Black	1	10
FJEPGM5CXRD	FJ keyed (X) multimode duplex fiber optic plug — 62.5/125µm or 50/125µm fiber.	Red	1	10
FJEPGM5CYOR	FJ keyed (Y) multimode duplex fiber optic plug — 62.5/125µm or 50/125µm fiber.	Orange	1	10
FJEPGM5CZYL	FJ keyed (Z) multimode duplex fiber optic plug — 62.5/125µm or 50/125µm fiber.	Yellow	1	10
FJEPGM5CQWH	FJ universal keyed (Q) multimode duplex fiber optic plug for universal use for testing purposes — 62.5/125µm or 50/125µm fiber.	White	1	10

Replacement Ferrule Assemblies for FJ® Field Polish Plugs

- Eliminates the need to purchase complete FJ Field Polish Plugs or FJ Field Polish Keyed Plugs if necessary to re-terminate
- Includes ten ferrule assemblies, crimp sleeves and dust caps
- Ferrule housing molded in blue for singlemode and electric ivory for multimode per industry standard



Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FJEPFRL-X	Replacement ferrule assembly, crimp sleeve and dust cap for multimode FJ field polish duplex plug — 62.5/125µm or 50/125µm fiber.	Electric Ivory	10	50
FJEP9FRL-X	Replacement ferrule assembly, crimp sleeve and dust cap for singlemode FJ field polish duplex plug.	Blue	10	50

NEW! SC Fiber Optic Adapters

- FOCIS-3 TIA/EIA-568-B.3 compliant adapter
- Integrated retention clip automatically adjusts for FOCIS-3 compliant panel thickness variations, creating a snug fit to reduce rattles; no metal clips to become bent or damaged
- Improved protective cap fully surrounds split sleeve opening
- Adapters can be used with multimode or singlemode connectors and patch cords
- Choice of phosphor bronze or zirconia ceramic split sleeves are recommended for singlemode performance
- Short flange design for improved modularity and higher density usage
- Q.C. number and split sleeve material laser marked on every adapter assures 100% manufacturer traceability and quick and easy identification of split sleeve material
- SC Simplex and Duplex Adapters e also available in *MINI-COM*® modules on [page B9](#), and in patch panels or fiber adapter panels to provide a complete SC system solution



Part Number	Part Description	Adapter Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FADSCEI-L	SC duplex fiber optic adapter with phosphor bronze split sleeves.	Electric Ivory	50	100
FADSCZBU-L	SC duplex fiber optic adapter with zirconia ceramic split sleeves.	Blue	50	100
FASSCEI-L	SC simplex fiber optic adapter with phosphor bronze split sleeve.	Electric Ivory	50	100
FASSCZBU-L	SC simplex fiber optic adapter with zirconia ceramic split sleeve.	Blue	50	100

★ NEW! LC Sr./Sr. Fiber Optic Adapters

- FOCIS-10 TIA/EIA-568-B.3 compatible adapter
- Mini duplex adapter design fits into simplex SC adapter opening
- Sr./Sr. (Senior/Senior) adapters have a FOCIS-10 senior adapter interface at each end
- Accepts all FOCIS-10 compatible LC connectors
- Choice of phosphor bronze or zirconia ceramic split sleeves to fit specific network requirements; zirconia ceramic split sleeves are required for singlemode performance
- LC Simplex and Duplex Adapters are also available in patch panels or fiber adapter panels to provide a complete LC system solution
- LC Duplex Adapters are also available in *MINI-COM*® modules on [page B9](#)



FADSLCEI-L



FASSLCZBU-L

Part Number	Part Description	Adapter Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FADSLCEI-L	LC Sr./Sr. mini duplex multimode fiber optic adapter with phosphor bronze split sleeves.	Electric Ivory	50	100
FADSLCZBU-L	LC Sr./Sr. mini duplex singlemode fiber optic adapter with zirconia ceramic split sleeves.	Blue	50	100
FASSLCZBU-L	LC Sr./Sr. simplex singlemode fiber optic adapter with zirconia ceramic split sleeve.	Blue	50	100

★ NEW! LC Sr./Jr. Fiber Optic Adapters

- FOCIS-10 TIA/EIA-568-B.3 compatible adapter
- Mini duplex adapter design fits into simplex SC adapter opening
- Sr./Jr. (Senior/Junior) adapters have a FOCIS-10 senior adapter interface at one end and a FOCIS-10 junior adapter interface at the other end
- Both ends accept all FOCIS-10 compatible LC connectors
- Junior end also accepts fixed ferrule LC connectors
- Accommodates tighter applications (inside wall); allowing easier access to 900µm buffer terminated LC connectors
- Choice of phosphor bronze or zirconia ceramic split sleeves to fit specific network requirements; zirconia ceramic split sleeves are required for singlemode performance
- LC Simplex and Duplex Adapters are also available in patch panels or fiber adapter panels to provide a complete LC system solution
- LC Duplex Adapters are also available in *MINI-COM* modules on [page B10](#)



FADJLCEI-L



FASJLCZBU-L

Part Number	Part Description	Adapter Color	Std. Pkg. Qty.	Std. Ctn. Qty.
FADJLCEI-L	LC Sr./Jr. mini duplex multimode fiber optic adapter with phosphor bronze split sleeves.	Electric Ivory	50	100
FADJLCZBU-L	LC Sr./Jr. mini duplex singlemode fiber optic adapter with zirconia ceramic split sleeves.	Blue	50	100
FASJLCZBU-L	LC Sr./Jr. simplex singlemode fiber optic adapter with zirconia ceramic split sleeve.	Blue	50	100

OPTI-CRIMP™ Fiber Optic Termination Kit - Pre-polished Crimp

- For PANDUIT® pre-polished crimp connector termination
- Includes non-consumable and consumable components
- No adhesive or electricity required for termination
- Also includes stripping templates for PANDUIT OPTI-CRIMP connectors and FJ® OPTI-CRIMP duplex jack modules
- Includes FVFLKIT Visual Fault Locator Kit that provides visual verification of optimal continuity between the field fiber and the pre-polished fiber stub during crimp termination



FJMVKIT

Part Number	Part Description	Std. Pkg. Qty.
FJMVKIT	Includes all tools and consumables necessary for termination of SC, ST and FJ OPTI-CRIMP multimode connectors and jack modules (also includes FVFLKIT Visual Fault Locator Kit).	1

Components for OPTI-CRIMP Fiber Optic Termination Kit (FJMVKIT)



FVFLKIT

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Non-Consumables			
CST115	Plier nose wire stripper for # 20 thru #10 AWG solid wire.	1	—
FALC	Alcohol bottle	1	10
FBFSP	Fiber buffer stripper	1	10
FGLS	Safety glasses	1	10
FJQCVR	Fiber cleaver tool	1	10
FKC	Fiber cable strength member scissors	1	10
FSCDVR	Screwdriver	1	50
FCRP5	Universal crimp tool (hex sizes: .048", .100", .128", .151", .190")	1	—
FVFLKIT	Visual fault locator kit (includes visual fault locator, belt holster, patch cord, case, batteries and instructions)	1	—

Consumables			
FST	Safety stickers for fiber scraps	1	10
FWP-C	Cloth wipes	100	1000
PFX-0	Permanent marking pen, fine tip.	12	144

Replacement Parts			
FJQCVRB	Replacement blade for FJQCVR	1	10
CD-FCRP5	FCRP5 die set	1	—
FVFL	Visual fault locator (includes batteries and instructions)	1	—
FVFLPC	Patch cord for FVFL visual fault locator (1 meter long)	1	10

Field Polish Fiber Optic Termination Kit

- For *PANDUIT*® field polish connector termination
- Fast acting adhesive; no electricity required for termination
- Kit provides consumables for terminating up to 100 field polish connectors
- Includes non-consumable and consumable components
- Also includes stripping templates for *PANDUIT* field polish connectors and FJ® Duplex Jack Modules and Plugs



FJKITG

Part Number	Part Description	Std. Pkg. Qty.
Field Polish Termination Kit		
FJKITG	Includes tools and consumables necessary for termination of 2.5mm ferrule field polish multimode connectors (FJ Duplex Jack Modules and Plugs, ST*, SC). Also terminates 2.5mm ferrule singlemode connectors with singlemode polishing cloth, film and slurry (purchased separately).	1
Refurbishment Kit for FJKITG		
FJKITG-RFB	Consumables refurbishment kit. Includes all of the same consumable items in the same quantities as FJKITG.	1

Components for Field Polish Fiber Optic Termination Kit (FJKITG)

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Non-Consumables			
CST115	Plier nose wire stripper for #20 thru #10 AWG solid wire.	1	—
FALC	Alcohol bottle	1	10
FBFSP	Fiber buffer stripper	1	10
FBFSPM^	Miller fiber cable buffer stripper	1	10
FCRP5	Universal crimp tool (hex sizes: .048", .100", .128", .151", .190")	1	—
FCVR	Fiber cleaver	1	10
FGLS	Safety glasses	1	10
FJPKGU	Universal polishing puck	1	10
FKC	Fiber cable strength member scissors	1	10
FPAD	Fiber polishing pad	1	10
FSCDVR	Screwdriver	1	50
FSCP	Fiber inspection microscope	1	—
FTWZR	Tweezers	1	10
FWBTL	Water bottle	1	10
Consumables			
FJPMR	Primer (50ml)	1	10
FJPXY	Anaerobic adhesive (10ml)	1	10
FPP1-L	1µm polishing paper (AL ₂ O ₃)	50	250
FPP5-L	5µm polishing paper (AL ₂ O ₃)	50	250
FSWB-C	Cleaning swabs	100	1000
FST	Safety stickers for fiber scraps	1	10
FSYR-X	Syringes with needle tips	10	50
FWP-C	Cloth wipes	100	1000
PFX-0	Permanent marking pen	12	144
Additional Components for Singlemode SC and ST* Connectors and Singlemode FJ Jack Modules and Plugs			
FPCL-Q^	Singlemode polishing cloth (not included in FJKITG)	25	250
FPF1-V^	Singlemode polishing film - 1µm diamond (not included in FJKITG)	5	50
FPSL^	Singlemode polishing slurry (not included in FJKITG)	1	10

^Not included in FJKITG or FJKITG-RFB.

* ST is a registered trademark of Lucent Technologies

OPTICOM® Rack Mount Enclosures

- Can be mounted to any standard EIA 19" or 23" rack or cabinet
- Top, bottom, and side cable entry
- Include fiber optic cable routing accessory kit and label
- Accept OPTICOM Fiber Adapter Panels



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
OPTICOM Fiber Optic Rack Mount Enclosures			
FRME1	Accepts up to (3) FAP or FMP adapter panels. Support up to (24) ST*, (36) SC or (36) FJ® fiber optic terminations. Includes a slide out/tilt down drawer for easy access. Dimensions 1.74"H x 11.5"D x 19.0"W (44.2mm x 292.1mm x 482.6mm)	1	1
FRME2	Accepts up to (6) FAP or FMP adapter panels. Support up to (48) ST*, (72) SC or (72) FJ fiber optic terminations. Include a slide out/tilt down drawer for easy access. Dimensions 3.45"H x 11.65"D x 19.0"W (87.6mm x 295.9mm x 482.6mm)	2	1
FRME3	Accepts up to (9) FAP or FMP adapter panels. Support up to (72) ST*, (108) SC or (108) FJ fiber optic terminations. Dimensions 5.23"H x 11.65"D x 19.0"W (132.8mm x 295.1mm x 482.6mm)	3	1
FRME4	Accepts up to (12) FAP or FMP adapter panels, (1) splice tray holder (FST24H3) and (3) splice trays (FST24). Support up to (96) ST*, (144) SC or (144) FJ fiber optic terminations. Dimensions 6.9"H x 11.65"D x 19.0"W (175.3mm x 295.9mm x 482.6mm)	4	1

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
OPTICOM Rack and Under-Floor Mount Enclosures			
FRME48AIBL	Includes (24) shuttered angled inserts. Can be hung from the side of wire cable tray. Dimensions 5.12"H x 5.78"D x 19.0"W (130mm x 146mm x 482.6mm)	3	1
FRME48AINSBL	Includes (24) angled inserts. Can be hung from the side of wire cable tray. Dimensions 5.12"H x 19.0"D x 5.78"W (130mm x 147mm x 482.6mm)	3	1

[^]One rack space = 1.75" (44.45mm)
 Optional locks available for Rack Mount Enclosures.
 Fiber optic cable routing accessory kits contain various cable management components such as PANDUIT® cable ties, strain relief, molded grommet(s), saddle clips/spools and fiber caution labels.
 All product color is black.

OPTICOM Fiber Optic Rack Mount Splice Enclosures

- Can be mounted to any standard EIA 19" or 23" rack or cabinet
- Accept FST6 splice tray
- Built-in slack manager for easy storage of slack fiber
- Include fiber optic cable routing accessory kit and label



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
FRME72SBL	OPTICOM (72) Fiber Optic Splice Enclosure. Holds up to (6) splice trays (FST6). Includes a slide out drawer for easy access. Dimensions 3.45"H x 11.77"D x 19.0"W (87.6mm x 298.9mm x 482.6mm)	2	1
FRME144SBL	OPTICOM (144) Fiber Optic Splice Enclosure. Holds up to (12) splice trays (FST6). Dimensions 6.83"H x 11.77"D x 19.0"W (173.5mm x 298.9mm x 482.6mm)	4	1

[^]One rack space = 1.75" (44.45mm)
 Optional locks available.
 Fiber optic cable routing accessory kits contain various cable management components such as PANDUIT cable ties, strain relief, molded grommet(s), saddle clips/spools and fiber caution labels.
 All product color is black.

* ST is a registered trademark of Lucent Technologies

OPTICOM® PreLoaded Trays

- Factory installed adapters
- Removable patch panel allows rear access from front of unit
- Can be mounted flush to any standard EIA 19" or 23" rack or cabinet
- Mount flush or 2.0" recessed on 19" rack or cabinet
- Include fiber optic cable routing accessory kit



FT1W24ST

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
FT1W12DSC	Includes (12) port blue duplex SC adapters with phosphor bronze split sleeves. Dimensions 1.75"H x 8.01"D x 19.0"W (44.5mm x 203.4mm x 482.6mm)	1	1
FT1W12ST	Includes (12) port ST* adapters with phosphor bronze split sleeves. Dimensions 1.75"H x 8.01"D x 19.0"W (44.5mm x 203.4mm x 482.6mm)	1	1
FT1W24ST	Includes (24) port ST* adapters with phosphor bronze split sleeves. Dimensions 1.75"H x 8.01"D x 19.0"W (44.5mm x 203.4mm x 482.6mm)	1	1
FT124MC	Will accept up to (24) port <i>MINI-COM</i> ® modules. Dimensions 1.75"H x 8.01"D x 19.0"W (44.5mm x 203.4mm x 482.9mm)	1	1

[^] One rack space = 1.75" (44.45mm)
All product color is black.

OPTICOM Trays

- Removable rear tray cover provides easy access to splices and cable storage
- Side and rear cable entry
- Can be mounted to standard EIA 19" rack or cabinet
- Include fiber optic cable routing accessory kit



FMT2

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
FMT1	Mounts behind modular patch panels such as CFAPPBL and accepts up to (1) splice tray holder (FSTHE) and (2) splice trays (FST6). Dimensions 1.75"H x 11.16"D x 19.0"W (44.9mm x 283.4mm x 482.6mm)	1	1
FMT2	Mounts behind modular patch panels such as CFAPPBL2 and accepts up to (1) splice tray holder (FSTHE) and (4) splice trays (FST6). Dimensions 3.48"H x 11.16"D x 19.0"W (88.29mm x 283.36mm x 482.60mm)	2	1

[^]One rack space = 1.75" (44.45 mm)
Fiber Optic Cable Routing Accessory Kit contains various fiber optic cable management components such as *PANDUIT*® cable ties, adhesive backed mounts, innerduct pieces and grommet edging.
All product color is black.

*ST is a registered trademark of Lucent Technologies

Fiber Adapter Patch Panels

- Can be mounted to any standard EIA 19" rack or cabinet
- Mount to *OPTICOM*® Trays
- Accept *OPTICOM* Fiber Adapter Panels



CFAPPBL1



CFAPPBL2

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
CFAPPBL1	Accepts up to (4) FAP or FMP Adapter Panels. Dimensions 1.72"H x 19"W (43mm x 482mm)	1	1	10
CFAPPBL2	Accepts up to (8) FAP or FMP Adapter Panels. Dimensions 3.47"H x 19"W (88mm x 482mm)	2	1	10

[^] One rack space - 1.75" (44.45mm)
All product color is black.

OPTICOM Drawers

- Drawer slides out for easy front access
- Accept *OPTICOM* Fiber Adapter Panels
- Rear tray capacity for splice tray installation
- Can be mounted to EIA 19" rack or cabinet
- Removable rear tray cover provides easy access to splices and cable storage
- Include fiber optic cable routing accessory kit
- Patented front bend radius control clips
- Side and rear cable entry



FMD2

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
FMD1	Slide out drawer accepts up to (4) FAP or FMP Adapter Panels, (1) splice tray holder (FSTHE) and (2) splice trays (FST6). Supports up to (32) ST*, (48) SC or (48) FJ® fiber optic terminations. Dimensions 1.75"H x 19.85"W x 15.33"D (44.45mm x 504.19mm x 389.38mm)	1	1
FMD2	Slide out drawer accepts up to (8) FAP or FMP Adapter Panels, (1) splice tray holder (FSTHE) and (4) splice trays (FST6). Supports up to (64) ST*, (96) SC, or (96) FJ fiber optic terminations. Dimensions 3.48"H x 19.85"W x 15.40"D (88.30mm x 504.19mm x 391.16mm)	2	1

[^] One rack space = 1.75" (44.45mm)
Fiber optic cable routing accessory kits contain various cable management components such as *PANDUIT*® cable ties, strain relief, molded grommet(s), saddle clips/spools and fiber caution labels.
All product color is black.

*ST is a registered trademark of Lucent Technologies

OPTICOM® Pre-Terminated Trays and Drawers

- Simplify installation process
- Factory terminated with 2 meters 900µm jacketed cable (62.5/125µm)
- Factory assembled and tested connectors
- Include splice trays that accommodate mechanical or fusion splices
- Can be mounted to standard EIA 19" rack or cabinet



FMT24STMP



FMD24STMP

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
Pre-Terminated Trays			
FMT24STMP	Assembled with (24) ST* Pigtailed, (1) CFAPPBL1, (4) FAP6WST, (1) splice tray holder (FSTHE) and (2) splice trays (FST6). Dimensions 1.75"H x 19.0"W x 11.18"D (44.5mm x 482.6mm x 284.0mm)	1	1
FMT24SCMP	Assembled with (24) SC Pigtailed, (1) CFAPPBL1, (4) FAP3WDSC, (1) splice tray holder (FSTHE) and (2) splice trays (FST6). Dimensions 1.75"H x 19.0"W x 11.18"D (44.5mm x 482.6mm x 284.0mm)	1	1
FMT24FJMP	Assembled with (12) FJ® duplex Pigtailed, (1) CFAPPBL1, (2) FMP6, (2) FAPB, (1) splice tray holder (FSTHE) and (2) splice trays (FST6). Dimensions 1.75"H x 19.0"W x 11.18"D (44.5mm x 482.6mm x 284.0mm)	1	1
FMT48STMP	Assembled with (48) ST* Pigtailed, (1) CFAPPBL2, (8) FAP6WST, (1) splice tray holder (FSTHE) and (4) splice trays (FST6). Dimensions 3.50"H x 19.0"W x 11.18"D (88.9mm x 482.6mm x 284.0mm)	2	1
FMT48SCMP	Assembled with (48) SC Pigtailed, (1) CFAPPBL2, (8) FAP3BUDSC, (1) splice tray holders (FSTHE) and (4) splice trays (FST6). Dimensions 3.50"H x 19.0"W x 11.18"D (88.9mm x 482.6mm x 284.0mm)	2	1
FMT48FJMP	Assembled with (24) duplex FJ Pigtailed, (1) CFAPPBL2, (4) FMP6, (4) FAPB, (1) splice tray holder (FSTHE) and (4) splice tray (FST6). Dimensions 3.50"H x 19.0"W x 11.18"D (88.9mm x 482.6mm x 284.0mm)	2	1
Pre-Terminated Drawers			
FMD24STMP	Assembled with (24) ST* Pigtailed, (4) FAP6WST, (1) FSTHE and (2) FST6 splice trays. Dimensions 1.75"H x 19.0"W x 15.33"D (44.5mm x 482.6mm x 389.5mm)	1	1
FMD24SCMP	Assembled with (24) SC Pigtailed, (4) FAP3BUDSC, (1) splice tray holder (FSTHE) and (2) splice trays (FST6). Dimensions 1.75"H x 19.0"W x 15.33"D (44.5mm x 482.6mm x 389.5mm)	1	1
FMD24FJMP	Assembled with (12) duplex FJ Pigtailed, (2) FMP6, (2) FAPB, (1) splice tray holder (FSTHE) and (2) splice trays (FST6) . Dimensions 1.75"H x 19.0"W x 15.33"D (44.5mm x 482.6mm x 389.5mm)	1	1
FMD48STMP	Assembled with (48) ST* Pigtailed, (8) FAP6WST, (1) splice tray holder (FSTHE) and (4) splice trays (FST6) . Dimensions 3.50"H x 19.0"W x 15.33" (88.9mm x 482.6mm x 389.5mm)	2	1
FMD48SCMP	Assembled with (48) SC Pigtailed, (8) FAP3BUDSC, (1) splice tray holder (FSTHE) and (4) splice trays (FST6). Dimensions 3.50"H x 19.0"W x 15.33" (88.9mm x 482.6mm x 389.5mm)	2	1
FMD48FJMP	Assembled with (24) duplex FJ Pigtailed, (4) FMP6, (4) FAPB, (1) splice tray holder (FSTHE) and (4) splice trays (FST6). Dimensions 3.50"H x 19.0"W x 15.33"D (88.9mm x 482.6mm x 389.5mm)	2	1

[^] One rack space = 1.75" (44.45mm)
All product color is black.

*ST is a registered trademark of Lucent Technologies

OPTICOM® Wall Mount Enclosures

- Include fiber optic cable routing accessory kit and label
- Accept *OPTICOM* Fiber Adapter Panels
- Separate doors for service and users sides with optional** keyed locks for added security
- Compact design allows installation in tight areas



Part Number	Part Description	Std. Pkg. Qty.
FWME2	Accepts up to (2) FAP or FMP panels , (1) splice tray holder (FSTHS) and (2) splice trays (FSTK). Supports up to (16) ST*, (24) SC or (24) FJ® fiber optic terminations. Dimensions 12.00"H x 10.18"W x 2.32"D (304.8mm x 258.6mm x 58.9mm)	1
FWME4	Accepts up to (4) FAP or FMP panels, (1) splice tray holder (FSTHS) and (4) splice trays (FSTK). Supports up to (32) ST*, (48) SC or (48) FJ fiber optic terminations. Dimensions 16.11"H x 12.25"W x 3.52"D (409.2mm x 311.2mm x 89.4mm)	1
FWME8	Accepts up to (8) FAP or FMP panels, (2) splice tray holders (FSTHS) and (8) splice trays (FSTK). Supports up to (64) ST*, (96) SC or (96) FJ fiber optic terminations. Dimensions 16.11"H x 20.25"W x 3.52"D (409.2mm x 514.2mm x 89.4mm)	1

** Use enclosure lock part number FELU for user side or FELS for Service side.

Fiber Optic Cable Routing Accessory Kit contains various fiber optic cable management components such as *PANDUIT*® cable ties, cable tie brackets, clips and grounding lugs. All product color is black.

OPTICOM Pre-Terminated Wall Mount Enclosures

- Simplify installation process
- Include splice trays that accommodate mechanical or fusion splices
- Factory terminated connectors with 2 meters 900µm jacketed cable (62.5/125µm)



FWME12STMP

Part Number	Part Description	Std. Pkg. Qty.
FWME12STMP	Assembled with (12) ST* Pigtailed, (2) FAP6WST, (1) FSTHS and (2) FSTK. Dimensions 12.00"W x 10.00"H x 2.25"D (305mm x 254mm x 57mm)	1
FWME12SCMP	Assembled with (12) SC Pigtailed, (2) FAP3WBUDSC, (1) FSTHS and (2) FSTK. Dimensions 12.00"W x 10.00"H x 2.25"D (305mm x 254mm x 57mm)	1
FWME12FJMP	Assembled with (6) FJ Pigtailed, (1) FMP6, (1) FAPB, (1) FSTHS and (2) FSTK. Dimensions 12.00"W x 10.00"H x 2.25"D (305mm x 254mm x 57mm)	1
FWME24STMP	Assembled with (24) ST* Pigtailed, (4) FAP6WST, (1) FSTHW and (2) FST6. Dimensions 16.00"W x 13.00"H x 5.00"D (406mm x 330mm x 127mm)	1
FWME24SCMP	Assembled with (24) SC Pigtailed, (4) FAP3WBUDSC, (1) FSTHW and (2) FST6. Dimensions 16.00"W x 13.00"H x 5.00"D (406mm x 330mm x 127mm)	1
FWME24FJMP	Assembled with (12) FJ Pigtailed, (2) FMP6, (2) FAPB, (1) FSTHW and (2) FST6. Dimensions 16.00"W x 13.00"H x 5.00"D (406mm x 330mm x 127mm)	1

^One rack space = 1.75" (44.45mm)
All product color is black.

*ST is a registered trademark of Lucent Technologies

OPTICOM® Fiber Adapter Panels

- Snap quickly into the front of all OPTICOM Fiber Optic Enclosures



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Muti-Media Modular Panel			
FMP6	Unloaded panel accepts up to (6) <i>MINI-COM</i> ® Modules for fiber optic, UTP, ScTP and coax applications. Customize your installation for multi-media applications requiring integration of fiber optic and copper cables.	1	10
Simplex SC Fiber Adapter Panels			
FAP6WEISC	Loaded with (6) electric ivory SC simplex adapters with phosphor bronze split sleeves.	1	10
FAP6WBUSCZ	Loaded with (6) blue SC simplex adapters with ceramic split sleeves.	1	10
Duplex SC Fiber Adapter Panels			
FAP2WEIDSC	Loaded with (2) electric ivory SC duplex adapters with phosphor bronze split sleeves.	1	10
FAP3WEIDSC	Loaded with (3) electric ivory SC duplex adapters with phosphor bronze split sleeves.	1	10
FAP3WEIDSCA	Loaded with (3) electric ivory angled SC duplex adapters with phosphor bronze split sleeves.	1	10
FAP4WEIDSC	Loaded with (4) electric ivory SC duplex adapters with phosphor bronze split sleeves.	1	10
FAP6WEIDSC	Loaded with (6) electric ivory SC simplex adapters with phosphor bronze split sleeves.	1	10
FAP2WBUDSCZ	Loaded with (2) blue SC duplex adapters with ceramic split sleeves.	1	10
FAP3WBUDSCZ	Loaded with (3) blue SC duplex adapters with ceramic split sleeves.	1	10
FAP4WBUDSCZ	Loaded with (4) blue SC duplex adapters with ceramic split sleeves.	1	10
FAP6WBUDSCZ	Loaded with (6) blue SC duplex adapters with ceramic split sleeves.	1	10
Simplex LC Fiber Adapter Panels			
FAP12WBULCZ	Loaded with (12) blue LC simplex adapters with ceramic split sleeves.	1	10
Duplex LC Fiber Adapter Panels			
FAP6WEIDL	Loaded with (6) electric ivory LC duplex adapters with phosphor bronze split sleeves.	1	10
FAP6WBUDLCZ	Loaded with (6) blue LC duplex adapters with ceramic split sleeves.	1	10
Simplex ST* Fiber Adapter Panels			
FAP6WST	Loaded with (6) ST* adapters with phosphor bronze split sleeves.	1	10
FAP6WSTA	Loaded with (6) angled ST* adapters with phosphor bronze split sleeves.	1	10
FAP8WST	Loaded with (8) ST* adapters with phosphor bronze split sleeves.	1	10
FAP6WSTZ	Loaded with (6) ST* adapters with ceramic split sleeves.	1	10
FAP8WSTZ	Loaded with (8) ST* adapters with ceramic split sleeves.	1	10
Simplex FC Fiber Adapter Panels			
FAP6WFC	Loaded with (6) FC adapters with phosphor bronze split sleeves.	1	10
FAP6WFCZ	Loaded with (6) FC adapters with ceramic split sleeves.	1	10
MT-RJ Fiber Adapter Panels			
FMP6WMTRJ	Loaded with (6) electric ivory MT-RJ adapters.	1	10
FMP6WMTRJBL	Loaded with (6) black MT-RJ adapters.	1	10
Blank Fiber Adapter Panel			
FAPB	Blank adapter panel - reserves space for future use.	1	10

**Adapters not included

*ST is a registered trademark of Lucent Technologies

OPTICOM® Pre-Terminated Cassettes

- Utilize same footprint as Fiber Adapter Panels to fit in any *OPTICOM* Enclosure
- Eliminate field connector terminations
- Factory assembled and tested connectors
- Significantly reduces installation time and labor
- Insertion loss/return loss data provided



FC6STMFCM

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
OPTICOM Pre-Terminated Cassettes with Multi-fiber Connectors “Plug-N-Play” system - no splicing required			
Multimode MPO Cassettes			
FC6STMFCM	Molded fiber cassette with (6) front mounted ST* connectors to rear mounted MPO 62.5/125µm.	1	10
FC6SCMFCM	Molded fiber cassette with (3) front mounted duplex SC connectors to rear mounted MPO 62.5/125µm.	1	10
FC12SCMFCM	Molded fiber cassette with (6) front mounted duplex SC connectors to rear mounted MPO 62.5/125µm.	1	10
FC8FJMFCM	Molded fiber cassette with (4) front mounted FJ® connectors to rear mounted MPO 62.5/125µm.	1	10



FC8FJMFCM

Singlemode MPO Cassettes			
FC6STMFCS	Molded fiber cassette with (6) front mounted ST* connectors to rear mounted MPO 9/125µm.	1	10
FC6SCMFCS	Molded fiber cassette with (3) front mounted duplex SC connectors to rear mounted MPO 9/125µm.	1	10
FC12SCMFCS	Molded fiber cassette with (6) front mounted duplex SC connectors to rear mounted MPO 9/125µm.	1	10
FC8FJMFCS	Molded fiber cassette with (4) front mounted FJ connectors to rear mounted MPO 9/125µm.	1	10

OPTICOM Pre-Terminated Cassettes with 5 meter Pigtail Multimode Pigtail Cassettes

FC6STMP5	Molded fiber cassette with (6) front mounted ST* connectors to rear pigtail 62.5/125µm.	1	10
FC6SCMP5	Molded fiber cassette with (3) front mounted duplex SC connectors (6 fibers) to rear pigtail 62.5/125µm.	1	10
FC8FJMP5	Molded fiber cassette with (4) front mounted FJ connectors (8 fibers) to rear pigtail 62.5/125µm.	1	10
FC12SCMP5	Molded fiber cassette with (6) front mounted duplex SC connectors (12 fibers) to rear pigtail 62.5/125µm.	1	10

Singlemode Pigtail Cassettes

FC6STSP5	Molded fiber cassette with (6) front mounted ST* connectors to rear pigtail 9/125µm.	1	10
FC6SCSP5	Molded fiber cassette with (3) front mounted duplex SC connectors (6 fibers) to rear pigtail 9/125µm.	1	10
FC8FJSP5	Molded fiber cassette with (4) front mounted FJ connectors (8 fibers) to rear pigtail 9/125µm.	1	10
FC12SCSP5	Molded fiber cassette with 6 front mounted duplex SC connectors (12 fibers) to rear pigtail 9/125µm.	1	10

MPO Cassettes used with MPO Fiber Optic Cords.
All product color is black.

*ST is a registered trademark of Lucent Technologies

OPTICOM® Optical Component Module

- Provides instant access to monitor valuable optical circuits without disconnecting or interrupting service
- Simplifies testing and troubleshooting
- Helps manage reliable service for customers
- Compatible with *OPTICOM* Enclosures



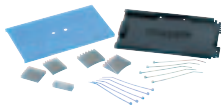
F6B-2-4JAKBBAA

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
F6B-2-4JAKBBAA	OPTICOM 90/10 Wideband Singlemode Optical Splitter Cassette, singlemode SC/UPC, monitors 2 singlemode fiber cables, ports: 4 Front - 2 Rear	1	10
F6B-2-4JAHBBAA	OPTICOM 90/10 Wideband Singlemode Optical Splitter Cassette, singlemode SC/UPC, monitors 2 singlemode fiber cables, ports: 6 Front	1	10

OPTICOM Splice Trays and Holders

For use with either mechanical or fusion splices. Complete kit includes:

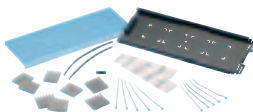
- Mechanical and fusion adhesive backed splice holders (each splice holder holds 6 splices)
- Cable ties to help manage incoming and outgoing cable
- PVC tubing to protect buffered fiber upon exit or entry into tray
- One splice tray with protective cover



FST6



FST6H4



FST24



FST24H3



FSTK

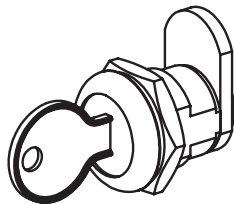


FSTHS

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Splice Tray Kit - For Trays, Drawers, Splice Enclosures, FWME4, and FWME8			
FST6	Accommodates up to (12) mechanical or fusion splices. For use with FSTHE or FST6H4 stacking unit. Dimensions .40"H x 4.48"W x 7.9"L (10.2mm x 113.8mm x 201.6mm)	1	10
Splice Tray Stacking Unit - For Trays and Drawers			
FSTHE	Holds and secures up to (4) splice trays (FST6). Can be mounted with the use of adhesive strips or mounting screws included. Splice trays held in place with <i>PANDUIT</i> ® <i>TAK-TY</i> ® Cable Ties. For use with FMT1, FMT2, FMD1, or FMD2. Dimensions 1.75"H x 4.56"W x 8.06"L (45mm x 116mm x 205mm)	1	10
Splice Tray Stacking Unit - For FWME4 and FWME8			
FST6H4	Holds and secures up to (4) splice trays (FST6) with built in fiber spooling. Mounts with existing enclosure hardware. Splice trays held in place with <i>PANDUIT</i> <i>TAK-TY</i> Cable Ties. Dimensions 3.18"H x 4.63"W x 7.93"L (80.77mm x 117.60mm x 201.42mm)	1	—
Splice Tray Kit - For FRME4			
FST24	Accommodates up to (24) mechanical or fusion splices, or (144) ribbon fusion splices. For use with FST24H3. Dimensions .37"H x 11.75"W x 4.38"L (9.5mm x 298.5mm x 111.4mm)	1	10
Splice Tray Stacking Unit - For FRME4			
FST24H3	Holds and secures up to (3) splice trays (FST24) with built in fiber spooling. Mounting hardware included. Splice trays held in place with <i>PANDUIT</i> <i>TAK-TY</i> Cable Ties. Dimensions 2.07"H x 11.61"W x 4.56"L (52.6mm x 295.0mm x 115.8mm)	1	10
Splice Tray Kit - For FWME2			
FSTK	Accommodates up to (6) mechanical or fusion splices. For use with FSTHS stacking unit. Dimensions .38"H x 3.43"W x 6.65"L (9.8mm x 87mm x 169mm)	1	10
Splice Tray Stacking Unit - For FWME2			
FSTHS	Holds and secures up to (2) splice trays (FSTK) with built in fiber spooling. Mounts with existing hardware. Splice tray held in place with <i>PANDUIT</i> <i>TAK-TY</i> Cable Ties. Dimensions 1.6"H x 3.5"W x 6.5"L (41mm x 89mm x 165mm)	1	10

Fiber Accessories

- Locks can be installed on *OPTICOM*® Enclosure for added security



FEL

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
FEL	Fiber enclosure lock for splice enclosures.	1	10
FELS	Fiber enclosure lock for service side.	1	10
FELU	Fiber enclosure lock for user side.	1	10

Optical Fiber Network Saddle (Dual Capacity)

- Use in pre-drilled .18" (4mm) holes in panels up to .09" (2mm) thick
- Smooth rounded edges eliminates potential for snagging and stress on cable

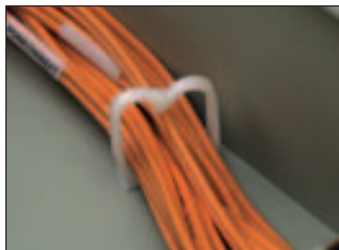


Part Number	Max. Bundle Dia. *		Material	Mounting Method	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm					
VWSDC-C	1.06	26.9	Nylon 6.6	Push Mount	Natural	100	1000

* Accepts two bundles

Optical Fiber Network Saddle

- Use in pre-drilled .18" (4mm) holes in panels up to .09" (2mm) thick
- Smooth rounded edges eliminates potential for snagging and stress on cable



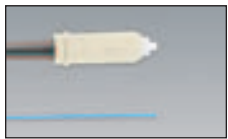
Part Number	Max. Bundle Dia.		Material	Mounting Method	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm					
VWS106-C	1.06	26.9	Nylon 6.6	Push Mount	Natural	100	500

★ NEW! Fiber Optic Patch Cords and Pigtails - *OPTI-CORE™ 10GIG™ 50/125μm*

- Patch cords are certified to support network transmission speeds up to 10 Gigabits per second for link lengths up to 300 meters with an 850nm source per IEEE 802.3ae 10GbE Standards
- Meets or exceeds TIA/EIA-568-B.3 performance requirements
- Insertion loss per connection: .10dB typical; .30dB maximum
- Backward compatible for use with all 50/125μm system requirements
- 100% factory tested and inspected for optimum performance
- Insertion loss data recorded for every multimode patch cord
- Lifetime traceability of test data to a Q.C. number on each patch cord
- SC Duplex Patch Cords include SC Duplex Clips to maintain polarity
- Highest quality flame retardant fiber optic cable with tight-buffered coating on each optical fiber



FXD3-3M



FXB3-NM



FXE10-10M



FXB10-NM



FXD6P-6PM



FXD6J-NM



FXB6J-NM

Part Number	Part Description	Length (M) Additional Lengths [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
SC to SC - 10GbE Multimode Duplex Patch Cords - 3mm Jacketed Cable				
FXD3-3M1	SC to SC multimode duplex patch cord, 10GbE, 3mm jacketed cable (one duplex SC connector on each end) - 50/125μm.	1	1	10
SC to Pigtail - 10GbE Multimode Simplex Pigtails - 900μm Buffered Fiber				
FXB3-NM1	SC to pigtail multimode simplex pigtail, 10GbE, 900μm buffered fiber (one SC connector on one end and open on the other end) - 50/125μm.	1	1	10
LC to LC - 10GbE Multimode Duplex Patch Cords - 1.6mm Jacketed Cable				
FXE10-10M1	LC to LC multimode duplex patch cord, 10GbE, 1.6mm jacketed cable (one duplex LC connector on each end) - 50/125μm.	1	1	10
LC to Pigtail - 10GbE Multimode Simplex Pigtails - 900μm Buffered Fiber				
FXB10-NM1	LC to pigtail multimode simplex pigtail, 10GbE, 900μm buffered fiber (one LC connector on one end and open on the other end) - 50/125μm.	1	1	10
FJ® Plug to FJ Plug - 10GbE Multimode Duplex Patch Cords - 3mm Jacketed Cable				
FXD6P-6PM1	FJ plug to FJ plug multimode duplex patch cord, 10GbE, 3mm jacketed cable (one FJ plug on each end) - 50/125μm.	1	1	10
FJ Jack Module to Pigtail - 10GbE Multimode Duplex Pigtails - 3mm Jacketed Cable				
FXD6J-NM1	FJ jack module to pigtail multimode duplex pigtail, 10GbE, 3mm jacketed cable (one FJ jack module on one end and open on the other end) - 50/125μm.	1	1	10
FJ Jack Module to Pigtail - 10GbE Multimode Duplex Pigtails - 900μm Buffered Fiber				
FXB6J-NM1	FJ jack module to pigtail multimode duplex pigtail, 10GbE, 900μm buffered fiber (one FJ jack module on one end and open on the other end) - 50/125μm.	1	1	10

If standard 50μm performance (orange cable) is preferred, see [pages F27-F28](#).

[^] **Additional lengths and availability:** Patch cords are available in 1, 2, 3, 5 and 10 meter lengths, and pigtails are available in 1, 2 and 3 meter lengths. To order lengths other than 1 meter, substitute the 1 suffix in the part number (FXD3-3M1) with the desired length (FXD3-3M2 for 2 meter length). Patch cords in 1, 2 and 3 meter lengths, and pigtails in 1 meter lengths are stock items. For patch cords in 5 and 10 meter lengths, and pigtails in 2 and 3 meter lengths, contact Customer Service (800-777-3300) for actual lead times.

Self-Laminating Labels for Fiber Optic Patch Cords and Pigtails – OPTI-CORE 10GIG 50/125μm

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
FXD3-3M	S100X225FAJ and NWSLC-7	S100X225FA6 and NWSLC-7	LS7-75NL-1 and NWSLC-7
FXE10-10M			
FXD6P-6PM			
FXD6J-NM			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

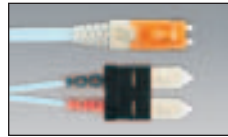
NEW! Fiber Optic Patch Cords and Pigtails - **OPTI-CORE™ 10GIG™ 50/125µm** (continued)



FXD6PW-3M



FXD6PX-3M



FXD6PY-3M



FXD6PZ-3M



FXD6PQ-3M



FXE3-10M



FXD6P-3M

Part Number	Part Description	Length (M) Additional Lengths [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
FJ® Plug (Keyed W) to SC - 10GbE Multimode Duplex Patch Cords - 3mm Jacketed Cable				
FXD6PW-3M1	FJ plug (keyed W - black) to SC multimode duplex patch cord, 10GbE, 3mm jacketed cable (one keyed FJ plug on one end and one duplex SC connector on the other end) - 50/125µm.	1	1	10
FJ Plug (Keyed X) to SC - 10GbE Multimode Duplex Patch Cords - 3mm Jacketed Cable				
FXD6PX-3M1	FJ plug (keyed X - red) to SC multimode duplex patch cord, 10GbE, 3mm jacketed cable (one keyed FJ plug on one end and one duplex SC connector on the other end) - 50/125µm.	1	1	10
FJ Plug (Keyed Y) to SC - 10GbE Multimode Duplex Patch Cords - 3mm Jacketed Cable				
FXD6PY-3M1	FJ plug (keyed Y - orange) to SC multimode duplex patch cord, 10GbE, 3mm jacketed cable (one keyed FJ plug on one end and one duplex SC connector on the other end) - 50/125µm.	1	1	10
FJ Plug (Keyed Z) to SC - 10GbE Multimode Duplex Patch Cords - 3mm Jacketed Cable				
FXD6PZ-3M1	FJ plug (keyed Z - yellow) to SC multimode duplex patch cord, 10GbE, 3mm jacketed cable (one keyed FJ plug on one end and one duplex SC connector on the other end) - 50/125µm.	1	1	10
FJ Plug (Keyed Q) to SC - 10GbE Multimode Duplex Patch Cords - 3mm Jacketed Cable				
FXD6PQ-3M1	FJ plug (universal keyed Q - white) to SC multimode duplex patch cord, 10GbE, 3mm jacketed cable (one keyed FJ plug on one end and one duplex SC connector on the other end) - 50/125µm.	1	1	10
SC to LC - 10GbE Multimode Duplex Patch Cords - 1.6mm Jacketed Cable				
FXE3-10M1	SC to LC multimode duplex patch cord, 10GbE, 1.6mm jacketed cable (one duplex SC connector on one end and one duplex LC connector on the other end) - 50/125µm.	1	1	10
FJ Plug to SC - 10GbE Multimode Duplex Patch Cords - 3mm Jacketed Cable				
FXD6P-3M1	FJ plug to SC multimode duplex patch cord, 10GbE, 3mm jacketed cable (one FJ plug on one end and one duplex SC connector on the other end) - 50/125µm.	1	1	10

If standard 50µm performance (orange cable) is preferred, see [pages F27-F28](#).

[^] **Additional lengths and availability:** Patch cords are available in 1, 2, 3, 5 and 10 meter lengths, and pigtails are available in 1, 2 and 3 meter lengths. To order lengths other than 1 meter, substitute the 1 suffix in the part number (FXD3-3M1) with the desired length (FXD3-3M2 for 2 meter length). Patch cords in 1, 2 and 3 meter lengths, and pigtails in 1 meter lengths are stock items. For patch cords in 5 and 10 meter lengths, and pigtails in 2 and 3 meter lengths, contact Customer Service (800-777-3300) for actual lead times.

Self-Laminating Labels for Fiber Optic Patch Cords and Pigtails – OPTI-CORE 10GIG 50/125µm

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
All FX Parts on this page	S100X225FAJ and NWSLC-7	S100X225FA6 and NWSLC-7	LS7-75NL-1 and NWSLC-7

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

Fiber Optic Patch Cords and Pigtails - Multimode 62.5/125µm or 50/125µm‡

- Designed and tested to pass all TIA/EIA-568-B.3 performance requirements
- Insertion loss per connection: .10dB typical; .30dB maximum
- 100% factory tested for insertion loss
- Insertion loss data recorded for every multimode patch cord
- Lifetime traceability of test data to a Q.C. number on each patch cord

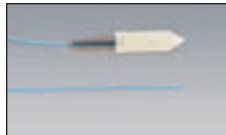
- SC Duplex Patch Cords include SC Duplex Clips to maintain polarity
- Highest quality flame retardant fiber optic cable with tight-buffered coating on each optical fiber
- 62.5/125µm patch cord part numbers use F6 prefix; change to F5 prefix for 50/125µm patch cords



F6D3-3M



F6S3-3M



F6B3-NM



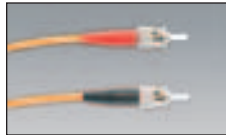
F6E10-10M



F6B10-NM



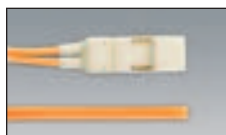
F6D2-2M



F6S2-2M



F6D6P-6PM



F6D6J-NM

Part Number	Part Description	Length (M) Additional Lengths [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
SC to SC - Multimode Duplex Patch Cords - 3mm Jacketed Cable				
F6D3-3M1	SC to SC multimode duplex patch cord, 3mm jacketed cable (one duplex SC connector on each end) - 62.5/125µm.	1	1	10
SC to SC - Multimode Simplex Patch Cords - 3mm Jacketed Cable				
F6S3-3M1	SC to SC multimode simplex patch cord, 3mm jacketed cable (one SC connector on each end) - 62.5/125µm.	1	1	10
SC to Pigtail - Multimode Simplex Pigtails - 900µm Buffered Fiber				
F6B3-NM1	SC to pigtail multimode simplex pigtail, 900µm buffered fiber (one SC connector on one end and open on the other end) - 62.5/125µm.	1	1	10
LC to LC - Multimode Duplex Patch Cords - 1.6mm Jacketed Cable				
F6E10-10M1	LC to LC multimode duplex patch cord, 1.6mm jacketed cable (one duplex LC connector on each end) - 62.5/125µm.	1	1	10
LC to Pigtail - Multimode Simplex Pigtails - 900µm Buffered Fiber				
F6B10-NM1	LC to pigtail multimode simplex pigtail, 900µm buffered fiber (one LC connector on one end and open on the other end) - 62.5/125µm.	1	1	10
ST* to ST* - Multimode Duplex Patch Cords - 3mm Jacketed Cable				
F6D2-2M1	ST* to ST* multimode duplex patch cord, 3mm jacketed cable (two ST* connectors on each end) - 62.5/125µm.	1	1	10
ST* to ST* - Multimode Simplex Patch Cords - 3mm Jacketed Cable				
F6S2-2M1	ST* to ST* multimode simplex patch cord, 3mm jacketed cable (one ST* connector on each end) - 62.5/125µm.	1	1	10
FJ® Plug to FJ Plug - Multimode Duplex Patch Cords - 3mm Jacketed Cable				
F6D6P-6PM1	FJ plug to FJ plug multimode duplex patch cord, 3mm jacketed cable (one FJ plug on each end) - 62.5/125µm.	1	1	10
FJ Jack Module to Pigtail - Multimode Duplex Pigtails - 3mm Jacketed Cable				
F6D6J-NM1	FJ jack module to pigtail multimode duplex patch cord, 3mm jacketed cable (one FJ jack module on one end and open on the other end) - 62.5/125µm.	1	1	10

‡To order 50/125µm fiber optic patch cords, substitute the F6 in the part number (F6D3-3M1) with F5 (F5D3-3M1).

[^] **Additional lengths and availability:** Patch cords are available in 1, 2, 3, 5 and 10 meter lengths, and pigtails are available in 1, 2 and 3 meter lengths. To order lengths other than 1 meter, substitute the 1 suffix in the part number (F6D3-3M1) with the desired length (F6D3-3M2 for 2 meter length). Patch cords in 1, 2 and 3 meter lengths, and pigtails in 1 meter lengths are stock items. For patch cords in 5 and 10 meter lengths, and pigtails in 2 and 3 meter lengths, contact Customer Service (800-777-3300) for actual lead times.

Self-Laminating Labels for Fiber Optic Patch Cords and Pigtails – Multimode 62.5/125µm or 50/125µm

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
F6E10-NM	S100X160FAJ and NWSLC-2	S100X160FA6 and NWSLC-2	LS7-75NL-1 and NWSLC-2
F6S**-***	S100X160FAJ and NWSLC-3	S100X160FA6 and NWSLC-3	LS7-75NL-1 and NWSLC-3
F6D**-***	S100X225FAJ and NWSLC-7	S100X225FA6 and NWSLC-7	LS7-75NL-1 and NWSLC-7
F6D6P-6PM			
F6D6J-NM			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

**All part number configurations on this page.

*ST is a registered trademark of Lucent Technologies

Fiber Optic Patch Cords - Multimode 62.5/125µm or 50/125µm‡ (continued)



F6B6J-NM



F6D6PW-3M



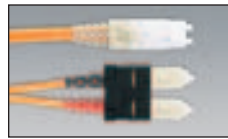
F6D6PX-3M



F6D6PY-3M



F6D6PZ-3M



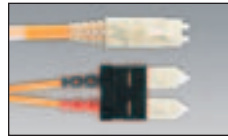
F6D6PQ-3M



F6D2-3M



F6E3-10M



F6D6P-3M



F6D6P-2M

Part Number	Part Description	Length (M) Additional Lengths [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
FJ® Jack Module to Pigtail - Multimode Duplex Pigtails - 900µm Buffered Fiber				
F6B6J-NM1	FJ jack module to pigtail multimode duplex pigtail, 900µm buffered fiber (one FJ jack module on one end and open on the other end) - 62.5/125µm.	1	1	10
FJ Plug (Keyed W) to SC - Multimode Duplex Patch Cords - 3mm Jacketed Cable				
F6D6PW-3M1	FJ plug (keyed W - black) to SC multimode duplex patch cord, 3mm jacketed cable (one keyed FJ plug on one end and one duplex SC connector on the other end) - 62.5/125µm.	1	1	10
FJ Plug (Keyed X) to SC - Multimode Duplex Patch Cords - 3mm Jacketed Cable				
F6D6PX-3M1	FJ plug (keyed X - red) to SC multimode duplex patch cord, 3mm jacketed cable (one keyed FJ plug on one end and one duplex SC connector on the other end) - 62.5/125µm.	1	1	10
FJ Plug (Keyed Y) to SC - Multimode Duplex Patch Cords - 3mm Jacketed Cable				
F6D6PY-3M1	FJ plug (keyed Y - orange) to SC multimode duplex patch cord, 3mm jacketed cable (one keyed FJ plug on one end and one duplex SC connector on the other end) - 62.5/125µm.	1	1	10
FJ Plug (Keyed Z) to SC - Multimode Duplex Patch Cords - 3mm Jacketed Cable				
F6D6PZ-3M1	FJ plug (keyed Z - yellow) to SC multimode duplex patch cord, 3mm jacketed cable (one keyed FJ plug on one end and one duplex SC connector on the other end) - 62.5/125µm.	1	1	10
FJ Plug (Keyed Q) to SC - Multimode Duplex Patch Cords - 3mm Jacketed Cable				
F6D6PQ-3M1	FJ plug (universal keyed Q - white) to SC multimode duplex patch cord, 3mm jacketed cable (one keyed FJ plug on one end and two SC connectors on the other end) - 62.5/125µm.	1	1	10
ST* to SC - Multimode Duplex Patch Cords - 3mm Jacketed Cable				
F6D2-3M1	ST* to SC multimode duplex patch cord, 3mm jacketed cable (two ST* connectors on one end and one duplex SC connector on the other end) - 62.5/125µm.	1	1	10
SC to LC - Multimode Duplex Patch Cords - 1.6mm Jacketed Cable				
F6E3-10M1	SC to LC multimode duplex patch cord, 1.6mm jacketed cable (one duplex SC connector on one end and one duplex LC connector on the other end) - 62.5/125µm.	1	1	10
FJ Plug to SC - Multimode Duplex Patch Cords - 3mm Jacketed Cable				
F6D6P-3M1	FJ plug to SC multimode duplex patch cord, 3mm jacketed cable (one FJ plug on one end and one duplex SC connector on the other end) - 62.5/125µm.	1	1	10
FJ Plug to ST* - Multimode Duplex Patch Cords - 3mm Jacketed Cable				
F6D6P-2M1	FJ plug to ST* multimode duplex patch cord, 3mm jacketed cable (one FJ plug on one end and two ST* connectors on the other end) - 62.5/125µm.	1	1	10

‡To order 50/125µm fiber optic patch cords, substitute the F6 in the part number (F6D3-3M1) with F5 (F5D3-3M1).

[^] **Additional lengths and availability:** Patch cords are available in 1, 2, 3, 5 and 10 meter lengths, and pigtails are available in 1, 2 and 3 meter lengths. To order lengths other than 1 meter, substitute the 1 suffix in the part number (F6D3-3M1) with the desired length (F6D3-3M2 for 2 meter length). Patch cords in 1, 2 and 3 meter lengths, and pigtails in 1 meter lengths are stock items. For patch cords in 5 and 10 meter lengths, and pigtails in 2 and 3 meter lengths, contact Customer Service (800-777-3300) for actual lead times.

Self-Laminating Labels for Fiber Optic Patch Cords and Pigtails – Multimode 62.5/125µm or 50/125µm

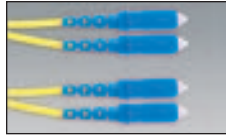
Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
F6D6P**-3M	S100X225FAJ and NWSLC-7	S100X225FA6 and NWSLC-7	LS7-75NL-1 and NWSLC-7
F6D2-3M			
F6E3-10M			
F6D6P-2M			

*ST is a registered trademark of Lucent Technologies

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).
** All F6D6P*-3M parts on this page.

Fiber Optic Patch Cords and Pigtails - Singlemode 9/125µm

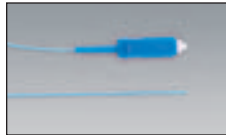
- Passes all TIA/EIA-568-B.3 performance and requirements
- 100% factory inspected end face geometry in compliance with Telcordia GR-326-CORE, Issue 3
- Typical insertion loss per connection: .25dB
- UPC polished (55dB minimum return loss)
- 100% factory tested and inspected for insertion loss and return loss
- Insertion loss and return loss data recorded for every singlemode patch cord
- Lifetime traceability of test data to a Q.C. number on each patch cord
- Highest quality flame retardant fiber optic cable with tight-buffered coating on each optical fiber



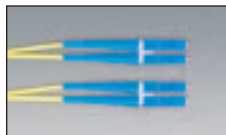
F9D3-3M



F9S3-3M



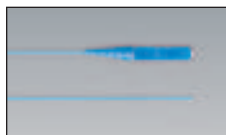
F9B3-NM



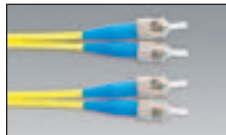
F9E10-10M



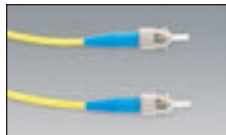
F9F10-10M



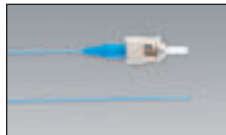
F9S2-2M



F9D2-2M



F9S2-2M



F9B2-NM

Part Number	Part Description	Length (M) Additional Lengths [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
SC to SC - Singlemode Duplex Patch Cords - 3mm Jacketed Cable				
F9D3-3M1	SC to SC singlemode duplex patch cord, 3mm jacketed cable (two SC connectors on each end) - 9/125µm.	1	1	10
SC to SC - Singlemode Simplex Patch Cords - 3mm Jacketed Cable				
F9S3-3M1	SC to SC singlemode simplex patch cord, 3mm jacketed cable (one SC connector on each end) - 9/125µm.	1	1	10
SC to Pigtail - Singlemode Simplex Pigtails - 900µm Buffered Fiber				
F9B3-NM1	SC to pigtail singlemode simplex pigtail, 900µm buffered fiber (one SC connector on one end and open on the other end) - 9/125µm.	1	1	10
LC to LC - Singlemode Duplex Patch Cords - 1.6mm Jacketed Cable				
F9E10-10M1	LC to LC singlemode duplex patch cord, 1.6mm jacketed cable (one duplex LC connector on each end) - 9/125µm.	1	1	10
LC to LC - Singlemode Simplex Patch Cords - 1.6mm Jacketed Cable				
F9F10-10M1	LC to LC singlemode simplex patch cord, 1.6mm jacketed cable (one LC connector on each end) - 9/125µm.	1	1	10
LC to Pigtail - Singlemode Simplex Pigtails - 900µm Buffered Fiber				
F9B10-NM1	LC to pigtail singlemode simplex pigtail, 900µm buffered fiber (one LC connector on one end and open on the other end) - 9/125µm.	1	1	10
ST* to ST* - Singlemode Duplex Patch Cords - 3mm Jacketed Cable				
F9D2-2M1	ST* to ST* singlemode duplex patch cord, 3mm jacketed cable (two ST* connectors on each end) - 9/125µm.	1	1	10
ST* to ST* - Singlemode Simplex Patch Cords - 3mm Jacketed Cable				
F9S2-2M1	ST* to ST* singlemode simplex patch cord, 3mm jacketed cable (one ST* connector on each end) - 9/125µm.	1	1	10
ST* to Pigtail - Singlemode Simplex Pigtails - 900µm Buffered Fiber				
F9B2-NM1	ST* to pigtail singlemode simplex pigtail, 900µm buffered fiber (one ST* connector on one end and open on the other end) - 9/125µm.	1	1	10

[^] Additional lengths and availability: Patch cords are available in 1, 2, 3, 5, 10, 12, 15, 25 and 30 meter lengths, and pigtails are available in 1, 2 and 3 meter lengths. To order lengths other than 1 meter, substitute the 1 suffix in the part number (F9D3-3M1) with the desired length (F9D3-3M2 for 2 meter length). Patch cords in 1, 2 and 3 meter lengths, and pigtails in 1 meter lengths are stock items. For patch cords in 5, 10, 12, 15, 25 and 30 meter lengths, and pigtails in 2 and 3 meter lengths, contact Customer Service (800-777-3300) for actual lead times.

Self-Laminating Labels for Fiber Optic Patch Cords and Pigtails - Singlemode 9/125µm

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer label	PANACEA™ LS7 Hand-Held Printer Label
F9F10-NM	S100X160FAJ and NWSLC-2	S100X160FA6 and NWSLC-2	LS7-75NL-1 and NWSLC-2
F9S**-*M	S100X160FAJ and NWSLC-3	S100X160FA6 and NWSLC-3	LS7-75NL-1 and NWSLC-3
F9D**-*M	S100X225FAJ and NWSLC-7	S100X225FA6 and NWSLC-7	LS7-75NL-1 and NWSLC-7
F9D**-*M			

For complete labeling solutions and product information, reference charts on pages K5-K6.

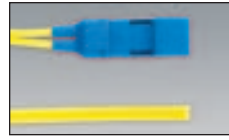
**All part number configurations on this page.

*ST is a registered trademark of Lucent Technologies

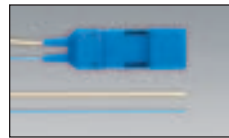
Fiber Optic Patch Cords and Pigtails - Singlemode 9/125µm (continued)



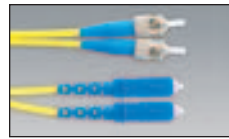
F9D6P-6PM



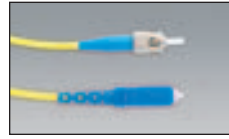
F9D6J-NM



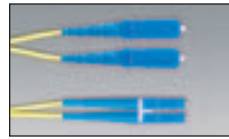
F9B6J-NM



F9D2-3M



F9S2-3M



F9E3-10M



F9F3-10M



F9D6P-3M

Part Number	Part Description	Length (M) Additional Lengths [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
FJ® Plug to FJ Plug - Singlemode Duplex Patch Cords - 3mm Jacketed Cable				
F9D6P-6PM1	FJ plug to FJ plug singlemode duplex patch cord, 3mm jacketed cable (one FJ plug on each end) - 9/125µm.	1‡	1	10
FJ Jack Module to Pigtail - Singlemode Duplex Pigtails - 3mm Jacketed Cable				
F9D6J-NM1	FJ jack module to pigtail singlemode duplex patch cord, 3mm jacketed cable (one FJ jack module on one end and open on the other end) - 9/125µm.	1	1	10
FJ Jack Module to Pigtail - Singlemode Duplex Pigtails - 900µm Buffered Fiber				
F9B6J-NM1	FJ jack module to pigtail singlemode duplex pigtail, 900µm buffered fiber (one FJ jack module on one end and open on the other end) - 9/125µm.	1	1	10
ST* to SC - Singlemode Duplex Patch Cords - 3mm Jacketed Cable				
F9D2-3M1	ST* to SC singlemode duplex patch cord, 3mm jacketed cable (two ST* connectors on one end and two SC connectors on the other end) - 9/125µm.	1	1	10
ST* to SC - Singlemode Simplex Patch Cord - 3mm Jacketed Cable				
F9S2-3M1	ST* to SC singlemode simplex patch cord, 3mm jacketed cable (one ST* connector on one end and one SC connector on the other end) - 9/125µm.	1	1	10
SC to LC - Singlemode Duplex Patch Cords - 1.6mm Jacketed Cable				
F9E3-10M1	SC to LC singlemode duplex patch cord, 1.6mm jacketed cable (two SC connectors on one end and one duplex LC connector on the other end) - 9/125µm.	1	1	10
SC to LC - Singlemode Simplex Patch Cords - 1.6mm Jacketed Cable				
F9F3-10M1	SC to LC singlemode simplex patch cord, 1.6mm jacketed cable (one SC connector on one end and one LC connector on the other end) - 9/125µm.	1	1	10
FJ Plug to SC - Singlemode Duplex Patch Cords - 3mm Jacketed Cable				
F9D6P-3M1	FJ plug to SC singlemode duplex patch cord, 3mm jacketed cable (one FJ plug on one end and two SC connectors on the other end) - 9/125µm.	1‡	1	10

[^] **Additional lengths and availability:** Patch cords are available in 1, 2, 3, 5, 10, 12, 15, 25 and 30 meter lengths, and pigtails are available in 1, 2 and 3 meter lengths. To order lengths other than 1 meter, substitute the 1 suffix in the part number (F9D3-3M1) with the desired length (F9D3-3M2 for 2 meter length). Patch cords in 1, 2 and 3 meter lengths, and pigtails in 1 meter lengths are stock items. For patch cords in 5, 10, 12, 15, 25 and 30 meter lengths, and pigtails in 2 and 3 meter lengths, contact Customer Service (800-777-3300) for actual lead times.

‡ Not available in 12, 15, 25 or 30 meter lengths.

Self-Laminating Labels for Fiber Optic Patch Cords and Pigtails – Singlemode 9/125µm

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
F9F3-10M	S100X160FAJ and NWSLC-2	S100X160FA6 and NWSLC-2	LS7-75NL-1 and NWSLC-2
F9S2-3M	S100X160FAJ and NWSLC-3	S100X160FA6 and NWSLC-3	LS7-75NL-1 and NWSLC-3
F9D6P-6PM	S100X160FAJ and NWSLC-7	S100X160FA6 and NWSLC-7	LS7-75NL-1 and NWSLC-7
F9D6J-NM			
F9D2-3M			
F9E3-10M			

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

*ST is a registered trademark of Lucent Technologies

Fan-Out Cords - Multimode 62.5/125µm



F612D3-NM

Part Number	Part Description	Length (M) [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
Distribution Fiber Optic Cords - Six ST* Connectors to Pigtails				
F66D2-NM1	ST* to pigtail six strand fiber optic cable (six ST* connectors on one end and open on the other end on distribution cable) - 62.5/125µm.	1	1	10
Distribution Fiber Optic Cords - Six SC Connectors to Pigtails				
F66D3-NM1	SC to pigtail six strand fiber optic cable (six SC connectors on one end and open on the other end on distribution cable) - 62.5/125µm.	1	1	10
Distribution Fiber Optic Cords - Four FJ[®] Jack Modules to Pigtails				
F68D6J-NM1	FJ jack module to pigtail eight strand fiber optic cable (four FJ jack modules on one end and open on the other end on distribution cable) - 62.5/125µm.	1	1	10
Distribution Fiber Optic Cords - Twelve SC Connectors to Pigtails				
F612D3-NM1	SC to pigtail twelve strand fiber optic cable (twelve SC connectors on one end and open on the other end on distribution cable) - 62.5/125µm.	1	1	10

[^] Patch cords available in 1, 2, 3 and 10 meter lengths. To order lengths other than 1 meter, substitute 1 suffix with 2, 3 or 10.

Fan-Out Cords - Singlemode 9/125µm



F96D3-NM

Part Number	Part Description	Length (M) [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
Distribution Fiber Optic Cords - Six ST* Connectors to Pigtails				
F96D2-NM1	ST* to pigtail six strand fiber optic cable (six ST* connectors on one end and open on the other end on distribution cable) - 9/125µm.	1	1	10
Distribution Fiber Optic Cords - Six SC Connectors to Pigtails				
F96D3-NM1	SC to pigtail six strand fiber optic cable (six SC connectors on one end and open on the other end on distribution cable) - 9/125µm.	1	1	10
Distribution Fiber Optic Cords - Four FJ[®] Jack Modules to Pigtails				
F98D6J-NM1	FJ jack module to pigtail eight strand fiber optic cable (four FJ jack modules on one end and open on the other end on distribution cable) - 9/125µm.	1	1	10
Distribution Fiber Optic Cords - Twelve SC Connectors to Pigtails				
F912D3-NM1	SC to pigtail twelve strand fiber optic cable (twelve SC connectors on one end and open on the other end on distribution cable) - 9/125µm.	1	1	10

[^] Patch cords available in 1, 2, 3 and 10 meter lengths. To order lengths other than 1 meter, substitute 1 suffix with 2, 3 or 10.

^{*}ST is a registered trademark of Lucent Technologies

MPO Fiber Optic Cords - Multimode 62.5/125µm



F64D5-5M

Part Number	Part Description	Length (M) [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
Four Strand Fiber Optic Cable — MPO to MPO				
F64D5-5M1	MPO to MPO four strand fiber optic cable (one MPO connector on each end on ribbon distribution cable) - 62.5/125µm.	1	1	10
Six Strand Fiber Optic Cable — MPO to MPO				
F66D5-5M1	MPO to MPO six strand fiber optic cable (one MPO connector on each end on ribbon distribution cable) - 62.5/125µm.	1	1	10
Eight Strand Fiber Optic Cable — MPO to MPO				
F68D5-5M1	MPO to MPO eight strand fiber optic cable (one MPO connector on each end on ribbon distribution cable) - 62.5/125µm.	1	1	10
Twelve Strand Fiber Optic Cable — MPO to MPO				
F612D5-5M1	MPO to MPO twelve strand fiber optic cable (one MPO connector on each end on ribbon distribution cable) - 62.5/125µm.	1	1	10
Six Strand Fiber Optic Cable — Six ST* Connectors to MPO				
F66D2-5M1	ST* to MPO six strand fiber optic cable (six ST* connectors on one end and one MPO connector on the other end on ribbon distribution cable) - 62.5/125µm.	1	1	10
Six Strand Fiber Optic Cable — Six SC Connectors to MPO				
F66D3-5M1	SC to MPO six strand fiber optic cable (six SC connectors on one end and one MPO connector on the other end on ribbon distribution cable) - 62.5/125µm.	1	1	10
Twelve Strand Fiber Optic Cable — Twelve SC Connectors to MPO				
F612D3-5M1	SC to MPO twelve strand fiber optic cable (twelve SC connectors on one end and one MPO connector on the other end on ribbon distribution cable) - 62.5/125µm.	1	1	10
Eight Strand Fiber Optic Cable — Four FJ® Jack Modules to MPO				
F68D6J-5M1	FJ jack to MPO eight strand fiber optic cable (four FJ jack modules on one end and one MPO connector on the other end on ribbon distribution cable) - 62.5/125µm.	1	1	10

[^] Patch cords available in 1, 2, 3 and 10 meter lengths.
To order lengths other than 1 meter, substitute 1 suffix with 2, 3 or 10.



F612D3-5M

Self-Laminating Labels for MPO Fiber Optic Cords – Multimode 62.5/125µm

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
All MPO Fiber Optic Cords on this page	S100X160FAJ and NWSLC-3	S100X160FA6 and NWSLC-3	LS7-75NL-1 and NWSLC-3

For complete labeling solutions and product information, reference charts on [pages K5-K6](#).

*ST is a registered trademark of Lucent Technologies

MPO Fiber Optic Cords — Singlemode 9/125µm



F94D5-5M



F96D3-5M

Part Number	Part Description	Length (M) [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
Four Strand Fiber Optic Cable — MPO to MPO				
F94D5-5M1	MPO to MPO four strand fiber optic cable (one MPO connector on each end on ribbon distribution cable) - 9/125µm.	1	1	10
Six Strand Fiber Optic Cable — MPO to MPO				
F96D5-5M1	MPO to MPO six strand fiber optic cable (one MPO connector on each end on ribbon distribution cable) - 9/125µm.	1	1	10
Eight Strand Fiber Optic Cable — MPO to MPO				
F98D5-5M1	MPO to MPO eight strand fiber optic cable (one MPO connector on each end on ribbon distribution cable) - 9/125µm.	1	1	10
Twelve Strand Fiber Optic Cable — MPO to MPO				
F912D5-5M1	MPO to MPO twelve strand fiber optic cable (one MPO connector on each end on ribbon distribution cable) - 9/125µm.	1	1	10
Six Strand Fiber Optic Cable — Six ST* Connectors to MPO				
F96D2-5M1	ST* to MPO six strand fiber optic cable (six ST* connectors on one end and one MPO connector on the other end on ribbon distribution cable) - 9/125µm.	1	1	10
Six Strand Fiber Optic Cable — Six SC Connectors to MPO				
F96D3-5M1	SC to MPO six strand fiber optic cable (six SC connectors on one end and one MPO connector on the other end on ribbon distribution cable) - 9/125µm.	1	1	10
Twelve Strand Fiber Optic Cable — Twelve SC Connectors to MPO				
F912D3-5M1	SC to MPO twelve strand fiber optic cable (twelve SC connectors on one end and one MPO connector on the other end on ribbon distribution cable) - 9/125µm.	1	1	10
Eight Strand Fiber Optic Cable — Four FJ® Jack Modules to MPO				
F98D6J-5M1	FJ jack module to MPO eight strand fiber optic cable (four FJ jack modules on one end and one MPO connector on the other end on ribbon distribution cable) - 9/125µm.	1	1	10

MPOs utilize standard APC polish. SC utilize standard UPC polish.

[^] Patch cords available in 1, 2, 3 and 10 meter lengths. To order lengths other than 1 meter, substitute 1 suffix with 2, 3 or 10.

Self-Laminating Labels for MPO Fiber Optic Cords — Singlemode 9/125µm

Suggested Label Solutions for TIA/EIA-606-A Compliance			
Patch Cord Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
All MPO Fiber Optic Cords on this page	S100X225FAJ and NWSLC-7	S100X225FA6 and NWSLC-7	LS7-75NL-1 and NWSLC-7

For complete labeling solutions and product information, reference charts on [page K5-K6](#).

*ST is a registered trademark of Lucent Technologies

Furcation Kits

- Used to build up 900µm fiber to 3mm jacketed fiber to strengthen and protect the fiber
- Length: 1 meter
- Kits include furcation tubing with strength members and heat shrink



FK2BJ

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
FK2BJ	Build up 900µm fiber to 3mm jacketed fiber. For two fibers.	1	10
FK4BJ	Build up 900µm fiber to 3mm jacketed fiber. For four fibers.	1	10

FJ® Loopback Connector Assemblies

- FJ Jack Module ports can be tested using the FJ Loopback
- Each FJ Loopback includes an FJ Plug
- All FJ Loopback Connector Assemblies share the same performance as our singlemode and multimode patch cords
- Available in multimode (62.5/125µm) and singlemode (9/125µm) using 3mm tight-buffered jacketed cable
- Network interfaces are simulated via the FJ Loopback by sending the transmit signal to the receive signal
- Tests both links (duplex) simultaneously at a single port
- Allows source and meter to remain at one location



FLB-6P-6S-PA



FLB-6P-9S-UA

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
FLB-6P-6S-PA	FJ Multimode Loopback with FJ Duplex Plug with PC polish.	1	10
FLB-6P-9S-UA	FJ Singlemode Loopback with FJ Duplex Plug with UPC polish.	1	10

NEW! SC Terminator

- Singlemode SC/UPC Optical Terminator for both 1310nm and 1550nm windows
- Terminates unused ports to reduce back reflectance to improve network performance
- Return loss: 55dB min. (UPC)
- FOCIS-3 compliant
- Meets/exceeds EIA/TIA-568-B.3



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
FTRM-SC1	SC/UPC Singlemode Fiber Optic Terminator (1310/1550nm).	1	10



LABELCORE™ Fiber Optic Cable Identification System



- Made of flexible PVC material
- Provides a larger labeling surface on small cables allowing legends to be clearly seen
- Locate on straight section of cable at least 2" from fiber boot



Part Number	Part Description	Std. Pkg. Qty.*	Std. Ctn. Qty.
Sleeves			
NWSLC-2	Cable identification sleeve, 2mm cable, yellow.	100	1000
NWSLC-3	Cable identification sleeve, 3mm cable, orange.	100	1000
NWSLC-7	Cable identification sleeve for 3mm duplex fiber cable, white.	100	1000

* Order number of sleeves required.

Self-Laminating Labels for LABELCORE Fiber Optic Cable Identification System

Suggested Label Solutions for TIA/EIA-606-A Compliance			
LabelCore Sleeve Part Number	Laser/Ink Jet Desktop Printer Label	VIPER™ LS6 Portable Printer Label	PANACEA™ LS7 Hand-Held Printer Label
NWSLC-2	S100X160FAJ	S100X160FA6	LS7-75NL-1
NWSLC-3			
NWSLC-7	S100X225FAJ	S100X225FA6	LS7-75NL-1

For complete labeling solutions and product information, reference charts on [page K5-K6](#).



Apply LabelCore Sleeve to cable



Wrap self-laminating label around LabelCore Sleeve

RACKS AND CABLE MANAGEMENT

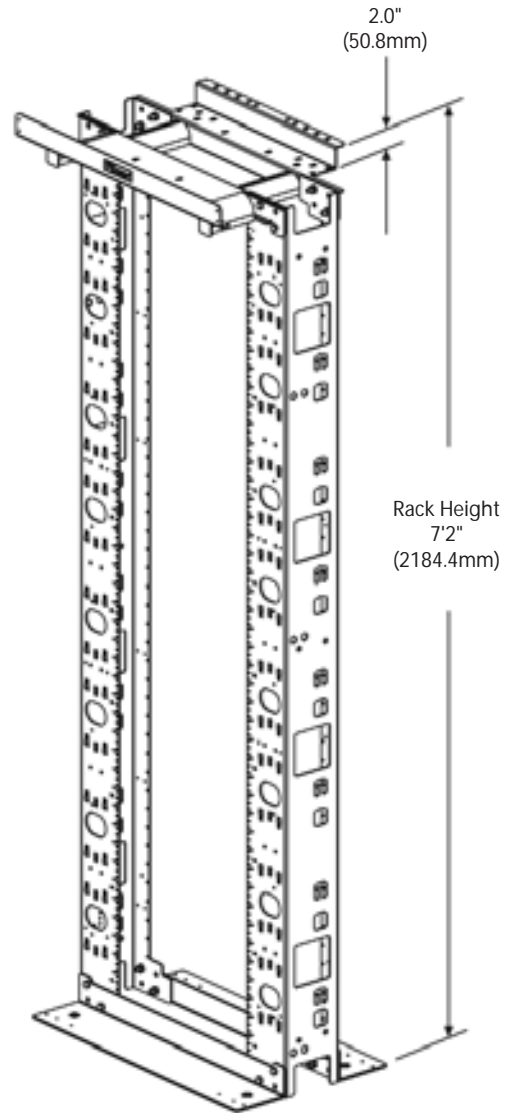
PANDUIT® is a world leader in high quality racks and cable management solutions for telecommunication equipment rooms and premise wiring applications. As the demand for system performance increases, it becomes essential to protect and manage cables in order to maintain system reliability. *PANDUIT* continues to provide innovative products that create the ultimate solutions for managing, protecting and showcasing your network.



- Multiple options allow user to configure system to their preferences
- Integral bend radius control helps protect cable from being pinched, crushed or strained
- Easy access to cable pathways simplifies moves, adds and changes while allowing the user to maintain an organized system
- Modular design allows for use with all *PAN-NET*® products to provide an aesthetically pleasing solution
- Easy field installation of components provides the lowest installed cost

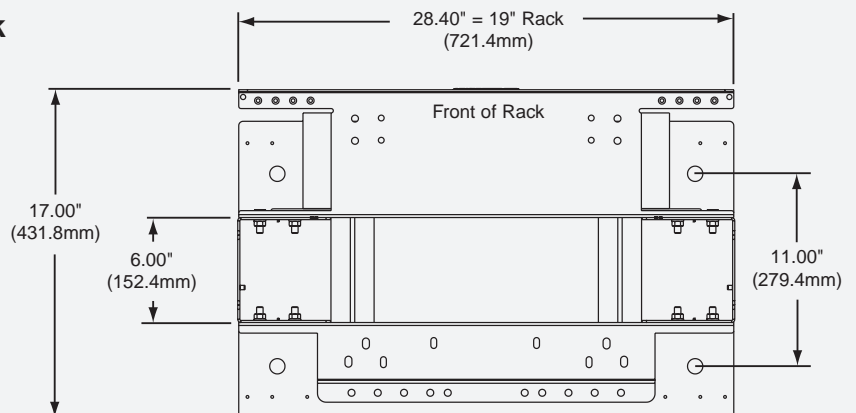
PANDUIT offers a wide variety of racks and cable management products that organize and protect your network as it expands while maintaining a professional appearance. Features such as integral bend radius control and cable retainers contribute to make the *NETMANAGER*™ horizontal cable manager the new standard. Integral bend radius control and large capacity options contribute to make the *PATCHRUNNER*™ Vertical Cable Manager the solution that maximizes density in minimal floor space. The *NETFRAME*™ Rack System provides a heavy-duty solution with a large selection of accessories that allow it to be used in a variety of applications. *PANDUIT* provides all of the options necessary to handle the most demanding installations while providing the flexibility to facilitate system upgrades now and in the future.

NETFRAME™ Cable Management Rack System Roadmap



NFR84

Footprint for NetFrame Rack



System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

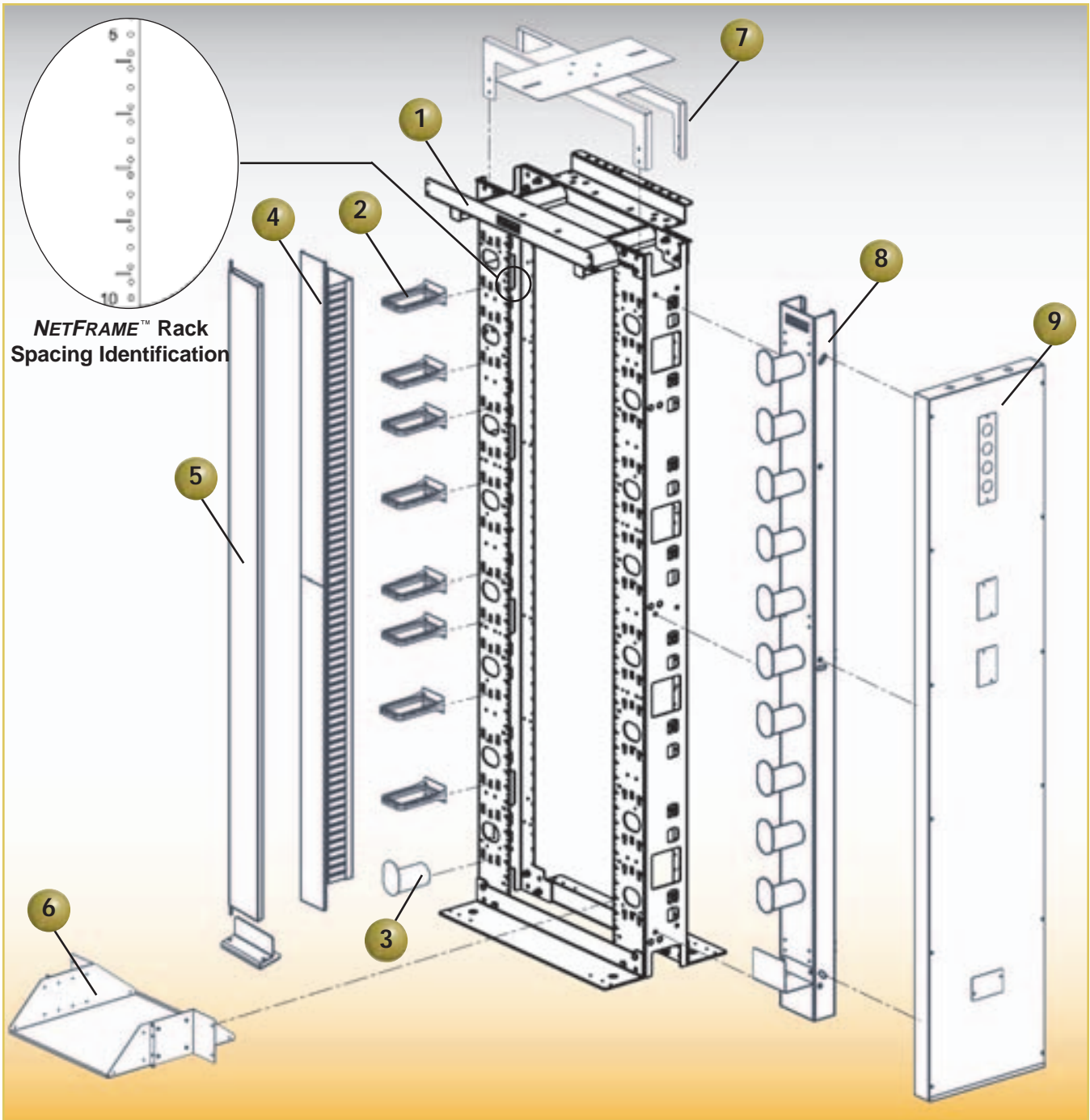
Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

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- 1** NETFRAME Rack – 7' NFR84 (page G4)
- 2** D-ring Kit (8 each), 4x6 – Capacity: 275 cables (.187 dia) NFDR4X6K (page G4)
- 3** Fiber Spool Kit NFSK (page G4)
- 4** 4x5 Duct with Cover – Capacity: 240 cables (.187 dia) NFVD4X584 (page G4)
- 5** Hinged Door (1 each) NFD484 (page G4)
- 6** NETFRAME Shelf NFSHLF19X18 (page G4)
- 7** Ladder Rack Support Bracket NFLRB (page G4)
- 8** Vertical Slack Manager NFVSM (page G4)
- 9** End Panel NFEP (page G4)

System Overview
Modules
Ultimate ID System & Work Area
Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
Racks & Cable Management
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Fiber Routing
Surface Raceway
Labeling & Administration
Cable Ties & Accessories
Supplementary Technical Information
Glossary & Index

★ NEW! NETFRAME™ Rack System

- Rack is UL listed for 1500 lbs. load rating to accommodate large networking equipment
- Pass through holes on front and side of channels provide convenient patching front to back or between racks
- Heavy duty shelves available to accommodate network equipment
- Deep vertical channel design provides distribution cable pathway
- Top channel provides pathway for ladder rack
- Compatible with horizontal cable management panels, *OPTICOM*® Fiber Optic Enclosures and *MINI-COM*® Rack Mount Products
- Easy field installations
- Multiple vertical cable management options are simple to install and allow user to configure system to their preferences
- Optional full length hinged metal door provides easy access to vertical pathway



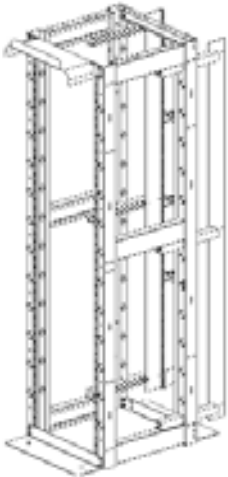
Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
NETFRAME Rack				
NFR84	NETFRAME Rack, 7ft.	45	1	—
CMRSW2384Z	NETFRAME Rack System, 23" x 7', Seismic Zone 4 rated	45	1	—
NETFRAME Rack Accessories				
NFD484	Hinged door 4" x 7'H.	45	1	—
NFDR4X6K	D-ring kit (8), 4" x 6".	—	1	—
NFVD4X584	NETFRAME duct accessory, front only. Dimensions 4"W x 5"D x 7"H.	45	1	—
NFSK	Fiber spool kit, 1 spool with hardware.	—	1	10
NFSHLF19X25	NETFRAME shelf 19" mount x 25" deep.	3	1	—
NFSHLF19X18	NETFRAME shelf 19" mount x 18" deep.	3	1	—
NFVSM	Vertical slack manager, front only.	—	1	—
NFEP	End panel	—	1	—
NFLRB	Ladder rack support bracket	—	1	—

[^]One rack space = 1.75" (44.45mm)
All product color is black.

★ NEW! 4 Post Rack and Accessories

- Rack features 19" or 23" EIA mounting
- Adjustable rear mounting rails provide a mounting depth of 12" to 31".
- Rack space identification stamped into rails at each rack space

- Base can be setup 24"x24" for raised floor applications
- Top waterfall
- Multiple holes on top cross braces accommodate up to 15" ladder rack 1000 lbs. load rating
- Two vertical cable management options



NF4PR84



NF4PDR2X6K



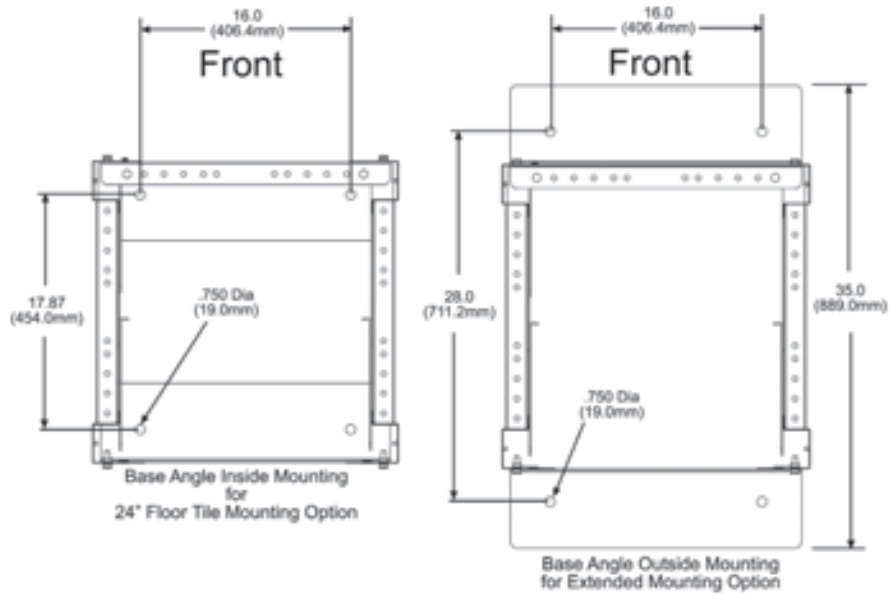
NF4PVD2X5



NF4PSHLF19

Part Number	Part Description	No. of Rack Spaces ^A	Std. Pkg. Qty.	Std. Ctn. Qty.
4 Post Rack				
NF4PR84	4 post rack, 7'.	45	1	—
4 Post Rack Accessories				
NF4PDR2X6K	4 post rack d-ring kit (8), 2" x 6".	—	1	10
NF4PVD2X5	4 post rack, 2x5 vertical duct accessory, front only. Dimensions 2" x 5" x 7'	45	1	—
NF4PSHLF19	4 post rack shelf, 19" Dimensions 1.7"H x 19.0"W x 32.1"D (43.1mm x 482.6mm x 815.3mm)	1	1	—

^AOne rack space = 1.75" (44.45mm)
All product color is black.



NF4PR84 Rack Footprint

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

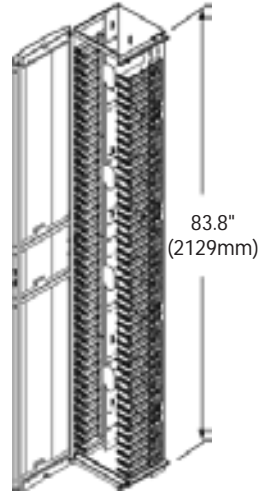
Labeling & Administration

Cable Ties & Accessories

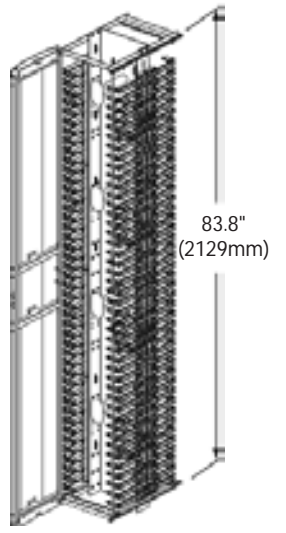
Supplementary Technical Information

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PATCHRUNNER™ Vertical Cable Management Rack System Roadmap

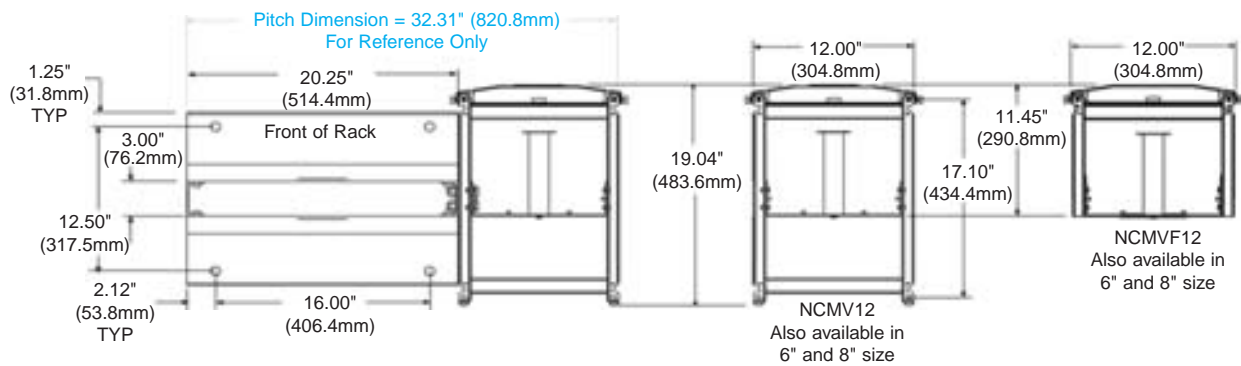


NCMVF12

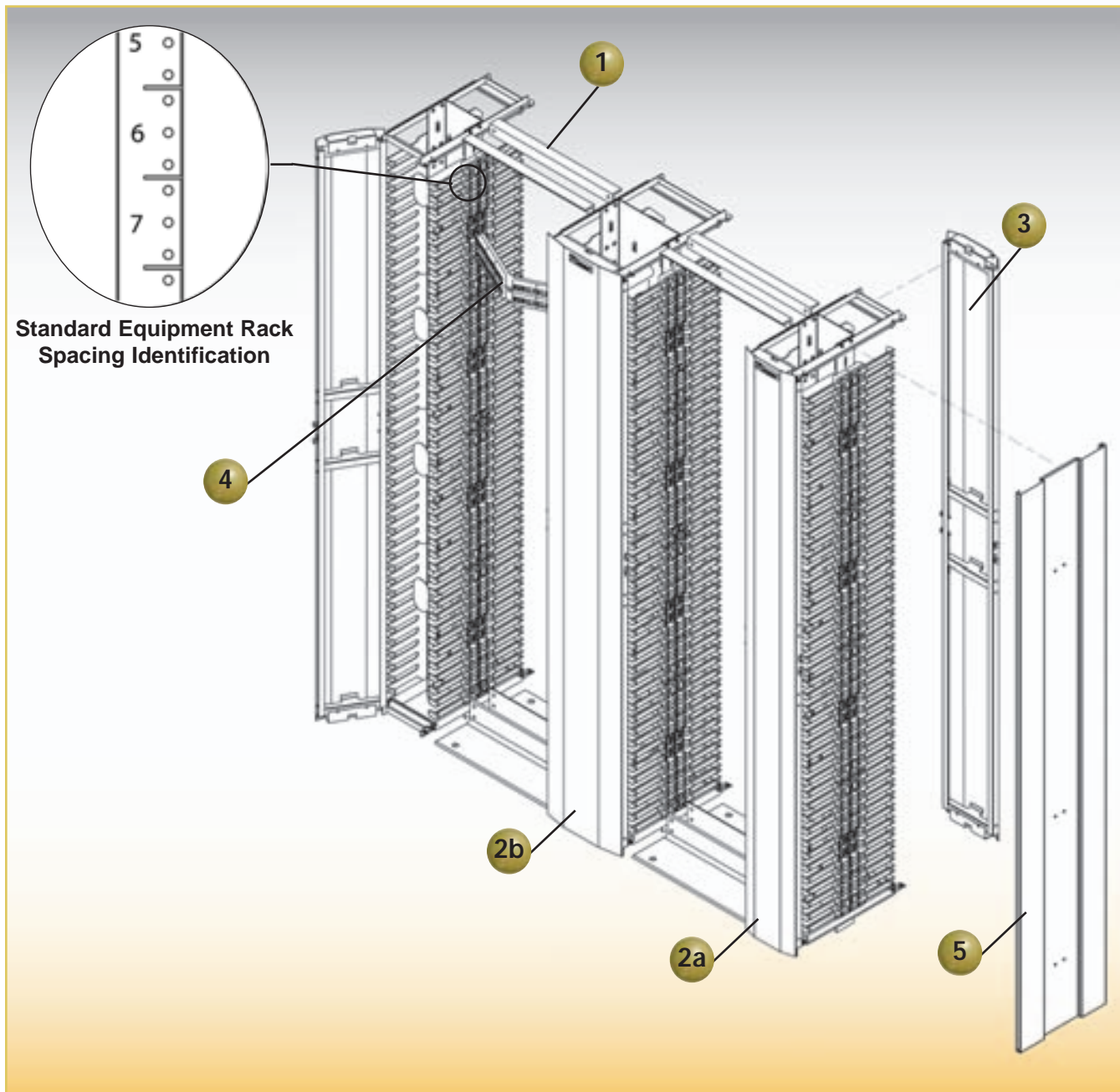


NCMV12

Footprint for Standard Equipment Rack with NCMV12 and NCMVF12



- System Overview
- Modules
- Ultimate ID System & Work Area
- Zone Cabling
- Patch Panels Copper Patch Cords & Punchdowns
- Fiber Connectors Enclosures & Patch Cords
- Racks & Cable Management
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Standard Equipment Rack Spacing Identification

1 Standard Equipment Rack – 19" x 7" CMR19X84 (page G12)

2a Managers with Front Doors NCMV8 – 8" Wide (page G8)

2b Managers with Front Doors NCMV12 – 12" Wide (page G8)

3 Rear Door NCMV8RD – 8" Wide (page G8)

4 Angled Patch Panel CPPLA48WBL – 2RU, 48 Port (page E6)

5 End Panel NCMVEP (page G8)

★ NEW! PATCHRUNNER™ Vertical Cable Management System

- Molded cable management fingers with integral bend radius control supports cable as it transitions from patch panel to vertical pathway without the need for horizontal cable managers
- Finger spacing aligns with the rack spaces simplifying cable routing
- Four modular cable management spools organize and manage slack for 8" and 12" product allowing standardization of patch cord lengths
- Dual hinged full length door (one included)
- Angled modular patch panel provides optimal patch cord bend radius control
- Rack spacing identification and load rating of 800 lbs. provided when mounted to *PANDUIT*® Standard Equipment Rack



NCMVF12

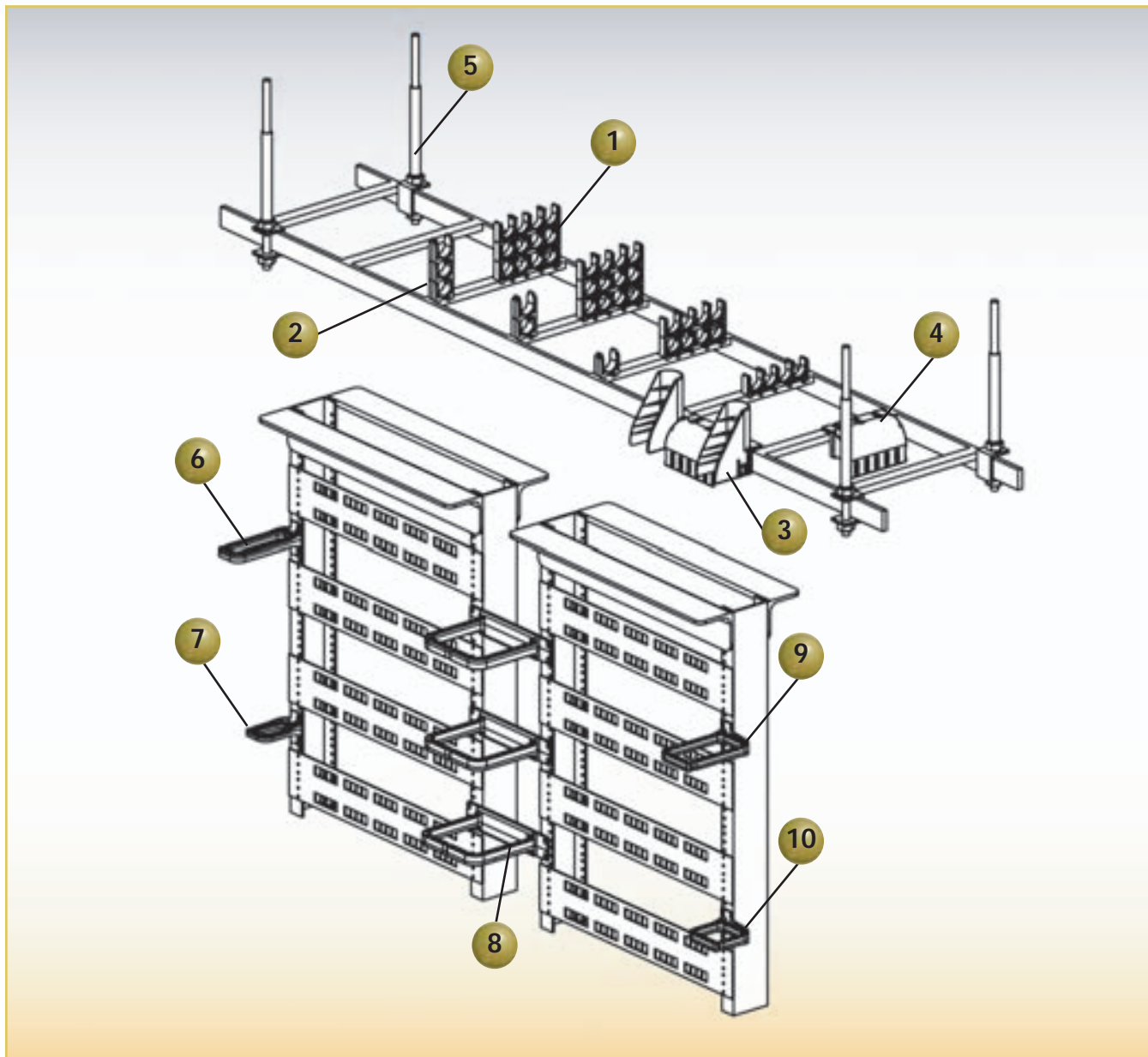
Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
PATCHRUNNER Vertical Managers - Manages cable on front and rear of rack			
NCMV6	Vertical cable manager 7" H (2133.6mm) Front dimensions 6.0"W x 8.5"D (152.4mm x 215.9mm) Back dimensions 6.0"W x 5.5"D (152.4mm x 139.7mm)	1	—
NCMV8	Vertical cable manager 7"H (2139.6mm) Front dimensions 8.0"W x 8.5"D (203.2mm x 215.9mm) Back dimensions 8.0"W x 5.5"D (203.2mm x 139.7mm)	1	—
NCMV12	Vertical cable manager 7"H (2139.6mm) Front dimensions 12.0"W x 8.5"D (304.8mm x 215.9mm) Back dimensions 12.0"W x 5.5"D (304.8mm x 139.7mm)	1	—
PATCHRUNNER Vertical Managers - Manages cable on front of rack only			
NCMVF6	Vertical cable manager 7" H (2133.6mm) Front dimensions 6.0"W x 8.5"H (152.4mm x 215.9mm)	1	—
NCMVF8	Vertical cable manager 7" H (2139.6mm) Front Dimensions 8.0"W x 8.5"D (203.2mm x 215.9mm)	1	—
NCMVF12	Vertical cable manager 7" H (2139.6mm) Front dimensions 12.0"W x 8.5"D (304.8mm x 215.9mm)	1	—
PATCHRUNNER Accessories			
NCMVTRB	<i>PATCHRUNNER</i> telco rack bracket.	1	10
NCMVSP	<i>PATCHRUNNER</i> slack spool.	1	10
NCMVEP	NCMV end panel.	1	—
PATCHRUNNER - Additional Doors			
NCMV6RD	Dual hinged door 7"H x 6.0"W (2139.6mm x 152.4mm)	1	—
NCMV8RD	Dual hinged door 7"H x 8.0"W (2139.6mm x 203.2mm)	1	—
NCMV12RD	Dual hinged door 7"H x 12.0"W (2139.6mm x 304.8mm)	1	—

All product color is black.

Capacity Chart

Part Number	Description	.187 Dia. Cable	
		Front	Back
NCMV12	12" wide front/back	960	640
NCMVF12	12" wide front	960	N/A
NCMV8	8" wide front/back	480	320
NCMVF8	8" wide front	480	N/A
NCMV6	6" wide front/back	380	250
NCMVF6	6" wide front	380	N/A

Communication Cable Management Accessories Roadmap

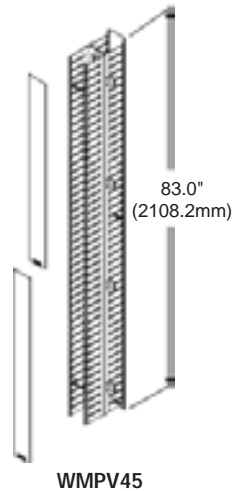
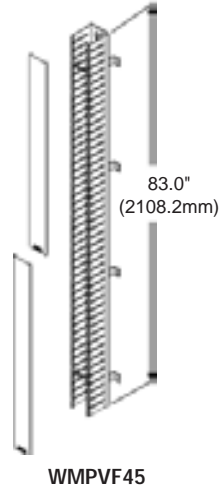


- 1** 4 space Stackable Cable Rack Spacers CRS4-125-X (page G22)
- 2** 1 space Stackable Cable Rack Spacers CRS1-125-X (page G22)
- 3** Waterfall Kit CMW-KIT (page G22)
- 4** Waterfall Base CMWB (page G22)
- 5** Threaded Rod Cover TRC18FR-X8 (page I24)

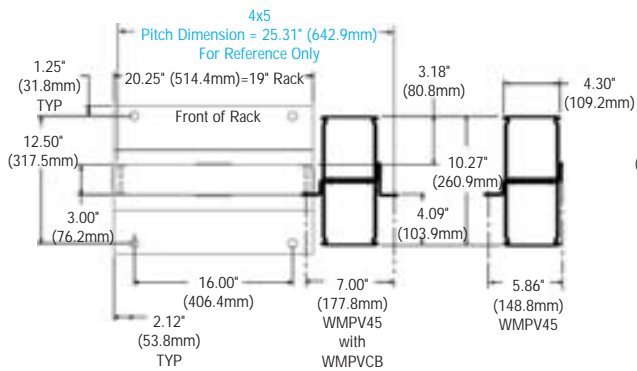
- 6** 1" Vertical D-ring CMVDR1 (page G20)
- 7** 1" Short Vertical D-ring CMVDR1S (page G20)
- 8** Center Mounted Vertical D-ring CMVDRC (page G20)
- 9** 2" Vertical D-ring CMVDR2 (page G20)
- 10** 2" Short Vertical D-ring CMVDR2S (page G20)

Standard Cable Management Rack System Roadmap

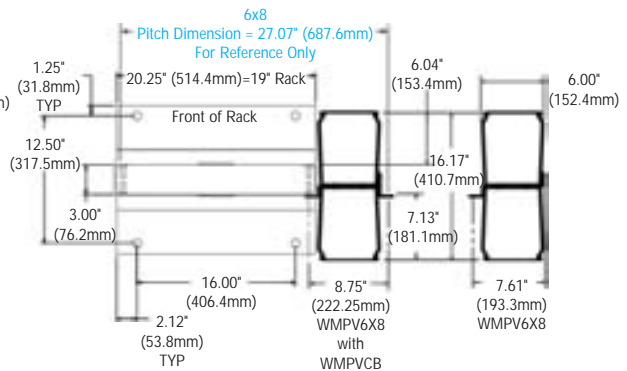
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Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
Racks & Cable Management
Grounding & Bonding
Fiber Routing
Surface Raceway
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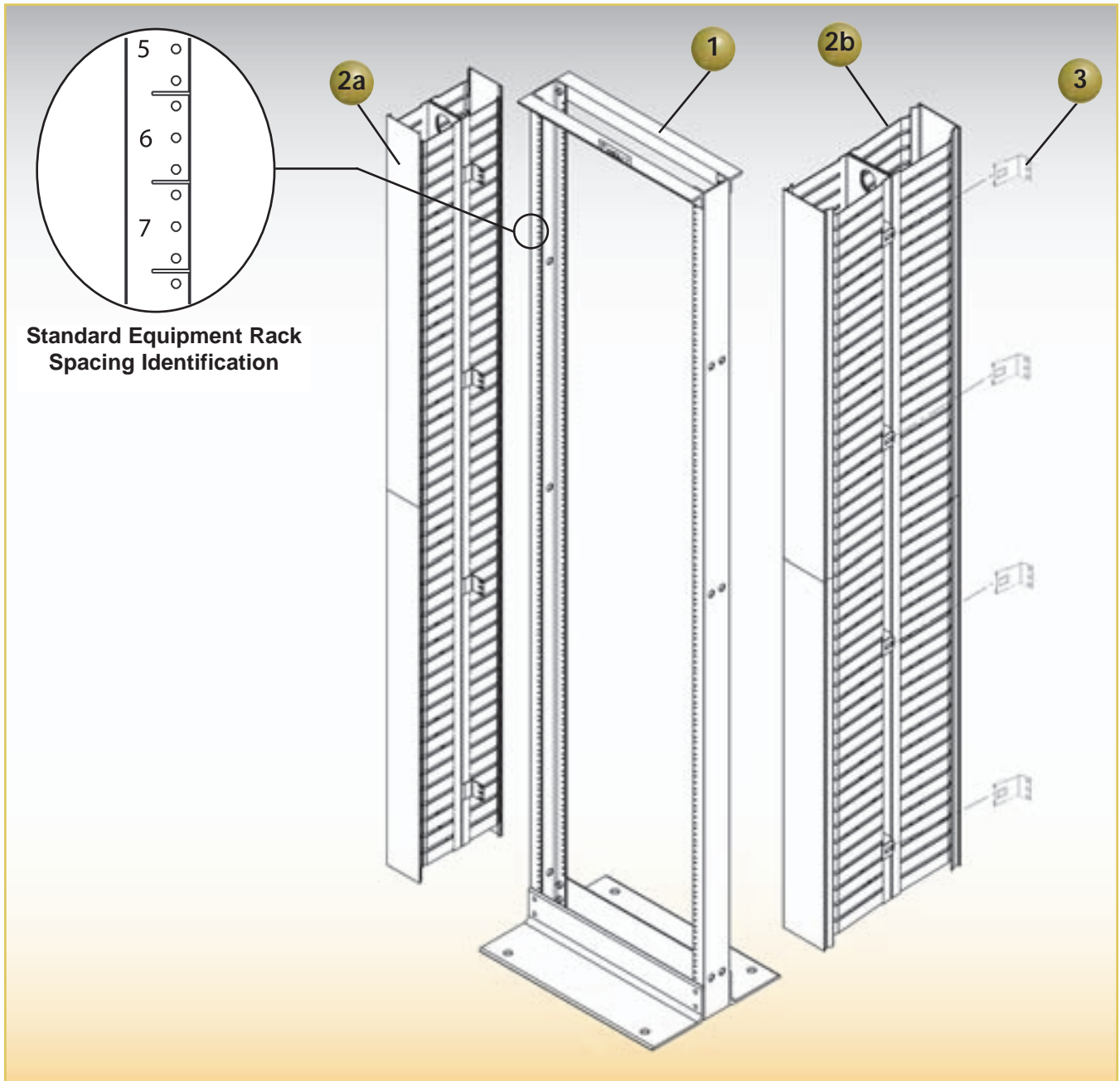


Footprint for Standard Rack with 4x5 Vertical Managers



Footprint for Standard Rack with 6x8 Vertical Managers





Standard Equipment Rack Spacing Identification

1 Standard Equipment Rack
CMR19X84 (page G12)

2b Standard Vertical Cable Managers
WMPV6X8 (page G15)

2a Standard Vertical Cable Managers
WMPV45 (page G15)

3 Center Bracket Kit (4 brackets included) –
Use when mounting between racks
WMPVCB (page G15)

Standard Racks and Accessories

- Can be used with all **PANDUIT**® cable management and patch panel products in addition to any industry standard 19" or 23" components
- Aluminum racks feature individually printed rack space numbering

- Aluminum racks equipped with pre-installed hardware for quick assembly
- Double-sided #12-24 EIA universal mounting hole spacing
- #12-24 mounting screws included, qty. 25
- 800 lbs. load rating for 7" racks



CMR19X84



CMLT19



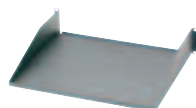
CMUT19

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
Standard Channel Racks				
CMR19X84	19" standard rack, 7', aluminum.	45	1	—
CMR19X84S	Standard EIA 19" rack 7', steel.	45	1	—
CMR23X84	23" standard rack, 7', aluminum.	45	1	—
CMR19X47	19" standard rack 47", aluminum.	24	1	—
CMR19X26	19" standard rack, 26", aluminum.	13	1	—
S1224-C	Package of 100 #12-24 mounting screws.	—	100	1000
Rack Mount Troughs				
CMLT19	Lower trough mounts to the bottom of a 19" rack. Provides bend radius control and additional facility for routing cable from one rack to another.	4	1	—
CMUT19	Upper trough mounts to the top of a 19" rack. Provides bend radius control and additional facility for routing cable from one rack to another.	2	1	—

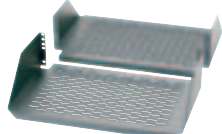
[^]One rack space = 1.75". (44.45mm)
All product color is black.

★ NEW! Shelves

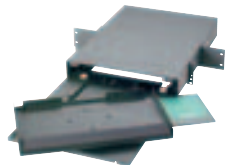
- Options with load ratings up to 200 lbs. suitable for use with lightweight and heavyweight active and passive equipment
- Slide out mouse pad integral to all keyboard shelves
- Options for standard (20" wide) or compact (16.5" wide) keyboards



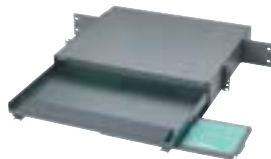
SRM19FM2



SRM19CMV3



SRM19MPK2



SRM23MK2

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
Rack Mount Shelves			
SRM19FM1	Front mount shelf, steel. Dimensions 1.73"H x 19.00"W x 15.15"D (43.9mm x 482.7mm x 384.8mm), 1RU Load rating 30 lbs.	1	1
SRM19FM2	Front mount shelf, steel. Dimensions 3.48"H x 19.00"W x 15.15"D (88.4mm x 482.65mm x 384.8mm), 2RU Load rating 50 lbs.	2	1
SRM19CMV3	Cantilevered shelf, vented, aluminum. Dimensions 5.23"H x 19.24"W x 12.45"D (132.8mm x 488.7mm x 316.2mm), 3RU Load rating 200 lbs.	3	1
SRM19CM3	Cantilevered shelf, aluminum. Dimensions 5.23"H x 19.24"W x 12.45"D (132.8mm x 488.7mm x 316.2mm), 3RU Load rating 200 lbs.	3	1
Keyboard Shelves			
SRM19MPK2	Rack mount shelf with pivoting keyboard tray and mousepad, aluminum. Dimensions 3.43"H x 17.00"W x 24.00"D (87.17mm x 431.8mm x 609.6mm)	2	1
SRM19MK2	Rack mount shelf with keyboard tray, aluminum. Dimensions 3.43"H x 17.00"W x 18.48"D (87.17mm x 431.8mm x 469.33mm)	2	1
SRM23MK2	Rack mount shelf with pivoting keyboard tray and mousepad, aluminum. Dimensions 3.43"H x 21.00"W x 18.48"D (87.17mm x 533.4mm x 469.33mm)	2	1

[^]One rack space = 1.75". (44.45mm)
All product color is black.

★ NEW! Power Strips

- Multiple mounting options provide a convenient power supply for active equipment
- Dual circuit option for use with equipment requiring a redundant power supply



CMRPSH15



CMRPSH20



CMRPSV20



CMRPSVD20

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
Horizontal			
CMRPSH15	19" rack mount power strip with a 15 amp circuit, 10 receptacles and a 10' power cord, NEMA 5-15p plug. Dimensions 1.72"H x 3.75"W x 19.00"D (43.7mm x 95.3mm x 483.7mm)	1	1
CMRPSH20	19" rack mount power strip with a 20 amp circuit, 10 receptacles and a 10' power cord, NEMA 5-20p plug. Dimensions 1.72"H x 3.75"D x 19.00"W (43.7mm x 95.3mm x 483.7mm)	1	1
Vertical			
CMRPSV20	Rack mount power strip with a 20 amp circuit, 10 receptacles and a 10' power cord, NEMA 5-20p plug. Dimensions 38.50"H x 1.46"D x 1.85"W (977.9mm x 37.1mm x 47.0mm)	—	1
CMRPSVD20	Rack mount power strip with a 20 amp circuit, 10 receptacles per circuit and 2 - 10' power cords, NEMA 5-20p plug. Dimensions 66.25"H x 1.46"D x 1.85"W (1682.8mm x 37.1mm x 47.0mm)	—	1

[^]One rack space = 1.75". (44.45mm)
All product color is black.

★ NEW! Panel Extender Brackets

- Allows for mounting 19" product on 23" EIA racks or cabinets
- Mounting hardware included
- Offset bracket design maintains flush mounting of panels



PEB1



PEB2

Part Number	Part Description	No. of Rack Spaces	Std. Pkg. Qty.	Std. Ctn. Qty.
PEB1	Converts horizontal panels.	1	1	10
PEB2	Converts horizontal panels.	2	1	10
PEB22	Converts rack from 23" to 19".	22	1	—
PEB44	Converts rack from 23" to 19".	44	1	—

[^]One rack space = 1.75". (44.45mm)
All product color is black.

Hinged Wall Brackets

- Mount to wall or standard EIA 19" racks
- Integral cable tie slots manage cable slack
- EIA hole spacing
- Hinge allows easy access to cabling
- Opening on base allows for cable access through wall
- Stackable for larger installations
- Includes white write-on labeling area
- Accepts #12-24 EIA universal mounting hole spacing
- Quick release hinged design for fast moves, adds and changes



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
6in. Deep Wall Brackets			
WBH1	Hinged wall bracket, 1RU. Dimensions 1.75"H x 20.0"W x 6.1"D (44.5mm x 507.9mm x 155.8mm)	1	1
WBH2	Hinged wall bracket, 2RU. Dimensions 3.50"H x 20.0"W x 6.1"D (88.9mm x 507.9mm x 155.8mm) Load rating 20 lbs.	2	1
WBH3	Hinged wall bracket, 3RU. Dimensions 5.25"H x 20.0"W x 6.1"D (133.4mm x 507.9mm x 155.8mm)	3	1
WBH4	Hinged wall bracket, 4RU. Dimensions 7.00"H x 20.0"W x 6.1"W (177.8mm x 507.9mm x 155.8mm) Load rating 40 lbs.	4	1
15in. Deep Wall Brackets			
WBH2E	Hinged wall bracket, 2RU. Dimensions 3.5"H x 20.4"W x 15.8"D (88.9mm x 518.7mm x 401.5mm) Load rating 20 lbs.	2	1
WBH4E	Hinged wall bracket, 4RU. Dimensions 7.05"H x 20.4"W x 15.8"D (177.8mm x 518.7mm x 401.5mm) Load rating 40 lbs.	4	1
WBH6E	Hinged wall bracket, 6RU. Dimensions 10.5"H x 20.4"W x 15.8"D (266.7mm x 518.7mm x 401.5mm) Load rating 60 lbs.	6	1

[^]One rack space = 1.75" (44.45mm)
All product color is black.

Filler Panels

- Filler panels reserve rack space for future use and help keep installations manageable by acting as a divider
- Mounts to standard EIA 19" racks or cabinets
- Stackable
- Includes #12-24 mounting screws



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
DPFP1	Filler panel, 1RU. Dimensions 1.72"H x 19.0"W (43.7mm x 482.6mm)	1	1	10
DPFP2	Filler panel, 2RU. Dimensions 3.47"H x 19.0"W (88.1mm x 482.6mm)	2	1	10
DPFP4	Filler panel, 4RU. Dimensions 6.97"H x 19.0"W (177.0mm x 482.6mm)	4	1	10
DPFP8	Filler panel, 8RU. Dimensions 13.97"H x 19.0"W (354.8mm x 482.6mm)	8	1	10

[^]One rack space = 1.75" (44.45mm)
All product color is black.

Standard Vertical Slotted Duct

- Standard bracket allows side mounting
- WMPVCB kit option allows mounting to adjacent racks
- Duct finger progression equivalent to one rack space (1.75"), allowing clear pathway between horizontal and vertical cable management when finger is removed
- Organizes cables on front and rear of telecommunication racks
- Rear mount options for use with standard 3" channel racks
- Front mount options for standard deep channel racks
- Covers are easily removable so cables are accessible for quick revisions
- Panel supplied as side mount version
- Supplied with mounting brackets, screws and covers
- Cables pass through holes for front to rear cabling
- Wire retainer holds cable in place when cover is removed



WMPV45

WMPVF45



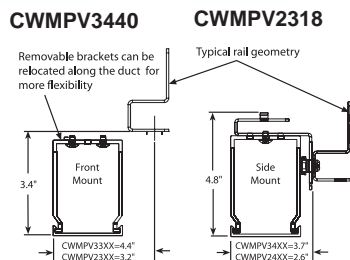
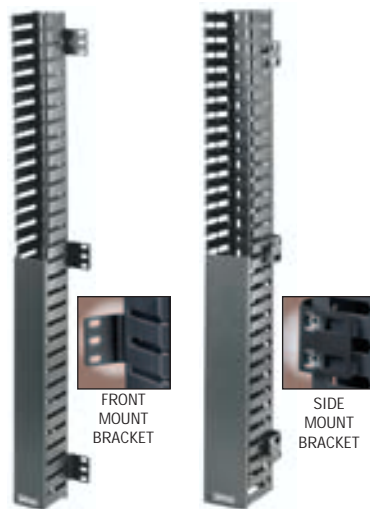
WMPVCB

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
Rear Mount - Manages Cables on Front and Rear of Rack			
WMPV3X5	Includes duct on front and rear. Dimensions 3"W x 5"D x 83"H (76.2mm x 127mm x 2108.2mm)	45	1
WMPV20	Includes duct on front and rear. Dimensions 4"W x 5"D x 35"D (102mm x 127mm x 889mm)	20	1
WMPV45	Includes duct on front and rear. Dimensions 4"W x 5"D x 83"H (102mm x 127mm x 2108.2mm)	45	1
WMPV50	Includes duct on front and rear. Dimensions 4"W x 5"D x 95"H (102mm x 127mm x 2413mm)	50	1
WMPVHC45	Includes duct on front and rear. Dimensions 6"W x 6"D x 83"H (152mm x 152mm x 2108.2mm)	45	1
WMPV6X8	Includes duct on front and rear. Dimensions 6"W x 8"D x 83"H (152.4mm x 203.2mm x 2108.2mm)	45	1
Rear Mount - Manages Cables on Front of Rack Only			
WMPVF3X5	Includes duct on front only. Dimensions 3"W x 5"D x 83"H (76.2mm x 127mm x 2108.2mm)	45	1
WMPVF20	Includes duct on front only. Dimensions 4"W x 5"D x 35"H (102mm x 127mm x 889mm)	20	1
WMPVF45	Includes duct on front only. Dimensions 4"W x 5"D x 83"H (102mm x 127mm x 2108.2mm)	45	1
WMPVHCF45	Includes duct on front only. Dimensions 6"W x 6"D x 83"H (152mm x 152mm x 2108.2mm)	45	1
WMPVF6X8	Includes duct on front only. Dimensions 6"W x 8"D x 83"H (152mm x 203.2mm x 2108.2mm)	45	1
Center Mount Kit			
WMPVCB	Bracket kit to mount vertical cable managers to and between two adjacent racks. Includes four brackets. Not for use with WMPV3X5, WMPVF3X5, WMPVFM45, and WMPVFMHC45.	—	1
Front Mount - Manages Cable on Front of Rack Only			
WMPVFM45	Includes duct on front only. Dimensions 4"W x 5"D x 83"H (102mm x 127mm x 2108mm)	45	1
WMPVFMHC45	Includes duct on front only. Dimensions 6"W x 6"D x 83"H (152mm x 152mm x 1208mm)	45	1

[^]One rack space = 1.75" (44.45mm)
All product color is black.

IN-Cabinet Cable Managers

- For managing cable within cabinets 27" (685mm) or wider
- Easy to install to cabinet vertical mounting rails
- Two mounting bracket options to facilitate mounting to various cabinet configurations
- Covers included



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
Side Mount Vertical Panels - Front Only			
CWMPV3440	Duct with side mount bracket, cage nut and screws. Dimensions 3"W x 4"D x 72"H (76mm x 102mm x 1829mm) .187 Dia. cable capacity = 96	40	1
CWMPV3418	Duct with side mount bracket, cage nut and screws. Dimensions 3"W x 4"D x 32"H (76mm x 102mm x 813mm) .187 Dia. cable capacity = 96	18	1
CWMPV2440	Duct with side mount bracket, cage nut and screws. Dimensions 2"W x 4"D x 72"H (51mm x 102mm x 1829mm) .187 Dia. cable capacity = 60	40	1
CWMPV2418	Duct with side mount bracket, cage nut and screws. Dimensions 2"W x 4"D x 32"H (51mm x 102mm x 813mm) .187 Dia. cable capacity = 60	18	1
Front Mount Vertical Panels - Front Only			
CWMPV2340	Duct with front mount bracket. Dimensions 2"W x 3"D x 72"H (51mm x 76mm x 1829mm) .187 Dia. cable capacity = 48	40	1
CWMPV2318	Duct with front mount bracket. Dimensions 2"W x 3"D x 32"H (51mm x 76mm x 813mm) .187 Dia. cable capacity = 48	18	1
CWMPV3340	Duct with front mount bracket. Dimensions 3"W x 3"D x 72"H (76mm x 76mm x 1829mm) .187 Dia. cable capacity = 72	40	1
CWMPV3318	Duct with front mount bracket. Dimensions 3"W x 3"D x 32"H (76mm x 76mm x 813mm) .187 Dia. cable capacity = 72	18	1
Front Mount Horizontal Panels			
CWMPH1	19" Horizontal wire management panel with duct front and back. Dimensions 1.72"H x 5.7"D x 19"W (43.7mm x 144.8mm x 482.6mm) .187 Dia. cable capacity = 24 front, 36 back	1	1
CWMPHF1	19" Horizontal wire management panel with duct front only. Dimensions 1.72"H x 1.6"D x 19"W (43.7mm x 40.6mm x 482.6mm) .187 Dia. cable capacity = 24 front	1	1

[^]One rack space = 1.75" (44.45mm)
All product color is black.

★ NEW! Communication Cable Management Kit for Cabinets

- Kit of cable management accessories specifically designed for use in a network cabinet or enclosure



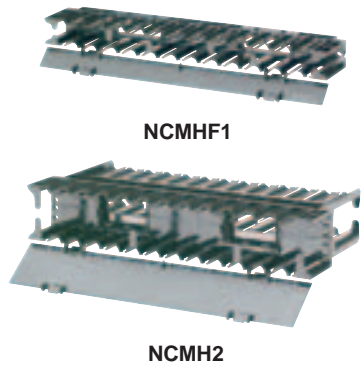
Part Number	Part Description	Std. Pkg. Qty.*	Std. Ctn. Qty.
CCMKIT1	Kit includes the following: 24 Nylon Cable Ties 12 Adhesive Backed Cable Tie Mounts 1 Roll (15') .33" TAK-TY® Cable Ties 8 Flat PAN-POST™ Standoffs for use with Std. Nylon Cable Ties 4 Vertical Wire Saddles 6 Push Style Cable Tie Mounts	1	100
CCMKIT2	Kit includes the following: 1 Roll (15') .75" TAK-TY Cable Ties 12 Nylon Cable Ties 6 Adhesive Backed Cable Tie Mounts 6 Adhesive Backed Mounts for .75" TAK-TY Cable Ties 6 Screw Mounts for .75" TAK-TY Cable Ties 4 Vertical Wire Saddles 6 Flat PAN-POST Standoffs for use with .75" TAK-TY Cable Ties	1	100

* Order the number of kits required

NETMANAGER™ Horizontal Cable Managers



- Removable front cover hinges 180° up or down
- Built-in cable retainers
- Integral bend radius control throughout all cable pathways
- Pass through holes allow front to rear cabling
- Mounts to 19" EIA rack or cabinet



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
NetManager Panels				
NCMHF1	Horizontal cable manager, front only, 1.5" x 3". (38mm x 76.2mm) Total width 19" (482.6mm)	1	1	—
NCMHF2	Horizontal cable manager, front only, 3" x 3" (76.2mm x 76.2mm), Total width 19" (482.6mm).	2	1	—
NCMH2	Horizontal cable manager, front, 3"x3" (76.2mmx76.2mm), rear 2" x 5" (50.8mm x 127mm). Snap-on rear cover.	2	1	—
Replacement Covers				
NCMH1-RFC	Replacement front cover for 1RU horizontal cable manager.	1	1	10
NCMH2-RFC	Replacement front cover for 2RU horizontal cable manager.	2	1	10

[^]One rack space = 1.75" (44.45mm)
All product color is black.

Standard Horizontal Cable Managers

- Covers snap off so cables are accessible for quick revisions
- Pass through holes allow front to rear cabling
- Flexible fingers allow easy moves, adds and changes
- Mounts to 19" or 23" EIA standard rack or cabinet



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
19" Manager, Front and Rear, 3 RU			
WMPH3	Includes 4" x 5" (101.6mm x 127mm) duct on front and rear, #12-24 mounting screws, 3 wire retainers and front and rear covers. Total width 20" (508mm).	3	1
19" Manager, Front Only, 3 RU			
WMPHF3	Includes 4" x 5" (101.6mm x 127mm) duct on front, #12-24 mounting screws, 3 wire retainers and front cover. Total width 20" (508mm).	3	1
23" Managers, Front and Rear			
WMPS23	Includes 1.5" x 3" (38.1mm x 76.2mm) front duct, 1" x 4" (25.4mm x 101.6mm) rear duct, 3 wire retainers, #12-24 mounting screws and front and rear cover. Total width 23" (584mm).	1	1
WMPH223	Includes 3" x 3" (76.2mm x 76.2mm) duct on front, 2" x 5" (50.8mm x 127mm) duct on rear, 2 bend radius control clips, #12-24 mounting screws, 3 wire retainers and front and rear cover. Total width 24.18" (614.2mm).	2	1
WMPH323	Includes 4" x 5" (101.6mm x 127mm) duct on front and rear, #12-24 mounting screws, 3 wire retainers and front and rear covers. Total width 24" (609.6mm).	3	1
23" Managers, Front Only			
WMPFS23	Includes 1.5" x 3" (38.1mm x 76.2mm) front duct, #12-24 mounting screws, 3 wire retainers and front cover. Total width 23" (584.2mm).	1	1
WMPHF223	Includes 3"x3" (76.2mm x76.2mm) duct on front, 2 bend radius control clips, #12-24 mounting screws, 3 wire retainers and front cover. Total width 24.18" (614.2mm).	2	1
WMPHF323	Includes 4"x5" (102mm x127mm) duct on front and rear, #12-24 mounting screws, 3 wire retainers and front and rear cover. Total width 24" (610mm).	3	1

[^]One rack space = 1.75"(44.45mm)
All product color is black.

Capacities approximated on .187". (4.75mm) O.D. cables:

1 Rack Space Panels: 36 Category 5e, 24 AWG, 4 pair UTP cables per side

2 Rack Space Panels: 72 Category 5e, 24 AWG, 4 pair UTP cables per side

3 Rack Space Panels: 192 Category 5e, 24 AWG, 4 pair UTP cables per side

★ NEW! **PATCHLINK™ Horizontal Cable Managers**

- Patented dual hinged cover allows cable access without removing cover
- Pass through holes allow front to rear cabling
- Flexible front fingers allow easy moves, adds and changes of patch cords
- Flexible rear fingers allow access for cable termination of patch panel
- Rear pathway allows cable routing around rack channels into vertical cable management
- Mounts to 19" EIA standard rack or cabinet



Part Number	Part Description	No. of Rack Spaces	Std. Pkg. Qty.
19" Manager, Front and Rear, 1 RU			
WMPLESE	Includes 1.5" x 2" (38.1mm x 50.8mm) front, 1" x 4" (25.4mm x 101.6mm) rear duct and mounting screws. Total width 19" (482.6mm).	1	1
WMPSE	One rack space horizontal cable manager, duct and cover; 1.5" x 3" (38.1mm x 76.2mm) on front and 1" x 4" (25.4mm x 101.6mm) on rear. Includes 2 strain relief clips and mounting screws.	1	1
19" Manager, Front and Rear, 2 RU			
WMP1E	Includes 1.5" x 3" (38.1mm x 76.2mm) front and 1" x 4" (25.4mm x 101.6mm) rear duct with cover. Includes 2 strain relief clips and mounting screws.	1	1
WMPH2E	Includes 3" x 3" (76.2mm x 76.2mm) duct on front, 2" x 5" (50.8mm x 127mm) duct on rear, 2 bend radius control clips, 2 strain relief clips, mounting screws, wire retainers and front and rear covers. Total width 20.18" (512.7mm)	2	1
19" Manager, Front Only, 1 RU			
WMPFSE	One rack space horizontal cable manager, duct and cover, 1.5" x 3" (38.1mm x 76.2mm) on front only. Includes mounting screws.	1	1
WMPLEFSE	Includes 1.5" x 3" (38.1mm x 76.2mm) front duct and mounting screws. Total width: 19" (482.6mm).	1	1
19" Manager, Front Only, 2 RU			
WMPF1E	Two rack space horizontal cable manager, duct and cover, 1.5" x 3" (38.1mm x 76.2mm) on front only. Includes 3 wire retainers and mounting screws.	2	1
WMPHF2E	Includes 3" x 3" (76.2mm x 76.2mm) duct on front, 2 bend radius control clips, mounting screws, 3 wire retainers and front cover. Total width 20.18" (512.7mm).	2	1

^One rack space = 1.75" (44.45mm)
 All product color is black.
 Capacities approximated on .187" (4.75mm) O.D. cables:
 1 Rack Space Panels: 36 Category 5e, 24 AWG, 4 pair UTP cables per side
 2 Rack Space Panels: 72 Category 5e, 24 AWG, 4 pair UTP cables per side

OPEN-ACCESS™ Cable Management

- Unique snap on D-rings for complete flexibility
- Mounts to standard EIA standard 19" or 23" racks and cabinets
- Pass through holes allow front to rear cabling
- Patented cable manager ring
- Optional snap-on cover
- Flexible material allows D-ring arm to rotate allowing entire cable bundle to be inserted and removed



CMPH1W



CMPH1



CMPH2W



CMPH2



CMPHF1



CMPH2W



CMPHF2



CMPH2W



CMPH123



CMPH223



CMPHF123



CMPHF223

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
19" Manager, Front and Rear, 1 RU			
CMPH1W	Includes pre-assembled D-rings on front and rear with cover. Front D-ring size 1.5" x 3" (38mm x 76mm) Rear D-ring size 1.5" x 5" (38mm x 127mm)	1	1
CMPH1	Includes pre-assembled D-rings on front and rear. Front D-ring size 1.5" x 3" (38mm x 76mm) Rear D-ring size 1.5" x 5" (38mm x 127mm)	1	1
19" Manager, Front and Rear, 2 RU			
CMPH2W	Includes pre-assembled D-rings on front and rear, cover and bend radius control clips. Front D-ring size 3" x 3" (76mm x 76mm) Rear D-ring size 3" x 3" (76mm x 76mm).	2	1
CMPH2	Includes pre-assembled D-rings on front and rear. Front D-ring size 3" x 3" (76mm x 76mm) Rear D-ring size 3" x 5" (76mm x 127mm)	2	1
19" Manager, Front Only, 1 RU			
CMPHF1	Includes pre-assembled D-rings on front. Front D-ring size 1.5" x 3" (38mm x 76mm)	1	1
CMPHF1	Includes pre-assembled D-rings on front only. Front D-ring size 1.5" x 5" (38mm x 127mm)	1	1
19" Manager, Front Only, 2 RU			
CMPHF2	Includes pre-assembled D-rings on front. Front D-ring size 3" x 3" (76mm x 76mm)	2	1
CMPHF2	Includes pre-assembled D-rings on front. Front D-ring size 3" x 5" (76mm x 127mm)	2	1
Optional 19" Covers			
CMPH1C	Replacement cover for 1 RU D-ring panels. Total width 19.5" (495mm)	1	1
CMPH2C	Replacement cover for 2 RU D-ring panels. Total width 19.5" (495mm)	2	1
23" Manager, Front and Rear			
CMPH123	Includes pre-assembled D-rings on front and rear. Front D-ring 1.5" x 3.0" (38mm x 76mm) Rear D-ring 1.5" x 5.0" (38mm x 127mm)	1	1
CMPH223	Horizontal panel - D-rings front and rear.	2	1
23" Manager, Front Only			
CMPHF123	Includes pre-assembled D-rings on front. Front D-ring size 1.5" x 3" (38mm x 76mm)	1	1
CMPHF223	Includes pre-assembled D-rings on front. Front D-ring size 3" x 3" (76mm x 76mm)	2	1

[^]One rack space = 1.75" (44.45mm)
All product color is black.
See horizontal D-rings for cable capacities (page G20).

OPEN-ACCESS™ Horizontal D-rings

- Patented cable manager ring
- Flexible material allows arm to rotate so entire cable bundle can be inserted and removed
- D-rings are designed to snap into *OPEN-ACCESS* panels only

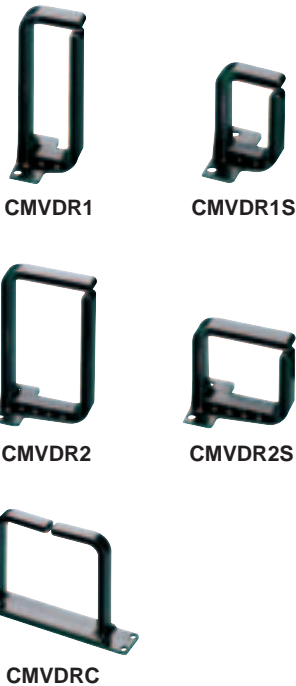


Part Number	Part Description	Cable Capacity			Std. Pkg. Qty.	Std. Ctn. Qty.
		UTP (.187)	ScTP (.250)	Fiber (3mm)		
CMDRH1	Horizontal D-ring Outside dimensions 1.5"H x 3"W (38mm x 76mm)	40	24	100	1	10
CMDRHD1	Horizontal High Capacity D-ring Outside dimensions 1.5"H x 5"W (38mm x 127mm)	52	32	132	1	10
CMDRH2	Horizontal D-ring Outside dimensions 3"H x 3"W (76mm x 76mm)	96	48	252	1	10
CMDRHD2	Horizontal D-ring Outside dimensions 3"H x 5"W (76mm x 127mm)	192	96	504	1	10

All product color is black.

Vertical D-rings

- Patented Cable Manager Ring
- Standard EIA hole spacing allows product to be mounted to any standard rack
- Flexible material allows arm to rotate 90° so entire cable bundle can be inserted and removed
- Rounded edges prevent damage to cable insulation
- 1/4" mounting hole allows for a variety of screws to secure the D-ring to a surface
- Creates a structured pathway and allows for open access

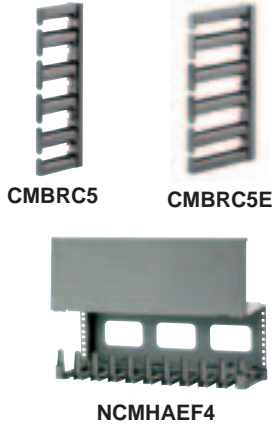


Part Number	Part Description	Cable Capacity			Std. Pkg. Qty.	Std. Ctn. Qty.
		UTP (.187)	ScTP (.250)	Fiber (3mm)		
CMVDR1	Vertical D-ring Outside dimensions 5.7"L x 2"W (145mm x 52mm)	96	48	252	1	10
CMVDR1S	Vertical D-ring Outside dimensions 3.3"L x 2"W (82mm x 52mm)	52	32	132	1	10
CMVDR2	Vertical D-ring Outside dimensions 5.7"L x 3"W (145mm x 83mm)	192	96	504	1	10
CMVDR2S	Vertical D-ring Outside dimensions 3.3"L x 3"W (82mm x 83mm)	96	48	252	1	10
CMVDRC	Center mounted vertical D-ring for routing cables between two adjacent racks. (Requires 8.25" spacing between the center lines of the adjacent rack's mounting holes). Outside dimensions 5.6"L x 8"W (143mm x 222mm)	400	200	1000	1	10

All product color is black.

★ NEW! Active Equipment Cable Managers

- Options for use with active equipment that have cards (blades) oriented horizontally or vertically
- Integral bend radius control supports patch cables as they go to and from cards
- CMBRC5/5E patented bend radius control clip
- Finger spacing helps keeps patch cables aligned with cards
- Mounts to EIA standard rack or cabinet

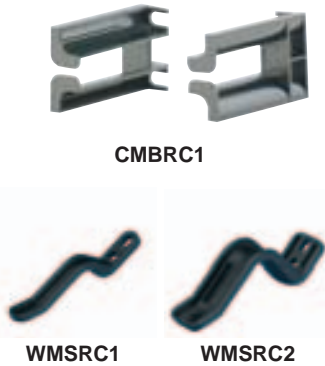


Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
Vertical Managers for Horizontal Patching				
CMBRC5	Cable management bend radius clip. Dimensions 8.75"H x 3.3"D x 1.03"W (222.2mm x 83.8mm x 26.2mm) Capacity: 24 cables (.187 Dia.) per rack space	5	1	10
CMBRC5E	Cable management bend radius clip, extended. Dimensions 8.75"H x 5.0"D x 1.03"W (222.2mm x 127.0mm x 26.2mm) Capacity: 48 cables (.187 Dia.) per rack space	5	1	10
Horizontal Manager with Hinged Cover for Vertical Patching				
NCMHAEF4	Horizontal active equipment manager for vertical cards (blades). Dimensions 7.0"H x 8.0"D x 19.2"W (176.9mm x 204.3mm x 488.9mm)	4	1	—

[^]One rack space = 1.75" (44.45mm)
All product color is black.

★ NEW! Bend Radius Control Accessories

- Enhances cable management on racks and cabinets



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Bend Radius Control Clips			
CMBRC1	1 RU cable management bend radius clip kit.	1	10
CMSRC2	Provides cable bend radius control and facilitates patch cable routing to and from horizontal cable management panels. Mounts directly to 19" or 23" EIA standard communication racks or cabinets (2 RU).	1	10
Strain Relief Clips			
WMSRC1	Strain relief clip, 1". Mounts to rear of rack adjacent to horizontal panels.	1	10
WMSRC2	Strain relief clip, 2". Mounts to rear of rack adjacent to horizontal panels.	1	10

All product color is black.

Bundle Retainers

- Bundle retainer supports cable in vertical or horizontal configurations
- Spring fingers with large lead-in facilitates insertion of cable bundles
- Adhesive backed and screw applied versions available



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
BR2-1.3	Bundle Retainer. Standard EIA hole spacing for mounting. Maximum bundle capacity: 2.0" (50.8mm).	1	10
BR2-1.3-A	Bundle Retainer. Adhesive base and standard EIA hole spacing provides mounting options. Maximum bundle capacity: 2.0" (50.8mm).	1	10

All product color is black.

Stackable Cable Rack Spacers

- Separate and support cable and prevent pinch points between the bottom row of cable and the rung as a result of the weight of multiple cable layers applied on top of each other
- Maximize rack space by stacking products for maximum cable capacity
- Provide an alternative to lacing cord by allowing user to secure cable to spacer to prevent movement of cable
- Provide attractive installations
- Mounts to ladder rack with standard cross section cable ties



CRS6-X



CRS1-X



CRS4-125-X



CRS1-125-X

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Stackable Cable Rack Spacers – 0.8" O.D. Cable			
CRS6-X	Six space Stackable Cable Rack Spacer. Accepts cable up to 0.8" diameter.	10	100
CRS1-X	One space Stackable Cable Rack Spacer. Use with CRS6 to fill width of ladder rack. Accepts cable up to .8" diameter.	10	100
Stackable Cable Rack Spacers – 1.25" O.D. Cable			
CRS4-125-X	Four space Stackable Cable Rack Spacer. Accepts cable up to 1.25" diameter.	10	100
CRS1-125-X	One space Stackable Cable Rack Spacer. Use with CRS4 to fill width of ladder rack. Accepts cable up to 1.25" diameter.	10	100

All product color is black.

Waterfall Accessories

- Product available as a kit (includes base, 2 wings and cable ties) or purchased separately
- Easy to install waterfall kit maintains bend radius control in both vertical and horizontal directions to provide a TIA/EIA-568-B compliant installation
- Base attaches to either the rung or stringer on most standard ladder racks for a variety of installations/configurations
- Modular components allow user to custom configure each location where cable management is required



CMW-KIT

Part Number	Part Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
CMW-KIT	Cable management waterfall kit. Includes CMWB, 2 CMWW and cable ties.	Black	1	10
CMWB	Cable management waterfall base. Used to maintain 1.75" bend radius control vertically when transferring cable off of ladder rack. Mounts to ladder rack rung or stringer with standard cross section cable ties (included).	Black	1	10
CMWW	Cable management waterfall wing. Used in conjunction with CMWB to maintain 1" bend radius control horizontally when transferring cable off ladder rack.	Black	1	10

* For white, include suffix of 10. For example: CMW-KIT10



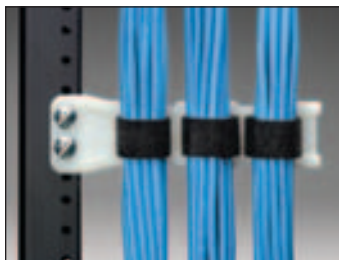
CMWB



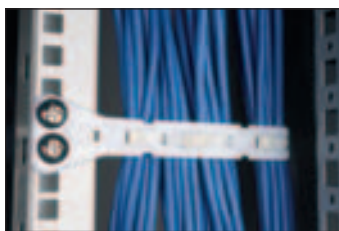
CMWW

Flat *PAN-POST*™ Standoff

- Standard EIA hole spacing allows product to be mounted with user supplied screws up to 1/4" diameter.
- Organize cables in standard cabinets and racks
- Use where space is limited



PPF2SV-S25-V
PPF2SV-S25-V69



PPF2S-S25-V
PPF2S-S25-V69

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Flat <i>PAN-POST</i> Standoff for <i>TAK-TY</i>® Hook and Loop Cable Ties			
PPF2SV-S25-V	Nylon 6.6 Flat <i>PAN-POST</i> Standoff. Use with <i>TAK-TY</i> Hook & Loop Cable Ties.	5	100
PPF2SV-S25-V69	Flame Retardant Nylon 6.6 Flat <i>PAN-POST</i> Standoff. Use with <i>TAK-TY</i> Hook & Loop Cable Ties. Material meets UL94V-0 specifications.	5	100
Flat <i>PAN-POST</i> Standoff for Nylon Cable Ties			
PPF2S-S25-V	Nylon 6.6 Flat <i>PAN-POST</i> Standoff. Use with miniature, intermediate and standard cross section cable ties.	5	100
PPF2S-S25-V69	Flame Retardant Nylon 6.6 Flat <i>PAN-POST</i> Standoff. Use with miniature, intermediate and standard cross section cable ties. Material meets UL94V-0 specifications.	5	100

System Overview

Modules



PANDUCT® Type H - Hinged Cover Slotted Wall Wiring Duct

Specifications

- Made of rigid PVC
- UL Recognized continuous use temperature: 50°C (122°F)
- UL94 flammability rating of V-0
- Provided with mounting holes

Features & Benefits

- Integrated hinged cover design allows easy access to wiring without hassle of removing and reinstalling cover
- Dual-sided hinge can open up to 100° from either sidewall of duct base for easy access to channel
- Cover retention flanges prevent cover from sliding when installed on duct base
- Double scoreline saves installation time and lowers installed cost
- Restricted slot design retains wire in slot for fast, easy wire installation or removal

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

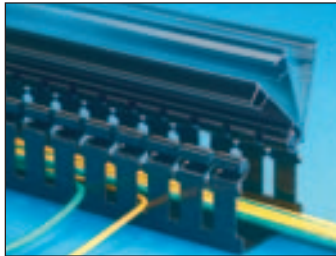
Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

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Part Number	Duct Size (WXH)		Cover Part Number	Length (ft)	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm				
H2X2BL6	2.29 x 1.98	58.2 x 50.3	HC2BL6	6	6	120
H4X4BL6	4.38 x 4.06	111.3 x 103.1	HC4BL6	6	6	60

For other colors replace BL (Black) with LG (Light Gray).
Order number of feet required, in multiples of 6' or Standard Carton Quantity.



PANDUCT Type FL - Flexible Wiring Duct

Specifications

- Low smoke, halogen free, polypropylene material
- UL94 flammability rating of V-2
- UL Recognized continuous use temperature: 90°C (194°F)
- Factory applied adhesive tape provided for easy mounting

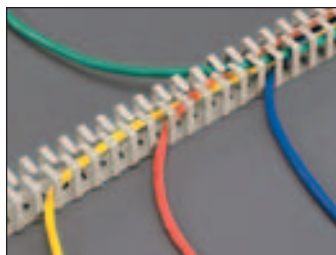
Features & Benefits

- The flexibility of Type FL duct allows it to be used in applications where conventional rigid PVC duct cannot
- One piece design with enclosing fingers simplifies insertion and removal of wiring



Part Number	Duct Size (WXH)		Length		Std. Pkg. Qty.
	In.	mm	In.	mm	
FL12X12GR-A	.49 x .49	12.5 x 12.5	19.7	500	112
FL25X25GR-A	.98 x .98	25.0 x 25.0	19.7	500	70
FL50X50GR-A	1.97 x 1.97	50.0 x 50.0	19.7	500	32

Available in GR (RAL 7032 Gray/Green) only.



UL® SP® C E PANDUCT® Type G - Slotted Wall Wiring Duct

Specifications

- Made of rigid PVC
- UL Recognized continuous use temperature: 50°C (122°F)
- UL94 flammability rating of V-0
- Provided with mounting holes

Features & Benefits

- Wide finger design provides greater rigidity and larger slot width
- **PANDUIT®** exclusive rounded edges will not cut hands or abrade wiring insulation
- Non-slip cover will not slide easily when installed on duct base
- Flush cover design holds more wires than traditional duct designs
- Double scoreline saves installation time and lowers installed cost
- Specially formulated lead-free material eliminates health concerns associated with PVC that contains lead
- Restricted slot design retains wire in slot for fast, easy wire installation or removal



Part Number	Duct Size (WXH)		Slot Width		Cover Part Number	Length (ft)	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm				
G.5X.5LG6	.69 x .57	17.5 x 14.4	.20	5.0	C.5LG6	6	6	120
G.5X1LG6	.69 x 1.06	17.5 x 26.9	.20	5.0	C.5LG6	6	6	120
G.5X4LG6	.69 x 4.04	17.5 x 102.6	.20	5.0	C.5LG6	6	6	60
G.75X.75LG6	.94 x .82	23.5 x 20.8	.31	7.9	C.75LG6	6	6	120
G.75X1LG6	.94 x 1.07	23.5 x 27.2	.31	7.9	C.75LG6	6	6	120
G.75X1.5LG6	.94 x 1.57	23.5 x 39.8	.31	7.9	C.75LG6	6	6	120
G.75X2LG6	.94 x 2.03	23.5 x 51.7	.31	7.9	C.75LG6	6	6	120
G1X1LG6	1.25 x 1.13	31.8 x 28.7	.31	7.9	C1LG6	6	6	120
G1X1.5LG6	1.25 x 1.64	31.8 x 41.5	.31	7.9	C1LG6	6	6	120
G1X2LG6	1.25 x 2.13	31.8 x 54.0	.31	7.9	C1LG6	6	6	120
G1X3LG6	1.25 x 3.13	31.8 x 79.4	.31	7.9	C1LG6	6	6	120
G1X4LG6	1.25 x 4.08	31.8 x 103.6	.31	7.9	C1LG6	6	6	60
G1.5X1LG6	1.75 x 1.12	44.5 x 28.5	.31	7.9	C1.5LG6	6	6	120
G1.5X1.5LG6	1.75 x 1.62	44.5 x 41.2	.31	7.9	C1.5LG6	6	6	120
G1.5X2LG6	1.75 x 2.12	44.5 x 53.9	.31	7.9	C1.5LG6	6	6	120
G1.5X3LG6	1.75 x 3.12	44.5 x 79.3	.31	7.9	C1.5LG6	6	6	120
G1.5X4LG6	1.75 x 4.12	44.5 x 104.5	.31	7.9	C1.5LG6	6	6	60
G2X1LG6	2.25 x 1.11	57.2 x 28.2	.31	7.9	C2LG6	6	6	120
G2X1.5LG6	2.25 x 1.61	57.2 x 40.9	.31	7.9	C2LG6	6	6	120
G2X2LG6	2.25 x 2.10	57.2 x 53.4	.31	7.9	C2LG6	6	6	120
G2X3LG6	2.25 x 3.12	57.2 x 79.3	.31	7.9	C2LG6	6	6	60
G2X4LG6	2.25 x 4.09	57.2 x 103.9	.31	7.9	C2LG6	6	6	60
G2X5LG6	2.25 x 5.09	57.2 x 129.3	.38	9.5	C2LG6	6	6	60
G2.5X3LG6	2.75 x 3.08	70.0 x 78.2	.31	7.9	C2.5LG6	6	6	120
G3X1LG6	3.25 x 1.12	82.6 x 28.3	.31	7.9	C3LG6	6	6	120
G3X2LG6	3.25 x 2.09	82.6 x 53.0	.31	7.9	C3LG6	6	6	120
G3X3LG6	3.25 x 3.11	82.6 x 78.9	.31	7.9	C3LG6	6	6	60
G3X4LG6	3.25 x 4.11	82.6 x 104.3	.31	7.9	C3LG6	6	6	60
G3X5LG6	3.25 x 5.10	82.6 x 129.4	.38	9.5	C3LG6	6	6	60
G4X1.5LG6	4.25 x 1.63	108.0 x 41.4	.31	7.9	C4LG6	6	6	120
G4X2LG6	4.25 x 2.11	108.0 x 53.5	.31	7.9	C4LG6	6	6	60
G4X3LG6	4.25 x 3.10	108.0 x 78.7	.31	7.9	C4LG6	6	6	60
G4X4LG6	4.25 x 4.10	108.0 x 104.1	.31	7.9	C4LG6	6	6	60
G4X5LG6	4.25 x 5.10	108.0 x 129.4	.38	9.5	C4LG6	6	6	60
G6X4LG6	6.25 x 4.15	158.8 x 105.4	.31	7.9	C6LG6	6	6	60

Color Shown – LG (Light Gray). Selected sizes also available in WH (White) and BL (Black).
Order number of feet required, in multiples of 6' or Standard Carton Quantity.

System Overview
Modules
Ultimate ID System & Work Area
Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
Racks & Cable Management
Grounding & Bonding
Fiber Routing
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Cable Ties & Accessories
Supplementary Technical Information
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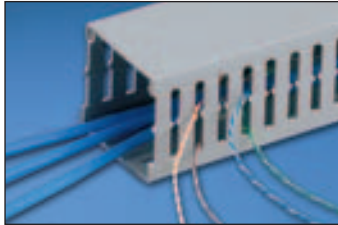
UL **SP** **CE** **PANDUCT**® Type F - Slotted Wall Wiring Duct

Specifications

- Made of rigid PVC
- UL Recognized continuous use temperature: 50°C (122°F)
- UL94 flammability rating of V-0
- Provided with mounting holes

Features & Benefits

- Narrow finger design provides closer spacing for use with high density applications
- **PANDUIT**® exclusive rounded edges will not cut hands or abrade wiring insulation
- Non-slip cover will not slide easily when installed on duct base
- Flush cover design holds more wires than traditional duct designs
- Double scoreline saves installation time and lowers installed cost
- Specially formulated lead-free material eliminates health concerns associated with PVC that contains lead
- Restricted slot design retains wire in slot for fast, easy wire installation or removal



Part Number	Duct Size (WXH)		Slot Width		Cover Part Number	Length (ft)	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm				
F.5X.5LG6	.69 x .57	17.5 x 14.4	.20	5.0	C.5LG6	6	6	120
F.5X1LG6	.69 x 1.06	17.5 x 26.9	.20	5.0	C.5LG6	6	6	120
F.75X.75LG6	.94 x .82	23.5 x 20.8	.20	5.0	C.75LG6	6	6	120
F.75X1.5LG6	.94 x 1.57	23.5 x 39.8	.20	5.0	C.75LG6	6	6	120
F1X1LG6	1.25 x 1.13	31.8 x 28.7	.20	5.0	C1LG6	6	6	120
F1X1.5LG6	1.25 x 1.64	31.8 x 41.5	.20	5.0	C1LG6	6	6	120
F1X2LG6	1.25 x 2.13	31.8 x 54.0	.20	5.0	C1LG6	6	6	120
F1X3LG6	1.25 x 3.13	31.8 x 79.4	.20	5.0	C1LG6	6	6	120
F1X4LG6	1.25 x 4.08	31.8 x 103.6	.20	5.0	C1LG6	6	6	60
F1.5X1LG6	1.75 x 1.12	44.5 x 28.5	.20	5.0	C1.5LG6	6	6	120
F1.5X1.5LG6	1.75 x 1.62	44.5 x 41.2	.20	5.0	C1.5LG6	6	6	120
F1.5X2LG6	1.75 x 2.12	44.5 x 53.9	.20	5.0	C1.5LG6	6	6	120
F1.5X3LG6	1.75 x 3.12	44.5 x 79.3	.20	5.0	C1.5LG6	6	6	120
F1.5X4LG6	1.75 x 4.12	44.5 x 104.5	.20	5.0	C1.5LG6	6	6	60
F2X1LG6	2.25 x 1.11	57.2 x 28.2	.20	5.0	C2LG6	6	6	120
F2X1.5LG6	2.25 x 1.61	57.2 x 40.9	.20	5.0	C2LG6	6	6	120
F2X2LG6	2.25 x 2.10	57.2 x 53.4	.20	5.0	C2LG6	6	6	120
F2X3LG6	2.25 x 3.12	57.2 x 79.3	.20	5.0	C2LG6	6	6	60
F2X4LG6	2.25 x 4.09	57.2 x 103.9	.20	5.0	C2LG6	6	6	60
F2X5LG6	2.25 x 5.09	57.2 x 129.3	.20	5.0	C2LG6	6	6	60
F3X1LG6	3.25 x 1.12	82.6 x 28.3	.20	5.0	C3LG6	6	6	120
F3X2LG6	3.25 x 2.09	82.6 x 53.0	.20	5.0	C3LG6	6	6	120
F3X3LG6	3.25 x 3.11	82.6 x 78.9	.20	5.0	C3LG6	6	6	60
F3X4LG6	3.25 x 4.11	82.6 x 104.3	.20	5.0	C3LG6	6	6	60
F3X5LG6	3.25 x 5.10	82.6 x 129.4	.20	5.0	C3LG6	6	6	60
F4X2LG6	4.25 x 2.11	108.0 x 53.5	.20	5.0	C4LG6	6	6	60
F4X3LG6	4.25 x 3.10	108.0 x 78.7	.20	5.0	C4LG6	6	6	60
F4X4LG6	4.25 x 4.10	108.0 x 104.1	.20	5.0	C4LG6	6	6	60
F4X5LG6	4.25 x 5.10	108.0 x 129.4	.20	5.0	C4LG6	6	6	60

For other colors replace LG (Light Gray) with WH (White).
Order number of feet required, in multiples of 6' or Standard Carton Quantity.

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

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PANDUCT® Type G Duct Wire Retainer

- Snaps into slots of Type G Duct to contain wiring when cover is removed



Part Number	Material	For Duct Width In. (mm)	For Duct Height In. (mm)	Std. Pkg. Qty.	Std. Ctn. Qty.
WR2-C	ABS	2.00 (50.8)	2.00 - 4.00 (50.8 - 101.6)	100	1000
WR3-C	ABS	3.00 (76.2)	2.00 - 4.00 (50.8 - 101.6)	100	1000
WR4-C	ABS	4.00 (101.6)	2.00 - 4.00 (50.8 - 101.6)	100	1000
WR5-C	ABS	Use with: 3X5, 4X5 or 6X4 Type G Duct	Use with: 3X5, 4X5 or 6X4 Type G Duct	100	1000

Ultimate ID System & Work Area

Modules

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

PANDUCT Type F Duct Wire Retainer/Labeling Device

- For use with Type F Duct to contain wiring when cover is removed
- FWR-C works with all Type F Duct sizes
- Can also be used as a labeling device



Part Number	Material	For Duct Width		Std. Pkg. Qty.	Std. Ctn. Qty.
		In.	mm		
FWR-C	RIGID PVC	1.50 - 4.00	37.0 - 76.2	100	1000

Full length for use with 4" wide duct. For smaller widths, break off segments at scorelines.

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

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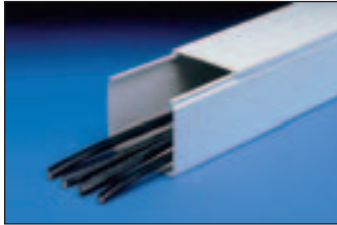
UL **SP** **CE** **PANDUCT**® Type FS - Solid Wall Raceway

Specifications

- Made of rigid PVC
- UL Recognized continuous use temperature: 50°C (122°F)
- UL94 flammability rating of V-0
- Supplied without mounting holes

Features & Benefits

- Non-slip cover will not slide easily when installed on duct base
- Flush cover design holds more wires than traditional duct designs
- Base scoreline allows full wire carrying capacity at wiring duct junctions such as tees and corners
- Specially formulated lead-free material eliminates health concerns associated with PVC which contains lead



Part Number	Duct Size (WXH)		Cover Part Number	Length (ft)	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm				
FS.5X.5LG6NM	.69 x .57	17.5 x 14.4	C.5LG6	6	6	120
FS.5X1LG6NM	.69 x 1.06	17.5 x 26.9	C.5LG6	6	6	120
FS.75X.75LG6NM	.94 x .82	23.5 x 20.8	C.75LG6	6	6	120
FS1X1LG6NM	1.25 x 1.13	31.8 x 28.7	C1LG6	6	6	120
FS1X1.5LG6NM	1.25 x 1.64	31.8 x 41.5	C1LG6	6	6	120
FS1X2LG6NM	1.25 x 2.12	31.8 x 53.9	C1LG6	6	6	120
FS1X3LG6NM	1.25 x 3.13	31.8 x 79.4	C1LG6	6	6	120
FS1.5X1LG6NM	1.75 x 1.12	44.5 x 28.5	C1.5LG6	6	6	120
FS1.5X1.5LG6NM	1.75 x 1.62	44.5 x 41.2	C1.5LG6	6	6	120
FS1.5X2LG6NM	1.75 x 2.12	44.5 x 53.9	C1.5LG6	6	6	120
FS1.5X3LG6NM	1.75 x 3.12	44.5 x 79.3	C1.5LG6	6	6	120
FS2X1LG6NM	2.25 x 1.11	57.2 x 28.2	C2LG6	6	6	120
FS2X1.5LG6NM	2.25 x 1.61	57.2 x 40.9	C2LG6	6	6	120
FS2X2LG6NM	2.25 x 2.10	57.2 x 53.4	C2LG6	6	6	120
FS2X3LG6NM	2.25 x 3.12	57.2 x 79.3	C2LG6	6	6	60
FS3X1LG6NM	3.25 x 1.12	82.6 x 28.3	C3LG6	6	6	120
FS3X2LG6NM	3.25 x 2.09	82.6 x 53.0	C3LG6	6	6	120
FS3X3LG6NM	3.25 x 3.11	82.6 x 78.9	C3LG6	6	6	60
FS3X4LG6NM	3.25 x 4.11	82.6 x 104.3	C3LG6	6	6	60
FS3X5LG6NM	3.25 x 5.10	82.6 x 129.4	C3LG6	6	6	60
FS4X2LG6NM	4.25 x 2.11	108.0 x 53.5	C4LG6	6	6	60
FS4X3LG6NM	4.25 x 3.10	108.0 x 78.7	C4LG6	6	6	60
FS4X4LG6NM	4.25 x 4.10	108.0 x 104.1	C4LG6	6	6	60
FS4X5LG6NM	4.25 x 5.10	108.0 x 129.4	C4LG6	6	6	60
FS6X4LG6NM	6.25 x 4.15	158.8 x 105.4	C6LG6	6	6	60

Color Shown – LG (Light Gray). Selected sizes also available in WH (White) and BL (Black).
Order number of feet required, in multiples of 6' or Standard Carton Quantity.

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index



PANDUIT® Type NNC - Halogen Free Metric Wiring Duct

Specifications

- Made of halogen free material
- UL Recognized continuous use temperature: 65°C (149°F)
- Heat deflection temperature @ 264 psi of 102°C (215°F) per ASTM D 648
- UL94 flammability rating of V-0
- Provided with mounting holes

Features & Benefits

- Halogen free material eliminates safety and environmental concerns associated with halogenated materials
- Suitable for applications in elevated temperature environments
- PANDUIT® exclusive rounded edges will not cut hands or abrade wiring insulation
- Non-slip cover will not slide easily when installed on duct base
- Double scoreline saves installation time and lowers installed cost
- Restricted slot design retains wire in slot for fast, easy wire installation or removal



Part Number	Duct Size (WXH)		Length		Std. Ctn. Qty. (Meters)
	In.	mm	M	ft.	
NNC25X50LG2	.98 x 1.97	25.0 x 50.0	2	6.56	20
NNC37X37LG2	1.48 x 1.48	37.5 x 37.5	2	6.56	20
NNC37X50LG2	1.48 x 1.97	37.0 x 50.0	2	6.56	20
NNC37X75LG2	1.48 x 2.95	37.0 x 75.0	2	6.56	20
NNC50X50LG2	1.97 x 1.97	50.0 x 50.0	2	6.56	20
NNC50X75LG2	1.97 x 2.95	50.0 x 75.0	2	6.56	10
NNC75X75LG2	2.95 x 2.95	75.0 x 75.0	2	6.56	10
NNC100X50LG2	3.94 x 1.97	100.0 x 50.0	2	6.56	10

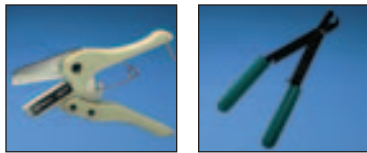
Available in LG (Light Gray) only.

DO NOT allow cutting, tapping or cleaning fluids that contain hydrocarbons to come in contact with Type NNC Wiring Duct.

Order by total number of meters required, in Standard Carton Quantity.

PANDUCT® Installation Tools

- DCT easily cuts any PANDUCT duct & cover
- DNT-100 notches sidewalls to bottom scoreline for tees and corner junctions
- TNR installs and removes PANDUIT® Nylon Rivets (NR1) quickly and easily
- DFCT easily removes duct fingers in tight places



DCT

DNT-100



TNR



NR1-C

DFCT

Part Number	Part Description	Std. Pkg. Qty.
PANDUCT Duct Cutting Tool (For use with all duct/raceway types)		
DCT	Hand held duct cutting tool.	1
Replacement Blade Kit (Includes Blade and Nylon Insert)		
DCT-BLD	Replacement blade and nylon insert.	1
Replacement Nylon Insert		
DCT-RI	Replacement nylon insert.	5
PANDUCT Notching Tool (For use with all slotted duct types)		
DNT-100	Hand held sidewall notching tool.	1
PANDUCT Nylon Rivet Installation Tool		
TNR	Hand held nylon rivet installation tool.	1
PANDUCT Nylon Rivets		
NR1-C	Nylon rivet for use with TNR Rivet Tool.	100
PANDUCT Duct Finger Cutting Tool (For use with type G, F, and PE duct)		
DFCT	Hand held duct finger cutting tool.	1

Always use approved safety goggles when using any tools.

PANDUCT Accessories - Divider Wall

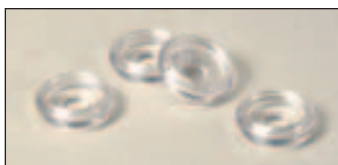
- Wiring duct divider wall can be mounted inside any type of PANDUIT PVC wiring duct to create multiple channels
- Simply install the divider wall base when mounting the duct and snap the divider wall onto the mounting base accessory (shown below)
- Both versions snap onto DB-C mounting base
- Divider wall heights 2" and greater have a scoreline feature allowing sections to be removed leaving a smooth edge



D1H6 D1.5H6
D2H6 D3H6 D4H6



SD2H6 SD3H6 SD4H6



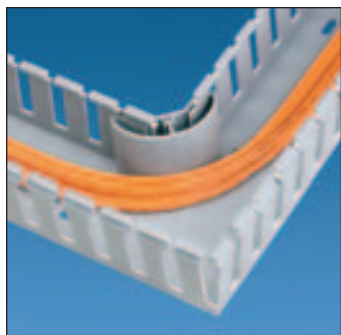
DB-C

Part Number	For Nominal Duct Height		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm		
PANDUCT Solid Divider Wall				
D1H6	1.00	25	6	120
D1.5H6	1.50	37	6	120
D2H6	2.00	50	6	120
D3H6	3.00	75	6	120
D4H6	4.00	100	6	120
PANDUCT Slotted Divider Wall				
SD2H6	2.00	50	6	120
SD3H6	3.00	75	6	120
SD4H6	4.00	100	6	120
PANDUCT Divider Wall Mounting Base				
DB-C	PANDUIT NR1 or #8 or #10 screw		100	1000

NOTE: Use of 4 mounting bases per every 6' of divider wall is recommended.
For ordering divider wall, order total number of feet required, in multiples 6' or Standard Package Quantity.

PANDUCT® Duct Corner Strip with 1" Bend Radius Control

- Creates a strong rigid corner at wiring duct junctions
- 1" bend radius on inside corner protects sensitive data cabling
- Available in five pre-cut sizes and 6' lengths that can be cut-to-size to meet any size requirement
- Easy to install two piece design
- Compatible with all styles of PANDUIT® Wiring Duct



Part Number	Part Description	Material	For Duct Height		Std. Pkg. Qty.	Std. Ctn. Qty.
			In.	mm		
6 Foot Lengths for use with all Types of PVC Wiring Duct						
CSC1LG6	Cut-to-size 6 foot corner strip with a 1" bend radius.	PVC	All sizes (Cut to duct height)	All sizes (Cut to duct height)	6	120
Pre-cut Pieces for use with all Types of PVC Wiring Duct						
CSPC1LG-Q	1" bend radius corner strip pre-cut for 1" wall height.	PVC	1.00	25.4	25	250
CSPC1.5LG-Q	1" bend radius corner strip pre-cut for 1.5" wall height.	PVC	1.50	38.1	25	250
CSPC2LG-Q	1" bend radius corner strip pre-cut for 2" wall height.	PVC	2.00	50.8	25	250
CSPC3LG-Q	1" bend radius corner strip pre-cut for 3" wall height.	PVC	3.00	76.2	25	250
CSPC4LG-Q	1" bend radius corner strip pre-cut for 4" wall height.	PVC	4.00	101.6	25	250

For other colors replace LG (Light Gray) with BL (Black) or WH (White).
 CSPC available in LG (Light Gray) only.
 Order number of feet required, in multiples of 6' or Standard Package Quantity.

Bend Radius Control Trumpet

- Available for 2" and 4" wall height Type G Slotted Wall Wiring Duct and Type FS Solid Wall Raceway
- New style TRC2HDBL is available for 2" wall height Type H Hinged Cover Wiring Duct
- Provides method to transition cabling from wall mounted hardware to wiring duct channel
- Maintains complete 1" bend radius control




TRC2BL



TRC4BL

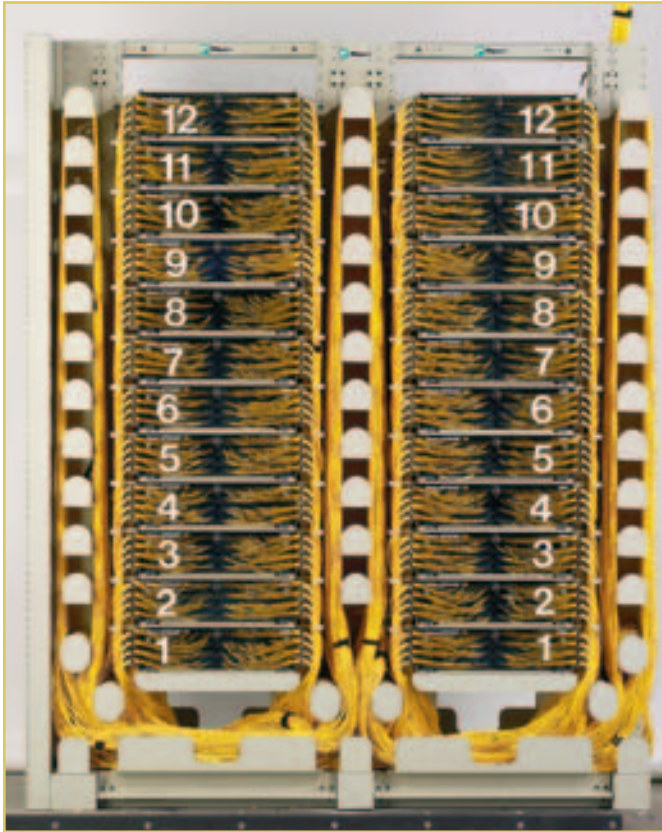


TRC2HDBL

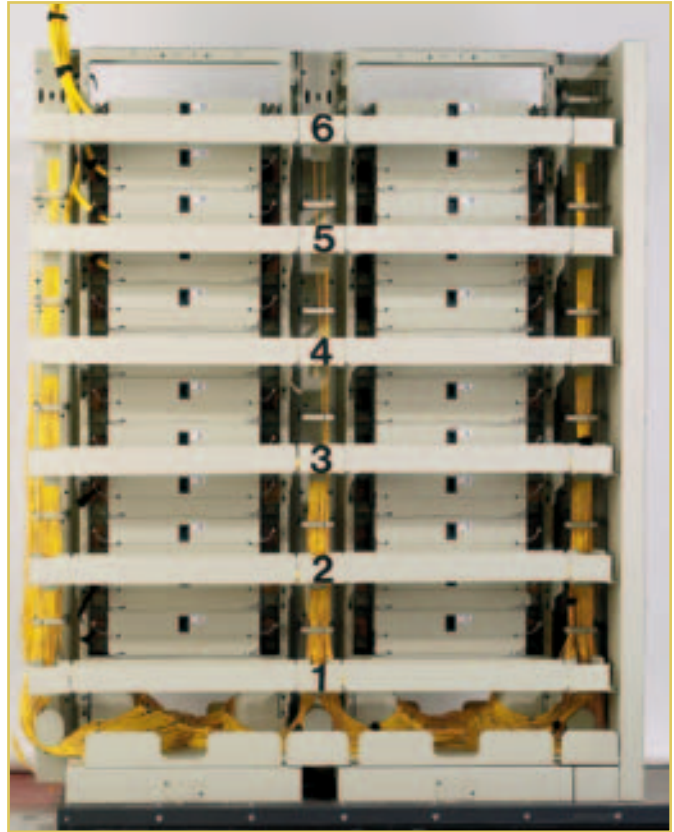
Part Number	Part Description	Material	For Duct Height		Std. Pkg. Qty.	Std. Ctn. Qty.
			In.	mm		
TRC2BL	Bend radius control trumpet for exiting at the sidewall of 2" wall heights of Type G or Type FS Wiring Duct channel.	ABS	2.00	50	1	10
TRC4BL	Bend radius control trumpet for exiting at the sidewall of 4" wall heights of Type G or FS Wiring Duct channel.	ABS	4.00	100	1	10
TRC2HDBL 	Bend radius control trumpet for exiting at the sidewall of 2" wall heights of Type H Hinged Cover Wiring Duct channel.	ABS	2.00	50	1	10

Available in BL (Black) only.

OPTICOM HD® Cable Management Rack System Roadmap

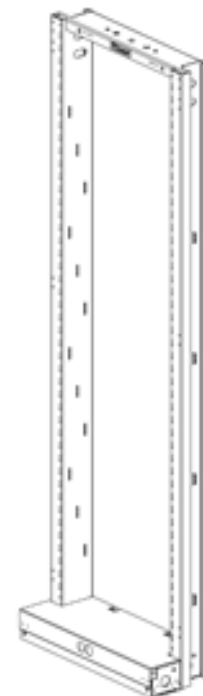
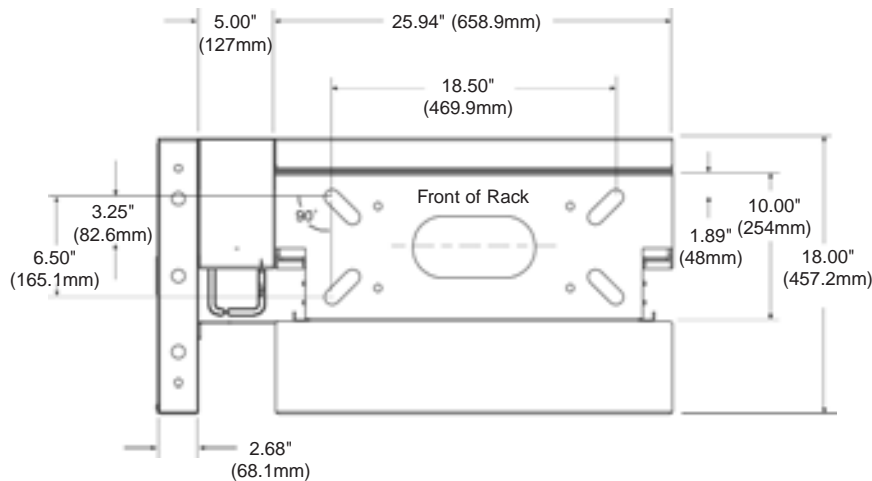


Front view

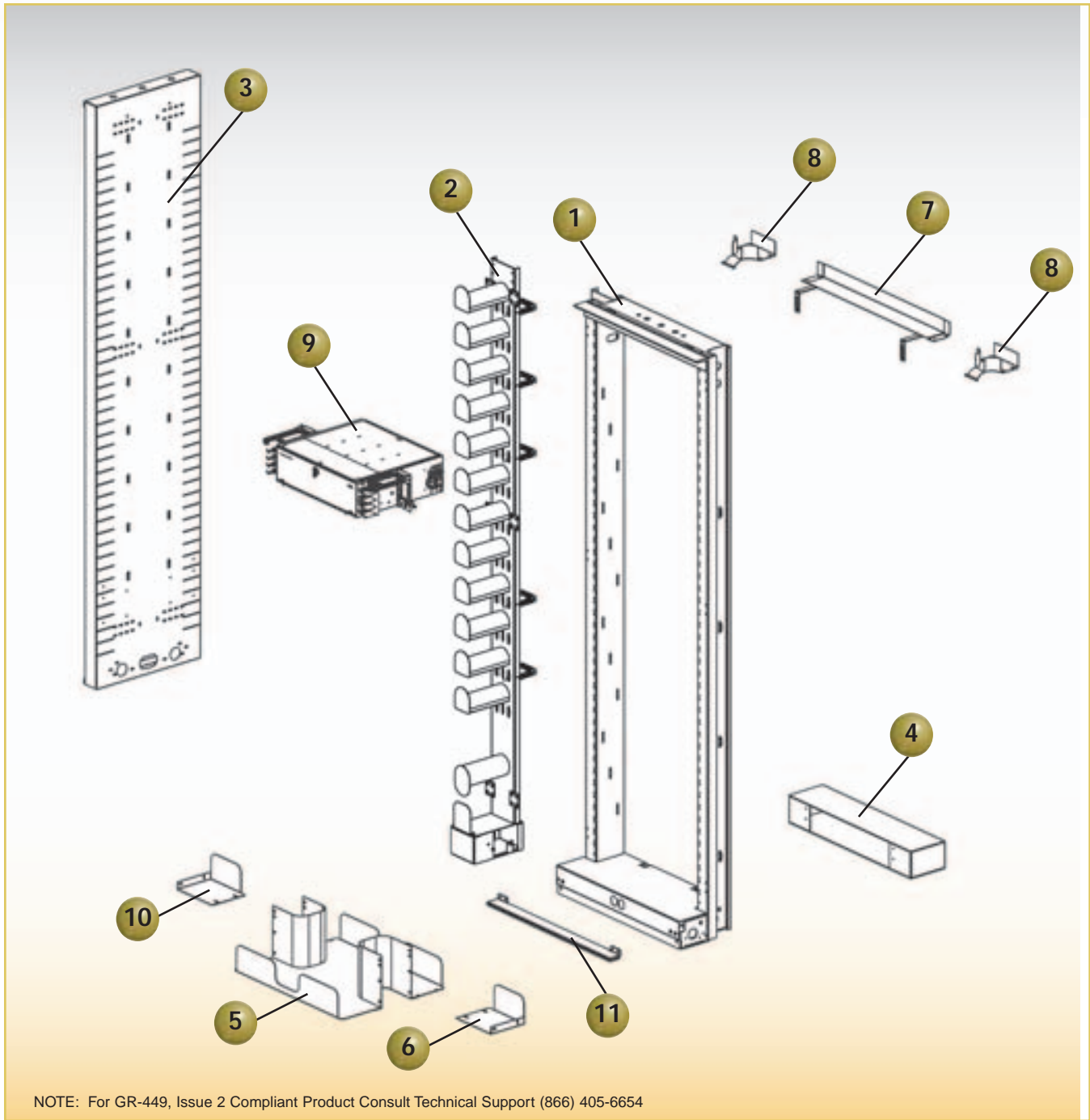


Rear view

Footprint for Opticom HD Rack



TRENBS2384



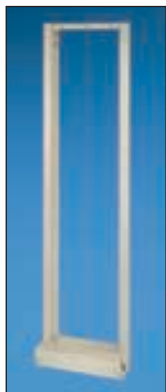
NOTE: For GR-449, Issue 2 Compliant Product Consult Technical Support (866) 405-6654

- 1** 23" Telco Seismic Rack
TRENBS2384 (page G34)
- 5** Lower Trough
TRT23L (page G36)
- 9** 144 Port Simplex SC Enclosure
HDFE144SC17 (page G37)
- 2** Vertical Slack Manager
TRVSM (page G35)
- 6** Rear Right End Trough
TRTRER (page G36)
- 10** Rear Left End Trough
TRTLER (page G36)
- 3** End Cap with Spacer
TREC (page G35)
- 7** Rear Trough
TRT23R (page G36)
- 11** Front Guard
TRFG23 (page G35)
- 4** Rear Guard
TRRG236 (page G35)
- 8** Rear End Waterfall Trough
TRTR (page G36)

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- Grounding & Bonding
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Telecommunication Equipment Racks

- Seismic rated to GR-63-CORE, Zone 4
- Top channel design (can be converted to top angle with optional accessory)
- Closed duct unequal flange design
- Provision for power outlets on front and rear of base
- 4" high base with cover included
- #12-24 EIA wide hole spacing
- Meets EIA-310-D except for the rack inside spacing



TRENBS2384



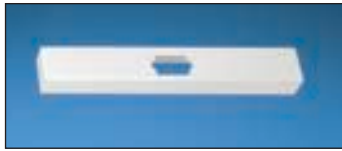
TRENBS

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
TRENBS1984	Enhanced Network Bay Seismic Telecommunication Rack 19" x 84".	44	1
TRENBS2384	Enhanced Network Bay Seismic Telecommunication Rack 23" x 84".	44	1

[^]One rack space = 1.75" (44.45mm)
All product color is off white.

Telecommunication Equipment Rack Accessories

- Telecommunication rack accessories adapt the racks to various applications and enhance system performance
- Front and rear guard boxes extend the rack base footprint to protect cable and equipment on the rack
- Top angles provide an attachment point for rack support members
- Endcaps protect cable and equipment at the end of a rack line-up and provide a finished look to the system
- Vertical slack managers and rear plates provide a means of storing fiber slack and routing cables vertically between racks



TRRG232



TRFG23



TRTA23



TREC



TRVSM

















TRVCMR

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Telecommunication Rack Rear Guard Box			
TRRG192	Telecommunication rack rear guard box 2" deep, for 19" rack.	1	—
TRRG193	Telecommunication rack rear guard box 3" deep, for 19" rack.	1	—
TRRG196	Telecommunication rack rear guard box 6" deep, for 19" rack.	1	—
TRRG232	Telecommunication rack rear guard box 2" deep, for 23" rack.	1	—
TRRG233	Telecommunication rack rear guard box 3" deep, for 23" rack.	1	—
TRRG236	Telecommunication rack rear guard box 6" deep, for 23" rack.	1	—
Telecommunication Rack Front Guard Rail			
TRFG19	Telecommunication rack front guard rail for 19", 2" deep rack.	1	—
TRFG23	Telecommunication rack front guard rail for 23", 2" deep rack.	1	—
Telecommunication Rack Top Angle			
TRTA19	Telecommunication rack top angle for 19" rack.	1	—
TRTA23	Telecommunication rack top angle for 23" rack.	1	—
Telecommunication Rack End Cap			
TREC	Telecommunication rack end cap. Mounts to end of rack line-up. Enclosed area can be used for routing power, voice or data lines. Dimensions 18"D x 2.7"W x 84"H (457mm x 68mm x 2134mm)	1	—
Telecommunication Rack Interbay Vertical Slack Manager			
TRVSM	Telecommunication rack interbay vertical slack manager, 84"H x 5"W. Includes lower guard box, jumper trough and 6 D-rings for rear vertical cable management.	1	—
Telecommunication Rack Vertical Cable Management Metal Ring			
TRVCMR	Telecommunication rack vertical cable management metal ring, 7"L x 2.75"W.	1	10
TRVCMRN	Telecommunication rack narrow vertical cable management metal ring, 7"L x 1.75"W. Used when mounting 17" OPTICOM™ HD Enclosures to 19" rack.	1	10

All product color is off white.

OPTICOM® HD Fiber Distribution Troughs

- Provide pathways to route cable between enclosures and equipment along a rack line-up
- Heavy duty steel construction

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
 TRT19L	Trough mounts to the bottom of a 19" rack for routing cable along the front and rear of the rack. Allows cables to be routed from front to rear.	5	1
 TRT19LF	Trough mounts to the bottom of a 23" rack for routing cable along the front and rear of the rack. Allows cables to be routed from front to rear.	5	1
 TRT19LF	Trough mounts to the bottom front of a 19" rack for routing cables along the front of the rack only.	5	1
 TRT23LF	Trough mounts to the bottom front of a 23" rack for routing cables along the front of the rack only.	5	1
 TRTJLR	Trough provides continuous horizontal pathway for cables on rear of adjacent racks when using an interbay slack manager between racks.	—	1
 TRTLER	Trough mounts to the left end of lower rear pathway when using an interbay slack manager at the end of a rack line-up.	—	1
 TRTRER	Trough mounts to the right end of lower rear pathway when using an interbay slack manager at the end of a rack line-up.	—	1
 TRT19M	Trough mounts above lower trough, TRT19L, on a 19" rack to provide additional capacity for cables on the front and rear of the rack. Allows cable to be routed front front to rear.	4	1
 TRT23M	Trough mounts above lower trough, TRT23L, on a 23" rack to provide additional capacity for cables on the front and rear of the rack. Allows cable to be routed from front to rear.	4	1
 TRT19MF	Trough mounts above lower trough, TRT19LF, on a 19" rack to provide additional capacity for cable on the front of the rack only.	4	1
 TRT23MF	Trough mounts above lower trough, TRT23LF, on a 23" rack to provide additional capacity for cables on the front of the rack only.	4	1
 TRT19R	Trough mounts to rear of 19" rack at multiple locations behind enclosures for routing cables along the rear of rack.	—	1
 TRT23R	Trough mounts to rear of 23" rack at multiple locations behind enclosures for routing cables along the rear of the rack.	—	1
 TRTR	Trough provides continuous horizontal pathway on rear of adjacent racks when either TRT19R or TRT23R is installed. Waterfall allows cables to route vertically between different horizontal levels on rear.	—	1

[^]One rack space = 1.75in. (44.45mm)

All product color is off white

Capacities based on Telcordia GR-447-CORE 50% fill calculation

Fill capacity of Lower and Mezzanine Troughs = 616 (front) 522 rear (3mm Jacketed Fibers)

Fill capacity of Front Only Lower and Mezzanine Troughs = 616 (3mm Jacketed Fibers)

Fill capacity of Rear Trough = 252 (3mm Jacketed Fibers)

OPTICOM® HD Fiber Optic Connector Enclosures

- Tested to NEBS level #3 and GR-449-CORE
- Patented fanning guides with retainer strips protect cables and maintain bend radius control
- Fully retractable top and removable front covers maximize connector access for moves, adds and changes
- Can be mounted to standard EIA / WECCO . 19" or 23" rack or cabinet
- Includes vertical cable management rings
- Includes Fiber Optic Cable Routing Accessory Kit and labels



HDFE144SC17

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
HDFE72FJ17	Accepts (12) FAP or FMP with ceramic sleeves. Dimensions 5.22"H x 17.00"W x 15.00"D (132.6mm x 431.8mm x 381.0mm)	3	1
HDFE72SC17	Loaded with (72) blue SC simplex adapters with ceramic sleeves. Dimensions 5.22"H x 17.00"W x 15.00"D (132.6mm x 431.8mm x 381.0mm)	3	1
HDFE96SC17	Loaded with (96) blue SC simplex adapters with ceramic sleeves. Dimensions 5.22"H x 17.00"W x 15.00"D (132.6mm x 431.8mm x 381.0mm)	3	1
HDFE144SC17	Loaded with (144) blue SC simplex adapters with ceramic sleeves. Dimensions 5.22"H x 17.00"W x 15.00"D (132.6mm x 431.8mm x 381.0mm)	3	1

[^]One rack space = 1.75" (44.45mm)
All product color is off white.

OPTICOM Fiber Optic Rack Mount Splice Enclosure

- Fusion splice tray storage enclosure that accepts (8) splice trays (FST6)



HDFES17

Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.
HDFES17	Accepts up to (8) splice trays (FST6) and supports up to (96) fusion or mechanical splices. Dimensions 5.22"H x 17.00"W x 15.00"D (132.6mm x 431.8mm x 381mm)	3	1

[^]One rack space = 1.75" (44.45mm)
All product color is off white.

OPTICOM® HD Fiber Optic Module Enclosures

- Facilitates affordable system growth
- Supports splitter applications
- Patented fanning guides with retainer strips protect cables and maintain bend radius control
- Fully retractable top and removable front covers maximize connector access for moves, adds and changes
- Can be mounted to standard EIA / WECCO 19" or 23" rack or cabinet
- Includes vertical cable management rings
- Includes Fiber Optic Cable Routing Accessory Kit and labels



Part Number	Part Description	No. of Rack Spaces [^]	Std. Pkg. Qty.	Std. Ctn. Qty.
OPTICOM HD 17" Fiber Optic Module Enclosure - for 19" and 23" racks				
HDFEM17	Accepts (16) <i>OPTICOM</i> HD modules. Supplied with (8) HDFMB blanks. Dimensions 5.22"H x 17.00"W x 15.00"D (132.6mm x 431.8mm x 381.0mm)	3	1	0
OPTICOM HD Pre-terminated Connector Modules with 5 meter Pigtail				
HDFM6FJ	Loaded with (6) <i>OPTI-JACK</i> ® duplex Connectors. Dimensions 1.23"H x 4.06"W x 7.05"D (31.2mm x 103.1mm x 179.1mm)	—	1	10
HDFM6SC	Loaded with (6) SC simplex Connectors. Dimensions 1.23"H x 4.06"W x 7.05"D (31.2mm x 103.1mm x 179.1mm)	—	1	10
HDFMB	<i>OPTICOM</i> HD Fiber Module Blank.	—	1	10

[^]One rack space = 1.75" (44.45mm)
All product color is off white.

OPTICOM HD Optical Component Module

- Provides instant access to monitor valuable optical circuits without disconnecting or interrupting service
- Simplifies testing and troubleshooting
- Helps manage reliable service for customers
- Compatible with *OPTICOM* HD Enclosures



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
HDFMSJSC-EB	<i>OPTICOM</i> HD 90/10 Wideband Singlemode Optical Splitter Module, singlemode SC/UPC, monitors 2 singlemode fiber cables, 6 front ports.	1	10

GROUNDING & BONDING

The industries' most reliable line of connectors. *PANDUIT*® pioneered the testing of copper compression connectors by Telcordia to the Network Equipment Building Systems (NEBS) Level 3 requirements. Level 3 is the most stringent level of the NEBS performance criteria.

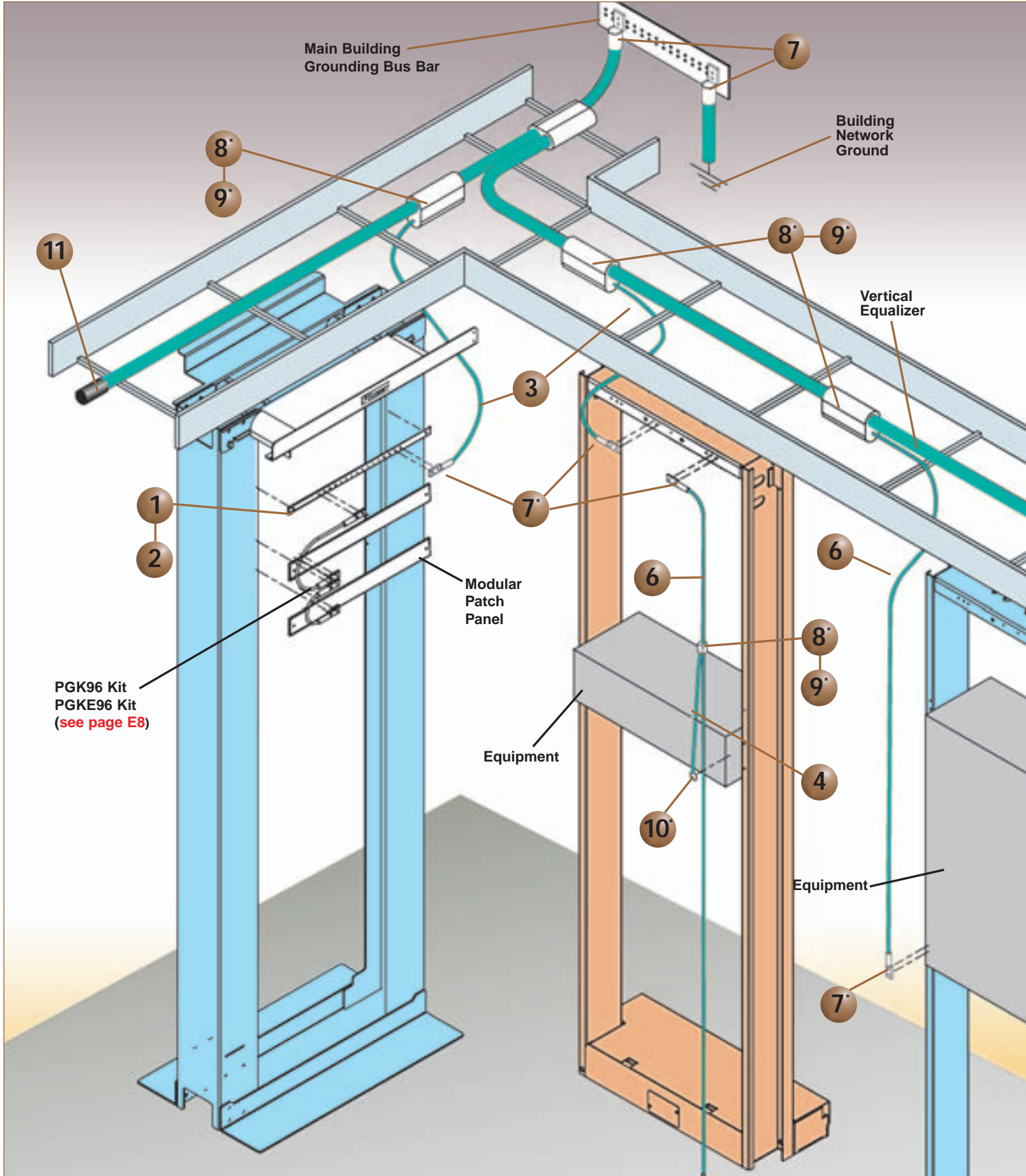




- Compression connectors tested by Telcordia and meet NEBS Level 3
- All *PANDUIT* connectors have been designed for easy installation and for maximum durability
- A broad variety of mechanical, pipe, rod and tap ground connectors are available to meet network grounding applications
- *PANDUIT* offers a variety of copper compression taps for grounding needs: extruded heavy wall "Type C" CTAPS, Stamped and Formed "Type F" CTAPS, and extruded "Type H" HTAPS, all in a wide range of run/tap conductor combinations
- *PAN-TERM*® Ring Terminals are available in nylon, vinyl and non-insulated versions and can be used in a variety of power and grounding applications
- Crimping tools enable fast and proper product installation at a lower installed cost

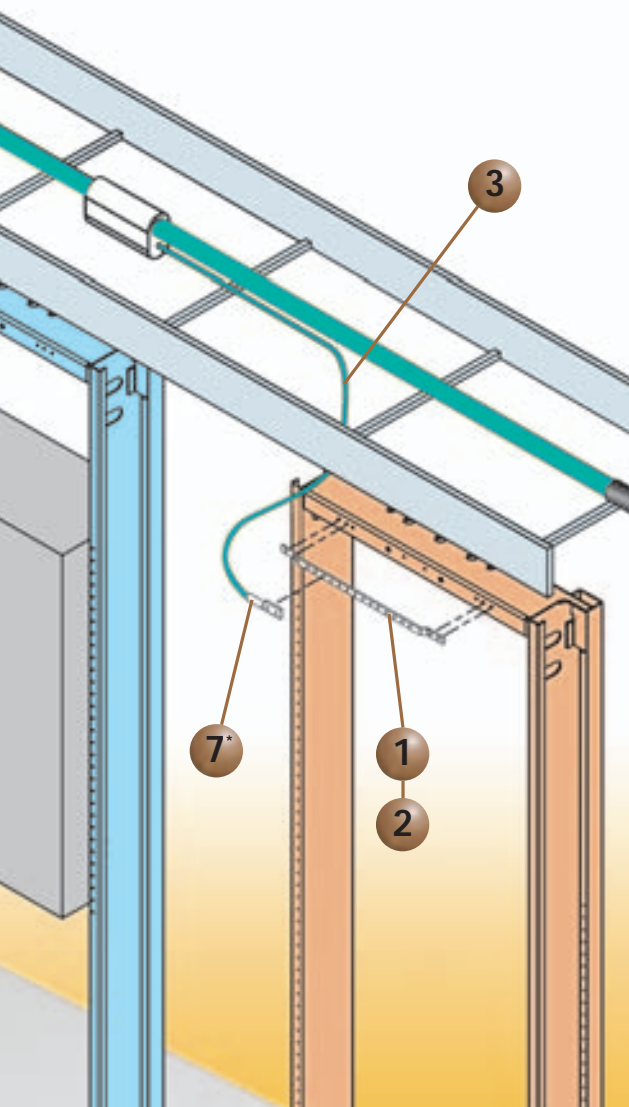
Telcordia testing of copper compression connectors to NEBS Level 3 Criteria provides assurance these products will meet or exceed installation requirements. Telcordia serves as the testing agency for the Telecommunication Industry. Telcordia's evaluation represents an objective third party analysis of copper compression connector, features function and performance. This confirms compliance of *PANDUIT* grounding products with globally recognized criteria.

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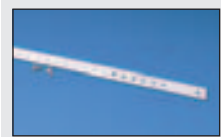
Grounding & Bonding System Roadmap



 Telecommunications rack
 NETFRAME® rack
 * Included in a kit



1 TRGB19 Rack round Bar - Channel Mount (page H4)



2 TRGB231 Rack Ground Bar - Rack Mount (page H4)



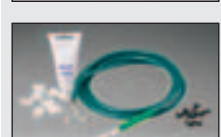
3 TRGK672 Rack Ground Kit (page H4)



4 TRGKJ1024 Rack Ground Kit (page H4)



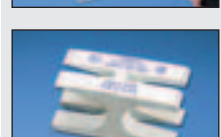
5 TRGKJ4120 Rack Ground Kit (page H4)



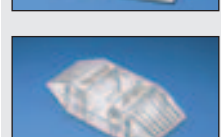
6 TRGKE696 Rack Ground Kit (page H4)



7 Two Hole, Long Barrel Lugs with Inspection Window (pages H15-H16)



8 Compression Connectors Taps (page H23)



9 Clear Covers (page H23)



10 Insulated & Non-Insulated Ring Terminals (pages H35-36)



11 Heat Shrink End Caps (page L28)

Grounding Kit

- Grounds modules to another ground wire in shielded applications



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
CJSJK-X	Kit used to ground <i>Giga-TX</i> ™ Style Modules to another ground wire in shielded applications.	10	100

Telecommunication Rack Grounding Products

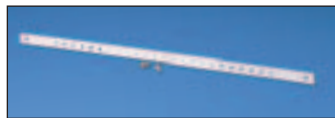
- Provides protection for active equipment against stray electrical emissions



TRGB19



TRGB23



TRGB231



TRGK672



TRGKE696



TRGKJ1024



TRGKJ4120

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
TRGB19	Ground Bar, 11" long, mounts to the top channel of the 19" Telecommunication Equipment Rack and is used as a grounding bus. Tinned copper, #6-32 and 1/4-20 threaded screw holes. Includes hardware.	1	10
TRGB23	Ground Bar, 15" long, mounts to the top of the 23" Telecommunication Equipment Rack and is used as a grounding bus. Tinned copper, #6-32 and 1/4-20 threaded screw holes. Includes hardware.	1	10
TRGB191*	Ground Bar, 19" long, 1 RU, mounts to vertical channels of the 19" Telecommunication Equipment Rack and is used as a grounding bus. Tinned copper, #6-32 and 1/4-20 threaded screw holes. Includes hardware.	1	10
TRGB231*	Ground Bar, 23" long, 1 RU, mounts to vertical channels of the Telecommunication Equipment Rack and is used as a grounding bus. Tinned copper, #6-32 and 1/4-20 threaded screw holes. Includes hardware.	1	10
TRGK672*	Ground kit used to ground individual rack to building network ground. #6 AWG insulated stranded copper 72" long. Includes external lock washers, 1/4-20 screws, HTAP and cover and anti-oxidizing paste. Accommodates building network ground wire from #1/0-#6 AWG.	1	10
TRGKE696	Ground kit mounts to vertical channel of the rack and is used as a connection between equipment jumpers and rack ground bar. #6 tinned solid copper wire 96" long. Includes #12-24 screws, cable clamps, 1/4-20 screws, external lock washers and anti-oxidizing paste.	1	10
TRGKJ1024	Equipment ground jumper kit used to ground equipment to TRGKE696. #10 AWG insulated stranded copper 24" long. Includes HTAP, cover and anti-oxidizing paste.	1	10
TRGKJ4120	Equipment ground jumper kit used to ground equipment to the building network ground, TRGKE696, or directly to the rack. Cable is #4 AWG insulated stranded copper 120" long. Includes #12-24 screws, cable clamps, HTAP and cover and anti-oxidizing paste. Accommodates building network ground wire from #1/0-#6 AWG.	1	10

*Also mounts to standard EIA racks and *NETFRAME*® racks.

Part Number System For Compression Connectors

LCD	2/0	—	38	D	F	—	X
Part Designation	Conductor Size		Bolt Hole Size Designation	2 Bolt Hole Spacing *	Tongue Angle		Std. Pkg. Size
			10 = #10 14 = 1/4" 56 = 5/16" 38 = 3/8" 12 = 1/2" 58 = 5/8" 34 = 3/4" 00 = Blank Tongue	A = .625" B = .750" C = .875" D = 1.00" E = 1.25" No Letter = 1.75" AD = .625" to 1.00" (Slotted)	H = 45° Angle F = 90° Angle No Letter = Straight		1 = 1 2 = 2 3 = 3 5 = 5 6 = 6 X = 10 E = 20 Q = 25 L = 50

Ex: LCD Lug, Copper Two Hole Standard Barrel

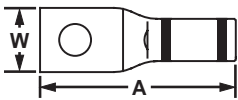
* LCA, LCC and LCD Styles Only

UL LISTED CERTIFIED Copper Lugs – One-Hole Lug Standard Barrel

For Use With Copper Cables Only

Type LCA

- Color coded to show proper die number and color
- Tested by Telcordia and meets NEBS level 3
- UL Listed per 486A up to 35KV**
- Inspection window to visually assure full cable insertion



Part Number	Copper Conductor Size*	Die Color & No. ‡	Bolt Hole Size		Length (A)		Width (W)		Std. Pkg. Qty.
			In.	mm	In.	mm	In.	mm	
LCA10-10-L	#10 AWG	—	#10	4.83	1.06	26.9	.38	9.7	50
LCA10-14-L			1/4	6.35	1.15	29.2	.42	10.7	50
LCA10-56-L			5/16	7.92	1.27	32.3	.54	13.7	50
LCA10-38-L			3/8	9.53	1.37	34.8	.56	14.2	50
LCA8-10-L	#8 AWG or 23 Navy	Red P21	#10	4.83	1.25	31.75	.41	10.4	50
LCA8-14-L			1/4	6.35	1.34	34.04	.48	12.2	50
LCA8-56-L			5/16	7.92	1.46	37.08	.56	14.2	50
LCA8-38-L			3/8	9.53	1.56	39.62	.60	15.2	50
LCA6-10-L	#6 AWG or 30 Navy	Blue P24	#10	4.83	1.52	38.61	.45	11.4	50
LCA6-14-L			1/4	6.35	1.61	40.89	.48	12.2	50
LCA6-56-L			5/16	7.92	1.73	43.94	.56	14.2	50
LCA6-38-L			3/8	9.53	1.83	46.48	.62	15.7	50
LCA4-10-L	#4 – 3 AWG STR, #2 AWG SOL or 40-50 Navy	Gray P29	#10	4.83	1.54	39.1	.55	14	50
LCA4-14-L			1/4	6.35	1.63	41.4	.55	14	50
LCA4-56-L			5/16	7.92	1.75	44.4	.55	14	50
LCA4-38-L			3/8	9.53	1.85	47.0	.62	15.7	50
LCA2-14-Q	#2 AWG or 60 Navy	Brown P33	1/4	6.35	1.77	45.0	.60	15.2	25
LCA2-56-Q			5/16	7.92	1.90	48.3	.66	16.8	25
LCA2-38-Q			3/8	9.53	1.97	50.0	.66	16.8	25
LCA2-12-Q			1/2	12.7	2.21	56.1	.75	19	25
LCA1-14-E	#1 AWG or 75 Navy	Green P37	1/4	6.35	1.79	45.5	.70	17.8	20
LCA1-56-E			5/16	7.92	1.92	48.8	.70	17.8	20
LCA1-38-E			3/8	9.53	1.99	50.5	.70	17.8	20
LCA1-12-E			1/2	12.7	2.23	56.4	.79	20	20
LCA1/0-14-X	#1/0 AWG or 100 Navy	Pink P42	1/4	6.35	1.95	49.5	.76	19.3	10
LCA1/0-56-X			5/16	7.92	2.00	50.8	.76	19.3	10
LCA1/0-38-X			3/8	9.53	2.08	52.8	.76	19.3	10
LCA1/0-12-X			1/2	12.7	2.31	58.7	.80	20.3	10

LCA products continued on next page

*UL Listed and CSA Certified with code, locomotive and class K & M weld cables.

‡Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

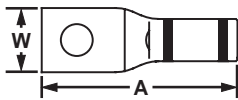
- System Overview
- Modules
- Ultimate ID System & Work Area
- Zone Cabling
- Patch Panels Copper Patch Cords & Punchdowns
- Fiber Connectors Enclosures & Patch Cords
- Racks & Cable Management
- Grounding & Bonding
- Fiber Routing
- Surface Raceway
- Labeling & Administration
- Cable Ties & Accessories
- Supplementary Technical Information
- Glossary & Index



Copper Lugs – One-Hole Lug Standard Barrel (continued)

For Use With Copper Cables Only

Type LCA



Part Number	Copper Conductor Size*	Die Color & No. ‡	Bolt Hole Size		Length (A)		Width (W)		Std. Pkq. Qty.
			In.	mm	In.	mm	In.	mm	
LCA2/0-14-X	#2/0 AWG or 125 Navy	Black P45	1/4	6.35	2.09	53.1	.85	21.6	10
LCA2/0-56-X			5/16	7.92	2.09	53.1	.85	21.6	10
LCA2/0-38-X			3/8	9.53	2.15	54.6	.85	21.6	10
LCA2/0-12-X			1/2	12.7	2.40	61.0	.85	21.6	10
LCA3/0-14-X	#3/0 AWG or 150 Navy	Orange P50	1/4	6.35	2.28	57.9	.96	24.4	10
LCA3/0-56-X			5/16	7.92	2.28	57.9	.96	24.4	10
LCA3/0-38-X			3/8	9.53	2.34	59.4	.96	24.4	10
LCA3/0-12-X			1/2	12.7	2.59	65.8	.96	24.4	10
LCA4/0-14-X	#4/0 AWG or 200 Navy	Purple P54	1/4	6.35	2.36	59.9	1.06	26.9	10
LCA4/0-56-X			5/16	7.92	2.38	60.5	1.06	26.9	10
LCA4/0-38-X			3/8	9.53	2.45	62.2	1.06	26.9	10
LCA4/0-12-X			1/2	12.7	2.68	68.1	1.06	26.9	10
LCA250-14-X	250 kcmil or 250 Navy	Yellow P62	1/4	6.35	2.47	62.7	1.17	29.7	10
LCA250-56-X			5/16	7.92	2.48	63.0	1.17	29.7	10
LCA250-38-X			3/8	9.53	2.55	64.8	1.17	29.7	10
LCA250-12-X			1/2	12.7	2.78	70.6	1.17	29.7	10
LCA300-56-X	300 kcmil	White P66	5/16	7.92	2.94	74.7	1.19	30.2	10
LCA300-38-X			3/8	9.53	2.94	74.7	1.19	30.2	10
LCA300-12-X			1/2	12.7	3.05	77.5	1.19	30.2	10
LCA300-58-X			5/8	15.88	3.26	82.8	1.19	30.2	10
LCA300-78-X			7/8	22.22	3.70	94.0	1.19	30.2	10
LCA350-38-X	350 kcmil	Red P71	3/8	9.53	2.98	75.7	1.28	32.5	10
LCA350-12-X			1/2	12.7	3.09	78.5	1.28	32.5	10
LCA350-58-X			5/8	15.88	3.30	83.8	1.28	32.5	10
LCA350-78-X			7/8	22.22	3.74	95.0	1.28	32.5	10
LCA400-38-6	400 kcmil	Blue P76	3/8	9.53	3.22	81.8	1.39	35.3	6
LCA400-12-6			1/2	12.7	3.22	81.8	1.39	35.3	6
LCA400-58-6			5/8	15.88	3.43	87.1	1.39	35.3	6
LCA400-78-6			7/8	22.22	3.82	92.0	1.39	35.3	6
LCA500-38-6	500 kcmil	Brown P87	3/8	9.53	3.39	86.1	1.54	39.1	6
LCA500-12-6			1/2	12.7	3.55	90.2	1.54	39.1	6
LCA500-58-6			5/8	15.88	3.76	95.5	1.54	39.1	6
LCA500-34-6			3/4	19.05	3.90	99.1	1.54	39.1	6
LCA500-78-6			7/8	22.22	4.15	105.4	1.54	39.1	6
LCA500-1-6			1	25.4	4.27	108.5	1.54	39.1	6
LCA600-12-6	600 kcmil	Green P94	1/2	12.7	4.20	106.7	1.70	43.2	6
LCA600-58-6			5/8	15.88	4.20	106.7	1.70	43.2	6
LCA600-78-6			7/8	22.22	4.20	106.7	1.70	43.2	6

*UL Listed and CSA Certified with code, locomotive and class K & M weld cables.

‡Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

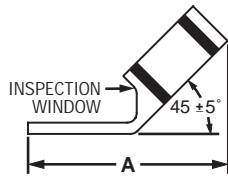
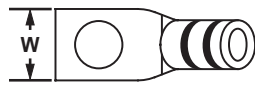


Copper Lugs – One-Hole Lug Standard Barrel, 45° Angle Tongue

For Use With Copper Cables Only

Type LCA-H

- Color coded to show proper die number and color
- Tested by Telcordia and meets NEBS level 3
- UL Listed per 486A up to 35KV**
- Inspection window to visually assure full cable insertion



Part Number	Copper Conductor Size*	Die Color & No.‡	Bolt Hole Size		Length (A)		Width (W)		Std. Pkg. Qty.
			In.	mm	In.	mm	In.	mm	
LCA10-14H-L	#10 AWG	—	1/4	6.35	1.05	26.7	.42	10.7	50
LCA8-10H-L	#8 AWG or 23 Navy	Red P21	#10	4.83	1.10	27.9	.41	10.4	50
LCA8-14H-L			1/4	6.35	1.19	30.2	.48	12.2	50
LCA8-56H-L			5/16	7.92	1.30	33.0	.56	14.2	50
LCA8-38H-L			3/8	9.53	1.40	35.6	.60	15.2	50
LCA6-10H-L	#6 AWG or 30 Navy	Blue P24	#10	4.83	1.29	32.8	.45	11.4	50
LCA6-14H-L			1/4	6.35	1.38	35.1	.48	11.4	50
LCA6-56H-L			5/16	7.92	1.49	37.8	.56	14.2	50
LCA6-38H-L	#4 AWG or 40-50 Navy	Gray P29	3/8	9.53	1.59	40.4	.62	15.7	50
LCA4-10H-L			#10	4.83	1.31	33.3	.55	14.0	50
LCA4-14H-L			1/4	6.35	1.40	35.6	.55	14.0	50
LCA4-56H-L	#2 AWG or 60 Navy	Brown P33	5/16	7.92	1.52	38.6	.55	14.0	50
LCA4-38H-L			3/8	9.53	1.61	40.9	.62	15.7	50
LCA2-14H-Q			1/4	6.35	1.49	37.8	.60	15.2	25
LCA2-56H-Q	#2 AWG or 60 Navy	Brown P33	5/16	7.92	1.61	40.9	.66	16.8	25
LCA2-38H-Q			3/8	9.53	1.68	42.7	.66	16.8	25
LCA2-12H-Q	#1 AWG or 75 Navy	Green P37	1/2	12.7	1.90	48.3	.75	19.0	25
LCA1-14H-E			1/4	6.35	1.50	38.1	.70	17.8	20
LCA1-56H-E			5/16	7.92	1.62	41.1	.70	17.8	20
LCA1-38H-E	#1/0 AWG or 100 Navy	Pink P42	3/8	9.53	1.70	43.2	.70	17.8	20
LCA1-12H-E			1/2	12.7	1.93	49	.75	19.0	20
LCA1/0-14H-X	#1/0 AWG or 100 Navy	Pink P42	1/4	6.35	1.63	41.4	.76	19.3	10
LCA1/0-56H-X			5/16	7.92	1.69	42.9	.76	19.3	10
LCA1/0-38H-X			3/8	9.53	1.76	44.7	.76	19.3	10
LCA1/0-12H-X	#2/0 AWG or 125 Navy	Black P45	1/2	12.7	2.0	50.8	.80	20.3	10
LCA2/0-14H-X			1/4	6.35	1.77	45	.85	21.6	10
LCA2/0-56H-X			5/16	7.92	1.77	45	.85	21.6	10
LCA2/0-38H-X			3/8	9.53	1.83	46.5	.85	21.6	10
LCA2/0-12H-X	#3/0 AWG or 150 Navy	Orange P50	1/2	12.7	2.08	52.8	.85	21.6	10
LCA3/0-14H-X			1/4	6.35	1.90	48.3	.96	24.4	10
LCA3/0-56H-X			5/16	7.92	1.90	48.3	.96	24.4	10
LCA3/0-38H-X			3/8	9.53	1.96	49.8	.96	24.4	10
LCA3/0-12H-X	#3/0 AWG or 150 Navy	Orange P50	1/2	12.7	2.21	56.1	.96	24.4	10

LCA-H product listing continued on the following page

*UL Listed with code, locomotive and class K & M weld cables.

‡Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

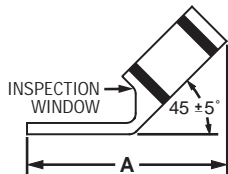
- System Overview
- Modules
- Ultimate ID System & Work Area
- Zone Cabling
- Patch Panels Copper Patch Cords & Punchdowns
- Fiber Connectors Enclosures & Patch Cords
- Racks & Cable Management
- Grounding & Bonding
- Fiber Routing
- Surface Raceway
- Labeling & Administration
- Cable Ties & Accessories
- Supplementary Technical Information
- Glossary & Index



Copper Lugs – One-Hole Lug Standard Barrel, 45° Angle Tongue (continued)

For Use With Copper Cables Only

Type LCA-H



Part Number	Copper Conductor Size*	Die Color & No.‡	Bolt Hole Size		Length (A)		Width (W)		Std. Pkg. Qty.
			In.	mm	In.	mm	In.	mm	
LCA4/0-14H-X	#4/0 AWG or 200 Navy	Purple P54	1/4	6.35	1.97	50	1.06	26.9	10
LCA4/0-56H-X			5/16	7.92	1.98	50.3	1.06	26.9	10
LCA4/0-38H-X			3/8	9.53	2.05	52.1	1.06	26.9	10
LCA4/0-12H-X			1/2	12.7	2.28	57.9	1.06	26.9	10
LCA250-14H-X	250 kcmil or 250 Navy	Yellow P62	1/4	6.35	2.05	52.1	1.17	29.7	10
LCA250-56H-X			5/16	7.92	2.06	52.3	1.17	29.7	10
LCA250-38H-X			3/8	9.53	2.13	54.1	1.17	29.7	10
LCA250-12H-X	300 kcmil	White P66	1/2	12.7	2.36	59.9	1.17	29.7	10
LCA300-56H-X			5/16	7.92	2.55	64.7	1.19	30.2	10
LCA300-38H-X			3/8	9.53	2.55	64.7	1.19	30.2	10
LCA300-12H-X			1/2	12.7	2.70	68.6	1.19	30.2	10
LCA300-58H-X	350 kcmil	White P66	5/8	15.9	2.87	72.9	1.19	30.2	10
LCA300-78H-X			7/8	22.2	3.31	84.1	1.19	30.2	10
LCA350-38H-X			3/8	9.53	2.59	65.8	1.28	32.5	10
LCA350-12H-X	400 kcmil	Red P71	1/2	12.7	2.70	68.6	1.28	32.5	10
LCA350-58H-X			5/8	15.9	2.91	73.9	1.28	32.5	10
LCA350-78H-X			7/8	22.2	3.35	85.1	1.28	32.5	10
LCA400-38H-6	500 kcmil	Blue P76	3/8	9.53	2.85	72.4	1.39	35.3	6
LCA400-12H-6			1/2	12.7	2.85	72.4	1.39	35.3	6
LCA400-58H-6			5/8	15.9	3.06	77.7	1.39	35.3	6
LCA400-78H-6			7/8	22.2	3.45	87.6	1.39	35.3	6
LCA500-38H-6	600 kcmil	Brown P87	3/8	9.53	2.94	74.7	1.54	39.1	6
LCA500-12H-6			1/2	12.7	3.10	78.7	1.54	39.1	6
LCA500-58H-6			5/8	15.9	3.31	84.1	1.54	39.1	6
LCA500-34H-6			3/4	19.1	3.45	87.6	1.54	39.1	6
LCA500-78H-6			7/8	22.2	3.70	94	1.54	39.1	6
LCA500-1H-6			1	25.4	3.82	97	1.54	39.1	6
LCA600-12H-6	Green P94	Green P94	1/2	12.7	3.76	95.5	1.70	43.2	6
LCA600-58H-6			5/8	15.9	3.76	95.5	1.70	43.2	6
LCA600-78H-6			7/8	22.2	3.76	95.5	1.70	43.2	6

*UL Listed with code, locomotive and class K & M weld cables.

‡Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

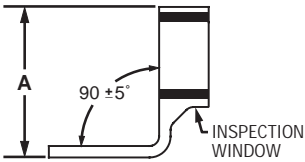


Copper Lugs – One-Hole Lug Standard Barrel, 90° Angle Tongue

For Use With Copper Cables Only

Type LCA-F

- Color coded to show proper die number and color
- Tested by Telcordia and meets NEBS level 3
- UL Listed per 486A up to 35KV**
- Inspection window to visually assure full cable insertion



Part Number	Copper Conductor Size*	Die Color & No.‡	Bolt Hole Size		Length (A)		Width (W)		Std. Pkg. Qty.
			In.	mm	In.	mm	In.	mm	
LCA10-14F-L	#10 AWG	—	1/4	6.35	.94	23.9	.42	10.7	50
LCA8-10F-L	#8 AWG or 23 Navy	Red P21	#10	4.83	.90	22.9	.41	10.4	50
LCA8-14F-L			1/4	6.35	.99	25.1	.48	12.2	50
LCA8-56F-L			5/16	7.92	1.11	28.2	.56	14.2	50
LCA8-38F-L			3/8	9.53	1.21	30.7	.60	15.2	50
LCA6-10F-L	#6 AWG or 30 Navy	Blue P24	#10	4.83	.94	23.9	.45	11.4	50
LCA6-14F-L			1/4	6.35	1.03	26.2	.48	11.4	50
LCA6-56F-L			5/16	7.92	1.15	29.2	.56	14.2	50
LCA6-38F-L	#4 AWG or 40—50 Navy	Gray P29	3/8	9.53	1.25	31.8	.62	15.7	50
LCA4-10F-L			#10	4.83	1.03	26.2	.55	14.0	50
LCA4-14F-L			1/4	6.35	1.12	28.4	.55	14.0	50
LCA4-56F-L	#2 AWG or 60 Navy	Brown P33	5/16	7.92	1.24	31.5	.55	14.0	50
LCA4-38F-L			3/8	9.53	1.34	34	.62	15.7	50
LCA2-14F-Q	#2 AWG or 60 Navy	Brown P33	1/4	6.35	1.24	31.5	.60	15.2	25
LCA2-56F-Q			5/16	7.92	1.36	34.5	.66	16.8	25
LCA2-38F-Q			3/8	9.53	1.44	36.6	.66	16.8	25
LCA2-12F-Q	#1 AWG or 75 Navy	Green P37	1/2	12.7	1.67	42.4	.75	19.0	25
LCA1-14F-E			1/4	6.35	1.31	33.3	.70	17.8	20
LCA1-56F-E			5/16	7.92	1.44	36.6	.70	17.8	20
LCA1-38F-E	#1/0 AWG or 100 Navy	Pink P42	3/8	9.53	1.51	38.4	.70	17.8	20
LCA1-12F-E			1/2	12.7	1.75	44.4	.75	19.0	20
LCA1/0-14F-X	#1/0 AWG or 100 Navy	Pink P42	1/4	6.35	1.45	36.8	.76	19.3	10
LCA1/0-56F-X			5/16	7.92	1.51	38.4	.76	19.3	10
LCA1/0-38F-X			3/8	9.53	1.58	40.1	.76	19.3	10
LCA1/0-12F-X	#2/0 AWG or 125 Navy	Black P45	1/2	12.7	1.82	46.2	.80	20.3	10
LCA2/0-14F-X			1/4	6.35	1.61	40.9	.85	21.6	10
LCA2/0-56F-X			5/16	7.92	1.59	40.4	.85	21.6	10
LCA2/0-38F-X			3/8	9.53	1.66	42.2	.85	21.6	10
LCA2/0-12F-X	#3/0 AWG or 150 Navy	Orange P50	1/2	12.7	1.91	48.5	.85	21.6	10
LCA3/0-14F-X			1/4	6.35	1.67	42.4	.96	24.4	10
LCA3/0-56F-X			5/16	7.92	1.67	42.4	.96	24.4	10
LCA3/0-38F-X	#3/0 AWG or 150 Navy	Orange P50	3/8	9.53	1.73	43.9	.96	24.4	10
LCA3/0-12F-X			1/2	12.7	1.98	50.3	.96	24.4	10

LCA-F product listing continued on the following page

*UL Listed with code, locomotive and class K & M weld cables.

‡Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

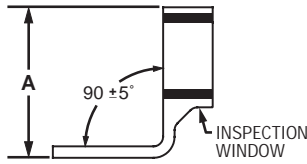
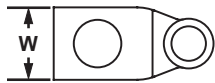
System Overview
Modules
Ultimate ID System & Work Area
Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
Racks & Cable Management
Grounding & Bonding
Fiber Routing
Surface Raceway
Labeling & Administration
Cable Ties & Accessories
Supplementary Technical Information
Glossary & Index



Copper Lugs – One-Hole Lug Standard Barrel, 90° Angle Tongue (continued)

For Use With Copper Cables Only

Type LCA-F



Part Number	Copper Conductor Size*	Die Color & No.‡	Bolt Hole Size		Length (A)		Width (W)		Std. Pkg. Qty.
			In.	mm	In.	mm	In.	mm	
LCA4/0-14F-X	#4/0 AWG or 200 Navy	Purple P54	1/4	6.35	1.75	44.4	1.06	26.9	10
LCA4/0-56F-X			5/16	7.92	1.77	45	1.06	26.9	10
LCA4/0-38F-X			3/8	9.53	1.84	46.7	1.06	26.9	10
LCA4/0-12F-X			1/2	12.7	2.07	52.6	1.06	26.9	10
LCA250-14F-X	250 kcmil or 250 Navy	Yellow P62	1/4	6.35	1.82	46.2	1.17	29.7	10
LCA250-56F-X			5/16	7.92	1.83	46.5	1.17	29.7	10
LCA250-38F-X			3/8	9.53	1.90	48.3	1.17	29.7	10
LCA250-12F-X	300 kcmil	White P66	1/2	12.7	2.13	54.1	1.17	29.7	10
LCA300-56F-X			5/16	7.92	2.07	52.6	1.19	30.2	10
LCA300-38F-X			3/8	9.53	2.07	52.6	1.19	30.2	10
LCA300-12F-X			1/2	12.7	2.18	55.4	1.19	30.2	10
LCA300-58F-X	350 kcmil	White P66	5/8	15.9	2.40	61	1.19	30.2	10
LCA300-78F-X			7/8	22.2	2.83	71.9	1.19	30.2	10
LCA350-38F-X			3/8	9.53	2.13	54.1	1.28	32.5	10
LCA350-12F-X			1/2	12.7	2.24	56.9	1.28	32.5	10
LCA350-58F-X	400 kcmil	Red P71	5/8	15.9	2.45	62.2	1.28	32.5	10
LCA350-78F-X			7/8	22.2	2.89	73.4	1.28	32.5	10
LCA400-38F-6			3/8	9.53	2.37	60.2	1.39	35.3	6
LCA400-12F-6	500 kcmil	Blue P76	1/2	12.7	2.37	60.2	1.39	35.3	6
LCA400-78F-6			7/8	22.2	2.97	75.4	1.39	35.3	6
LCA500-38F-6			3/8	9.53	2.32	58.9	1.54	39.1	6
LCA500-12F-6	600 kcmil	Brown P87	1/2	12.7	2.48	63	1.54	39.1	6
LCA500-34F-6			3/4	19.1	2.83	71.9	1.54	39.1	6
LCA500-78F-6			7/8	22.2	3.01	76.5	1.54	39.1	6
LCA500-1F-6			1	25.4	3.20	81.3	1.54	39.1	6
LCA600-12F-6	600 kcmil	Green P94	1/2	12.7	3.21	81.5	1.70	43.2	6
LCA600-78F-6			7/8	22.2	3.21	81.5	1.70	43.2	6

*UL Listed with code, locomotive and class K & M weld cables.

‡Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

System Overview

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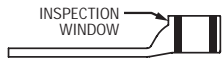
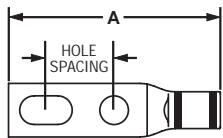
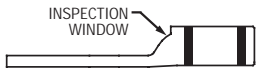
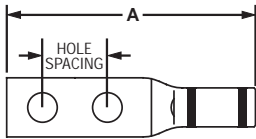


Copper Lugs – Two-Hole Lug Standard Barrel

For Use With Copper Cables Only

Type LCD

- Color coded to show proper die number and color
- Tested by Telcordia and meets NEBS level 3
- UL Listed per 486A up to 35KV**
- Inspection window to visually assure full cable insertion



Part Number	Copper Conductor Size	Die Color & No. ‡	Bolt Hole Size		Length (A)		Width (W)		Mounting Hole Spacing		Std. Pkg. Qty.
			In.	mm	In.	mm	In.	mm	In.	mm	
LCD10-10A-L	#10 AWG	—	#10	4.83	1.70	43.2	.38	9.7	.63	16	50
LCD10-14A-L			1/4	6.35	1.79	45.5	.42	10.7	.63	16	50
LCD10-14B-L			1/4	6.35	1.91	48.5	.42	10.7	.75	19	50
LCD10-14D-L			1/4	6.35	2.16	54.9	.42	10.7	1.00	25.4	50
LCD10-38D-L			3/8	9.53	2.38	60.5	.56	14.2	1.00	25.4	50
LCD8-10A-L	#8 AWG or 23 Navy	Red P21	#10	4.83	1.88	47.8	.41	10.4	.63	16	50
LCD8-14A-L			1/4	6.35	1.97	50.0	.48	12.2	.63	16	50
LCD8-14B-L			1/4	6.35	2.09	53.1	.48	12.2	.75	19	50
LCD8-14D-L			1/4	6.35	2.34	59.4	.48	12.2	1.00	25.4	50
LCD8-38D-L			3/8	9.53	2.56	65.0	.62	15.7	1.00	25.4	50
LCD8-38AD-L			.406	10.3	2.56	65.0	.62	15.7	.63	16	50
LCD6-10A-L	#6 AWG or 30 Navy	Blue P24	#10	4.83	2.15	54.6	.46	11.7	.63	16	50
LCD6-14A-L			1/4	6.35	2.24	56.9	.48	12.2	.63	.63	50
LCD6-14B-L			1/4	6.35	2.36	59.9	.48	12.2	.75	19	50
LCD6-14D-L			1/4	6.35	2.61	66.3	.48	12.2	1.00	25.4	50
LCD6-56D-L			5/16	7.92	2.73	69.3	.56	14.2	1.00	25.4	50
LCD6-38D-L			3/8	9.53	2.83	71.9	.62	15.7	1.00	25.4	50
LCD6-38AD-L			.406	10.3	2.83	71.9	.62	15.7	.63	16	50
LCD4-10A-L	#4 AWG – 3 AWG, 2 SOL or 40-50 Navy	Gray P29	#10	4.83	2.17	55.1	.55	14.0	.63	16	50
LCD4-10B-L			#10	4.83	2.29	58.2	.55	14.0	.75	19	50
LCD4-14A-L			1/4	6.35	2.26	57.4	.55	14.0	.63	16	50
LCD4-14B-L			1/4	6.35	2.38	60.5	.55	14.0	.75	19	50
LCD4-14D-L			1/4	6.35	2.63	66.8	.55	14.0	1.00	25.4	50
LCD4-38D-L			3/8	9.53	2.85	72.4	.62	15.7	1.00	25.4	50
LCD4-38AD-L			.406	10.3	2.85	72.3	.62	15.7	.63	16	50
LCD2-14A-Q	#2 AWG or 60 Navy	Brown P33	1/4	6.35	2.40	61.0	.60	15.2	.63	16	25
LCD2-14B-Q			1/4	6.35	2.52	64.0	.60	15.2	.75	19	25
LCD2-14D-Q			1/4	6.35	2.77	70.4	.60	15.2	1.00	25.4	25
LCD2-56B-Q			5/16	7.92	2.65	67.3	.66	16.8	.75	19	25
LCD2-38D-Q			3/8	9.53	3.00	76.2	.66	16.8	1.00	25.4	25
LCD2-38AD-Q			.406	10.3	3.00	76.2	.66	16.8	.63	16	25
◆ LCD2-12-Q			1/2	12.7	4.14	105.2	.75	19.0	1.75	44.4	25
LCD1-14A-E	#1 AWG or 75 Navy	Green P37	1/4	6.35	2.42	61.5	.70	17.8	.63	16	20
LCD1-14B-E			1/4	6.35	2.54	64.5	.70	17.8	.75	19	20
LCD1-56C-E			5/16	7.92	2.79	70.9	.70	17.8	.88	22.4	20
LCD1-38D-E			3/8	9.53	2.99	75.9	.70	17.8	1.00	25.4	20
LCD1-38AD-E			.63	16	2.99	75.9	.70	17.8	.63	16	20
◆ LCD1-12-E			1/2	12.7	4.16	105.7	.75	19.0	1.75	44.4	20

LCD product listing continued on the following page

*UL Listed and CSA Certified with code, locomotive and class K & M weld cables.

‡Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

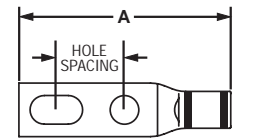
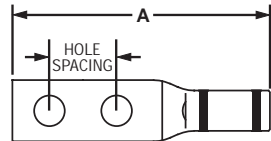
◆ NEMA hole sizes and spacing



Copper Lugs – Two-Hole Lug Standard Barrel (continued)

For Use With Copper Cables Only

Type LCD



Part Number	Copper Conductor Size	Die Color & No. ‡	Bolt Hole Size		Length (A)		Width (W)		Mounting Hole Spacing		Std. Pkg. Qty.
			In.	mm	In.	mm	In.	mm	In.	mm	
LCD1/0-14A-X	#1/0 AWG or 100 Navy	Pink P42	1/4	6.35	2.57	65.3	.76	19.3	.63	16	10
LCD1/0-14B-X			1/4	6.35	2.70	68.6	.76	19.3	.75	19	10
LCD1/0-56C-X			5/16	7.92	2.88	73.2	.76	19.3	.88	22.4	10
LCD1/0-38D-X			3/8	9.53	3.08	78.2	.76	19.3	1.00	25.4	10
LCD1/0-38AD-X			.406	10.3	3.08	78.2	.76	19.3	.63	16	10
LCD1/0-12-X	#2/0 AWG or 125 Navy	Black P45	1/2	12.7	4.25	107.9	.80	20.3	1.75	44.4	10
LCD2/0-14A-X			1/4	6.35	2.71	68.8	.85	21.6	.63	16	10
LCD2/0-14B-X			1/4	6.35	2.84	72.1	.85	21.6	.75	19	10
LCD2/0-56C-X			5/16	7.92	2.96	75.2	.85	21.6	.88	22.4	10
LCD2/0-38D-X			3/8	9.53	3.15	80.0	.85	21.6	1.00	25.4	10
LCD2/0-12-X	#3/0 AWG or 150 Navy	Orange P50	1/2	12.7	4.31	109.5	.85	21.6	1.75	44.4	10
LCD3/0-14B-X			1/4	6.35	3.03	77.0	.96	24.4	.75	19	10
LCD3/0-56D-X			5/16	7.92	3.28	83.3	.96	24.4	1.00	25.4	10
LCD3/0-38D-X			3/8	9.53	3.34	84.8	.96	24.4	1.00	25.4	10
LCD3/0-12-X			1/2	12.7	4.50	114.3	.96	24.4	1.75	44.4	10
LCD4/0-14B-X	#4/0 AWG or 200 Navy	Purple P54	1/4	6.35	3.11	79.0	1.06	26.9	.75	19	10
LCD4/0-38D-X			3/8	9.53	3.45	87.6	1.06	26.9	1.00	25.4	10
LCD4/0-12-X			1/2	12.7	4.58	116.3	1.06	26.9	1.75	44.4	10
LCD250-38D-X			3/8	9.53	3.55	90.2	1.17	29.7	1.00	25.4	10
LCD250-12-X			1/2	12.7	4.69	119.1	1.17	29.7	1.75	44.4	10
LCD300-38D-X	250 kcmil or 250 Navy	Yellow P62	3/8	9.53	3.75	95.3	1.19	30.2	1.00	25.4	10
LCD300-12-X			1/2	12.7	4.93	125.2	1.19	30.2	1.75	44.4	10
LCD350-14B-X	300 kcmil	White P66	1/4	6.35	3.31	84.1	1.28	32.5	.75	19	10
LCD350-38D-X			3/8	9.53	3.79	96.3	1.28	32.5	1.00	25.4	10
LCD350-12E-X			1/2	12.7	4.34	110.2	1.28	32.5	1.25	31.8	10
LCD350-12-X			1/2	12.7	4.97	126.2	1.28	32.5	1.75	44.4	10
LCD400-38D-6			350 kcmil	Red P71	3/8	9.53	3.87	98.3	1.39	35.3	1.00
LCD400-12-6	1/2	12.7			5.05	128.3	1.39	35.3	1.75	44.4	6
LCD500-14B-6	400 kcmil	Blue P76	1/4	6.35	3.72	94.5	1.54	39.1	.75	19	6
LCD500-38D-6			3/8	9.53	4.20	106.7	1.54	39.1	1.00	25.4	6
LCD500-12E-6			1/2	12.7	4.75	120.6	1.54	39.1	1.25	31.8	6
LCD500-12-6			1/2	12.7	5.38	136.7	1.54	39.1	1.75	44.4	6
LCD600-38D-6			500 kcmil	Brown P87	3/8	9.53	4.25	107.9	1.70	43.2	1.00
LCD600-12-6	1/2	12.7			5.43	137.9	1.70	43.2	1.75	44.4	6
LCD750-12-6	600 kcmil	Green P94	1/2	12.7	6.00	152.4	1.90	48.3	1.75	44.4	6
LCD1000-12-3	750 kcmil	Black P106	1/2	12.7	6.16	156.5	2.16	54.9	1.75	44.4	3
	1000 kcmil	White P125	1/2	12.7	6.16	156.5	2.16	54.9	1.75	44.4	3

*UL Listed and CSA Certified with code, locomotive and class K & M weld cables.

‡Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

◆ NEMA hole sizes and spacing

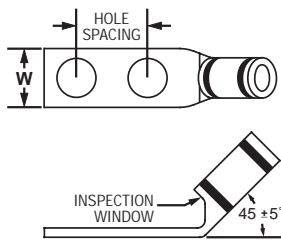


Copper Lugs – Two-Hole Lug Standard Barrel – 45° Angle Tongue

For Use With Copper Cables Only

Type LCD-H

- Color coded to show proper die number and color
- Tested by Telcordia and meets NEBS level 3
- UL Listed per 486A up to 35KV**
- Inspection window to visually assure full cable insertion



Part Number	Copper Conductor Size*	Die Color & No.‡	Bolt Hole Size		Length (A)		Width (W)		Mounting Hole Spacing		Std. Pkg. Qty.
			In.	mm	In.	mm	In.	mm	In.	mm	
LCD10-10AH-L	#10 AWG	—	#10	4.83	1.59	40.4	.38	9.7	.63	16	50
LCD10-14AH-L			1/4	6.35	1.67	42.4	.42	10.7	.63	16	50
LCD10-38DH-L			3/8	9.53	2.28	57.9	.56	14.2	1.00	25.4	50
LCD8-10AH-L	#8 AWG or 23 Navy	Red P21b	#10	4.83	1.73	43.9	.41	10.4	.63	16	50
LCD8-14AH-L			1/4	6.35	1.81	46.0	.48	12.2	.63	16	50
LCD8-14BH-L			1/4	6.35	1.94	49.3	.48	12.2	.75	19	50
LCD8-14DH-L			1/4	6.35	2.19	55.6	.48	12.2	1.00	25.4	50
LCD8-38DH-L			3/8	9.53	2.40	61.0	.62	15.7	1.00	25.4	50
LCD6-10AH-L	#6 AWG or 30 Navy	Blue P24	#10	4.83	1.92	48.8	.46	11.7	.63	16	50
LCD6-14AH-L			1/4	6.35	2.00	50.8	.48	12.2	.63	16	50
LCD6-14BH-L			1/4	6.35	2.13	54.1	.48	12.2	.75	19	50
LCD6-14DH-L			1/4	6.35	2.38	60.5	.48	12.2	1.00	25.4	50
LCD6-56DH-L			5/16	7.92	2.49	63.2	.56	14.2	1.00	25.4	50
LCD6-38DH-L			3/8	9.53	2.59	65.8	.62	15.7	1.00	25.4	50
LCD4-14AH-L	#4 AWG or 40-50 Navy	Gray P29	1/4	6.35	2.03	51.6	.55	14.0	.63	16	50
LCD4-14BH-L			1/4	6.35	2.15	54.6	.55	14.0	.75	19	50
LCD4-14DH-L			1/4	6.35	2.40	61.0	.55	14.0	1.00	25.4	50
LCD4-38DH-L			3/8	9.53	2.62	66.5	.62	15.7	1.00	25.4	50
LCD2-14AH-Q	#2 AWG or 60 Navy	Brown P33	1/4	6.35	2.11	53.6	.60	15.2	.63	16	25
LCD2-14BH-Q			1/4	6.35	2.24	56.9	.60	15.2	.75	19	25
LCD2-14DH-Q			1/4	6.35	2.49	63.2	.60	15.2	1.00	25.4	25
LCD2-56BH-Q			5/16	7.92	2.36	59.9	.66	16.8	.75	19	25
LCD2-38DH-Q			3/8	9.53	2.71	68.8	.66	16.8	1.00	25.4	25
LCD2-12H-Q			1/2	12.7	3.84	97.5	.75	19.0	1.75	44.4	25
LCD1-14AH-E	#1 AWG or 75 Navy	Green P37	1/4	6.35	2.12	53.8	.70	17.8	.63	16	20
LCD1-14BH-E			1/4	6.35	2.25	57.2	.70	17.8	.75	19	20
LCD1-56CH-E			5/16	7.92	2.50	63.5	.70	17.8	.88	22.4	20
LCD1-38DH-E			3/8	9.53	2.70	68.6	.70	17.8	1.00	25.4	20
LCD1-12H-E			1/2	12.7	3.87	98.3	.75	19.0	1.75	44.4	20
LCD1/0-14AH-X	#1/0 AWG or 100 Navy	Pink P42	1/4	6.35	2.26	57.4	.76	19.3	.63	16	10
LCD1/0-14BH-X			1/4	6.35	2.38	60.5	.76	19.3	.75	19	10
LCD1/0-56CH-X			5/16	7.92	2.56	65.0	.76	19.3	.88	22.4	10
LCD1/0-38DH-X			3/8	9.53	3.93	99.8	.76	19.3	1.00	25.4	10
LCD1/0-12H-X			1/2	12.7	3.93	99.8	.80	20.3	1.75	44.4	10
LCD2/0-14AH-X	#2/0 AWG or 125 Navy	Black P45	1/4	6.35	2.39	60.7	.85	21.6	.63	16	10
LCD2/0-14BH-X			1/4	6.35	2.52	64.0	.85	21.6	.75	19	10
LCD2/0-56CH-X			5/16	7.92	2.64	67.1	.85	21.6	.88	22.4	10
LCD2/0-38DH-X			3/8	9.53	2.83	71.9	.85	21.6	1.00	25.4	10
LCD2/0-12H-X			1/2	12.7	3.99	101.3	.85	21.6	1.75	44.4	10
LCD3/0-14BH-X	#3/0 AWG or 150 Navy	Orange P50	1/4	6.35	2.65	67.3	.96	24.4	.75	19	10
LCD3/0-56DH-X			5/16	7.92	2.90	73.7	.96	24.4	1.00	25.4	10
LCD3/0-38DH-X			3/8	9.53	2.96	75.2	.96	24.4	1.00	25.4	10
LCD3/0-12H-X			1/2	12.7	4.12	104.6	.96	24.4	1.75	44.4	10
LCD4/0-14BH-X	#4/0 AWG or 200 Navy	Purple P54	1/4	6.35	2.72	69.1	1.06	26.9	.75	19	10
LCD4/0-38DH-X			3/8	9.53	3.05	77.5	1.06	26.9	1.00	25.4	10
LCD4/0-12H-X			1/2	12.7	4.19	106.4	1.06	26.9	1.75	44.4	10
LCD250-38DH-X	250 kcmil or 250 Navy	Yellow P62	3/8	9.53	3.13	79.5	1.17	29.7	1.00	25.4	10
LCD250-12H-X			1/2	12.7	4.27	108.5	1.17	29.7	1.75	44.4	10

*UL Listed and CSA Certified with code, locomotive and class K & M weld cables.

‡Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

◆ NEMA hole sizes and spacing

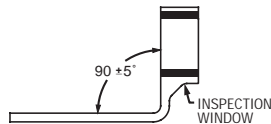
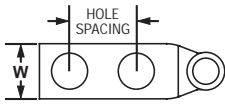


Copper Lugs – Two-Hole Lug Standard Barrel, 90° Angle Tongue

For Use With Copper Cables Only

Type LCD-F

- Color coded to show proper die number and color
- Tested by Telcordia and meets NEBS level 3
- UL Listed per 486A up to 35KV**
- Inspection window to visually assure full cable insertion



Part Number	Copper Conductor Size*	Die Color & No. ‡	Bolt Hole Size		Length (A)		Width (W)		Mounting Hole Spacing		Std. Pkg. Qty.
			In.	mm	In.	mm	In.	mm	In.	mm	
LCD10-10AF-L	#10 AWG	—	#10	4.83	1.47	37.3	.38	9.7	.63	16	50
LCD10-14AF-L			1/4	6.35	1.56	39.6	.42	10.7	.63	16	50
LCD10-38DF-L			3/8	9.53	2.16	54.9	.56	14.2	1.00	25.4	50
LCD8-10AF-L	#8 AWG or 23 Navy	Red P21b	#10	4.83	1.53	38.9	.41	10.4	.63	16	50
LCD8-14AF-L			1/4	6.35	1.62	41.1	.48	12.2	.63	16	50
LCD8-14BF-L			1/4	6.35	1.74	44.2	.48	12.2	.75	19	50
LCD8-14DF-L			1/4	6.35	1.99	50.5	.48	12.2	1.00	25.4	50
LCD8-38DF-L	#6 AWG or 30 Navy	Blue P24	3/8	9.53	2.21	56.1	.62	15.7	1.00	25.4	50
LCD6-10AF-L			#10	4.83	1.57	39.9	.46	11.7	.63	16	50
LCD6-14AF-L			1/4	6.35	1.66	42.2	.48	12.2	.63	16	50
LCD6-14BF-L	#4 AWG or 40-50 Navy	Gray P29	1/4	6.35	1.78	45.2	.48	12.2	.75	19	50
LCD6-14DF-L			1/4	6.35	2.03	51.6	.48	12.2	1.00	25.4	50
LCD6-56DF-L			5/16	7.92	2.15	54.6	.56	14.2	1.00	25.4	50
LCD6-38DF-L	#2 AWG or 60 Navy	Brown P33	3/8	9.53	2.25	57.2	.62	15.7	1.00	25.4	50
LCD4-14AF-L			1/4	6.35	1.74	44.2	.55	14.0	.63	16	50
LCD4-14BF-L			1/4	6.35	1.87	47.5	.55	14.0	.75	19	50
LCD4-14DF-L	#1 AWG or 75 Navy	Green P37	1/4	6.35	2.12	53.8	.55	14.0	1.00	25.4	50
LCD4-38DF-L			3/8	9.53	2.34	59.4	.62	15.7	1.00	25.4	50
LCD2-14AF-Q			1/4	6.35	1.86	47.2	.60	15.2	.63	16	25
LCD2-14BF-Q	#1/0 AWG or 100 Navy	Pink P42	1/4	6.35	1.99	50.5	.60	15.2	.75	19	25
LCD2-14DF-Q			1/4	6.35	2.24	56.9	.60	15.2	1.00	25.4	25
LCD2-56BF-Q			5/16	7.92	2.11	53.6	.66	16.8	.75	19	25
LCD2-38DF-Q	#2/0 AWG or 125 Navy	Black P45	3/8	9.53	2.47	62.7	.66	16.8	1.00	25.4	25
LCD2-12F-Q			1/2	12.7	3.61	91.7	.75	19.0	1.75	44.4	25
LCD1-14AF-E			1/4	6.35	1.94	49.3	.70	17.8	.63	16	20
LCD1-14BF-E	#3/0 AWG or 150 Navy	Orange P50	1/4	6.35	2.06	52.3	.70	17.8	.75	19	20
LCD1-56CF-E			5/16	7.92	2.31	58.7	.70	17.8	.88	22.4	20
LCD1-38DF-E			3/8	9.53	2.51	63.8	.70	17.8	1.00	25.4	20
LCD1-12F-E	#4/0 AWG or 200 Navy	Purple P54	1/2	12.7	3.68	93.5	.75	19.0	1.75	44.4	20
LCD1/0-14AF-X			1/4	6.35	2.08	52.8	.76	19.3	.63	16	10
LCD1/0-14BF-X			1/4	6.35	2.20	55.9	.76	19.3	.75	19	10
LCD1/0-56CF-X	#1/0 AWG or 100 Navy	Pink P42	5/16	7.92	2.38	60.5	.76	19.3	.88	22.4	10
LCD1/0-38DF-X			3/8	9.53	2.58	65.5	.76	19.3	1.00	25.4	10
LCD1/0-12F-X			1/2	12.7	3.75	95.3	.80	20.3	1.75	44.4	10
LCD2/0-14AF-X	#2/0 AWG or 125 Navy	Black P45	1/4	6.35	2.22	56.4	.85	21.6	.63	16	10
LCD2/0-14BF-X			1/4	6.35	2.34	59.4	.85	21.6	.75	19	10
LCD2/0-56CF-X			5/16	7.92	2.47	62.7	.85	21.6	.88	22.4	10
LCD2/0-38DF-X	#3/0 AWG or 150 Navy	Orange P50	3/8	9.53	2.66	67.7	.85	21.6	1.00	25.4	10
LCD2/0-12F-X			1/2	12.7	3.82	97.0	.85	21.6	1.75	44.4	10
LCD3/0-14BF-X			1/4	6.35	2.42	61.5	.96	24.4	.75	19	10
LCD3/0-56DF-X	#4/0 AWG or 200 Navy	Purple P54	5/16	7.92	2.67	67.8	.96	24.4	1.00	25.4	10
LCD3/0-38DF-X			3/8	9.53	2.73	69.3	.96	24.4	1.00	25.4	10
LCD3/0-12F-X			1/2	12.7	3.89	98.8	.96	24.4	1.75	44.4	10
LCD4/0-14BF-X	#1/0 AWG or 100 Navy	Pink P42	1/4	6.35	2.50	63.5	1.06	26.9	.75	19	10
LCD4/0-38DF-X			3/8	9.53	2.84	72.1	1.06	26.9	1.00	25.4	10
LCD4/0-12F-X			1/2	12.7	3.98	101.1	1.06	26.9	1.75	44.4	10
LCD250-38DF-X	250 kcmil or 250 Navy	Yellow P62	3/8	9.53	2.90	73.7	1.17	29.7	1.00	25.4	10
LCD250-12F-X			1/2	12.7	4.04	102.6	1.17	29.7	1.75	44.4	10

*UL Listed with code, locomotive and class K & M weld cables.

‡Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

◆ NEMA hole sizes and spacing.

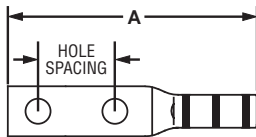


Copper Lugs – Two-Hole Lug, Long Barrel, with Inspection Window

For Use With Copper Cables Only

Type LCC-W

- Color coded to show proper die number and color
- UL Listed per 486A up to 35KV**
- Tested by Telcordia and meets NEBS level 3
- Inspection window to visually assure full cable insertion



One-Piece Construction

Part Number	Copper Conductor Size *	Die Color & No. ‡	Bolt Hole Size		Length (A)		Width (W)		Mounting Hole Spacing		Std. Pkg. Qty.		
			In.	mm	In.	mm	In.	mm	In.	mm			
LCC10-14AW-L	#10 AWG	—	1/4	6.35	1.93	49.0	.42	10.7	.63	16	50		
LCC10-14BW-L			1/4	6.35	2.05	52.1	.42	10.7	.75	19	50		
LCC8-10AW-L	#8 AWG or 23 Navy	Red P21	# 10	4.83	2.02	51.3	.41	10.4	.63	16	50		
LCC8-10BW-L			# 10	4.83	2.15	54.6	.41	10.4	.75	19	50		
LCC8-14AW-L			1/4	6.35	2.11	53.6	.48	12.2	.63	16	50		
LCC8-14BW-L			1/4	6.35	2.24	56.9	.48	12.2	.75	19	50		
LCC8-14DW-L			1/4	6.35	2.49	63.2	.48	12.2	1.00	25.4	50		
LCC8-38DW-L			3/8	9.53	2.66	67.6	.60	15.2	1.00	25.4	50		
LCC6-10AW-L			#6 AWG or 30 Navy	Blue P24	# 10	4.83	2.41	61.2	.46	11.7	.63	16	50
LCC6-10BW-L					# 10	4.83	2.53	64.3	.46	11.7	.75	19	50
LCC6-14AW-L	1/4	6.35			2.50	63.5	.48	12.2	.63	16	50		
LCC6-14BW-L	1/4	6.35			2.62	66.5	.48	12.2	.75	19	50		
LCC6-14DW-L	1/4	6.35			2.87	72.9	.48	12.2	1.00	25.4	50		
LCC6-56BW-L	5/16	7.92			2.73	69.3	.56	14.2	.75	19	50		
LCC6-38BW-L	3/8	9.53			2.83	71.9	.62	15.7	.75	19	50		
LCC6-38CW-L	3/8	9.53			2.96	75.2	.62	15.7	.88	22.4	50		
LCC6-38DW-L	3/8	9.53			3.04	77.2	.62	15.7	1.00	25.4	50		
LCC4-10AW-L	#4 AWG or 40-50 Navy	Gray P29			#10	4.83	2.41	61.2	.55	14.0	.63	16	50
LCC4-10BW-L			#10	4.83	2.54	64.5	.55	14.0	.75	19	50		
LCC4-14AW-L			1/4	6.35	2.50	63.5	.55	14.0	.63	16	50		
LCC4-14BW-L			1/4	6.35	2.63	66.8	.55	14.0	.75	19	50		
LCC4-14DW-L			1/4	6.35	2.63	66.8	.55	14.0	1.00	25.4	50		
LCC4-38DW-L	3/8	9.53	3.05	77.5	.62	15.7	1.00	25.4	50				
LCC2-10AW-Q	#2 AWG or 60 Navy	Brown P33	#10	4.83	2.58	65.5	.60	15.2	.63	16	25		
LCC2-10BW-Q			#10	4.83	2.70	68.6	.60	15.2	.75	19	25		
LCC2-14AW-Q			1/4	6.35	2.67	67.8	.60	15.2	.63	16	25		
LCC2-14BW-Q			1/4	6.35	2.79	70.9	.60	15.2	.75	19	25		
LCC2-14DW-Q			1/4	6.35	3.04	77.2	.60	15.2	1.00	25.4	25		
LCC2-56BW-Q			5/16	7.92	2.92	74.2	.66	16.8	.75	19	25		
LCC2-56CW-Q			5/16	7.92	3.04	77.2	.66	16.8	.88	22.4	25		
LCC2-38BW-Q			3/8	9.53	2.99	75.9	.66	16.8	.75	19	25		
LCC2-38CW-Q			3/8	9.53	3.12	79.2	.66	16.8	.88	22.4	25		
LCC2-38DW-Q			3/8	9.53	3.24	82.3	.66	16.8	1.00	25.4	25		
LCC2-38W-Q			3/8	9.53	3.99	101.3	.66	16.8	1.75	44.4	25		
LCC2-12W-Q			1/2	12.7	4.41	112.0	.75	19.0	1.75	44.4	25		
LCC1-14AW-E			#1 AWG or 75 Navy	Green P37	1/4	6.35	2.89	73.4	.70	17.8	.63	16	20
LCC1-14BW-E					1/4	6.35	3.01	76.5	.70	17.8	.75	19	20
LCC1-56BW-E					5/16	7.92	3.14	79.8	.70	17.8	.75	19	20
LCC1-56CW-E	5/16	7.92			3.26	82.8	.70	17.8	.88	22.4	20		
LCC1-38DW-E	3/8	9.53			3.46	87.9	.70	17.8	1.00	25.4	20		
LCC1-12W-E	1/2	12.7			4.63	117.6	.75	19.0	1.75	44.4	20		
LCC1/0-14AW-X	#1/0 AWG or 100 Navy	Pink P42	1/4	6.35	3.07	78.0	.76	19.3	.63	16	10		
LCC1/0-14BW-X			1/4	6.35	3.19	81.0	.76	19.3	.75	19	10		
LCC1/0-14DW-X			1/4	6.35	3.44	87.4	.76	19.3	1.00	25.4	10		
LCC1/0-38DW-X			3/8	9.53	3.57	90.7	.76	19.3	1.00	25.4	10		
LCC1/0-38W-X			3/8	9.53	4.32	109.7	.76	19.3	1.75	44.4	10		
LCC1/0-12DW-X			1/2	12.7	3.84	97.5	.80	20.3	1.00	25.4	10		
LCC1/0-12W-X			1/2	12.7	4.74	120.4	.80	20.3	1.75	44.4	10		

*UL Listed with code, locomotive and class K & M weld cables.
 ‡ Contact PANDUIT® for flex cable die selection.
 **Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.
 ◆ NEMA hole sizes and spacing.

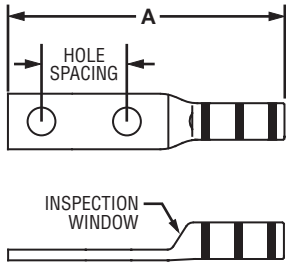
LCC-W product listing continued on the following page



Copper Lugs – Two-Hole Lug, Long Barrel, with Inspection Window (continued)

For Use With Copper Cables Only

Type LCC-W



One-Piece Construction

Part Number	Copper Conductor Size *	Die Color & No. ‡	Bolt Hole Size		Length (A)		Width (W)		Mounting Hole Spacing		Std. Pkg. Qty.
			In.	mm	In.	mm	In.	mm	In.	mm	
LCC2/0-14AW-X	#2/0 AWG or 125 Navy	Black P45	1/4	6.35	3.23	82.0	.86	21.8	.63	16	10
LCC2/0-14BW-X			1/4	6.35	3.36	85.3	.86	21.8	.75	19	10
LCC2/0-56DW-X			5/16	7.92	3.61	91.7	.86	21.8	1.00	25.4	10
LCC2/0-38DW-X			3/8	9.53	3.67	93.2	.86	21.8	1.00	25.4	10
LCC2/0-12DW-X			1/2	12.7	3.92	99.6	.86	21.8	1.00	25.4	10
LCC2/0-12W-X			1/2	12.7	4.83	122.7	.86	21.8	1.75	44.4	10
LCC3/0-14BW-X	#3/0 AWG or 150 Navy	Orange P50	1/4	6.35	3.39	86.1	.96	24.4	.75	19	10
LCC3/0-56DW-X			5/16	7.92	3.64	92.5	.96	24.4	1.00	25.4	10
LCC3/0-38DW-X			3/8	9.53	3.70	94.0	.96	24.4	1.00	25.4	10
LCC3/0-12W-X			1/2	12.7	4.87	123.7	.96	24.4	1.75	44.4	10
LCC3/0-12DW-X			1/2	12.7	3.95	100.3	.96	24.4	1.00	25.4	10
LCC4/0-14AW-X			#4/0 AWG or 200 Navy	Purple P54	1/4	6.35	3.35	85.1	1.06	26.9	.63
LCC4/0-14BW-X	1/4	6.35			3.48	88.4	1.06	26.9	.75	19	10
LCC4/0-56DW-X	5/16	7.92			3.74	95.0	1.06	26.9	1.00	25.4	10
LCC4/0-38DW-X	3/8	9.53			3.81	96.8	1.06	26.9	1.00	25.4	10
LCC4/0-38W-X	3/8	9.53			4.56	115.8	1.06	26.9	1.75	44.4	10
LCC4/0-12W-X	1/2	12.7			4.95	125.7	1.06	26.9	1.75	44.4	10
LCC4/0-12DW-X	250 kcmil or 250 Navy	Yellow P62	1/2	12.7	4.04	102.6	1.06	26.9	1.00	25.4	10
LCC250-56DW-X			5/16	7.92	3.83	97.3	1.17	29.7	1.00	25.4	10
LCC250-38DW-X			3/8	9.53	3.90	99.1	1.17	29.7	1.00	25.4	10
LCC250-12W-X			1/2	12.7	5.04	128.0	1.17	29.7	1.75	44.4	10
LCC250-12DW-X			1/2	12.7	4.13	104.9	1.17	29.7	1.00	25.4	10
LCC300-38DW-X			300 kcmil	White P66	3/8	9.53	4.55	115.6	1.19	30.2	1.00
LCC300-12W-X	1/2	12.7			5.74	145.8	1.19	30.2	1.75	44.4	10
LCC350-14BW-X	350 kcmil	Red P71	1/4	6.35	4.11	104.4	1.28	32.5	.75	19	10
LCC350-12W-X			1/2	12.7	5.78	146.8	1.28	32.5	1.75	44.4	10
LCC400-14BW-6	400 kcmil	Blue P76	1/4	6.35	4.19	106.4	1.39	35.3	.75	19	6
LCC400-38DW-6			3/8	9.53	4.67	118.6	1.39	35.3	1.00	25.4	6
LCC400-12W-6			1/2	12.7	5.84	148.3	1.39	35.3	1.75	44.4	6
LCC500-14BW-6	500 kcmil	Brown P87	1/4	6.35	4.47	113.5	1.54	39.1	.75	19	6
LCC500-38DW-6			3/8	9.53	4.95	125.7	1.54	39.1	1.00	25.4	6
LCC500-12W-6			1/2	12.7	6.14	156.0	1.54	39.1	1.75	44.4	6
LCC600-38DW-6	600 kcmil	Green P94	3/8	9.53	5.19	131.8	1.70	43.2	1.00	25.4	6
LCC600-12W-6			1/2	12.7	6.38	162.1	1.70	43.2	1.75	44.4	6
LCC750-38DW-6	750 kcmil	Black P106	3/8	9.53	5.80	147.3	1.75	44.4	1.00	25.4	6
LCC750-12W-6			1/2	12.7	7.05	179.1	1.75	44.4	1.75	44.4	6
LCC800-12W-6	800 kcmil	Orange P107	1/2	12.7	7.05	179.1	1.88	47.8	1.75	44.4	6
LCC1000-38DW-3	1000 kcmil	White P125	3/8	9.53	6.00	152.4	2.16	54.9	1.00	25.4	3
LCC1000-12W-3			1/2	12.7	7.25	184.1	2.16	54.9	1.75	44.4	3

*UL Listed with code, locomotive and class K & M weld cables.

‡ Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

◆NEMA hole sizes and spacing.

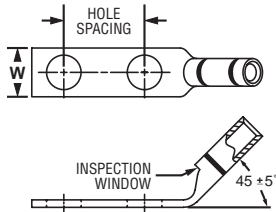


Copper Lugs - Two Hole Lug, Long Barrel, With Window - 45° Angle Tongue

For Use With Copper Cables Only

Type LCC-WH

- Color coded to show proper die number and color
- UL Listed per 486A up to 35KV**
- Tested by Telcordia and meets NEBS level 3
- Inspection window to visually assure full cable insertion



Part Number	Copper Conductor Size*	Die Color & No.‡	Bolt Hole Size		Length (A)		Width (W)		Mounting Hole Spacing		Std. Pkg. Qty.		
			In.	mm	In.	mm	In.	mm	In.	mm			
LCC10-14AWH-L	#10 AWG	—	1/4	6.35	1.78	45.2	.42	10.7	.63	16	50		
LCC10-14BWH-L			1/4	6.35	1.90	48.3	.42	10.7	.75	19	50		
LCC8-10AWH-L	#8 AWG or 23 Navy	Red P21b	#10	4.83	1.82	46.2	.41	10.4	.63	16	50		
LCC8-10BWH-L			#10	4.83	1.95	49.5	.41	10.4	.75	19	50		
LCC8-14AWH-L			1/4	6.35	1.91	48.5	.48	12.2	.63	16	50		
LCC8-14BWH-L			1/4	6.35	2.03	51.6	.48	12.2	.75	19	50		
LCC8-14DWH-L			1/4	6.35	2.28	57.9	.48	12.2	1.00	25.4	50		
LCC8-38DWH-L			3/8	9.53	2.49	63.2	.60	15.2	1.00	25.4	50		
LCC6-10AWH-L			#6 AWG or 30 Navy	Blue P24	#10	4.83	2.09	53.1	.46	11.7	.63	16	50
LCC6-10BWH-L	#10	4.83			2.22	56.4	.46	11.7	.75	19	50		
LCC6-14AWH-L	1/4	6.35			2.18	55.4	.48	12.2	.63	16	50		
LCC6-14BWH-L	1/4	6.35			2.31	58.7	.48	12.2	.75	19	50		
LCC6-14DWH-L	1/4	6.35			2.56	65.0	.48	12.2	1.00	25.4	50		
LCC6-56BWH-L	5/16	7.92			2.42	61.5	.56	14.2	.75	19	50		
LCC6-38BWH-L	3/8	9.53			2.52	64.0	.62	15.7	.75	19	50		
LCC6-38CWH-L	3/8	9.53			2.64	67.1	.62	15.7	.88	22.4	50		
LCC6-38DWH-L	3/8	9.53			2.77	70.4	.62	15.7	1.00	25.4	50		
LCC4-10AWH-L	#4 AWG or 40-50 Navy	Gray P29			#10	4.83	2.11	53.6	.55	14.0	.63	16	50
LCC4-10BWH-L			#10	4.83	2.23	53.6	.55	14.0	.75	19	50		
LCC4-14AWH-L			1/4	6.35	2.20	55.9	.55	14.0	.63	16	50		
LCC4-14BWH-L			1/4	6.35	2.32	56.6	.55	14.0	.75	19	50		
LCC4-38DWH-L			3/8	9.53	2.79	70.9	.62	15.7	1.00	25.4	50		
LCC2-10AWH-Q	#2 AWG or 60 Navy	Brown P33	#10	4.83	2.21	56.1	.60	15.2	.63	16	25		
LCC2-10BWH-Q			#10	4.83	2.33	59.2	.60	15.2	.75	19	25		
LCC2-14AWH-Q			1/4	6.35	2.31	58.7	.60	15.2	.63	16	25		
LCC2-14BWH-Q			1/4	6.35	2.43	59.2	.60	15.2	.75	19	25		
LCC2-14DWH-Q			1/4	6.35	2.68	68.1	.66	16.8	1.00	25.4	25		
LCC2-56BWH-Q			5/16	7.92	2.55	64.8	.66	16.8	.75	19	25		
LCC2-56CWH-Q			5/16	7.92	2.68	68.1	.66	16.8	.88	22.4	25		
LCC2-38BWH-Q			3/8	9.53	2.63	66.8	.66	16.8	.75	19	25		
LCC2-38CWH-Q			3/8	9.53	2.75	69.9	.66	16.8	.88	22.4	25		
LCC2-38DWH-Q			3/8	9.53	2.88	73.2	.66	16.8	1.00	25.4	25		
LCC2-38WH-Q			3/8	9.53	3.63	92.2	.66	16.8	.75	19	25		
LCC2-12WH-Q			1/2	12.7	4.03	102.4	.75	19.0	1.75	44.4	25		
LCC1-14AWH-E			#1 AWG or 75 Navy	Green P37	1/4	6.35	2.46	102.4	.70	17.8	.63	16	20
LCC1-14BWH-E					1/4	6.35	2.58	65.5	.70	17.8	.75	19	20
LCC1-56BWH-E	5/16	7.92			2.71	68.8	.70	17.8	.75	19	20		
LCC1-56CWH-E	5/16	7.92			2.83	71.9	.70	17.8	.88	22.4	20		
LCC1-38DWH-E	3/8	9.53			3.04	77.2	.70	17.8	1.00	25.4	20		
LCC1-12WH-E	1/2	12.7			4.20	106.7	.75	19.0	1.75	44.4	20		

LCC-WH product listing continued on the following page

*UL Listed and CSA Certified with code, locomotive and class K & M weld cables.

‡ Contact PANDUIT® for flex cable die selection.

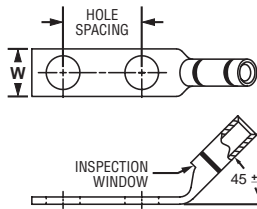
**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.



Copper Lugs -Two Hole Lug, Long Barrel, With Window 45° Angle Tongue (continued)

For Use With Copper Cables Only

Type LCC-WH



Part Number	Copper Conductor Size*	Die Color & No.‡	Bolt Hole Size		Length (A)		Width (W)		Mounting Hole Spacing		Std. Pkg. Qty.		
			In.	mm	In.	mm	In.	mm	In.	mm			
LCC1/0-14AWH-X	#1/0 AWG or 100 Navy	Pink P42	1/4	6.35	2.61	66.3	.76	19.3	.63	16	10		
LCC1/0-14BWH-X			1/4	6.35	2.73	69.3	.76	19.3	.75	19	10		
LCC1/0-14DWH-X			1/4	6.35	2.98	75.7	.76	19.3	1.00	25.4	10		
LCC1/0-38DWH-X			3/8	9.53	3.11	79.0	.76	19.3	1.00	25.4	10		
LCC1/0-38WH-X			3/8	9.53	3.86	98.0	.76	19.3	1.75	44.4	10		
LCC1/0-12DWH-X			1/2	12.7	3.37	85.6	.80	20.3	1.00	25.4	10		
LCC1/0-12WH-X			1/2	12.7	4.28	108.7	.80	20.3	1.75	44.4	10		
LCC2/0-14AWH-X			#2/0 AWG or 125 Navy	Black P45	1/4	6.35	2.76	70.1	.86	21.8	.63	16	10
LCC2/0-14BWH-X	1/4	6.35			2.88	73.2	.86	21.8	.75	19	10		
LCC2/0-56DWH-X	5/16	7.92			3.13	79.5	.86	21.8	1.00	25.4	10		
LCC2/0-38DWH-X	3/8	9.53			3.20	81.3	.86	21.8	1.00	25.4	10		
LCC2/0-12DWH-X	1/2	12.7			3.45	87.6	.86	21.8	1.00	25.4	10		
LCC2/0-12WH-X	1/2	12.7			4.36	110.7	.86	21.8	1.75	44.4	10		
LCC3/0-14BWH-X	#3/0 AWG or 150 Navy	Orange P50	1/4	6.35	2.91	73.9	.96	24.4	.75	19	10		
LCC3/0-56DWH-X			5/16	7.92	3.16	80.3	.96	24.4	1.00	25.4	10		
LCC3/0-38DWH-X			3/8	9.53	3.22	81.8	.96	24.4	1.00	25.4	10		
LCC3/0-12DWH-X			1/2	12.7	3.47	88.1	.96	24.4	1.00	25.4	10		
LCC3/0-12WH-X			1/2	12.7	4.38	111.3	.96	24.4	1.75	44.4	10		
LCC4/0-14BWH-X	#4/0 AWG or 200 Navy	Purple P54	1/4	6.35	2.98	75.7	1.06	26.9	.75	19	10		
LCC4/0-56DWH-X			5/16	7.92	3.24	92.3	1.06	26.9	1.00	25.4	10		
LCC4/0-38DWH-X			3/8	9.53	3.31	84.1	1.06	26.9	1.00	25.4	10		
LCC4/0-38WH-X			3/8	9.53	4.06	103.1	1.06	26.9	1.75	44.4	10		
LCC4/0-12DWH-X			1/2	12.7	3.54	103.1	1.06	26.9	1.00	25.4	10		
LCC4/0-12WH-X			1/2	12.7	4.45	113.0	1.06	26.9	1.75	44.4	10		
LCC250-56DWH-X			250 kcmil or 250 Navy	Yellow P62	5/16	7.92	3.31	84.1	1.17	29.7	1.00	25.4	10
LCC250-38DWH-X					3/8	9.53	3.38	85.6	1.17	29.7	1.00	25.4	10
LCC250-12DWH-X	1/2	12.7			3.61	91.7	1.17	29.7	1.00	25.4	10		
LCC250-12WH-X	300 kcmil	White P66	1/2	12.7	4.52	114.8	1.17	29.7	1.75	44.4	10		
LCC300-38DWH-X			3/8	9.53	3.93	99.8	1.19	30.2	1.00	25.4	10		
LCC300-12WH-X			1/2	12.7	5.11	129.8	1.19	30.2	1.75	44.4	10		
LCC350-14BWH-X	350 kcmil	Red P71	1/4	6.35	3.48	88.4	1.28	32.5	.75	19	10		
LCC350-38DWH-X			3/8	9.53	3.96	100.6	1.28	32.5	1.00	25.4	10		
LCC350-12WH-X			1/2	12.7	5.14	130.6	1.28	32.5	1.75	44.4	10		
LCC400-14BWH-6	400 kcmil	Blue 76	1/4	6.35	3.59	91.2	1.39	35.3	.75	19	6		
LCC400-38DWH-6			3/8	9.53	4.07	103.4	1.39	35.3	1.00	25.4	6		
LCC400-12WH-6	500 kcmil	Brown P87	1/2	12.7	5.24	133.1	1.39	35.3	1.75	44.4	6		
LCC500-14BWH-6			1/4	6.35	3.80	96.5	1.54	39.1	.75	19	6		
LCC500-38DWH-6			3/8	9.53	4.29	109.0	1.54	39.1	1.00	5.4	6		
LCC500-12WH-6	600 kcmil	Green P94	1/2	12.7	5.46	138.7	1.54	39.1	1.75	44.4	6		
LCC600-38DWH-6			3/8	9.53	4.47	113.5	1.70	43.2	1.00	25.4	6		
LCC600-12WH-6			1/2	12.7	5.65	143.5	1.70	43.2	1.75	44.4	6		

*UL Listed and CSA Certified with code, locomotive and class K & M weld cables.

‡ Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

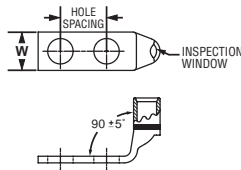


Copper Lugs - Two-Hole Lug, Long Barrel with Window - 90° Angle Tongue

For Use With Copper Cables Only

Type LCC-WF

- Color coded to show proper die number and color
- UL Listed per 486A up to 35KV**
- Tested by Telcordia and meets NEBS level 3
- Inspection window to visually assure full cable insertion



Part Number	Copper Conductor Size*	Die Color & No.‡	Bolt Hole Size		Length (A)		Width (W)		Mounting Hole Spacing		Std. Pkg. Qty.
			In.	mm	In.	mm	In.	mm	In.	mm	
LCC10-14AWF-L	#10 AWG	—	1/4	6.35	1.57	39.9	.42	10.7	.63	16	50
LCC10-14BWF-L			1/4	6.35	1.69	42.9	.42	10.7	.75	19	50
LCC8-10AWF-L	#8 AWG or 23 Navy	Red P21b	#10	4.83	1.53	38.9	.41	10.4	.63	16	50
LCC8-10BWF-L			#10	4.83	1.65	41.9	.41	10.4	.75	19	50
LCC8-14AWF-L			1/4	6.35	1.61	40.9	.48	12.2	.63	16	50
LCC8-14BWF-L			1/4	6.35	1.74	44.2	.48	12.2	.75	19	50
LCC8-14DWF-L			1/4	6.35	1.99	50.5	.48	12.2	1.00	25.4	50
LCC8-38DWF-L			3/8	9.53	2.21	56.1	.60	15.2	1.00	25.4	50
LCC6-10AWF-L	#6 AWG or 30 Navy	Blue P24	#10	4.83	1.57	39.9	.46	11.7	.63	16	50
LCC6-10BWF-L			#10	4.83	1.69	42.9	.46	11.7	.75	19	50
LCC6-14AWF-L			1/4	6.35	1.66	42.2	.48	12.2	.63	16	50
LCC6-14BWF-L			1/4	6.35	1.78	45.2	.48	12.2	.75	19	50
LCC6-14DWF-L			1/4	6.35	2.03	51.6	.48	12.2	1.00	25.4	50
LCC6-56BWF-L			5/16	7.92	1.90	48.3	.56	14.2	.75	19	50
LCC6-38BWF-L			3/8	9.53	2.00	50.8	.62	15.7	.75	19	50
LCC6-38CWF-L			3/8	9.53	2.13	54.1	.62	15.7	.88	22.4	50
LCC6-38DWF-L			3/8	9.53	2.25	57.2	.62	15.7	1.00	25.4	50
LCC4-10AWF-L			#4 AWG or 40-50 Navy	Gray P29	#10	4.83	1.65	41.9	.55	14.0	.63
LCC4-10BWF-L	#10	4.83			1.78	45.2	.55	14.0	.75	19	50
LCC4-14AWF-L	1/4	6.35			1.74	44.2	.55	14.0	.63	16	50
LCC4-14BWF-L	1/4	6.35			1.87	47.5	.55	14.0	.75	19	50
LCC4-38DWF-L			3/8	9.53	2.34	59.4	.62	15.7	1.00	25.4	50
LCC2-10AWF-Q	#2 AWG or 60 Navy	Brown P33	#10	4.83	1.76	44.7	.60	15.2	.63	16	25
LCC2-10BWF-Q			#10	4.83	1.89	48.0	.60	15.2	.75	19	25
LCC2-14AWF-Q			1/4	6.35	1.86	47.2	.60	15.2	.63	16	25
LCC2-14BWF-Q			1/4	6.35	1.99	50.5	.60	15.2	.75	19	25
LCC2-14DWF-Q			1/4	6.35	2.24	56.9	.66	16.8	1.00	25.4	25
LCC2-56BWF-Q			5/16	7.92	2.11	53.6	.66	16.8	.75	19	25
LCC2-56CWF-Q			5/16	7.92	2.24	56.9	.66	16.8	.88	22.4	25
LCC2-38BWF-Q			3/8	9.53	2.19	55.6	.66	16.8	.75	19	25
LCC2-38CWF-Q			3/8	9.53	2.31	58.7	.66	16.8	.88	22.4	25
LCC2-38DWF-Q			3/8	9.53	2.44	62.0	.66	16.8	1.00	25.4	25
LCC2-38WF-Q			3/8	9.53	3.19	81.0	.66	16.8	1.75	44.4	25
LCC2-12WF-Q			1/2	12.7	3.61	91.7	.75	19.0	1.75	44.4	25
LCC1-14AWF-E	#1 AWG or 75 Navy	Green P37	1/4	6.35	1.94	49.3	.70	17.8	.63	16	20
LCC1-14BWF-E			1/4	6.35	2.06	52.3	.70	17.8	.75	19	20
LCC1-56BWF-E			5/16	7.92	2.19	55.6	.70	17.8	.75	19	20
LCC1-56CWF-E			5/16	7.92	2.31	58.7	.70	17.8	.88	22.4	20
LCC1-38DWF-E			3/8	9.53	2.51	63.8	.70	17.8	1.00	25.4	20
LCC1-12WF-E			1/2	12.7	3.68	93.5	.75	19.0	1.75	44.4	20

LCC-WF product listing continued on the following page

*UL Listed and CSA Certified with code, locomotive and class K & M weld cables.

‡Contact PANDUIT® for flex cable die selection.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

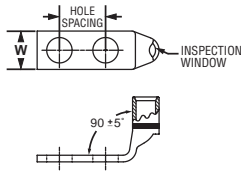
- System Overview
- Modules
- Ultimate ID System & Work Area
- Zone Cabling
- Patch Panels Copper Patch Cords & Punchdowns
- Fiber Connectors Enclosures & Patch Cords
- Racks & Cable Management
- Grounding & Bonding
- Fiber Routing
- Surface Raceway
- Labeling & Administration
- Cable Ties & Accessories
- Supplementary Technical Information
- Glossary & Index



Copper Lugs - Two-Hole Lug, Long Barrel with Window - 90° Angle Tongue (continued)

For Use With Copper Cables Only

Type LCC



Part Number	Copper Conductor Size*	Die Color & No.‡	Bolt Hole Size		Length (A)		Width (W)		Mounting Hole Spacing		Std. Pkg. Qty.		
			In.	mm	In.	mm	In.	mm	In.	mm			
LCC1/0-14AWF-X	#1/0 AWG or 100 Navy	Pink P42	1/4	6.35	2.08	52.8	.76	19.3	.63	16	10		
LCC1/0-14BWF-X			1/4	6.35	2.20	55.9	.76	19.3	.75	19	10		
LCC1/0-14DWF-X			1/4	6.35	2.45	62.2	.76	19.3	1.00	25.4	10		
LCC1/0-38DWF-X			3/8	9.53	2.58	65.5	.76	19.3	1.00	25.4	10		
LCC1/0-38WF-X			3/8	9.53	3.33	84.6	.76	19.3	1.75	44.4	10		
LCC1/0-12DWF-X			1/2	12.7	2.85	72.4	.80	20.3	1.00	25.4	10		
LCC1/0-12WF-X	1/2	12.7	3.75	95.3	.80	20.3	1.75	44.4	10				
LCC2/0-14AWF-X	#2/0 AWG or 125 Navy	Black P45	1/4	6.35	2.22	56.4	.86	21.8	.63	16	10		
LCC2/0-14BWF-X			1/4	6.35	2.34	59.4	.86	21.8	.75	19	10		
LCC2/0-56DWF-X			5/16	7.92	2.59	65.8	.86	21.8	1.00	25.4	10		
LCC2/0-38DWF-X			3/8	9.53	2.66	67.7	.86	21.8	1.00	25.4	10		
LCC2/0-12DWF-X			1/2	12.7	2.91	73.9	.86	21.8	1.00	25.4	10		
LCC2/0-12WF-X			1/2	12.7	3.82	97.0	.86	21.8	1.75	44.4	10		
LCC3/0-14BWF-X	#3/0 AWG or 150 Navy	Orange P50	1/4	6.35	2.42	61.5	.96	24.4	.75	19	10		
LCC3/0-56DWF-X			5/16	7.92	2.67	67.8	.96	24.4	1.00	25.4	10		
LCC3/0-38DWF-X			3/8	9.53	2.73	69.3	.96	24.4	1.00	25.4	10		
LCC3/0-12DWF-X			1/2	12.7	2.98	75.7	.96	24.4	1.00	25.4	10		
LCC3/0-12WF-X			1/2	12.7	3.89	98.8	.96	24.4	1.75	44.4	10		
LCC4/0-14BWF-X			#4/0 AWG or 200 Navy	Purple P54	1/4	6.35	2.50	63.5	1.06	26.9	.75	19	10
LCC4/0-56DWF-X	5/16	7.92			2.77	70.4	1.06	26.9	1.00	25.4	10		
LCC4/0-38DWF-X	3/8	9.53			2.84	72.1	1.06	26.9	1.00	25.4	10		
LCC4/0-38WF-X	3/8	9.53			3.59	91.2	1.06	26.9	1.75	44.4	10		
LCC4/0-12DWF-X	1/2	12.7			3.07	78.0	1.06	26.9	1.00	25.4	10		
LCC4/0-12WF-X	1/2	12.7			3.98	101.1	1.06	26.9	1.75	44.4	10		
LCC250-56DWF-X	250 kcmil or 250 Navy	Yellow P62	5/16	7.92	2.83	71.9	1.17	29.7	1.00	25.4	10		
LCC250-38DWF-X			3/8	9.53	2.90	73.7	1.17	29.7	1.00	25.4	10		
LCC250-12DWF-X			1/2	12.7	3.13	79.5	1.17	29.7	1.00	25.4	10		
LCC250-12WF-X			1/2	12.7	4.04	102.6	1.17	29.7	1.75	44.4	10		
LCC300-38DWF-X			300 kcmil	White P66	3/8	9.53	2.88	73.2	1.19	30.2	1.00	25.4	10
LCC300-12WF-X					1/2	12.7	4.06	103.1	1.19	30.2	1.75	44.4	10
LCC350-14BWF-X	350 kcmil	Red P71	1/4	6.35	2.46	62.5	1.28	32.5	.75	19	10		
LCC350-38DWF-X			3/8	9.53	2.94	74.7	1.28	32.5	1.00	25.4	10		
LCC350-12WF-X			1/2	12.7	4.12	104.6	1.28	32.5	1.75	44.4	10		
LCC400-14BWF-6	400 kcmil	Blue P76	1/4	6.35	2.54	64.5	1.39	35.3	.75	19	6		
LCC400-38DWF-6			3/8	9.53	3.02	76.7	1.39	35.3	1.00	25.4	6		
LCC400-12WF-6			1/2	12.7	4.20	106.7	1.39	35.3	1.75	44.4	6		
LCC500-14BWF-6	500 kcmil	Brown P87	1/4	6.35	2.65	67.3	1.54	39.1	.75	19	6		
LCC500-38DWF-6			3/8	9.53	3.13	79.5	1.54	39.1	1.00	25.4	6		
LCC500-12WF-6			1/2	12.7	4.31	109.5	1.54	39.1	1.75	44.4	6		
LCC600-38DWF-6	600 kcmil	Green P94	3/8	9.53	3.26	82.8	1.7	43.2	1.00	25.4	6		
LCC600-12WF-6			1/2	12.7	4.44	112.8	1.7	43.2	1.75	44.4	6		

*UL Listed and CSA Certified with code, locomotive and class K & M weld cables.
 ‡Contact PANDUIT® for flex cable die selection.
 **Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

System Overview
 Modules
 Ultimate ID System & Work Area
 Zone Cabling
 Patch Panels Copper Patch Cords & Punchedowns
 Fiber Connectors Enclosures & Patch Cords
 Racks & Cable Management
 Grounding & Bonding
 Fiber Routing
 Surface Raceway
 Labeling & Administration
 Cable Ties & Accessories
 Supplementary Technical Information
 Glossary & Index

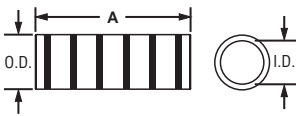


Copper Splices - Butt Splices, Standard Barrel

For Use With Copper Cables Only

Type SCS

- Color coded to show proper die number and color for code cable
- UL Listed and CSA Certified with code cables
- UL Listed per 486A up to 35KV**



Part Number	Copper Conductor Size*	Die Color & No.	Barrel		Length (A)		Std. Pkg. Qty.
			I.D.	O.D.	In.	mm	
SCS8-L	#8 AWG or 23 Navy	Red P21	.18	.27	1.50	38.1	50
SCS6-L	#6 AWG or 30 Navy	Blue P24	.22	.31	1.75	44.4	50
SCS4-L	#4 AWG or 40-50 Navy	Gray P29	.28	.38	1.75	44.4	50
SCS2-Q	#2 AWG or 60 Navy	Brown P33	.31	.42	1.87	47.5	25
SCS1-E	#1 AWG or 75 Navy	Green P37	.36	.46	1.87	47.5	20
SCS1/0-X	#1/0 AWG or 100 Navy	Pink P42	.39	.52	1.87	47.5	10
SCS2/0-X	#2/0 AWG or 125 Navy	Black P45	.45	.58	2.00	50.8	10
SCS3/0-X	#3/0 AWG or 150 Navy	Orange P50	.51	.64	2.12	53.8	10
SCS4/0-X	#4/0 AWG or 200 Navy	Purple P54	.56	.71	2.12	53.8	10
SCS250-X	250 kcmil or 250 Navy	Yellow P62	.63	.77	2.25	57.2	10
SCS300-X	300 kcmil	White P66	.65	.81	2.25	57.2	10
SCS350-X	350 kcmil	Red P71	.70	.88	2.37	60.2	10
SCS400-6	400 kcmil	Blue P76	.76	.95	2.50	63.5	6
SCS500-6	500 kcmil	Brown P87	.84	1.06	2.87	72.9	6
SCS600-6	600 kcmil	Green P94	.92	1.19	2.87	72.9	6
SCS750-6	750 kcmil	Black P106	1.03	1.30	3.37	85.6	6
SCS1000-3	1000 kcmil	White P125	1.17	1.50	3.87	98.3	3

*U.L. Listed and CSA Certified with code, locomotive and class K & M weld cables.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

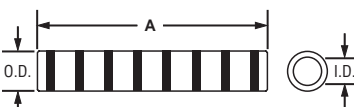


Copper Splices - Butt Splices, Long Barrel

For Use With Copper Cables Only

Type SCL

- Color coded to show proper die number and color for code cable
- UL Listed and CSA Certified with code cables
- UL Listed per 486A up to 35KV**



Part Number	Copper Conductor Size*	Die Color & No.	Barrel		Length (A)		Std. Pkg. Qty.
			I.D.	O.D.	In.	mm	
SCL8-L	#8 AWG or 23 Navy	Red P21	.18	.27	2.25	57.2	50
SCL6-L	#6 AWG or 30 Navy	Blue P24	.22	.31	2.38	60.5	50
SCL4-L	#4 AWG – 3 AWG, 2 SOL or 40-50 Navy	Gray P29	.28	.38	2.38	60.5	50
SCL2-Q	#2 AWG or 60 Navy	Brown P33	.31	.42	2.62	66.5	25
SCL1-E	#1 AWG or 75 Navy	Green P37	.36	.46	2.87	72.9	20
SCL1/0-X	#1/0 AWG or 100 Navy	Pink P42	.39	.52	2.87	72.9	10
SCL2/0-X	#2/0 AWG or 125 Navy	Black P45	.45	.58	3.13	79.5	10
SCL3/0-X	#3/0 AWG or 150 Navy	Orange P50	.51	.64	3.12	79.2	10
SCL4/0-X	#4/0 AWG or 200 Navy	Purple P54	.57	.71	3.37	85.6	10
SCL250-X	250 kcmil or 250 Navy	Yellow P62	.63	.77	3.38	85.9	10
SCL300-X	300 kcmil	White P66	.65	.81	4.12	104.6	10
SCL350-X	350 kcmil	Red P71	.70	.88	4.12	104.6	10
SCL400-6	400 kcmil	Blue P76	.76	.95	4.37	111.0	6
SCL500-6	500 kcmil	Brown P87	.84	1.06	4.62	117.3	6
SCL600-6	600 kcmil	Green P94	.92	1.19	5.50	139.7	6
SCL750-6	750 kcmil	Black P106	1.03	1.30	5.87	149.1	6
SCL1000-3	1000 kcmil	White P125	1.17	1.50	6.12	155.4	3

*U.L. Listed and CSA Certified with code, locomotive and class K & M weld cables.

**Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.

UL LISTED C-Type Taps - Thick Wall Copper Compression

For Copper-to-Copper Connections

Type CTAP

- For tapping into unbroken continuous main, as a wire joint or 2-way splice
- UL Listed per 467 for grounding and bonding, acceptable for direct burial in earth or concrete



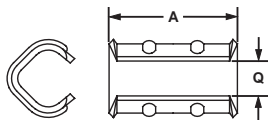
Part Number	Copper Conductor Size		Die Number	Height (H)		Std. Pkg. Qty.
	Run	Tap		In.	mm	
CTAP4-8-L	#6 SOL-#4 STR	#6 SOL-#8 STR	BG	.73	18.5	50
CTAP4-6-L	#4-#6 STR or #3-#6 SOL	#6 STR or #6 SOL	BG	.76	19.3	50
CTAP4-4-L	#4 STR or #3-#4 SOL	#4-#6 STR or #3-#6 SOL	BG	.81	20.6	50
CTAP2-4-Q	#2-#3 STR or #2 SOL	#4-#8 STR or #3-#8 SOL	C	.98	24.9	25
CTAP2-2-X	#2-#3 STR or #2 SOL	#2-#3 STR or #2 SOL	C	1.04	26.4	10
CTAP2/0-2-X	#1/0 SOL-#2/0 STR	#8 SOL-#2 SOL or STR	O	1.31	33.3	10
CTAP2/0-2/0-X	#1/0 SOL-#2/0 STR	#1/0 SOL-#2/0 STR	O	1.35	34.3	10
CTAP4/0-2-X	#3/0 SOL-#4/0 STR	#6 SOL-#2 SOL or STR	D3	1.66	42.2	10
CTAP4/0-2/0-X	#3/0 SOL-#4/0 STR	#1/0 SOL-#2/0 STR	D3	1.66	42.2	10
CTAP4/0-4/0-X	#3/0 SOL-#4/0 STR	#3/0 SOL-#4/0 STR	D1 or D3	1.57	39.9	10

UL LISTED C-Type Taps - Thin Wall Copper Compression

For Copper-To-Copper Connections

Type CTAPF

- For stranded copper cable applications only
- For copper-to-copper tapping splicing or pigtailling
- Color coded to show proper crimp die number and die color
- Rated for 600V applications

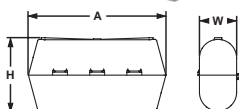


Part Number	Copper Conductor Size (STR)		Number of Ribs	Inside Diameter (Q)		Length (A)		Std. Pkg. Qty.
	Run	Tap		In.	mm	In.	mm	
CTAPF10-16-C	#14,#12 #10	#16-#14,#16-#12, #14	0	.12	3.0	.41	10.4	100
CTAPF8-12-C	#10 #8	#10 #12	0	.15	3.8	.67	17.0	100
CTAPF6-12-C	#8 #6	#10-#8 #12-#10	0	.19	4.8	.67	17.0	100
CTAPF4-12-C	#6 #5-#4	#8-#6 #12-#8	1	.27	6.9	1.25	31.8	100
CTAPF3-12-C	#5-#4 #3	#6-#5 #12-#6	1	.26	6.6	1.25	31.8	100
CTAPF2-12-C	#4,#3 #2	#4,#5 #12-#6	1	.30	7.6	1.25	31.8	100
CTAPF1-12-C	#3,#2 #1	#4-#3,#5-#4, #12-#5	2	.34	8.6	1.82	46.2	100
CTAPF1/0-12-L	#2,#1 #1/0	#4-#2,#4-#3, #12-#4	2	.42	10.7	1.82	46.2	50
CTAPF2/0-12-Q	#1,#1/0 #2/0	#2-#1,#3-#2, #12-#3	2	.42	10.7	1.82	46.2	25
CTAPF3/0-12-Q	#1/0,#2/0 #3/0	#1-#1/0,#2-#1, #12-#2	2	.48	12.2	1.82	46.2	25

CTAPF10-16-C available with square, not flared ends.

CTAP Covers

- Protect CTAP connection from environment and act as insulation
- Tapered drains
- Double locking latches
- Made of durable, weather-resistant black polypropylene



Part Number	For PANDUIT® C-Type Taps	Length (A)		Width (W)		Height (H)		Std. Pkg. Qty.
		In.	mm	In.	mm	In.	mm	
TAPC2-2/0-X	CTAP 2-2, CTAP 2-4, CTAP 4-4, CTAP 4-6	4.60	116.8	1.50	38.1	2.40	61.0	10
TAPC3/0-4/0-5	CTAP 4/0-4/0	5.60	142.2	1.60	40.6	2.50	63.5	5



HTAP Copper Compression Taps

Type HTCT

- For making parallel and multiple tap connections on code and flex cables
- Made of high-conductivity, electro-tin plated copper
- Especially suited for low-resistance, low-voltage drop grounding
- Accommodate a wide range of conductor combinations from #14 AWG to 1000 kcmil
- Color coded to show proper die number and color
- Crimp with *PANDUIT*® CT-930, CT-930CH, and CT-940CH crimp tools



Part Number	Main	Die Color & Part No.	Thickness (In.)	Width		Height		Std. Pkg. Qty.
				In.	mm	In.	mm	
HTCT8-8-1	8-14 (8-14) code size (flex cable)	Green CD-920H-8*	.60	.40	10.2	.63	16.0	1
HTCT6-6-1	6-10 (6-10) code size (flex cable)	Orange CD-920H-6*	.61	.40	10.2	.82	20.8	1
HTCT2-2-1	2-6 (2-8) code size (flex cable)	Brown CD-920H-2*	.76	.60	15.2	1.25	31.8	1
HTCT250-8-1	250-2 (4/0-2) code size (flex cable)	Purple CD-930H-250**	.92	.96	24.4	1.76	44.7	1
HTCT250-2-1	250-2 (4/0-2) code size (flex cable)	Purple CD-930H-250**	.92	.96	24.4	1.76	44.7	1
HTCT250-250-1	250-2 (4/0-2) code size (flex cable)	Purple CD-930H-250**	.90	.89	22.6	1.92	48.8	1
HTCT500-250-1	500-4/0 (350-4/0) code size (flex cable)	Brown CD-940H-500	1.00	1.20	30.5	2.86	72.6	1
HTCT500-500-1	500-250 (350-4/0) code size (flex cable)	Brown CD-940H-500	1.05	1.14	29.0	2.45	62.2	1
HTCT750-4/0-1	750-350 (550-500) code size (flex cable)	Yellow CD-940H-750	1.00	1.50	38.1	3.34	84.8	1
HTCT750-750-1	750-500 (550-500) code size (flex cable)	Yellow CD-940H-750	1.26	1.47	37.3	3.10	78.7	1
HTCT1000-250-1	1000-750 (777-500) code size (flex cable)	Yellow CD-940H-1000	1.00	1.65	41.9	3.35	85.1	1
HTCT1000-1000-1	1000-750 (750-500) code size (flex cable)	White CD-940H-1000	1.00	1.60	40.6	3.45	87.6	1

*CD-940-DA adapter required for use with die with CT-940 tools.

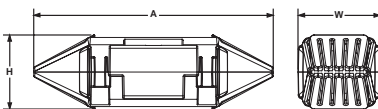
**Purple CD-930H-250 die with adapter can be used in place of purple CD-940H-250 die.



HTAP Covers

Type CLRCVR

- Protect HTAP connection from environment and act as insulation
- High impact, hard shell protection for HTAP applications using #14 AWG to 1000 kcmil conductors
- Made from high density, flame retardant clear polycarbonate material for maximum protection, durability, and length of life



Part Number	For <i>PANDUIT</i> H-Type Taps	Length		Width		Height		Std. Pkg. Qty.
		In.	mm	In.	mm	In.	mm	
CLRCVR1-1	HTCT8-8	3.76	95.5	1.10	27.9	.80	20.3	1
	HTCT6-6							
CLRCVR2-1	HTCT2-2	4.48	113.8	1.41	35.8	1.20	30.5	1
CLRCVR3-1	HTCT250-8	4.85	123.2	1.66	42.2	1.40	30.5	1
	HTCT250-2							
CLRCVR4-1	HTCT250-250	4.85	123.2	2.16	54.9	1.40	35.6	1

Use *PANDUIT* low-profile series cable ties to secure cover.

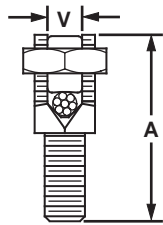
System Overview
Modules
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Bronze Service Post Connectors

Type SP1

- Male - one cable
- For grounding one conductor to steel structures, bus bars or transformers
- For tapping from bus bar
- Made from hard drawn copper rod
- UL Listed per 467 for grounding and bonding, acceptable for direct burial in earth and concrete



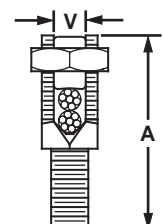
Part Number	Conductor Size Range (V)	Wire Diameter Range (In.)	Stud Size	Nut Hex	Length (A)		Std. Pkg. Qty.
					In.	mm	
SP1-8-C	#12 SOL - #8 STR	.081-.146	1/4-20	.50	.63	16.0	100
SP1-8L-C	#12 SOL - #8 STR	.081-.146	1/4-20	.50	.63	16.0	100
SP1-7-C	#8 SOL - #7 STR	.128-.164	1/4-20	.69	.88	22.4	100
SP1-7L-C	#8 SOL - #7 STR	.128-.164	1/4-20	.69	.88	22.4	100
SP1-4-C	#10 SOL - #4 STR	.102-.232	5/16-18	.75	.94	23.9	100
SP1-4L-C	#10 SOL - #4 STR	.102-.232	5/16-18	.75	.94	23.9	100
SP1-3-C	#6 SOL - #3 STR	.162-.260	3/8-16	.81	1.06	26.9	100
SP1-3L-C	#6 SOL - #3 STR	.162-.260	3/8-16	.81	1.06	26.9	100
SP1-2-C	#4 STR - #2 STR	.232-.292	3/8-16	.88	1.06	26.9	100
SP1-2L-C	#4 STR - #2 STR	.232-.292	3/8-16	.88	1.06	26.9	100
SP1-1/0-L	#6 SOL - 1/0 STR	.162-.375	1/2-13	1.00	1.31	33.3	50
SP1-1/0L-L	#6 SOL - 1/0 STR	.162-.375	1/2-13	1.00	1.31	33.3	50
SP1-2/0-Q	#1 SOL - 2/0 STR	.289-.419	1/2-13	1.13	1.44	36.6	25
SP1-2/0L-Q	#1 SOL - 2/0 STR	.289-.419	1/2-13	1.13	1.44	36.6	25
SP1-4/0-Q	#3/0 SOL - 4/0 STR	.410-.528	5/8-11	1.38	1.69	42.9	25
SP1-4/0L-Q	#3/0 SOL - 4/0 STR	.410-.528	5/8-11	1.38	1.69	42.9	25
SP1-350-12	#4/0 STR - 350 kcmil	.528-.682	5/8-11	1.50	2.00	50.8	12
SP1-350L-12	#4/0 STR - 350 kcmil	.528-.682	5/8-11	1.50	2.00	50.8	12
SP1-500-12	250 kcmil - 500 kcmil	.575-.815	3/4-10	1.81	2.31	58.7	12
SP1-500L-12	250 kcmil - 500 kcmil	.575-.815	3/4-10	1.81	2.31	58.7	12



Bronze Service Post Connectors

Type SP2

- Male - two cables
- For grounding two conductors to steel structures, bus bars or transformers
- For tapping from bus bar
- Made from hard drawn copper rod
- UL Listed per 467 for grounding and bonding, acceptable for direct burial in earth and concrete



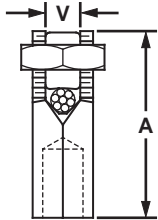
Part Number	Conductor Size Range (V)	Wire Diameter Range (In.)	Stud Size	Nut Hex	Length (A)		Std. Pkg. Qty.
					In.	mm	
SP2-8-C	#12 SOL - #8 STR	.081-.146	1/4-20	.50	1.25	31.8	100
SP2-8L-C	#12 SOL - #8 STR	.081-.146	1/4-20	.50	1.75	44.4	100
SP2-7-C	#10 SOL - #7 STR	.102-.164	1/4-20	.69	1.50	38.1	100
SP2-7L-C	#10 SOL - #7 STR	.102-.164	1/4-20	.69	2.00	50.8	100
SP2-4-C	#10 SOL - #4 STR	.102-.232	5/16-18	.75	1.72	43.7	100
SP2-4L-C	#10 SOL - #4 STR	.102-.232	5/16-18	.75	2.16	54.9	100
SP2-3-C	#10 SOL - #3 STR	.102-.260	3/8-16	.81	1.72	43.7	100
SP2-3L-C	#10 SOL - #3 STR	.102-.260	3/8-16	.81	2.22	56.4	100
SP2-2-C	#10 SOL - #2 STR	.102-.292	3/8-16	.88	2.01	51.1	100
SP2-2L-C	#10 SOL - #2 STR	.102-.292	3/8-16	.88	2.41	61.2	100
SP2-1/0-L	#2 SOL - 1/0 STR	.258-.375	1/2-13	1.00	2.44	62.0	50
SP2-1/0L-L	#2 SOL - 1/0 STR	.258-.375	1/2-13	1.00	2.94	74.7	50
SP2-2/0-Q	#2 SOL - 2/0 STR	.258-.419	1/2-13	1.13	2.63	66.8	25
SP2-2/0L-Q	#2 SOL - 2/0 STR	.258-.419	1/2-13	1.13	3.13	79.5	25
SP2-4/0-Q	#1 SOL - 4/0 STR	.289-.528	5/8-11	1.38	3.25	82.6	25
SP2-4/0L-Q	#1 SOL - 4/0 STR	.289-.528	5/8-11	1.38	3.75	95.3	25
SP2-350-12	#1 STR - 350 kcmil	.332-.682	5/8-11	1.50	3.69	93.7	12
SP2-350L-12	#1 STR - 350 kcmil	.332-.682	5/8-11	1.50	4.19	106.4	12
SP2-500-12	#3/0 STR - 500 kcmil	.470-.815	3/4-10	1.81	4.57	116.1	12
SP2-500L-12	#3/0 STR - 500 kcmil	.470-.815	3/4-10	1.81	4.94	125.5	12



Bronze Service Post Connectors

Type SPF1

- Female - one cable
- For connecting one conductor to external studs
- For grounding to steel structures, bus bars or transformers



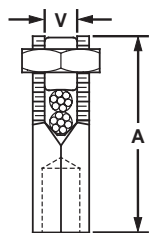
Part Number	Conductor Size Range (V)	Wire Diameter Range (In.)	Stud Size	Nut Hex (In.)	Length (A)		Std. Pkg. Qty.
					In.	mm	
SPF1-8-C	#12 SOL - #8 STR	.081-.146	1/4-20	.50	.91	23.1	100
SPF1-7-C	#10 SOL - #7 STR	.102-.164	1/4-20	.69	1.13	28.7	100
SPF1-4-C	#8 SOL - #4 STR	.128-.232	5/16-18	.75	1.44	36.6	100
SPF1-3-C	#6 STR - #3 STR	.184-.260	3/8-16	.81	1.50	38.1	100
SPF1-2-C	#6 STR - #2 STR	.184-.292	3/8-16	.88	1.63	41.4	100
SPF1-1/0-L	#2 SOL - 1/0 STR	.258-.375	1/2-13	1.00	1.88	47.8	50
SPF1-2/0-Q	#1 SOL - 2/0 STR	.289-.419	1/2-13	1.13	2.06	52.3	25
SPF1-4/0-Q	#1/0 STR - 4/0 STR	.375-.528	5/8-11	1.38	2.38	60.5	25
SPF1-350-12	#4/0 STR - 350 kcmil	.528-.682	5/8-11	1.50	2.63	66.8	12
SPF1-500-12	300 - 500 kcmil	.634-.815	3/4-10	1.81	3.13	79.5	12



Bronze Service Post Connectors

Type SPF2

- Female - two cables
- For connecting two conductors to external threaded studs
- For grounding to steel structures, bus bars or transformers

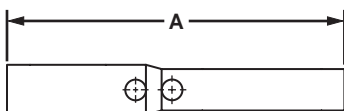


Part Number	Conductor Size Range (V)	Wire Diameter Range (In.)	Stud Size	Nut Hex	Length (A)		Std. Pkg. Qty.
					In.	mm	
SPF2-8-C	#12 SOL - #8 STR	.081-.146	1/4-20	.50	1.13	28.7	100
SPF2-7-C	#10 SOL - #7 STR	.102-.164	1/4-20	.69	1.44	36.6	100
SPF2-4-C	#10 SOL - #4 STR	.102-.232	5/16-18	.75	1.56	39.6	100
SPF2-3-C	#10 SOL - #3 STR	.102-.260	3/8-16	.81	1.63	41.4	100
SPF2-2-C	#10 SOL - #2 STR	.102-.292	3/8-16	.88	1.94	49.3	100
SPF2-1/0-L	#2 SOL - 1/0 STR	.258-.375	1/2-13	1.00	2.13	54.1	50
SPF2-2/0-Q	#2 SOL - 2/0 STR	.258-.419	1/2-13	1.13	2.31	58.7	25
SPF2-4/0-Q	#1 SOL - 4/0 STR	.289-.528	5/8-11	1.38	2.50	63.5	25
SPF2-350-12	#1 STR - 350 kcmil	.332-.682	5/8-11	1.50	2.69	68.3	12
SPF2-500-12	#3/0 STR - 500 kcmil	.470-.815	3/4-10	1.81	3.31	84.1	12

UL LISTED **CSA CERTIFIED** **TAPER-SPLICE™ In-Line Reducer**

Type RSC

- Manufactured from seamless, high conductivity copper tubing
- Color coded for identification of wire size & type, proper crimp die selection and crimp location
- UL Listed per 486A up to 35 KV*** and 90°C temperature rated
- Inspection window in each barrel to visually assure full cable insertion
- Internally beveled wire entry for easy cable insertion
- Electro-tin plated to inhibit corrosion



Part Number	Length		Conductor Size Reduce From	Die Color & Die Index No.	Conductor Size Reduce To	Die Color & Die Index No.	Std. Pkg. Qty.
	In.	mm					
RSC4-6-L	2.54	64.5	4 AWG	Gray P29	6 AWG	Blue P24	50
RSC2-6-Q	2.62	66.5	2 AWG	Brown P33	6 AWG	Blue P24	25
RSC2-4-Q	2.50	63.5	2 AWG	Brown P33	4 AWG	Gray P29	25
RSC1/0-6-X	2.81	71.4	1/0 AWG	Pink P42	6 AWG	Blue P24	10
RSC1/0-4-X	2.70	68.6	1/0 AWG	Pink P42	4 AWG	Gray P29	10
RSC2/0-6-X	2.99	75.9	2/0 AWG	Black P45	6 AWG	Blue P24	10
RSC4/0-4-X	2.88	73.2	2/0 AWG	Black P45	4 AWG	Gray P29	10
RSC4/0-6-X	3.24	82.3	4/0 AWG	Purple P54	6 AWG	Blue P24	10
RSC4/0-4-X	3.12	79.2	4/0 AWG	Purple P54	4 AWG	Gray P29	10
RSC750-4/0-6	4.66	118.36	750 kcmil	Black P106	4/0 AWG	Purple P54	6
RSC750-X4/0-6	4.54	115.3	750 kcmil	Black P106	4/0 Flex	Yellow P62	6
RSC750-X350-6	4.45	113.0	750 kcmil	Black P106	350 Flex	Blue P76	6
RSCX750-4/0-3	5.04	128.0	750 Flex	Orange P107	4/0 AWG	Purple P54	3
RSCX750-750-3	4.50	114.3	750 Flex	Orange P107	750 kcmil	Black P106	3

** Consult cable mfg. for voltage stress relief instructions with applications greater than 2000 volts.

UL LISTED **CSA CERTIFIED** **TAPER-SPLICE Kits**

Type RSCK

- Includes all components in one package for complete electrical connection
- Clear PVC heat shrink sleeves pre-cut to length to insulate reducing splice
- Clear PVC allows easy visual inspection of installed reducing splice
- UL and CSA Certified up to 600 volts when used with **PANDUIT®** reducing splices
- Low temperature requirement allows application with low temperature heat gun
- UL 224 VW-1 flame rating, excellent flame retardant capability
- UL Recognized temperature rating of 150°C, high temperature insulating property

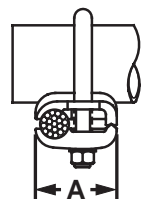


Part Number	Kit Contents	Std. Pkg. Qty.
RSCK4-6-1	1 ea. RSC4-6-L, 1 pc. heat shrink 1/2" dia. x 7.125"	1
RSCK2-6-1	1 ea. RSC2-6-Q, 1 pc. heat shrink 1/2" dia. x 7.125"	1
RSCK2-4-1	1 ea. RSC2-4-Q, 1 pc. heat shrink 1/2" dia. x 7.125"	1
RSCK1/0-6-1	1 ea. RSC1/0-6-X, 1 pc. heat shrink 5/8" dia. x 7.500" 1 pc. heat shrink 1/2" dia. x 4.375"	1
RSCK1/0-4-1	1 ea. RSC1/0-4-X, 1 pc. heat shrink 5/8" dia. x 7.500"	1
RSCK2/0-6-1	1 ea. RSC2/0-6-X, 1 pc. heat shrink 5/8" dia. x 7.500" 1 pc. heat shrink 1/2" dia. x 4.375"	1
RSCK2/0-4-1	1 ea. RSC2/0-4-X, 1 pc. heat shrink 5/8" dia. x 7.500"	1
RSCK4/0-6-1	1 ea. RSC4/0-6-X, 1 pc. heat shrink 3/4" dia. x 7.750" 1 pc. heat shrink 1/2" dia. x 4.375"	1
RSCK4/0-4-1	1 ea. RSC4/0-4-X, 1 pc. heat shrink 3/4" dia. x 7.750" 1 pc. heat shrink 1/2" dia. x 4.375"	1
RSCK750-4/0-1	1 ea. RSC750-4/0-6, 1 pc. heat shrink 1-1/2" dia. x 9.250" 1 pc. heat shrink 3/4" dia. x 7.750"	1
RSCK750-X4/0-1	1 ea. RSC750-X4/0-6, 1 pc. heat shrink 1-1/2" dia. x 9.250"	1
RSCK750-X350-1	1 ea. RSC750-X350-6, 1 pc. heat shrink 1-1/2" dia. x 9.250"	1
RSCKX750-4/0-1	1 ea. RSCX750-4/0-3, 1 pc. heat shrink 2" dia. x 9.500" 1 pc. heat shrink 3/4" dia. x 7.750"	1
RSCKX750-750-1	1 ea. RSCX750-750-3, 1 pc. heat shrink 2" dia. x 9.500"	1

UL LISTED **Bronze Grounding Clamps - U-Bolt Style**

Type GPL

- Joins copper cable parallel or at a right angle to a rod, tube or pipe

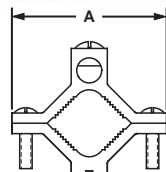


Part Number	Accommodates		Conductor Size Range	Wire Diameter Range (In.)	Length (A)		Std. Pkg. Qty.
	Rod	IPS			In.	mm	
GPL-4-Q	5/8 or 3/4	3/8	#8 SOL - #4 STR	.128 -.232	1.38	35.1	25
GPL-5-Q	5/8 or 3/4	3/8	#4 SOL - #2/0 STR	.204 -.419	1.63	41.4	25
GPL-6-Q	5/8 or 3/4	3/8	#2/0 SOL - 250 kcmil	.365 -.575	1.88	47.8	25
GPL-8-Q	7/8 or 1	1/2 or 3/4	#8 SOL - #4 STR	.128 -.232	1.38	35.1	25
GPL-9-Q	7/8 or 1	1/2 or 3/4	#4 SOL - #2/0 STR	.204 -.419	1.63	41.4	25
GPL-10-Q	7/8 or 1	1/2 or 3/4	#2/0 SOL - 250 kcmil	.365 -.575	1.88	47.8	25
GPL-14-X	—	1	#8 SOL - #4 STR	.128 -.232	1.38	35.1	10
GPL-15-X	—	1	#4 SOL - #2/0 STR	.204 -.419	1.63	41.4	10
GPL-16-X	—	1	2/0 SOL - 250 kcmil	.365 -.575	1.88	47	10
GPL-20-X	—	1 1/4	#8 SOL - #4 STR	.128 -.232	1.38	35.1	10
GPL-21-X	—	1 1/4	#4 SOL - #2/0 STR	.204 -.419	1.63	41.4	10
GPL-22-X	—	1 1/4	#2/0 SOL - 250 kcmil	.365 -.575	1.88	47.8	10
GPL-26-X	—	1 1/2	#8 SOL - #4 STR	.128 -.232	1.38	35.1	10
GPL-27-X	—	1 1/2	#4 SOL - #2/0 STR	.204 -.419	1.63	41.4	10
GPL-28-X	—	1 1/2	#2/0 SOL - 250 kcmil	.365 -.575	1.88	47.8	10
GPL-32-3	—	2	#8 SOL - #4 STR	.128 -.232	1.38	35.1	3
GPL-33-3	—	2	#4 SOL - #2/0 STR	.204 -.419	1.63	41.4	3
GPL-34-3	—	2	#2/0 SOL - 250 kcmil	.365 -.575	1.88	47.8	3
GPL-39-3	—	2 1/2	#4 SOL - #2/0 STR	.204 -.419	1.63	41.4	3
GPL-40-3	—	2 1/2	#2/0 SOL - 250 kcmil	.365 -.575	1.88	47.8	3
GPL-44-1	—	3	8 SOL - 4 STR	.128 -.232	1.38	34	1
GPL-45-1	—	3	#4 SOL - #2/0 STR	.204 -.419	1.63	41.4	1
GPL-46-1	—	3	#2/0 SOL - 250 kcmil	.365 -.575	1.88	47.8	1
GPL-51-1	—	3 1/2	#4 SOL - #2/0 STR	.204 -.419	1.63	41.4	1
GPL-52-1	—	3 1/2	2/0 SOL - 250 kcmil	.365 -.575	1.88	47	1
GPL-57-1	—	4	#4 SOL - #2/0 STR	.204 -.419	1.63	41.4	1
GPL-58-1	—	4	#2/0 SOL - 250 kcmil	.365 -.575	1.88	47.8	1

UL LISTED **CSA CERTIFIED** **Bronze Grounding Pipe Clamps**

Type KP

- Grounds copper conductors to water pipe or copper tube
- Cast from high strength bronze
- Screws plated for corrosion resistance
- CSA Certified and UL Listed per UL 467 for ground and bonding



Part Number	Water Pipe Range (In.)	Conductor Range Tap	Wire Diameter Range (In.)	Length		Width		Std. Pkg. Qty.
				In.	mm	In.	mm	
KP1-C	1/2 - 1	#10 SOL - #2 STR	.102 -.292	2.28	57.9	.66	16.8	100
KP2-L	1 1/4 - 2	#10 SOL - #2 STR	.102 -.292	3.58	90.9	.73	18.5	50

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index

Heavy Duty Crimp Tool - Hand Operated

- Available with or without control cycle feature
- Develops 6 tons of crimping force
- Cushioned grips
- Fast die change-over uses single retention screw
- Color coded crimp dies
- Embosses die index number on crimp connector



CT-720 shown with CC-720 controlled cycle mechanism (standard with CT-720-7CC & CT-720-3CC kit)

Part Number	Part Description	Std. Pkg. Qty.
CT-720	For installing #8 AWG thru 500 kcmil copper compression connectors and #8 thru #2 AWG vinyl insulated <i>PANDUIT</i> ® <i>PAN-TERM</i> ® terminals. Includes tool and carrying/storage case. Crimp dies and controlled-cycle mechanism must be purchased separately. Weight: 7.7 lbs. Length: 26" Handle span: 58" (open), 2.5" (closed)	1
CC-720	Optional control-cycle mechanism only. Total weight of tool with CC-720 is 8.25 lbs.	1

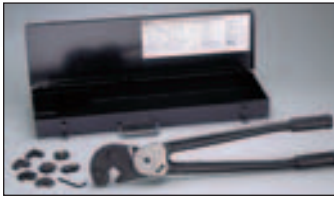
Dies for CT-720

- Color coded
- Embosses die index number on properly installed crimps



Part Number	Used to Install <i>PANDUIT</i> Compression Connector Sizes: Copper	Std. Pkg. Qty.
CD-720-1	#8 - #2 AWG	1
CD-720-2	#1 - 3/0 AWG	1
CD-720-3	4/0 - 250 kcmil	1
CD-720-4	300 kcmil	1
CD-720-5	350 kcmil	1
CD-720-6	400 kcmil	1
CD-720-7	500 kcmil	1
CD-720PV8-2	#8 - #2 AWG vinyl insulated <i>PAN-TERM</i> terminals	1

Kits for CT-720



Includes tool, crimp dies and carrying case

Part Number	Part Description	Kit Contents	Std. Pkg. Qty.
CT-720-7	Basic tool kit with 7 dies.	Includes: • 7 dies (CD-720-1 thru 7) for installing #8 AWG thru 500 kcmil copper compression connectors • Carrying/storage case (C-720)	1
CT-720-7CC	Controlled cycle tool kit with 7 dies. Controlled cycle mechanism factory installed on crimp tool.	Includes: • 7 dies (CD-720-1 thru 7) for installing #8 AWG thru 500 kcmil copper compression connectors • Carrying/storage case (C-720)	1
CT-720-3	Basic tool kit with 3 dies.	Includes: • 3 dies (CD-720-1 thru 3) for installing #8 AWG thru 250 kcmil copper compression connectors • Carrying/storage case (C-720)	1
CT-720-3CC	Controlled cycle tool kit with 3 dies. Controlled cycle mechanism factory installed on crimp tool.	Includes: • 3 dies (CD-720-1 thru 3) for installing #8 AWG thru 250 kcmil copper compression connectors • Carrying/storage case (C-720)	1
C-720	Carrying case	—	1

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Supplementary Technical Information

Glossary & Index

CONTOUR CRIMP™ Controlled Cycle Crimp Tool

- Ergonomically designed to dramatically reduce stress in hand and wrist
- Controlled cycle crimp mechanism assures a full crimp cycle for reliable terminations
- Built-in ratchet device is releasable for added safety
- Emergency mid-cycle release



CT-1700

Part Number	Part Description	Std. Pkg. Qty.
CT-1700	Crimps PANDUIT® #8 -#1 AWG copper lugs and splices, and #6 -#4 AWG aluminum lugs and splices. Includes 5 position, color coded rotating die.	1
CT-1701	Crimps PANDUIT #10-#2 AWG non-insulated large gauge ring terminal (P series). Includes 5 position rotating die.	1

CONTOUR CRIMP Controlled Cycle Crimp Tools

- Specifically designed for the installation of PAN-TERM® terminals, disconnects and splices
- Ergonomically designed to reduce stress in hand and wrist



CT-1550



CT-1551



CT-1570

Part Number	Part Description	Std. Pkg. Qty.
CT-1550	Crimps PANDUIT #22-#10 AWG nylon and vinyl insulated terminals and splices. Crimps PANDUIT #22-#10 AWG nylon and vinyl insulated disconnects. The CT-1550 has the red/blue pocket closest to the pivot which provides a reduced crimp effort for those who make red/blue terminations.	1
CT-1551	Crimps PANDUIT #22-#10 AWG nylon and vinyl insulated terminals and splices. Crimps PANDUIT #22-#10 AWG nylon and vinyl insulated disconnects. The CT-1551 has the yellow pocket closest to the pivot which provides a reduced crimp effort for those who make yellow terminations.	1
CT-1570	Crimps PANDUIT #22-#10 AWG and .5-6.0 mm non-insulated terminals and disconnects. Crimps PANDUIT #22-#10 AWG and .5-6.0 mm non-insulated splices.	1

Controlled Cycle Hydraulic Crimp Tool

- Generates 14 tons of crimping force
- Two-stage rapid ram advance; connectors can be held in die set while conductor is inserted
- Audible “click” when cycle is complete
- Fast die changeover
- Tool head rotates for ease of installation
- Recalibration capability for quality control programs



Part Number	Part Description	Std. Pkg. Qty.
CT-930	<p>Crimps #8 AWG thru 750 kcmil copper lugs. Will crimp CTAPS and HTAPS. Includes tool and carrying/storage case. Uses CD-920 and CD-930 crimp dies. Dies must be purchased separately.</p> <p>Total length: 25" Jaw Opening: 1 1/2" Weight: 16.5 pounds Handle Span: 17 1/2" (open), 6" (closed)</p>	1

Crimp Dies - CD-920

- Color coded 2-piece die sets
- Interchangeable on CT-920, CT-2920, CT-930, CT-920CH, CT-930CH, CT-940CH with CD-940-DA adapter
- Embossed die index number when crimped with *PANDUIT*® tool



Part Number	Used to Install <i>PANDUIT</i> Compression Connectors and Tap Sizes:		Std. Pkg. Qty.
	Copper Conductor Size	Die Color & Part No.	
CD-920-8	#8 AWG	Red P21	1
CD-920-6	#6 AWG	Blue P24	1
CD-920-4	#4 AWG	Gray P29	1
CD-920-2	#2 AWG	Brown P33	1
CD-920-1	#1 AWG	Green P37	1
CD-920-1/0	1/0 AWG	Pink P42	1
CD-920-2/0	2/0 AWG	Black P45	1
CD-920-3/0	3/0 AWG	Orange P50	1
CD-920-4/0	4/0 AWG	Purple P54	1
CD-920-250	250 kcmil	Yellow P62	1
CD-920-300	300 kcmil	White P66	1
CD-920-350	350 kcmil	Red P71	1
CD-920-400	400 kcmil	Blue P76	1
CD-920-500	500 kcmil	Brown P87	1
CD-920-600	600 kcmil	Green P94	1
CD-920-500A	—	Pink P99	1
CD-920-750	750 kcmil	Black P106	1

Crimp Dies - CD-940

- Dies for CT-940CH remote crimp head



Part Number	Copper Conductor Size	Die Color & Part No.	Std. Pkg. Qty.
CD-940-DA*	250 kcmil	Yellow P62	1
CD-940-750	750 kcmil	Black P108	1
CD-940-800	800 kcmil	Orange P107	1
CD-940-1000	1000 kcmil	White P124	1
CD-940-1500	1500 kcmil	Green P150	1

* Use of CD-920 dies require use of CD-940-DA.

Hydraulic Crimp Tool, Dieless

- Generates 6.2 tons of crimping force
- 2-stage hydraulic pump
- No need to fully retract indenters
- Light weight and portable
- Wire range taking capability



Part Number	Part Description	Std. Pkg. Qty.
CT-980	<p>Crimps #4 AWG - 750 kcmil copper lugs. Includes tool and carrying/storage case.</p> <p>Specifications: Output: 6.2 tons Weight: 10.5 lbs. Length: 23" Total length: 23" Jaw opening: 1.73" Handle span: 15" (open), 5.75" (closed)</p>	1

Battery Operated Hydraulic Compression Tool - CT-2001

- Battery powered 14.4 VDC
- Self-contained unit
- Quick battery pack changeover for continuous operation, 25 minute battery recharge
- 3 second crimp cycle
- 6 ton output



Part Number	Part Description	Std. Pkg. Qty.
CT-2001	<p>Crimps #8 AWG-500 kcmil copper lugs, copper CTAPS to #2 AWG Output: 6 tons Weight: 8.5 lbs. with battery Length: 13" Height: 12" Accepts CD-2001 crimp dies sold separately</p> <p>CT-2001 includes:</p> <ul style="list-style-type: none"> • Tool • Case • Two CT-BC25, 14.4 VDC rechargeable batteries with LED display • One CT-CHR25 battery charger • One shoulder strap • Tool incorporates D3 die pocket (included with tool) 	1

Compression Dies - CD-2001



Part Number	Part Description	Used to Install PANDUIT® Compression Connector Sizes	Die Color & No.	Std. Pkg. Qty.
CD-2001-8	Crimp dies for CT-2001 tool.	# 8 AWG	Red P21	1
CD-2001-6	Crimp dies for CT-2001 tool.	#6 AWG	Blue P24	1
CD-2001-4	Crimp dies for CT-2001 tool.	#4 AWG	Gray P29	1
CD-2001-2	Crimp dies for CT-2001 tool.	#2 AWG	Brown P33	1
CD-2001-1	Crimp dies for CT-2001 tool.	#1 AWG	Green P37	1
CD-2001-1/0	Crimp dies for CT-2001 tool.	1/0 AWG	Pink P42	1
CD-2001-2/0	Crimp dies for CT-2001 tool.	2/0 AWG	Black P45	1
CD-2001-3/0	Crimp dies for CT-2001 tool.	3/0 AWG	Orange P50	1
CD-2001-4/0	Crimp dies for CT-2001 tool.	4/0 AWG	Purple P54	1
CD-2001-250	Crimp dies for CT-2001 tool.	250 kcmil	Yellow P62	1
CD-2001-300	Crimp dies for CT-2001 tool.	300 kcmil	White P66	1
CD-2001-350	Crimp dies for CT-2001 tool.	350 kcmil	Red P71	1
CD-2001-400	Crimp dies for CT-2001 tool.	400 kcmil	Blue P76	1
CD-2001-500	Crimp dies for CT-2001 tool.	500 kcmil	Brown P87	1
CD-2001-BG	Crimp dies for CT-2001 tool.	CTAP4-4 to CTAP4-6	PBG	1
CD-2001-C	Crimp dies for CT-2001 tool.	CTAP2-4 to CTAP2-2	PC	1
CD-2001-O	Crimp dies for CT-2001 tool.	HTAP1-1 to HTAP2/0-1	Green PO	1

AC Powered Hydraulic Pump & Accessories



CT-901HP



CT-900HPH



CT-901RCH
(Crimp head sold separately)



CT-901RFS

Part Number	Part Description	Std. Pkg. Qty.
CT-901HP	<p>Hydraulic pump. Develops 10,000 PSI output. Pump shuts off when cycle is complete. Will not release until down switch is activated.</p> <p>Pump output: Low pressure: .26L/Mn @ 300 psi High pressure: .32 L/Mn @ 10,000 psi Tank capacity: 2.5L Fluid type: Aero Shell #4 or equal</p> <p>Motor Type: Commutator RPM: 1200 Voltage: 120V Frequency: 50/60 Hz Current: 6.5 Amps Horsepower: 1/2 hp</p>	1
CT-900HPH	Electrically non-conductive 10' hose. Supplied pre-filled with hydraulic fluid for fast start up. Supplied with two male, Parker type, quick-disconnect fittings.	1
CT-901RCH	Remote control handle equipped with 3/8" coupler for remote crimp tool heads or cutter. Includes a 10', 3 wire control cable that can be hooked directly to the CT-901HP pump.	1
CT-901RFS	Dual electrical foot switch that can be connected to a CT-901HP hydraulic pump for foot operation.	1

Contact *PANDUIT*® Technical Assistance for use in production environments.

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index

System Overview

Modules

14 Ton Remote Hydraulic Crimp Head - CT-930CH



Part Number	Part Description	Std. Pkg. Qty.
CT-930CH	Remote crimp head used with <i>PANDUIT</i> ® pumps and hoses. Accepts up to 750 kcmil copper lugs and splices. Will crimp CTAPS and HTAPS. Supplied with female Parker type hydraulic quick-disconnect fitting. Uses CD-920 and CD-930 dies. Crimp dies sold separately.	1

Ultimate ID System & Work Area

Zone Cabling

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Fiber Connectors Enclosures & Patch Cords

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Surface Raceway

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Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index

15 Ton Remote Hydraulic Crimp Head - CT-940CH



Part Number	Part Description	Std. Pkg. Qty.
CT-940CH	Remote crimp head used with <i>PANDUIT</i> pumps and hoses generates 15 tons of compression force. Accepts up to 1500 kcmil copper lugs and splices. Will crimp CTAPS and HTAPS. Supplied with female Parker type hydraulic quick-disconnect fitting. Uses CD-920, CD-930 and CD-940 dies. Crimp dies sold separately. CT-940-DA die adapter required for CD-920 and CD-930 crimp dies.	1

UNI-DIE™ Remote Crimp Head - CT-980CH

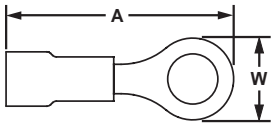


Part Number	Part Description	Std. Pkg. Qty.
CT-980CH	Remote dieless, flip-top crimp head used with <i>PANDUIT</i> pumps and hoses. Accepts #4 AWG to 750 kcmil copper lugs and splices. Supplied with female Parker type hydraulic quick-disconnect fitting.	1



Ring Terminal Nylon Insulated

- Metal insulation grip sleeve for high vibration or conductor strain environments
- Color-coded insulation sleeve identifies wire range by using industry standard colors. Provides quick visual identification of intended range of wires



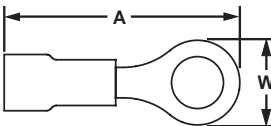
Part Number	Wire Range	Color	Stud Size	Length (A)		Width (W)		Std. Pkg. Qty.	Std. Ctn. Qty.
				In.	mm	In.	mm		
PN18-12R-C	22-18 AWG	Red	1/2"	1.35	34.3	.72	18.3	100	500
PN14-12R-L	22-18 AWG	Blue	1/2"	1.35	34.3	.72	18.3	50	500
PN10-10R-L	22-18 AWG	Yellow	#10	1.08	27.4	.38	9.65	50	500
PN10-14R-L	22-18 AWG	Yellow	1/4"	1.23	31.2	.52	13.2	50	500
PN10-56R-L	22-18 AWG	Yellow	5/16"	1.23	31.2	.52	13.2	50	500
PN10-38R-L	22-18 AWG	Yellow	3/8"	1.31	33.3	.58	14.7	50	500
PN10-12R-L	22-18 AWG	Yellow	1/2"	1.47	37.3	.72	18.3	50	500

The following installation tools may be used: CT-100, CT-600, CT-1550 and CT-1551. CT-1550 and CT-1551 can be found on [page H29](#).



Ring Terminal Nylon Insulated - Expanded Insulation

- Expanded wire entry allows for large O.D. wire insulation or multiple wire crimps within one wire barrel
- Metal insulation grip sleeve for high vibration or conductor strain environments
- Color-coded insulation sleeve identifies wire range by using industry standard colors. Provides quick visual identification of intended range of wires
- Color: Yellow



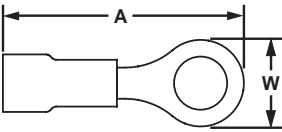
Part Number	Wire Range	Stud Size	Length (A)		Width (W)		Std. Pkg. Qty.	Std. Ctn. Qty.
			In.	mm	In.	mm		
PN10-10RX-L	12-10 AWG	#10	1.13	28.7	.37	9.40	50	500
PN10-14RX-L	12-10 AWG	1/4"	1.27	32.3	.52	13.2	50	500
PN10-56RX-L	12-10 AWG	5/16"	1.27	32.3	.52	13.2	50	500
PN10-38RX-L	12-10 AWG	3/8"	1.35	34.3	.58	14.7	50	500

The following installation tool may be used: CT-100 only.



Ring Terminal Vinyl Insulated - Funnel Entry

- Funnel entry speeds wire insertion for faster assembly and lower installed costs
- Insulation support provides strain relief of the terminal and helps to prevent wire damage if wire is subject to a bending application
- Industry standard color coding to indicate wire range
- Brazed seam assures a reliable crimp



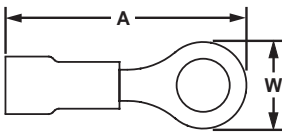
Part Number	Wire Range	Color	Stud Size	Length (A)		Width (W)		Std. Pkg. Qty.	Std. Ctn. Qty.
				In.	mm	In.	mm		
PV18-12R-C	22-18 AWG	Red	1/2"	1.42	36.1	.72	18.3	100	500
PV14-12R-L	16-14 AWG	Blue	1/2"	1.42	36.1	.72	18.3	50	500
PV10-10R-L	12-10 AWG	Yellow	#10	1.05	26.7	.31	7.87	50	500
PV10-14R-L	12-10 AWG	Yellow	1/4"	1.23	31.2	.52	13.2	50	500
PV10-56R-L	12-10 AWG	Yellow	5/16"	1.23	31.2	.52	13.2	50	500
PV10-38R-L	12-10 AWG	Yellow	3/8"	1.31	33.3	.58	14.7	50	500
PV10-12R-L	12-10 AWG	Yellow	1/2"	1.46	37.1	.72	18.3	50	500

The following installation tools may be used: CT-100, CT-600, CT-1550 and CT-1551. CT-1550 and CT-1551 can be found on [page H29](#).



Ring Terminal Vinyl Insulated - Expanded Insulation

- Expanded wire entry allows for large O.D. wire insulation or multiple wire crimps within one wire barrel
- Industry standard color coding to indicate wire range
- Brazed seam assures a reliable crimp
- Insulation support
- Color: Yellow



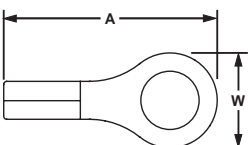
Part Number	Wire Range	Stud Size	Length (A)		Width (W)		Std. Pkg. Qty.	Std. Ctn. Qty.
			In.	mm	In.	mm		
PV10-10RX-L	12-10 AWG	#10	1.10	27.9	.31	7.90	50	500
PV10-14RX-L	12-10 AWG	1/4"	1.29	32.8	.52	13.2	50	500
PV10-56RX-L	12-10 AWG	5/16"	1.29	32.8	.52	13.2	50	500
PV10-38RX-L	12-10 AWG	3/8"	1.39	35.3	.58	14.7	50	500

The following installation tool may be used: CT-100 only.



Ring Terminal Non-Insulated

- Brazed seam assures a reliable crimp
- Internally beveled for easy wire insertion
- Extended length is easier to crimp and assures good quality wire contact

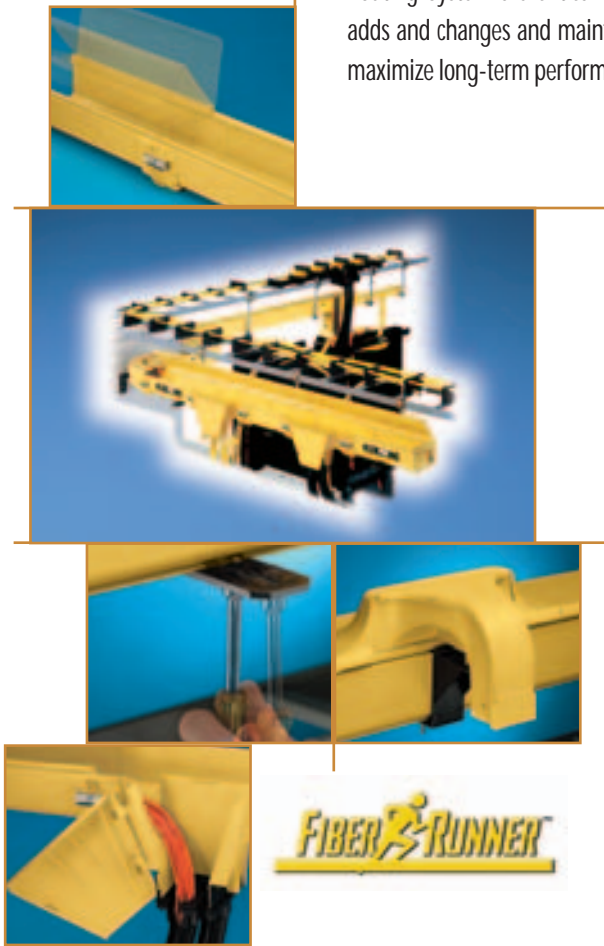


Part Number	Wire Range	Stud Size	Length (A)		Width (W)		Std. Pkg. Qty.	Std. Ctn. Qty.
			In.	mm	In.	mm		
P18-12R-C	22-18 AWG	1/2"	1.20	30.5	.72	18.3	100	1000
P14-12R-L	16-14 AWG	1/2"	1.20	30.5	.72	18.3	50	500
P10-10R-L	12-10 AWG	#10	.81	20.6	.38	9.70	50	500
P10-14R-L	12-10 AWG	1/4"	.96	24.4	.52	13.2	50	500
P10-56R-L	12-10 AWG	5/16"	.96	24.4	.52	13.2	50	500
P10-38R-L	12-10 AWG	3/8"	1.04	26.4	.58	14.7	50	500
P10-12R-L	12-10 AWG	1/2"	1.20	30.5	.72	18.3	50	500

The following installation tools may be used: CT-100, CT-200, CT-600 and CT-1570. CT-1570 can be found on [page H29](#).

FIBERRUNNER™ ROUTING SYSTEMS

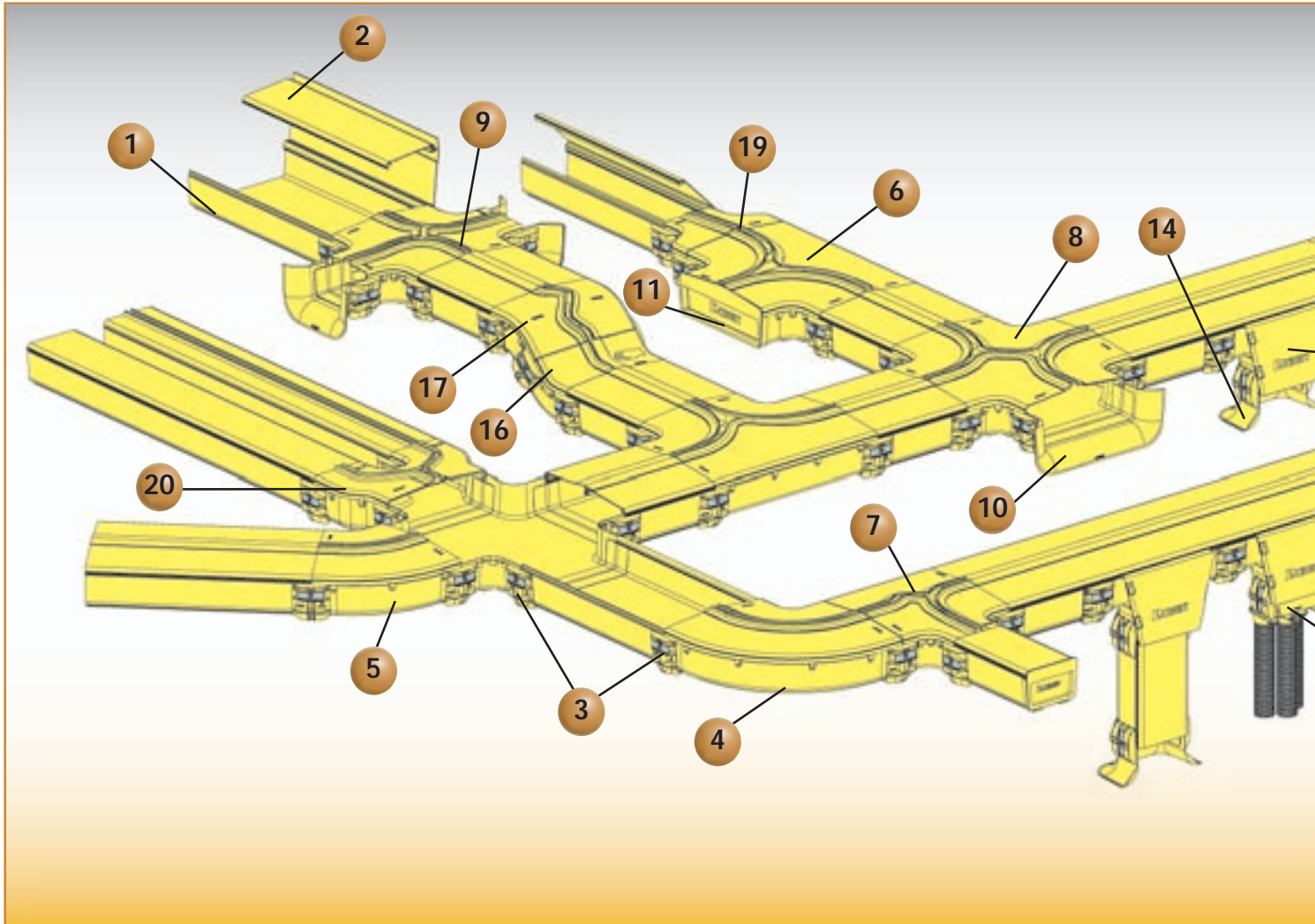
The *PANDUIT*® Network Connectivity Group provides innovative solutions for routing fiber optic and high performance copper cabling to and between equipment racks within a telecommunications room or service provider facility. Routing products such as the *FIBERRUNNER* Routing System are critical factors in your ability to quickly install, easily implement moves, adds and changes and maintain the integrity of your fiber and copper cabling plant in order to maximize long-term performance.



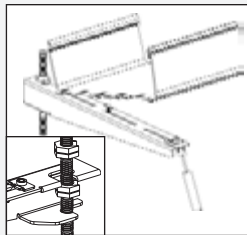
- Robust, large capacity 12x4 and 6x4 systems for use with large cable counts and 4x4 and 2x2 systems for use with smaller cable counts
- Hinged channel cover and split fitting covers protect cabling and provide access for future cabling revisions and additions
- No bolts need to be tightened and no tools are required when installing the *QUIKLOCK*™ coupler
- *QUIKLOCK* couplers and brackets take less than five seconds to make a mechanically secure connection
- *QUIKLOCK* brackets attach system components to ladder rack, strut, equipment racks, walls and raised floor pedestals
- Fittings provide minimum 2" bend radius to protect against signal loss due to excessive cable bends
- Multiple spillout options provide versatility to make transitions to various equipment and rack configurations
- Compatible with *PANDUIT FIBER-DUCT*™ 4x4 and 2x2 Routing Systems, cable management products and racks

The *FIBERRUNNER* 12x4, 6x4, 4x4 and 2x2 Routing Systems are comprised of channel, fittings and brackets designed to segregate, route and protect fiber optic and high performance copper cabling.

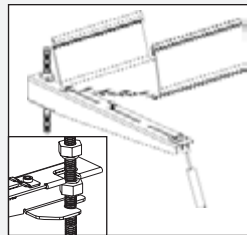
12x4 **FIBER RUNNER** Routing System Roadmap



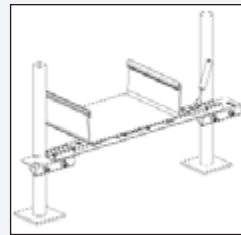
12x4 **FIBERRUNNER**™ Mounting Brackets



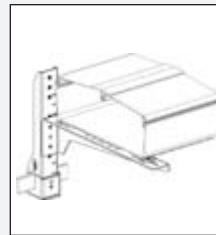
Existing Threaded Rod **QUIKLOCK**™ Bracket for 12x4 System



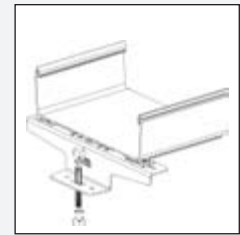
New Threaded Rod **QUIKLOCK** Bracket for 12x4 System



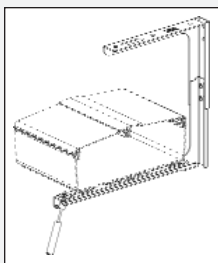
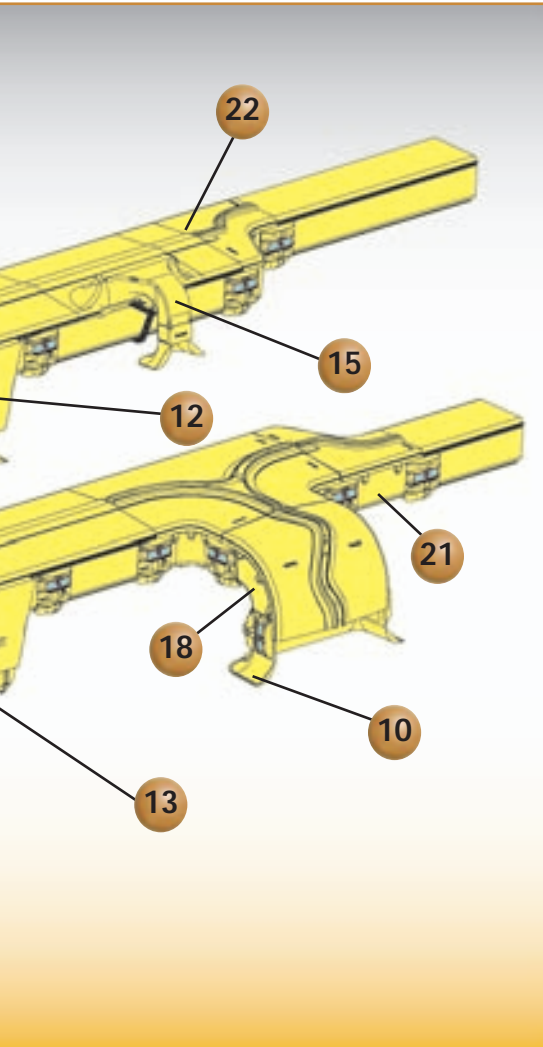
Under-Floor Pedestal **QUIKLOCK** Bracket for 12x4 System



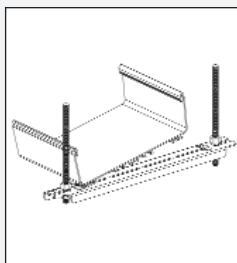
Adjustable Ladder **QUIKLOCK** Bracket for 12x4 System



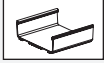








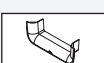
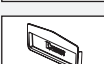
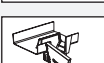
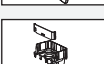







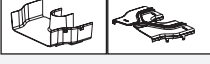

Center Support **QUIKLOCK** Bracket for 12x4 System



Top Support Adjustable 'C' QUIKLOCK Bracket for 12x4 System



Trapeze QUIKLOCK Bracket for 12x4 System

-  **1** 12x4 *FIBERRUNNER*™ Channel (see [page I4](#))
-  **2** 12x4 Snap-On Hinged Cover (see [page I4](#))
-  **3** 12x4 *QUIKLOCK*™ Coupler (see [page I5](#))
-  **4** 12x4 Horizontal Right Angle Fitting and Optional Split Cover (see [page I5](#))
-  **5** 12x4 Horizontal 45° Angle Fitting and Optional Split Cover (see [page I5](#))
-  **6** 12x4 Horizontal Tee Fitting and Optional Split Cover (see [page I5 and I6](#))
-  **7** 12x4 Horizontal Tee with 6x4 Exits and Optional Split Cover (see [page I6](#))
-  **8** 12x4 Four Way Cross Fitting and Optional Split Cover (see [page I6](#))
-  **9** 12x4 Four Way Cross Fitting with 6x4 Exits and Optional Split Cover (see [page I6](#))
-  **10** 3-Sided BRC Trumpet Spillover for 12x4 Exit (see [page I6](#))
-  **11** 12x4 End Cap Fitting (see [page I7](#))
-  **12** 12x4 Vertical Tee Fitting (see [page I7](#))
-  **13** 3 Port Spillover to 1.5" (38mm) Inside Diameter Corrugated Tubing (see [page I7](#))
-  **14** 3-Sided BRC Trumpet Spillover for 6x4 Exit (see [page I7](#))
-  **15** Spill-Over Junction and Optional Cover for 12x4 System (see [page I7](#))
-  **16** 12x4 Inside Vertical 45° Angle Fitting (see [page I8](#))
-  **17** 12x4 Outside Vertical 45° Angle Fitting and Optional Split Cover (see [page I8](#))
-  **18** 12x4 Outside Vertical Right Angle Fitting with Optional Split Cover (see [page I8](#))
-  **19** Reducer from 12x4 to 6x4 *FIBERRUNNER* Channel and Optional Split Cover (see [page I9](#))
-  **20** Y-Reducer from 12x4 to two 6x4 Exits with Optional Split Cover (see [page I9](#))
-  **21** 12x4 to 6x4 Transition Right Reducer Fitting and Optional Split Cover (see [page I9](#))
-  **22** 12x4 to 6x4 Transition Left Reducer Fitting and Optional Split Cover (see [page I9](#))

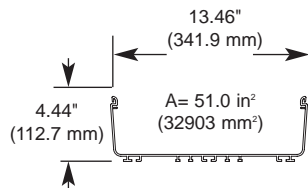
12x4 FIBERRUNNER™ Routing System

Cable Fills for FIBERRUNNER 12x4 Cable Routing System

The maximum amounts may vary according to the cable fill installation methods, straightness of cables, etc.

SPEC= 40% cablefill — the recommended design in cable capacity. Leaves room for future moves, adds and changes.

MAX= 60% cablefill — the maximum cable quantity based on cable interweaving and packing factors.



System Type	Area in ²	Fiber Cable								Data Grade Cables	
		.063" (1.6mm)		.079" (2.0mm)		.118" (3.0mm)		.492" (12.5mm)		24 AWG UTP/CM CAT5e 4 pr	
		SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX
FIBERRUNNER 12x4 System	51.0	6544	9816	4162	6243	1865	2798	107	161	552	827

Channel cutting instructions: For optimum results, use a plastic cutting saw blade for clean, burr-free cuts. Recommend: Carbide 80T or 100T; .090" thickness, .125" kerf.

12x4 FIBERRUNNER Routing System — Channel and Cover

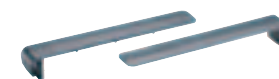
- Robust, large capacity 12x4 inch system ideal for use with large cable counts
- Multiple spillout options provide versatility to mate to various equipment and rack configurations
- QUIKLOCK™ couplers and brackets reduce system installation time dramatically
- Channel, covers, fittings and other non-metallic system components made from V-0 flame class rated material
- UL Listed
- Compatible with all sizes of PANDUIT® FIBERRUNNER and PANDUIT FIBER-DUCT™ routing systems, cable management products and racks
- Compliant with the applicable tests in Telcordia GR-63-CORE Network Equipment Building Systems (NEBS)



FR12X4



FRHC12



FRCR12BL-X

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
12x4 FIBERRUNNER Channel			
FR12X4YL6	Used to carry the cables horizontally throughout the system. Accepts cable retainers FRCR12BL-X or hinged cover FRHC12YL6. Use QUIKLOCK coupler FRBC12X4YL to attach channel and/or fittings.	6	12
12x4 Snap-On Hinged Cover			
FRHC12YL6	Optional snap-on hinged cover for channel FR12X4YL6. Can be folded down for height restricted areas.	6	12
Cable Retainer for 12x4 System			
FRCR12BL-X	Cable retainer holds cable in the channel when cover is not used. Install anywhere on channel, near the coupler or every 18" (457mm). Black color only.	10	100

For other color replace suffix YL (Yellow) with OR (Orange).
 Order number of feet required, in multiples of standard 6' length increments.
 Order number of cable retainers required, in multiples of Standard Package Quantity.

12x4 FIBERRUNNER™ QUIKLOCK™ Coupler

- Pre-assembled to provide fast mechanical assembly of components
- No tools required for installation, bolts loosen for component disassembly



FRBC12X4

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
12x4 QUIKLOCK Coupler			
FRBC12X4YL	Pre-assembled coupler quickly joins 2 sections of channel and/or fittings. Mechanically attaches without tightening bolts. Bolts release using 3/8" nut driver to allow coupler to be removed if necessary.	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

12x4 FIBERRUNNER System Fittings

- Minimum 2" bend radius control fittings
- Protects against signal loss and performance degradation
- Fittings assemble using FRBC couplers
- Optional split covers snap onto each fitting
- Covers feature 3/4" gap to allow cable to be laid in



FRRRA12X4

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
12x4 Horizontal Right Angle Fitting				
FRRRA12X4YL	Attaches to 12x4 channel and/or fitting to create a 90° horizontal turn from a straight horizontal run. Accepts optional split cover FRRASC12YL.	(2 pcs.) FRBC12X4YL	1	—



FRRASC12

Split Cover for 12x4 Horizontal Right Angle Fitting				
FRRASC12YL	Optional split cover for the horizontal right angle fitting FRRRA12X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5



FRH4512X4

12x4 Horizontal 45° Angle Fitting				
FRH4512X4YL	Attaches to 12x4 channel and/or fitting to create a 45° horizontal turn from a straight horizontal run. Accepts optional split cover FRH45SC12YL.	(2 pcs.) FRBC12X4YL	1	—



FRH45SC12

Split Cover for 12x4 Horizontal 45° Angle Fitting				
FRH45SC12YL	Optional split cover for the horizontal 45° angle fitting FRH4512X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or removes cables.	—	1	5



FRT12X4

12x4 Horizontal Tee Fitting				
FRT12X4YL	Attaches to 12x4 channel and/or fittings to create a 90° horizontal branch with a 12x4 exit from straight horizontal run. Accepts optional split cover FRTSC12YL.	(3 pcs.) FRBC12X4YL	1	—

For other color replace suffix YL (Yellow) with OR (Orange).

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

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Fiber Routing

Surface Raceway









Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index

12x4 FIBERRUNNER™ System Fittings (continued)

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
Split Cover for 12x4 Horizontal Tee Fitting				
FRTSC12YL	Optional split cover for the horizontal tee fitting FRT12X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
	FRTSC12			
12x4 Horizontal Tee with 6x4 Exit				
FRT12X4W6YL	Attaches to 12x4 channel and/or fittings to create a 90° horizontal branch with a 6x4 exit from straight horizontal run. Accepts optional split cover FRTSC12W6YL.	(2 pcs.) FRBC12X4YL (1 pc.) FRBC6X4YL	1	—
	FRT12X4W6			
Split Cover for 12x4 Horizontal Tee with 6x4 Exit				
FRTSC12W6YL	Optional split cover for the horizontal tee with 6x4 exit fitting FRT12X4W6YL. Snap-on feature allows cover to be installed and removed without tools. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
	FRTSC12W6			
12x4 Four Way Cross Fitting				
FRFWC12X4YL	Attaches to 12x4 channel and/or fittings to create a horizontal four way cross intersection with two 12x4 exits. Accepts optional split cover FRFWCSC12YL.	(4 pcs.) FRBC12X4YL	1	—
	FRFWC12X4			
Split Cover for 12x4 Four Way Cross Fitting				
FRFWCSC12YL	Optional split cover for the four way cross fitting FRFWC12X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
	FRFWCSC12			
12x4 Four Way Cross Fitting with 6x4 Exits				
FRFWC12X4W6YL	Attaches to 12x4 channel and/or fittings to create a horizontal four way cross intersection with two 6x4 exits. Accepts optional split cover FRFWCSC12W6YL.	(2 pcs.) FRBC12X4YL (2 pcs.) FRBC6X4YL	1	—
	FRFWC12X4W6			
Split Cover for 12x4 Four Way Cross Fitting with 6x4 Exits				
FRFWCSC12W6YL	Optional split cover for the four way cross fitting FRFWC12X4W6YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
	FRFWCSC12W6			
3-Sided BRC Trumpet Spillover for 12x4 Exit				
FRTR12X4YL	Used to limit the bend radius of the cable to 2" (50.8mm) when exiting from the 12x4 channel or a 12x4 horizontal tee fitting.	(1 pc.) FRBC12X4YL	1	5
	FRTR12X4			

For other color replace suffix YL (Yellow) with OR (Orange).

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12x4 FIBERRUNNER™ System Fittings (continued)

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
12x4 End Cap Fitting				
 FREC12X4	FREC12X4YL Used for closing off open ends of the channel or fittings. No coupler required, push-on installation.	—	1	5
12x4 Vertical Tee Fitting				
 FRVT12X4	FRVT12X4YL Attaches to 12x4 channel and/or fittings to create a 90° vertical drop from a horizontal run. Hinged door included. Requires coupler to attach FRIDT6X4YL or FRTR6X4YL to vertical exit. Accepts optional snap-on cover FRHC12YL6 in conjunction with channel.	(2 pcs.) FRBC12X4YL (1 pc.) FRBC6X4YL	1	—
1 Port Spillover Side Exit to 1.5" (38mm) Inside Diameter Corrugated Tubing				
 FR1.5IDE	FR1.5IDEYL Used to route cable into 1.5" (38mm) diameter split corrugated tubing directly through a hole cut in the side wall of the 4x4, 6x4 and 12x4 FIBERRUNNER channel or 4x4 FIBER-DUCT™ channel. Provides 1" (25.4mm) bend radius control at the exit. Securely holds split corrugated tubing to ensure system integrity and easy access to add or remove cables. Includes drilling template.	—	1	5
3 Port Spillover to 1.5" (38 mm) Inside Diameter Corrugated Tubing				
 FRIDT6X4	FRIDT6X4YL Used to route cable into 3 separate pieces of 1.5" (38mm) diameter split corrugated tubing. Used with FRVT12X4YL or any 6x4 fitting. Securely holds corrugated split tubing to ensure system integrity and easy access to add or remove cables.	(1 pc.) FRBC6X4YL	1	5
3-Sided BRC Trumpet Spillover for 6x4 Exit				
 FRTR6X4	FRTR6X4YL Used to limit the bend radius of the cable to 2" (50.8mm) when exiting from 6x4 channel, 6x4 horizontal tee fitting, or 6x4 exit on 12x4 vertical tee.	(1 pc.) FRBC6X4YL	1	5
Spill-Over Junction with 2x2 Exit				
 FRSP	FRSPYL Assembles onto 4x4, 6x4 or 12x4 FIBERRUNNER channel spilling over the side into a 2x2 vertical channel, fitting or corrugated tube. Mounts directly to existing installation with no alteration required. Mounting hardware provided for secure attachment.	—	1	—
Spill-Over Junction Cover for 12x4 System				
 FRSP12C	FRSP12CYL Used to fully enclose 12x4 channel in conjunction with the spill-over junction FRSPYL. Cover snaps onto the channel base. Hinged feature allows easy access to add or remove cables.	—	1	5
Spill-Over Junction with 4x4 Exit				
 FRSP4	FRSP4YL Assembles onto 4x4, 6x4, or 12x4 FIBERRUNNER channel spilling over the side into a 4x4 vertical exit. Requires coupler to attach 4x4 FIBERRUNNER channel and fittings to the vertical exit. Mounts directly to existing installation with no alteration required. Mounting hardware provided for secure attachment.	(1) FRBC4X4YL	1	—

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12x4 FIBERRUNNER™ System Fittings (continued)



FRSP412C



FTR2X2



FIDT2X2



FRIV4512X4



FROV4512X4



FROV45SC12



FROVRA12X4



FROVRASC12

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
Spill-Over Junction Cover for 12x4 System				
FRSP412CYL	Used to fully enclose the 12x4 channel in conjunction with the spill-over junction FRSP4YL. Cover snaps onto the channel base. Hinged feature allows easy access to add or remove cables.	—	1	5
3-Sided BRC Trumpet Spillover for 2x2 Exit				
FTR2X2YL	Used to limit the bend radius of the cable to 2" (50.8mm) when exiting from a FIBERRUNNER spill-over fitting FRSPYL or from 2x2 FIBER-DUCT™ channel.	—	1	5
1 Port Spillover to 1.5" (38mm) Inside Diameter Corrugated Tubing				
FIDT2X2YL	Used to route cable into one piece of 1.5" (38mm) diameter split corrugated tubing. Used with FIBERRUNNER spill-over fitting FRSPYL, 2x2 FIBER-DUCT fittings and the 2x2 FiberRunner hinged channel. Securely holds split corrugated tubing to ensure system integrity and easy access to add or remove cables.	—	1	5
12x4 Inside Vertical 45° Angle Fitting				
FRIV4512X4YL	Attaches to 12x4 channel and/or fitting to create a 45° upward angle from a straight horizontal run. Used with outside vertical 45° angle fitting FROV4512X4YL to change level of a straight horizontal run. Includes split cover.	(2 pcs.) FRBC12X4YL	1	—
12x4 Outside Vertical 45° Angle Fitting				
FROV4512X4YL	Attaches to 12x4 channel and/or fitting to create a 45° downward angle from a straight horizontal run. Used with inside vertical 45° angle fitting FRIV4512X4YL to change level of a horizontal run. Accepts optional split cover FROV45SC12YL.	(2 pcs.) FRBC12X4YL	1	—
Split Cover for 12x4 Outside Vertical 45° Angle Fitting				
FROV45SC12YL	Optional split cover for the outside vertical 45° angle fitting FROV4512X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
12x4 Outside Vertical Right Angle Fitting				
FROVRA12X4YL	Attaches to 12x4 channel and/or fittings to create a 90° vertical turn down from a straight horizontal run. Accepts optional split cover FROVRASC12YL.	(2 pcs.) FRBC12X4YL	1	—
Split Cover for 12x4 Outside Vertical Right Angle Fitting				
FROVRASC12YL	Optional split cover for the outside vertical right angle fitting FROVRA12X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

12x4 FIBERRUNNER™ System Fittings (continued)



FRRF126



FRRF126SC



FRY126



FRY126SC



FRRF126R



FRRF126RSC



FRRF126L



FRRF126LSC

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
12x4 to 6x4 FIBERRUNNER Reducer Fitting				
FRRF126YL	Attaches any 12x4 FIBERRUNNER fitting or channel to any 6x4 FIBERRUNNER fitting or channel. Accepts split cover FRRF126SCYL.	(1 pc.) FRBC12X4YL (1 pc.) FRBC6X4YL	1	—
Split Cover for 12x4 to 6x4 FIBERRUNNER Reducer Fitting				
FRRF126SCYL	Optional split cover for the reducer fitting FRRF126YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
Y-Reducer from 12x4 to two 6x4 Exits				
FRY126YL	Attaches any 12x4 FIBERRUNNER fitting or channel to two 6x4 FIBERRUNNER channels. Accepts split cover FRY126SCYL.	(1 pc.) FRBC12X4YL (2 pcs.) FRBC6X4YL	1	—
Split Cover for Y-Reducer from 12x4 to two 6x4 Exits				
FRY126SCYL	Optional split cover for the Y-reducer fitting FRY126YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
12x4 to 6x4 Transition Right Reducer Fitting				
FRRF126RYL	Attaches any 12x4 FIBERRUNNER fitting or channel to any 6x4 FIBERRUNNER fitting or channel while transitioning to the right. Accepts split cover FRRF126RSCYL.	(1 pc.) FRBC12X4YL (1 pc.) FRBC6X4YL	1	—
Split Cover for 12x4 to 6x4 Transition Right Reducer Fitting				
FRRF126RSCYL	Optional split cover for the transition right reducer fitting FRRF126RYL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
12x4 to 6x4 Transition Left Reducer Fitting				
FRRF126LYL	Attaches any 12x4 FIBERRUNNER fitting or channel to any 6x4 FIBERRUNNER fitting or channel while transitioning to the left. Accepts split cover FRRF126LSCYL.	(1 pc.) FRBC12X4YL (1 pc.) FRBC6X4YL	1	—
Split Cover for 12x4 to 6x4 Transition Left Reducer Fitting				
FRRF126LSCYL	Optional split cover for the transition left reducer fitting FRRF126LYL. Snap-on feature allows cover to be installed and removed with no tools required. Creates 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5

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12x4 *FIBERRUNNER*™ Mounting Brackets

Part Number	Part Description	For Threaded Rod Size	Std. Pkg. Qty.	Std. Ctn. Qty.
Existing Threaded Rod <i>QUIKLOCK</i>™ Bracket for 12x4 System				
FR12TRBE58	Used to support the 12x4 system from existing threaded rod installations. Bracket is secured to threaded rod with two split nuts. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	5/8"	1	—
FR12TRBE58M		16 mm	1	—
New Threaded Rod <i>QUIKLOCK</i> Bracket for 12x4 System				
FR12TRBN58	Used to support the 12x4 system from new threaded rod installations. Bracket is secured to threaded rod with two nuts.	5/8"	1	—
FR12TRBN58M	The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	16 mm	1	—
Under-Floor Pedestal <i>QUIKLOCK</i> Bracket for 12x4 System				
FR12USB	Used to support the 12x4 system by attaching to under-floor pedestals. (Contains all necessary hardware.) Use on pedestals up to 2" in diameter. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	—	1	—
Adjustable Ladder <i>QUIKLOCK</i> Bracket for 12x4 System				
FR12ALB	Used to support the 12x4 system attaching to any 3/8" (9.5 mm) x 1 1/2" (38.1 mm) or 3/8" (9.5 mm) x 2" (50.8 mm) ladder rack rail. Adjustable to 9 incremental positions from 4" (101mm) to 12" (304mm) above or below the ladder rack. No threaded rod required. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	—	1	—
Center Support <i>QUIKLOCK</i> Bracket for 12x4 System				
FR12CS12	Used to support the 12x4 system from below with new threaded rod. Bracket is secured to threaded rod with two nuts. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps. Also can be secured directly to the top of cabinets.	1/2"	1	—
FR12CS58		5/8"	1	—
FR12CS12M		12 mm	1	—
FR12CS58M		16 mm	1	—
Top Support Adjustable "C" <i>QUIKLOCK</i> Bracket for 12x4 System				
FR12ACB12	Used to support the 12x4 system from any new threaded rod extending down directly from the ceiling, grid or ladder rack system. Two position height adjustments to accommodate system with or without hinged cover. Bracket is secured to threaded rod with two nuts. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	1/2"	1	—
FR12ACB58		5/8"	1	—
FR12ACB12M		12 mm	1	—
FR12ACB58M		16 mm	1	—
Trapeze <i>QUIKLOCK</i> Bracket for 12x4 System				
FR12TB12	Used to support the 12x4 system by spanning two threaded rod drops. Can be installed from above or below. Bracket is secured to each threaded rod with two nuts. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	1/2"	1	—
FR12TB58		5/8"	1	—
FR12TB12M		12 mm	1	—
FR12TB58M		16 mm	1	—



**FR12TRBE58
FR12TRBE58M**



**FR12TRBN58
FR12TRBN58M**



FR12USB



FR12ALB



**FR12CS12
FR12CS58
FR12CS12M
FR12CS58M**



**FR12ACB12
FR12ACB58
FR12ACB12M
FR12ACB58M**



**FR12TB12
FR12TB58
FR12TB12M
FR12TB58M**

12x4 FIBERRUNNER™ Mounting Brackets (continued)



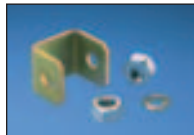
FEIAB58



**F2PCLB12
F2PCLB58
F2PCLB12M
F2PCLB58M**



FR12BS-L



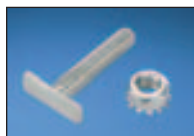
**FLB12X15
FLB58X15
FLB12X20
FLB58X20**



FRSTRCLIP



**FRSLNKT12
FRSLNKT58
FRSLNKT12M
FRSLNKT58M**

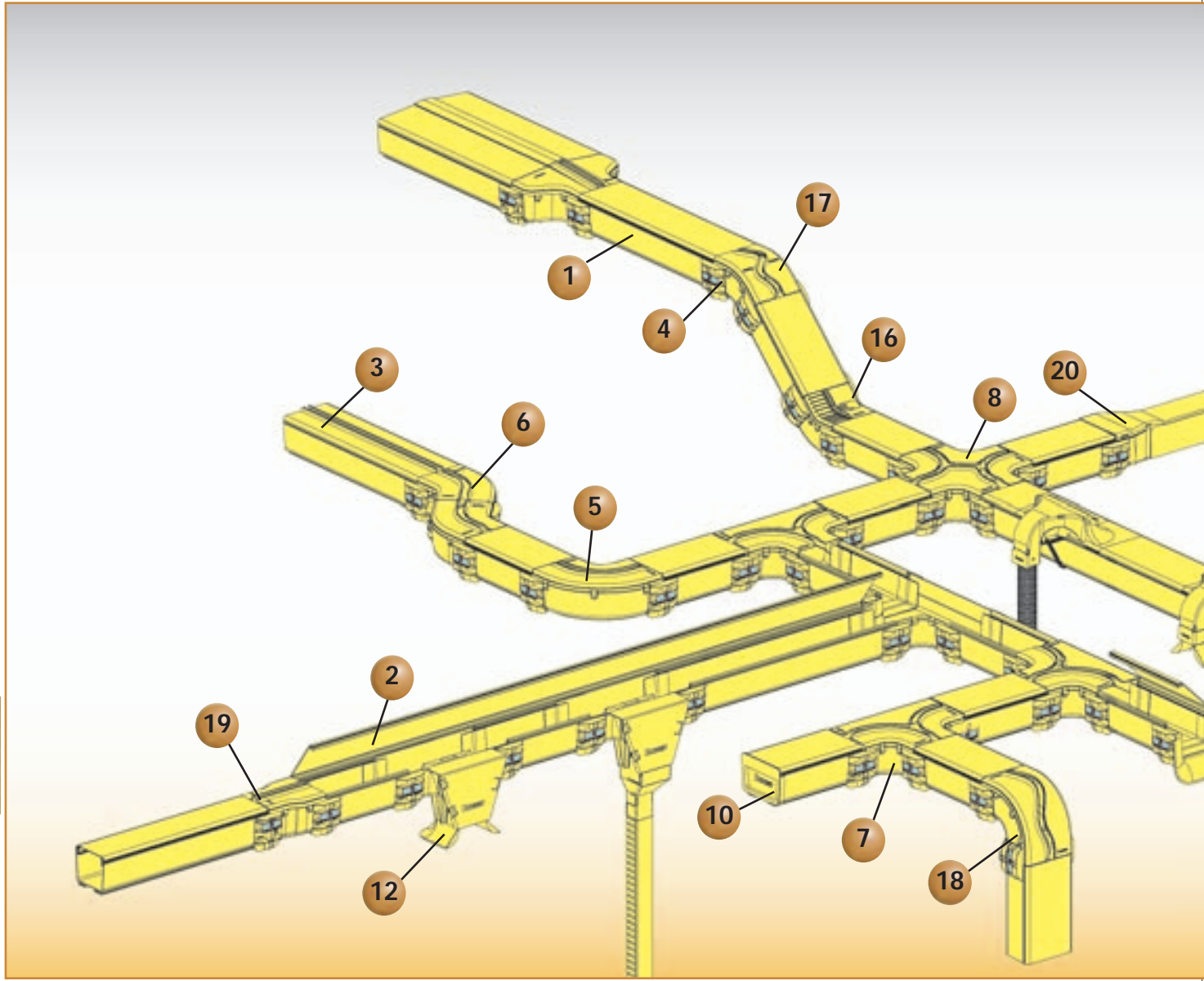


FRTBKT-X

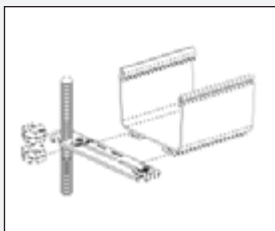
Part Number	Part Description	For Threaded Rod Size	Std. Pkg. Qty.	Std. Ctn. Qty.
EIA/TIA Threaded Rod Mounting Bracket				
FEIAB58	Bracket consists of two identical components that clamp onto the crossmembers of standard EIA/TIA racks and are secured with standard hex nuts and split lockwashers (included) tightened onto a length of 5/8" diameter threaded rod (not included). The threaded rod is positioned in the center of the brackets providing a vertical threaded rod stud to mount <i>FIBERRUNNER</i> and <i>FIBER-DUCT™</i> threaded rod mounting brackets onto.	5/8"	1	10
Two Piece Ladder Rack Bracket for Attaching Threaded Rod to 1 1/2" - 2" Ladder Rack				
F2PCLB12	Two piece bracket attaches to 3/8" (9.5mm) wide x 1 1/2" (38.1mm) or 3/8" (9.5mm) wide by 2" (50.8mm) ladder rack rail. Bracket halves slide into position and clamp together on the ladder rack rail, which allows for a one-handed assembly of the threaded rod (not included). Contains bracket and hardware for attaching bracket to ladder rack.	1/2"	1	10
F2PCLB58		5/8"	1	10
F2PCLB12M		12 mm	1	10
F2PCLB58M		16 mm	1	10
Self Tapping Screws for 12x4 Brackets				
FR12BS-L	Self tapping screws allow selected 12x4 fittings to be fastened directly to mounting brackets for additional support. Screws tap directly into those 12x4 fittings that have plastic bosses. Those part numbers are FRRA12X4YL, FRH4512X4YL, FRT12X4YL, FRT12X4W6YL, FRFWC12X4YL, FRFWC12X4W6YL, FRVT12X4YL, FRRF126RYL and FRF126LYL.	—	50	500
Bracket for Attaching Threaded Rod to 1 1/2" Ladder Rack				
FLB12X15	Bracket attaches to 3/8" (9.5mm) wide x 1 1/2" (38.1mm) ladder rack rail. Bracket accepts threaded rod (not included). Contains bracket and hardware for attaching bracket to ladder rack.	1/2"	1	10
FLB58X15		5/8"	1	10
Bracket for Attaching Threaded Rod to 2" Ladder Rack				
FLB12X20	Bracket attaches to 3/8" (9.5mm) wide x 2" (50.8mm) ladder rack rail. Bracket accepts threaded rod (not included). Contains bracket and hardware for attaching bracket to ladder rack.	1/2"	1	10
FLB58X20		5/8"	1	10
Strut Clip Kit				
FRSTRCLIP	Strut mounting clip assembly allows <i>FIBERRUNNER</i> channel to be attached directly to standard 1 5/8" wide strut structures. Contains all hardware for assembly. Bolts release with 7/16" nut driver.	—	1	10
Split Locking Nut Kit				
FRSLNKT12	Used to secure <i>FIBERRUNNER</i> mounting brackets anywhere along pre-installed threaded rod. Split nuts are opened, placed in desired position, closed and tightened.	1/2"	1	10
FRSLNKT58		5/8"	1	10
FRSLNKT12M		12 mm	1	10
FRSLNKT58M		16 mm	1	10
1/4" T-Bolt Kit				
FRTBKT-X	T-bolts can be used for additional attachment when securing <i>FIBERRUNNER</i> channel to mounting brackets. For example, a T-bolt can be inserted thru a 12x4 mounting bracket and positioned within the center rib structure on the underside of 12x4 channel. By tightening the nut, the 12x4 channel is more securely fastened to the mounting bracket.	—	10	100

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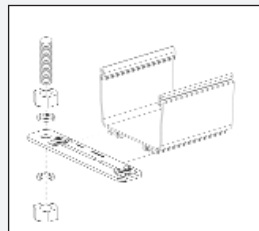
6x4 **FIBERRUNNER** Routing System Roadmap



4x4 and 6x4 **FIBERRUNNER** Mounting Brackets



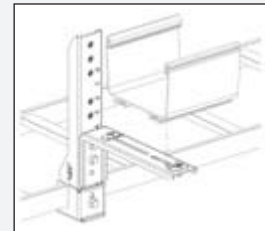
Existing Threaded Rod **QUIKLOCK**™ Bracket for 6x4 and 4x4 Systems



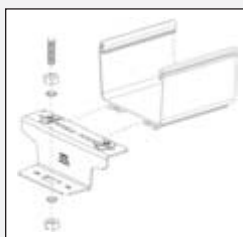
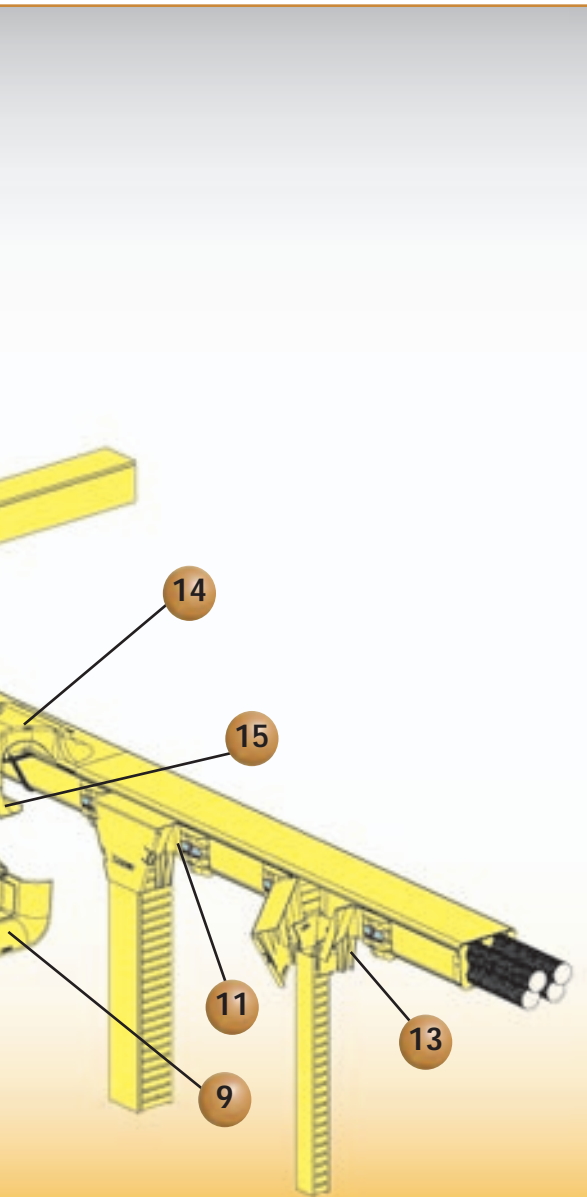
New Threaded Rod **QUIKLOCK** Bracket for 6x4 and 4x4 Systems



Under-Floor Pedestal **QUIKLOCK** Bracket for 6x4 and 4x4 Systems







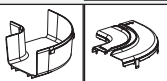
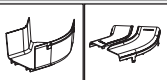
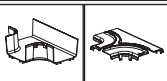
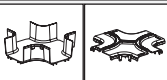





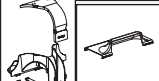


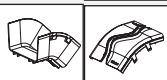

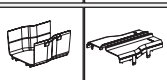

Adjustable Ladder **QUIKLOCK** Bracket for 6x4 and 4x4 Systems



Center Support
QUIKLOCK Bracket for
6x4 and 4x4 Systems



Top Support
Adjustable 'C'
QUIKLOCK Bracket
for 6x4 and
4x4 Systems

-  **1** 6x4 *FIBERRUNNER*™ Channel (see [page I14](#))
-  **2** 6x4 Snap-On Hinged Cover (see [page I14](#))
-  **3** 6x4 Split Hinged Cover (see [page I14](#))
-  **4** 6x4 *QUIKLOCK*™ Coupler (see [page I15](#))
-  **5** 6x4 Horizontal Right Angle Fitting and Optional Split Cover (see [page I15](#))
-  **6** 6x4 Horizontal 45° Angle Fitting and Optional Split Cover (see [page I15](#))
-  **7** 6x4 Horizontal Tee Fitting and Optional Split Cover (see [page I15](#))
-  **8** 6x4 Four Way Cross Fitting and Optional Split Cover (see [page I16](#))
-  **9** 3-Sided BRC Trumpet Spillout for 6x4 Exit (see [page I16](#))
-  **10** 6x4 End Cap Fitting (see [page I16](#))
-  **11** 6x4 *QUIKLOCK* Vertical Tee Fitting (see [page I16](#))
-  **12** 3-Sided Vertical Tee Trumpet Spillout (see [page I16](#))
-  **13** Low Profile Reducer 4x4 to 2x2 for Vertical Tee (see [page I16](#))
-  **14** Spill-Over Junction and Optional Cover for 6x4 System (see [page I17](#))
-  **15** 3-Sided BRC Trumpet Spillout for 2x2 Exit (see [page I17](#))
-  **16** 6x4 Inside Vertical 45° Angle Fitting (see [page I17](#))
-  **17** 6x4 Outside Vertical 45° Angle Fitting and Optional Split Cover (see [page I18](#))
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-  **19** 6x4 to 4x4 *FIBERRUNNER* Reducer Fitting and Optional Split Cover (see [page I18](#))
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NOTE: Additional 6x4 and 4x4 bracket applications, see [pages I24-I25](#)

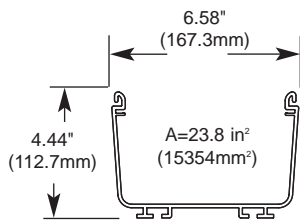
System Overview
Modules
Ultimate ID System & Work Area
Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
Racks & Cable Management
Grounding & Bonding
Fiber Routing
Surface Raceway
Labeling & Administration
Cable Ties & Accessories
Supplementary Technical Information
Glossary & Index

6x4 FIBERRUNNER™ Routing System

Cable Fills for FIBERRUNNER 6x4 Cable Routing System

The maximum amounts may vary according to the cable fill installation methods, straightness of cables, etc.

SPEC= 40% cablefill — the recommended design in cable capacity. Leaves room for future moves, adds and changes. **MAX= 60% cablefill** — the maximum cable quantity based on cable interweaving and packing factors.

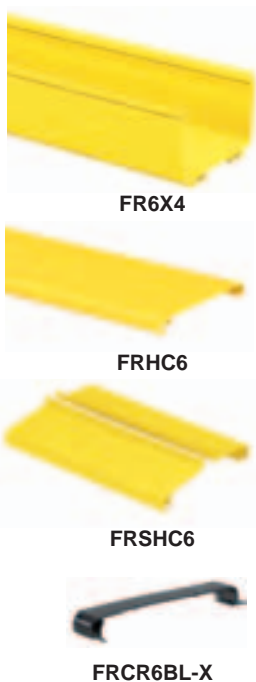


System Type	Area in²	Fiber Cable								Data Grade Cables	
		DIAMETER		DIAMETER		DIAMETER		DIAMETER		24 AWG UTP/CM CAT5e 4 pr	
		SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX
FIBERRUNNER 6x4 System	23.8	3054	4581	1942	2913	871	1306	50	75	257	386

Channel cutting instructions: For optimum results, use FRCUT Miter box and saw. For larger quantities use a plastic cutting saw blade for clean, burr-free cuts. Recommend: Carbide 80T or 100T; .090" thickness, .125" kerf.

6x4 FIBERRUNNER Routing System — Channel and Covers

- Robust, large capacity 6x4 system ideal for use with large cable counts
- Multiple spillover options provide versatility to mate to various equipment and rack configurations
- **QUIKLOCK™** couplers and brackets reduce system installation time dramatically
- Channel, covers, fittings and other non-metallic system components made from V-0 flame class rated material
- UL Listed
- Compatible with all sizes of **PANDUIT® FIBERRUNNER** and **PANDUIT FIBER-DUCT™** routing systems, cable management products and racks
- Compliant with the applicable tests in Telcordia GR-63-CORE Network Equipment Building Systems (NEBS)



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
6x4 FIBERRUNNER Channel			
FR6X4YL6	Used to carry the cables horizontally throughout the system. Accepts hinged cable retainers FRCR6BL-X, hinged cover FRHC6YL6 or split hinged cover FRSHC6YL6. Use QUIKLOCK coupler FRBC6X4YL to attach channel and/or fittings.	6	36
6x4 Snap-On Hinged Cover			
FRHC6YL6	Optional snap-on hinged cover for channel FR6X4YL6. Hinge feature enables positioning of cover at angles between 30° and 90°.	6	36
6x4 Split Hinged Cover			
FRSHC6YL6	Optional split hinged cover for the channel FR6X4YL6. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables. Snap-on hinge feature enables positioning of cover at angles between 30° and 90°.	6	36
Cable Retainer for 6x4 System			
FRCR6BL-X	Cable retainer holds cable in the channel when cover is not used. Install anywhere on channel, near the coupler or every 18" (457mm). Black color only.	10	100

For other color replace YL (Yellow) with OR (Orange).
 Order number of feet required, in multiples of standard 6' length increments.
 Order number of cable retainers required, in multiples of Standard Package Quantity.

6x4 FIBERRUNNER™ QUIKLOCK™ Coupler

- Pre-assembled to provide fast mechanical assembly of components
- No tools required for installation, bolts loosen for component disassembly



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
FRBC6X4YL	Pre-assembled coupler quickly joins 2 sections of channel and/or fittings. Mechanically attaches without tightening bolts. Bolts release using 3/8" nut driver to allow coupler to be removed if necessary.	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

6x4 FIBERRUNNER System Fittings

- Minimum 2" bend radius control fittings
- Protects against signal loss and performance degradation
- Fittings assemble using FRBC couplers
- Optional split covers snap onto each fitting
- Covers feature 3/4" gap to allow cable to be laid in



Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
6x4 Horizontal Right Angle Fitting				
FRR6X4YL	Attaches to 6x4 channel and/or fittings to create a 90° horizontal turn from a straight horizontal run. Accepts optional split cover FRRASC6YL.	(2 pcs.) FRBC6X4YL	1	5



Split Cover for 6x4 Horizontal Right Angle Fitting				
FRRASC6YL	Optional split cover for the horizontal right angle fitting FRR6X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5



6x4 Horizontal 45° Angle Fitting				
FRH456X4YL	Attaches to 6x4 channel and/or fittings to create a 45° horizontal turn from a straight horizontal run. Accepts optional split cover FRH45SC6YL.	(2 pcs.) FRBC6X4YL	1	5



Split Cover for 6x4 Horizontal 45° Angle Fitting				
FRH45SC6YL	Optional split cover for the horizontal 45° angle fitting FRH456X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5



6x4 Horizontal Tee Fitting				
FRT6X4YL	Attaches to 6x4 channel and/or fittings to create a 90° horizontal branch from a straight horizontal run. Accepts optional split cover FRTSC6YL.	(3 pcs.) FRBC6X4YL	1	5



Split Cover for 6x4 Horizontal Tee Fitting				
FRTSC6YL	Optional split cover for the horizontal tee fitting FRT6X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

6x4 FIBERRUNNER™ System Fittings (continued)

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
6x4 Four Way Cross Fitting				
 FRFWC6X4	FRFWC6X4YL Attaches to 6x4 channel and/or fittings to create a horizontal four way cross intersection. Accepts optional split cover FRFWCSC6YL.	(4 pcs.) FRBC6X4YL	1	5
Split Cover for 6x4 Four Way Cross Fitting				
 FRFWCSC6	FRFWCSC6YL Optional split cover for the four way cross fitting FRFWC6X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
3-Sided BRC Trumpet Spillover for 6x4 Exit				
 FRTR6X4	FRTR6X4YL Used to limit the bend radius of the cable to 2" (50.8mm) when exiting from 6x4 channel, 6x4 horizontal tee fitting, or 6x4 exit on 12x4 vertical tee.	(1 pc.) FRBC6X4YL	1	5
6x4 End Cap Fitting				
 FREC6X4	FREC6X4YL Used for closing off open ends of the channel or fittings. No coupler required, push-on installation.	—	1	5
6x4 QUIKLOCK™ Vertical Tee Fitting				
 FRVT6X4	FRVT6X4YL Attaches to 6x4 channel and/or fittings to create 90° vertical drop from a straight horizontal run. Hinged door included. Accepts FIDT4X4BL, FTR4X4YL, S4X4YL6, or E4X4YL6 directly. Accepts optional snap-on cover FRHC6YL6 in conjunction with channel.	(2 pcs.) FRBC6X4YL	1	5
1 Port Spillover Side Exit to 1.5" (38mm) Inside Diameter Corrugated Tubing				
 FR1.5IDE	FR1.5IDEYL Used to route cable into 1.5" (38mm) diameter split corrugated tubing directly through a hole cut in the side wall of the 4x4, 6x4 and 12x4 FIBERRUNNER channel or 4x4 FIBER-DUCT™ channel. Provides 1" (25.4mm) bend radius control at the exit. Securely holds split corrugated tubing to ensure system integrity and easy access to add or remove cables. Includes drilling template.	—	1	5
2-Port Spillover to 1.5" (38mm) Inside Diameter Corrugated Tubing				
 FIDT4X4BL	FIDT4X4BL Used to route cable into one or two pieces of 1.5" (38mm) diameter split corrugated tubing. Used with FRVT6X4YL, FRVT4X4YL or FVT4X4YL. Securely holds corrugated split tubing to ensure system integrity and easy access to add or remove cables. Black color only.	—	1	5
3-Sided Vertical Tee Trumpet Spillover				
 FTR4X4	FTR4X4YL Used to limit the bend radius of the cable to 2" (50.8mm) when exiting from a 4x4 or 6x4 FIBERRUNNER vertical tee fitting and 4x4 FIBER-DUCT fittings.	—	1	5
Low Profile Reducer 4x4 to 2x2 for Vertical Tee				
 FRLPR42BL	FRLPR42BL Assembled into the 6x4 vertical tee FRVT6X4YL or 4x4 vertical tee FRVT4X4YL with an audible snap, the FRLPR42BL allows for the transition to 2x2 FIBER-DUCT channel with minimal space required. No tools required for assembly. Black color only.	—	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

6x4 FIBERRUNNER™ System Fittings (continued)



FRDDS6X4



FRDDSHC6



FRSP



FRSP6C



FRSP4



FRSP46C



FTR2X2



FIDT2X2



FRIV456X4

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
6x4 Dual Downspout Fitting				
FRDDS6X4YL	Attaches to 6x4 channel and/or fittings to create two 90° 4x4 downward transitions from a horizontal run. Downspouts are positioned 600mm apart to provide drops into cable entrances on multiple cabinet line-ups. The fitting maintains a 2" bend radius control throughout the transition to the vertical downspouts. Includes two snap-on throat covers for the dual downspouts. Accepts optional cover FRDDSHC6YL.	(2) FRBC6X4YL (2) FRBC4X4YL	1	—
Cover for 6x4 Dual Downspout Fitting				
FRDDSHC6YL	Used to fully enclose the 6x4 dual downspout fitting FRDDS6X4YL. Cover is attached to the fitting base with three hinge clips. The hinge clips allow the hinged cover to rotate to a fully closed position and an open position greater than 90°.	—	1	5
Spill-Over Junction with 2x2 Exit				
FRSPYL	Assembles onto 4x4, 6x4 or 12x4 FIBERRUNNER channel spilling over the side into a 2x2 vertical channel, fitting or corrugated tube. Mounts directly to existing installation with no alteration required. Mounting hardware provided for secure attachment.	—	1	—
Spill-Over Junction Cover for 6x4 System				
FRSP6CYL	Used to fully enclose 6x4 channel in conjunction with the spill-over junction FRSPYL. Cover snaps onto the channel base. Hinged feature allows easy access to add or remove cables.	—	1	5
Spill-Over Junction with 4x4 Exit				
FRSP4YL	Assembles onto 4x4, 6x4, or 12x4 FIBERRUNNER channel spilling over the side into a 4x4 vertical exit. Requires coupler to attach 4x4 FIBERRUNNER channel and fittings to the vertical exit. Mounts directly to existing installation with no alteration required. Mounting hardware provided for secure attachment.	(1) FRBC4X4YL	1	—
Spill-Over Junction Cover for 6x4 System				
FRSP46CYL	Used to fully enclose the 6x4 channel in conjunction with the spill-over junction FRSP4YL. Cover snaps onto the channel base. Hinged feature allows easy access to add or remove cables.	—	1	5
3-Sided BRC Trumpet Spillout for 2x2 Exit				
FTR2X2YL	Used to limit the bend radius of the cable to 2" (50.8mm) when exiting from a FIBERRUNNER spill-over fitting FRSPYL or from 2x2 FIBER-DUCT™ channel.	—	1	5
1 Port Spillout to 1.5" (38mm) Inside Diameter Corrugated Tubing				
FIDT2X2YL	Used to route cable into one piece of 1.5" (38mm) diameter split corrugated tubing. Used with FIBERRUNNER spill-over fitting FRSPYL, 2x2 FIBER-DUCT fittings and the 2x2 FIBERRUNNER hinged channel. Securely holds split corrugated tubing to ensure system integrity and easy access to add or remove cables.	—	1	5
6x4 Inside Vertical 45° Angle Fitting				
FRIV456X4YL	Attaches to 6x4 channel and/or fittings to create a 45° upward angle from a straight horizontal run. Used with outside vertical 45° angle fitting FROV456X4YL to change level of a straight horizontal run. Includes split cover.	(2 pcs.) FRBC6X4YL	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

6x4 FIBERRUNNER™ System Fittings (continued)



FROV456X4



FROV45SC6



FROVRA6X4



FROVRASC6



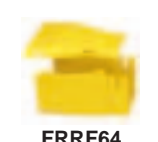
FRUPS6X4



FRRF6FR4



FRRF6FR4SC



FRRF64



FITF6X4

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
6x4 Outside Vertical 45° Angle Fitting				
FROV456X4YL	Attaches to 6x4 channel and/or fittings to create a 45° downward angle from a straight horizontal run. Used with inside vertical 45° angle fitting FRIV456X4YL to change level of a straight horizontal run. Accepts optional split cover FROV45SC6YL.	(2 pcs.) FRBC6X4YL	1	5
Split Cover for 6x4 Outside Vertical 45° Angle Fitting				
FROV45SC6YL	Optional split cover for the outside vertical 45° angle fitting FROV456X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
6x4 Outside Vertical Right Angle Fitting				
FROVRA6X4YL	Attaches to 6x4 channel and/or fittings to create a 90° vertical turn down from a straight horizontal run. Accepts optional split cover FROVRASC6YL.	(2 pcs.) FRBC6X4YL	1	5
Split Cover for 6x4 Outside Vertical Right Angle Fitting				
FROVRASC6YL	Optional split cover for the outside vertical right angle fitting FROVRA6X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
6x4 Up Spout Fitting				
FRUPS6X4YL	Allows cable to be directed upward out of the channel deployed directly below racks and cabinets in underfloor installations. Snaps directly onto the channel and can be positioned to allow cables to be laid in. A 1" (25.4mm) top bezel is included. Other fittings can be installed for specific applications including FTR4X4YL and FIDT4X4BL.	—	1	5
6x4 to 4x4 FIBERRUNNER Reducer Fitting				
FRRF6FR4YL	Attaches any 6x4 FIBERRUNNER fitting or channel to any 4x4 FIBERRUNNER fitting or channel. Accepts split cover FRRF6FR4SCYL.	(1 pc.) FRBC6X4YL (1 pc.) FRBC4X4YL	1	5
Split Cover for 6x4 to 4x4 FIBERRUNNER Reducer Fitting				
FRRF6FR4SCYL	Optional split cover for the 6x4 FIBERRUNNER to 4x4 FIBERRUNNER reducer fitting FRRF6FR4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5
6x4 FIBERRUNNER System to 4x4 FIBER-DUCT™ Reducer Fitting				
FRRF64YL	Attaches any 6x4 FIBERRUNNER fitting or channel to the 4x4 FIBER-DUCT channel S4X4YL6 or E4X4YL6. Includes solid cover.	(1 pc.) FRBC6X4YL	1	5
Innerduct Transition Fitting				
FITF6X4	Metal fitting attaches to end of channel or fitting to transition up to four pieces of 1.5" (38mm) inside diameter inner duct. Hardware is included for installation. Black color only.	—	1	10

For other color replace suffix YL (Yellow) with OR (Orange).

4x4 and 6x4 FIBERRUNNER™ Mounting Brackets



FR6TRBE12
FR6TRBE58
FR6TRBE12M
R6TRBE58M



FR6TRBN12
FR6TRBN58
FR6TRBN12M
FR6TRBN58M



FR6USB



FR6ALB



FR6CS12
FR6CS58
FR6CS12M
FR6CS58M



FR6ACB12
FR6ACB58
FR6ACB12M
FR6ACB58M

Part Number	Part Description	For Threaded Rod Size	Std. Pkg. Qty.	Std. Ctn. Qty.
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Existing Threaded Rod QUIKLOCK™ Bracket for 6x4 and 4x4 Systems

FR6TRBE12	Used to support the 6x4 and 4x4 systems from existing threaded rod installations. Bracket is secured to threaded rod with two split nuts. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	1/2"	1	10
FR6TRBE58		5/8"	1	10
FR6TRBE12M		12 mm	1	10
FR6TRBE58M		16 mm	1	10

New Threaded Rod QUIKLOCK Bracket for 6x4 and 4x4 Systems

FR6TRBN12	Used to support the 6x4 and 4x4 systems from any new threaded rod installations. Bracket is secured to threaded rod with two nuts. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	1/2"	1	10
FR6TRBN58		5/8"	1	10
FR6TRBN12M		12 mm	1	10
FR6TRBN58M		16 mm	1	10

Under-Floor Pedestal QUIKLOCK Bracket for 6x4 and 4x4 Systems

FR6USB	Used to support the 6x4 and 4x4 systems by attaching to under-floor pedestals. (Contains all necessary hardware.) Use on pedestals up to 1" in diameter. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	—	1	10
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Adjustable Ladder QUIKLOCK Bracket for 6x4 and 4x4 Systems

FR6ALB	Used to support the 6x4 and 4x4 systems attaching to any 3/8" (9.5 mm) x 1 1/2" (38.1 mm) or 3/8" (9.5 mm) x 2" (50.8 mm) ladder rack rail. Adjustable to 9 incremental positions from 4" (101 mm) to 12" (304 mm) above or below the ladder rack. No threaded rod required. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	—	1	10
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Center Support QUIKLOCK Bracket for 6x4 and 4x4 Systems

FR6CS12	Used to support the 6x4 and 4x4 systems from below with new threaded rod. Bracket is secured to threaded rod with two nuts. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps. Also can be secured directly to the top of cabinets.	1/2"	1	10
FR6CS58		5/8"	1	10
FR6CS12M		12 mm	1	10
FR6CS58M		16 mm	1	10

Top Support Adjustable "C" QUIKLOCK Bracket for 6x4 and 4x4 Systems

FR6ACB12	Used to support the 6x4 and 4x4 systems from any new threaded rod extending down directly from the ceiling, grid or ladder rack system. Two position height adjustments to accommodate system with or without hinged cover. Bracket is secured to threaded rod with two nuts. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	1/2"	1	—
FR6ACB58		5/8"	1	—
FR6ACB12M		12 mm	1	—
FR6ACB58M		16 mm	1	—

4x4 and 6x4 *FIBERRUNNER*™ Mounting Brackets (continued)

Part Number	Part Description	For Threaded Rod Size	Std. Pkg. Qty.	Std. Ctn. Qty.
Trapeze <i>QUIKLOCK</i>™ Bracket for 6x4 and 4x4 Systems				
FR6TB38	Used to support the 6x4 and 4x4 systems by spanning two threaded rod drops. Can be installed from above or below. Bracket is secured to each threaded rod with 2 nuts. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	3/8"	1	10
FR6TB12		1/2"	1	10
FR6TB38M		10 mm	1	10
FR6TB12M		12 mm	1	10



**FR6TB38
FR6TB12
FR6TB38M
FR6TB12M**

Two Piece Ladder Rack Bracket for Attaching Threaded Rod to 1 1/2" - 2" Ladder Rack				
F2PCLB12	Two piece bracket attaches to 3/8" (9.5mm) wide x 1 1/2" (38.1mm) or 3/8" (9.5mm) wide by 2" (50.8mm) ladder rack rail. Bracket halves slide into position and clamp together on the ladder rack rail, which allows for a one-handed assembly of the threaded rod (not included). Contains bracket and hardware for attaching bracket to ladder rack.	1/2"	1	10
F2PCLB58		5/8"	1	10
F2PCLB12M		12 mm	1	10
F2PCLB58M		16 mm	1	10



**F2PCLB12
F2PCLB58
F2PCLB12M
F2PCLB58M**

Bracket for Attaching Threaded Rod to 1 1/2" Ladder Rack				
FLB12X15	Bracket attaches to 3/8" (9.5mm) wide x 1 1/2" (38.1mm) ladder rack rail. Bracket accepts threaded rod (not included). Contains bracket and hardware for attaching bracket to ladder rack.	1/2"	1	10
FLB58X15		5/8"	1	10



**FLB12X15
FLB58X15
FLB12X20
FLB58X20**

Bracket for Attaching Threaded Rod to 2" Ladder Rack				
FLB12X20	Bracket attaches to 3/8" (9.5mm) wide x 2" (50.8mm) ladder rack rail. Bracket accepts threaded rod (not included). Contains bracket and hardware for attaching bracket to ladder rack.	1/2"	1	10
FLB58X20		5/8"	1	10

Threaded Rod in One Foot Lengths

TR1-12-X	Threaded rod can be used with various mounting brackets. Length = 12" (305mm)	1/2"	10	50
TR1-58-X		5/8"	10	50



**TR1-12-X
TR1-58-X**

Threaded Rod Cover

TRC18FR-X8	Used to protect cabling from threaded rod. Vertical slit allows easy installation. Material is a flame retardant polyethylene that meets UL94V-0 specifications. For indoor use only. Color is gray. Available in 18" (457.2mm) lengths.	1/2" - 5/8"	10	100
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TRC18FR-X8

Ladder Rack *QUIKLOCK* Bracket for 6x4 and 4x4 Systems

FR6LRB	Used to support the 6x4 and 4x4 systems attaching directly to any 3/8" x 1 1/2" or 3/8" x 2" ladder rack rail. No threaded rod required. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	—	1	10
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FR6LRB

"L" Wall Mount *QUIKLOCK* Bracket for 6x4 and 4x4 Systems

FR6LB	Used to support the 6x4 and 4x4 systems attaching to a wall or the front or back of an equipment rack. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	—	1	10
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FR6LB

4x4 and 6x4 *FIBERRUNNER*™ Mounting Brackets (continued)



FR6RMBEIA

Part Number	Part Description	For Threaded Rod Size	Std. Pkg. Qty.	Std. Ctn. Qty.
EIA/TIA Rack Mount <i>QUIKLOCK</i>™ Bracket for 6x4 and 4x4 Systems				
FR6RMBEIA	Used to support the 6x4 and 4x4 systems attaching to the top of an equipment rack. Contains hardware to mount to the top of EIA/TIA equipment racks. No threaded rod required. The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	—	1	10



FEIAB58

EIA/TIA Threaded Rod Mounting Bracket				
FEIAB58	Bracket consists of two identical components that clamp onto the crossmembers of standard EIA/TIA racks and are secured with standard hex nuts and split lockwashers (included) tightened onto a length of 5/8" diameter threaded rod (not included). The threaded rod is positioned in the center of the brackets providing a vertical threaded rod stud to mount <i>FIBERRUNNER</i> and <i>FIBER-DUCT</i> ™ threaded rod mounting brackets onto.	5/8"	1	10



FRRMBNF58

<i>NETFRAME</i>™ Rack Mount <i>QUIKLOCK</i> Bracket for 6x4 and 4x4 Systems				
FRRMBNF58	Used to support the 6x4 and 4x4 systems attaching to the top of <i>NETFRAME</i> rack. (Contains all necessary mounting hardware.) Bracket accepts 5/8" threaded rod.	5/8"	1	—



FR6ACAB

Adjustable Cabinet <i>QUIKLOCK</i> Bracket for 6x4 and 4x4 Systems				
FR6ACAB	Used to support the 6x4 and 4x4 systems attaching to the top of cabinets. Adjustable from 4 1/4" (108mm) to 9 1/4" (235mm) allowing runs to be leveled over uneven cabinet heights. Also allows spillouts such as the vertical tee to be positioned directly over cable inlets on cabinet tops. Bracket is secured to the cabinet frame with through bolts (not included). The pre-assembled slide clamps enable fast assembly to channel. Use 7/16" nut driver on slide clamps.	—	1	—



**FTRB12
FTRB58**

Strut Metal Framing Bracket				
FTRB12	Bracket attaches to strut metal framing. Contains bracket and hardware for attaching threaded rod to metal framing.	1/2"	1	10
FTRB58		5/8"	1	10



FRSTRCLIP

Strut Clip Kit				
FRSTRCLIP	Strut mounting clip assembly allows <i>FIBERRUNNER</i> channel to be attached directly to standard 1 5/8" wide strut structures. Contains all hardware for assembly. Bolts release with 7/16" nut driver.	—	1	10



FRBB6-X

Snap Bracket Clip				
FRBB6-X	Snap bracket enables the 6x4 <i>FIBERRUNNER</i> channel to be quickly and securely mounted. Contains all hardware for assembly to any <i>FIBERRUNNER</i> 6x4 and 4x4 bracket.	—	10	100



**FRSLNKT12
FRSLNKT58
FRSLNKT12M
FRSLNKT58M**

Split Locking Nut Kit				
FRSLNKT12	Used to secure <i>FIBERRUNNER</i> mounting brackets anywhere along pre-installed threaded rod. Split nuts are opened, placed in desired position, closed and tightened.	1/2"	1	10
FRSLNKT58		5/8"	1	10
FRSLNKT12M		12 mm	1	10
FRSLNKT58M		16 mm	1	10

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Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

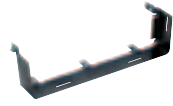
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Adapters to Other Systems



FRADC12X4BL

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
Adapter from 12x4 <i>FIBERRUNNER</i>™ System to ADC 12x4 FiberGuide*				
FRADC12X4BL	Fitting that transitions from ADC's 12x4 FiberGuide* System to 12x4 <i>FIBERRUNNER</i> System. Fitting has a black finish and is made from metal. Attachment hardware is included.	(1 pc.) FRBC12X4YL	1	5



FRADC6X4

Adapter from 6x4 <i>FIBERRUNNER</i> System to ADC 6x4 FiberGuide*				
FRADC6X4YL	Fitting that transitions from ADC's 6x4 FiberGuide* System to 6x4 <i>FIBERRUNNER</i> System. Bolts release using 3/8" nut driver to allow coupler to be removed, if necessary.	—	1	5



FRADC4X4BL

Adapter from 4x4 <i>FIBERRUNNER</i> System to ADC 4x4 FiberGuide*				
FRADC4X4BL	Fitting that transitions from ADC's 4x4 FiberGuide* System to 4x4 <i>FIBERRUNNER</i> System. Fitting has a black finish and is made from metal. Attachment hardware is included.	(1 pc.) FRBC4X4YL	1	5



FRITYT68

Adapter from 6x4 <i>FIBERRUNNER</i> System to Tyton 8x4 Lightguide**				
FRITYT68	Fitting that transitions from Tyton 8x4 Lightguide** System to 6x4 <i>FIBERRUNNER</i> System. Fitting has a black finish and is made from metal. Attachment hardware is included.	(1 pc.) FRBC6X4YL	1	5



FRWBS68

Adapter from 6x4 <i>FIBERRUNNER</i> System to Warren & Brown 8x4 Lightpaths***				
FRWBS68	Fitting that transitions from Warren & Brown 8x4 Lightpaths*** System to 6x4 <i>FIBERRUNNER</i> System. Fitting has a black finish and is made from metal. Attachment hardware is included.	(1pc.) FRBC6X4YL	1	5



FADC4X4

Adapter from 4x4 <i>FIBER-DUCT</i>™ System to ADC 4x4 FiberGuide*				
FADC4X4	Fitting that transitions from ADC's 4x4 Fiber-Guide* Fiber Cable Management System to 4x4 <i>FIBER-DUCT</i> System. Fitting has a black finish and is made from metal. Attachment hardware is included.	—	1	10



FTDNS4X4

Adapter from 4x4 <i>FIBER-DUCT</i> System to Various 4x4 Systems				
FTDNS4X4YL	Fitting that transitions from various 4x4 systems to 4x4 <i>FIBER-DUCT</i> System. Attachment hardware is included.	—	1	5

*FiberGuide is a registered trademark of ADC Telecommunications, Inc.

**Lightguide is a trademark of the Hellerman Tyton Corporation.

***Lightpaths is a registered trademark of Warren & Brown Technologies Pty Ltd.

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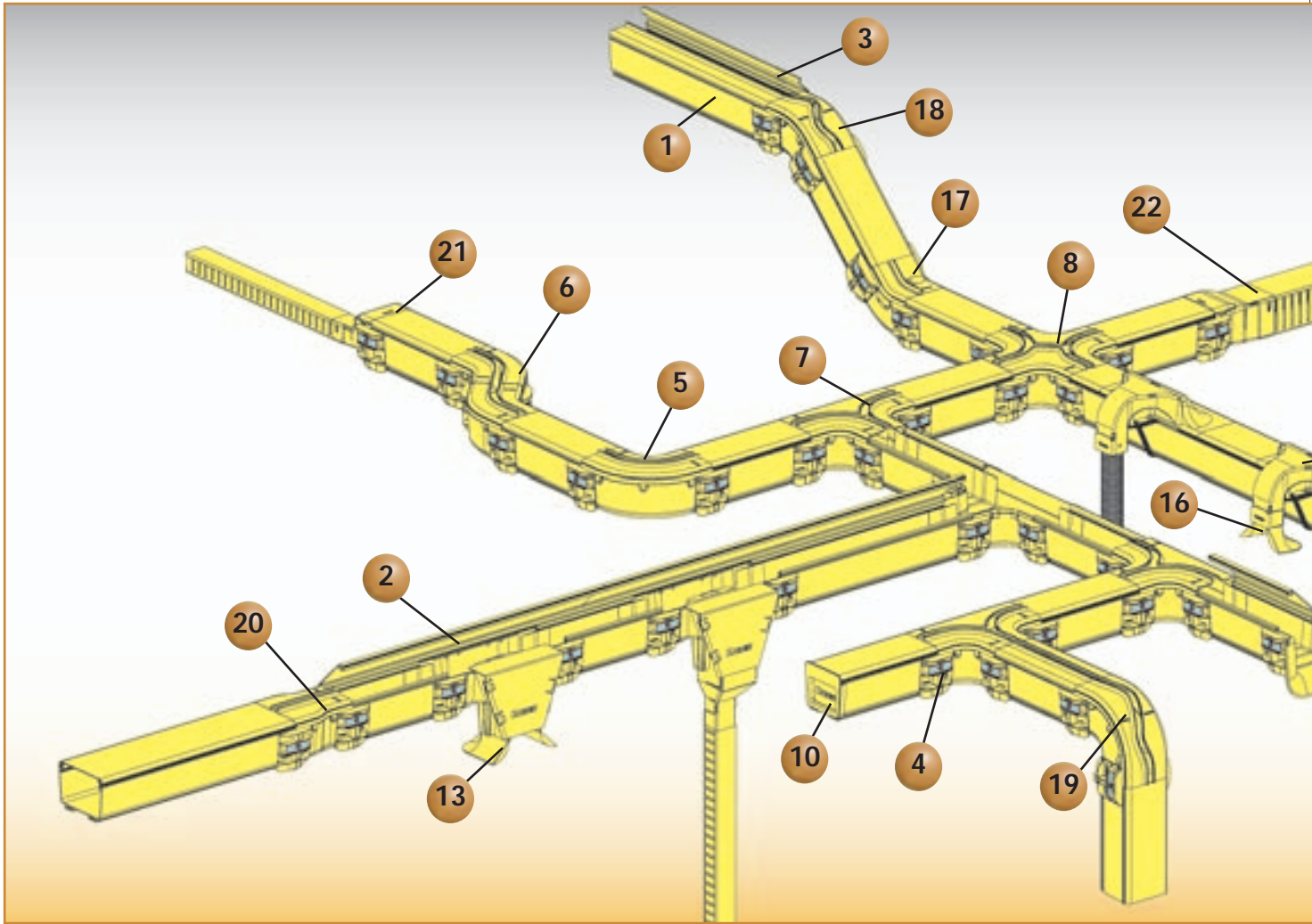
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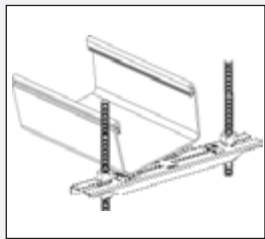
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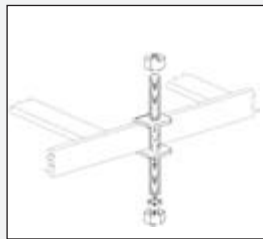
4x4 **FIBER**RUNNER Routing System Roadmap



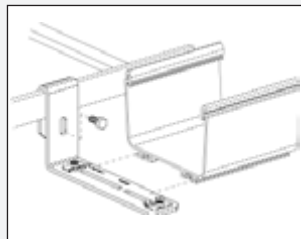
4x4 and 6x4 **FIBER**RUNNER™ Mounting Brackets



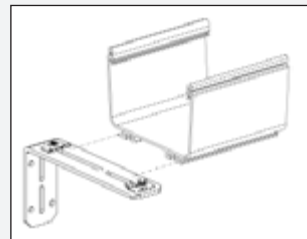
Trapeze QUIKLOCK™
Bracket for 6x4 and
4x4 Systems



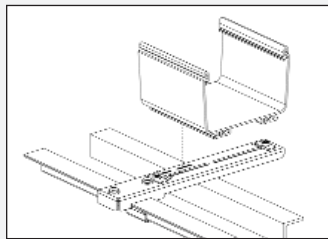
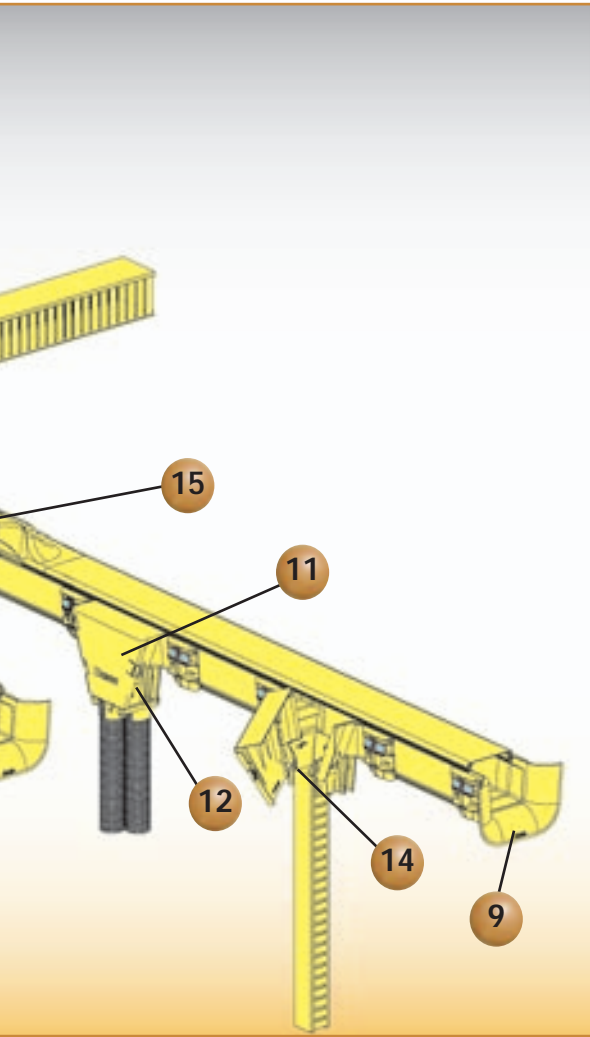
Bracket for attaching
Threaded Rod to
Ladder Rack

























Ladder Rack QUIKLOCK
Bracket for 6x4 and
4x4 Systems



"L" Wall Mount QUIKLOCK
Bracket for 6x4 and
4x4 Systems



**EIA Rack Mount QUIKLOCK
Bracket for 6x4 and
4x4 System**

-  **1** 4x4 *FIBERRUNNER*™ Channel (see [page I26](#))
-  **2** 4x4 Snap-On Hinged Cover (see [page I26](#))
-  **3** 4x4 Split Hinged Cover (see [page I26](#))
-  **4** 4x4 *QUIKLOCK*™ Coupler (see [page I27](#))
-  **5** 4x4 Horizontal Right Angle Fitting and Optional Split Cover (see [page I27](#))
-  **6** 4x4 Horizontal 45° Angle Fitting and Optional Split Cover (see [page I27](#))
-  **7** 4x4 Horizontal Tee Fitting and Optional Split Cover (see [page I27](#) and [page I28](#))
-  **8** 4x4 Four Way Cross Fitting and Optional Split cover (see [page I28](#))
-  **9** 3-Sided BRC Trumpet Spill-Out for 4x4 *FIBERRUNNER* Exit (see [page I28](#))
-  **10** 4x4 End Cap Fitting (see [page I28](#))
-  **11** 4x4 *QUIKLOCK* Vertical Tee Fitting (see [page I28](#))
-  **12** 2-Port Spillout to 1.5" (38mm) Inside Diameter Corrugated Tubing (see [page I29](#))
-  **13** 3-Sided Vertical Tee Trumpet Spillout (see [page I29](#))
-  **14** Low Profile Reducer 4x4 to 2x2 for Vertical Tee (see [page I29](#))
-  **15** Spill-Over Junction and Optional Cover for 4x4 System (see [page I29](#))
-  **16** 3-Sided BRC Trumpet Spillout for 2x2 Exit (see [page I30](#))
-  **17** 4x4 Inside Vertical 45° Angle Fitting (see [page I30](#))
-  **18** 4x4 Outside Vertical 45° Angle Fitting and Optional Split Cover (see [page I30](#) and [page I31](#))
-  **19** 4x4 Outside Vertical Right Angle Fitting and Optional Split Cover (see [page I31](#))
-  **20** 6x4 to 4x4 *FIBERRUNNER* Reducer Fitting and Optional Split Cover (see [page I31](#))
-  **21** 4x4 *FIBERRUNNER* System to 2x2 *FIBER-DUCT*™ Reducer Fitting with Cover (see [page I32](#))
-  **22** 4x4 *FIBERRUNNER* System to 4x4 *FIBER-DUCT* Reducer Fitting with Cover (see [page I32](#))

NOTE: Additional 6x4 and 4x4 bracket applications, see [pages I12-I13](#)

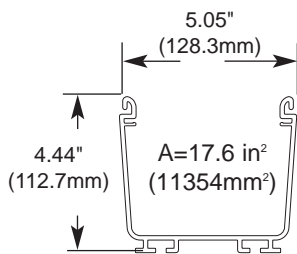
4x4 *FIBERRUNNER*™ Routing System

Cable Fills for *FIBERRUNNER* 4x4 Cable Routing System

The maximum amounts may vary according to the cable fill installation methods, straightness of cables, etc.

SPEC= 40% cablefill — the recommended design in cable capacity. Leaves room for future moves, adds and changes.

MAX= 60% cablefill — the maximum cable quantity based on cable interweaving and packing factors.



System Type	Area in²	Fiber Cable								Data Grade Cables	
		24 AWG UTP/CM CAT5e 4 pr				DIAMETER				DIAMETER	
		SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX
<i>FIBERRUNNER</i> 4x4 System	17.6	2258	3388	1436	2154	644	966	37	56	190	286

Channel cutting instructions: For optimum results, use FRCUT miter box and saw. For larger quantities use a plastic cutting saw blade for clean, burr-free cuts. Recommend: Carbide 80T or 100T; .090" thickness, .125" kerf.

4x4 *FIBERRUNNER* Routing System — Channel and Covers

- Robust 4x4 system ideal for use with smaller cable counts
- Multiple spillover options provide versatility to mate to various equipment and rack configurations
- *QUIKLOCK*™ couplers and brackets reduce system installation time dramatically
- Channel, covers, fittings and other non-metallic system components made from V-0 flame class rated material
- UL Listed
- Compatible with all sizes of *PANDUIT*® *FIBERRUNNER* and *PANDUIT FIBER-DUCT*™ routing systems, cable management products and racks
- Compliant with the applicable tests in Telcordia GR-63-CORE Network Equipment Building Systems (NEBS)



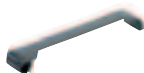
FR4X4



FRHC4



FRSHC4



FRCR4BL-X

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
4x4 <i>FIBERRUNNER</i> Channel			
FR4X4YL6	Used to carry the cables horizontally throughout the system. Accepts hinged cable retainers FRCR4BL-X, hinged cover FRHC4YL6 or split hinged cover FRSHC4YL6. Use <i>QUIKLOCK</i> coupler FRBC4X4YL to attach channel and/or fittings.	6	36
4x4 Snap-On Hinged Cover			
FRHC4YL6	Optional snap-on hinged cover for channel FR4X4YL6. Hinge feature enables positioning of cover at angles between 30° to 90°.	6	36
4x4 Split Hinged Cover			
FRSHC4YL6	Optional split hinged cover for the channel FR4X4YL6. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables. Snap-on hinge feature enables positioning of cover at angles between 30° and 90°.	6	36
Cable Retainer for 4x4 System			
FRCR4BL-X	Cable retainer holds cable in the channel when cover is not used. Install anywhere on channel, near the coupler or every 18" (457mm). Black color only.	10	100

For other color replace suffix YL (Yellow) with OR (Orange).
 Order number of feet required, in multiples of standard 6' length increments.
 Order number of Cable Retainers required, in multiples of Standard Package Quantity.

4x4 FIBERRUNNER™ QUIKLOCK™ Coupler

- Pre-assembled to provide fast mechanical assembly of components
- No tools required for installation, bolts loosen for component disassembly



FRBC4X4

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
FRBC4X4YL	Pre-assembled coupler quickly joins two sections of channel and/or fittings. Mechanically attaches without tightening bolts. Bolts release using 3/8" nut driver to allow coupler to be removed if necessary.	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

4x4 FIBERRUNNER System Fittings

- Minimum 2" bend radius control fittings
- Fittings assemble using FRBC couplers
- Protects against signal loss and performance degradation
- Optional split covers snap onto each fitting
- Covers feature 3/4" gap to allow cable to be laid in



FRRA4X4

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
4x4 Horizontal Right Angle Fitting				
FRRA4X4YL	Attaches to 4x4 channel and/or fitting to create a 90° horizontal turn from a straight horizontal run. Accepts optional split cover FRRASC4YL.	(2 pcs.) FRBC4X4YL	1	5



FRRASC4

Split Cover for 4x4 Horizontal Right Angle Fitting				
FRRASC4YL	Optional split cover for the horizontal right angle fitting FRRA4X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5



FRH454X4

4x4 Horizontal 45° Angle Fitting				
FRH454X4YL	Attaches to 4x4 channel and/or fittings to create a 45° horizontal turn from a straight horizontal run. Accepts optional split cover FRH45SC4YL.	(2 pcs.) FRBC4X4YL	1	5



FRH45SC4

Split Cover for 4x4 Horizontal 45° Angle Fitting				
FRH45SC4YL	Optional split cover for the horizontal 45° angle fitting FRH454X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5



FRT4X4

4x4 Horizontal Tee Fitting				
FRT4X4YL	Attaches to 4x4 channel and/or fittings to create a 90° horizontal branch from straight horizontal runs. Accepts optional split cover FRTSC4YL.	(3 pcs.) FRBC4X4YL	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

4x4 FIBERRUNNER™ System Fittings (continued)

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FRTSC4

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
Split Cover for 4x4 Horizontal Tee Fitting				
FRTSC4YL	Optional split cover for the horizontal tee fitting FRT4X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5



FRFWC4X4

4x4 Four Way Cross Fitting				
FRFWC4X4YL	Attaches to 4x4 channel and/or fittings to create a horizontal four way cross intersection. Accepts optional split cover FRFWCSC4YL.	(4 pcs.) FRBC4X4YL	1	5



FRFWCSC4

Split Cover for 4x4 Four Way Cross Fitting				
FRFWCSC4YL	Optional split cover for the four way cross fitting FRFWC4X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5



FRTR4X4

3-Sided BRC Trumpet Spill-Out for 4x4 FiberRunner Exit				
FRTR4X4YL	Used to limit the bend radius of the cable to 2" (50.8mm) when exiting from 4x4 FIBERRUNNER channel or a 4x4 FIBERRUNNER horizontal tee fitting.	(1 pc.) FRBC4X4YL	1	5



FREC4X4

4x4 End Cap Fitting				
FREC4X4YL	Used for closing off open ends of the channel or fittings. No coupler required, push-on installation.	—	1	5



FRVT4X4

4x4 QUIKLOCK Vertical Tee Fitting				
FRVT4X4YL	Attaches to 4x4 channel and/or fittings to create a 90° vertical drop from a horizontal run. Hinged door included. Accepts FIDT4X4BL, FTR4X4YL, S4X4YL6 or E4X4YL6 directly. Accepts optional snap-on cover FRHC4YL6 in conjunction with channel.	(2 pcs.) FRBC4X4YL	1	5



FR1.5IDE

1 Port Spillout Side Exit to 1.5" (38mm) Inside Diameter Corrugated Tubing				
FR1.5IDEYL	Used to route cable into 1.5" (38mm) diameter split corrugated tubing directly through a hole cut in the side wall of the 4x4, 6x4 and 12x4 FIBERRUNNER channel or 4x4 FIBER-DUCT™ channel. Provides 1" (25.4mm) bend radius control at the exit. Securely holds split corrugated tubing to ensure system integrity and easy access to add or remove cables. Includes drilling template.	—	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

4x4 FIBERRUNNER™ System Fittings (continued)



FRIDT4X4

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
2 Port Spillover to 1.5" (38 mm) Inside Diameter Corrugated Tubing				
FRIDT4X4YL	Used to route cable into one or two pieces of 1.5" (38mm) diameter split corrugated tubing. Requires coupler to be used with 4x4 FIBERRUNNER fitting. Used with any 4x4 FIBERRUNNER fitting. Securely holds corrugated split tubing to ensure system integrity and easy access to add or remove cables.	(1 pc.) FRBC4X4YL	1	5



FIDT4X4BL

2-Port Spillover to 1.5" (38mm) Inside Diameter Corrugated Tubing				
FIDT4X4BL	Used to route cable into one or two pieces of 1.5" (38mm) diameter split corrugated tubing. Used with FRVT6X4YL, FRVT4X4YL or FVT4X4YL. Securely holds corrugated split tubing to ensure system integrity and easy access to add or remove cables. Black color only.	—	1	5



FTR4X4

3-Sided Vertical Tee Trumpet Spillover				
FTR4X4YL	Used to limit the bend radius of the cable to 2" (50.8mm) when exiting from a 4x4 or 6x4 FIBERRUNNER vertical tee fitting and 4x4 FIBER-DUCT™ fittings.	—	1	5



FRLPR42BL

Low Profile Reducer 4x4 to 2x2 for Vertical Tee				
FRLPR42BL	Assembled into the 6x4 vertical tee FRVT6X4YL or 4x4 vertical tee FRVT4X4YL with an audible snap, the FRLPR42BL allows for the transition to 2x2 FIBER-DUCT channel with minimal space required. No tools required for assembly. Black color only.	—	1	5



FRSP

Spill-Over Junction with 2x2 Exit				
FRSPYL	Assembles onto 4x4, 6x4 or 12x4 FIBERRUNNER channel spilling over the side into a 2x2 vertical channel, fitting or corrugated tube. Mounts directly to existing installation with no alteration required. Mounting hardware provided for secure attachment.	—	1	—



FRSP4C

Spill-Over Junction Cover for 4x4 System				
FRSP4CYL	Used to fully enclose 4x4 channel in conjunction with the spill-over junction FRSPYL. Cover snaps onto the channel base. Hinged feature allows easy access to add or remove cables.	—	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

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4x4 FIBERRUNNER™ System Fittings (continued)



FRSP4



FRSP44C



FTR2X2



FIDT2X2



FRIV454X4



FROV454X4

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
Spill-Over Junction with 4x4 Exit				
FRSP4YL	Assembles onto 4x4, 6x4, or 12x4 <i>FIBERRUNNER</i> channel spilling over the side into a 4x4 vertical exit. Requires coupler to attach 4x4 <i>FIBERRUNNER</i> channel and fittings to the vertical exit. Mounts directly to existing installation with no alteration required. Mounting hardware provided for secure attachment.	(1) FRBC4X4YL	1	—
Spill-Over Junction Cover for 4x4 System				
FRSP44CYL	Used to fully enclose the 4x4 channel in conjunction with the spill-over junction FRSP4YL. Cover snaps onto the channel base. Hinged feature allows easy access to add or remove cables.	—	1	5
3-Sided BRC Trumpet Spillover for 2x2 Exit				
FTR2X2YL	Used to limit the bend radius of the cable to 2" (50.8mm) when exiting from a <i>FIBERRUNNER</i> spill-over fitting FRSPYL or from 2x2 <i>FIBER-DUCT</i> ™ channel.	—	1	5
1-Port Spillover to 1.5" (38mm) Inside Diameter Corrugated Tubing				
FIDT2X2YL	Used to route cable into one piece of 1.5" (38mm) diameter split corrugated tubing. Used with <i>FIBERRUNNER</i> spill-over fitting FRSPYL, 2x2 <i>FIBER-DUCT</i> fittings and the 2x2 <i>FIBERRUNNER</i> hinged channel. Securely holds split corrugated tubing to ensure system integrity and easy access to add or remove cables.	—	1	5
4x4 Inside Vertical 45° Angle Fitting				
FRIV454X4YL	Attaches to 4x4 channel and/or fittings to create a 45° upward angle from a horizontal run. Used with outside vertical 45° angle fitting FROV454X4YL to change level of a straight horizontal run. Includes split cover.	(2 pcs.) FRBC4X4YL	1	5
4x4 Outside Vertical 45° Angle Fitting				
FROV454X4YL	Attaches to 4x4 channel and/or fittings to create a 45° downward angle from a horizontal run. Used with inside vertical 45° angle fitting FRIV454X4YL to change level of a straight horizontal run. Accepts optional split cover FROV45SC4YL.	(2 pcs.) FRBC4X4YL	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

4x4 FIBERRUNNER™ System Fittings (continued)



FROV45SC4

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
Split Cover for 4x4 Outside Vertical 45° Angle Fitting				
FROV45SC4YL	Optional split cover for the outside vertical 45° angle fitting FROV454X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5



FROVRA4X4

4x4 Outside Vertical Right Angle Fitting				
FROVRA4X4YL	Attaches to 4x4 channel and/or fittings to create a 90° vertical turn down from a straight horizontal run. Accepts optional split cover FROVRASC4YL.	(2 pcs.) FRBC4X4YL	1	5



FROVRASC4

Split Cover for 4x4 Outside Vertical Right Angle Fitting				
FROVRASC4YL	Optional split cover for the outside vertical right angle fitting FROVRA4X4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5



FRUPS4X4

4x4 Up Spout Fitting				
FRUPS4X4YL	Allows cable to be directed upward out of the channel deployed directly below racks and cabinets in underfloor installations. Snaps directly onto the channel and can be positioned to allow cables to be laid in. A 1" (25.4mm) top bezel is included. Other fittings can be installed for specific applications including FTR4X4YL and FIDT4X4BL.	—	1	5



FRRF6FR4

6x4 to 4x4 FIBERRUNNERS Reducer Fitting				
FRRF6FR4YL	Attaches any 6x4 FIBERRUNNER fitting or channel to any 4x4 FIBERRUNNER fitting or channel. Accepts split cover FRRF6FR4SCYL.	(1 pc.) FRBC6X4YL (1 pc.) FRBC4X4YL	1	5

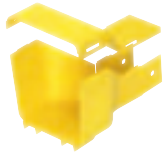


FRRF6FR4SC

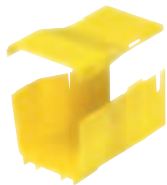
Split Cover for 6x4 to 4x4 FIBERRUNNER Reducer Fitting				
FRRF6FR4SCYL	Optional split cover for the 6x4 FIBERRUNNER to 4x4 FIBERRUNNER reducer fitting FRRF6FR4YL. Snap-on feature allows cover to be installed and removed with no tools required. Creates radiused 3/4" (19mm) opening for easy access to add or remove cables.	—	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

4x4 FIBERRUNNER™ System Fittings (continued)



FRRF4FD2



FRRF4FD4

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
4x4 FIBERRUNNER to 2x2 FIBER-DUCT™ Reducer Fitting with Cover				
FRRF4FD2YL	Attaches any 4x4 FIBERRUNNER fitting or channel to the 2x2 FIBER-DUCT channel, S2X2YL6 or E2X2YL6. Includes solid cover.	(1 pc.) FRBC4X4YL	1	5
4x4 FIBERRUNNER to 4x4 FIBER-DUCT Reducer Fitting with Cover				
FRRF4FD4YL	Attaches any 4x4 FIBERRUNNER fitting or channel to the 4x4 FIBER-DUCT channel, S4X4YL6 or E4X4YL6. Includes solid cover.	(1 pc.) FRBC4X4YL	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

FIBERRUNNER™ Accessories



FRCUT



FR38DR
FR716DR



FR516DR



FR38BIT
FR716BIT



FRUIB-X

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Miter Box and Saw			
FRCUT	Used to cut 2x2, 4x4 and 6x4 <i>FIBERRUNNER</i> channel and hinged cover, 4x4 <i>FIBER-DUCT™</i> channel and cover and 2x2 <i>FIBER-DUCT</i> channel and cover.	1	0
3/8" Nut Driver			
FR38DR	Used to disassemble 4x4, 6x4 and 12x4 <i>FIBERRUNNER</i> couplers when required.	1	10
5/16" Nut Driver			
FR516DR	Used to disassemble 2x2 <i>FIBERRUNNER</i> couplers when required.	1	10
7/16" Nut Driver			
FR716DR	Used to assemble <i>QUIKLOCK™</i> bracket slide clamps.	1	10
3/8" Nut Driver Bit			
FR38BIT	Nonmagnetic nut driver bit for power tools. Shank is 1/4" hex. Used to disassemble 4x4, 6x4 and 12x4 <i>FIBERRUNNER</i> couplers when required.	1	10
7/16" Nut Driver Bit			
FR716BIT	Nonmagnetic nut driver bit for power tools. Shank is 1/4" hex. Used to assemble <i>QUIKLOCK</i> bracket slide clamps.	1	10
Universal Innerduct Bracket			
FRUIB-X	Used to secure any size corrugated tubing or inner-duct to any surface including equipment racks and channel or fittings. Two 1/4" (6.3 mm) holes must be drilled through to secure brackets.	10	100

Slit Corrugated Loom Tubing for Fiber Optic Applications

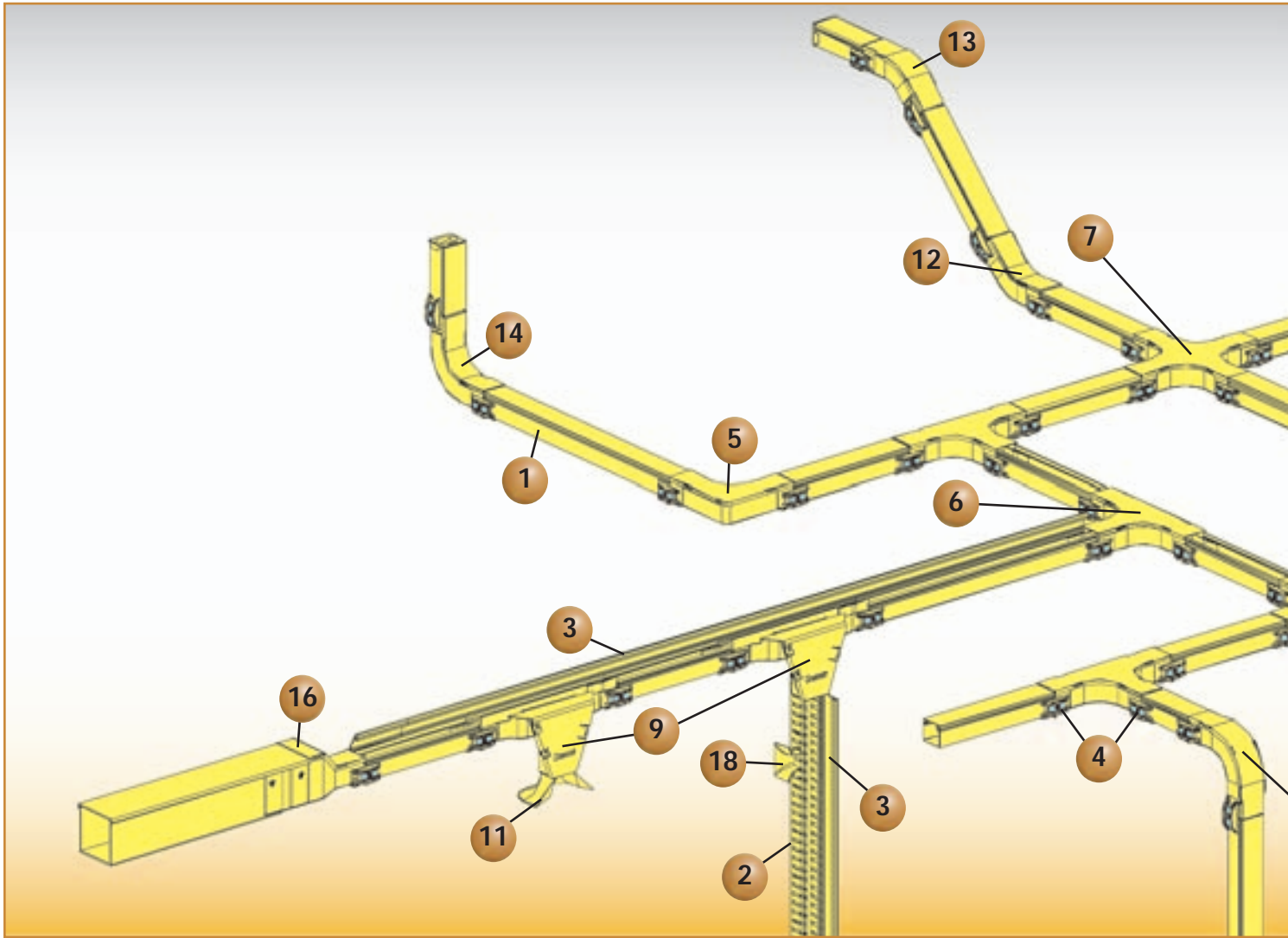


CLT150F

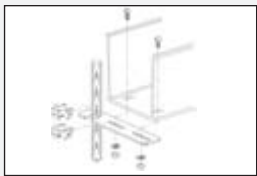
Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
CLT150F-X3	<i>PANDUIT®</i> Corrugated Loom Tubing is a flexible channel that can be utilized to transfer cable from the <i>FIBERRUNNER</i> Routing Systems to the rack. It contains a lengthwise slit that makes it easy to install cables into the tubing. Made from polyethylene material. Inside diameter is 1.5" (38.1mm) and outside diameter 1.7" (43.2mm). Sold in 10' rolls.	1	—

For other colors replace suffix X3 (Orange) with X4 (Yellow) or X20 (Black). Order number of rolls required, in multiples of Standard Package Quantity.

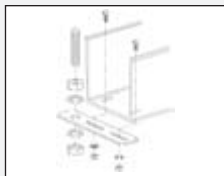
2x2 **FIBER-RUNNER** Routing System Roadmap



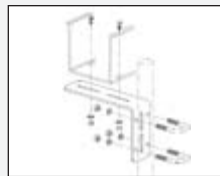
FIBER-DUCT™ Mounting Brackets



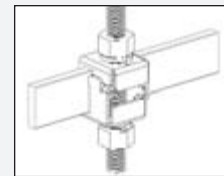
Existing Threaded Rod Bracket for FIBER-DUCT System



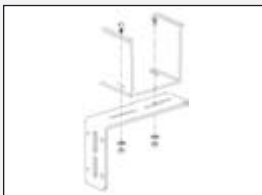
New Threaded Rod Bracket for FIBER-DUCT System



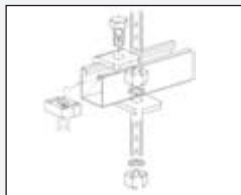
Under-Floor Pedestal Bracket for FIBER-DUCT System



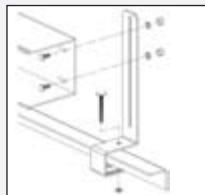
Two Piece Ladder Rack Bracket for Attaching Threaded Rod to 1 1/2"-2" Ladder Rack



"L" Wall Mount Bracket for FIBER-DUCT System



Strut Metal Framing Bracket



Top Rail of Rack Support Bracket



Bracket for Attaching Threaded Rod to 1 1/2" Ladder Rack

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

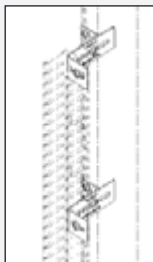
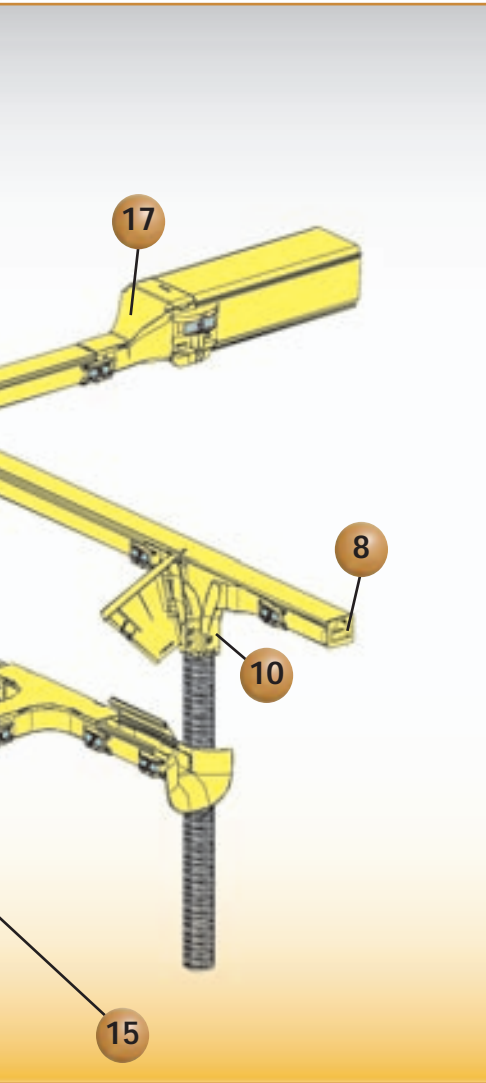
Surface Raceway

Labeling & Administration

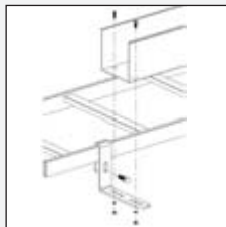
Cable Ties & Accessories

Supplementary Technical Information











Glossary & Index



Adjustable "Z" Bracket



Ladder Rack Bracket for FIBER-DUCT System

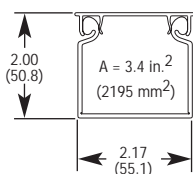
-  **1** 2x2 FIBERRUNNER™ Hinged Channel (see [page I36](#))
-  **2** 2x2 FIBERRUNNER Hinged Slotted Channel (see [page I36](#))
-  **3** 2x2 FIBERRUNNER Hinged Snap-On Cover (see [page I36](#))
-  **4** 2x2 QUIKLOCK™ Coupler (see [page I37](#))
-  **5** 2x2 Horizontal Right Angle Fitting (see [page I43](#))
-  **6** 2x2 Horizontal Tee Fitting (see [page I43](#))
-  **7** 2x2 Four Way Cross Fitting (see [page I43](#))
-  **8** 2x2 End Cap Fitting (see [page I37](#))
-  **9** 2x2 Vertical Tee Fitting (see [page I37 and I43](#))
-  **10** 1-Port Spillout to 1.5" (38mm) Inside Diameter Corrugated Tubing (see [page I43](#))
-  **11** 3-Sided BRC Trumpet Spillout for 2x2 Exit (see [page I44](#))
-  **12** 2x2 Inside Vertical 45° Angle Fitting (see [page I44](#))
-  **13** 2x2 Outside 45° Angle Fitting (see [page I44](#))
-  **14** 2x2 Inside Vertical Right Angle Fitting (see [page I44](#))
-  **15** 2x2 Outside Vertical Right Angle Fitting (see [page I44](#))
-  **16** 4x4 FIBER-DUCT™ to 2x2 FIBER-DUCT Reducer Fitting (see [page I44](#))
-  **17** 4x4 FIBERRUNNER to 2x2 FIBER-DUCT Reducer Fitting (see [page I32](#))
-  **18** 2x2 Hinged Channel 1" Bend Radius Control Fitting (see [page I45](#))

2x2 FIBERRUNNER™ Routing System

Cable Fills for FIBERRUNNER 2x2 Cable Routing System

The maximum amounts may vary according to the cable fill installation methods, straightness of cables, etc.

SPEC= 40% cablefill — the recommended design in cable capacity. Leaves room for future moves, adds and changes. **MAX= 60% cablefill** — the maximum cable quantity based on cable interweaving and packing factors.



System Type	Area in²	Fiber Cable								Data Grade Cables	
		DIAMETER		DIAMETER		DIAMETER		DIAMETER		24 AWG UTP/CM CAT5e 4 pr	
		SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX
FIBERRUNNER 2x2 System	3.4	436	654	277	416	124	186	7	10	36	55

Channel cutting instructions: For optimum results, use FRCUT miter box and saw. For larger quantities use a plastic cutting saw blade for clean, burr-free cuts. Recommend: Carbide 80T or 100T; .090" thickness, .125" kerf.

2x2 FIBERRUNNER Routing System — Channels and Cover

- 2x2 system ideal for use with smaller cable counts
- Multiple spillout options provide versatility to mate to various equipment and rack configurations
- **QUIKLOCK™** couplers reduce system installation time dramatically
- Channel, covers, fittings and other non-metallic system components made from V-O flame class rated material
- UL Listed
- Compatible with all sizes of **PANDUIT® FIBERRUNNER** and **PANDUIT FIBER-DUCT™** routing systems, cable management products and racks
- 2x2 FIBERRUNNER Hinged and Slotted Channels can be used with 2x2 Fiber-Duct fittings (see [pages I43, I44 and I45](#)) and brackets (see [pages I46 and I47](#)).
- Compliant with the applicable tests in Telcordia GR-63-CORE Network Equipment Building Systems



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
2x2 FIBERRUNNER Hinged Channel			
HS2X2YL6NM	Used to carry the cables throughout the system. Accepts hinged cover HC2YL6. Use QUIKLOCK coupler FBC2X2YL to attach channel and/or fittings.	6	120
2x2 FIBERRUNNER Hinged Slotted Channel			
H2X2YL6	Used to carry the cables vertically to the front or the back of equipment racks throughout the system. Accepts hinged cover HC2YL6. Extra supports required when used in horizontal applications. Use QUIKLOCK coupler FBC2X2YL to attach channel and/or fittings.	6	120
2x2 Snap-On Hinged Cover			
HC2YL6	Optional snap-on cover for hinged channel HS2X2YL6 or H2X2YL6. The innovative cover can hinge open to 90° from either side of the channel and be removed completely if desired.	6	120

For other color replace suffix YL (Yellow) with OR (Orange).
Order number of feet required, in multiples of standard 6' length increments.

2x2 FIBERRUNNER™ QUIKLOCK™ Coupler

- Pre-assembled to provide fast mechanical assembly of components
- No tools required for installation, bolts loosen for component disassembly



FBC2X2

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
FBC2X2YL	Pre-assembled coupler quickly joins two sections of hinged channel and/or fittings. Mechanically attaches without tightening bolts. Bolts release using 5/16" nut driver to allow coupler to be removed if necessary.	1	5

For other color replace suffix YL (Yellow) with OR (Orange).

2x2 FIBERRUNNER System Fittings



FHDEC2X2



FVTHD2X2



FIDT2X2



TRC2HDBL

Part Number	Part Description	Couplers Required	Std. Pkg. Qty.	Std. Ctn. Qty.
2x2 End Cap Fitting				
FHDEC2X2YL	Used for closing off open ends of the hinged channel or fittings. No coupler required. Push-on installation.	—	1	5
2x2 Vertical Tee Fitting				
FVTHD2X2YL	Attaches to 2x2 channel to create a 90° vertical drop from a horizontal run. Hinged door included. Accepts channel cover in conjunction with channel. Use QUIKLOCK coupler FBC2X2YL with HS2X2YL6 or H2X2YL6 channels. Use snap rivets NR2WH-L or bolts F14PN-L with S2X2YL6 or E2X2YL6 channels. Also accepts FIDT2X2YL.	(2 pcs.) FBC2X2YL	1	5
1 Port Spillout to 1.5" (38mm) Inside Diameter Corrugated Tubing				
FIDT2X2YL	Used to route cable into one piece of 1.5" (38mm) diameter split corrugated tubing. Used with FIBERRUNNER spill-over fitting FRSPYL, 2x2 FIBER-DUCT™ fittings and the 2x2 FIBERRUNNER hinged channel. Securely holds split corrugated tubing to ensure system integrity and easy access to add or remove cables.	—	1	5
2x2 FIBERRUNNER Bend Radius Control Trumpet				
TRC2HDBL	Bend radius control trumpet for exiting at the sidewall of 2" wall heights of Type H Hinged Cover Wiring Duct channels. Black color only.	—	1	10

For other color replace suffix YL (Yellow) with OR (Orange).

NOTES

System Overview	Modules	Ultimate ID System & Work Area	Zone Cabling	Patch Panels Copper Patch Cords & Punchdowns	Fiber Connectors Enclosures & Patch Cords	Racks & Cable Management	Grounding & Bonding	Fiber Routing	Surface Raceway	Labeling & Administration	Cable Ties & Accessories	Supplementary Technical Information	Glossary & Index
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FIBER-DUCT™ ROUTING SYSTEM

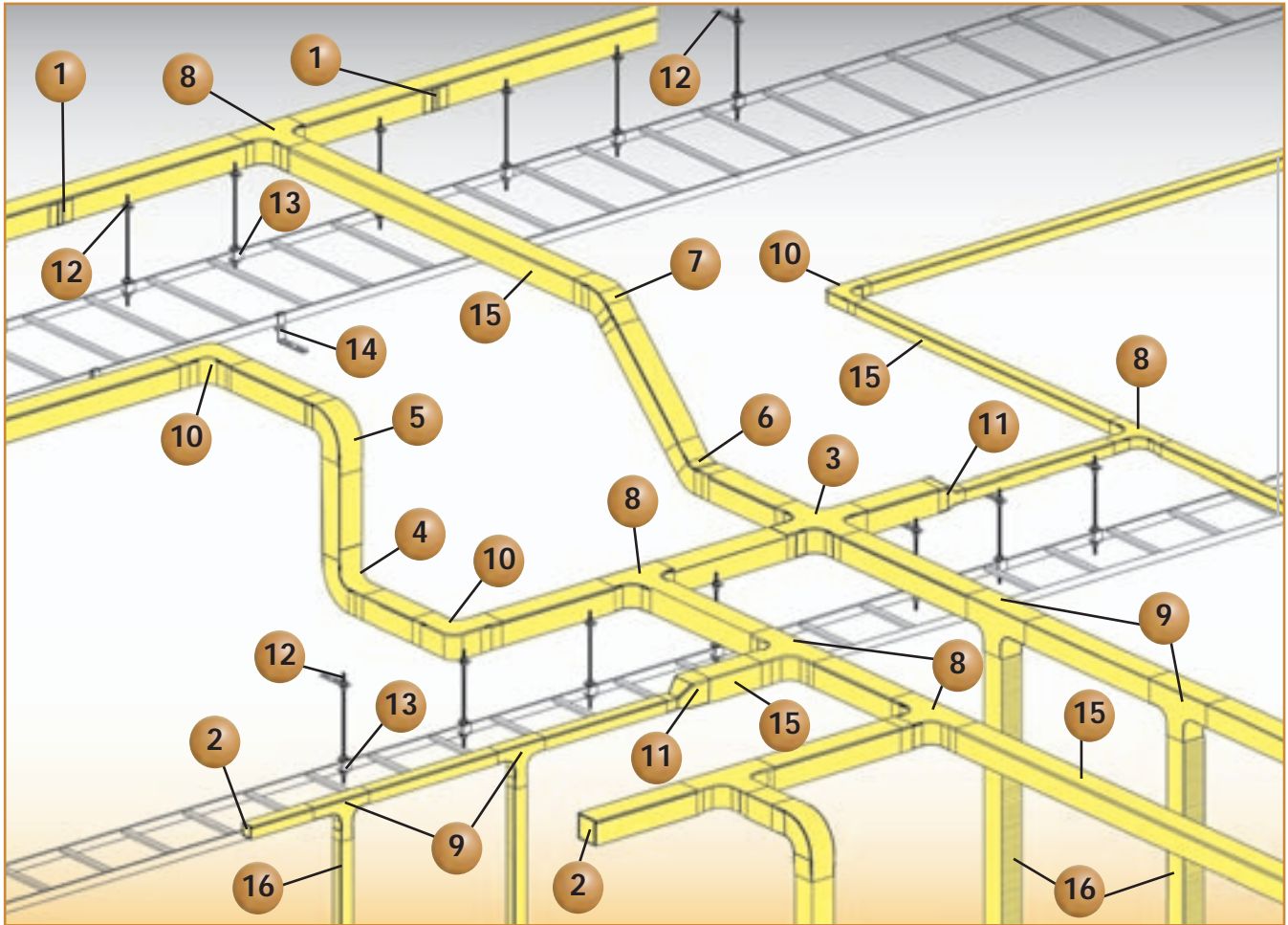
The *PANDUIT*® Network Connectivity Group provides leading solutions for cable routing. These routing products are compatible with our cable management solutions increasing your ability to maintain an orderly and clean work environment, implement quick and easy moves, adds and changes and maintain the integrity of your fiber and copper cabling plant in order to maximize long term performance.



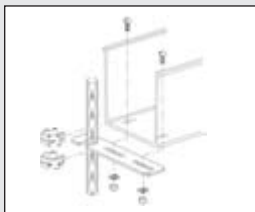
- Two system sizes available: 4x4 and 2x2
- Minimum 2" (50.8mm) bend radius fittings protect against signal loss due to excessive cable bends
- Optimized for use with *PAN-NET*® Network Connectivity System
- Snap-on non-slip covers
- Compatible with *PANDUIT FIBERRUNNER*® 12x4, 6x4, 4x4 and 2x2 Routing Systems

The 2x2 and 4x4 *FIBER-DUCT* Routing Systems are comprised of channel, fittings and brackets designed to segregate, route and protect fiber optic and copper cabling to and between racks within the telecommunications room.

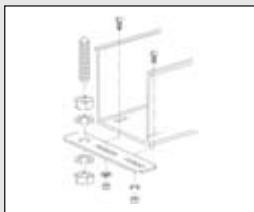
2x2 and 4x4 FIBER-DUCT™ Routing Systems Roadmap



FIBER-DUCT Mounting Brackets



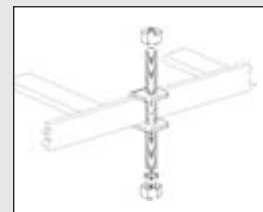
Existing Threaded Rod Bracket for FIBER-DUCT System



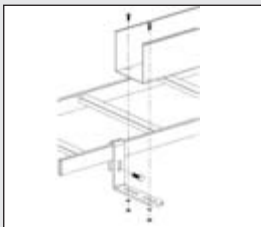
New Threaded Rod Bracket for FIBER-DUCT System



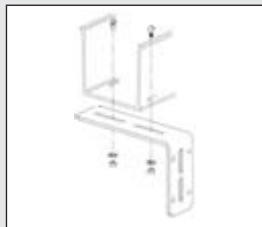
Under-Floor Pedestal Bracket for FIBER-DUCT System



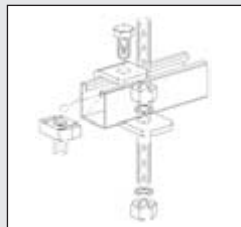
Bracket for Attaching Threaded Rod to 1 1/2" Ladder Rack



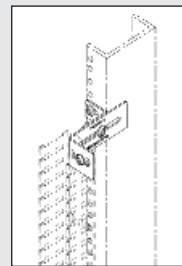
Ladder Rack Bracket for FIBER-DUCT System



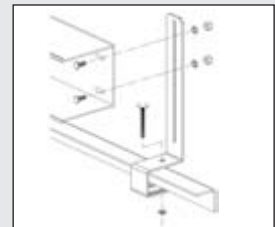
"L" Wall Mount Bracket for FIBER-DUCT System



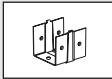
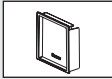
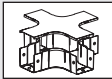
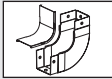
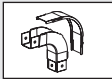
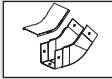
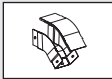
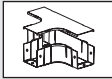
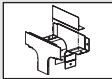
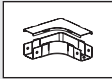
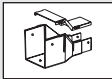
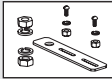
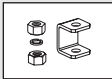


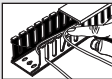
Strut Metal Framing Bracket



Adjustable "Z" Bracket



Top Rail of Rack Support Bracket

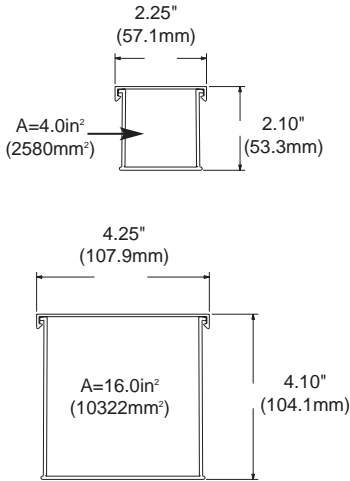
- 
1 Coupler Fitting (see page I43)
- 
2 End Cap Fitting (see page I43)
- 
3 Four Way Cross Fitting (see page I43)
- 
4 Inside Vertical Right Angle (see page I44)
- 
5 Outside Vertical Right Angle (see page I44)
- 
6 Inside Vertical 45° Angle (see page I44)
- 
7 Outside Vertical 45° Angle (see page I44)
- 
8 Horizontal Tee Fitting (see page I43)
- 
9 Vertical Tee Fitting (see page I43)
- 
10 Right Angle Fitting (see page I43)
- 
11 Reducer Fitting (see page I44)
- 
12 Mounting Kit for New Thd. Rod Assembly (see page I46)
- 
13 Bracket for Attaching Threaded Rod to Ladder Rack (see page I46)
- 
14 Ladder Rack Bracket (see page I46)
- 
15 *FIBER-DUCT*™ Channel (see page I42)
- 
16 *FIBER-DUCT* Slotted Channel (see page I42)

System Overview
Modules
Ultimate ID System & Work Area
Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
Racks & Cable Management
Grounding & Bonding
Fiber Routing
Surface Raceway
Labeling & Administration
Cable Ties & Accessories
Supplementary Technical Information
Glossary & Index

Cable Fills for 2x2 and 4x4 *FIBER-DUCT*™ Routing System

The maximum amounts may vary according to the cable fill installation methods, straightness of cables, etc.

SPEC= 40% cablefill — the recommended design in cable **MAX= 60% cablefill** — the maximum cable quantity based on cable interweaving and packing factors. Leaves room for future moves, adds and changes.

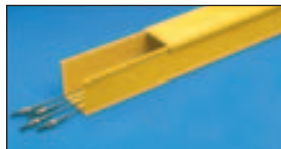


System Type	Area in²	Fiber Cable								Data Grade Cables			
		.063" (1.6mm)				.079" (2.0mm)		.118" (3.0mm)		.492" (12.5mm)		.217" (5.5mm)	
		SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX		
<i>FIBER-DUCT</i> 2x2 System	4.0	466	699	326	490	146	219	8	13	43	65		
<i>FIBER-DUCT</i> 4x4 System	16.0	1903	2854	1306	1959	585	878	34	50	173	260		

Channel cutting instructions: For optimum results, use FRCUT miter box and saw. For larger quantities use a plastic cutting saw blade for clean, burr-free cuts. Recommend: Carbide 80T or 100T; .090" thickness, .125" kerf.

2x2 and 4x4 *FIBER-DUCT* Routing Systems

- Channel, covers, fittings and other non-metallic system components made from V-0 flame class rated material
- Snap on non-slip covers
- UL Listed
- Compatible with *PANDUIT*® *FIBERRUNNER*™ 2x2, 4x4, 6x4 and 12x4 Routing Systems



**S2x2
S4x4**



**E2x2
E4x4**

Part Number	Part Description	System Size	Std. Pkg. Qty.	Std. Ctn. Qty.
<i>FIBER-DUCT</i> Channel				
S2X2YL6NM	Used to carry the cables throughout the <i>FIBER-DUCT</i> routing system. Accepts cover C2YL6. Cover sold separately.	2x2	6	120
S4X4YL6NM	Used to carry the cables throughout the <i>FIBER-DUCT</i> routing system. Accepts cover C4YL6. Cover sold separately.	4x4	6	60
<i>FIBER-DUCT</i> Slotted Channel				
E2X2YL6	Used to carry the cables vertically to the front or the back of equipment racks throughout the system. Accepts cover C2YL6. Extra supports required when used in horizontal applications. Cover sold separately.	2x2	6	120
E4X4YL6	Used to carry the cables vertically to the front or the back of equipment racks throughout the system. Accepts cover C4YL6. Extra supports required when used in horizontal applications. Cover sold separately.	4x4	6	60
<i>FIBER-DUCT</i> Cover				
C2YL6	Cover for <i>FIBER-DUCT</i> channel and <i>FIBER-DUCT</i> slotted channel. Non-slip cover design incorporates integral high friction lining to inhibit cover movement.	2x2	6	120
C4YL6	Cover for <i>FIBER-DUCT</i> channel and <i>FIBER-DUCT</i> slotted channel. Non-slip cover design incorporates integral high friction lining to inhibit cover movement.	4x4	6	120

NOTE: Available with mounting holes. To order, delete NM from the part number. For fastest installation use NR2WH-L or NR4BL-L Snap Rivets. For other color replace suffix YL (Yellow) with OR (Orange). Order number of feet required, in multiples of standard 6' length increments.

FIBER-DUCT™ System Fittings



Part Number	Part Description	System Size	Std. Pkg. Qty.	Std. Ctn. Qty.
Coupler Fitting				
FCF2X2YL	Used to join two sections of duct together. <i>FIBER-DUCT</i> coupler is not required at each fitting connection.	2x2	1	5
FCF4X4YL		4x4	1	5
Horizontal Right Angle Fitting				
FRA2X2YL	Attaches to channel to create a 90° horizontal turn from a straight horizontal run. Cover included.	2x2	1	5
FRA4X4YL		4x4	1	5
Horizontal Tee Fitting				
FT2X2YL	Attaches to channel to create a 90° horizontal branch from a straight horizontal run. Cover included.	2x2	1	5
FT4X4YL		4x4	1	5
Four Way Cross Fitting				
FFWC2X2YL	Attaches to channel to create a horizontal four way cross intersection. Cover included.	2x2	1	5
FFWC4X4YL		4x4	1	5
End Cap Fitting				
FEC2X2YL	Used for closing off open ends of the channel. No coupler required, push-on installation.	2x2	1	5
FEC4X4YL		4x4	1	5
2x2 Vertical Tee Fitting				
FVTHD2X2YL	Attaches to 2x2 channel to create a 90° vertical drop from a horizontal run. Hinged door included. Accepts channel cover in conjunction with channel. Use <i>QUIKLOCK™</i> coupler FBC2X2YL with HS2X2YL6 or H2X2YL6 channels. Use snap rivets NR2WH-L or bolts F14PN-L with S2X2YL6 or E2X2YL6 channels. Also accepts FIDT2X2YL.	2x2	1	5
Vertical Tee Fitting				
FVT4X4YL	Attaches to channel to create a 90° vertical drop from a horizontal run. Accepts FIDT4X4BL, FTR4X4YL, S4X4YL6 or E4X4YL6 directly.	4x4	1	5
1-Port Spillout to 1.5" (38mm) Inside Diameter Corrugated Tubing				
FIDT2X2YL	Used to route cable into one piece of 1.5" (38mm) diameter split corrugated tubing. Used with <i>FIBERRUNNER™</i> spill-over fitting FRSPYL, 2x2 <i>FIBER-DUCT</i> fittings and the 2x2 <i>FIBERRUNNER</i> hinged channel. Securely holds split corrugated tubing to ensure system integrity and easy access to add or remove cables.	2x2	1	5
2-Port Spillout to 1.5" (38mm) Inside Diameter Corrugated Tubing				
FIDT4X4BL	Used to route cable into one or two pieces of 1.5" (38mm) diameter split corrugated tubing. Used with FRVT6X4YL, FRVT4X4YL or FVT4X4YL. Securely holds corrugated split tubing to ensure system integrity and easy access to add or remove cables. Black color only.	4x4	1	5
3-Sided Vertical Tee Trumpet Spillout				
FTR4X4YL	Used to limit the bend radius of the cable to 2" (50.8mm) when exiting from a 4x4 or 6x4 <i>FIBERRUNNER</i> vertical tee fitting and 4x4 <i>FIBER-DUCT</i> fittings.	4x4	1	5

For other color replace suffix YL (Yellow) with OR (Orange).
Fittings include 5/16" assembly holes for fast mechanical fastening.

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Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
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FIBER-DUCT™ System Fittings (continued)



FTR2X2



**FIV452X2
FIV454X4**



**FOV452X2
FOV454X4**



**FIVRA2X2
FIVRA4X4**



**FOVRA2X2
FOVRA4X4**



FRF42



FRF4544BL

Part Number	Part Description	System Size	Std. Pkg. Qty.	Std. Ctn. Qty.
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3-Sided BRC Trumpet Spillover for 2x2 Exit

FTR2X2YL	Used to limit the bend radius of the cable to 2" (50.8mm) when exiting from a <i>FIBERRUNNER</i> ™ spill-over fitting FRSPYL or from 2x2 <i>FIBER-DUCT</i> channel.	2x2	1	5
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Inside Vertical 45° Angle Fitting

FIV452X2YL	Attaches to channel to create a 45° upward angle from a straight horizontal run. Used with outside vertical 45° angle fitting FOV452X2YL or FOV454X4YL to change level of straight horizontal runs. Cover included.	2x2	1	5
FIV454X4YL		4x4	1	5

Outside Vertical 45° Angle Fitting

FOV452X2YL	Attaches to channel to create a 45° downward angle from a straight horizontal run. Used with inside vertical 45° angle fitting FIV452X2YL or FIV454X4YL to change level of straight horizontal runs. Cover included.	2x2	1	5
FOV454X4YL		4x4	1	5

Inside Vertical Right Angle Fitting

FIVRA2X2YL	Attaches to channel to create a 90° upward angle from a straight horizontal run. Used with outside vertical 90° angle fitting FOVRA2X2YL or FOVRA4X4YL to change level of straight horizontal runs. Cover included.	2x2	1	5
FIVRA4X4YL		4x4	1	5

Outside Vertical Right Angle Fitting

FOVRA2X2YL	Attaches to channel to create a 90° downward angle from a straight horizontal run. Used with inside vertical 90° angle fitting FIVRA2X2YL or FIVRA4X4YL to change level of straight horizontal runs. Cover included.	2x2	1	5
FOVRA4X4YL		4x4	1	5

4x4 to 2x2 FIBER-DUCT Reducer Fitting

FRF42YL	Joins any 4x4 <i>FIBER-DUCT</i> fitting to the 2x2 <i>FIBER-DUCT</i> channel, S2x2YL6 or E2X2YL6. Includes cover.	2x2	1	5
		4x4		

4x4 FIBER-DUCT Channel to 4x5 Standard Vertical Slotted Duct Fitting

FRF4544BL	Connects 4x4 <i>FIBER-DUCT</i> channel to 4x5 standard vertical slotted duct. Hardware for attaching is included. Black color only.	4x4	1	5
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For other color replace suffix YL (Yellow) with OR (Orange).
Fittings include 5/16" assembly holes for fast mechanical fastening.

FIBER-DUCT™ Bend Radius Control Trumpet

- Provides method to transition cabling into rack system
- Maintains 1" (25.4mm) bend radius control



TRC2BL



TRC4BL

Part Number	Part Description	System Size	Std. Pkg. Qty.	Std. Ctn. Qty.
TRC2BL	Bend radius control trumpet for exiting at the sidewall of 2" wall heights of Type G or Type FS Wiring Duct channels	2x2	1	10
TRC4BL	Bend radius control trumpet for exiting at the sidewall of 4" wall heights of Type G or Type FS Wiring Duct channels	4x4	1	10

FIBER-DUCT Accessories



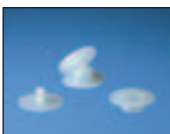
FITF2X2



FITF4X4A



FITF4X4B



NR2
NR4



F14PWN-L



F14PN-L



FBB

Part Number	Part Description	System Size	Std. Pkg. Qty.	Std. Ctn. Qty.
Innerduct Transition Fitting - 2x2 Size				
FITF2X2	Provides transition from 2x2 FIBER-DUCT Routing System to 3/4" (19mm) or 1" (25.4mm) inner duct.	2x2	1	10
Innerduct Transition Fitting - 4x4 Size				
FITF4X4A	Provides transition from 4x4 FIBER-DUCT Routing System to two pieces of 1" (25.4mm) inner duct.	4x4	1	10
Innerduct Transition Fitting - 4x4 Size				
FITF4X4B	Provides transition from 4x4 FIBER-DUCT Routing System to two pieces of 1 1/4" (31.8mm) inner duct.	4x4	1	10
Snap Rivets				
NR2WH-L	Snap rivet fastens channel and fittings together for added strength and rigidity. Snap rivet mounts flush to surfaces.	2x2	50	500
NR4BL-L		4x4	50	500
Plastic Bolts and Nuts				
F14PWN-L	1/4" plastic bolts and wing nuts fastens channel and fittings together for added strength and rigidity.	2x2	50	500
F14PN-L		4x4	50	500
F14PN-L	1/4" plastic bolts and hex nuts fastens channel and fittings together for added strength and rigidity.	2x2	50	500
F14PN-L		4x4	50	500
Snap Bracket Clip				
FBB2-X	Snap bracket enables the FIBER-DUCT channel to be quickly and securely mounted. Contains all hardware for assembly to any FIBER-DUCT bracket.	2x2	10	100
FBB4-X		4x4	10	100

FIBER-DUCT™ Mounting Brackets

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Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

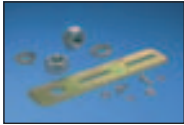
Cable Ties & Accessories

Supplementary Technical Information

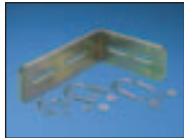
Glossary & Index



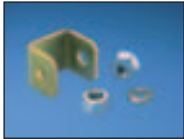
FTRBE12/FTRBE12M
FTRBE58



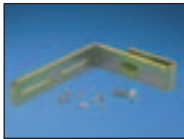
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FTRBN58



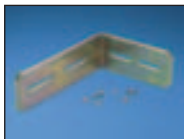
FUSB



FLB12X15
FLB58X15
FLB12X20
FLB58X20



FLRB



FLB



FTRB12
FTRB58



FZBA1.5X4

Part Number	Part Description	For Threaded Rod Size	Std. Pkg. Qty.	Std. Ctn. Qty.
Existing Threaded Rod Bracket for FIBER-DUCT System				
FTRBE12	Used for supporting the 2x2 and 4x4 FIBER-DUCT Systems from existing threaded rod installations. Bracket is secured to threaded rod with two split nuts. Contains hardware for attaching to threaded rods and hardware for mounting channel to bracket.	1/2"	1	10
FTRBE58		5/8"	1	10
FTRBE12M		12mm	1	10
New Threaded Rod Bracket for FIBER-DUCT System				
FTRBN12	Used for supporting the 2x2 and 4x4 FIBER-DUCT Systems from new threaded rod installations. Bracket is secured to threaded rod with two nuts. Contains hardware for attaching to threaded rods and hardware for mounting channel to bracket.	1/2"	1	10
FTRBN58		5/8"	1	10
FTRBN12M		12mm	1	10
Under-Floor Pedestal for FIBER-DUCT System				
FUSB	Used to support the 2x2 and 4x4 FIBER-DUCT Systems by attaching to under floor pedestal (not included). Use on pedestals up to 1" in diameter. Bracket contains hardware to attach to pedestal and hardware for mounting channel to bracket.	—	1	10
Bracket for Attaching Threaded Rod to 1 1/2" Ladder Rack				
FLB12X15	Bracket attaches to 3/8" (9.5mm) wide x 1 1/2" (38.1mm) ladder rack rail. Bracket accepts threaded rod (not included). Contains bracket and hardware for attaching bracket to ladder rack.	1/2"	1	10
FLB58X15		5/8"	1	10
Bracket for Attaching Threaded Rod to 2" Ladder Rack				
FLB12X20	Bracket attaches to 3/8" (9.5mm) wide x 2" (50.8mm) ladder rack rail. Bracket accepts threaded rod (not included). Contains bracket and hardware for attaching bracket to ladder rack.	1/2"	1	10
FLB58X20		5/8"	1	10
Ladder Rack Bracket for FIBER-DUCT System				
FLRB	Used to support the 2x2 and 4x4 FIBER-DUCT Systems attaching directly to any 3/8" (9.5mm) x 1 1/2" (38.1mm) or 3/8" (9.5mm) x 2" (50.8mm) ladder rack rail. No threaded rod required. Contains hardware for mounting channel to bracket.	—	1	10
"L" Wall Mount Bracket for FIBER-DUCT System				
FLB	Used to support 2x2 and 4x4 FIBER-DUCT Systems by attaching to a wall or the front or back of an equipment rack. Contains hardware for mounting channel to bracket.	—	1	10
Strut Metal Framing Bracket				
FTRB12	Bracket attaches to strut metal framing. Contains bracket and hardware for attaching threaded rod to metal framing.	1/2"	1	10
FTRB58		5/8"	1	10
Adjustable "Z" Bracket				
FZBA1.5X4	Bracket used to offset FIBER-DUCT System from mounting surface, adjustable from 1.5" (38mm) to 4" (101mm). Typically used on the front of an equipment rack.	—	1	10

FIBER-DUCT™ Mounting Brackets (continued)



FMRB



FEIAB58



F2PCLB12
F2PCLB58
F2PCLB12M
F2PCLB58M

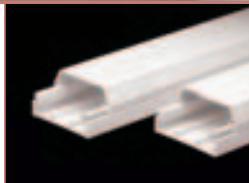


FRSLNKT12
FRSLNKT58
FRSLNKT12M
FRSLNKT58M

Part Number	Part Description	For Threaded Rod Size	Std. Pkg. Qty.	Std. Ctn. Qty.
Top Rail of Rack Support Bracket				
FMRB	Bracket attaches to top rail of equipment rack for added support in a vertical direction. Contains hardware for attaching bracket to an EIA/TIA rack and for mounting channel to bracket.	—	1	10
EIA/TIA Threaded Rod Mounting Bracket				
FEIAB58	Bracket consists of two identical components that clamp onto the crossmembers of standard EIA/TIA racks and are secured with standard hex nuts and split lockwashers (included) tightened onto a length of 5/8" diameter threaded rod (not included). The threaded rod is positioned in the center of the brackets providing a vertical threaded rod stud to mount <i>FIBERRUNNER</i> ™ and <i>FIBER-DUCT</i> threaded rod mounting brackets onto.	5/8"	1	10
Two Piece Ladder Rack Bracket for Attaching Threaded Rod to 1 1/2" - 2" Ladder Rack				
F2PCLB12	Two piece bracket attaches to 3/8" (9.5mm) wide x 1 1/2" (38.1mm) or 3/8" (9.5mm) wide by 2" (50.8mm) ladder rack rail. Bracket halves slide into position and clamp together on the ladder rack rail, which allows for a one-handed assembly of the threaded rod (not included). Contains bracket and hardware for attaching bracket to ladder rack.	1/2"	1	10
F2PCLB58		5/8"	1	10
F2PCLB12M		12 mm	1	10
F2PCLB58M		16 mm	1	10
Split Locking Nut Kit				
FRSLNKT12	Used to secure <i>FIBERRUNNER</i> mounting brackets anywhere along pre-installed threaded rod. Split nuts are opened, placed in desired position, closed and tightened.	1/2"	1	10
FRSLNKT58		5/8"	1	10
FRSLNKT12M		12 mm	1	10
FRSLNKT58M		16 mm	1	10

PAN-WAY® NON-METALLIC SURFACE RACEWAY

PAN-WAY Non-Metallic Surface Raceways provide maximum flexibility for routing, protecting and concealing high performance copper, voice, video, fiber-optic and power cabling which allows for moves, adds and changes for future upgrades. All PANDUIT® surface raceways include a full complement of fittings that are designed to maintain the proper bend radius control required for high performance copper and fiber optic cabling systems. PANDUIT raceway systems include transition fittings that facilitate seamless integration of one PANDUIT raceway system to another.



- Aesthetically pleasing
- Lightweight
- Tamper resistant
- Bend radius control
- Resists and conceals dents, scratches and chips
- Ease of modifications and additions
- Lowest installed cost

PANDUIT surface raceways are designed with attention to detail and form, as well as function and are aesthetically pleasing to blend with any decor.

PANDUIT surface raceway provides you with a variety of choices when selecting your data and electrical terminations. All of the raceways accept either NEMA 70mm standard "screw-on" faceplates or superior PANDUIT "snap-on" faceplates.

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

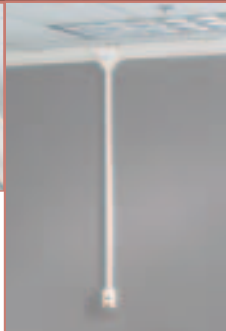
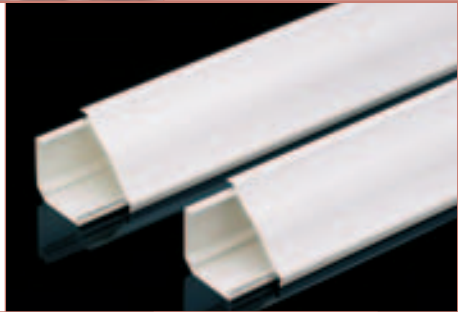
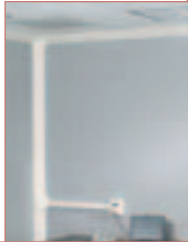
Labeling & Administration

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PAN-WAY® COVE RACEWAY NON-METALLIC SURFACE RACEWAY

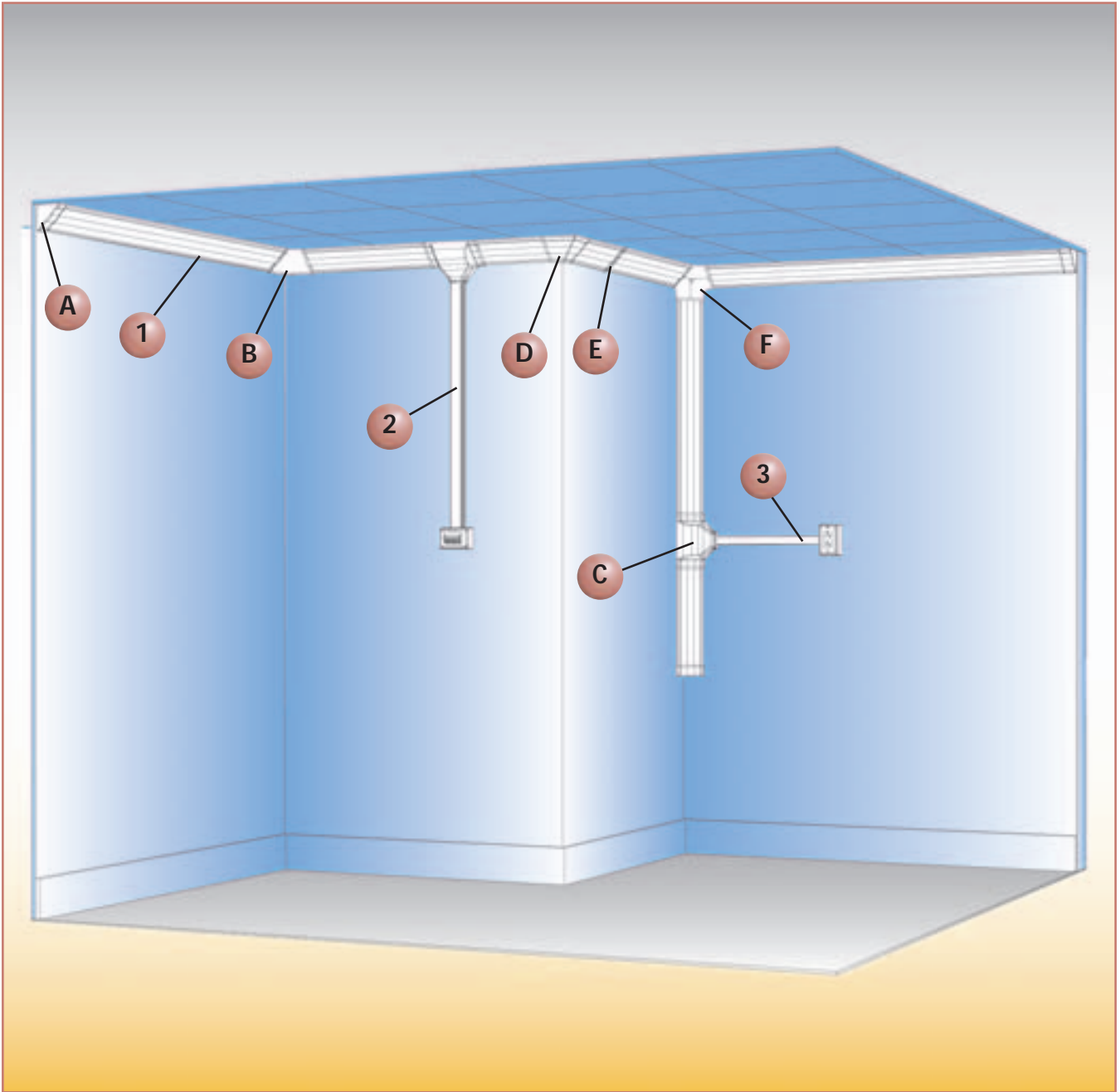


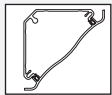
PAN-WAY Cove Raceway is a full line of NEC, TIA/EIA compliant raceway, which has the appearance of architectural molding, yet allows you to route, conceal, protect and terminate data, voice, video, fiber optic or power cabling. This new offering adds elegance to any room or work area by softening the horizontal angles between the wall and ceiling or the vertical angles between two walls.

- UL & CSA rated to 600V
- Bend radius control is maintained throughout the entire Cove Raceway System as required by TIA/EIA-568-B and 569-A
- Product mounts high out of reach for increased tamper resistance
- Divided channel system allows for routing and terminations of both power and data cabling
- Raceway and fitting covers may be painted to match any decor

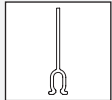
PANDUIT® cove raceway creates a unique architectural style and transitions easily to other PANDUIT raceway such as LD, LDP, LD2P10, PD (w/adapters), and T-45.

Cove Raceway Roadmap

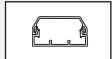




1 WCM35B, WCM35C –Cove Raceway Base and Cover (page J4)



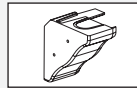
1 WCM35DW8 –Cove Raceway Divider Wall (page J4)



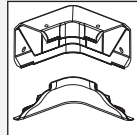
2 T-45 Raceway (page J36)



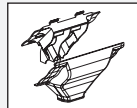
3 LDP Raceway (page J63)



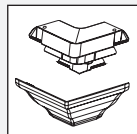
A WCM35ECIW –Cove Raceway End Cap (page J5)



B WCM35ICIW –Cove Raceway Inside Corner Fitting (page J5)



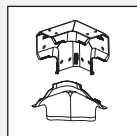
C WCM35TRIW –Cove Raceway Transition Fitting (page J5)



D WCM35OCIW –Cove Raceway Outside Corner Fitting (page J5)



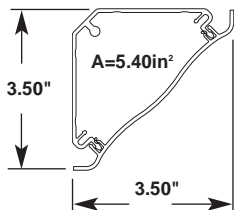
E WCM35CCIW-X –Cove Raceway Cover Coupler (page J5)



F WCM35TIW –Cove Raceway Tee Fitting (page J5)

UL SF PAN-WAY® Cove Raceway NEW!

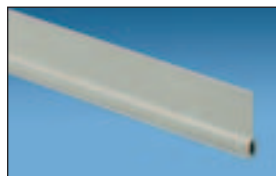
- UL & CSA rated 600V. Meets UL5A and CSA 22.2 No. 62-93 standards
- Bend radius control is maintained throughout the entire Cove Raceway System as required by TIA/EIA 568-B and 569-A
- Tamper Resistant
- Transitions to *PANDUIT*® T-45 and LD profile raceway
- Cove raceway and fittings may be painted to blend with any decor
- Supplied with pre-punched mounting holes



WCM35BIW8



WCM35CIW8



WCM35DW8

Part Number	Part Description	Raceway Size	Length (ft)	Color	Std. Ctn. Qty.
Cove Raceway Base					
WCM35BIW8	Cove raceway base is available in 8' lengths and is used for mounting in the horizontal corner between the ceiling and wall or vertical corner between walls.	3.50" x 3.50"	8	Off White	64
Cove Raceway Cover					
WCM35CIW8	Cove raceway cover available in 8' lengths.	–	8	Off White	64
Cove Raceway Divider Wall					
WCM35DW8	Cove raceway divider wall available in 8' lengths and is used to create separate channels in cove raceway base.	–	8	Gray	64

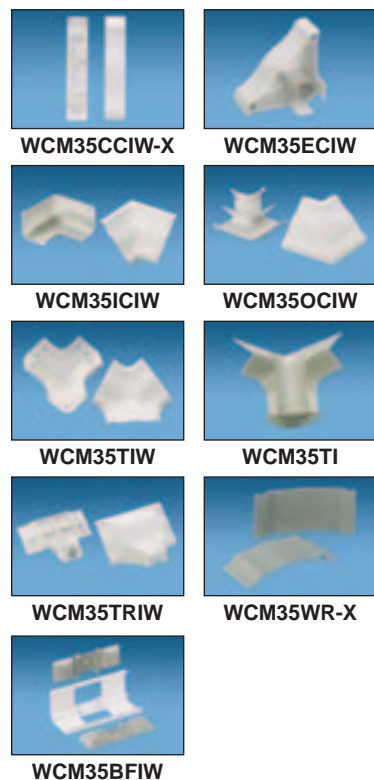
Order raceway base and cover separately.

‡ All parts available in IW (Off White) only except for WCM35DW8, WCM35WR-X and WCM35TI which are available in Gray.

Order number of feet required, in multiples of standard length increments.

UL **SF** **PAN-WAY**® Cove Raceway Fittings **★ NEW!**

- Cove Raceway fittings are designed to maintain the TIA/EIA 568-B and 569-A required minimum bend radius for high performance copper and fiber optic cabling systems



Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
WCM35CCIW-X	Cover coupler fittings. Used to join two pieces of cove raceway cover together.	Off White	10	100
WCM35ECIW	End cap fitting. Used to terminate or to enter the raceway. Includes two breakouts for 1/2" and 3/4" conduit.	Off White	1	10
WCM35ICIW	Inside corner fitting. Used to join cove raceway at inside corners. Maintains a minimum 1" bend radius of cabling.	Off White	1	10
WCM35OCIW	Outside corner fitting. Used to join cove raceway at outside corners. Maintains a minimum 1" bend radius of cabling.	Off White	1	10
WCM35TIW	Tee fitting. Used to join sections of cove Raceway to form a "tee" junction. Maintains a minimum 1" bend radius of cabling.	Off White	1	10
WCM35TI	Tee fitting insert. Mounts inside cove raceway tee fitting to maintain channel separation at tee junctions. Maintains a minimum 1" bend radius of cabling.	Gray	1	10
WCM35TRIW	Transition fitting. Used to transition from cove raceway to PAN-WAY T-45 Raceway and LD Series Raceway.	Off White	1	10
WCM35WR-X	Wire retainers. Holds wires in place. Will not interfere with cover installation.	Gray	10	100
WCM35BFIW	Backfeed fitting. Cove raceway backfeed fitting with inserts allows cable entry and exit through the back of the raceway and conduit. Breakouts include 1/2", 3/4" and 1" .	Off White	1	10

All parts available in IW (Off White) only except for WCM35DW8, WCM35WR-X and WCM35TI which are available in Gray.

Quick Wire Fill Capacities for Cove Raceway

This information is to be used as a guide in selecting the proper size raceway. The maximum amounts may vary according to the wire installation methods, straightness of wires, etc.



A=5.4in²

Wirefill #1: Open Channel without Devices



A=5.0in²

Wirefill #2: Open Channel with Wire Retainer



3A=2.4in²

3B=2.4in²

Wirefill #3: Divided Channel (Power and Data) with Wire Retainer and Divider Wall

SPEC=40% wire fill—the recommended design in cable capacity. Leaves room for future moves, adds and changes.

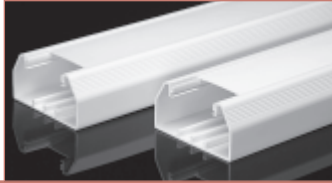
MAX for Data=60% wire fill—the maximum cable quantity based on cable interweaving and packing factors.

MAX for Power—the maximum of electrical cables based on UL temperature rise test.

Raceway Type & Configuration	Fill Area (in ²)	Electrical Cables			Data Grade Cable	Data Grade Cable	Coax Cable		Fiber Optic Cable			
		14 AWG	12 AWG	10 AWG	24 AWG/UTP CM	24 AWG/UTP CM	RG6		2 Strand			
		THHN/T90			Cat 5e, 4pr	Cat 6, 4pr	DIA.=.275		DIA.=.175			
		FILL			FILL		FILL		FILL			
		MAX	MAX	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX
1. WCM35: No Devices	5.4	50	40	30	58	87	44	66	29	43	89	134
2. WCM35: Using Wire Retainer - No Devices	5	50	40	30	54	81	41	61	26	40	83	124
3A. WCM35: Power and Data Using Wire Retainer and Divider Wall	2.4	—	—	—	25	38	19	28	13	19	39	58
3B. WCM35: Power and Data Using Wire Retainer and Divider Wall	2.4	30	25	20	—	—	—	—	13	19	22	—

PAN-WAY® TG-70 NON-METALLIC SURFACE RACEWAY

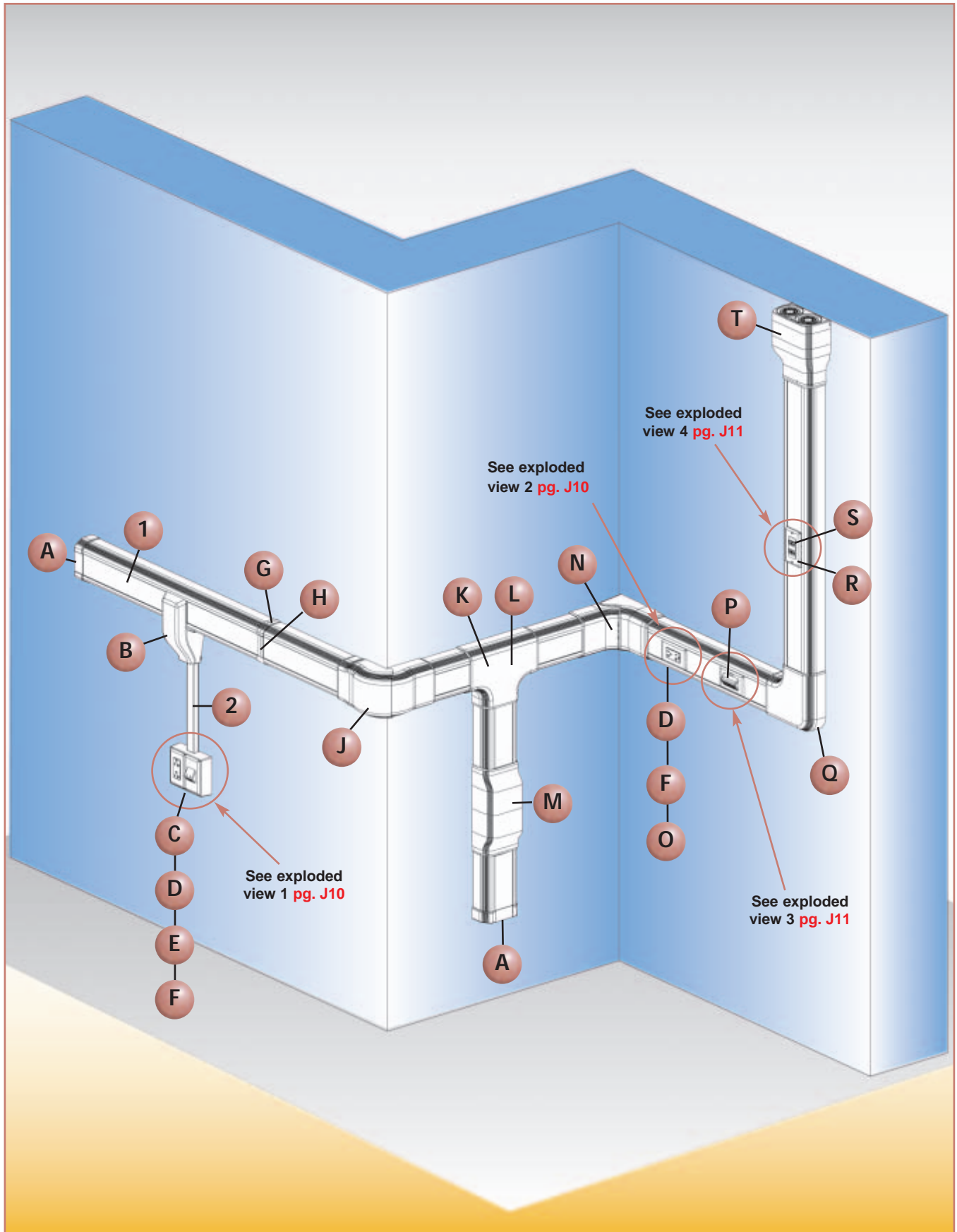
PAN-WAY® Non-Metallic TG-70 Surface Raceway is a multi-channel raceway, which provides a solution for routing low voltage, fiber optic and/or power cabling when maximum cable capacity is required. The TG-70 raceway system consists of raceway base and cover, fittings, termination hardware and accessories.

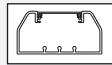


- Large raceway channel provides maximum capacity
- Fittings maintain 40mm (1.6") bend radius control
- Multi-channel two-piece design
- Aesthetically pleasing
- Lightweight
- Tamper resistant

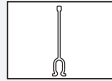
PANDUIT® TG-70 raceway can mount NEMA standard screw-on faceplates or superior PAN-WAY Snap-On Faceplates directly to the channel. Fittings for TG-70 are available to transition to PAN-WAYT-45 and LD Raceway.

TG-70 Raceway Roadmap





1 TG-70 Raceway Base and Cover (page J12)



1 TG-70 Raceway Divider Wall (page J12)



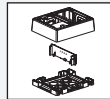
2 LD2P10 Raceway (page J61)



A TGEC** -TG-70 End Cap (page J13)



B TGTR** -TG-70 Transition Fitting (page J13)



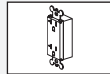
C JBP2FS** - FAST-SNAP® Double Gang Power Rated Surface Mount Box (page J45)



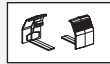
D T70PG** -Single Gang Rectangular Electrical/Communication Snap-On Faceplate (page J40)



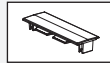
E T70FV2** -Vertical Sloped Communication Snap-On Faceplate (page J40)



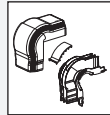
F ERU20** -20A Rectangular Electrical Outlet (page J42)



G TG70BC** -TG-70 Base Couplers (page J13)



H T70CC** -T-70 Cover Couplers (page J13)



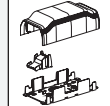
J TGOCC** -TG-70 Outside Corner Fitting (page J13)



K TGT** -TG-70 Tee Fitting (page J13)



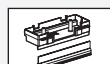
L TGTD -TG Tee Divider (page J13)



M TGBF** -TG-70 Backfeed Fitting (page J13)



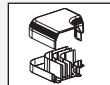
N TGIC** -TG-70 Inside Corner Fitting (page J13)



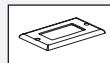
O TG70HB3-X -TG-70 Hanging Box with Divider Wall (page J14)



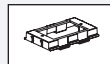
P UIT70FH4** - ULTIMATE ID™ Sloped Horizontal Snap-On Faceplate (page J40)



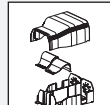
Q TGRA** -TG-70 Right Angle Fitting (page J13)



R CPG** -Single Gang Rectangular Power and Communication Faceplate (page J42)



S T70DB-X -T-70 Device Bracket (page J14)

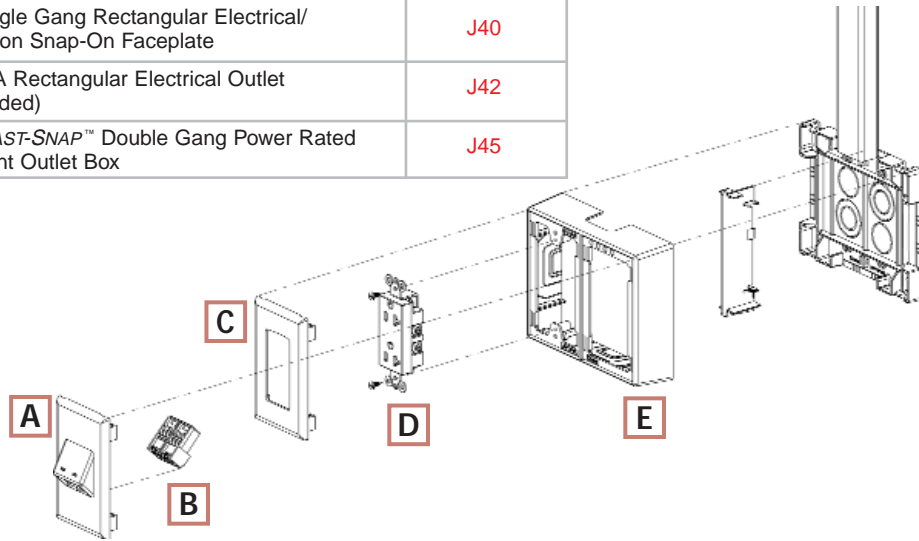


T TGEE** -TG-70 Entrance End Fitting (page J13)

TG-70 Configurations

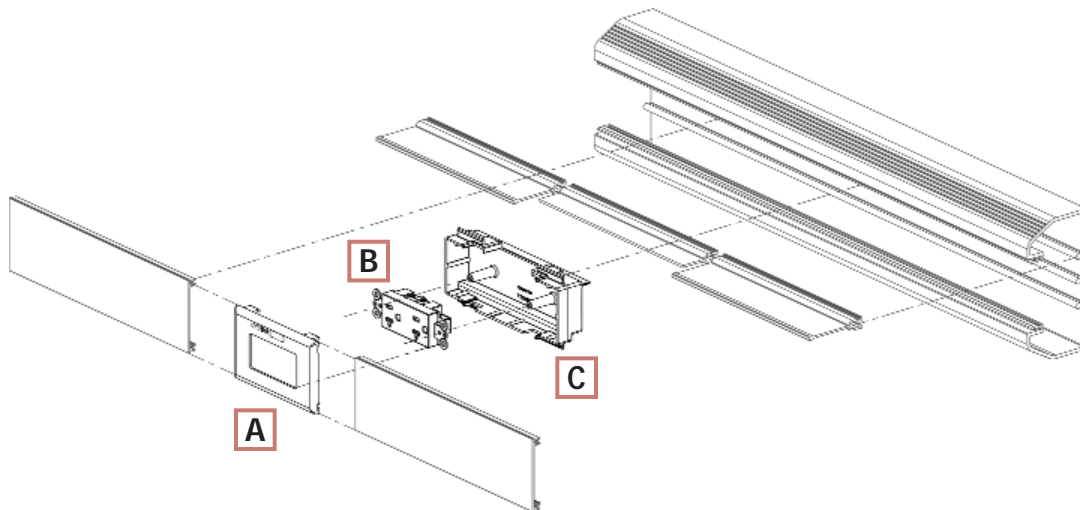
Exploded view 1

	Components Required	See page
A.	T70FV2 = Vertical Sloped Communication Snap-On Faceplate	J40
B.	CJ5E88T = <i>MINI-COM</i> ® TX5e Module	B3
C.	T70PG = Single Gang Rectangular Electrical/Communication Snap-On Faceplate	J40
D.	ERU20 = 20A Rectangular Electrical Outlet (screws included)	J42
E.	JBP2FS = <i>FAST-SNAP</i> ™ Double Gang Power Rated Surface Mount Outlet Box	J45



Exploded view 2

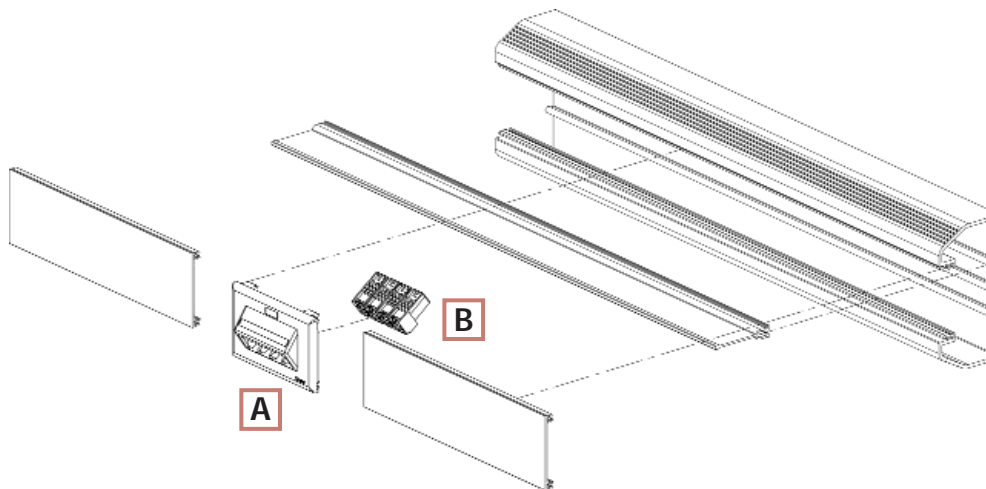
	Components Required	See page
A.	T70PG = Single Gang Rectangular Electrical/Communication Faceplate	J40
B.	ERU20 = 20A Rectangular Electrical Outlet (screws included)	J42
C.	TG70HB3 = TG-70 3-Sided Hanging Box	J14



TG-70 Configurations (Continued)

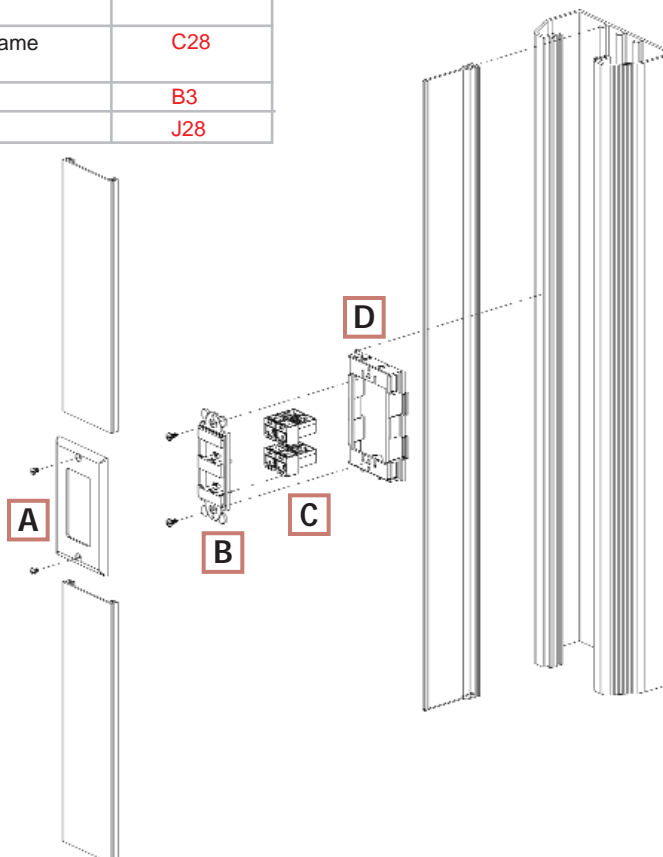
Exploded view 3

	Components Required	See page
A.	UIT70FH4 = <i>ULTIMATE ID™</i> Sloped Horizontal Snap-On Faceplate — 4 Port	C6
B.	CJ5E88T = <i>MINI-COM®</i> TX5e Module	B3



Exploded view 4

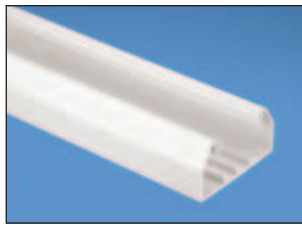
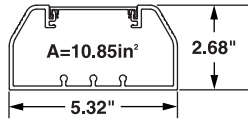
	Components Required	See page
A.	CPG = Single Gang Rectangular Screw-On Faceplate (screws included)	J42
B.	CFG4 — 4 Position Rectangular Module Frame (screws included)	C28
C.	CJ5E88T = <i>MINI-COM TX5e</i> Module	B3
D.	T70DB = T70 Device Bracket	J28





PAN-WAY® TG-70 Surface Raceway Base & Cover

- UL & CSA rated 600V. Meets UL5A and CSA 22.2 No 62-93 standards
- Large cable capacity with aesthetically pleasing design
- Tamper resistant
- Compatible with NEMA standard faceplates or PAN-WAY Classic Series Snap-On Faceplates
- Transitions to PANDUIT® T-45 and LD Profile Raceway
- Supplied with pre-punched mounting holes



TG70 Base



T70C



TGDW

Part Number	Part Description	Raceway Size	Color‡	Length (Ft)	Std. Ctn. Qty.
-------------	------------------	--------------	--------	-------------	----------------

TG-70 Raceway Base and Cover - PACKAGED TOGETHER

TG70IW8	TG-70 raceway base and cover in 8' and 10' lengths. Supplied with pre-punched mounting holes.	5.32" x 2.68"	Off White	8ft	32
TG70IW10				10ft	40

Type T-70/TE-70/TG-70/Twin-70 Raceway Cover

T70CIW8	T-70, TG-70, TE-70 or Twin-70 raceway tamper resistant cover in 8' and 10' lengths.	-	Off White	8	96
T70CIW10				10	120

TG-70 Raceway Divider Wall

TGDW8	Snaps onto rails in TG raceway base to create separate channels. Must use with wire retainers to ensure channel separation per UL/CSA. Available 8' and 10' lengths.	-	Gray	8	64
TGDW10				10	80

‡ For other colors replace IW (Off White) with EI (Electric Ivory).
Order number of feet required, in multiples of standard length increments.



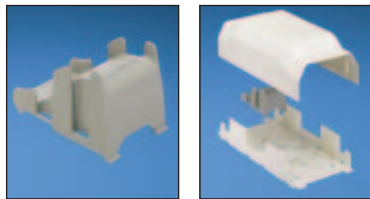
Type TG-70 Fittings

- TG70 fittings are designed to exceed the TIA/EIA 568-B and 569-A required minimum bend radius for high performance copper and fiber optic cabling systems



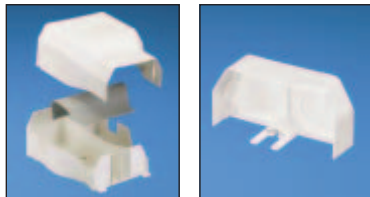
TG70BC

T70CC



TGBFI

TGBF



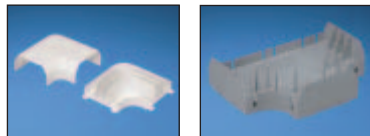
TGEE

TGEC



TGIC

TGOC



TGRA

TGTD



TGT

TGTR

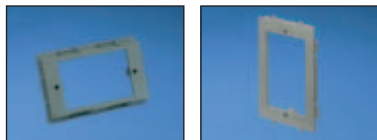
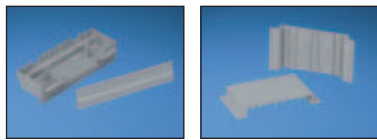

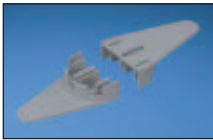
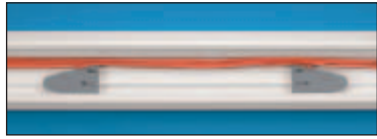

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
TG70BCIW-X	Base coupler fitting. Each piece includes 2 base coupler halves for joining sections of TG-70 base together.	Off White	10	100
T70CCIW-X	Cover coupler fitting. Used to join sections of cover together.	Off White	10	100
TGBFI	TG-70 backfeed fitting insert. Removable and maintains bend radius control.	Gray	1	10
TGBFIW	TG-70 backfeed fitting. Features breakouts to enter through the bottom of the fitting and maintains bend radius control with a removable bend radius insert and channel separation.	Off White	1	10
TGEEIW	TG-70 entrance end fitting. Accepts large conduit (up to 2") in line or at a right angle, maintains a 40mm bend radius with a removable insert and channel separation.	Off White	1	10
TGECIW	End cap. Used to terminate or allow entry to TG raceway. Two knockouts each for ½" (16mm) and 1" (27mm) conduit.	Off White	1	10
TGICIW	Inside corner fitting. Used to join sections of TG raceway at inside corners. Fittings adjust from 85° to 135° to adapt to non-square corners.	Off White	1	0
TGOCIW	Outside corner fitting. Used to join sections of TG raceway at outside corners. Fittings adjust from 85° to 135° to adapt to non-square corners.	Off White	1	0
TGRAIW	Right angle fitting. Used to join sections of TG raceway at 90° flat junctions.	Off White	1	10
TGTD	TG tee divider insert. Mounts inside TGT tee fitting to maintain channel separation in TG raceway at tee junctions.	Gray	1	5
TGTIW	Tee fitting. Used to join sections of TG Raceway at tee junctions.	Off White	1	5
TGTRIW	Transition fitting from TG to T-45 Provides a tee transition from TG raceway to T-45 and LD series size 5 and 10. Use with RF5X3 reducer fitting to transition to LD series size 3.	Off White	1	10

‡ For other colors replace IW (Off White) with EI (Electric Ivory).

System Overview
Modules
Ultimate ID System & Work Area
Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
Racks & Cable Management
Grounding & Bonding
Fiber Routing
Surface Raceway
Labeling & Administration
Cable Ties & Accessories
Supplementary Technical Information
Glossary & Index

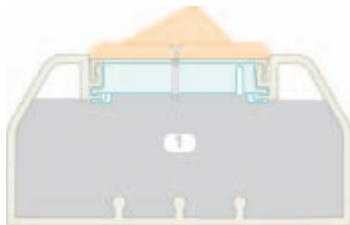
UL **SP** SA LISTED **Type TG-70 Raceway Accessories**

- TG-70 accessories consist of device mounting brackets, standard faceplate brackets for data, wire retainers and fiber spool brackets. The three-sided hanging box is used to mount NEMA standard single gang outlet and communications devices

Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
 <p>T70DB-X T70SDB-X</p>	T70DB-X Device mounting bracket. Used to mount NEMA standard single gang electrical outlets and communication devices with either screw-on or snap-on single gang faceplates. Can be used with T-70, Twin-70, TE-70 and TG-70 raceways.	Gray	10	100
 <p>T70SDB-X</p>	T70SDB-X Standard faceplate bracket. Used to mount NEMA standard single gang screw-on electrical/communication faceplates (not for use with snap-on faceplates)	Gray	10	100
 <p>TG70HB3-X TG70WR-X</p>	TG70HB3-X Three sided hanging box. Mounts standard electrical outlets or communication devices with either NEMA standard single gang screw-on or PANDUIT ® Snap-On Faceplates. When used with TGDW divider wall, box separates and fully encloses outlet/device to provide cabling separation.	Gray	10	100
 <p>TG70WR-X</p>	TG70WR-X Wire retainers. Holds wires in place. Will not interfere with cover installation.	Gray	10	100
 <p>TGFSB</p>	TGFSB Fiber spool bracket. Each piece consists of two halves that snap onto base of TG Raceway. Provides method to contain one (1) meter or more of fiber slack and provides a strain relief. Provides 32mm bend radius control. Bracket separation can be adjusted to fit the length of slack required.	Gray	1	10
 <p>TGFSB installed in TG-70 Raceway</p>				

Quick Wire Fill Capacities for TG-70 Raceway

This information is to be used as a guide in selecting the proper size raceway. The maximum amounts may vary according to the wire installation methods, straightness of wires, etc.



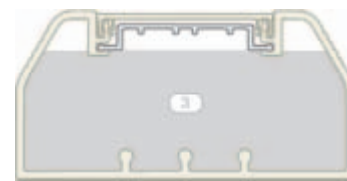
A=10.09in²

Wirefill #1: TG-70 with Data Only using "Screw-On" Faceplates and Devices



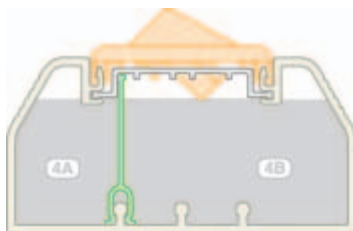
A=10.68in²

Wirefill #2: TG-70 with Data Only using "Snap-On" Faceplates and Wire Retainer



A=10.85in²

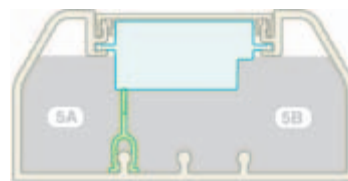
Wirefill #3: TG-70 with Wire Retainer without Devices



A=3.16in²

A=7.20in²

Wirefill #4: TG-70 Divided (see 5A and 5B for Power and Data Applications)



A=3.08in²

A=5.58in²

Wirefill #5: TG-70 with Power and Data using "Snap-On" Faceplates and 3-Sided Power Box

SPEC=40% wire fill—the recommended design in cable capacity. Leaves room for future moves, adds and changes.

MAX for Data=60% wire fill—the maximum cable quantity based on cable interweaving and packing factors.

MAX for Power wire fill—maximum number of electrical cables based on UL temperature rise test.

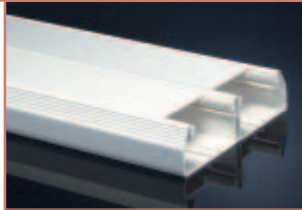
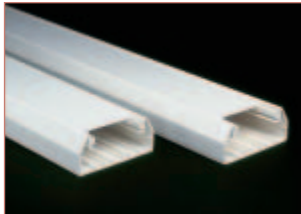
Raceway Type & Configuration	Fill Area (in ²)	Electrical Cables			Data Grade Cable	Data Grade Cable	Coax Cable		Fiber Optic Cable			
		14 AWG	12 AWG	10 AWG	24 AWG/UTP CM	24 AWG/UTP CM	RG6		2 Strand			
		THHN/T90			Cat 5e, 4pr	Cat 6, 4pr	DIA.=.275		DIA.=0.175			
		FILL			FILL	FILL	FILL		FILL			
		MAX	MAX	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX
(UL Temp Rise Test)			(40%)	(60%)	(40%)	(60%)	(40%)	(60%)	(40%)	(60%)		
1. TG70: Data Only using Screw on Faceplates and Devices	10.09	—	—	—	92	138	82	123	53	80	164	247
2. TG70: Data Only using Snap-on Faceplates and Wire Retainer	10.68	—	—	—	97	146	87	130	56	85	174	261
3. TG70: Wire Retainer without Devices	10.85	40	40	38	99	148	88	132	57	86	177	265
4A. TG70: Divided Power and Data (A)	3.16	28	28	26	28	43	25	38	17	25	51	77
4B. TG70: Divided Power and Data (B)	7.2	—	—	—	65	98	58	88	38	57	117	176
5A. TG70: Power and Data using Snap-On Faceplates and 3 Sided Power Box (A)	3.08	28	28	26	28	42	25	37	16	24	50	75
5B. TG70: Power and Data using Snap-On Faceplates and 3 Sided Power Box (B)	5.58	—	—	—	51	76	45	68	30	44	91	136

NOTES

System Overview	Modules	Ultimate ID System & Work Area	Zone Cabling	Patch Panels Copper Patch Cords & Punchdowns	Fiber Connectors Enclosures & Patch Cords	Racks & Cable Management	Grounding & Bonding	Fiber Routing	Surface Raceway	Labeling & Administration	Cable Ties & Accessories	Supplementary Technical Information	Glossary & Index
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PAN-WAY® T-70 AND TWIN-70 NON-METALLIC SURFACE RACEWAY

PAN-WAY Non-Metallic T-70 and Twin-70 Surface Raceways are multi-channel raceways which provide solutions for routing low voltage, fiber optic and/or power cabling along fixed perimeter walls. The T-70 and Twin-70 raceway systems consist of raceway base and cover, fittings, termination hardware and accessories.



Type T-70:

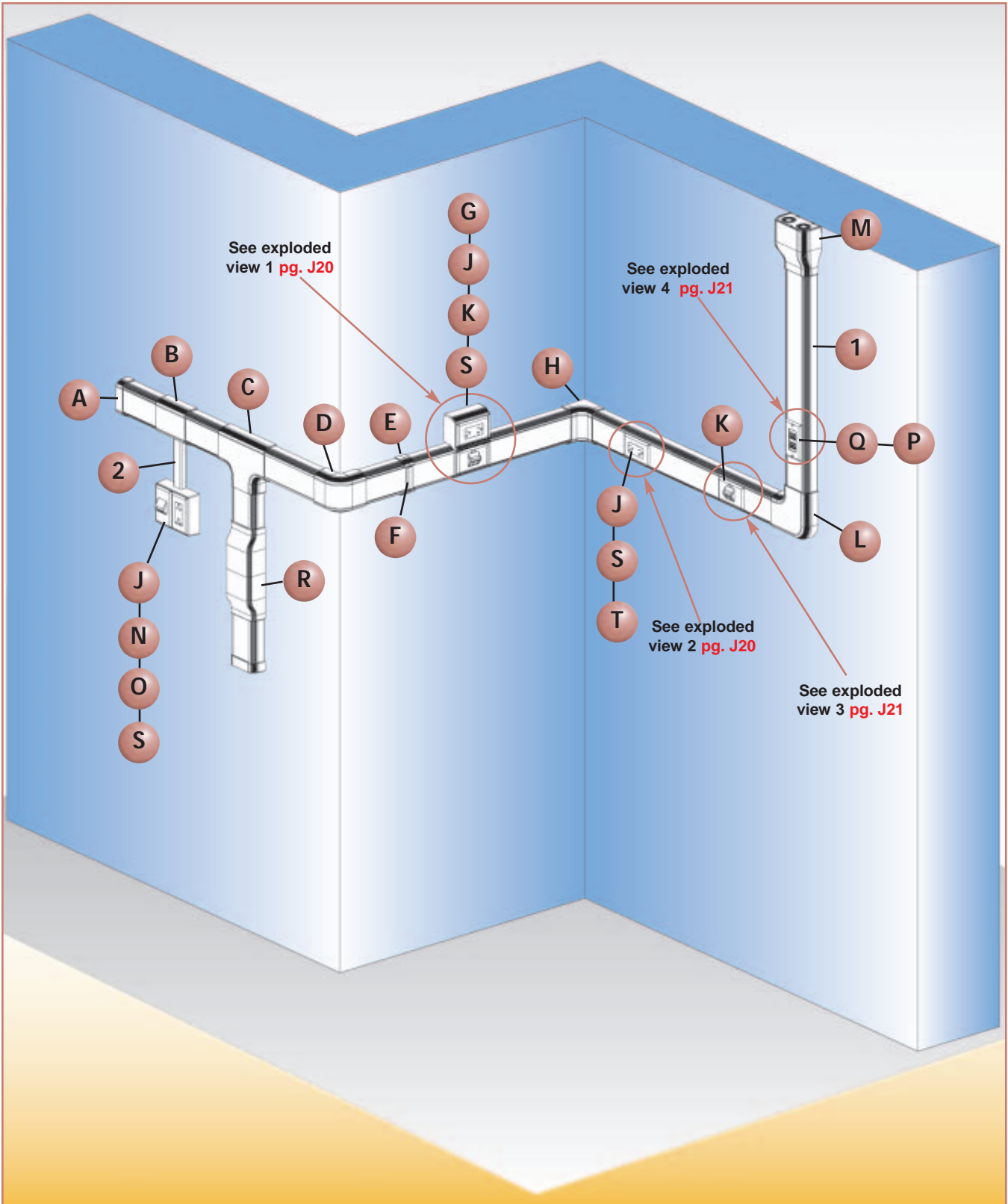
- T-70 utilizes a single channel with snap-in divider wall to provide multi channel capability
- Aesthetically pleasing
- Lightweight
- Tamper resistant
- Fittings maintain 1" bend radius control

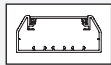
Type Twin-70:

- Twin-70 utilizes two independent channels and covers to provide multi-channel capability
- Aesthetically pleasing
- Lightweight
- Tamper resistant
- Fittings maintain 1" bend radius control

PANDUIT® T-70 and Twin-70 raceway can mount NEMA standard screw-on faceplates or superior PAN-WAY Snap-On Faceplates directly to the channel. T-70 features the *WORKSTATION OUTLET CENTER™* Offset Box which provides an offset solution to maximize channel capacity and outlet density. Twin-70 offers two totally independent channels maintained throughout the system for independent access to power and low voltage and fiber optic cabling. Fittings for T-70 and Twin-70 are available to transition to T-70, Twin-70, T-45 and LD raceways.

T-70 Raceway Roadmap





1 T70B**, T70C** –T-70 Base and Cover (page J24)



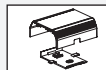
1 T70DW –T-70 Divider Wall (page J24)



2 LDP10** –LDP10 Raceway (page J63)



A T70EC** –T-70 End Cap Fitting (page J25)



B T70TR** –T-70 Transition Fitting (page J25)



C T70T** –T-70 Tee Fitting (page J25)



D T70OC** –T-70 Outside Corner Fitting (page J25)



E T70BC** –T-70 Base Coupler Fitting (page J25)



F T70CC** –T-70 Cover Coupler Fitting (page J25)



G T70WC2** –T-70 Workstation Outlet Center Offset box for Snap-On Faceplates (page J25)



H T70IC** –T-70 Inside Corner Fitting (page J25)



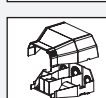
J T70PG** –Single Gang Rectangular Electrical Communication Snap-On Faceplate (page J40)



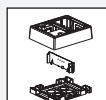
K UIT70FH2** – *ULTIMATE ID*™ Sloped Horizontal Snap-On Faceplate (page C6)



L T70RA** –T-70 Right Angle Fitting (page J25)



M T70EE** –T-70 Entrance End Fitting (page J25)



N JBP2FS** – *FAST-SNAP*® Double Gang Power Rated Surface Mount Outlet Box (page J45)



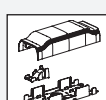
O T70FV2** –Vertical Sloped Communication Snap-On Faceplate (page J40)



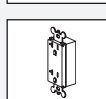
P T70DB-X –T-70 Device Bracket (page J28)



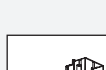
Q CPG** –Single Gang Rectangular Screw-On Faceplate (page J42)



R T70BF** –T-70 Backfeed Fitting (page J25)



S ERU20** –20A Rectangular Electrical Outlet (page J42)

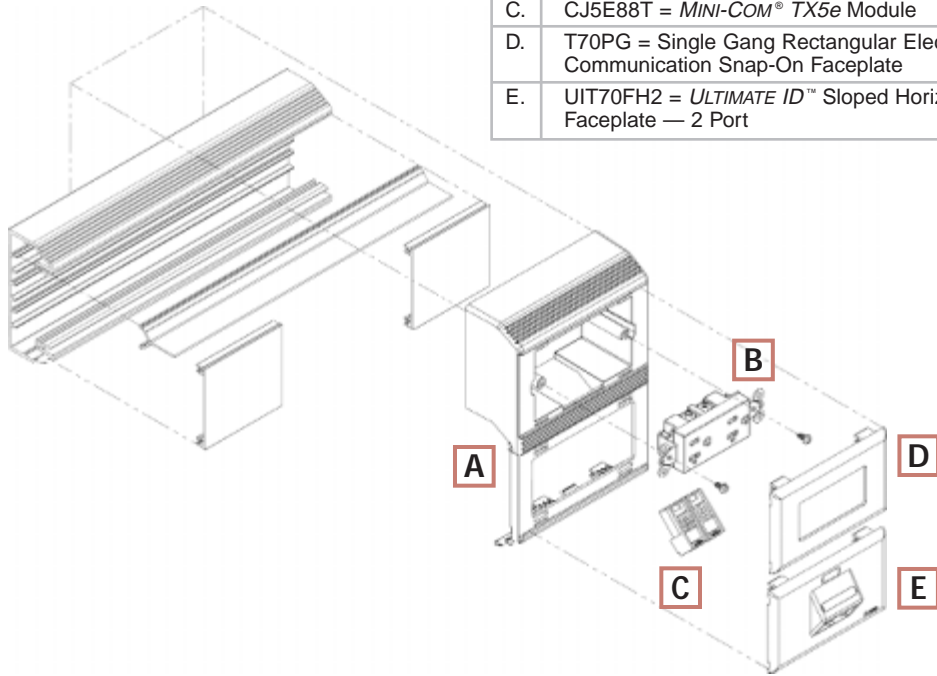


T T70HB3-X –Three Sided Hanging Box (page J28)

T-70 Configurations

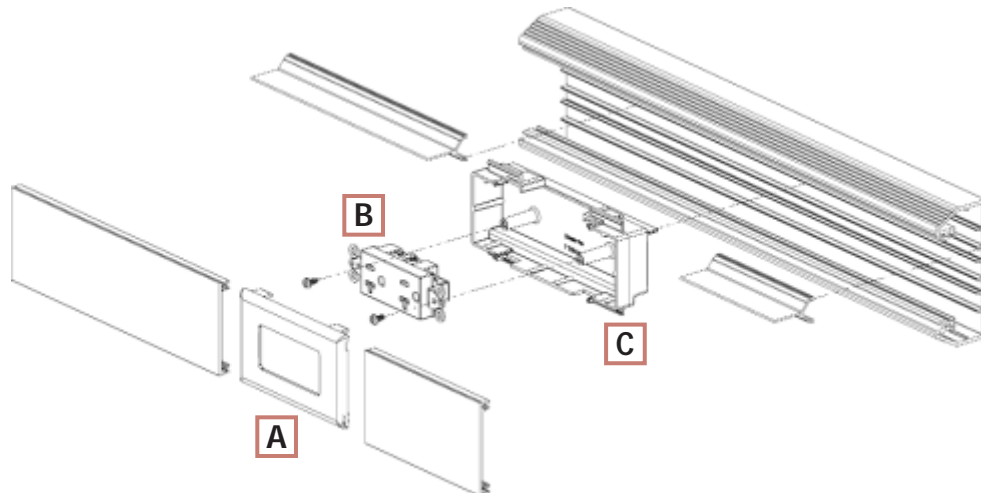
Exploded view 1

	Components Required	See page
A.	T70WC2 = T-70 Workstation Outlet Center Offset Box for Snap-On Faceplates	J25
B.	ERU20 = 20A Rectangular Electrical Outlet (screws included)	J42
C.	CJ5E88T = <i>MINI-COM</i> ® TX5e Module	B3
D.	T70PG = Single Gang Rectangular Electrical/Communication Snap-On Faceplate	J40
E.	UIT70FH2 = <i>ULTIMATE ID</i> ™ Sloped Horizontal Snap-On Faceplate — 2 Port	C6



Exploded view 2

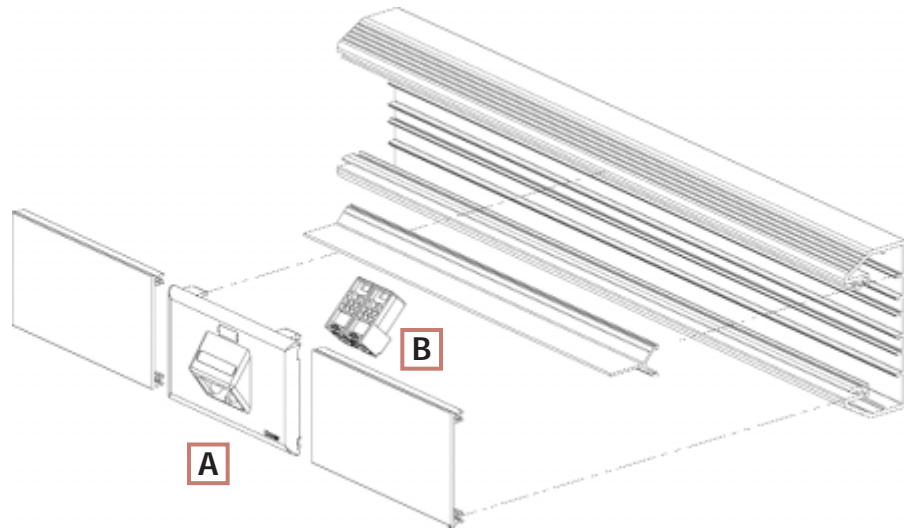
	Components Required	See page
A.	T70PG = Single Gang Rectangular Electrical/Communication Snap-On Faceplate	J40
B.	ERU20 = 20A Rectangular Electrical Outlet (screws included)	J42
C.	T70HB3-X = Three Sided Hanging Box	J28



T-70 Configurations (Continued)

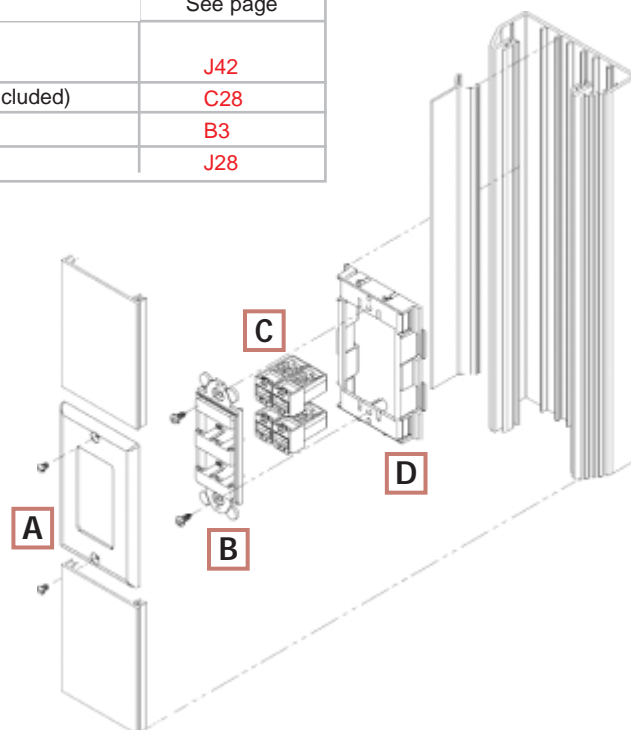
Exploded view 3

	Components Required	See page
A.	UIT70FH2 = <i>ULTIMATE ID</i> ™ Sloped Horizontal Snap-On Faceplate — 2 Port	C6
B.	CJ5E88T = <i>MINI-COM</i> ® TX5e Module	B3

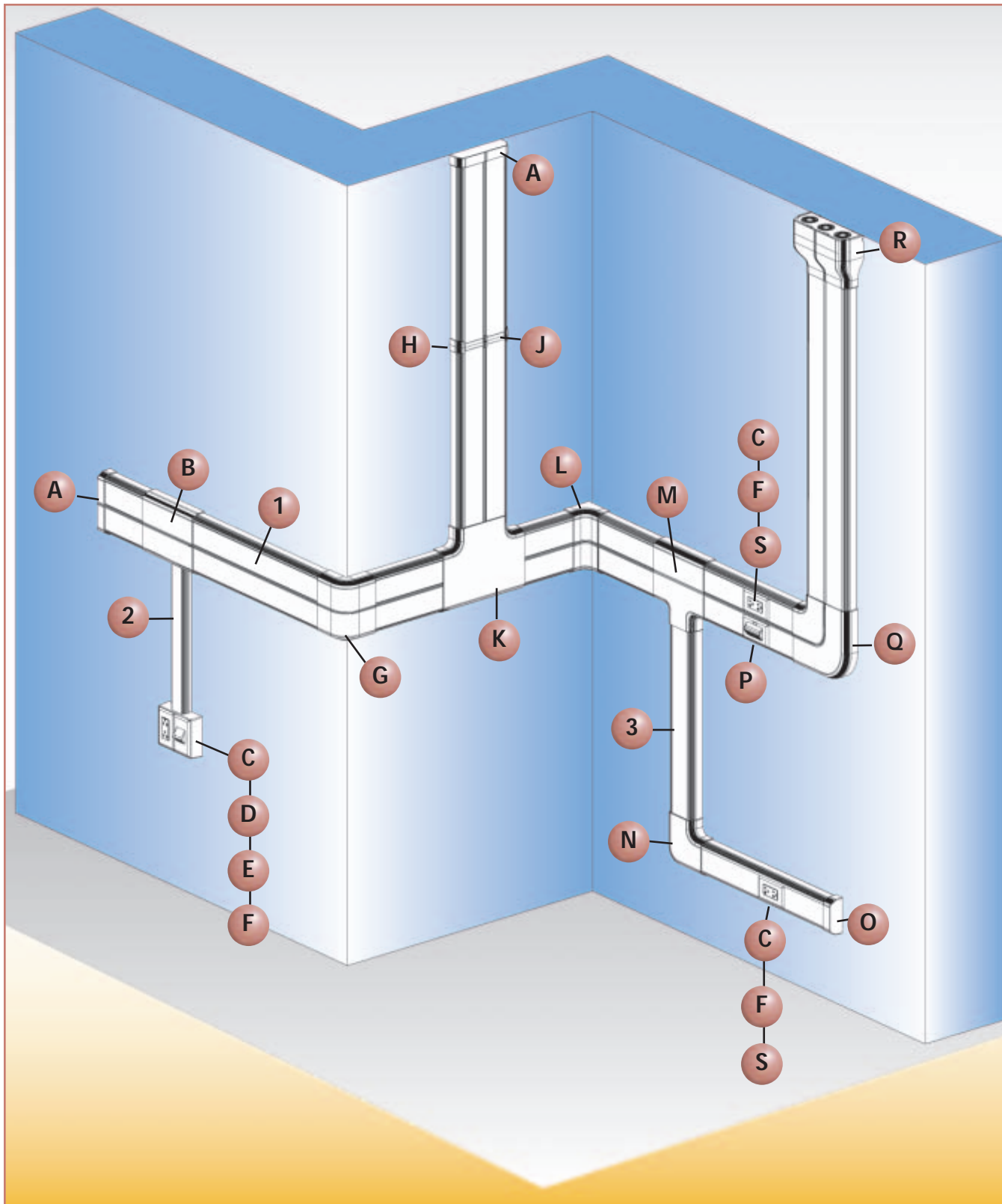


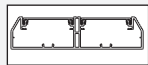
Exploded view 4

	Components Required	See page
A.	CPG = Single Gang Rectangular Screw-On Faceplates (screws included)	J42
B.	CFG4 = 4 Position Rectangular Module Frame (screws included)	C28
C.	CJ5E88T = <i>MINI-COM</i> TX5e Module	B3
D.	T70DB-X = T-70 Device Bracket	J28

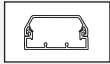


Twin-70 Raceway Roadmap

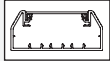




1 T702 Raceway Base and Cover (page J26)



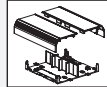
2 T-45 Raceway Base and Cover (page J36)



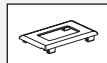
3 T-70 Raceway Base and Cover (page J24)



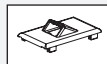
A T702EC** -Twin-70 End Cap Fitting (page J27)



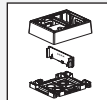
B T702TRL** -Twin-70 Transition Fitting (page J27)



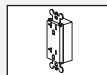
C T70PG** -Single Gang Rectangular Electrical/Communication Snap-On Faceplate (page J40)



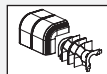
D T70FV2** -Vertical Sloped Communication Snap-On Faceplate (page J40)



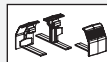
E JBP2FS** -Fast-Snap™ Double Gang Power Rated Surface Mount Outlet Box (page J45)



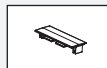
F ERU20** -20A Rectangular Electrical Outlet (page J42)



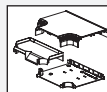
G T702OC** -Twin-70 Outside Corner Fitting (page J27)



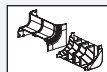
H T702BC** -Twin-70 Base Coupler Fitting (page J27)



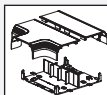
J T70CC** -T-70 Cover Coupler Fitting (page J25)



K T702T** -Twin-70 Tee Fitting (page J27)



L T702IC** -Twin-70 Inside Corner Fitting (page J27)



M T702TR** -Twin-70 Transition Fitting (page J27)



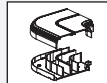
N T70RA** -T-70 Right Angle Fitting (page J25)



O T70EC** -T-70 End Cap Fitting (page J25)



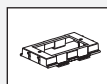
P UIT70FH4** -Ultimate ID™ Sloped Horizontal Snap-On Faceplate (page C6)



Q T702RA** -Twin-70 Right Angle Fitting (page J27)



R T702EE** -Twin-70 Entrance End Fitting (page J27)



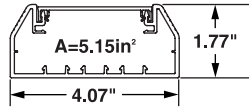
S T70DB-X** -T-70 Device Mounting Bracket (page J28)



PAN-WAY® T-70 Surface Raceway Base & Cover

- UL & CSA rated 600V. Meets UL5A and CSA 22.2 No. 62-93 standards
- Large cable capacity with aesthetically pleasing design
- Tamper resistant

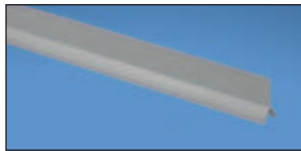
- Compatible with NEMA standard faceplates or PAN-WAY Classic Series Snap-On Faceplates
- Transitions to PANDUIT® T-45 and LD Profile Raceways
- Supplied with pre-punched mounting holes



T70B



T70C



T70DW

Part Number	Part Description	Raceway Size	Color‡	Length (ft)	Std. Ctn. Qty.
T-70 Raceway Base					
T70BIW8	T-70 Raceway Base in 8' and 10' lengths. Supplied with pre-punched mounting holes.	4.07" x 1.77"	Off White	8	48
T70BIW10				10	60

Part Number	Part Description	Raceway Size	Color‡	Length (ft)	Std. Ctn. Qty.
Type T-70/TE-70/TG-70/Twin-70 Raceway Cover					
T70CIW8	T-70, TG-70, TE-70 or Twin-70 raceway tamper resistant cover in 8 and 10 ft. lengths.	–	Off White	8	96
T70CIW10		–		10	120

Part Number	Part Description	Raceway Size	Color‡	Length (ft)	Std. Ctn. Qty.
T-70/Twin70 Raceway Divider Wall					
T70DW8	Snaps onto rails in T-70/Twin-70 raceway base to create separate channels. Must use with wire retainers to ensure channel separation per UL/CSA. Available in 8' and 10' lengths.	–	Gray	8	96
T70DW10		–		10	120

‡ For other colors replace IW (Off White) with EI (Electric Ivory) or WH (White).
Order raceway base and cover separately.
Order number of feet required, in multiples of standard length increments.



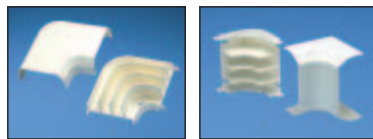
Type T-70 Fittings

- T-70 fittings are designed to maintain the TIA/EIA 568-B and 569-A required minimum bend radius for high performance copper and fiber optic cabling systems



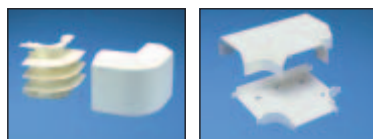
T70CC

T70BC



T70RA

T70IC



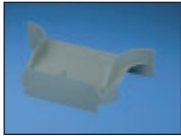
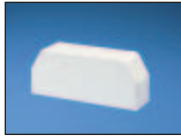










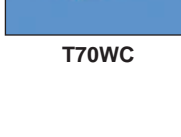
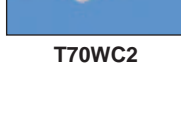
T70OC

T70T

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
T70CCIW-X	Cover coupler fitting. Used to join sections of cover together.	Off White	10	100
T70BCIW-X	Base coupler fitting. Used to join sections of base together.	Off White	10	100
T70RAIW	Right angle fitting. Used to join sections of T-70 raceway at right angles.	Off White	1	10
T70ICIW	Inside corner fitting. Used to join sections of T-70 raceway at inside corners.	Off White	1	10
T70OCIW	Outside corner fitting. Used to join sections of T-70 raceway at outside corners.	Off White	1	10
T70TIW	Tee fitting. Used to join sections of T-70 raceway at tee junctions.	Off White	1	10

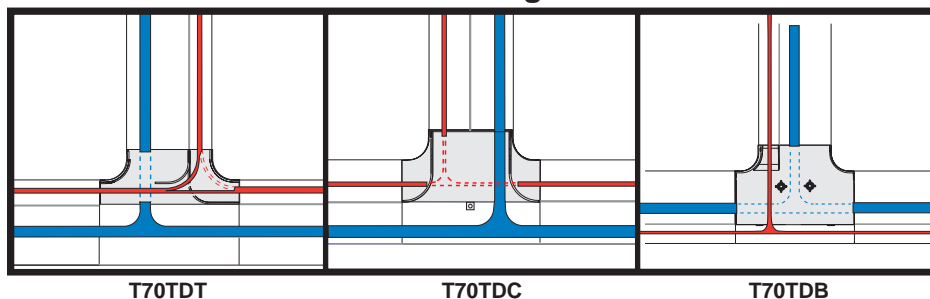
‡ For other colors replace IW (Off White) with EI (Electric Ivory) or WH (White).
Wiremold is a registered trademark of the Wiremold® Co.

Type T-70 Fittings (Continued)

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
 T70TDT T70TDC T70TDB	T-70 raceway divider inserts (power & data applications). Separate power and data within tee fitting when divider wall placed in top center or bottom position. (top position)	Gray	1	10
 T70EC	T-70 raceway divider inserts (power & data applications). Separate power and data within tee fitting when divider wall placed in top center or bottom position. (center position)	Gray	1	10
 T70EE	T-70 raceway divider inserts (power & data applications). Separate power and data within tee fitting when divider wall placed in top center or bottom position. (bottom position)	Gray	1	10
 T70TR T70TRC	End cap fitting. Used to terminate or allow entry to T-70 Raceway with conduit breakouts of 1/2".	Off White	1	10
 T70EEIW	Entrance end fitting. Conduit breakouts of 1/2", 3/4", 1", 1 1/4". Entry from ceiling or wall.	Off White	1	10
 T70TRIW	Transition fitting to any LD Profile or T45 Raceway. Includes fitting for bend radius control. Maintains channel separation within T-70 raceway. Includes base & cover. (use T45TRI to transition to T-45)	Off White	1	10
 T70TRCIW	Transition fitting to any LD Profile or T-45 raceway. Cover only.	Off White	1	10
 T70TRI	Divided insert for T-70 to LD2P10. Maintains channel separation within T70TR fitting.	Gray	1	10
 T70BFIW	T-70 backfeed fitting. Allows cable entry through the back of the raceway.	Off White	1	10
 T70BFI	T-70 backfeed fitting insert	Gray	1	10
 T70WM40TRIW	T-70 to WM transition fitting. In-line transition fitting from Wiremold® G4000 to T-70.	Off White	1	10
 T70WC1W	<i>WORKSTATION OUTLET CENTER™</i> Offset Box for Screw-On Faceplates. Two-piece box & bracket accept any NEMA standard screw-on faceplate.	Off White	1	10
 T70WC	<i>WORKSTATION OUTLET CENTER™</i> Offset Box for <i>PAN-WAY™</i> Snap-On Faceplates. Two-piece box & bracket accept any standard electrical outlet. Accepts any <i>PAN-WAY</i> Snap-On Electrical/Communication Faceplates.	Off White	1	10
 T70WC2				

‡ For other colors replace IW (Off White) with EI (Electric Ivory) or WH (White).
Wiremold is a registered trademark of the Wiremold® Co.

Tee Insert Configurations



—KEY—

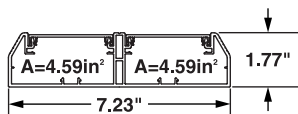
- █ Data Cabling
- █ Power Cabling
- █ Tee Insert
- █ Divider Wall

Divided Tee Inserts are used to separate power and data cabling for various tee configurations. Maintains 1" bend radius of data cables.

System Overview
Modules
Ultimate ID System & Work Area
Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
Racks & Cable Management
Grounding & Bonding
Fiber Routing
Surface Raceway
Labeling & Administration
Cable Ties & Accessories
Supplementary Technical Information
Glossary & Index

PAN-WAY® Twin-70 Surface Raceway Base & Cover

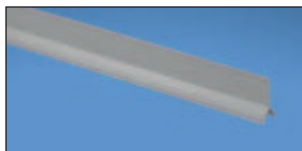
- UL & CSA rated 600V. Meets UL5A and CSA 22.2 No. 62-93 standards
- Separate channels allow independent access to power and communication cabling throughout the entire system
- Transitions to *PANDUIT*® T-70, T-45 and LD Profile Raceways
- Compatible with NEMA Standard Faceplates or *PAN-WAY* Designer Series Snap-On Faceplates
- Tamper resistant
- Supplied with pre-punched mounting holes



T702B



T70C



T70DW

Part Number	Part Description	Raceway Size	Color‡	Length (ft)	Std. Ctn. Qty.
Twin-70 Raceway Base					
T702BIW8	Twin-70 Raceway base is offered in 8' and 10' lengths. Supplied with pre-punched mounting holes.	7.23" x 1.77"	Off White	8	24
T702BIW10				10	30

Type T-70/TE-70/TG-70/Twin-70 Raceway Cover

T70CIW8	T-70, TG-70, TE-70 or Twin-70 raceway tamper resistant cover in 8 and 10 ft. lengths.	–	Off White	8	96
T70CIW10		–		10	120

T-70 Raceway Divider Wall

T70DW8	Snaps onto rails in T-70/Twin-70 raceway base to create separate channels. Must use with wire retainers to ensure channel separation per UL/CSA. Available in 8' and 10' lengths.	–	Gray	8	96
T70DW10		–		10	120

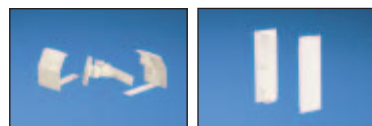
‡ For other colors replace IW (Off White) with EI (Electric Ivory) or WH (White).

Two feet of cover needed for every foot of Twin-70 base.

Order number of feet required, in multiples of Standard Length Increments.

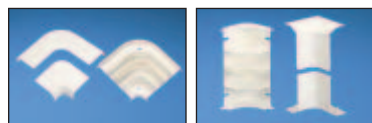
UL **SP** **Type Twin-70 Fittings**

- Twin-70 fittings are designed to maintain the TIA/EIA 568-B and 569-A required minimum bend radius for high performance copper and fiber optic cabling systems



T70CC

T702BC



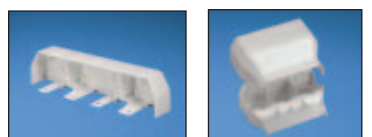
T702RA

T702IC



T702OC

T702T



T702EC

T702EE



T702TR

T702TRL



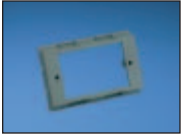


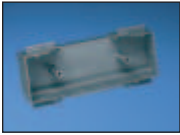
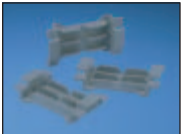

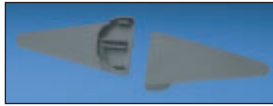
T702TRI

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
T70CCIW-X	Cover coupler fitting. Used to join sections of cover together.	Off White	10	100
T702BCIW-X	Base coupler fitting. Used for joining sections of Twin-70 base together.	Off White	10	100
T702RAIW	Right angle fitting. Used to join sections of Twin-70 raceway at 90 degrees flat junctions.	Off White	1	10
T702ICIW	Inside corner fitting. Used to join sections of Twin-70 raceway at inside corners.	Off White	1	10
T702OCIW	Outside corner fitting. Used to join sections of Twin-70 raceway at outside corners.	Off White	1	10
T702TIW	Tee fitting. Used to join sections of Twin-70 raceway at tee junctions.	Off White	1	5
T702ECIW	End cap fitting. Used to terminate or allow entry to Twin-70 Raceway with conduit breakouts of 1/2"	Off White	1	10
T702EEIW	Entrance end fitting. Conduit breakouts of 1/2", 1", 1 1/4". Entry from ceiling or wall.	Off White	1	5
T702TRIW	Transition fitting. Used to transition to T-70 Raceway.	Off White	1	5
T702TRLIW	Transition fitting. Used to transition to any LD Profile or T-45 raceway.	Off White	1	5
T702TRI	Transition Divider Insert for T702 to T-70 or T702 to LD profile. Maintains channel separation within T702TR or T702TRL fitting.	Gray	1	10

‡ For other colors replace IW (Off White) with EI (Electric Ivory) or WH (White).

Type T-70 & Twin-70 Raceway Accessories

- T-70 and Twin-70 accessories consist of device mounting brackets, snap-on device brackets, hanging boxes and three sided hanging boxes used to mount NEMA standard single gang electrical outlets and or communication devices

Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
 T70DB-X	 T70SDB-X	T70DB-X		
T70DB-X	Device mounting bracket. Used to mount NEMA standard single gang electrical outlets and communication devices with either screw-on or snap-on single gang faceplates. Can be used with T-70, Twin-70, TE-70 and TG-70 raceways.	Gray	10	100
T70SDB-X	Standard faceplate bracket. Used to mount NEMA standard single gang screw-on electrical/communication faceplates (not for use with snap-on faceplates)	Gray	10	100
 T70HB-X	 T70HB3-X	T70HB-X		
T70HB-X	Hanging box. Used to mount NEMA standard single gang electrical outlets and devices with either screw-on or snap-on single gang faceplates when there are communications cables in the raceway. For use in T-70 and Twin-70 Raceway only.	Gray	10	100
T70HB3-X	Three sided hanging box. Used to mount NEMA standard single gang electrical outlets and devices with either screw-on or snap-on single gang faceplates when there are communications cables in the raceway. No break-outs are required. Low profile increases capacity in raceway. For use with T-70 & Twin-70 raceway only.	Gray	10	100
 T70WR-X	 T70S-X	T70WR-X		
T70WR-X	Wire retainer. Holds wires in place. Will not interfere with cover installation. For use with T-70, Twin-70 and TE-70 raceways only.	Gray	10	100
T70S-X	Spacer plate. Used to mount a CBX4 Surface Mount Box onto the device bracket or hanging box shown above.	-	10	100
 T70FSB	T70FSB			
T70FSB	Fiber spool bracket. Snaps onto base of T-70 or Twin-70. Provides method to contain 1m or more of fiber slack and provides strain relief. Maintains 30mm bend radius for fiber optic cabling. Bracket distance can be adjusted to fit the length of slack required.	Gray	1	10



Use the T70FSB with T-70 raceway to contain 1m or more of fiber slack while maintain a 1" cable bend radius. Brackets are adjustable for slack length.



Use T70S-X spacer plate for the mounting of CBX4 Surface Mount Box on T-70 or T702.

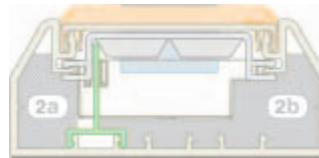
Quick Wire Fill Capacities for T-70 Raceway

This information is to be used as a guide in selecting the proper size raceway. The maximum amounts may vary according to the wire installation methods, straightness of wires, etc.



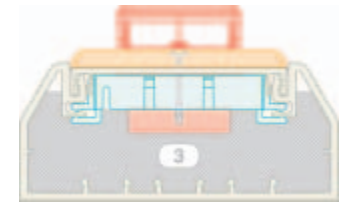
A=5.15in²

Wirefill #1: T-70 Raceway with no Devices



A=.86in² **A=1.72in²**

Wirefill #2: Power and Data using Three Sided Hanging Box and Device Bracket



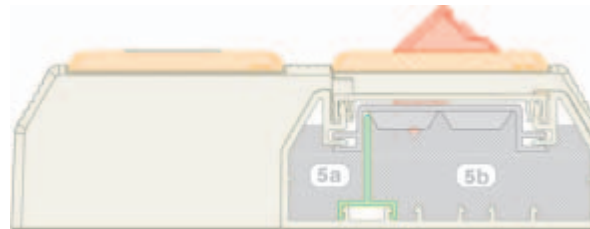
A=3.67in²

Wirefill #3: Data Only using Vertical Sloped "Screw-On" Communication Faceplates



A=4.71in²

Wirefill #4: Data Only using Horizontal Sloped "Snap-On" Communication Faceplates



A=.91in² **A=3.12in²**

Wirefill #5: Power and Data using the *WORKSTATION OUTLET CENTER™* Offset Box

SPEC=40% wire fill—the recommended design in cable capacity. Leaves room for future moves, adds and changes.

MAX for Data=60% wire fill—the maximum cable quantity based on cable interweaving and packing factors.

MAX for Power wire fill—the maximum of electrical cables based on UL temperature rise test.

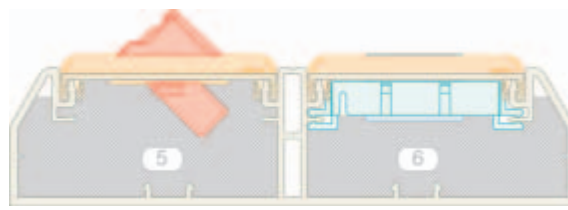
Raceway Type & Configuration	Fill Area (in ²)	Electrical Cables			Data Grade Cable		Data Grade Cable		Coax Cable		Fiber Optic Cable	
		14 AWG	12 AWG	10 AWG	24 AWG/UTP CM	24 AWG/UTP CM	RG6		2 Strand			
		THHN/T90			Cat 5e, 4pr		Cat 6, 4pr					
		.105	.122	.153	DIA.=.217		DIA.=.250		DIA.=.275		DIA.=.175	
		FILL			FILL		FILL		FILL		FILL	
	MAX	MAX	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	
	(UL Temp Rise Test)			(40%)	(60%)	(40%)	(60%)	(40%)	(60%)	(40%)	(60%)	
1. T-70: No devices	5.15	24	20	15	55	83	41	62	27	41	86	129
2a. T-70: Power and data using the 3 sided hanging box and device bracket	0.86	14	11	7	9	14	7	10	5	7	14	21
2b.	1.72	—	—	—	19	28	14	21	9	14	29	43
3. T-70: Data only (Screw-On Fplates)	3.67	—	—	—	39	59	29	44	19	29	67	101
4. T-70: Data only (Snap-On Fplates)	4.71	—	—	—	50	76	38	57	25	37	83	125
5a. T-70: Power and data using the WORKSTATION OUTLET CENTER™ Offset Box	0.91	14	11	7	9	14	7	11	5	7	15	23
5b.	3.12	—	—	—	33	50	25	38	17	25	52	78

Quick Wire Fill Capacities for Twin-70 Raceway

This information is to be used as a guide in selecting the proper size raceway. The maximum amounts may vary according to the wire installation methods, straightness of wires, etc.



- A=2.05in²**
 - A=1.43in²**
 - A=4.59in²**
 - A=3.11in²**
 - A=3.32in²**
- Wirefill #1:** Power and Data with No Terminations **Wirefill #2:** One Twin-70 Channel with No Devices **Wirefill #3:** Data Only using Vertical Sloped "Screw-On" Communication Faceplates **Wirefill #4:** Power using Device Bracket and U.S. Standard "Screw-On" Faceplates



- A=4.14in²**
 - A=2.33in²**
- Wirefill #5:** Data Only using Horizontal Sloped "Snap-On" Communication Faceplates **Wirefill #6:** 20A TVSS Rectangular Outlet using Device Bracket and "Snap-On" Electrical/Communication Faceplate

SPEC=40% wire fill—the recommended design in cable capacity. Leaves room for future moves, adds and changes.

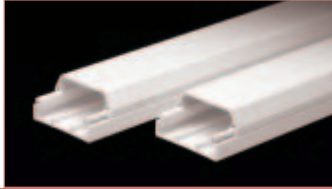
MAX for Data=60% wire fill—the maximum cable quantity based on cable interweaving and packing factors.

MAX for Power wire fill—the maximum of electrical cables based on UL temperature rise test.

Raceway Type & Configuration		Fill Area (in ²)	Electrical Cables			Data Grade Cable		Data Grade Cable		Coax Cable		Fiber Optic Cable	
			14 AWG	12 AWG	10 AWG	24 AWG/UTP CM	24 AWG/UTP CM	RG6		2 Strand			
			THHN/T90			Cat 5e, 4pr		Cat 6, 4pr		DIA.=.275		DIA.=.175	
			.105	.122	.153	DIA.=.217		DIA.=.250		FILL		FILL	
		FILL			FILL		FILL		FILL		FILL		
		MAX	MAX	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	
		(UL Temp Rise Test)			(40%)	(60%)	(40%)	(60%)	(40%)	(60%)	(40%)	(60%)	
1a.	Twin-70: Power and data, no terminations	2.05	—	—	—	22	33	16	25	18	27	34	51
1b.	Twin-70: One channel (no devices)	1.43	—	—	—	15	23	11	17	12	19	24	36
2.	Twin-70: One channel (no devices)	4.59	—	—	—	49	74	37	56	24	36	76	115
3.	Twin-70: Data only (Screw-On Faceplate)	3.11	—	—	—	33	50	25	38	16	25	52	78
4.	Twin-70: Power only (Screw-On Faceplate)	3.32	15	13	13	35	53	27	40	18	26	55	83
5.	Twin-70: Data only (Snap-On Faceplate)	4.14	—	—	—	44	67	33	50	22	33	69	103
6.	Twin-70: TVSS Pwr (Snap-On Faceplate)	2.33	16	16	14	25	37	18	28	12	18	39	58

PAN-WAY® T-45 NON-METALLIC SURFACE RACEWAY

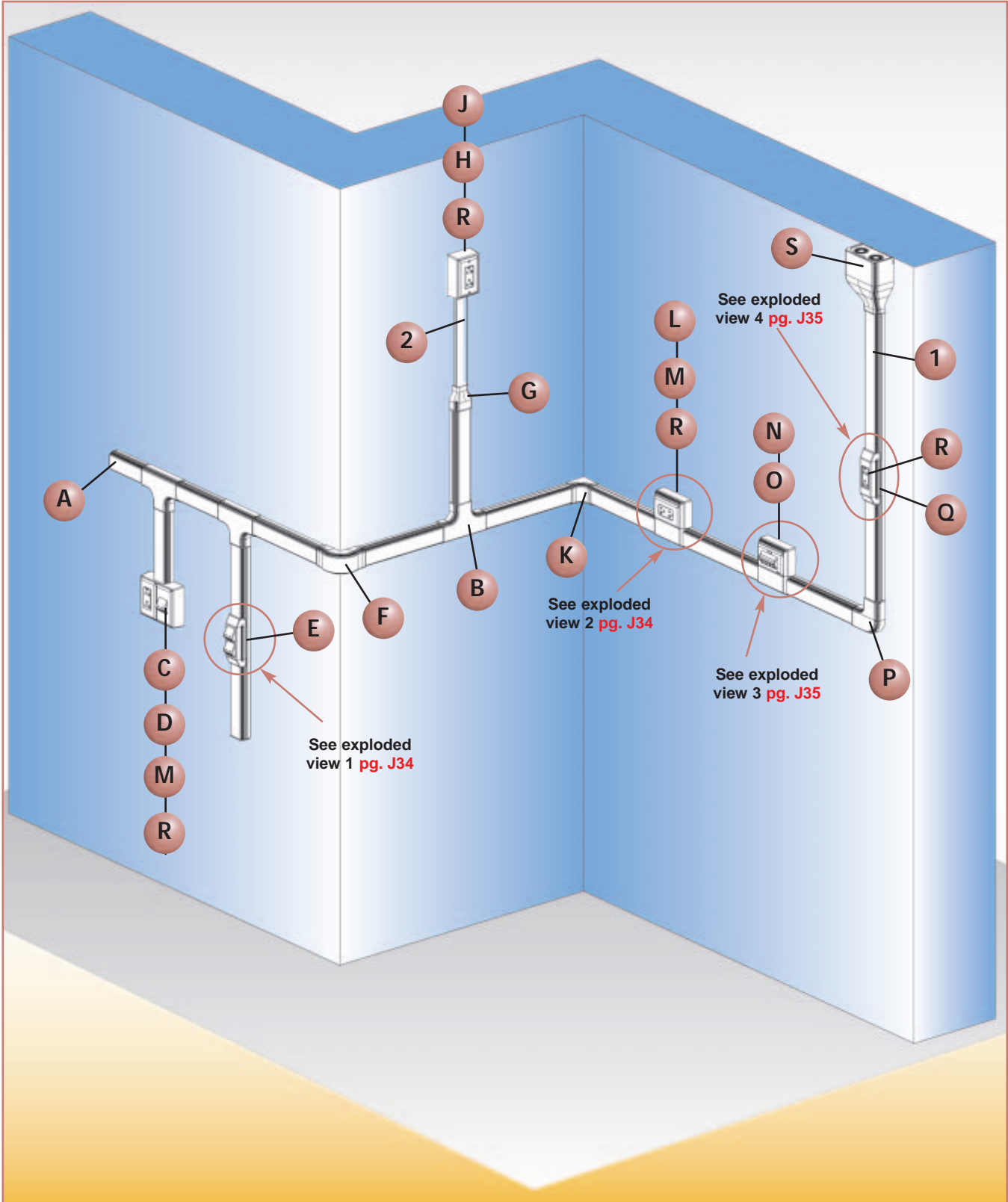
PAN-WAY Non-Metallic T-45 Surface Raceway is a multi-channel raceway, which provides a solution for routing low voltage, fiber optic and/or power cabling along fixed perimeter walls. T-45 Surface Raceway terminates using the T-45 Hinged Data and Power Brackets, T-45 Offset Box and select PAN-WAY Surface Mount Outlet Boxes.

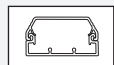


- Multi-directional cover hinge allows cable installation from either side
- Hinged data and power brackets provide easy access for terminating outlets
- Aesthetically pleasing
- Lightweight
- Tamper resistant
- Fittings maintain 1" bend radius control

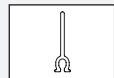
PANDUIT T-45 Surface Raceway accepts NEMA standard screw-on faceplates or superior PAN-WAY Snap-On Faceplates when terminating with the T-45 Offset Box and Surface Mount Outlet Boxes. Fittings for T-45 are available to transition to PAN-WAY LD Series Raceways.

T-45 Raceway Roadmap





1 T45B** , T45C** –T-45 Raceway (page J36)



1 T45DW** –T-45 Divider Wall (page J36)



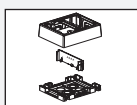
2 LDP10** –LDP Raceway (page J63)



A T45EC** –T-45 End Cap Fitting (page J37)



B T45T** and T45TD –T-45 Tee Fitting and Divider (page J37)



C JBP2FS** – *FAST-SNAP*® Double Gang Power Rated Surface Mount Outlet Box (page J45)



D T70FV2** –Vertical Sloped Communication Snap-On Faceplate (page J42)



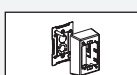
E T45HDB** –T-45 Snap-On Hinged Data Bracket (page J37)



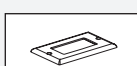
F T45OC** –T-45 Outside Corner Fitting (page J37)



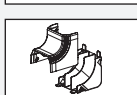
G T45RLD** –T-45 Reducer Fitting (page J37)



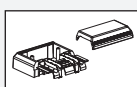
H JBP1** –Power Rated Single Gang Two-Piece Box (page J45)



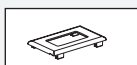
J CPG** –Single Gang Rectangular Electrical/Communication Snap-On Faceplate (page J42)



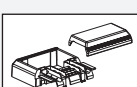
K T45IC** –T-45 Inside Corner Fitting (page J37)



L T45WC** –T-45 Offset Box for Screw-On Faceplates/Receptacles (page J37)



M T70PG** –Single Gang Rectangular Electrical/Communication Snap-On Faceplate (page J40)



N T45WC2** –T-45 Offset Box for Snap-On Faceplates (page J37)



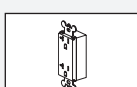
O UIT70FH4** – *ULTIMATE ID*™ Sloped Horizontal Snap-On Faceplate (page C6)



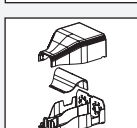
P T45RA** –T-45 Right Angle Fitting (page J37)



Q T45HEGB** –T-45 Electrical Bracket (page J37)



R ERU20** –20A Rectangular Outlet (page J42)

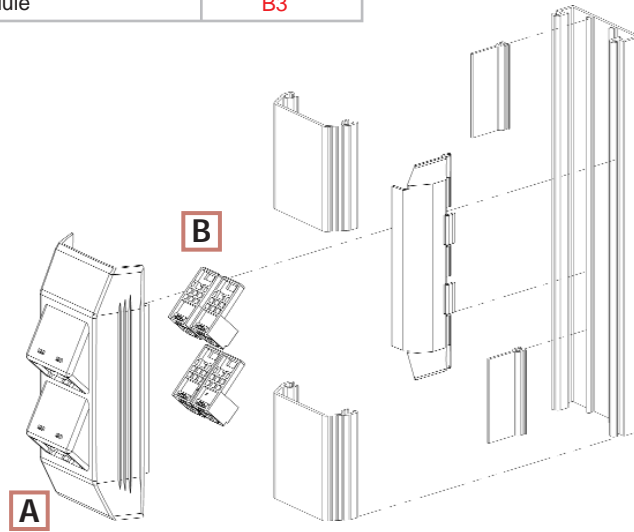


S T45EE** –T-45 Entrance End Fitting (page J37)

T-45 Configurations

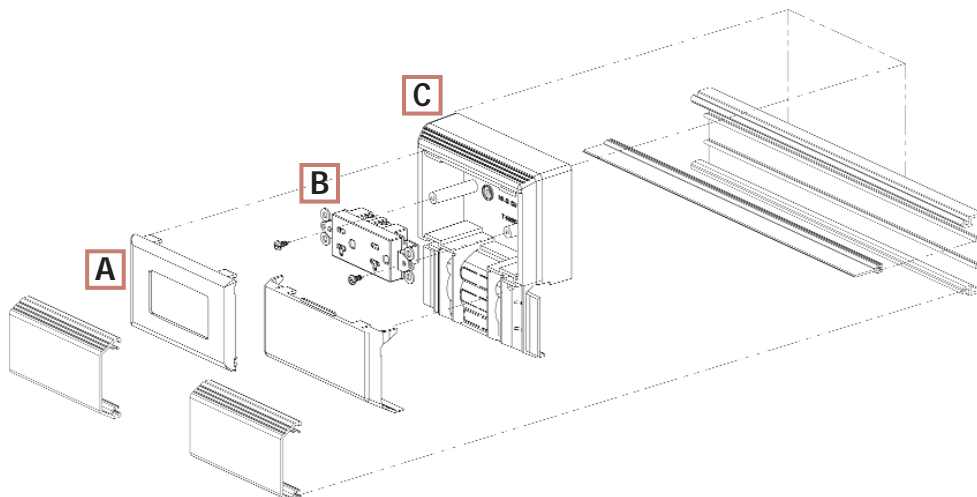
Exploded view 1

	Components Required	See page
A.	T45HDB = T-45 Snap-On Hinged Data Bracket	J37
B.	CJ5E88T = <i>MINI-COM</i> ® TX-5e Module	B3



Exploded view 2

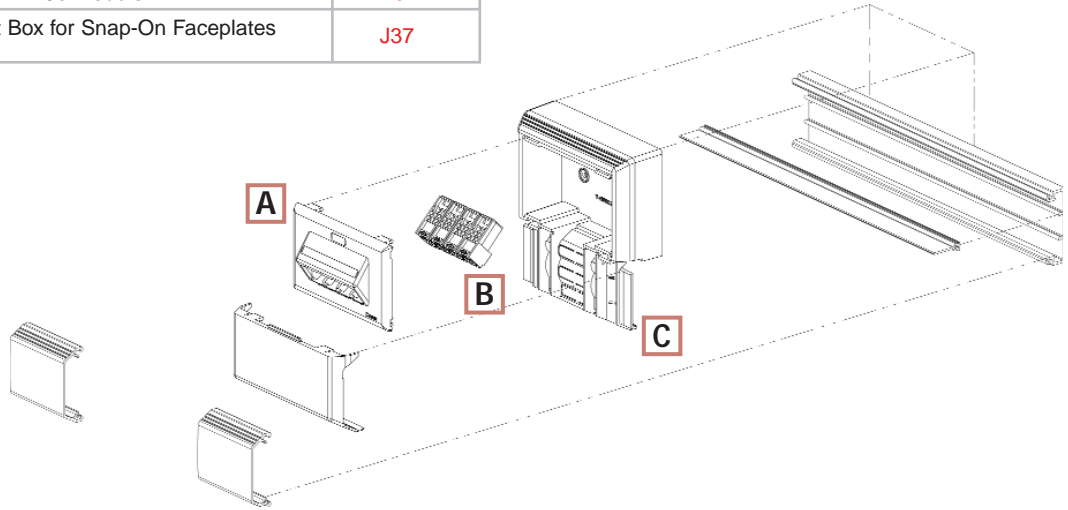
	Components Required	See page
A.	T70PG = Single Gang Rectangular Electrical/Communication Snap-On Faceplate	J40
B.	ERU20 = 20A Rectangular Electrical Outlet (screws included)	J42
C.	T45WC = T-45 Offset Box for Screw-On Faceplates/Receptacles	J37



T-45 Configurations (Continued)

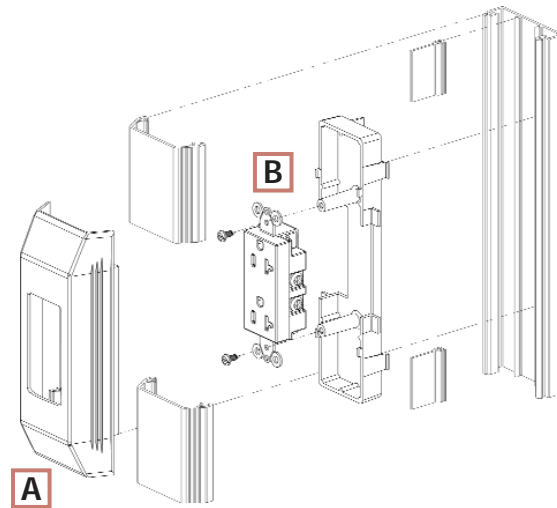
Exploded view 3

	Components Required	See page
A.	UIT70FH4 = <i>ULTIMATE ID</i> ™ Sloped Horizontal Faceplates — 4 Port	C6
B.	CJ5E88T = <i>MINI-COM</i> ® TX-5e Module	B3
C.	T45WC2 = T-45 Offset Box for Snap-On Faceplates	J37



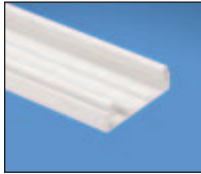
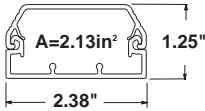
Exploded view 4

	Components Required	See page
A.	T45HEGB = T-45 Electrical Bracket for Rectangular Outlet	J37
B.	ERU20 = 20A Rectangular Electrical Outlet (screws included)	J42



UL **SP** **PAN-WAY**® T-45 Surface Raceway Base & Cover

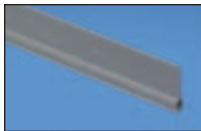
- UL & CSA rated 600V. Meets UL5A and CSA 22.2 No. 62-93 standards
- Hinged cover allows easy access from either side
- Optional factory applied adhesive backing speeds installation
- Supplied with pre-punched mounting holes
- Tamper resistant
- Terminates using the T-45 Hinged Data and Power Brackets, Offset Box or Surface Mount Outlet Box solutions



T45B



T45C



T45DW

Part Number	Part Description	Raceway Size	Color‡	Length	Std. Ctn. Qty.
T-45 Raceway Base with adhesive					
T45BIW8-A	T-45 raceway base in 8' and 10' lengths with adhesive. Supplied with pre-punched mounting holes.	2.38" x 1.25"	Off White	8	160
T45BIW10-A		2.38" x 1.25"		10	200
T-45 Raceway Base without Adhesive					
T45BIW8	T-45 raceway base in 8' and 10' lengths with adhesive. Supplied with pre-punched mounting holes.	2.38" x 1.25"	Off White	8	160
T45BIW10		2.38" x 1.25"		10	200
T-45 Raceway Cover					
T45CIW8	T-45 raceway cover in 8' and 10' lengths.	–	Off White	8	160
T45CIW10	Can be hinged open on either side of T-45 base.	–		10	200
T-45 Raceway Divider Wall					
T45DW8	T-45 divider wall. Snaps onto rails in raceway base to create separate channels. Must use with wire retainers to ensure channel separation per UL/CSA. Available in 8' and 10' lengths.	–	Gray	8	160
T45DW10		–		10	200

‡ For other colors replace IW (Off White) with EI (Electric Ivory). Order raceway base and cover separately.

UL **SP** **PAN-WAY® Type T-45 Fittings**

- T-45 fittings are designed to maintain the TIA/EIA 568-B and 569-A required minimum bend radius for high performance copper and fiber optic cabling systems



T45CC

T45RA



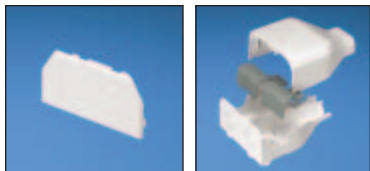
T45IC

T45OC



T45T

T45TD



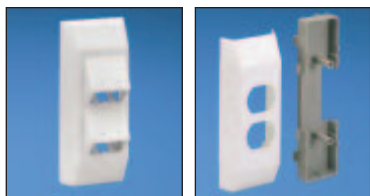
T45EC

T45EE



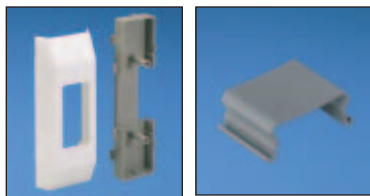
T45RLD

T45TRI



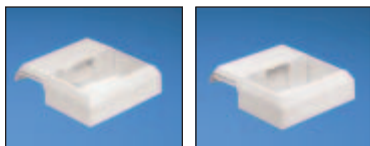
T45HDB

T45HEB



T45HEGB

T45WR-X



T45WC

T45WC2

Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
T45CCIW-X	T-45 cover coupler fitting. Used to join two pieces of T-45 cover together.	Off White	10	100
T45RAIW	T-45 right angle fitting. Used to join sections of T-45 raceway at 90° flat junction.	Off White	1	10
T45ICIW	T-45 inside corner fitting. Used to join T-45 raceway at inside corner.	Off White	1	10
T45OCIW	T-45 outside corner fitting. Used to join T-45 raceway at 90° outside corner.	Off White	1	10
T45TIW	T-45 tee fitting includes base and cover. Creates an undivided "Tee" junction between T-45 sections.	Off White	1	10
T45TD	T-45 divided insert separates power and data within the tee fitting.	Gray	1	10
T45ECIW	T-45 end cap fitting. Used to terminate or allow entry to raceway.	Off White	1	10
T45EEIW	T-45 entrance end fitting. With knockouts for 1/2", 3/4", 1" and 1 1/4" conduit to allow entry from ceiling or through wall.	Off White	1	10
T45RLDIW	T-45 reducer fitting. Reduces from T-45 to LD10 profile raceway.	Off White	1	10
T45TRI	Provides bend radius control at transition from T-70 to T-45 when used with T70TR.	Gray	1	10
T45HDBIW	Snap-on hinged data bracket for mounting for <i>MINI-COM</i> ® and <i>OPTI-JACK</i> ™ modules vertically inline within T-45 raceway. Can be hinged opened on either side of T-45 base.	Off White	1	10
T45HEBIW	T-45 electrical bracket and box for duplex electrical outlet.	Off White	1	10
T45HEGBIW	T-45 electrical bracket and box for rectangular style electrical outlet.	Off White	1	10
T45WR-X	T-45 wire retainers hold wires in place. Will not interfere with cover installation.	Gray	10	100
T45WCIW	T-45 offset box accepts any standard electrical or communication outlet. Accepts any NEMA standard screw-on faceplate. Also accepts <i>PAN-WAY</i> Electrical Snap-On Faceplates.	Off White	1	10
T45WC2IW	T-45 offset box accepts any <i>PAN-WAY</i> Snap-On Communication Faceplates.	Off White	1	10

‡ For other colors replace IW (Off White) with EI (Electric Ivory).

Quick Wire Fill Capacities for T-45 Raceway

This information is to be used as a guide in selecting the proper size raceway. The maximum amounts may vary according to the wire installation methods, straightness of wires, etc.



A=2.13in²

Wirefill #1: T-45 with no Devices



A=1.72in²

Wirefill #2: T-45 with Wire Retainer



A=.44in²

B=1.20in²

Wirefill #3: Power and Data using a Wire Retainer and Divider Wall



A=.44in²

B=.68in²

C=.44in²

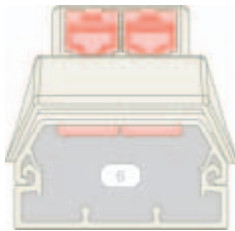
Wirefill #4: Power and Data using a Wire Retainer and Divider Walls



A=.41in²

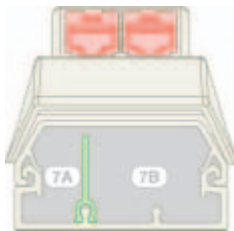
B=1.06in²

Wirefill #5: Power and Data using the Offset Box



A=2.00in²

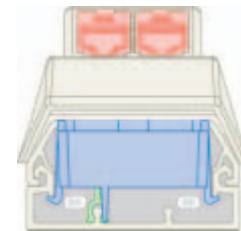
Wirefill #6: Data Only using Hinged Data Bracket



A=.52in²

B=1.2in²

Wirefill #7: T-45 Power and Data using Hinged Data Bracket with Divider Insert



A=.22in²

B=.5in²

Wirefill #8: T-45: Power and Data Using Electrical Bracket/Box and Hinged Date Bracket

SPEC=40% wire fill—the recommended design in cable capacity. Leaves room for future moves, adds and changes.

MAX for Data=60% wire fill—the maximum cable quantity based on cable interweaving and packing factors.

MAX for Power wire fill—the maximum of electrical cables based on UL temperature rise test.

Raceway Type & Configuration	Fill Area (in ²)	Electrical Cables			Data Grade Cable		Data Grade Cable		Coax Cable		Fiber Optic Cable			
		14 AWG	12 AWG	10 AWG	24 AWG/UTP CM		24 AWG/UTP CM		RG6		2 Strand			
		THHN/T90			Cat 5. 4pr		Cat 6. 4pr		DIA.=.275		DIA.=.175			
		.105	.122	.153	DIA.=.217		DIA.=.250		DIA.=.275		DIA.=.175			
		FILL			FILL		FILL		FILL		FILL			
MAX	MAX	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX		
(UL Temp Rise Test)			(40%)		(60%)		(40%)		(60%)		(40%)		(60%)	
1. T-45: No Devices	2.13	36	27	25	22	34	17	26	11	17	35	53		
2. T-45: No Devices with wire retainer	1.72	36	27	25	18	27	14	21	9	14	28	42		
3A. T-45: Power and data with wire retainer & divider wall (2 channels)	0.44	12	11	8	4	7	3	5	2	3	7	10		
3B.	1.20	—	—	—	12	19	9	14	6	10	16	29		
4A.	0.44	12	11	8	4	7	3	5	2	3	7	10		
4B.	0.68	—	—	—	7	11	5	8	4	5	11	16		
4C.	0.44	—	—	—	4	7	3	5	2	3	7	10		
5A. T-45: Power and data using the WORKSTATION OUTLET CENTER™	0.41	12	11	8	4	6	3	5	2	3	6	10		
5B. Offset Box	1.06	—	—	—	11	17	8	12	6	8	17	26		
6. T-45: Data only using data bracket	2.00	—	—	—	21	32	16	24	11	16	33	49		
7A. T-45 Power and Data using Hinged Data Bracket with Divider Insert	0.52	12	11	8	—	—	—	—	3	4	—	—		
7B.	1.2	—	—	—	12	18	9	14	6	10	16	24		
8A. T-45: Power and Data Using Electrical Bracket and Box	0.22	9	7	4	—	—	—	—	1	2	—	—		
8B.	0.5	—	—	—	5	8	4	6	3	4	8	12		

PAN-WAY® SNAP-ON FACEPLATES AND SURFACE MOUNT OUTLET BOXES

PAN-WAY Snap-On Faceplates are designed for use with PANDUIT® raceway systems and install faster than a conventional screw-on faceplate, reducing labor costs and providing a more aesthetic appearance. PAN-WAY Snap-On Communication Faceplates are available in vertical and horizontal orientation and accept MINI-COM® Copper and Fiber Optic Modules. Electrical outlets are available in colors to complement PANDUIT raceway and are available in 20A, 106 Duplex, Rectangular, TVSS and GFCI.



- PAN-WAY Snap-On Faceplates install without the use of screws providing faster installation and superior aesthetics
- PAN-WAY FAST-SNAP™ Boxes assemble without the use of screws and accept PAN-WAY Snap-On Faceplates
- PAN-WAY Snap-On Communication Faceplates are available in horizontal or vertical sloped outlet configurations
- PAN-WAY Snap-On Electrical Faceplates are available in 106 duplex or rectangular styles

Surface mount outlet boxes are available for both power and communication applications. They are compatible with PANDUIT LD, LDP, LD2P10, and T-45 Raceway Systems. PANDUIT Snap-On Faceplates mount directly to TG-70, T-70, Twin-70, TE-70, T-45 raceways, PAN-WAY FAST-SNAP Boxes, and PAN-POLE™ Aluminum Outlet Poles.



PAN-WAY® Classic Series Snap-On Faceplates for Use With MINI-COM® Modules

- Can be used with PAN-WAYTG-70, T-70, Twin-70 and TE-70 Surface Raceway, FAST-SNAP™ Outlet Boxes, and PAN-POLE™ Aluminum Outlet Pole



T70FH2

T70FH4



T70FV2

T70FV4



T70P

T70PG



T70PS

T70PGS

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
T70FH2IW	Snap-on horizontal sloped communication faceplate accepts two <i>MINI-COM</i> modules (not included). No additional mounting hardware required.	Off White	1	10
T70FH4IW	Snap-on horizontal sloped communication faceplate accepts four <i>MINI-COM</i> modules (not included). No additional mounting hardware required.	Off White	1	10
T70FV2IW	Snap-on vertical sloped communication faceplate accepts two <i>MINI-COM</i> modules (not included). No additional mounting hardware required.	Off White	1	10
T70FV4IW	Snap-on vertical sloped communication faceplate accepts four <i>MINI-COM</i> modules (not included). No additional mounting hardware required.	Off White	1	10
T70PIW	Snap-on single gang 106 duplex electrical/communication faceplate covers one NEMA standard 106 duplex electrical outlet. In communication applications, covers one standard 106 duplex communication module frame. No additional mounting hardware required.	Off White	1	10
T70PGIW	Snap-on single gang rectangular electrical/communication faceplate covers one NEMA standard rectangular electrical outlet. In communication applications, covers one standard rectangular communication module frame. No additional mounting hardware required.	Off White	1	10
T70PSIW	Single gang 106 duplex communication faceplate covers one NEMA standard 106 duplex communication module frame. Module frame screw mounts directly to underside of snap-on faceplate. No mounting device needed. Supplied with one mounting screw. NOTE: Not for use with electrical devices.	Off White	1	10
T70PGSIW	Snap-on single gang Rectangular communication faceplate covers one NEMA standard rectangular communication module frame. Module frame screw mounts directly to underside of snap-on faceplate. No mounting device needed. Supplied with two mounting screws. NOTE: Not for use with electrical devices.	Off White	1	10

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray) or WH (White).



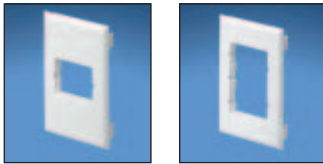
PAN-WAY® Classic Series Snap-On Faceplates for Use With MINI-COM® Inserts

- Single gang vertical or horizontal sloped communication faceplates accept one or two *MINI-COM* inserts
- Can be used with *PAN-WAY* TG-70, T-70, Twin-70 and TE-70 Surface Raceway, *FAST-SNAP*™ Outlet Boxes and *PAN-POLE*™ Aluminum Outlet Pole



T70BH1

T70BH2



T70B1

T70B2

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
T70BH1IW	Snap-on horizontal communication faceplate accepts one 1/2-size <i>MINI-COM</i> Insert and two modules. No additional mounting hardware required.	Off White	1	10
T70BH2IW	Snap-on horizontal communication faceplate accepts two 1/2-size <i>MINI-COM</i> Inserts and four modules. No additional mounting hardware required.	Off White	1	10
T70B1IW	Snap-on vertical communication faceplate holds one 1/2-size <i>MINI-COM</i> Insert and two modules. No additional mounting hardware required.	Off White	1	10
T70B2IW	Snap-on vertical communication faceplate holds two 1/2-size <i>MINI-COM</i> Inserts and four modules. No additional mounting hardware required.	Off White	1	10

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray) or WH (White).



PAN-WAY Classic Series Faceplates for Power and Communication Applications

- For use with JBP2S or JBP2D outlet boxes (see configuration on page J53)



FP2DC

FP2RC

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
FP2DCIW	Covers one NEMA standard 106 duplex electrical receptacle and accepts <i>MINI-COM</i> 1/2-size, 1/3-size and 2/3-size inserts. Supplied with screws.	Off White	1	10
FP2RCIW	Covers one NEMA standard rectangular electrical receptacle and accepts <i>MINI-COM</i> 1/2-size, 1/3-size and 2/3-size inserts. Supplied with screws.	Off White	1	10

‡ For other colors replace suffix IW (Off White) with EI (Electric Ivory), IG (International Gray) or WH (White).

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

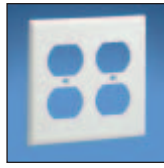
Glossary & Index



PAN-WAY® Classic Series Power and Communication Faceplates



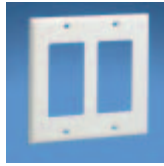
CP106



CP106-2G**



CPG



CPG-2G**

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CP106IW	Screw-on single gang rectangular faceplate. Covers one NEMA standard 106 duplex electrical outlet or one standard 106 communication module frame. Supplied with one mounting screw.	Off White	1	10
CP106IW-2G	Screw-on double gang rectangular faceplate. Covers two NEMA standard 106 duplex electrical outlets or two standard 106 communication module frames. Supplied with two mounting screws.	Off White	1	10
CPGIW	Screw-on single gang rectangular faceplate. Covers one NEMA standard rectangular electrical outlet or one standard rectangular communication module frame. Supplied with two mounting screws.	Off White	1	10
CPGIW-2G	Screw-on double gang rectangular faceplate. Covers two NEMA standard rectangular electrical outlets or two standard rectangular communication module frames. Supplied with four mounting screws.	Off White	1	10

‡ For other colors, replace IW (Off White) with EI (Electric Ivory), IG (International Gray) or WH (White).



PAN-WAY Electrical Outlets

• Electrical Outlets are standard electrical devices that fit into PAN-WAY outlet boxes or any NEMA standard outlet boxes



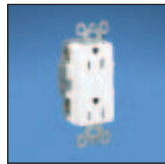
EDU20



ERU20



ETU20



EGU20

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
EDU20IW-X	20A 106 duplex outlet. Supplied with two mounting screws.	Off White	10	100
ERU20IW-X	20A rectangular outlet. Supplied with two mounting screws.	Off White	10	100
ETU20IW-X	20A TVSS (transient voltage surge suppressor) rectangular outlet. Supplied with two mounting screws.	Off White	10	100
EGU20IW-X	20A GFCI (ground fault circuit interrupter) rectangular outlet. Supplied with two mounting screws.	Off White	10	100

‡ For other colors, replace IW (Off White) with EI (Electric Ivory).



PAN-WAY® Classic Series Blank Faceplates



**T70PN
Snap-On**



**CPN
Screw-On**

Part Number	Part Description	Color†	Std. Pkg. Qty.	Std. Ctn. Qty.
T70PNIW	Snap-on single gang blank cover faceplate. For use with <i>PAN-WAY</i> Junction Boxes or in-wall applications. No hardware required.	Off White	1	10
CPNIW	Screw-on single gang blank cover faceplate. For use with <i>PAN-WAY</i> Junction Boxes or in-wall applications. Supplied with two mounting screws.	Off White	1	10

† For other colors, replace IW (Off White) with EI (Electric Ivory), IG (International Gray) or WH (White).



PAN-WAY Stainless Steel Faceplates



WPS-20



WPS-202

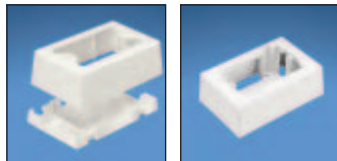
Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
WPS-20	Stainless steel single gang rectangular screw-on faceplate. Covers one NEMA standard 106 duplex electrical outlet or one standard 106 communication module frame. Supplied with one mounting screw.	1	10
WPS-202	Stainless steel double gang rectangular screw-on faceplate. Covers two NEMA standard 106 duplex electrical outlets or two standard 106 communication module frames. Supplied with two mounting screws.	1	10

Can be clearly identified with labels, reference chart on page J43.
All faceplates supplied with mounting screws.



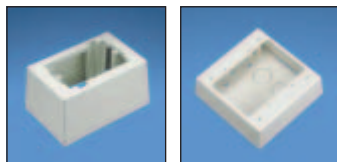
PAN-WAY® Low Voltage Surface Mount Outlet Boxes

- JBX3510 and JB1FS assemble without the use of screws providing for faster installation
- JBX3510, JB1, JB1D and JB1FS all supplied with adhesive backing to speed installation
- JB1 and JB1D require no base and cover assembly
- JB1FS accepts PAN-WAY Snap-On Faceplates for superior aesthetics



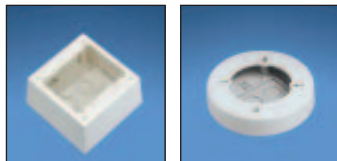
JBX3510

JB1



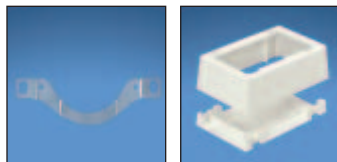
JB1D

JBP2



JBP2D

RJBX3510



JBA-X

JB1FS

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
JBX3510IW-A	Single gang two-piece snap together outlet box with adhesive backing. Box accepts PAN-WAY Screw-on Faceplates or any NEMA standard single gang faceplate. For use with PAN-WAY T45 or LD3, 5, or 10 profile raceways. 5.0" L, 3.3" W, 1.6" H. (127mm x 83mm x 41mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.	Off White	1	5
JB1IW-A	Single gang one-piece outlet box with adhesive backing. Box accepts PAN-WAY Screw-on Faceplates or any NEMA standard single gang faceplate. For use with PAN-WAY LD3, 5, 10 profile raceways. 5.1" L, 3.3" W, 1.8" H. (129mm x 85mm x 44mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.	Off White	1	10
JB1DIW-A	Single gang one-piece deep outlet box with adhesive backing. Box accepts PAN-WAY Screw-on Faceplates or any NEMA standard single gang faceplate. For use with PAN-WAY T-45 or LD3, 5 or 10 profile raceways. 5.2" L, 3.5"W, 2.8" H. (133mm x 86mm x 70mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.	Off White	1	10
JBP2IW	Double gang two-piece screw together outlet box. Box accepts Pan-Way Screw-on Faceplates or any NEMA standard double gang faceplates. For use with Pan-Way LD3, 5, or 10 profile raceways. 5.0" L, 5.0" W, 1.6" L. (128mm x 128mm x 41mm). Breakouts for 1/2", or 3/4" diameter conduit.	Off White	1	10
JBP2DIW	Double gang two-piece screw together deep outlet box. Box accepts PAN-WAY screw-on faceplates or any NEMA standard double gang faceplate. For use with PAN-WAY T-45, LD2P10, or LD3, 5, or 10 profile raceways. 5.2" L, 5.2" W, 2.8" H. (132mm x 132mm x 70mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.	Off White	1	10
RJBX3510IW	Single gang two-piece screw together round outlet box. Box accepts UL/CSA devices not to exceed 10lbs. per UL (5lbs. per CSA). For use with Pan-Way LD3, 5 or 10 profile raceways. Dia. = 5.3" D, 1.0" H. (139mm x 25mm). Breakouts for 3/4" or 1" diameter conduit.	Off White	1	5
JBA-X	In-wall box adapter. Adapts single gang surface mount outlet boxes to in-wall conduit boxes.	Steel Gray	10	100
JB1FSIW-A	Single gang two-piece snap together outlet box with adhesive backing. Box accepts PAN-WAY Snap-On Faceplates. For use with PAN-WAY T-45 or LD3, 5 or 10 profile raceways. 5.0" L, 3.3" W, 6" H. (127.1mm x 82.7mm x 41.1mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.	Off White	1	10

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray) or WH (White).



PAN-WAY Surface Mount Outlet Box with 20A Electrical Outlet

- Boxes supplied with electrical outlets



JBP1MR20

JBP1MD20

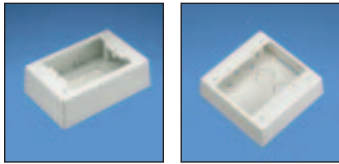
Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
JBP1MR20IW	Single gang two-piece power rated low profile snap together outlet box, including 20A U.S. style rectangular electrical outlet. For use with PAN-WAY LDP3, 5 or 10 or LDS3 or 5 profile raceways only. 4.8" L, 2.9" W, 1.2" H. (123mm x 74mm x 31mm).	Off White	1	10
JBP1MD20IW	Single gang two-piece power rated low profile snap together outlet box, including 20A U.S. style 106 duplex electrical outlet. For use with PAN-WAY LDP3, 5 or 10 or LDS3 or 5 profile raceways only. 4.8" L, 2.9" W, 1.2" H. (123mm x 74mm x 31mm).	Off White	1	10

‡ For other color replace IW (Off White) with EI (Electric Ivory).

UL **CSA** **PAN-WAY**® Power Rated Surface Mount Outlet Boxes

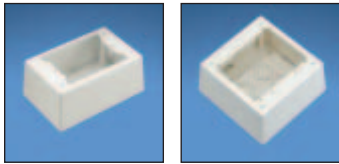
• UL & CSA rated 600V

• JBP2FS assembles without the use of screws providing for faster installation



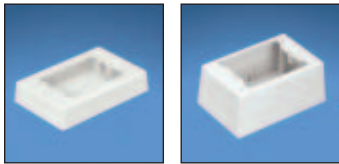
JBP1

JBP2



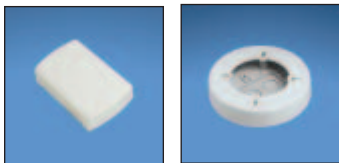
JBP1D

JBP2D



JBP1E

JBP1I



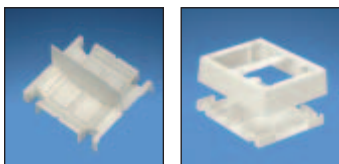
PSJBX

PRJBX36



JBD1

JBP2S



JBD2

JBP2FS



RJBX3510

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
JBP1IW	Single gang two-piece screw together outlet box. Box accepts PAN-WAY Screw-on Faceplates or any NEMA standard single gang faceplate. For use with PAN-WAY LD3, 5 or 10 profile raceways. 5.2" L, 3.5" W, 1.8" H. (132mm x 88mm x 44mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.	Off White	1	10
JBP2IW	Double gang two-piece screw together outlet box. Box accepts Pan-Way Screw-on Faceplates or any NEMA standard double gang faceplates. For use with PAN-WAY LD3, 5, or 10 profile raceways. 5.0" L, 5.0" W, 1.6" L. (128mm x 128mm x 41mm). Breakouts for 1/2", or 3/4" diameter conduit.	Off White	1	10
JBP1DIW	Single gang two-piece screw together deep outlet box. Box accepts PAN-WAY Screw-on Faceplates or any NEMA standard single gang faceplate. For use with PAN-WAY T-45, LD2P10, (when used with JBD1) or LD3, 5 or 10 profile raceways. 5.2" L, 3.5" W, 2.8" H. (132mm x 88mm x 70mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.	Off White	1	10
JBP2DIW	Double gang two-piece screw together deep outlet box. Box accepts PAN-WAY screw-on faceplates or any NEMA standard double gang faceplate. For use with PAN-WAY T-45, LD2P10, or LD3, 5, or 10 profile raceways. 5.2" L, 5.2" W, 2.8" H. (132mm x 132mm x 70mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.	Off White	1	10
JBP1EIW	Single gang two-piece screw together extension outlet box. Box accepts PAN-WAY screw-on faceplates or any NEMA standard single gang faceplate. For use with PAN-WAY LD3, 5 or 10 profile raceways. 5.0" L, 3.3" W, 1.0" H. (127mm x 84mm x 25mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.	Off White	1	10
JBP1IIW	Single gang two-piece screw together intermediate outlet box. Box accepts Pan-Way Screw-on Faceplates or any NEMA standard single gang faceplate. For use with Pan-Way LD3, 5 or 10 profile raceway. 5.1" L, 3.4" W, 2.3" H. (130mm x 86mm x 58mm). Breakouts for 1/2" or 3/4" diameter conduit.	Off White	1	10
PSJBXIW	Single gang two-piece snap together power source box. For use with PAN-WAY LDP3, 5 or 10 or LDS3, or 5 profile raceways. 5.0" L, 3.3" W, 1.3" H. (128mm x 83mm x 33mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.	Off White	1	10
PRJBX36IW	Single gang two-piece screw together round outlet box. Box accepts UL/CSA devices not to exceed 10 lbs per UL (5 lbs per CSA). For use with PAN-WAY PD3 or PD6 profile raceways. 5.3" D, 1.0" H. (139mm x 25mm). Breakouts for 3/4" or 1" diameter conduit.	Off White	1	5
JBD1	Single gang pass through divider for LD2P10 raceway. Allows power and communications outlets to be routed in series. Used with JBP1 or JBP1D. Must use with LD2P10 raceway.	Off White	1	10
JBP2SIW	Double gang two-piece screw together divided outlet box. Box accepts PAN-WAY Screw-on Faceplates or any NEMA standard double gang faceplate. For use with PAN-WAY T-45, LD2P10 or LD3, 5 or 10 profile raceways. 5.1" L, 5.1" W, 1.6" H. (128mm x 128mm x 41mm). Breakouts for 1/2", or 3/4" diameter conduit.	Off White	1	10
JBD2	Double gang pass through divider for LD2P10 raceway. Allows power and communications outlets to be routed in series. To be used with JBP2D outlet box, for use with LD2P10 or T-45 raceways.	Off White	1	10
JBP2FSIW	Double gang two-piece snap together outlet box. Box accepts PAN-WAY Snap-on Faceplates. For use with PAN-WAY T-45, LD2P10 or LD3, 5 or 10 profile raceways. 5.0" L, 6.2" W, 1.6" H. (127mm x 156mm x 41mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.	Off White	1	10
RJBX3510IW	Single gang two-piece screw together round outlet box. Box accepts UL/CSA devices not to exceed 10lbs. per UL (5lbs. per CSA). For use with PAN-WAY LD3, 5 or 10 profile raceways. Dia. = 5.3" (139mm), 1.0" H. (29mm) Breakouts for 3/4" or 1" diameter conduit.	Off White	1	5

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray) or WH (White).

System Overview
Modules
Ultimate ID System & Work Area
Zone Cabling
Patch Panels Copper Patch Cords & Punchdowns
Fiber Connectors Enclosures & Patch Cords
Racks & Cable Management
Grounding & Bonding
Fiber Routing
Surface Raceway
Labeling & Administration
Cable Ties & Accessories
Supplementary Technical Information
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Selection Chart for using *PAN-WAY*® Surface Raceway with *PAN-WAY* Surface Mount Outlet Boxes

How to use this chart:

1. Locate the desired *PAN-WAY* Raceway in the left column.
2. Locate the desired *PAN-WAY* Outlet Box in the top row.
3. Match up the raceway with the outlet box to see if they are compatible. (Y=yes, N=no).
4. Select correct surface mount outlet box.

<i>PAN-WAY</i> Surface Mount Outlet Boxes										
Low Voltage or Fiber Optic ONLY	Power, Low Voltage or Fiber Optic									
JB1, JB1D JB1FS JBX3510	RJBX3510	JBP1	JBP1D	JBP1E	JBP1I JBP2	JBP2S JBP2D JBP2FS	JBP1MR20 JBP1MD20	PRJBX36	PSJBX	

Type LD (Low Voltage or Fiber Optic ONLY)										
LD3	Y	Y	Y	Y	Y	Y	Y	N	N	Y
LD5	Y	Y	Y	Y	Y	Y	Y	N	N	Y
LD10	Y	Y	Y	Y	Y	Y	Y	N	N	Y
Type LDP (Power, Low Voltage or Fiber Optic)										
LDP3	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
LDP5	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
LDP10	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Type LDS (Power, Low Voltage or Fiber Optic)										
LDS3	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
LDS5	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Type LD2P10 (Power, Low Voltage or Fiber Optic)										
LD2P10	N	N	N	Y w/JBD1	N	N	Y	N	N	N
Type PD (Power, Low Voltage or Fiber Optic)										
PD3	Y w/BA3	N	Y w/BA3	Y w/BA3	N	Y w/BA3	Y w/BA3	N	Y	N
PD6	Y w/BA6	N	Y w/BA6	Y w/BA6	N	Y w/BA6	Y w/BA6	N	Y	N
Type T-45 (Power, Low Voltage or Fiber Optic)										
T-45	Y (JB1FS and JBX3510)	N	N	Y	N	N	Y	N	N	N

Floor Guard

- Accessory to route cables over carpet, concrete, or tile to prevent tripping
- Flexible vinyl material can be easily cut to specific lengths. Cables slip into slit on base



FG1**
FG3**

Part Number	Part Description	Color‡	Std. Pkg. Qty.
FG1EI6-A	Flexible vinyl material used to route cabling over carpet, tile and concrete. Available in 6' roll with mounting tape.	Electric Ivory	1
FG1EI50-A	Flexible vinyl material used to route cabling over carpet, tile and concrete. Available in 50' roll with mounting tape.	Electric Ivory	1
FG3EI6S-A	Flexible vinyl material used to route cabling over carpet, tile and concrete with pre-applied mounting tape.	Electric Ivory	30
FG3EI50-A	Flexible vinyl material used to route cabling over carpet, tile and concrete. Available in 50' roll with mounting tape.	Electric Ivory	1

Mounting tape is pre-applied only to FG3 in 6' lengths.

‡ For other colors replace EI (Electric Ivory) with BR (Brown), YL (Safety Yellow), or BL (Black).

PAN-WAY® Surface Raceway Cutting Tool



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
SRT	Used to easily cut all sized of Types LDP, LD2P, LD, LDS, and PD raceway. Leaves a clean burr-free end on raceway. Can also be used to cut plastic conduit.	1	10

Foam Tape

- Acrylic foam tape - Recommended for high temperature and outdoor applications (180° F) and exposure to UV light
- Rubber foam tape - Excellent quick tack designed for long term shear loads in indoor applications up to 120° F



P32W2A2
P32W2R1

Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
1/32 Thick White Acrylic Adhesive				
P32W2A2-50-7	Foam tape, 1/32" (thick) x .50" (wide) x 7 yards, acrylic adhesive.	White	1	100
P32W2A2-75-7	Foam tape, 1/32" (thick) x .75" (wide) x 7 yards, acrylic adhesive.	White	1	60
P32W2A2-100-7	Foam tape, 1/32" (thick) x 1" (wide) x 7 yards, acrylic adhesive.	White	1	50
P32W2A2-50-72	Foam tape, 1/32" (thick) x .50" (wide) x 72 yards, acrylic adhesive.	White	1	9
P32W2A2-75-72	Foam tape, 1/32" (thick) x .75" (wide) x 72 yards, acrylic adhesive.	White	1	7
P32W2A2-100-72	Foam tape, 1/32" (thick) x 1" (wide) x 72 yards, acrylic adhesive.	White	1	5

1/32 Thick White Rubber Adhesive				
P32W2R1-50-7	Foam tape, 1/32" (thick) x .50" (wide) x 7 yards, rubber adhesive.	White	1	100
P32W2R1-75-7	Foam tape, 1/32" (thick) x .75" (wide) x 7 yards, rubber adhesive.	White	1	60
P32W2R1-100-7	Foam tape, 1/32" (thick) x 1" (wide) x 7 yards, rubber adhesive.	White	1	50
P32W2R1-50-72	Foam tape, 1/32" (thick) x .50" (wide) x 72 yards, rubber adhesive.	White	1	9
P32W2R1-75-72	Foam tape, 1/32" (thick) x .75" (wide) x 72 yards, rubber adhesive.	White	1	7
P32W2R1-100-72	Foam tape, 1/32" (thick) x 1" (wide) x 72 yards, rubber adhesive.	White	1	5
P32W2R1-150-72	Foam tape, 1/32" (thick) x 1.5" (wide) x 72 yards, rubber adhesive.	White	1	4

Order the number of rolls in multiples of standard carton quantity.

LD/LDP/LD2P Raceway Installation Tools

- Serves as a guide for drill bit in screw mount applications
- Holds LD/LDP/LD2P raceway cover open during installation

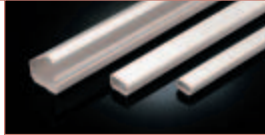
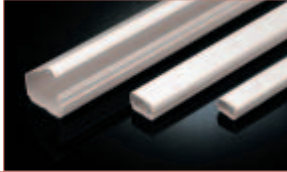


LDW-V**

Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
LDW10-V	Installation tool in use with type LD10/LDP10/LD2P10 raceways.	Black	5	50
LDW5-V	Installation tool in use with type LD5/LDP5 raceways.	Black	5	50
LDW3-V	Installation tool in use with type LD3/LDP3 raceways.	Black	5	50

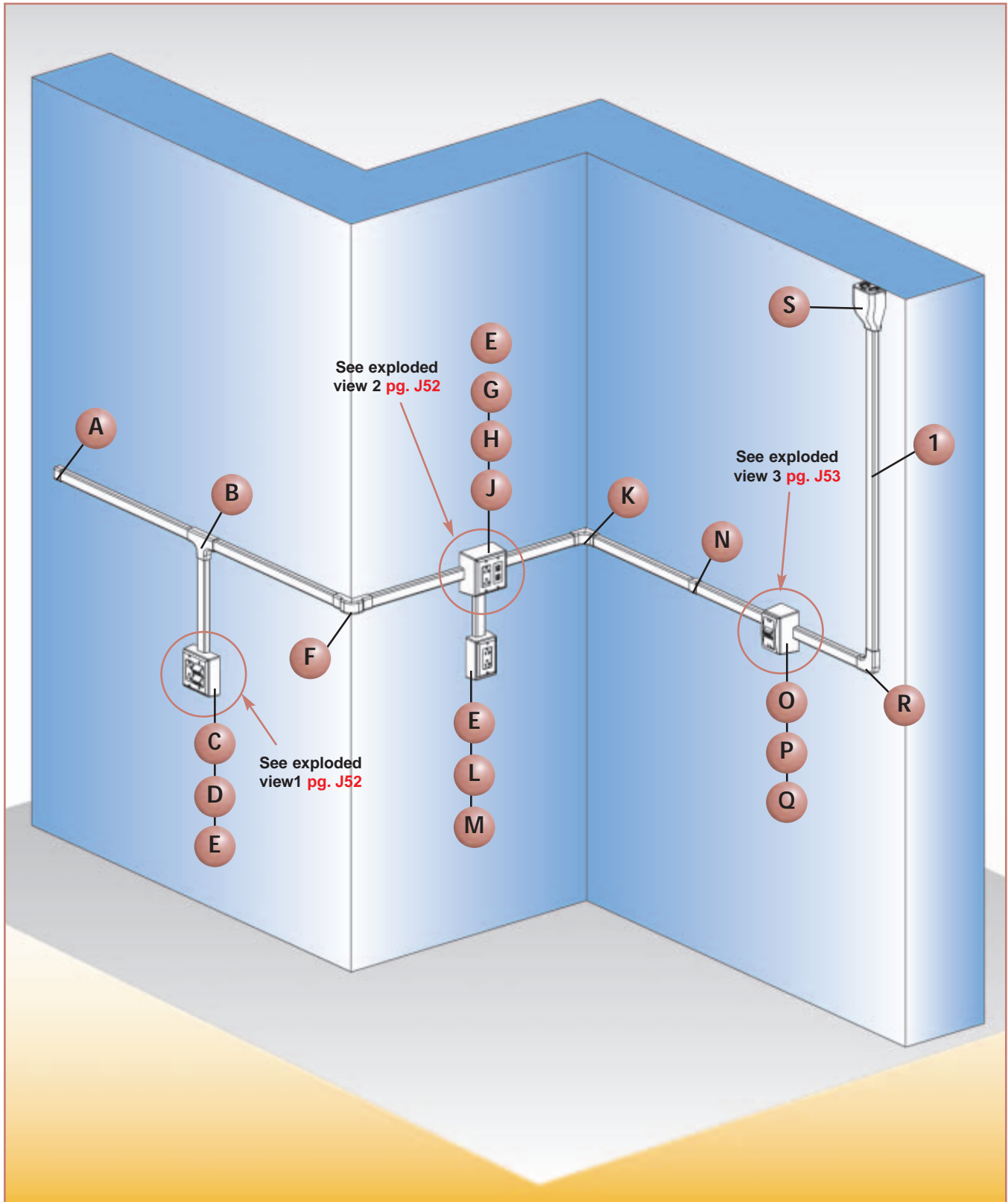
PAN-WAY® LD PROFILE NON-METALLIC SURFACE RACEWAY

PAN-WAY LD Profile Raceway is available in single and multi-channel styles and provides solutions for routing low voltage, fiber optic and power cabling along fixed perimeter walls. LD Profile Raceways are available with standard, bend radius control, power rated and multi-channel fittings.



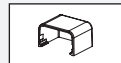
- LD2P10 features one-piece multi-channel design for both power and data applications
- LDP features one-piece single channel design and a tamper resistant latch for power OR data applications
- LD features one-piece single channel design for routing of data and low voltage
- LDS features one-piece single channel tamper resistant design with maximum security for power OR data applications
- Full complement of fittings to support all common power and data applications

LD2P10 Profile Raceway Roadmap

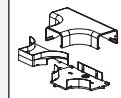




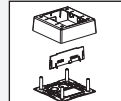
1 LD2P10 Raceway (page J61)



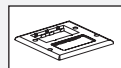
A ECFX10** –Power Rated End Cap Fitting (page J61)



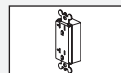
B TFD10** –1" Bend Radius Tee Fitting (page J61)



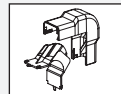
C JBP2S** –Power Rated Double Gang Three-Piece Divided Box (page J45)



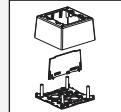
D FP2RC** –Double Gang Rectangular Electrical & 2 Communication Insert Faceplate (page J40)



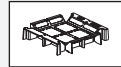
E ERU20** –20 A Rectangular Electrical Outlet (page J42)



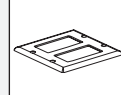
F OCFX10** –1" Bend Radius Outside Corner Fitting (page J61)



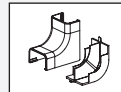
G JBP2D** –Power Rated Double Gang Two-Piece Deep Box (page J45)



H JBD2 –Double Gang Pass Through and Divider for LD2P10 Raceway (page J45)



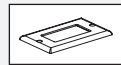
J CPG** –2G –Double Gang Rectangular Screw-On Faceplate (page J42)



K ICFX10** –Power Rated Inside Corner Fitting (page J61)



L JBP1** –Power Rated Single Gang Two-Piece Box (page J45)



M CPG** –Single Gang Rectangular Screw-On Faceplate (page J42)



N CFX10** –Power Rated Coupler Fitting (page J61)



O JBP1D** –Single Gang Two-Piece Deep Box (page J45)



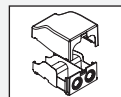
P JBD1 –Single Gang Pass Through Divider for LD2P10 Raceway (page J45)



Q UICFPSE2** – *ULTIMATE ID™* 2 Position Executive Sloped Faceplate (page C4)



R RAFX10** –Power Rated Right Angle Fitting (page J61)

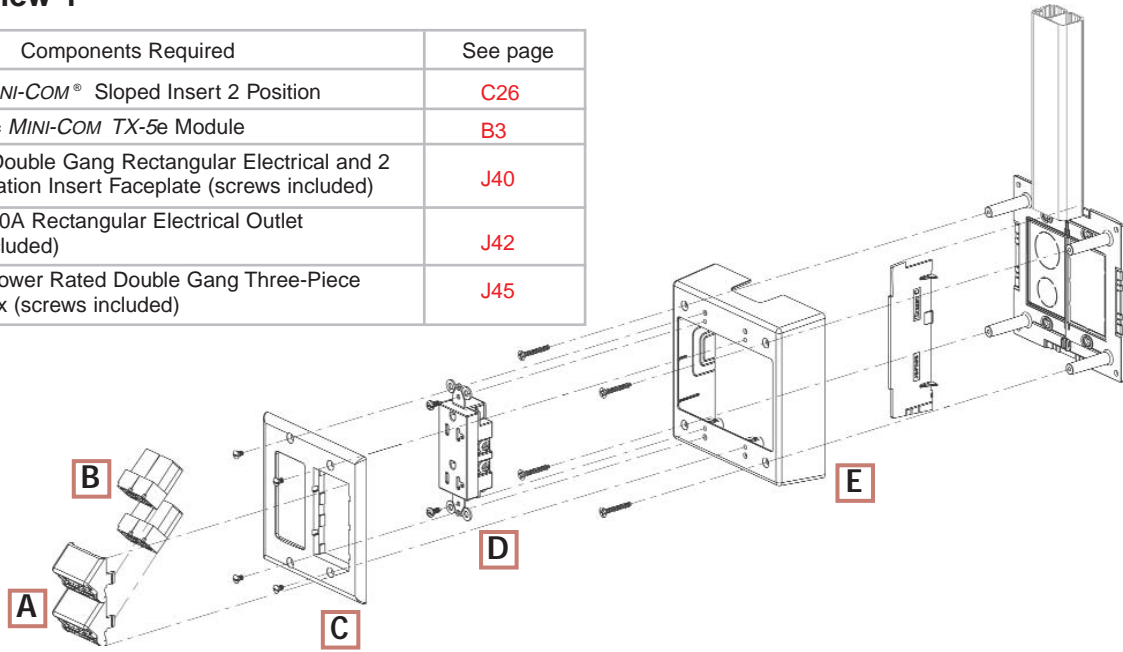


S EEFX** –Power Rated/1" Bend Radius Entrance End Fitting (page J61)

LD2P10 Configurations

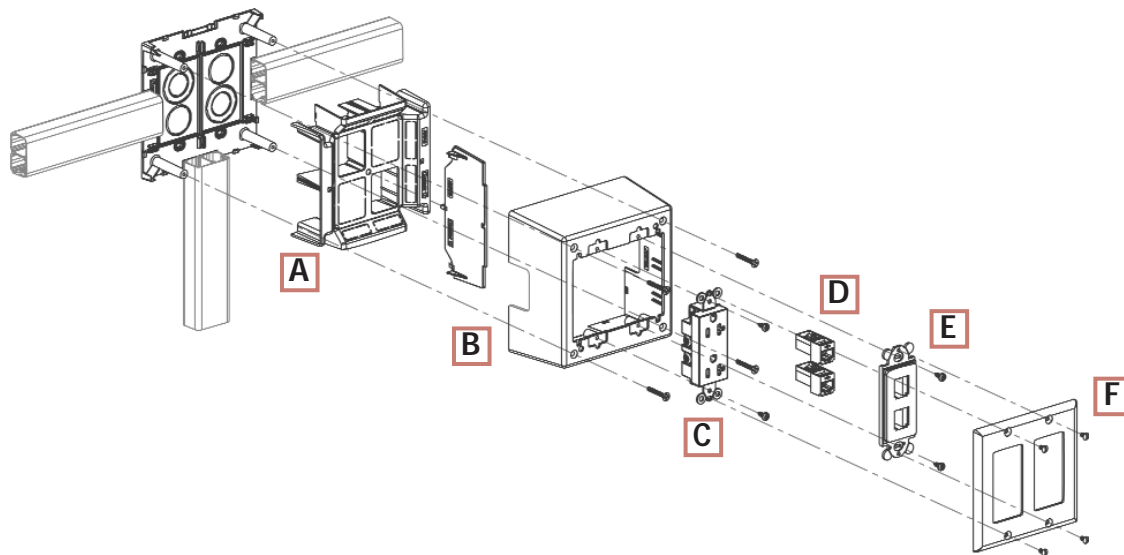
Exploded view 1

	Components Required	See page
A.	CHS2 = <i>MINI-COM</i> ® Sloped Insert 2 Position	C26
B.	CJ5E88T = <i>MINI-COM</i> TX-5e Module	B3
C.	FP2RC = Double Gang Rectangular Electrical and 2 Communication Insert Faceplate (screws included)	J40
D.	ERU20 = 20A Rectangular Electrical Outlet (screws included)	J42
E.	JBP2S = Power Rated Double Gang Three-Piece Divided Box (screws included)	J45



Exploded view 2

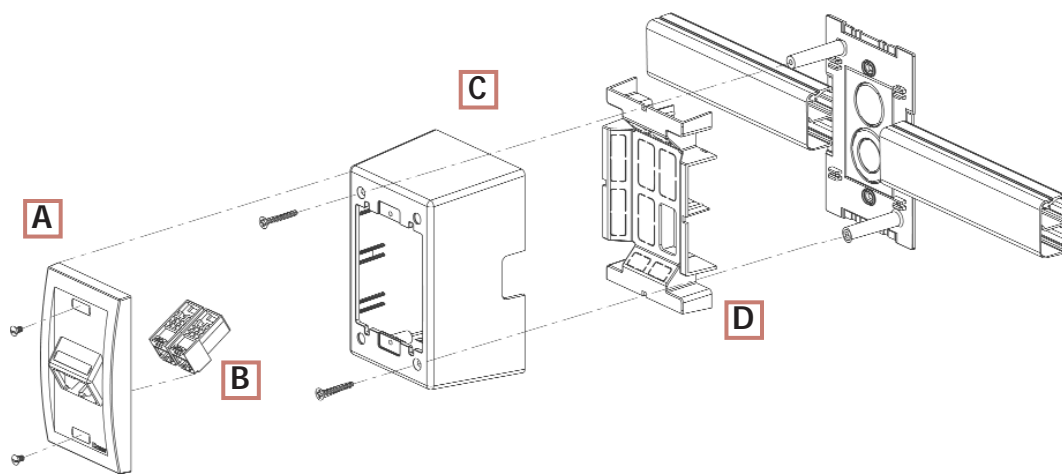
	Components Required	See page
A.	JBD2 = Double Gang Pass Through and Divider for LD2P10 Raceway	J45
B.	JBP2D = Power Rated Double Gang Two-Piece Deep Box	J45
C.	ERU20 = 20A Rectangular Electrical Outlet (screws included)	J42
D.	CJ5E88T = <i>MINI-COM</i> TX-5e Module	B3
E.	CFG2 = Two Module Space "GFCI" Module Frame (screws included)	C28
F.	CPG2G = Double Gang Rectangular Screw-On Faceplate (screws included)	J42



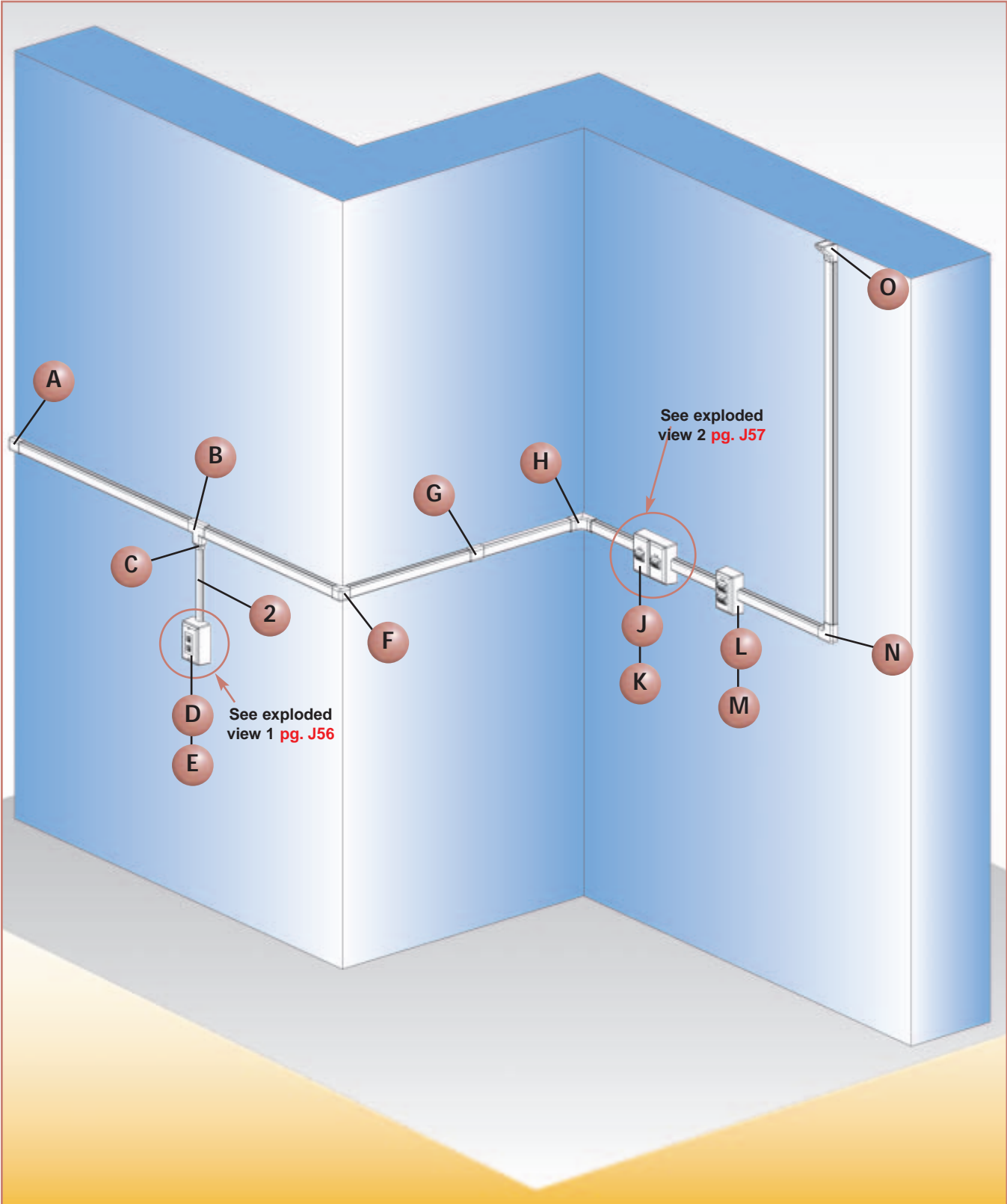
LD2P10 Configurations (Continued)

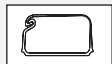
Exploded view 3

	Components Required	See page
A.	UICFPSE2 = <i>ULTIMATE ID™</i> 2 Position Executive Sloped Faceplate	C4
B.	CJ5E88T = <i>MINI-COM®</i> TX5e Module	B3
C.	JBP1D = Power Rated Single Gang Two-Piece Deep Box (screws included)	J45
D.	JBD1 = Single Gang Pass Through Divider for LD2P10 Raceway	J45

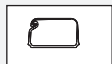


LD Profile Raceway Roadmap

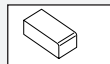




1 LD10 Raceway (page J62)



2 LD5 Raceway (page J62)



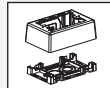
A ECF10** –End Cap Fitting (page J65)



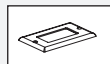
B TF10** –Tee Fitting (page J65)



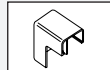
C RF10X5** –Reducer Fitting (page J65)



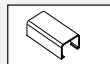
D JBX3510** –Single Gang Two-Piece Snap-Together Box (page J42)



E CPG** –Single Gang Rectangular Screw-On Faceplate (page J42)



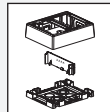
F OCF10** –Outside Corner Fitting (page J65)



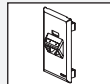
G CF10** –Coupler Fitting (page J65)



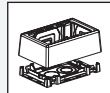
H ICF10** –Inside Corner Fitting (page J65)



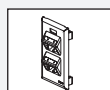
J JBP2FS** – *FAST-SNAP*™ Double Gang Power Rated Surface Mount Outlet Box (page J45)



K UIT70FV2** – *ULTIMATE ID*™ Sloped Vertical Snap-On Faceplates 2 Position (page C6)



L JB1FS** – *FAST-SNAP*™ Single Gang Surface Mount Outlet Box (page J44)



M UIT70FV4** – *ULTIMATE ID* Sloped Vertical Snap-On Faceplates 4 Position (page C6)



N RAF10** –Right Angle Fitting (page J65)

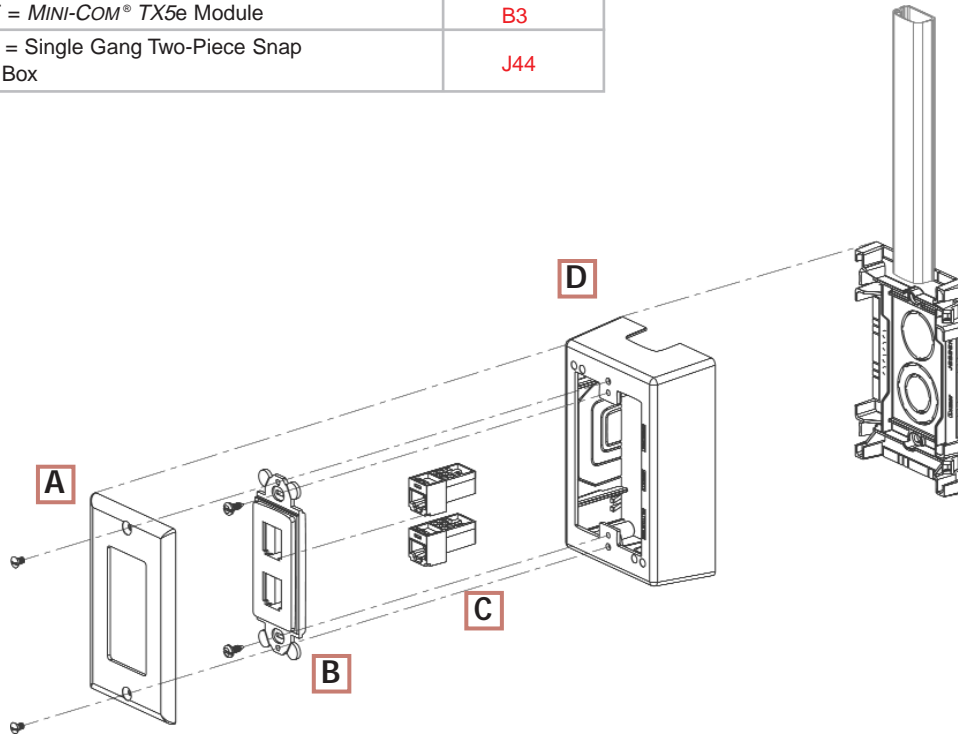


O DCF10** –Drop Ceiling/Entrance End Fitting (page J65)

LD Configurations

Exploded view 1

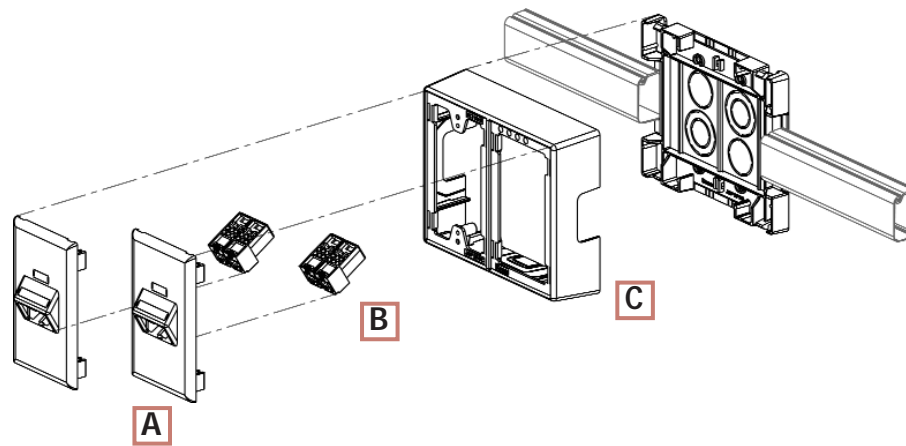
	Components Required	See page
A.	CPG = Single Gang Rectangular Screw-On Faceplate (screws included)	J42
B.	CFG2 = 2 Position Rectangular Module Frame (screws included)	C28
C.	CJ5E88T = <i>MINI-COM</i> ® TX5e Module	B3
D.	JBX3510 = Single Gang Two-Piece Snap Together Box	J44



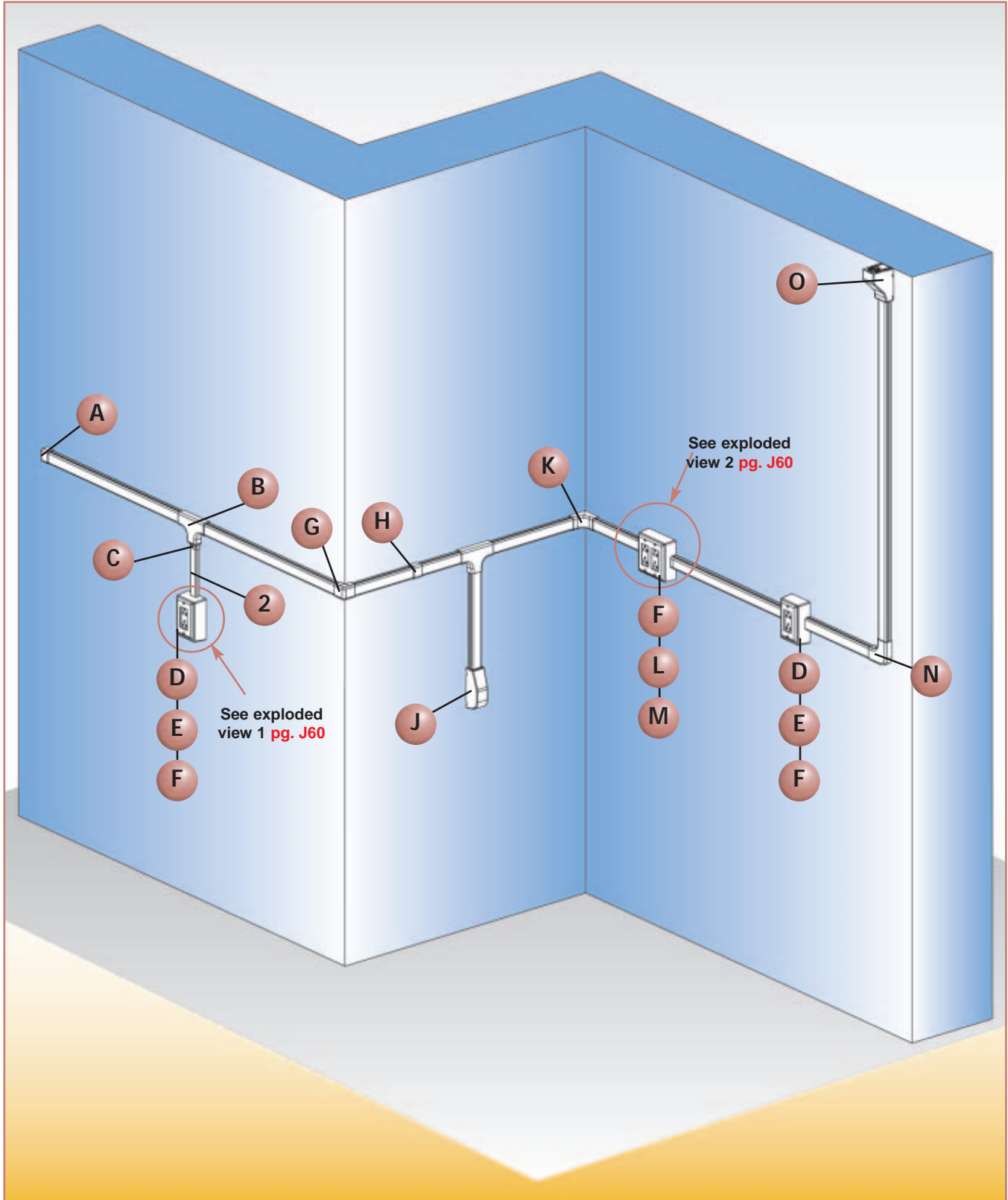
LD Configurations (Continued)

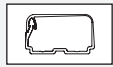
Exploded view 2

	Components Required	See page
A.	UIT70FV2 = <i>ULTIMATE ID™</i> Sloped Vertical Snap-On Faceplate — 2 Port	C6
B.	CJ5E88T = <i>MINI-COM®</i> TX5e Module	B3
C.	JBP2FS = <i>FAST-SNAP™</i> Double Gang Power Rated Surface Mount Outlet Box	J45

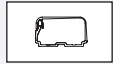


LDP Profile Raceway Roadmap





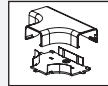
1 LDP10 Raceway (page J63)



2 LDP5 Raceway (page J63)



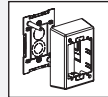
A ECFX10** –Power Rated/1" Bend Radius End Cap Fitting (page J67)



B TFX10** –Power Rated/1" Bend Radius Tee Fitting (page J67)



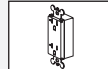
C RFX105** –Power Rated/1" Bend Radius Reducer Fitting (page J67)



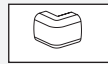
D JBP1** –Power Rated Single Gang Two-Piece Box (page J45)



E CPG** –Single Gang Rectangular Screw-On Faceplate (page J42)



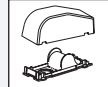
F ERU20** –20 A Rectangular Electrical Outlet (page J42)



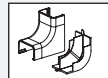
G OCFC10** –Power Rated Outside Corner Fitting (page J66)



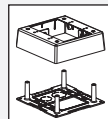
H CFX10** –Power Rated/1" Bend Radius Coupler Fitting (page J67)



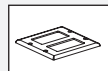
J RAEFX** –Power Rated/1" Bend Radius Right Angle Entrance End Fitting (page J67)



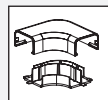
K ICFX10** –Power Rated Inside Corner Fitting (page J67)



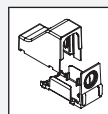
L JBP2** –Power Rated Double Gang Two-Piece Box (page J45)



M CPG**-2G –Double Gang Rectangular Screw-On Faceplates (page J42)



N RAFX10** –Power Rated Right Angle Fitting (page J67)

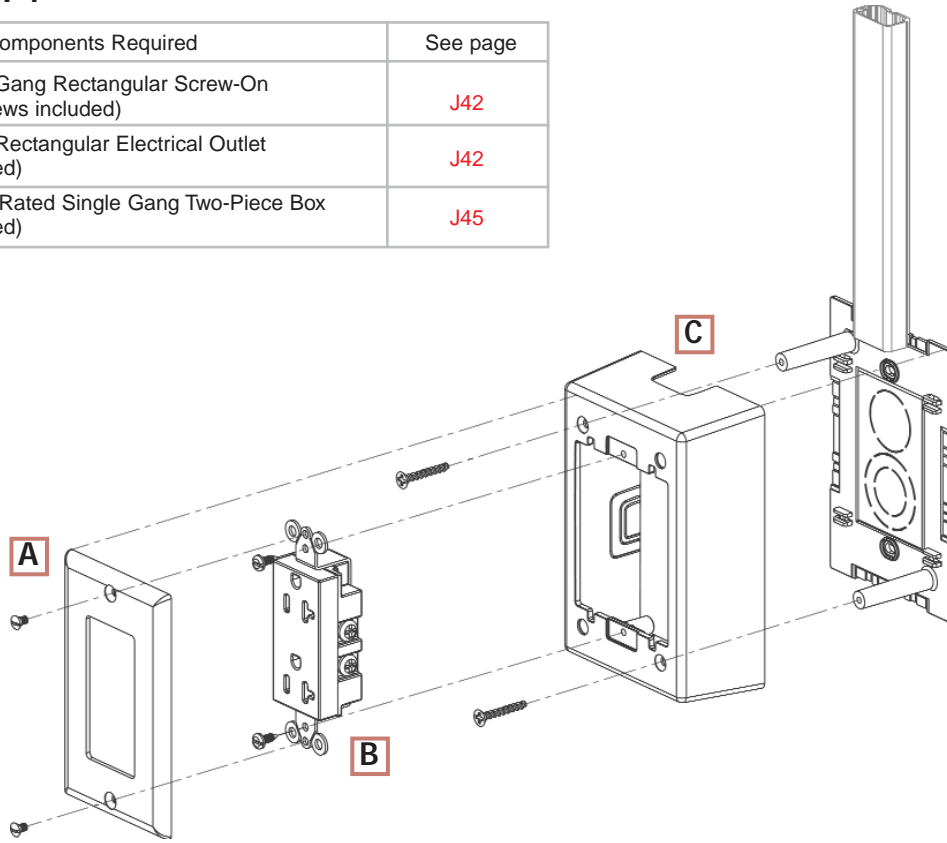


O DCEFX** –Power Rated/1" Bend Radius Drop Ceiling Entrance End Fitting (page J67)

LDP Configurations

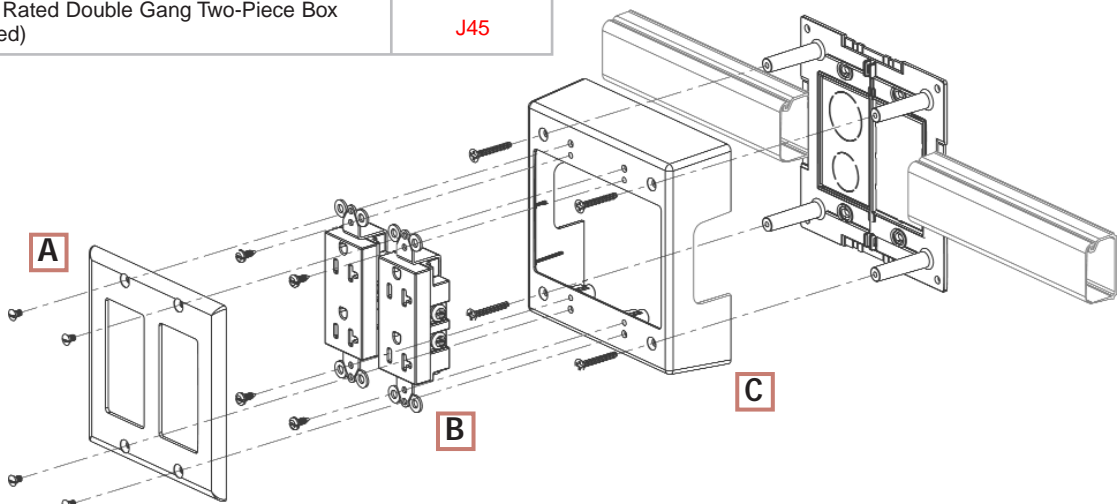
Exploded view 1

	Components Required	See page
A.	CPG = Single Gang Rectangular Screw-On Faceplate (screws included)	J42
B.	ERU20 = 20A Rectangular Electrical Outlet (screws included)	J42
C.	JBP1 = Power Rated Single Gang Two-Piece Box (screws included)	J45



Exploded view 2

	Components Required	See page
A.	CPG2G = Double Gang Rectangular Screw-On Faceplate (screws included)	J42
B.	ERU20 = 20A Rectangular Electrical Outlet (screws included)	J42
C.	JBP2 = Power Rated Double Gang Two-Piece Box (screws included)	J45

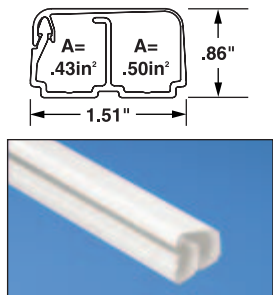




PAN-WAY® Type LD2P10 Multi-Channel Surface Raceway

- UL & CSA rated 600V. Meets UL5A and CSA 22.2 No. 62-93 standards
- Routes Power & Data together
- One-piece hinged design allows cables to be laid in
- Tamper resistant

- Factory applied adhesive backing speeds installation
- FT-4 Rated for Canada
- Terminates using JBP1D, JBP2D, or JBP2S surface mount outlet box solutions



LD2P10

Part Number	Part Description	Raceway Size	Color‡	Length (ft)	Std. Ctn. Qty.
LD2P10IW8-A	Two channel tamper resistant one-piece latching surface raceway. Supplied with pre-applied adhesive backed tape. Available in 8' and 10' lengths.	1.51" x .86"	Off White	8	160
LD2P10IW10-A		1.51" x .86"	Off White	10	200

LD2P Raceway requires screw mounting if it is being used for power cabling applications. Order number of feet required, in multiples of Standard Length Increments.

‡ For other colors replace IW (Off White) with EI9Electric Ivory), IG (International Gray), or WH (White).



Multi-Channel Fittings for LD2P10

- Multi-channel fittings for LD2P10 are designed to maintain the TIA/EIA 568-B and 569-A required minimum bend

radius for high performance copper and fiber optic cabling systems



CFX



RAFX



ICFX



OCFX



TFXD



ECFX



EEFX

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFX10IW-X	Coupler fitting for use with LD10, LDP10 and LD2P10 raceway.	Off White	10	100
RAFX10IW-X	Right angle fitting for use with LDP10 and LD2P10 raceway.	Off White	10	100
ICFX10IW-X	Inside corner fitting for use with LDP10 and LD2P10 raceway.	Off White	10	100
OCFX10IW-X	Outside corner fitting for use with LDP10 and LD2P10 raceway.	Off White	10	100
TFXD10IW-X	Tee fitting with divided insert to maintain separation of power and data cabling. For use with LD2P10 raceway.	Off White	10	100
ECFX10IW-X	End cap fitting for use with LDP10 and LD2P10 raceway.	Off White	10	100
EEFXIW	Entrance end fitting for LD2P10 raceway. Breakouts for 1/2" , 3/4" , and 1" diameter conduit.	Off White	1	10

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray) or WH (White).

PAN-WAY® Type LD Surface Raceway

- For routing data and low voltage cabling
- One-piece hinged design allows cables to be laid in
- Factory applied adhesive backing speeds installation

- FT-4 Rated for Canada
- Terminates using surface mount outlet box solutions or *MINI-COM*® Surface Mount Boxes



LD3



LD5



LD10

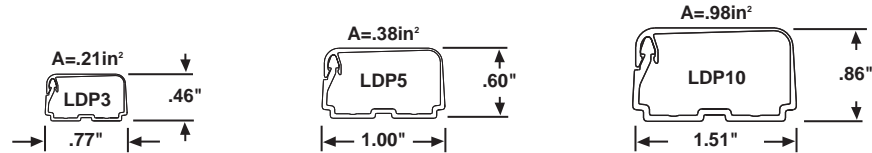
Part Number	Part Description	Raceway Size	Color‡	Length (ft)	Std. Ctn. Qty.
LD3 - Surface Raceway					
LD3IW6-A	One-piece latching surface raceway. Supplied with pre-applied adhesive backed tape. Available in 6', 8', and 10' lengths.	.77" x .46"	Off White	6	120
LD3IW8-A		.77" x .46"	Off White	8	160
LD3IW10-A		.77" x .46"	Off White	10	200
LD5 - Surface Raceway					
LD5IW6-A	One-piece latching surface raceway. Supplied with pre-applied adhesive backed tape. Available in 6', 8', and 10' lengths.	1.00" x .60"	Off White	6	120
LD5IW8-A		1.00" x .60"	Off White	8	160
LD5IW10-A		1.00" x .60"	Off White	10	200
LD10 - Surface Raceway					
LD10IW6-A	One-piece latching surface raceway. Supplied with pre-applied adhesive backed tape. Available in 6', 8', and 10' lengths.	1.51" x .94"	Off White	6	120
LD10IW8-A		1.51" x .94"	Off White	8	160
LD10IW10-A		1.51" x .94"	Off White	10	200

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray), or WH (White). Order number of feet required, in multiples of standard length increments.



PAN-WAY® Type LDP Surface Raceway

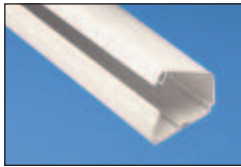
- UL & CSA rated 600V. Meets UL5A and CSA 22.2 No. 62-93 standards
- One-piece hinged design allows cables to be laid in
- Tamper resistant
- Factory applied adhesive backing speeds installation
- FT-4 Rated for Canada
- Terminates using surface mount outlet box solutions or *MINI-COM*® Surface Mount Boxes



LDP3



LDP5



LDP10

Part Number	Part Description	Raceway Size	Color‡	Length (ft)	Std. Ctn. Qty.
LDP3 - Surface Raceway					
LDP3IW8-A	Size 3 tamper resistant one-piece latching surface raceway. Supplied with pre-applied adhesive backed tape. Available in 8' and 10' lengths.	.77" x .46"	Off White	8	160
LDP3IW10-A		.77" x .46"	Off White	10	200
LDP5 - Surface Raceway					
LDP5IW8-A	Size 5 tamper resistant one-piece latching surface raceway. Supplied with pre-applied adhesive backed tape. Available in 8' and 10' lengths.	1.00" x .60"	Off White	8	160
LDP5IW10-A		1.00" x .60"	Off White	10	200
LDP10 - Surface Raceway					
LDP10IW8-A	Size 10 tamper resistant one-piece latching surface raceway. Supplied with pre-applied adhesive backed tape. Available in 8' and 10' lengths.	1.51" x .86"	Off White	8	160
LDP10IW10-A		1.51" x .86"	Off White	10	200

LDP Raceway requires screw mounting if it is being used for power cabling applications.

Order number of feet required, in multiples of standard length increments.

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray), or WH (White).

System Overview

Modules

Ultimate ID System & Work Area

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Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

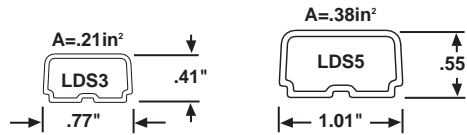
Supplementary Technical Information

Glossary & Index



PAN-WAY® Type LDS Surface Raceway

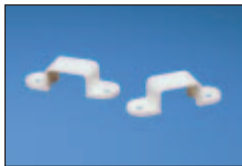
- Power rated to 600V(UL) and meets UL5A standards
- Tamper resistant non-hinged design
- Factory applied adhesive backing speeds installation
- FT-4 Rated for Canada
- Type LDS is **the only non-metallic raceway that is bendable** in low voltage applications to route around and over obstructions
- LDS Raceway requires screw mounting using the LMD mounting straps if it is being used for power cabling installations
- Terminates using surface mount outlet box solutions or *MINI-COM*® Surface Mount Boxes



LDS3



LDS5



LMD3
LMD5

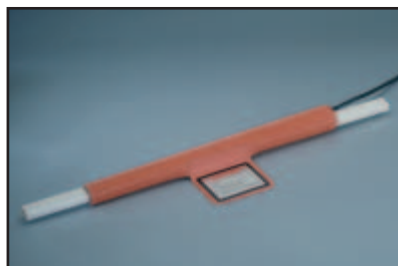
Part Number	Part Description	Raceway Size	Color‡	Length (ft)	Std. Ctn. Qty.
LDS3 - Surface Raceway					
LDS3IW10-A	Tamper resistant one-piece surface raceway. Supplied with pre-applied adhesive backed tape. Available in 10' lengths.	.77" x .41"	Off White	10	200
LDS5 - Surface Raceway					
LDS5IW10-A	Tamper resistant one-piece surface raceway. Supplied with pre-applied adhesive backed tape. Available in 10' lengths.	1.01" x .55"	Off White	10	200
Mounting Straps					
LMD3IW-Q	For use with LDS3 and LDP3 raceway.	Size 3	Off White	–	100
LMD5IW-Q		Size 5	Off White	–	100

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray) or WH (White). Order number of feet required, in multiples of standard length increments.

Method for Bending Type LDS Raceway (Low Voltage Applications)



STEP 1: Slide 18 to 30" section of LDS raceway into PVC pipe heating blanket. *(Recommended blanket designed for bending 1/2" to 1 1/2" PVC conduit.)



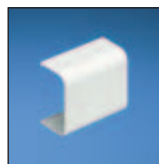
STEP 2: Allow section to heat approximately 2-3 minutes. Raceway will be soft and pliable but should not stretch. (Time will vary with blanket temperature and raceway size)



STEP 3: Remove raceway section from blanket and hold in desired position until the raceway cools. Install mounting straps immediately.

*Heating blanket not provided by PANDUIT

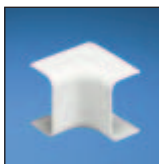
Standard Fittings for Low Voltage Applications



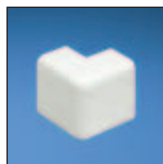
CF



RAF



ICF



OCF



TF



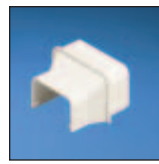
ECF



CRFC



DCF



RF

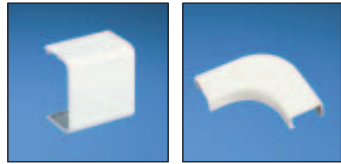
Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CF3IW-E	Coupler fitting for use with LD3 Raceway.	Off White	20	100
CF5IW-E	Coupler fitting for use with LD5 Raceway.	Off White	20	100
CF10IW-X	Coupler fitting for use with LD10 Raceway.	Off White	10	100
RAF3IW-E	Right angle fitting for use with LD3 raceway.	Off White	20	100
RAF5IW-E	Right angle fitting for use with LD5 raceway.	Off White	20	100
RAF10IW-X	Right angle fitting for use with LD10 raceway.	Off White	10	100
ICF3IW-E	Inside corner fitting for use with LD3 raceway.	Off White	20	100
ICF5IW-E	Inside corner fitting for use with LD5 raceway.	Off White	20	100
ICF10IW-X	Inside corner fitting for use with LD10 raceway.	Off White	10	100
OCF3IW-E	Outside corner fitting for use with LD3 raceway.	Off White	20	100
OCF5IW-E	Outside corner fitting for use with LD5 raceway.	Off White	20	100
OCF10IW-X	Outside corner fitting for use with LD10 raceway.	Off White	10	100
TF3IW-E	Tee fitting for use with LD3 raceway.	Off White	20	100
TF5IW-E	Tee fitting for use with LD5 raceway.	Off White	20	100
TF10IW-X	Tee fitting for use with LD10 raceway.	Off White	10	100
ECF3IW-E	End cap fitting for use with LD3 raceway.	Off White	20	100
ECF5IW-E	End cap fitting for use with LD5 raceway.	Off White	20	100
ECF10IW-X	End cap fitting for use with LD10 raceway.	Off White	10	100
CRFC5IW-X	Four way cross fitting for use with LD5, LDP5 and LDS5 raceway.	Off White	10	100
DCF3IW-X	Drop ceiling/entrance end fitting for use with LD3 raceway.	Off White	10	100
DCF5IW-X	Drop ceiling/entrance end fitting for use with LD5 raceway.	Off White	10	100
DCF10IW-X	Drop ceiling/entrance end fitting for use with LD10 raceway.	Off White	10	100
RF5X3IW-E	Reducer fitting for LD raceway from size 5 to size 3. For use with LD5 and LD3 raceway.	Off White	20	100
RF10X3IW-X	Reducer fitting for LD raceway from size 10 to size 3. For use with LD3 and LD10 raceway.	Off White	10	100
RF10X5IW-X	Reducer fitting for LD raceway from size 10 to size 5. For use with LD5 and LD10 raceway.	Off White	10	100

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray), or WH (White).



One Inch Bend Radius Fittings for TIA/EIA Compliance

• One inch bend radius fittings are designed to maintain the TIA/EIA 568-B and 569-A required minimum bend radius for high performance copper and fiber optic cabling systems



CFX

RAFC



ICFC

OCFX



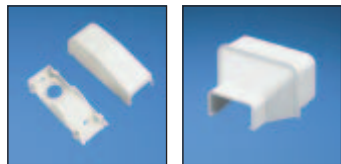
TFC

CRFC5



ECFX

DCEFX



RAEFX

RFX

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFX3IW-X	Coupler fitting for use with LD3, LDP3 and LDS3 raceway.	Off White	10	100
CFX5IW-X	Coupler fitting for use with LD5, LDP5 and LDS5 raceway.	Off White	10	100
CFX10IW-X	Coupler fitting for use with LD10, LDP10 and LD2P10 raceway.	Off White	10	100
RAFC3IW-X	Right angle fitting for use with LD3, LDP3 and LDS3 raceway.	Off White	10	100
RAFC5IW-X	Right angle fitting for use with LD5, LDP5 and LDS5 raceway.	Off White	10	100
RAFC10IW-X	Right angle fitting for use with LD10 and LDP10 raceway.	Off White	10	100
ICFC3IW-X	Inside corner fitting for use with LD3, LDP3 and LDS3 raceway.	Off White	10	100
ICFC5IW-X	Inside corner fitting for use with LD5, LDP5 and LDS5 raceway.	Off White	10	100
ICFC10IW-X	Inside corner fitting for use with LD10 and LDP10 raceway.	Off White	10	100
OCFX3IW-X	Outside corner fitting for use with LDP3 and LDS3 raceway.	Off White	10	100
OCFX5IW-X	Outside corner fitting for use with LDP5 and LDS5 raceway.	Off White	10	100
OCFX10IW-X	Outside corner fitting for use with LDP10 and LD2P10 raceway.	Off White	10	100
TFC3IW-X	Tee fitting for use with LD3 and LDP3 raceway.	Off White	10	100
TFC5IW-X	Tee fitting for use with LD5, LDP5, and LDS5 raceway.	Off White	10	100
TFC10IW-X	Tee fitting for use with LD10 and LDP10 raceway.	Off White	10	100
CRFC5IW-X	Four way cross fitting for use with LD5, LDP5 and LDS5 raceway.	Off White	10	100
ECFX3IW-X	End cap fitting for use with LDP3 and LDS3 raceway.	Off White	10	100
ECFX5IW-X	End cap fitting for use with LDP5 and LDS5 raceway.	Off White	10	100
ECFX10IW-X	End cap fitting for use with LDP10 and LD2P10 raceway.	Off White	10	100
DCEFXIW-X	Drop ceiling/entrance end fitting for use with LD3, LDP3, LDS3, LD5, LDP5, LDS5, LD10 and LDP10 raceways. Use CA3 or CA5 adapters for LD3 and LD5 profile raceway.	Off White	10	100
RAEFXIW-X	Right angle/entrance end fitting for use with LD3, LDP3, LDS3, LD5, LDP5, LDS5, LD10 and LDP10 raceways. CA3 or CA5 adapters for LD3 and LD5 profile raceway.	Off White	10	100
RFX53IW-X	Reducer fitting for use with LD3, LDP3, LDS3, LD5, LDP5 and LDS5 raceway.	Off White	10	100
RFX103IW-X	Reducer fitting for use with LD3, LDP3, LDS3, LD10 and LDP10 raceway.	Off White	10	100
RFX105IW-X	Reducer fitting for use with LD5, LDP5, LDS5, LD10 and LDP10 raceway.	Off White	10	100

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray), or WH (White).



Power Rated Fittings for Power to 600V - LDP / LDS / LD2P Raceway Only



CFX

RAFX



ICFX

OCFC



TFX

CRFX5



ECFX

DCEFX



RAEFX

RFX

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CFX3IW-X	Coupler fitting for use with LD3, LDP3 and LDS3 raceway.	Off White	10	100
CFX5IW-X	Coupler fitting for use with LD5, LDP5 and LDS5 raceway.	Off White	10	100
CFX10IW-X	Coupler fitting for use with LD10, LDP10 and LD2P10 raceway.	Off White	10	100
RAFX3IW-X	Right angle fitting for use with LDP3 and LDS3 raceway.	Off White	10	100
RAFX5IW-X	Right angle fitting for use with LDP5 and LDS5 raceway.	Off White	10	100
RAFX10IW-X	Right angle fitting for use with LDP10 and LD2P10 raceway.	Off White	10	100
ICFX3IW-X	Inside Corner Fitting for use with LDP3 and LDS3 raceway.	Off White	10	100
ICFX5IW-X	Inside Corner Fitting for use with LDP5 and LDS5 raceway.	Off White	10	100
ICFX10IW-X	Inside corner fitting for use with LDP10 and LD2P10 raceway.	Off White	10	100
OCFC3IW-X	Outside corner fitting for use with LDP3 and LDS3 raceway.	Off White	10	100
OCFC5IW-X	Outside corner fitting for use with LDP5 and LDS5 raceway.	Off White	10	100
OCFC10IW-X	Outside corner fitting for use with LDP10 only.	Off White	10	100
TFX3IW-X	Tee fitting for use with LDP3 and LDS3 raceway.	Off White	10	100
TFX5IW-X	Tee fitting for use with LDP5 and LDS5 raceway.	Off White	10	100
TFX10IW-X	Tee fitting for use with LDP10 only.	Off White	10	100
CRFX5IW-X	Four-way cross fitting for use with LD5, LDP5 and LDS5 raceway.	Off White	10	100
ECFX3IW-X	End cap fitting for use with LDP3 and LDS3 raceway.	Off White	10	100
ECFX5IW-X	End cap fitting for use with LDP5 and LDS5 raceway.	Off White	10	100
ECFX10IW-X	End cap fitting for use with LDP10 and LD2P10 raceway.	Off White	10	100
DCEFXIW-X	Drop ceiling/entrance end fitting for use with LD3, LDP3, LDS3, LD5, LDP5, LDS5, LD10 and LDP10 raceways. Use CA3 or CA5 adapters for LD3 and LD5 profile raceway.	Off White	10	100
RAEFXIW-X	Right angle/entrance end fitting for use with LD3, LDP3, LDS3, LD5, LDP5, LDS5, LD10 and LDP10 raceways. CA3 or CA5 adapters for LD3 and LD5 profile raceway.	Off White	10	100
RFX53IW-X	Reducer fitting for use with LD3, LDP3, LDS3, LD5, LDP5 and LDS5 raceway.	Off White	10	100
RFX103IW-X	Reducer fitting for use with LD3, LDP3, LDS3, LD10 and LDP10 raceway.	Off White	10	100
RFX105IW-X	Reducer fitting for use with LD5, LDP5, LDS5, LD10 and LDP10 raceway.	Off White	10	100

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray), or WH (White).

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Raceway Adapters for LD Raceway

- Fits into universal breakout of DCEFX and RAEFX fittings
- For use with LDP3, LD3, and LDS3 raceway and LDP5, LD5 and LDS5 raceway







CA3
CA5

Part Number	Part Description	Color‡	Std. Pkg. Qty.	Std. Ctn. Qty.
CA3IW-X	Fits into universal breakout of DCEFX or RAEFX fittings. For use LD3, LDP3, and LDS3 raceway.	Off White	10	50
CA5IW-X	Fits into universal breakout of DCEFX or RAEFX fittings. For use LD5, LDP5, and LDS5 raceway.	Off White	10	50

‡ For other colors replace IW (Off White) with EI (Electric Ivory), IG (International Gray), or WH (White).

Quick Wire Fill Capacities for LD Profile Raceway

This information is to be used as a guide in selecting the proper size raceway. The maximum amounts may vary according to the wire installation methods, straightness of wires, etc.

			
LD3 .21in ²	LD5 .38in ²	LD10 1.00in ²	LDS3 .21in ²
	LDP3 .21in ²	LDP5 .38in ²	LDS5 .38in ²
		LDP10 98in ²	
		LD2P10—Left .43in ²	LD2P10—Right .50in ²

SPEC=40% wire fill—the recommended design in cable capacity. Leaves room for future moves, adds and changes.

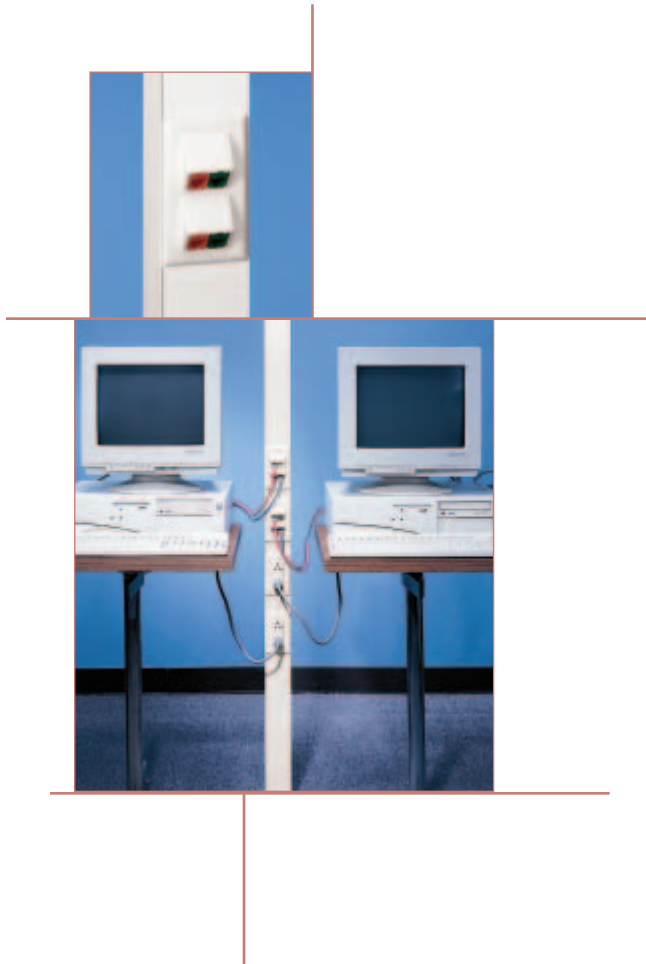
MAX for Data=60% wire fill—the maximum cable quantity based on cable interweaving and packing factors.

MAX for Power wire fill—the maximum of electrical cables based on UL temperature rise test.

Raceway Type & Configuration	Fill Area (in ²)	Electrical Cables			Data Grade Cable		Data Grade Cable		Coax Cable		Fiber Optic Cable	
		14 AWG	12 AWG	10 AWG	24 AWG/UTP CM		24 AWG/UTP CM		RG6		2 Strand	
		THHN/T90			Cat 5e, 4pr		Cat 6, 4pr		DIA.=.275		DIA.=.175	
		FILL			FILL		FILL		FILL		FILL	
		MAX	MAX	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX
		(UL Temp Rise Test)			(40%)		(60%)		(40%)		(60%)	
LD3	.21	—	—	—	2	3	1	2	1	2	4	5
LD5	.38	—	—	—	4	6	3	4	2	3	6	9
LD10	1.00	—	—	—	10	16	8	12	5	8	16	24
LDP3	.21	9	7	4	2	3	1	2	1	2	3	5
LDP5	.38	14	12	8	4	6	3	4	2	3	6	9
LDP10	.98	18	18	16	10	15	7	11	5	8	16	16
LD2P10-Left Channel	.43	14	11	8	4	6	3	5	2	3	7	11
LD2P10-Right Channel	.50	—	—	—	5	8	4	6	3	4	8	12
LDS3	.21	9	6	4	2	3	1	2	1	2	3	5
LDS5	.38	10	8	5	4	6	3	4	2	3	6	9

PAN-POLE™ ALUMINUM OUTLET POLE

PAN-POLE Aluminum Outlet Poles are available in versions for power and communications or communications only. They provide industry-leading solutions for cable routing in an open office environment.



- Dual channel aluminum construction provides complete separation of power and data
- Tamper resistant cover
- 1" bend radius control fitting (above ceiling)
- PAN-POLE Aluminum Outlet Pole can accept PAN-WAY™ Snap-On Faceplates and NEMA standard screw-on faceplates
- Optional bracket allows PANDUIT screw-on or NEMA standard screw-on communication faceplates to be mounted anywhere along the outlet pole
- Allows for customized placement of data outlets

PAN-POLE™ Power and Communication Pole

- Dual-channel aluminum pole for routing both power and low voltage communication cabling
- Available in 11' or 13' lengths and come with a blank plastic cover. Electrical outlets are pre-wired
- UL & CSA rated 600V



PCPA11R20
PCPA13R20

Standard furnished factory assembled pole configurations include the following:

1. Aluminum extruded base with blank plastic cover
2. Two 20A factory wired rectangular outlets with wiring fed through power channel to base of power entry box
3. Power entry box with 1/2" and 3/4" conduit breakouts
4. 8" removable plate for power wiring connections
5. Ground screw pre-mounted behind removable plate

Standard furnished mounting hardware includes:

1. Entry end bend radius fitting for communication cabling (two mounting screws included)
2. Ceiling T-bar bracket (two mounting screws included)
3. Two ceiling tile trim plates
4. End cap with two pre-drilled holes
5. End cap floor grip pad

Part Number	Part Description	Color	Std. Pkg. Qty.
PCPA11R20EI	PAN-POLE Power and Communication Pole Assembly is supplied in 11' length for maximum ceiling height of 10'.	Electric Ivory	1
PCPA11R20IW	PAN-POLE Power and Communication Pole Assembly is supplied in 11' length for maximum ceiling height of 10'.	Off White	1
PCPA13R20EI	PAN-POLE Power and Communication Pole Assembly is supplied in 13' length for maximum ceiling heights of 12'.	Electric Ivory	1
PCPA13R20IW	PAN-POLE Power and Communication Pole Assembly is supplied in 13' length for maximum ceiling height of 12'.	Off White	1

Communication Components sold separately.

PAN-POLE™ Communication Pole

- Single-channel aluminum pole for routing low voltage communication cabling only
- Poles are available in 11' or 13' lengths and come with blank plastic cover



PCPA11
PCPA13

Standard furnished factory assembled pole configuration include the following:

1. Aluminum extruded base with blank plastic cover

Standard furnished mounting hardware includes:

1. Entry end bend radius fitting for communication cabling (two mounting screws included)
2. Ceiling T-bar bracket (two mounting screws included)
3. Two ceiling tile trim plates
4. End cap with two pre-drilled holes
5. End cap floor grip pad

Part Number	Part Description	Color	Std. Pkg. Qty.
PCPA11IW	PAN-POLE Communication ONLY Pole Assembly is supplied in 11' length for maximum ceiling height of 10'.	Off White	1
PCPA11EI	PAN-POLE Communication ONLY Pole Assembly is supplied in 11' length for maximum ceiling height of 10'.	Electric Ivory	1
PCPA13IW	PAN-POLE Communication ONLY Pole Assembly is supplied in 13' length for maximum ceiling heights of 12'.	Off White	1
PCPA13EI	PAN-POLE Communication ONLY Pole Assembly is supplied in 13' length for maximum ceiling height of 12'.	Electric Ivory	1

Communication Components sold separately.

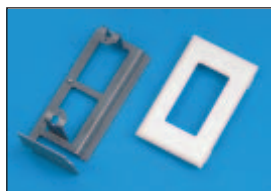
PAN-POLE™ Power Addition Kits & Standard Faceplate Bracket (for Data)

- Power addition kits (UL listed for field installation) provide for the addition of power outlets to the **PANDUIT**® Power and Communication Pole
- Allow for the installation of up to three additional duplex outlets for a total of five

- Outlets may be added to the existing factory wired circuit or one additional circuit may be added to the pole for a total of two
- Standard faceplate bracket (for data) used to mount NEMA standard single gang screw-on communication faceplates (not for use with snap-on faceplates)



PCPAKR20



PCPAKR



T70SDB-X

Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
PCPAKR20IW	Power addition kit includes 20A rectangular outlet with two mounting screws, outlet mounting bracket with one mounting screw and snap-on faceplate*.	Off White	1	10
PCPAKR20EI	Power addition kit includes 20A rectangular outlet with two mounting screws, outlet mounting bracket with one (1) mounting screw and snap-on faceplate‡ .	Electric Ivory	1	10
PCPAKR1W	Power addition kit includes outlet mounting bracket with one mounting screw and snap-on faceplate. <i>Rectangular power outlet purchased separately*</i> .	Off White	1	10
PCPAKREI	Power addition kit includes outlet mounting bracket with one mounting screw and snap-on faceplate. <i>Rectangular power outlet purchased separately‡.</i>	Electric Ivory	1	10
T70SDB-X	Standard faceplate bracket. Used to mount NEMA standard single gang screw-on electrical/communication faceplates. (not for use with snap-on faceplates)	Gray	10	100

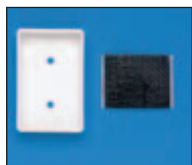
PAN-POLE Aluminum Outlet Pole Replacement Parts



PCPKIT**



PCPTP



PCPEC

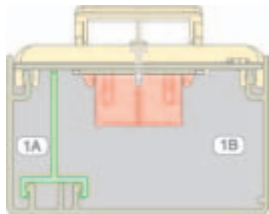


PCPBRC

Part Number	Part Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
PCPKITIW	Replacement parts kit includes one bend radius control ramp with two screws, one T-bar bracket with one thumb screw, one 2-piece ceiling trim plate, and one cap with floor grip pad.	Off White	1	5
PCPKITEI	Replacement parts kit includes one bend radius control ramp with two screws, two thumb screws, one 2-piece ceiling trim plate, one end cap with floor grip pad.	Electric Ivory	1	5
PCPTPIW	Replacement ceiling trim plate, two pieces.	Off White	1	—
PCPECIW	Replacement end cap with floor grip pad.	Off White	1	—
PCPECEI	Replacement end cap with floor grip pad.	Electric Ivory	1	—
PCPBRC	Replacement bend radius control ramp with T-bar bracket for attaching pole to T-bar. Includes mounting screws.	Gray	1	—

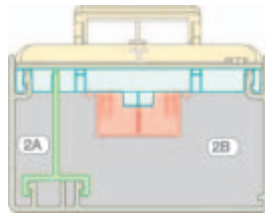
Quick Wire Fill Capacities for PAN-POLE™ Aluminum Outlet Poles

This information is to be used as a guide in selecting the proper size raceway. The maximum amounts may vary according to the wire installation methods, straightness of wires, etc.



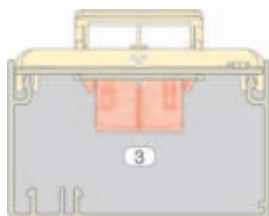
A=.47in² A=2.75in²

Wirefill #1: Power and Data using Vertical Sloped "Snap-On" Communication Faceplate



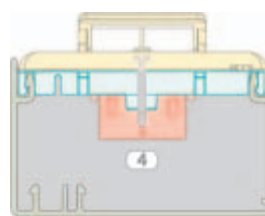
A=.43in² A=2.15in²

Wirefill #2: Power and Data using Sloped "Screw-On" Communication Faceplate



A=3.47in²

Wirefill #3: Data using Vertical Sloped "Snap-On" Communication Faceplate



A=2.83in²

Wirefill #4: Data using Sloped "Screw-On" Communication Faceplate

SPEC=40% wire fill—the recommended design in cable capacity. Leaves room for future moves, adds and changes.

MAX for Data=60% wire fill—the maximum cable quantity based on cable interweaving and packing factors.

MAX for Power wire fill—the maximum of electrical cables based on UL temperature rise test.

Raceway Type & Configuration	Fill Area (in ²)	Electrical Cables			Data Grade Cable		Data Grade Cable		Coax Cable		Fiber Optic Cable			
		14 AWG	12 AWG	10 AWG	24 AWG/UTP CM	24 AWG/UTP CM	RG6		2 Strand					
		THHN/T90			Cat 5e, 4pr		Cat 6, 4pr							
		.105	.122	.153	DIA.=.217		DIA.=.250		DIA.=.275		DIA.=.175			
		FILL			FILL		FILL		FILL		FILL			
		MAX	MAX	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	SPEC	MAX	MAX	
(UL Temp Rise Test)			(40%)		(60%)		(40%)		(60%)		(40%)		(60%)	
1A. Power & Comm: Snap-on Faceplates (Pwr)	.47	—	11	—	—	—	—	2	4	—	—			
1B. Communication	2.75	—	—	—	30	45	22	33	15	22	46	69		
2A. Power & Comm: Screw-on Faceplates (Pwr)	.43	—	11	—	—	—	—	2	3	—	—			
2B. Communication	2.15	—	—	—	23	35	17	26	11	17	36	54		
3. Comm Only: Snap-on Faceplates	3.47	—	—	—	38	57	28	42	18	28	58	87		
3. Comm Only: Screw-on Faceplates	2.83	—	—	—	31	46	23	34	15	22	48	72		

- System Overview
- Modules
- Ultimate ID System & Work Area
- Zone Cabling
- Patch Panels Copper Patch Cords & Punchdowns
- Fiber Connectors Enclosures & Patch Cords
- Racks & Cable Management
- Grounding & Bonding
- Fiber Routing
- Surface Raceway
- Labeling & Administration
- Cable Ties & Accessories
- Supplementary Technical Information
- Glossary & Index

LABELING & ADMINISTRATION

A world leader in network connectivity identification solutions, *PANDUIT*® designs and manufactures labeling products, software and printers to assist you with TIA/EIA-606-A compliance. For recommended product information and labeling solutions, please refer to the following sections in this catalog: Fiber Connectors, Enclosures & Patch Cords, Modules, Patch Panels, Copper Patchcords & Punchdown and Work Area.



The TIA/EIA-606-A standard states:

- Size, color and contrast of all labels should be selected to ensure that the identifiers are easily read
- Labels should be visible during the installation of and normal maintenance of the infrastructure
- Labels should be resistant to the environmental conditions at the point of installation (such as moisture or heat) and should have a design life equal to or greater than that of the labeled component
- To maximize legibility, all labels shall be printed or generated by a mechanical device

PANDUIT Network Connectivity Identification Solutions include a full line of TIA/EIA-606-A standard compliant labeling products. Properly identifying your network allows moves, adds, changes, trouble shooting and repairs to be accomplished faster and more efficiently. For detailed information on *PANDUIT* Identification Products, request the *PAN-CODE*® Identification and Labeling Solution Products Catalog, SA101N315C-ID.

★ NEW! **PANACEA™ LS7 Hand-Held Thermal Transfer Printer and Accessories**

- Multi-purpose printer supports *ULTIMATE ID™* System and additional network labeling requirements. For detailed printing instructions to create *ULTIMATE ID* labels using the *PANACEA* LS7 printer, request SA-IDSP01
- High quality thermal transfer print for professional looking labels that will not smear
- Fast loading label cassette includes both label material and ribbon to make changing labels easy
- No more spacing and guess work - length function aligns legends with ports
- Advanced functions including serialization, vertical and horizontal lines, symbol library and memory
- Six AA alkaline batteries and hardside case included



LS7

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
LS7	LS7 Thermal Transfer Hand-Held Printer Kit: Includes printer, 3/4" (18mm) non-laminated black/white cassette, hardside carrying case, wrist strap, batteries, label separator tool and operator's manual.	1	4
LS7-ACS	120V AC adapter*	1	6
LS7-CLN	Cleaning cassette	1	20

*Cannot be used to charge batteries.
For a full product offering of the *PANACEA* LS7 Hand-Held Printer, request product bulletin SA-IDCB1000A.

★ NEW! **VIPER™ LS6 Portable Thermal Transfer Printer and Accessories**

- Create wiremarkers, heat shrink labels, continuous tapes, component labels, bin markers, pipe markers, safety/facility identification and network connectivity labels
- High quality thermal transfer print for professional looking labels that will not smear
- AC adapter included so you can start printing right out of the box
- Serial port / PC interfacing
- Fast loading ribbon cartridge lets you slide, lock and go!
- 128K file memory reduces setup time by recalling frequently used labels
- Nickel metal hydride battery provides longer battery life
- Advanced functions including serialization, bar code printing, vertical and horizontal lines, date and time stamp, variety of font sizes and a symbol library containing over 35 electrical, safety and network symbols



LS6-KIT

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
LS6-KIT	LS6 printer, LS6-RWBLK ribbon, battery pack, 120V AC adapter/charger, hardside case and English operator's manual.	1	—
LS6-RWBLK	LS6 wax ribbon, black, 2" x 100'. For use with self-laminating vinyl, heat shrink and vinyl cloth materials.	1	6
LS6-RRBLK	LS6 resin ribbon, black, 2" x 100'. For use with polyester, polyolefin and vinyl materials.	1	6
LS6-RRWHT	LS6 resin ribbon, white, 2" x 75'. For use with clear and colored polyester and vinyl tapes.	1	6
LS6-BP	LS6 replacement battery pack.	1	—
LS6-ACS	LS6 replacement 120V AC adapter/charger.	1	—
LS6-PCKIT	LS6 PC interface kit includes serial cable and <i>VIPERLINK™</i> Software.	1	—
LS6-CLN	LS6 cleaning kit, package of 5 printer cleaning cards.	1	5

For a full product offering of the *VIPER* LS6 Portable Printer, request product bulletin SA-ID07BR01B.

PAN-MARK® for WINDOWS^ Labeling Software

- PAN-MARK for Windows Labeling Software has preloaded and ready to use, thermal transfer, dot-matrix, laser and ink jet label formats, including *ULTIMATE ID™* formats
- ODBC (Open Data-Base Connectivity) allows importing of information from electronic databases such as EXCEL^ and ACCESS^ directly onto the label formats
- On-line help function files, including the TIA/EIA-606-A Labeling Compliance Brochure that assists in understanding the TIA/EIA-606-A standard and insure network labeling compliance
- Easy to install and supplied on CD-ROM

- Uses full range of WINDOWS^ fonts including True Type* fonts
- Use image library to add commonly used symbols to your labels (fax, data, voice, etc.)
- Import bitmap (.bmp) graphic images into a label
- Create alpha and numeric serializations

System Requirements:

- WINDOWS 95, 98, Me, 2000, NT 4.x, and XP; minimum 486 processor; minimum 8MB of RAM; 30 MB hard drive space



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
PROG-WIN2CD	Windows labeling software, CD-ROM, Compatible with WINDOWS 95, 98, Me, 2000, NT 4.x and XP.	1	10

For detailed information on PAN-MARK for WINDOWS Labeling Software, request product bulletin SA-IDCB1043A.

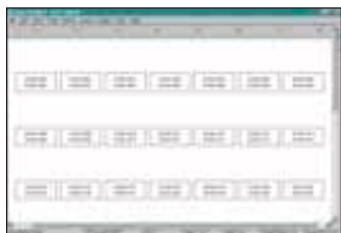
NEW! EASY-MARK™ Labeling Software

- WYSIWYG — **What You See Is What You Get** — program allows you to see labels on-screen as they will appear when printed
- Quick text entry — feature allows you to enter text on individual labels or over an entire range
- Advanced alpha and numeric serialization speeds label creation
- All PANDUIT thermal transfer, dot-matrix, laser and inkjet label formats, including *ULTIMATE ID* are preloaded and ready to use
- On-line help function files, including the TIA/EIA-606-A Labeling Compliance Brochure that assists in understanding the TIA/EIA-606-A standard and insure network labeling compliance

- Easy to install and supplied on CD-ROM
- Uses full range of WINDOWS fonts including True Type fonts

System Requirements:

- WINDOWS 95, 98, Me, 2000, NT4.x, and XP; minimum 486 processor; minimum 32 MB RAM; 64 MB hard drive space



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
PROG-EMCD	CD with on-line help and user's guide.	1	10

For detailed information on EASY-MARK Labeling Software, request product bulletin SA-IDCB02.

^WINDOWS, EXCEL and ACCESS are registered trademarks of Microsoft Corp.

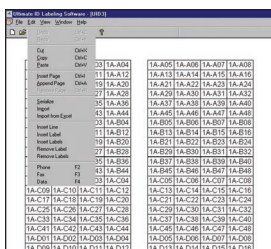
*True Type is a registered trademark of Apple Computing, Inc.

NEW! *ULTIMATE ID*™ Labeling Software for WINDOWS^

- Fast and easy creation of labels for *Ultimate ID* Network Labeling System patch panels, faceplates, surface mount boxes, and marker ties
- Create alpha and numeric serializations
- ODBC (Open Data-Base Connectivity) allows importing of information from electronic databases such as EXCEL^ and ACCESS^ directly onto the label formats
- *ULTIMATE ID* formats are preloaded and ready to use
- On-line help function files, including the TIA/EIA-606-A Labeling Compliance Brochure that assists in understanding the TIA/EIA-606-A standard and insure network labeling compliance
- Easy to install and supplied on CD-ROM
- Image library that includes commonly used symbols for fax, data and voice
- Automatically aligns legends with ports on patch panels and faceplates
- Vertical line function enables users to separate legends
- Automatic font sizing
- Supports most WINDOWS printer drivers and is compatible with standard desktop laser and ink jet printers

System Requirements:

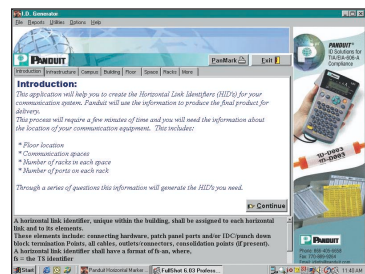
- WINDOWS 95, 98, Me, 2000, NT 4.x, and XP; minimum 486 processor; minimum 10MB of RAM; 30 MB hard drive space



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
UISW	Windows labeling software, CD-ROM, Compatible with WINDOWS 95, 98, Me, 2000, NT 4.x and XP.	1	10

NEW! *ID GENERATOR*™ Software

PANDUIT® *ID GENERATOR* Software lets you quickly and easily create TIA/EIA-606-A compliant horizontal link identifiers and upload them into various printers, label printing software and testing equipment.



- Allows you to identify, record and label all horizontal links in your cabling infrastructure per the TIA/EIA-606-A requirements
- Uses an interview process to quickly determine your infrastructure layout
- Generates identifiers based on the interview information
- Prepares the identifiers for uploading into printers, testers and software for labeling and record keeping

After Horizontal Link Identifiers are generated, you can:

- Export information to EXCEL^ to generate reports and use with *PANDUIT PAN-MARK*® for WINDOWS^ Labeling Software, *ULTIMATE ID* Labeling Software and your desktop printer to generate labels
- Export to .dat file and use with the *PANDUIT VIPER*™ LS6 Portable Thermal Transfer Printer and *VIPERLINK*™ Software to generate labels
- Export to .txt file and use with Fluke Networks* CableManager* Software or other .txt compliant software
- Export to .ids file and use with Fluke Networks DSP-4300 Digital Cable Analyzer for testing

PANDUIT ID GENERATOR Software is available as a **FREE** download at <http://www.panduit.com/idgenerator.asp>

^ WINDOWS, EXCEL and ACCESS are registered trademarks of Microsoft Corp.
* Fluke Networks and Cable Manager are trademarks of Fluke Networks, Inc.

Component Labels for Laser/Ink Jet Desktop Printers Supplied on 8.5" X 11" Sheets

Part Number	Part Description	Width		Height		Std. Pkg. Qty.*	Std. Ctn. Qty.
		In.	mm	In.	mm		
C061X030FJJ	One port, white adhesive polyolefin labels.	.61	15.49	.30	7.62	5000	25000
C125X030FJJ	Two port, white adhesive polyolefin labels.	1.25	31.75	.30	7.62	2500	12500
C138X019FJJ	Module, white adhesive polyolefin labels.	1.38	35.05	.19	4.83	2500	12500
C188X030FJJ	Three port, white adhesive polyolefin labels.	1.88	47.75	.30	7.62	1000	5000
C195X040Y1J	Single gang, white non-adhesive polyester labels.	1.95	49.53	.40	10.16	1000	5000
C200X100FJJ	SLCT white adhesive polyolefin labels.	2.00	50.80	1.00	25.40	1000	5000
C252X030FJJ	Four port, white adhesive polyolefin labels.	2.52	64.01	.30	7.62	1000	5000
C261X030FJJ	Four port, white adhesive polyolefin labels.	2.61	66.29	.30	7.62	1000	5000
C261X035Y1J	Four port, white non-adhesive polyester labels.	2.61	66.29	.35	8.89	1000	5000
C282X030Y1J	Four port, white non-adhesive polyester labels.	2.82	71.63	.30	7.62	1000	5000
C288X040Y1J	Double gang, white non-adhesive polyester labels.	2.88	73.15	.40	10.16	1000	5000
C315X030FJJ	Five port, white adhesive polyolefin labels.	3.15	80.01	.30	7.62	1000	5000
C379X030FJJ	Six port, white adhesive polyolefin labels.	3.79	96.27	.30	7.62	1000	5000
C390X030Y1J	Six port, white non-adhesive polyester labels.	3.90	99.06	.30	7.62	1000	5000
C750X050Y1J	110 block white non-adhesive polyester labels.	7.50	190.50	.50	12.70	500	2500
C788X050Y1J	Giga-Punch white non-adhesive polyester labels.	7.88	200.15	.50	12.70	500	2500

* Order number of labels required in multiples of Std. Pkg. Qty.

Component Labels for VIPER™ LS6 Portable Thermal Transfer Printer Supplied on Rolls

Part Number	Part Description	Width		Height		Std. Pkg. Qty.*	Std. Ctn. Qty.
		In.	mm	In.	mm		
C061X030FJ6	One port, white adhesive polyolefin label, 500/roll.	.61	15.49	.30	7.62	1	10
C125X030FJ6	Two port, white adhesive polyolefin label, 500/roll.	1.25	31.75	.30	7.62	1	10
C138X019FJ6	Module, white adhesive polyolefin label, 500/roll.	1.38	35.05	.19	4.83	1	10
C188X030FJ6	Three port, white adhesive polyolefin label, 500/roll.	1.88	47.75	.30	7.62	1	10
C195X040Y16	Single gang, white non-adhesive polyester label, 500/roll.	1.95	49.53	.40	10.16	1	10
C200X100FJ6	SLCT white adhesive polyolefin label, 250/roll.	2.00	50.80	1.00	25.40	1	10
C252X030FJ6	Four port, white adhesive polyolefin label, 150/roll.	2.52	64.01	.30	7.62	1	10
C261X030FJ6	Four port, white adhesive polyolefin labels, 150/roll.	2.61	66.29	.30	7.62	1	10
C261X035Y16	Four port, white non-adhesive polyester label, 150/roll.	2.61	66.29	.35	8.89	1	10
C282X030Y16	Four port, white non-adhesive polyester label, 150/roll.	2.82	71.63	.30	7.62	1	10
C288X040Y16	Double gang, white non-adhesive polyester label, 150/roll.	2.88	73.15	.40	10.16	1	10
C315X030FJ6	Five port, white adhesive polyolefin label, 150/roll.	3.15	80.01	.30	7.62	1	10
C379X030FJ6	Six port, white adhesive polyolefin label, 150/roll.	3.79	96.27	.30	7.62	1	10
C390X030Y16	Six port, white non-adhesive polyester label, 150/roll.	3.90	99.06	.30	7.62	1	10
C750X050Y16	110 block white non-adhesive polyester label, 50/roll.	7.50	190.50	.50	12.70	1	10
C788X050Y16	Giga-Punch white non-adhesive polyester label, 50/roll.	7.88	200.15	.50	12.70	1	10

* Order number of rolls required.

Component Cassettes for PANACEA™ LS7 Hand-Held Thermal Transfer Printer

Part Number	Part Description	Height		Length		Std. Pkg. Qty.*	Std. Ctn. Qty.
		In.	mm	ft.	M		
LS7-25-1	Black/white laminated polyester label cassette.	.236	5.99	26.2	8.0	1	20
LS7-38-1	Black/white laminated polyester label cassette.	.354	8.99	26.2	8.0	1	20
LS7-50-1	Black/white laminated polyester label cassette.	.472	11.99	26.2	8.0	1	20
LS7-75NL-1	Black/white non-laminated polyester label cassette.	.708	17.98	26.2	8.0	1	20

* Order number of cassettes required.

For a non-adhesive labeling solution, do not remove liner from label.

Self-Laminating Labels for Laser/Ink Jet Desktop Printers Supplied on 8.5" X 11" Sheets

Part Number	Part Description	Width		Length		Print-On Height		Min. Cable Diameter		Max. Cable Diameter		Std. Pkg. Qty.*	Std. Ctn. Qty.
		In.	mm	In.	mm	In.	mm	In.	mm	In.	mm		
S100X125FAJ	White self-laminating polyolefin labels.	1.00	25.40	1.25	31.75	.38	9.53	.12	3.03	.28	7.08	2500	12500
S100X150FAJ	White self-laminating polyolefin labels.	1.00	25.40	1.50	38.10	.50	12.70	.16	4.04	.32	8.09	2500	12500
S100X160FAJ	White self-laminating polyolefin labels.	1.00	25.40	1.60	40.64	.80	20.32	.25	6.47	.25	6.47	2500	12500
S100X225FAJ	White self-laminating polyolefin labels.	1.00	25.40	2.25	57.15	.75	19.05	.24	6.07	.48	12.13	1000	5000
S100X400FAJ	White self-laminating polyolefin labels.	1.00	25.40	4.00	101.60	1.00	25.40	.32	8.09	.96	24.27	1000	5000
S200X225FAJ	White self-laminating polyolefin labels.	2.00	50.80	2.25	57.15	.75	19.05	.24	6.07	.48	12.13	1000	5000
S200X400FAJ	White self-laminating polyolefin labels.	2.00	50.80	4.00	101.60	1.00	25.40	.32	8.09	.96	24.27	500	2500

* Order number of labels required in multiples of Std. Pkg. Qty.

Self-Laminating Labels for VIPER™ LS6 Portable Thermal Transfer Printer Supplied on Rolls

Part Number	Part Description	Width		Length		Print-On Height		Min. Cable Diameter		Max. Cable Diameter		Std. Pkg. Qty.*	Std. Ctn. Qty.
		In.	mm	In.	mm	In.	mm	In.	mm	In.	mm		
S100X125FA6	White self-laminating polyolefin labels, 250/roll.	1.00	25.40	1.25	31.75	.38	9.53	.12	3.03	.28	7.08	1	10
S100X150FA6	White self-laminating polyolefin labels, 250/roll.	1.00	25.40	1.50	38.10	.50	12.70	.16	4.04	.32	8.09	1	10
S100X160FA6	White self-laminating polyolefin labels, 250/roll.	1.00	25.40	1.60	40.64	.80	20.32	.25	6.47	.25	6.47	1	10
S100X225FA6	White self-laminating polyolefin labels, 150/roll.	1.00	25.40	2.25	57.15	.75	19.05	.24	6.07	.48	12.13	1	10
S100X400FA6	White self-laminating polyolefin labels, 100/roll.	1.00	25.40	4.00	101.60	1.00	25.40	.32	8.09	.96	24.27	1	10
S200X225FA6	White self-laminating polyolefin labels, 150/roll.	2.00	50.80	2.25	57.15	.75	19.05	.24	6.07	.48	12.13	1	10
S200X400FA6	White self-laminating polyolefin labels, 100/roll.	2.00	50.80	4.00	101.60	1.00	25.40	.32	8.09	.96	24.27	1	10

* Order number of rolls required.

Cable Marking Cassette for PANACEA™ LS7 Hand-Held Thermal Transfer Printer

Part Number	Part Description	Width		Length		Std. Pkg. Qty.*	Std. Ctn. Qty.
		In.	mm.	ft.	M		
LS7-75NL-1	Black/white non-laminated polyester label cassette.	.708	17.98	26.2	8.0	1	20
LS7-75NL-2	Black/clear non-laminated polyester label cassette.	.708	17.98	26.2	8.0	1	20

* Order number of cassettes required.

CABLE TIES & ACCESSORIES

PANDUIT® is a leading global producer of communication products, including cable ties and cable management accessories. We continually provide new cable tie and accessory designs to meet the application challenges encountered by our customers while providing the lowest installed cost.



- Hook & Loop cable ties are releasable and reusable; ideal for communications applications
- Parallel entry ties are designed to eliminate protrusion of cut-off tie
- Nylon cable ties offered in the largest selection of styles, sizes and colors
- Select cable tie sizes are available in HALAR ▲, Tefzel ■, Acetal and Polypropylene to meet your application needs
- Full line of accessories specifically designed to route and secure communication cable
- Stainless steel cable ties withstand virtually any environment
- Complete line of abrasion protection and heat shrink products

PANDUIT offers unique products to meet customer needs:

TAK-TY® Hook & Loop Cable Ties - prevent over-tensioning of high performance cables

CONTOUR-TY™ Cable Ties - low profile head and smooth, round edges

BELT-TY™ In-Line Cable Ties - head design prevents protrusion of cut-off tie

TAK-TY® Hook & Loop Cable Tie Mounts - designed to secure bundles of communications wiring

J-MOD™ Cable Support System - versatile solution for communication cable management

PAN-STEEL® Self-Locking Stainless Steel Ties - feature the highest tensile strength, quickest lock up and lowest installation time, with fully rounded edges for added protection and safety

PAN-WRAP™ Split Harness Wrap - engineered for flexibility and maximum protection of wires and cables

Please refer to catalog (SA-CTCB03) for information on the complete *PANDUIT* line of cable ties and cable management accessories

▲ HALAR is the registered trademark for Ausimont, Inc. Fluoropolymer
 ■ Tefzel is the registered trademark for E.I. DuPont Co. Fluoropolymer

TAK-TY® Hook & Loop Cable Ties



HLC



HLT / HLTP



HLS / HLSP / HLM

- Material has hooks on one side and loops on the other so it adheres to itself
- Releasable and reusable hundreds of times and no installation tool needed
- No risk of over-tensioning and damaging high performance cabling
- No waste since excess can be wrapped around bundle
- A variety of colors are available for HLM, HLS and HLT styles
- HLSP and HLTP (black and maroon) are unique Hook & Loop style ties that are UL Listed (File #E56854) for use in air handling spaces, per NEC, Section 300-22(c) and (d), and are UL94V-2 flame rated

- HLM series may be used with ABM3H, ABM4H and TMEH mounts (see [pages L17 and L18](#))
- HLT series may be used with TMEH mount
- All styles may be used with ABMT mount (see [page L17](#))

Note: Minimum 2" overlap required to achieve loop tensile rating (HLC, HLT, HLS and HLM series); and UL Listed Rated Load (HLSP / HLTP series)

Color Chart		
Color	Part No. Suffix	Example
Black	0	HLT21-X0
Red	2	HLT21-X2
Orange	3	HLT21-X3
Yellow	4	HLT21-X4
Green	5	HLT21-X5
Blue	6	HLT21-X6
Gray	8	HLT21-X8
White	10	HLT21-X10
Maroon	12	HLTP21-X12



HLTP / HLSP Only

Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	N		
Cinch Ties - Provide extra strength and bundle tightness										
HLC3S-X0	12.0	305	.750	19.1	3.00	76	50	222	10	100
HLC5S-X0	18.0	457	.750	19.1	5.00	127	50	222	10	100
Loop Ties - Slot allows for pre-wrapping of bundles										
HLT21-X0	8.0	203	.500	12.7	1.90	48	40	178	10	100
HLT31-X0	12.0	305	.500	12.7	3.20	81	40	178	10	100
UL Listed Loop Ties+										
HLTP21-X12	8.0	203	.500	12.7	1.90	48	40	178	10	100
HLTP31-X12	12.0	305	.500	12.7	3.20	81	40	178	10	100
Strip Ties - Rolls perforated in convenient 6, 12, and 18" strips										
HLS1.5S-X0	6.0	152	.750	19.1	1.50	38	50	222	10	100
HLS3S-X0	12.0	305	.750	19.1	3.20	81	50	222	10	100
HLS5S-X0	18.0	457	.750	19.1	5.00	127	50	222	10	100
UL Listed Strip Ties+										
HLSP1.5S-X12	6.0	152	.750	19.1	1.50	38	50	222	10	100
HLSP3S-X12	12.0	305	.750	19.1	3.20	81	50	222	10	100
HLSP5S-X12	18.0	457	.750	19.1	5.00	127	50	222	10	100
15' & 75' Rolls - Can be cut to desired length, eliminating waste										
HLM-15R0	180.0	4,572	.330	8.4	Various	Various	18	80	1	10
HLS-15R0	180.0	4,572	.750	19.0	Various	Various	50	222	1	10
HLS-75R0	900.0	22,860	.750	19.0	Various	Various	50	222	1	10

+ Also available in Black (-X0), which has an 18 lb. (80N) minimum loop tensile strength

★ NEW! **TAK-TAPE™ Hook & Loop Strips**



- Hook & Loop fastener for general purpose bundling
- Thin and flexible to quickly wrap around bundle
- Adjustable, releasable and reusable
- Large continuous roll you can cut to size with Telco snips, scissors or **PANDUIT®** cutter (included with TTS-35RX0 only)
- Wide (3/4") black strap spreads out bundling forces over large area
- May be used with ABMT mount (see [page L17](#))
- Handy, reusable plastic case (TTS20) keeps material clean

Note: Minimum 2" overlap required to achieve loop tensile rating



TTS-20R0

Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Std. Pkg. Qty.	Std. Ctn. Qty.
	Ft.	M	In.	mm	In.	mm	Lbs.	N		
TTS-20R0	20	6	.750	19.1	Various	Various	40	178	1	10
TTS-35RX0	35	11	.750	19.1	Various	Various	40	178	1	10

Std. Pkg. Qty. of TTS-35RX0 denotes 1 package of ten 35' rolls

★ NEW! **UL US LISTED** **CONTOUR-TY™ Cable Ties**

- Low profile head and smooth, round edges, prevent cable damage
- Unique design avoids abrasion to cables
- Parallel entry limits exposure to sharp edges to protect adjacent cables and workers' arms and hands
- Reliable locking mechanism provides consistent strength and lasting performance
- Outside serrations on strap prevent pinching the cable jacket
- Five cross sections available including the new Heavy-Standard size
- All cable tie cross sections have a curved tip that is easier to pick up from flat surfaces, allows faster initial threading and speeds installation
- Material: Nylon 6.6 (see Material Selection Guide for additional sizes, materials and colors available)



Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Tool	Bulk Pkg. Qty.	Bulk Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	N			
Miniature Cross Section											
CBR1M-M	4.1	104	.098	2.5	1.00	25	18	80	GTS, GS2B, PTS, PPTS, STS2	1000	50000
CBR1.5M-M	5.6	142	.098	2.5	1.50	38	18	80		1000	50000
CBR2M-M	7.2	183	.098	2.5	2.00	51	18	80		1000	25000
Intermediate Cross Section											
CBR1.5I-M	5.9	150	.140	3.6	1.50	38	40	178	GTS, GS2B, PTS, PPTS, STS2	1000	25000
CBR3I-M	10.4	264	.140	3.6	3.00	76	40	178		1000	10000
CBR4I-M	13.6	345	.140	3.6	4.00	102	40	178		1000	10000
Standard Cross Section											
CBR2S-M	7.6	193	.190	4.8	2.00	51	50	222	GTS, GS2B, GTH, GS4H, PTS, PPTS, STH2, STS2	1000	10000
CBR3S-M	10.8	274	.190	4.8	3.00	76	50	222		1000	5000
CBR4S-M	14.0	356	.190	4.8	4.00	102	50	222		1000	5000
Heavy-Standard Cross Section											
CBR2HS-D	8.0	203	.250	6.4	2.00	51	85	378	GTH, GS4H, GS4EH, PPTEH, STH2, ST2EH	500	5000
Light-Heavy Cross Section (Not UL Listed/Recognized)											
CBR4LH-TL	14.6	371	.300	7.6	4.00	102	120	534	GTH, GS4H, GS4EH, PPTEH, STH2, ST2EH	250	2500
CBR6LH-C	20.9	531	.300	7.6	6.00	152	120	534		100	2000





Parallel-entry cable tie that threads like a belt (180° entry)

- Head design prevents protrusion of cut-off to protect adjacent cables and workers' arms and hands
- Low profile head prevents snags and reduces overall bundle size
- Fully rounded edges on head and strap prevent sharp edges from coming in contact with cable insulation
- Exclusively designed tip assures positive grip during threading of tie
- All cable tie cross sections smaller than Light-Heavy have a curved tip that is easier to pick up from flat surfaces, allows faster initial threading and speeds installation
- Material: Nylon 6.6 (see Material Selection Guide for additional sizes, materials and colors available)



Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Tool	Bulk Pkg. Qty.	Bulk Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	N			
Miniature Cross Section											
ILT1M-M	4.8	122	.098	2.5	1.10	28	18	80	GTS, GS2B, PTS, PPTS, STS2	1000	50000
Intermediate Cross Section											
ILT1.5I-M	5.4	137	.142	3.6	1.38	35	30	133	GTS, GS2B, PTS, PPTS, STS2	1000	25000
Standard Cross Section											
ILT2S-M	8.3	211	.190	4.8	1.88	48	50	222	GTS, GS2B, GTH, GS4H, PTS, PPTS, STS2, STH2	1000	10000
ILT3S-M	11.5	292	.190	4.8	3.00	76	50	222		1000	5000
ILT4S-M	14.7	373	.190	4.8	4.00	102	50	222		1000	5000
Light-Heavy Cross Section											
ILT4LH-TL	14.8	376	.300	7.6	4.00	102	120	534	GTH, GS4H, GS4EH, PPTEH, STH2, ST2EH	250	2500
ILT6LH-C	21.2	538	.300	7.6	6.00	152	120	534		100	2000

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PAN-TY® Cable Ties

- Versatile cable ties that can be used in countless applications
- One piece construction for consistent performance and reliability
- Tie bundle diameters up to 13" (330mm) or join together for larger diameters

- All cable tie cross sections smaller than Light-Heavy have a curved tip that is easier to pick up from flat surfaces, allows faster initial threading and speeds installation
- High strength and low thread force
- Material: Nylon 6.6 (see Material Selection Guide for additional sizes, materials and colors available)



Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Tool	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	N			
Miniature Cross Section											
PLT1M-C	3.9	99	.098	2.5	.87	22	18	80	GTS, GS2B, PTS, PPTS, STS2	100	1000
PLT1.5M-C	5.6	142	.098	2.5	1.25	32	18	80		100	1000
PLT2M-C	8.0	203	.098	2.5	2.00	51	18	80		100	1000
Intermediate Cross Section											
PLT1.5I-C	5.6	142	.142	3.6	1.38	35	40	178	GTS, GS2B, PTS, PPTS, STS2	100	1000
PLT2I-C	8.0	203	.142	3.6	2.00	51	40	178		100	1000
PLT2.5I-C	9.7	246	.145	3.7	2.50	64	40	178		100	1000
PLT3I-C	11.4	290	.145	3.7	3.00	76	40	178		100	1000
PLT4I-C	14.6	371	.145	3.7	4.00	102	40	178		100	1000
Standard Cross Section											
PLT1S-C	4.8	122	.190	4.8	1.00	25	50	222	GTS, GS2B, GTH, GS4H, PTS, PPTS, STS2, STH2	100	1000
PLT1.5S-C	6.2	157	.190	4.8	1.50	38	50	222		100	1000
PLT2S-C	7.4	188	.190	4.8	1.88	48	50	222		100	1000
PLT2.5S-C	9.8	249	.190	4.8	2.50	64	50	222		100	1000
PLT3S-C	11.5	292	.190	4.8	3.00	76	50	222		100	1000
PLT4S-C	14.5	368	.190	4.8	4.00	102	50	222		100	1000
PLT4.5S-C	15.5	394	.190	4.8	4.50	114	50	222		100	1000
PLT5S-C	17.5	445	.190	4.8	5.00	127	50	222		100	500
Light-Heavy Cross Section											
PLT6LH-L	21.9	556	.300	7.6	6.00	152	120	534	GTH, GS4H, GS4EH, PPTEH, STH2, ST2EH	50	500
PLT7LH-L	24.7	627	.300	7.6	7.00	178	120	534		50	500
PLT9LH-L	30.5	775	.300	7.6	9.00	229	120	534		50	500
PLT10LH-L	34.3	871	.300	7.6	10.31	262	120	534		50	1000
Heavy Cross Section											
PLT2H-L	8.1	206	.300	7.6	2.00	51	120	534	GTH, GS4H, GS4EH, PPTEH, STH2, ST2EH	50	500
PLT2.5H-L	10.0	254	.300	7.6	2.50	64	120	534		50	500
PLT3H-L	11.4	290	.300	7.6	3.00	76	120	534		50	500
PLT4H-L	14.5	368	.300	7.6	4.00	102	120	534		50	500
PLT5H-L	17.7	450	.350	8.9	5.00	127	175	778		50	500
PLT6H-L	20.9	530	.350	8.9	6.00	152	175	778		50	500
PLT8H-L	30.6	779	.350	8.9	9.00	229	175	778		50	500
PLT13H-Q	43.3	1100	.350	8.9	13.00	330	175	778		25	500
Extra-Heavy Cross Section											
PLT5EH-Q	20.1	510	.500	12.7	5.00	127	250	1112	GS4EH, PPTEH, ST2EH	25	250
PLT6EH-Q	22.2	563	.500	12.7	6.00	152	250	1112		25	250

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UL **UL** **PAN-TY® HALAR[^] Cable Ties**

HALAR cable ties are UL Listed and UL Recognized as: *Suitable For Use In Air Handling Spaces per NEC, Section 300-22 (c) and (d)*

- Commonly accepted solution for bundling qualified cable without conduit in air handling space applications
- Applications include nuclear plants, chemical environments, telecommunications equipment, aerospace, and high and low temperature environments
- Low smoke density rating and an excellent flammability rating of UL94V-0
- Distinctive maroon color identifies material



Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Tool	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	N			
Miniature Cross Section											
PLT1M-C702	4.0	102	.098	2.5	.87	22	18	80	GTS, GS2B, PTS, PPTS, STS2	100	1000
Standard Cross Section											
PLT2S-C702	7.4	188	.190	4.8	1.88	48	50	222	GTS, GS2B, GTH, GS4H, PTS, PPTS, STS2, STH2	100	1000
PLT3S-C702	11.6	295	.190	4.8	3.00	76	50	222		100	1000

*HALAR is the registered trademark for Ausimont Inc. Fluoropolymer

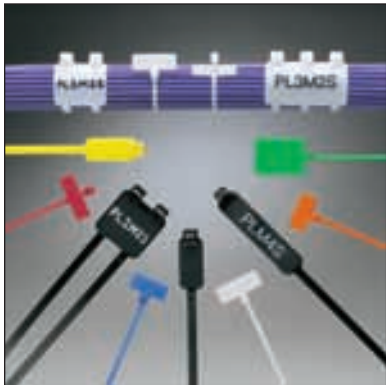
UL **PAN-TY Clamp Ties**



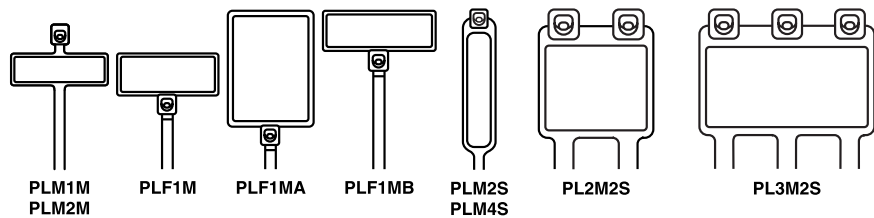
- Used to secure a wire bundle to another surface such as a control panel, wall or ceiling
- Design allows for bundling before or after screwing clamp in place
- All cable tie cross sections have a curved tip that is easier to pick up from flat surfaces, allows faster initial threading and speeds installation
- Material: Nylon 6.6 (see Material Selection Guide for additional sizes, materials and colors available)

Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Screw Size	Metric Screw Size	Tool	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	N					
Miniature Cross Section													
PLC1M-S4-C	4.3	110	.100	2.5	.75	20	18	80	#4	M2.5	GTS, GS2B, PTS, PPTS, STS2	100	1000
Intermediate Cross Section													
PLC1.5I-S8-C	6.1	156	.135	3.4	1.25	32	40	178	#8	M4	GTS, GS2B, PTS, PPTS, STS2	100	1000
Standard Cross Section													
PLC2S-S6-C	7.9	201	.190	4.8	1.84	47	50	222	#6	M3	GTS, GS2B, GTH, GS4H, PTS, PPTS, STS2, STH2	100	1000
PLC2S-S10-C	7.9	201	.190	4.8	1.84	47	50	222	#10	M5		100	1000
PLC3S-S10-C	12.0	305	.190	4.8	3.00	76	50	222	#10	M5		100	1000
PLC4S-S10-C	15.0	381	.190	4.8	4.00	102	50	222	#10	M5		100	1000
Heavy Cross Section													
PLC2H-S25-L	9.0	228	.300	7.6	2.00	51	120	534	1/4	M6	GTH, GS4H, GS4EH, PPTHE, STH2, ST2EH	50	500
PLC4H-S25-L	15.1	384	.300	7.6	4.00	102	120	534	1/4	M6		50	500

CS **PAN-TY**® Marker & Flag Cable Ties



- Used to fasten and identify bundles at the same time
- May be marked with *PANDUIT*® Marker Pens or Computer Printable Labels
- Custom imprinting with text, symbols or trademarks available using *PANDUIT* Custom Hot Stamping Service
- All cable tie cross sections have a curved tip that is easier to pick up from flat surfaces, allows faster initial threading and speeds installation
- Material: Nylon 6.6 (see Material Selection Guide for additional sizes, materials and colors available)



Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Write-On Area		Tool	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	N	In.	mm			
Miniature Cross Section													
PLF1M-C	4.3	109	.098	2.5	.87	22	18	80	.31 x .75	7.9 x 19.1	GTS, GS2B, PTS, PPTS, STS2	100	1000
PLF1MA-C	5.1	130	.098	2.5	.87	22	18	80	.76 x 1.04	19.1 x 26.4		100	1000
PLF1MB-C	3.9	101	.098	2.5	.75	19	18	80	.31 x .92	7.9 x 23.4		100	1000
PLM1M-C	3.9	99	.098	2.5	.75	19	18	80	.26 x .95	6.6 x 24.1		100	1000
PLM2M-C	8.0	203	.098	2.5	2.00	51	18	80	.26 x .95	6.6 x 24.1		100	1000
Standard Cross Section													
PLM2S-C	7.4	188	.185	4.7	1.75	45	50	222	.44 x .87	11.1 x 22.1	GTS, GS2B, GTH, GS4H, PTS, PPTS, STS2, STH2	100	1000
PLM4S-C	14.6	371	.185	4.7	4.00	102	50	222	.44 x 2.00	11.1 x 50.8		100	1000
PL2M2S-L	7.4	188	.185	4.7	1.75	45	50	222	.87 x 1.07	22.1 x 27.2		50	500
PL3M2S-L	7.4	188	.185	4.7	1.75	45	50	222	.87 x 1.79	22.1 x 45.5		50	500

HOT STAMPING — Custom Printed Cable Ties



PANDUIT offers a custom service to suit your unique application requirements. A wide variety of information can be imprinted on *PANDUIT* cable ties, marker ties and marker plates.

Printing is done utilizing a durable “Hot Stamping” process that is an economical and convenient way to permanently mark cable ties.

Customize with a wide variety of choices:

- Seven basic text colors
- Special logos and diagrams can be imprinted with camera-ready artwork supplied by the customer
- Alphanumeric and sequential numbering for serialization
- Minimum Order: 5,000 pcs. per Part Number / Message

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DOME-TOP® Barb Ty Cable Ties

- DOME-TOP head features unique patented design with round, smooth edges
- Stainless steel locking barb provides consistent performance, reliability and infinite adjustability through its entire bundle range
- High strength and low thread force

- All cable tie cross sections smaller than Light-Heavy have a curved tip that is easier to pick up from flat surfaces, allows faster initial threading and speeds installation
- Material: Nylon 6.6 (see Material Selection Guide for additional sizes, materials and colors available)



Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Tool	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	N			
Miniature Cross Section											
BT1M-C	4.0	102	.095	2.4	.90	23	18	80	GTS, GS2B, PTS, PPTS, STS2	100	1000
BT1.5M-C	6.3	160	.095	2.4	1.50	38	18	80		100	1000
BT2M-C	7.9	201	.095	2.4	2.00	51	18	80		100	1000
BT4M-C	14.2	361	.095	2.4	4.00	102	18	80		100	1000



Intermediate Cross Section											
BT1.5I-C	6.1	155	.141	3.6	1.50	38	40	178	GTS, GS2B, PTS, PPTS, STS2	100	1000
BT2I-C	8.0	203	.141	3.6	2.00	51	40	178		100	1000
BT3I-C	11.3	288	.141	3.6	3.00	76	40	178		100	1000
BT4I-C	14.3	363	.141	3.6	4.00	102	40	178		100	1000

Standard Cross Section											
BT2S-C	8.0	203	.185	4.7	2.00	51	50	222	GTS, GS2B, GTH, GS4H, PTS, PPTS, STS2, STH2	100	1000
BT3S-C	12.0	305	.185	4.7	3.00	76	50	222		100	1000
BT4S-C	15.1	384	.185	4.7	4.00	102	50	222		100	1000

Light-Heavy Cross Section											
BT2LH-L	8.7	221	.275	7.0	2.00	51	120	534	GTH, GS4H, GS4EH, PPTEH, STH2, ST2EH	50	500
BT3LH-L	11.8	300	.275	7.0	3.00	76	120	534		50	500
BT4LH-L	14.9	378	.275	7.0	4.00	102	120	534		50	500
BT6LH-L	21.2	538	.275	7.0	6.00	152	120	534		50	500
BT7LH-L	24.4	620	.275	7.0	7.00	178	120	534		50	500
BT8LH-L	27.5	699	.275	7.0	8.00	203	120	534		50	500
BT9LH-L	30.7	780	.275	7.0	9.00	229	120	534		50	500



DOME-TOP® Barb Ty Clamp Cable Ties



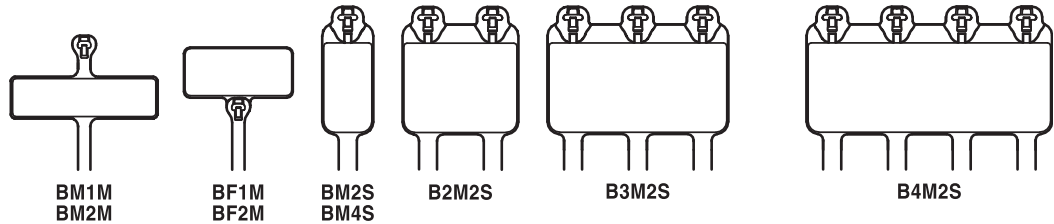
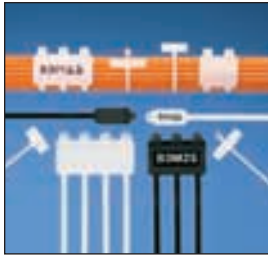
- Used to secure a wire bundle to another surface such as a control panel, wall or ceiling
- Design allows for bundling before or after screwing clamp in place

- All cable tie cross sections smaller than Light-Heavy have a curved tip that is easier to pick up from flat surfaces, allows faster initial threading and speeds installation
- Material: Nylon 6.6 (see Material Selection Guide for additional sizes, materials and colors available)

Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Screw Size	Metric Screw Size	Tool	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	N					
Miniature Cross Section													
BC1M-S4-M	4.6	117	.095	2.4	.90	23	18	80	#4	M2.5	GTS, GS2B, PTS, PPTS, STS2	1000	50000
BC2M-S4-M	8.3	211	.095	2.4	2.00	51	18	80	#4	M2.5		1000	25000
Intermediate Cross Section													
BC1.5I-S8-M	6.6	168	.141	3.6	1.50	38	40	178	#8	M4	GTS, GS2B, PTS, PPTS, STS2	1000	25000
Standard Cross Section													
BC2S-S10-D	8.5	216	.185	4.7	2.00	51	50	222	#10	M5	GTS, GS2B, GTH, GS4H, PTS, PPTS, STS2, STH2	500	10000
BC4S-S10-C	15.6	396	.185	4.7	4.00	102	50	222	#10	M5		100	1000
Light-Heavy Cross Section													
BC4LH-S25-L	15.5	394	.275	7.0	4.00	102	120	534	1/4	M6	GTH, GS4H, GS4EH, PPTEH, STH2, ST2EH	50	500

US **DOME-TOP®** Barb Ty Marker & Flag Ties

- Used to fasten and identify bundles at the same time
- May be marked with **PANDUIT®** Marker Pens or Computer Printable Labels
- Custom imprinting with text, symbols or trademarks available using **PANDUIT** Custom Hot Stamping Service
- All cable tie cross sections have a curved tip that is easier to pick up from flat surfaces, allows faster initial threading and speeds installation
- Material: Nylon 6.6 (see Material Selection Guide for additional sizes, materials and colors available)



Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Write-On Area		Tool	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	N	In.	mm			
Miniature Cross Section													
BM1M-C	4.2	107	.095	2.4	.90	23	18	80	.29 x 1.09	7.4 x 27.7	GTS, GS2B, PTS, PPTS, STS2	100	1000
BM2M-C	7.9	201	.095	2.4	2.00	51	18	80	.29 x 1.09	7.4 x 27.7		100	1000
BF1M-C	4.6	116	.095	2.4	.90	23	18	80	.36 x .81	9.1 x 20.6		100	1000
BF2M-C	8.3	211	.095	2.4	2.00	51	18	80	.36 x .81	9.1 x 20.6		100	1000
Standard Cross Section													
BM2S-C	8.0	203	.185	4.7	2.00	51	50	222	.49 x .91	12.4 x 23.1	GTS, GS2B, GTH, GS4H, PTS, PPTS, STS2, STH2	100	1000
BM4S-C	15.1	384	.185	4.7	4.00	102	50	222	.50 x 2.13	12.7 x 54.1		100	1000
B2M2S-D	8.0	203	.185	4.7	2.00	51	50	222	1.15 x .91	29.2 x 23.1		500	2500
B3M2S-TL	8.0	203	.185	4.7	2.00	51	50	222	1.81 x .91	46.0 x 23.1		250	2500
B4M2S-TL	8.0	203	.185	4.7	2.00	51	50	222	2.47 x .91	62.7 x 23.1		250	2500

DURA-TY™ Cable Ties

- Ideal for all outdoor messenger strand applications including telephone, cable TV, traffic signals and outside plant power services
- Double stainless steel, type 302, locking barb
- High tensile strength and high impact resistance
- Excellent chemical and moisture resistance
- Meets Telcordia TR-TSY-000789
- May be used with Stackable Cable Spacer, SACS50-T100, shown below (see [page L10](#) for part information)
- Material: Weather Resistant Acetal strap body and head



Part Number	Length		Strap Width		Max. Bundle Dia.		Min. Loop Tensile Str.		Tool	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	N			
Extra-Heavy Cross Section											
DT4EH-L0	13.5	343	.500	12.7	3.87	98	250	1112	GTH, GS4EH, PPTEH, ST2EH	50	1000
DT8EH-Q0	27.0	686	.500	12.7	8.00	203	250	1112		25	500



Part Number	Description	Length		Strap Width		Min. Loop Tensile Str.		Tool	Std. Pkg. Qty.	Std. Ctn. Qty.
		Ft.	M	In.	mm	Lbs.	N			
Strapping, Heads and Kit										
DTREH-LR0	50' reel of strapping	50.0	15	.500	12.7	250	1112	GTH, GS4EH, PPTEH, ST2EH	1	20
DTHEH-Q0	Bag of 25 cable tie heads	—	—	—	—	—	—	—	25	500
DTKEH-0	Kit containing 50' reel of strapping and 25 cable tie heads	50.0	15	.500	12.7	250	1112	GTH, GS4EH, PPTEH, ST2EH	1	20

- System Overview
- Modules
- Ultimate ID System & Work Area
- Zone Cabling
- Patch Panels Copper Patch Cords & Punchdowns
- Fiber Connectors Enclosures & Patch Cords
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Stackable Cable Spacer



- Manufactured from Black Weather Resistant Polypropylene
- For use with *DURA-TY™* Cable Ties (see [page L9](#)) or *PAN-STEEL®* Metal Locking Ties (see [page L23](#))
- For indoor/outdoor use
- Each spacer snaps into another to increase spacer heights by 1/2" increments
- Designed to be used in parallel and perpendicular applications



Part Number	Length		Width		Bulk Pkg. Qty.	Bulk Ctn. Qty.
	In.	mm	In.	mm		
SACS50-T100	2.08	52.8	1.16	29.5	200	2000



NEW! Ergonomic Cable Tie Installation Tools



PANDUIT® ergonomic cable tie installation tools reduce worker fatigue, increase productivity and provide the lowest total installed cost. These tools automatically and consistently control tension and cut-off of the cable tie during installation.

- Lightweight, ergonomic design is comfortable to use and reduces operator fatigue
- Exceeds industry standards for tool operation to provide high reliability for maximum tool life
- Narrow nose improves visibility and access to bundles in confined areas
- Flush cut-off protects adjacent cables and workers' arms and hands
- Tension adjustment conveniently located at the rear of the tool to help quickly and easily change and confirm tension settings to improve installer productivity

Part Number	Description	Std. Pkg. Qty.
GTS	Installs Subminiature, Miniature, Intermediate and Standard cross section cable ties. Qualified Product Listed per Mil. Std. MS90387-1 and Mil. Spec. MIL-T-81306A. Color identification: Black trigger handle Body has gray plastic housing with black selector knob Weight: 8.8 oz. (249g)	1
GTH	Installs Standard, Heavy-Standard, Light-Heavy and Heavy cross section cable ties. Color identification: Red trigger handle Body has gray plastic housing with red selector knob Weight: 11.2 oz. (318g)	1



PAN-TY® Cable Ties

Part Number System (Example of PLT2S-C)

PLT	2	S	—	C	
Part Description	Size	Cross Section	Screw Hole Size	Package Size	Color
PLT = Locking Tie	Approx.	SM = Subminiature	(Clamp Ties Only)	Q = 25	See chart below for colors and materials available
PRT = Releasable Tie	Maximum	M = Miniature	-S4 = #4 (M2.5)	L = 50	
PLC = Locking Clamp	Bundle	I = Intermediate	-S6 = #6 (M3)	C = 100	
PLF = Locking Flag	Dia. (In)	S = Standard	-S8 = #8 (M4)	TL = 250	
PLM = Locking Marker		LH = Light-Heavy	-S10 = #10 (M5)	D = 500	
PLP = Locking Push Mt.		H = Heavy	-S25 = 1/4 (M6)	M = 1000	
PLWP = Locking Wing Push Mt.		EH = Extra-Heavy		XMR = 2 reels/ 5000 ea.	
PRWP = Releasable Wing Push Mt.					
PLUP = Locking Umbrella Push Mt.					

Material - Color	PANDUIT® Suffix*	Mil Spec Suffix**	Material - Color	PANDUIT Suffix*	Mil Spec Suffix**
Nylon 6.6 - Natural (See Note)	✓	.9	Heat Stabilized Nylon 6.6 - Black	.30	.N/A
Weather Resistant Nylon 6.6 - Black	.0	.N/A	Heat Stabilized Nylon 6.6 - Natural	.39	.N/A
WR Nylon 6.6 - Black (Meets Mil. Spec.)	.00	.0	Nylon 6.6 - Fluorescent Orange	.53	.N/A
Nylon 6.6 - Brown	.1	.1	Nylon 6.6 - Fluorescent Yellow	.54	.N/A
Nylon 6.6 - Red	.2	.2	Nylon 6.6 - Fluorescent Green	.55	.N/A
Nylon 6.6 - Orange	.3	.3	Nylon 6.6 - Fluorescent Pink	.59	.N/A
Nylon 6.6 - Yellow	.4	.4	Flame Retardant Nylon 6.6 - Black	.60	.N/A
Nylon 6.6 - Green	.5	.5	Flame Retardant Nylon 6.6 - Ivory	.69	.N/A
Nylon 6.6 - Blue	.6	.6	TEFZEL [®] - Aqua Blue	.76	.N/A
Nylon 6.6 - Purple	.7	.7	Weather Resistant Polypropylene - Black	.100	.N/A
Nylon 6.6 - Gray	.8	.8	Natural Polypropylene - Green	.109	.N/A
Nylon 6.6 - White	.10	.N/A	Nylon 12 - Black	.120	.N/A
Nylon 6.6 - Telephone Gray	.14	.N/A	Heat Stabilized WR Nylon 6.6 - Black	.300	.N/A
Nylon 6.6 - Black	.20	.N/A	HALAR [®] - Maroon	.702	.N/A

N/A = Not applicable to military specified parts

*TEFZEL is the registered trademark of E.I. DuPont de Nemours and Co.
*HALAR is the registered trademark of Solvay Solexis, Inc.

* Note: ✓ denotes PANDUIT standard Natural Nylon 6.6 (no suffix required in part number)
** Note: Mil. Spec. color suffix per SAE AS33671 and AS33681 (formerly MS3367 and MS3368)

Part Number Availability List

Standard Packaging			Bulk Packaging		
Part Number	Natural Nylon 6.6	Color / Material Suffix	Part Number	Natural Nylon 6.6	Color / Material Suffix
PLC1M-S4-C	✓	0	PLC1M-S4-M	✓	0,30
PLC1.5I-S8-C	✓	0	PLC1.5I-S8-M	✓	0,30
PLC2S-S6-C	✓	0	PLC2S-S6-M	✓	0
PLC2S-S10-C	✓	0,14	PLC2S-S10-M	✓	0,20,30
PLC3S-S10-C	✓	0	PLC3S-S10-M	✓	0
PLC4S-S10-C	✓	0	PLC4S-S10-M	✓	0,30
PLC2H-S25-L	✓	0	PLC2H-S25-TL	✓	0
PLC4H-S25-L	✓	0	PLC4H-S25-TL	✓	0,30
PLF1M-C	✓	0	PLF1M-M	✓	0,2,3,4,6,10,69
PLF1MA-C	✓	3,4	PLF1MA-M	✓	0,2,3,4,5,6,10
PLF1MB-C	✓	0	PLF1MB-M	✓	0
PLM1M-C	✓	0	PLM1M-M	✓	0,1,2,3,4,5,6,7,8,10,69
PLM2M-C	✓	0	PLM2M-M	✓	0,4,6
PLM2S-C	✓	0	PLM2S-D	✓	0,2,3,4,5,6,8
PLM4S-C	✓	0	PLM4S-D	✓	0,2,4,6

PAN-TY® Cable Ties (continued)

Part Number Availability List

Standard Packaging			Bulk Packaging		
Part Number	Natural Nylon 6.6	Color / Material Suffix	Part Number	Natural Nylon 6.6	Color / Material Suffix
PL2M2S-L	✓		PL2M2S-D	✓	0,4,10
PL3M2S-L	✓		PL3M2S-D	✓	0,4
PLP1.5I-C	✓		PLP1.5I-M	✓	0,30
			PLP1S-M	✓	0,30
			PLP1.5S-M	✓	
PLP2S-C	✓		PLP2S-M	✓	0,30
PLT.6SM-C	✓	0	PLT.6SM-M	✓	0,30
PLT.7M-C	✓		PLT.7M-M	✓	0,30
PLT1M-C	✓	0,00,1,2,3,4,5,6,7,8,10,14,30,76,702	PLT1M-M	✓	0,00,1,2,3,4,5,6,7,8,10,14,20,30,53,54,55,59,69,76,100,109,120,300,702
			PLT1M-XMR	✓	0,1,2,3,4,5,6,7,8,10,30
PLT1.5M-C	✓	0	PLT1.5M-M	✓	0,00,2,4,5,6,8,10,14,20,30
			PLT1.5M-XMR	✓	0,30
PLT2M-C	✓	0	PLT2M-M	✓	0,1,2,3,4,5,6,7,8,10,20,30,69
PLT1.5I-C	✓	0,1,2,3,4,5,6,7,8,10,20,30	PLT1.5I-M	✓	0,00,1,2,3,4,5,6,7,8,10,20,30,69,100,109,120,300
PLT2I-C	✓	0,14,30,76	PLT2I-M	✓	0,00,1,2,3,4,5,6,7,8,10,14,20,30,53,54,55,59,69,76,300
PLT2.5I-C	✓	0	PLT2.5I-M	✓	0,20
PLT3I-C	✓	0,14	PLT3I-M	✓	0,2,3,4,5,6,8,10,14,20,30
PLT4I-C	✓	0,14	PLT4I-M	✓	0,2,5,6,14,20,30
PLT1S-C	✓	0	PLT1S-M	✓	0,30,38,300
PLT1.5S-C	✓	0	PLT1.5S-M	✓	0,30
PLT2S-C	✓	0,00,1,2,3,4,5,6,7,8,10,20,30,76,102	PLT2S-M	✓	0,00,1,2,3,4,5,6,7,8,10,20,30,38,39,53,54,55,59,69,76,100,109,120,300,702
PLT2.5S-C	✓	0	PLT2.5S-M	✓	0,30
PLT3S-C	✓	0,00,2,30,76,702	PLT3S-M	✓	0,00,1,2,3,4,5,6,7,8,10,20,30,53,54,55,59,76,100,109,702
PLT4S-C	✓	0,00,2,3,4,5,6,8,20,30,76	PLT4S-M	✓	0,00,1,2,3,4,5,6,7,8,10,14,20,30,69,76,100,109,120,300
PLT4.5S-C	✓	0	PLT4.5S-M	✓	0
PLT5S-C	✓	0	PLT5S-M	✓	0,2,3,4,5,6,8,30
PLT6LH-L	✓	0	PLT6LH-C	✓	0
PLT7LH-L	✓	0	PLT7LH-C	✓	0,30
PLT8LH-L	✓	0	PLT8LH-C	✓	0,120
PLT8LH-Q		0			
PLT9LH-L	✓	0	PLT9LH-C	✓	0,30
PLT10LH-L	✓		PLT10LH-C	✓	
PLT2H-L	✓	0	PLT2H-TL	✓	0,2,4,6,30,100,109,300
PLT2.5H-L	✓	0	PLT2.5H-TL	✓	0
PLT3H-L	✓	0,76	PLT3H-TL	✓	0,30,76,100,109
PLT4H-L	✓	0,00,76	PLT4H-TL	✓	0,00,2,3,4,5,6,10,20,30,69,76,100,109,120,300
PLT4H-C	✓	0			
PLT5H-L	✓	0	PLT5H-C	✓	0,30
PLT6H-L	✓	0	PLT6H-C	✓	0,30
PLT8H-Q		0	PLT8H-C	✓	0,00,30
PLT8H-L	✓	0			
PLT13H-Q	✓	0	PLT13H-C	✓	0,3
PLT2EH-Q		0	PLT2EH-C	✓	0
			PLT3EH-NB-C		0
PLT5EH-Q	✓	0	PLT5EH-C	✓	0
			PLT5EH-NB-C		0
PLT6EH-Q	✓	0	PLT6EH-C	✓	0
			PLT6EH-NB-C		0
PLT8EH-Q		0	PLT8EH-C	✓	0

PAN-TY® Cable Ties (continued)

Part Number Availability List

Standard Packaging			Bulk Packaging		
Part Number	Natural Nylon 6.6	Color / Material Suffix	Part Number	Natural Nylon 6.6	Color / Material Suffix
PLT10EH-Q		0	PLT10EH-C	✓	0
PLT12EH-Q		0	PLT12EH-C	✓	0
			PLUP40S-D		30
			PLUP40SE-D	✓	30
PLWP1M-C	✓		PLWP1M-D	✓	0,30
PLWP1.5I-C	✓		PLWP1.5I-D	✓	30
PLWP1S-C	✓	0	PLWP1S-D	✓	0,20,30
			PLWP1SA-D	✓	
			PLWP1SB-D	✓	
			PLWP1.5S-D	✓	30
			PLWP1.5SA-D	✓	
PLWP2S-C	✓	0	PLWP2S-D	✓	0,30
			PLWP2SA-D	✓	
			PLWP2SB-D	✓	
			PLWP2H-TL	✓	0,30
			PLWP3H-TL	✓	0
			PLWP30SC-D		30
			PLWP40SC-D		30
			PLWP40SD-D		30
			PLWP50SC-D		30
			PLWP50SE-D		30
			PRLWP30S-D		30
			PRLWP50S-D		30
PRT1S-C	✓	0	PRT1S-M	✓	0
PRT1.5S-C	✓	0	PRT1.5S-M	✓	0,30
PRT2S-C	✓	0	PRT2S-M	✓	0,2,3,4,6,7
PRT3S-C	✓	0	PRT3S-M	✓	0
PRT4S-C	✓	0	PRT4S-M	✓	0,2,3,4,6
PRT2H-L	✓	0	PRT2H-TL	✓	0
PRT3H-L	✓	0	PRT3H-TL	✓	0
PRT4H-L	✓	0	PRT4H-TL	✓	0
PRT2EH-Q		0	PRT2EH-C	✓	0,100
PRT5EH-Q	✓	0	PRT5EH-C	✓	0,100
PRT6EH-Q	✓	0	PRT6EH-C	✓	0,100
PRT8EH-Q		0	PRT8EH-C	✓	0,100
PRT10EH-Q		0	PRT10EH-C	✓	0
PRT12EH-Q		0	PRT12EH-C	✓	0
PRWP1S-C	✓		PRWP1S-D	✓	0
			PRWP1SA-D	✓	
			PRWP1SB-D	✓	
			PRWP1.5S-D	✓	0,20,30
			PRWP2S-D	✓	0
			PRWP2H-TL	✓	

DOME-TOP® Barb Ty Cable Ties

Part Number System (Example of BT1M-C)

BT	1	M	—	C	Color
Part Description	Size	Cross Section	Screw Hole Size	Package Size	
BT = Barb Ty	Approx.	M = Miniature	(Clamp Ties Only)	Q = 25	See chart
BC = Barb Ty Clamp	Maximum	I = Intermediate	-S4 = #4 (M2.5)	L = 50	below for
BF = Barb Ty Flag	Bundle	S = Standard	-S6 = #6 (M3)	C = 100	colors and
BM = Barb Ty Marker	Dia. (In)	LH = Light-Heavy	-S8 = #8 (M4)	TL = 250	materials
BW = Barb Ty Wing		EH = Extra-Heavy	-S10 = #10 (M5)	D = 500	available
DT = DURA-TY™			-S25 = 1/4 (M6)	M = 1000	
				LR = 50' Reel	
				0 = DT Kit	

Material / Color Chart

Material - Color	PANDUIT® Suffix*	Mil Spec Suffix**	Material - Color	PANDUIT Suffix*	Mil Spec Suffix**
Nylon 6.6 - Natural (See Note)	✓	.9	Nylon 6.6 - Blue	.6	.6
Weather Resistant Nylon 6.6 - Black	.0	.N/A	Nylon 6.6 - Purple	.7	.7
Nylon 6.6 - Brown	.1	.1	Nylon 6.6 - Gray	.8	.8
Nylon 6.6 - Red	.2	.2	Nylon 6.6 - White	.10	.N/A
Nylon 6.6 - Orange	.3	.3	Nylon 6.6 - Telephone Gray	.14	.N/A
Nylon 6.6 - Yellow	.4	.4	Nylon 6.6 - Black	.20	.N/A
Nylon 6.6 - Green	.5	.5	Heat Stabilized Nylon 6.6 - Black	.30	.N/A
			Heat Stabilized Nylon 6.6 - Natural	.39	.N/A

* Note: ✓ denotes PANDUIT standard Natural Nylon 6.6 (no suffix required in part number)
 **Note: Mil. Spec. color suffix per SAE AS33671 and AS33681 (formerly MS3367 and MS3368)

Standard Packaging			Bulk Packaging		
Part Number	Natural Nylon 6.6	Color / Material Suffix	Part Number	Natural Nylon 6.6	Color / Material Suffix
			BC1M-S4-M	✓	0
			BC2M-S4-M	✓	0
			BC1.5I-S8-M	✓	0
BC2S-S10-C	✓	0	BC2S-S10-D	✓	0
			BC3S-S10-D	✓	0
BC4S-S10-C	✓	0	BC4S-S10-D	✓	0,30
BC4LH-S25-L	✓	0	BC4LH-S25-TL	✓	0
BF1M-C	✓		BF1M-M	✓	0
BF2M-C	✓		BF2M-M	✓	0
BM1M-C	✓		BM1M-M	✓	0
BM2M-C	✓		BM2M-M	✓	0
BM2S-C	✓		BM2S-D	✓	0
BM4S-C	✓		BM4S-D	✓	0
BT1M-C	✓	0,30	BT1M-M	✓	0,1,2,3,4,5,6,7,8,10,30,39
BT1.5M-C	✓	0	BT1.5M-M	✓	0,30
BT2M-C	✓	0	BT2M-M	✓	0,2,3,4,5,6,8,30
BT4M-C	✓	0	BT4M-M	✓	0
BT1.5I-C	✓	0	BT1.5I-M	✓	0,1,2,3,4,5,6,7,8,10,30,39
BT2I-C	✓	0	BT2I-M	✓	0,30
BT3I-C	✓	0	BT3I-M	✓	0,14,30
BT4I-C	✓	0	BT4I-M	✓	0,14
BT2S-C	✓	0	BT2S-M	✓	0,1,2,3,4,5,6,7,8,10,20,30,39
BT3S-C	✓	0,2	BT3S-M	✓	0,30,39
BT4S-C	✓	0	BT4S-M	✓	0,2,3,4,5,6,7,8,10,30,39
BT2LH-L	✓	0	BT2LH-TL	✓	0
BT3LH-L	✓	0	BT3LH-TL	✓	0
BT4LH-L	✓	0	BT4LH-TL	✓	0,30,39
BT5LH-L	✓	0	BT5LH-C	✓	0
BT6LH-L	✓	0	BT6LH-C	✓	0
BT7LH-L	✓	0	BT7LH-C	✓	0
BT8LH-L	✓	0	BT8LH-C	✓	0
BT9LH-L	✓	0	BT9LH-C	✓	0
			BW1.5I-D	✓	
			BW2S-D	✓	0
			B2M2S-D	✓	0
			B3M2S-TL	✓	0
			B4M2S-TL	✓	0
^DTHEH-Q		0			
^DTKEH-0		0			
^DTREH-LR		0			
^DT4EH-L		0			
^DT8EH-Q		0			

^ DURA-TY™ Weather Resistant Acetal strap body and head

Parallel Entry Cable Ties

Part Number System (Example of ILT1M-M)

ILT	1	M	M	Color
Part Description CBR = <i>CONTOUR-TY</i> ™ ILT = <i>BELT-TY</i> ™ In-Line Tie IT = IN-LINE Tie	Size Approx. Maximum Bundle Dia. (In)	Cross Section M = Miniature I = Intermediate S = Standard HS = Heavy-Standard LH = Light-Heavy	Package Size C = 100 TL = 250 D = 500 M = 1000	See chart below for colors and materials available

Material / Color Chart					
Material - Color	PANDUIT® Suffix*	Mil Spec Suffix**	Material - Color	PANDUIT Suffix*	Mil Spec Suffix**
Nylon 6.6 - Natural (See Note)	✓	.9	Ultraviolet Hunter Green	.UV5B	.N/A
Weather Resistant Nylon 6.6 - Black	.0	.N/A	Ultraviolet Dark Blue	.UV6	.N/A
Ultraviolet Red	.UV2	.N/A	Ultraviolet Light Blue	.UV6A	.N/A
Ultraviolet Yellow	.UV4	.N/A	Ultraviolet Cobalt Blue	.UV6B	.N/A
Ultraviolet Butterscotch	.UV4A	.N/A	Ultraviolet Purple	.UV7A	.N/A
Ultraviolet Green	.UV5A	.N/A	Ultraviolet Silver	.UV8	.N/A
			Ultraviolet Teal	.UV11	.N/A
			Ultraviolet Pink	.UV16B	.N/A

N/A = Not applicable to military specified parts

* Note: ✓ denotes PANDUIT standard Natural Nylon 6.6 (no suffix required in part number)
 **Note: Mil. Spec. color suffix per SAE AS33671 and AS33681(formerly MS3367 and MS3368)

Standard Packaging			Bulk Packaging		
Part Number	Natural Nylon 6.6	Color / Material Suffix	Part Number	Natural Nylon 6.6	Color / Material Suffix
			CBR1M-M	✓	0
			CBR1.5M-M	✓	0
			CBR2M-M	✓	0
			CBR1.5I-M	✓	0
			CBR3I-M	✓	0
			CBR4I-M	✓	0
			CBR2S-M	✓	0
			CBR3S-M	✓	0
			CBR4S-M	✓	0
			CBR2HS-D	✓	0
			CBR4LH-TL	✓	0
			CBR6LH-C	✓	0
			ILT1M-M	✓	0
			ILT1.5I-M	✓	0
ILT2S-C	✓	0	ILT2S-M	✓	0
ILT3S-C	✓	0	ILT3S-M	✓	0
ILT4S-C	✓	0	ILT4S-M	✓	0
			ILT4LH-TL	✓	0
			ILT6LH-C	✓	0
			IT940-C		0
			IT965-C		0
			IT9100-C		0,UV2,UV4,UV4A,UV5A,UV5B,UV6,UV6A,UV6B,UV7A,UV8,UV11,UV16B
			IT9115-C		0,UV2,UV4,UV4A,UV5A,UV5B,UV6,UV6A,UV6B,UV7A,UV8,UV11,UV16B
			IT9150-C		0
			IT9250-C		0

Hook & Loop Cable Ties

Part Number System (Example of HLC3S-X0)

HLC	3	S	—	X	0
Part Description	Size	Cross Section		Package Size	Color
HL = Hook & Loop	Approx.	I = Intermediate		X = 10	See chart
HLC = H & L Cinch Tie	Maximum	S = Standard		15R = 15' Roll	below for
HLT = H & L Tie	Bundle			20R = 20' Roll	colors and
HLTP = H & L Tie Plenum	Dia. (In)			35RX = 35' Roll (10)	materials
HLS = H & L Strip				75R = 75' Roll	available
HLSP = H & L Strip Plenum					
HLM = H & L Roll Miniature					
GCTC = Grommet Cinch Tie - Center Mount					
GCTE = Grommet Cinch Tie - End Mount					
TTS = <i>TAK-TAPE</i> ™ Standard					

Material / Color Chart			
Color	Suffix	Color	Suffix
Black	.0	Blue	.6
Red	.2	Gray	.8
Orange	.3	White	.10
Yellow	.4	Maroon	.12
Green	.5		

Part Number Availability List

Standard Packaging	
Part Number	Color / Material Suffix
GCTC3S-X	0
GCTC5S-X	0
GCTE2S-X	0
GCTE4S-X	0
HLC3S-X	0
HLC5S-X	0
HLM-15R	0,2,3,4,5,6,8,10
HLS-15R	0,2,3,4,5,6,8,10
HLS-75R	0,2,3,4,5,6,8,10
HLS1.5S-X	0,2,3,4,5,6,8,10
HLS3S-X	0,2,3,4,5,6,8,10
HLS5S-X	0,2,3,4,5,6,8,10
HLT2I-X	0,2,3,4,5,6,8,10
HLT3I-X	0,2,3,4,5,6,8,10
HLSP1.5S-X	0,12
HLSP3S-X	0,12
HLSP5S-X	0,12
HLTP2I-X	0,12
HLTP3I-X	0,12
TTS-20R	0
TTS-35R	0

HLSP and HLTP are unique Hook & Loop style ties that are UL Listed for use in air handling spaces, per NEC, Section 300-22 (c) and (d) and are UL94V-2 flame rated. Available in Black (-X0) and Maroon (-X12)



TAK-TY® Hook & Loop Cable Tie Mounts

- For use with TAK-TY Hook & Loop Cable Ties (see [page L2](#))
- For indoor use only
- Dimensions are 1.10"L x 1.10"W x .34"H (27.9mm x 27.9mm x 8.6mm)
- Unique cradle design provides maximum stability for cable bundle



Part Number	Material	Color	Mounting Method	Max. Static Load		Std. Pkg. Qty.	Std. Ctn. Qty.
				Lbs.	g		
Adhesive Backed							
ABMT-A-C	Nylon 6.6	Natural	Rubber	.38	174	100	1000
ABMT-A-C20	Nylon 6.6	Black	Adhesive	.38	174	100	1000
Screw Mount							
ABMT-S6-C	Nylon 6.6	Natural	#6 (M3) Screw	—	—	100	1000
ABMT-S6-C20	Nylon 6.6	Black	#6 (M3) Screw	—	—	100	1000
ABMT-S6-C60*	Flame Retardant Nylon 6.6	Black	#6 (M3) Screw	—	—	100	1000
ABMT-S6-C69*	Flame Retardant Nylon 6.6	Natural	#6 (M3) Screw	—	—	100	1000

* Flame retardant products are manufactured from a material that is rated UL94V-0.

4-Way Adhesive Backed Mounts

- Allows cable tie entry from all four sides
- Available in multiple sizes and colors to match application requirements
- Does not require secondary fastener
- Produced 2-up, 4-up, or with tear tabs for fast and easy liner removal to speed installation



Part Number	Used With Cable Ties†	Length		Width		Material	Color	Max. Static Load		Std. Pkg. Qty.	Std. Ctn. Qty.
		In.	mm	In.	mm			Lbs.	g		
Rubber Adhesive – For indoor use only											
ABM1M-A-C	M	.50	12.7	.50	12.7	Nylon 6.6	White	.13	59	100	500
ABMM-A-C	M, I	.75	19.1	.75	19.1	ABS	White	.30	136	100	500
ABM2S-A-C	M, I, S	1.00	25.4	1.00	25.4	ABS	White	.50	227	100	500
ABM2S-A-C14	M, I, S	1.00	25.4	1.00	25.4	ABS	Gray	.50	227	100	500
ABM2S-A-C15	M, I, S	1.00	25.4	1.00	25.4	ABS	Ivory	.50	227	100	500
ABM100-A-C	M, I, S	1.00	25.4	1.00	25.4	Nylon 6.6	White	.50	227	100	1000
ABM100-A-C15	M, I, S	1.00	25.4	1.00	25.4	Nylon 6.6	Ivory	.50	227	100	1000
ABM3H-A-L	M, I, S, HS, LH, H, & HLM	1.50	38.1	1.50	38.1	Nylon 6.6	White	1.12	508	50	500
ABM4H-A-L	M, I, S, HS, LH, H, & HLM	2.00	50.8	2.00	50.8	Nylon 6.6	White	2.00	907	50	500
Acrylic Adhesive – For indoor/outdoor and high temperature applications											
ABM100-AT-C0	M, I, S	1.00	25.4	1.00	25.4	Weather Resistant Nylon 6.6	Black	.50	227	100	1000

†Cable Tie Cross Section Sizes: M = Miniature, I = Intermediate, S = Standard, HS = Heavy-Standard, LH = Light-Heavy, H = Heavy, HLM = Miniature TAK-TY Hook & Loop Ties.

P Tie Mounts

- Manufactured from Natural Nylon 6.6
- For indoor use only
- Unique cradle design provides maximum stability for cable bundle
- Installed with screw or rivet



Part Number	Used With Cable Ties‡	Length		Width		Height		Mounting Method	Std. Pkg. Qty.	Std. Ctn. Qty.
		In.	mm	In.	mm	In.	mm			
TM1S4-C	M	.51	13.0	.32	8.0	.23	5.8	#4 (M2.5) Screw	100	500
TM1S6-C	M	.51	13.0	.32	8.0	.23	5.8	#6 (M3) Screw	100	500
TM2S6-C	M, I, S	.63	16.0	.43	10.8	.28	7.0	#6 (M3) Screw	100	500
TM2S8-C	M, I, S	.63	16.0	.43	10.8	.28	7.0	#8 (M4) Screw	100	500
TM3S8-C	M, I, S, HS, LH	.62	15.8	.88	22.2	.38	9.5	#8 (M4) Screw	100	500
TM3S10-C	M, I, S, HS, LH	.62	15.8	.88	15.8	.38	9.5	#10 (M5) Screw	100	500
TM3S25-C	M, I, S, HS, LH	.62	15.8	.88	22.2	.38	9.5	1/4 (M6) Screw	100	500

‡Cable Tie Cross Section Sizes: M = Miniature, I = Intermediate, S = Standard, HS = Heavy Standard, LH = Light-Heavy, H = Heavy, HLM = Miniature *TAK-TY* Hook & Loop Ties.

P Extra-Heavy Tie Mounts

- Manufactured from weather resistant black material
- For use with *PANDUIT* Extra-Heavy Cross Section Ties (see [page L9](#)) and HLM/HLT style *TAK-TY* Hook & Loop Cable Ties (see [page L2](#))
- For indoor/outdoor use
- Dimensions are 1.65"L x .74"W x .61"H (42.0mm x 19.0mm x 15.0mm)
- Unique cradle design provides maximum stability for cable bundle



Part Number	Material	Mounting Method	Std. Pkg. Qty.	Std. Ctn. Qty.
TMEH-S8-Q0	Nylon 6.6	#8 (M4) Screw	25	250
TMEH-S10-Q0	Nylon 6.6	#10 (M5) Screw	25	250
TMEH-S25-Q0	Nylon 6.6	1/4 (M6) Screw	25	250
TMEH-S10-C100	Polypropylene	#10 (M5) Screw	100	500

P Winged Push Mount

- Manufactured from Natural Nylon 6.6
- For indoor use only
- Mounting Method: Push Barb
- Use in pre-drilled .25" (6.4mm) holes with a maximum panel thickness of .11" (2.7mm)



Part Number	Used With Cable Ties‡	Length		Width		Height		Std. Pkg. Qty.	Std. Ctn. Qty.
		In.	mm	In.	mm	In.	mm		
PWMS-H25-C	M, I, S	.75	19.1	.37	9.4	.61	15.5	100	1000

‡Cable Tie Cross Section Sizes: M = Miniature, I = Intermediate, S = Standard, HS = Heavy Standard, LH = Light-Heavy, H = Heavy, HLM = Miniature *TAK-TY* Hook & Loop Ties.



J-MOD™ Cable Support System

- Modular design allows flexibility to assemble system in multiple configurations
- Unique chaining bracket design creates a strong metal backbone and allows expansion of the system without disturbance of an existing installation
- Brackets allow for attachment to ceilings, beams, threaded rods, and drop wires to meet requirements of a variety of applications
- Manufactured from materials that meet UL 2043 and are suitable for use in air handling spaces
- Complete horizontal and vertical 1" bend radius control
- Cables do not come in contact with metal



JMJH2W-X20



JMJH2-X20



JMCB-X



JMCMB25-1-X



JMCMB25-3-X

Part Number	Part Description	Material*	Max. Static Load		Std. Pkg. Qty.	Std. Ctn. Qty.
			Lbs.	Kg.		

J Hook with maximum 2" bundle capacity

JMJH2W-X20	J Hook for wall mount applications only. Two 1/4" (M6) mounting holes for user supplied screws.	Nylon	30	13.61	10	50
JMJH2-X20	J Hook with snap lock attachments for use with all brackets listed below.	Nylon	30	13.61	10	50

Chaining Bracket

JMCB-X	Chaining bracket to extend J-MOD capacity one level. Capacity: 3 levels maximum. For use with all single-level mounting brackets listed below.	Galvanized Steel	120	54.45	10	50
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Ceiling Mount Brackets

JMCMB25-1-X	Single-level ceiling mount bracket with one 1/4" (M6) mounting hole.	Galvanized Steel	180	81.65	10	50
JMCMB25-3-X**	Three-level ceiling mount bracket with one 1/4" (M6) mounting hole. Maximum capacity of 6 J Hooks.	Galvanized Steel	180	81.65	10	50

** Not for use with chaining brackets.

* Suitable for use in air handling spaces per UL 2043.



J-MOD™ Cable Support System (continued)

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index



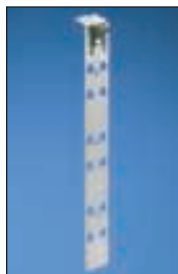
JMDWB-1-X



JMDWB-3-X



JMTRB38-1-X



JMTRB38-3-X



JMSBCB87-1-X



JMSBCB87-3-X

Part Number	Part Description	Material*	Max. Static Load		Std. Pkg. Qty.	Std. Ctn. Qty.
			Lbs.	Kg.		

Drop Wire Brackets

JMDWB-1-X	Single-level drop wire bracket. Attaches to #12 wire or 1/4" plain rod. Maximum capacity of 1 J Hook per level.	Galvanized Steel	20	9.07	10	50
JMDWB-3-X**	Three-level drop wire bracket. Attaches to #12 wire or 1/4" plain rod. Maximum capacity of 1 J Hook for each of 3 levels.	Galvanized Steel	40	18.14	10	50

Threaded Rod Brackets

JMTRB38-1-X	Single-level threaded rod bracket. Accepts 1/4" – 3/8" threaded rod.	Galvanized Steel	180	81.65	10	50
JMTRB38-3-X**	Three-level threaded rod bracket. Accepts 1/4" – 3/8" threaded rod. Maximum capacity of 6 J Hooks.	Galvanized Steel	180	81.65	10	50

Screw-On Beam Clamp Brackets

JMSBCB87-1-X	Single-level screw-on beam clamp bracket for use with flanges up to 7/8" thick.	Galvanized Steel	180	81.65	10	50
JMSBCB87-3-X**	Three-level screw-on beam clamp bracket for use with flanges up to 7/8" thick. Maximum capacity of 6 J Hooks.	Galvanized Steel	180	81.65	10	50

** Not for use with chaining brackets.

* Suitable for use in air handling spaces per UL 2043.

Adhesive Backed Cord Clips

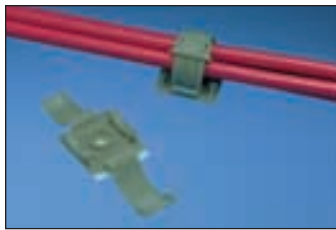
- Manufactured from Natural Nylon 6.6
- For indoor use only
- Mounting Method: Rubber Adhesive
- Cables are easily snapped into or out of the clips



Part Number	Max. Bundle Dia.		Length		Width		Max. Static Load		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	g		
ACC19-A-C	.19	4.8	.62	15.9	.75	19.0	.20	91	100	500
ACC38-A-C	.38	9.6	1.00	25.4	1.00	25.4	.50	227	100	500
ACC62-A-C	.62	15.7	1.25	31.7	1.12	28.6	.70	318	100	500

CLINCHER™ Adjustable Releasable Clamp

- Manufactured from TELCO Gray Polypropylene
- For indoor use only
- Dimensions are 1.00"L x 1.00"W (25.4mm x 25.4mm)
- Bundle Range: .19" – .69" (4.8mm – 17.5mm) diameter
- Adjustable clamp designed to contain various cable bundle diameters



Part Number	Mounting Method	Max. Static Load		Std. Pkg. Qty.	Std. Ctn. Qty.
		Lbs.	g		
ARC.68-A-Q14	Rubber Adhesive	.50	227	25	250
ARC.68-S6-Q14	#6 (M3) Screw	—	—	25	250

Bevel Entry Clips

- Manufactured from Natural Nylon 6.6
- For indoor use only
- Mounting Method: Rubber Adhesive
- Three sizes to hold cable or cable bundles
- Beveled entry makes it easy to insert cable bundle



Part Number	Max. Bundle Dia.		Length		Width		Max. Static Load		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	Lbs.	g		
BEC38-A-L	.38	9.6	1.46	37.1	1.24	31.5	.91	411	50	500
BEC62-A-L	.62	15.7	1.46	37.1	1.24	31.5	.91	411	50	500
BEC75-A-L	.75	19.0	1.46	37.1	1.49	37.8	1.09	493	50	500

NEW! Cable Bundle Strap

- For indoor use only
- Mounting Method: 1/4" (M6) Screw
- Dimensions are 4.82"L x 1.00"W x 2.54"H (122.6mm x 25.4mm x 64.5mm)
- Bundle Range: Up to 6in² (38.7cm²)
- Rounded edges prevent damage to cable jackets



Part Number	Material	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
WBS6-Q	ABS	Natural	25	125
WBS6-Q60*	Flame Retardant Nylon 6.6	Black	25	125

* Flame retardant products are manufactured from a material that is rated UL94V-0.

Latching Clips

- Manufactured from Nylon 6.6
- For indoor use only
- Secures cords and cables

- Adhesive products have a large mounting base for high bonding strength
- Available in 6 sizes with releasable latch



Part Number	Max. Bundle Dia.		Length		Width		Color	Max. Static Load		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm		Lbs.	g		

Adhesive Backed*

LWC19-A-C	.19	4.8	.85	21.6	.61	15.5	Natural	.25	113	100	1000
LWC19-A-C14	.19	4.8	.85	21.6	.61	15.5	TELCO Gray	.25	113	100	1000
LWC25-A-C	.25	6.4	.88	22.2	1.00	25.4	Natural	.45	204	100	1000
LWC25-A-C14	.25	6.4	.88	22.2	1.00	25.4	TELCO Gray	.45	204	100	1000
LWC38-A-C	.37	9.6	1.00	25.4	1.00	25.4	Natural	.50	227	100	1000
LWC38-A-C14	.37	9.6	1.00	25.4	1.00	25.4	TELCO Gray	.50	227	100	1000
LWC50-A-L	.50	12.7	1.26	32.0	1.00	25.4	Natural	.63	272	50	500
LWC50-A-L14	.50	12.7	1.26	32.0	1.00	25.4	TELCO Gray	.63	272	50	500
LWC75-A-L	.75	19.1	1.48	37.6	1.24	31.5	Natural	.93	417	50	500
LWC75-A-L14	.75	19.1	1.48	37.6	1.24	31.5	TELCO Gray	.93	417	50	500
LWC100-A-L	1.00	25.4	2.21	56.1	1.97	50.0	Natural	2.25	1020	50	500
LWC100-A-L14	1.00	25.4	2.21	56.1	1.97	50.0	TELCO Gray	2.25	1020	50	500

Push Mount**

LWC19-H25-C	.19	4.8	.85	21.6	.51	12.8	Natural	—	—	100	1000
LWC19-H25-C14	.19	4.8	.85	21.6	.51	12.8	TELCO Gray	—	—	100	1000
LWC25-H25-C	.25	6.4	.86	21.8	.58	14.7	Natural	—	—	100	1000
LWC25-H25-C14	.25	6.4	.86	21.8	.58	14.7	TELCO Gray	—	—	100	1000
LWC38-H25-C	.38	9.6	.94	23.9	.58	14.7	Natural	—	—	100	1000
LWC38-H25-C14	.38	9.6	.94	23.9	.58	14.7	TELCO Gray	—	—	100	1000
LWC50-H25-L	.50	12.7	1.25	31.8	.76	19.3	Natural	—	—	50	500
LWC50-H25-L14	.50	12.7	1.25	31.8	.76	19.3	TELCO Gray	—	—	50	500
LWC75-H25-L	.75	19.1	1.45	36.8	.87	22.1	Natural	—	—	50	500
LWC75-H25-L14	.75	19.1	1.45	36.8	.87	22.1	TELCO Gray	—	—	50	500
LWC100-H25-L	1.00	25.4	1.90	48.0	1.00	25.4	Natural	—	—	50	500
LWC100-H25-L14	1.00	25.4	1.90	48.0	1.00	25.4	TELCO Gray	—	—	50	500

* Mounting Method: Rubber Adhesive.

** Push mount products require .25" (6.4mm) diameter hole in panels up to .11" (2.7mm) thick.



Cable Holder

- Manufactured from TELCO Gray Nylon 6.6
- For indoor use only
- Dimensions are 2.50"L x 1.02"W x .62"H (63.5mm x 26.0mm x 15.9mm)
- Bundle Range: Up to 2.06"L x .39"H (52.3mm x 9.9mm)

- Low profile design holds cords and cables
- Convenient releasable latch allows easy addition and removal of cables
- Adhesive product has a large mounting base for high bonding strength



Part Number	Mounting Method	Max. Static Load		Std. Pkg. Qty.	Std. Ctn. Qty.
		Lbs.	g		
CH105-A-C14	Rubber Adhesive	1.28	581	100	1000
CH105-S6-C14	#6 (M3) Screw	—	—	100	1000



PAN-STEEL® Self-Locking Stainless Steel Cable Ties

- Strong, durable method of bundling and fastening
- Can be used in virtually all indoor, outdoor and underground (including direct burial) applications
- Well suited for network bundling of data and power cables

- Fully rounded edges and exclusive lead-in design
- Provides ultimate support for network cables



MLT general purpose tie available in three cross sections

Product Specifications

- Material: Type 304 or 316 stainless steel
- Temperature range: -112°F (-80°C) to 1000°F (538°C)
- Water absorption: none
- Flammability: non-flammable
- Ultraviolet resistance: excellent
- Chemical resistance: excellent
- Radiation resistance: 2 x 10⁸ rads
- Loop tensile strength range: 200-450 lbs. (890-2000N) (see chart for sizes)
- Fully rounded edges and smooth surfaces
- Estimated outdoor service life of 40 years

Part Number	Max. Bundle Dia.		Length		Min. Loop Tensile Str.		Min. Bundle Diameter		Width		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	Lbs.	N	In.	mm	In.	mm		

General Purpose Ties - AISI 304 Stainless Steel

STANDARD CROSS SECTION

MLT1S-CP	1	25	5.0	127	200	890	.5	13	.18	4.6	100	500
MLT2S-CP	2	51	7.9	201							100	500
MLT2.7S-CP	2.7	69	10.2	259							100	500
MLT4S-CP	4	102	14.3	362							100	500
MLT6S-CP	6	152	20.5	521							100	500
MLT8S-CP	8	203	26.8	679							100	500

LIGHT HEAVY CROSS SECTION NEW!

MLT2LH-LP	2	51	7.9	201	250	1112	.5	13	.25	6.4	50	250
MLT4LH-LP	4	102	14.3	362							50	250
MLT6LH-LP	6	152	20.5	521							50	250
MLT8LH-LP	8	203	26.8	679							50	250

HEAVY CROSS SECTION

MLT2H-LP	2	51	7.9	201	450	2000	.5	13	.31	7.9	50	250
MLT4H-LP	4	102	14.3	362							50	250
MLT6H-LP	6	152	20.5	521							50	250
MLT8H-LP	8	203	26.8	679							50	250

Stainless Steel for Superior Corrosion Resistance - AISI 316 Stainless Steel

STANDARD CROSS SECTION

MLT1S-CP316	1	25	5.0	127	200	890	.5	13	.18	4.6	100	500
MLT2S-CP316	2	51	7.9	201							100	500
MLT4S-CP316	4	102	14.3	362							100	500
MLT6S-CP316	6	152	20.5	521							100	500
MLT8S-CP316	8	203	26.8	679							100	500

LIGHT HEAVY CROSS SECTION NEW!

MLT2LH-LP316	2	51	7.9	201	250	1112	.5	13	.25	6.4	50	250
MLT4LH-LP316	4	102	14.3	362							50	250
MLT6LH-LP316	6	152	20.5	521							50	250
MLT8LH-LP316	8	203	26.8	679							50	250

HEAVY CROSS SECTION

MLT2H-LP316	2	51	7.9	201	450	2000	.5	13	.31	7.9	50	250
MLT4H-LP316	4	102	14.3	362							50	250
MLT6H-LP316	6	152	20.5	521							50	250
MLT8H-LP316	8	203	26.8	679							50	250

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PAN-STEEL® WAVE-TY™ Self-Locking Stainless Steel Cable Ties

• Patented wave-form spring maintains greater installed tension on non-resilient objects

• Loop tensile strength of 200-450 lbs. provides superior strength for increased performance and reliability on most bundling applications



GS4MT Installation tool



WAVE-TY Stainless Steel Tie for superior grip

Part Number	Max. Bundle Dia.		Length		Min. Loop Tensile Str.		Min. Bundle Diameter		Width		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	Lbs.	N	In.	mm	In.	mm		

WAVE-TY Stainless Steel Ties for superior grip on rigid bundles - AISI 304 Stainless Steel

STANDARD CROSS SECTION NEW!

MLT2.7WS-LP	2.7	69	10.2	259	200	890	2	51	.18	4.6	50	250
MLT4WS-LP	4	102	14.3	362							50	250
MLT6WS-LP	6	152	20.5	521							50	250
MLT8WS-LP	8	203	26.8	679							50	250

LIGHT HEAVY CROSS SECTION NEW!

MLT2.7WLH-LP	2.7	69	10.2	259	250	1112	2	51	.25	6.4	50	250
MLT4WLH-LP	4	102	14.3	362							50	250
MLT6WLH-LP	6	152	20.5	521							50	250
MLT8WLH-LP	8	203	26.8	679							50	250

HEAVY CROSS SECTION

MLT2.7WH-LP	2.7	69	10.2	259	450	2000	2	51	.31	7.9	50	250
MLT4WH-LP	4	102	14.3	362							50	250
MLT6WH-LP	6	152	20.5	521							50	250
MLT8WH-LP	8	203	26.8	679							50	250

WAVE-TY Stainless Steel Ties for Superior Grip on Rigid Bundles - AISI 316 Stainless Steel

STANDARD CROSS SECTION NEW!

MLT2.7WS-LP316	2.7	69	10.2	259	200	890	2	51	.18	4.6	50	250
MLT4WS-LP316	4	102	14.3	362							50	250
MLT6WS-LP316	6	152	20.5	521							50	250
MLT8WS-LP316	8	203	26.8	679							50	250

LIGHT HEAVY CROSS SECTION NEW!

MLT2.7WLH-LP316	2.7	69	10.2	259	250	1112	2	51	.25	6.4	50	250
MLT4WLH-LP316	4	102	14.3	362							50	250
MLT6WLH-LP316	6	152	20.5	521							50	250
MLT8WLH-LP316	8	203	26.8	679							50	250

HEAVY CROSS SECTION

MLT2.7WH-LP316	2.7	69	10.2	259	450	2000	2	51	.31	7.9	50	250
MLT4WH-LP316	4	102	14.3	362							50	250
MLT6WH-LP316	6	152	20.5	521							50	250
MLT8WH-LP316	8	203	26.8	679							50	250

Patented Nylon 11 Selectively Coated Ties

- For communication and electrical cables
- Strength of steel, the protection of nylon; the nylon coating provides protection for the cables



Part Number	Max. Bundle Dia.		Length		Min. Loop Tensile Str.		Min. Bundle Diameter		Width		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	Lbs.	N	In.	mm	In.	mm		
MLTC2H-LP316	2	51	7.9	201	250	1112	.5	13	.31	7.9	50	250
MLTC4H-LP316	4	102	14.3	362							50	250
MLTC6H-LP316	6	152	20.5	521							50	250
MLTC8H-LP316	8	203	26.8	679							50	250

Optional Installation Tooling

- Complete line of manual and pneumatic installation tools speed installation
- Side entry of cable ties into the tools means quick and easy installation
- Automatic tension and cut-off capabilities available on select models
- High reliability, low maintenance, long life



Tool	MLT Cross Section	MLT Usage per Year	Operation
GS4MT	Standard, Light Heavy, Heavy	Under 50,000	Hand; tool controlled tension and cut-off
PPTMT	Standard, Light Heavy, Heavy	Over 50,000	Pneumatic; tool controlled tension and cut-off
ST2MT	Standard, Light Heavy, Heavy	Under 10,000	Hand; manual controlled tension twist cut-off
HTMT	Standard, Light Heavy, Heavy	Under 10,000	Hand; manual controlled tension no cut-off

★ NEW! **PAN-WRAP™ Split Harness Wrap**

- Patent pending slot pattern provides improved flexibility and abrasion protection in any application
- Large overlap accommodates a wide range of bundle diameters
- Unique wall design provides for easy cable breakouts
- Innovative design maintains uniform bundle protection in dynamic applications
- Packaged on a reel for easy handling and dispensing of product



Part Number	Nominal I.D.		Min. Bundle Diameter‡		Max. Bundle Diameter		Material	Color	Length Per Reel		Std. Pkg. Qty.*
	In.	mm	In.	mm	In.	mm			Ft.	M	
PW50F-T	.50	12.7	.43	10.9	.55	13.9	Polyethylene	Natural	200	61.1	1
PW75F-C	.75	19.1	.66	16.8	.81	20.6	Polyethylene	Natural	100	30.5	1
PW50F-T20	.50	12.7	.43	10.9	.55	13.9	Polyethylene	Black	200	61.1	1
PW75F-C20	.75	19.1	.66	16.8	.81	20.6	Polyethylene	Black	100	30.5	1

‡ Diameter can be further reduced with the use of cable ties.
* Order number of reels required.

★ NEW! **PAN-WRAP Installation Tool**



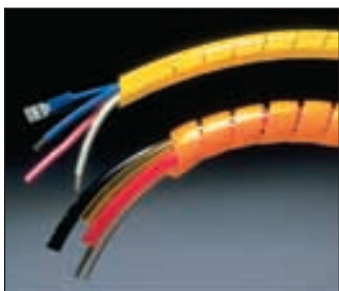
- Patent pending installation tool with 180° opening allows easy loading of maximum bundle diameters to speed installation, providing the lowest installed cost

Part Number	Color	For Use With	Std. Pkg. Qty.**
PWT50	White	PW50F	1
PWT75	White	PW75F	1

** Order number of tools required.

Spiral Wrap

- Bundle Range: .38" – 4.00" (9.5mm – 101.6mm)
- Allows breakouts of single/multiple cables
- Harness multiple cables into a single manageable bundle
- Provides protection for cables
- Color code cable bundles
- Reusable
- Installation tool supplied in each package
- Packaged on a 100 ft (30.5M) reel for easy handling and dispensing of product



Part Number	Material	Color	Std. Pkg. Qty.*
T50F-C	Polyethylene	Natural	1
T50F-C0	Weather Resistant Polyethylene	Black	1
T50F-C1	Polyethylene	Brown	1
T50F-C2	Polyethylene	Red	1
T50F-C3	Polyethylene	Orange	1
T50F-C4	Polyethylene	Yellow	1
T50F-C5	Polyethylene	Green	1
T50F-C6	Polyethylene	Blue	1
T50F-C7	Polyethylene	Purple	1
T50F-C8	Polyethylene	Gray	1
T50F-C10	Polyethylene	White	1
T50F-C16	Polyethylene	Pink	1
T50FR-C **	Flame Retardant Polyethylene	Natural	1
T50FR-C20 **	Flame Retardant Polyethylene	Black	1

* Order number of reels required.
** Flame retardant products are manufactured from a material that is rated UL94V-0.
Contact Customer Service for additional sizes and materials available.

Corrugated Loom Tubing

- Manufactured from Polyethylene
- For indoor use only
- Protects and reduces the risk of damage to cabling
- Packaged on a reel for easy handling and dispensing of product



Part Number	Color	Inside Diameter		Outside Diameter		Length Per Reel		Std. Pkg. Qty.*
		In.	mm	In.	mm	ft.	M	
Corrugated Loom Tubing – Slit Wall								
CLT25F-C3	Orange	.27	6.7	.39	9.9	100	30.5	1
CLT38F-C3	Orange	.41	10.5	.56	14.1	100	30.5	1
CLT50F-C3	Orange	.51	12.8	.67	17.0	100	30.5	1
CLT75F-C3	Orange	.76	19.3	.94	23.7	100	30.5	1
CLT100F-C3	Orange	.92	23.2	1.09	27.7	100	30.5	1
CLT125F-L3	Orange	1.29	32.8	1.50	38.1	50	15.2	1
CLT150F-X3	Orange	1.55	39.1	1.86	47.2	10	3.0	1
CLT188F-X3	Orange	1.88	47.8	2.17	55.1	10	3.0	1
CLT25F-C20	Black	.27	6.7	.39	9.9	100	30.5	1
CLT38F-C20	Black	.41	10.5	.56	14.1	100	30.5	1
CLT50F-C20	Black	.51	12.8	.67	17.0	100	30.5	1
CLT75F-C20	Black	.76	19.3	.94	23.7	100	30.5	1
CLT100F-C20	Black	.92	23.2	1.09	27.7	100	30.5	1
CLT125F-L20	Black	1.29	32.8	1.50	38.1	50	15.2	1
CLT150F-T20	Black	1.55	39.1	1.86	47.2	200	61.0	1
CLT150F-X20	Black	1.55	39.1	1.86	47.2	10	3.0	1
CLT188F-X20	Black	1.88	47.8	2.17	55.1	10	3.0	1
CLT150F-X4	Yellow	1.55	39.1	1.86	47.2	10	3.0	1
CLT188F-X4	Yellow	1.88	47.8	2.17	55.1	10	3.0	1

Corrugated Loom Tubing – Solid Wall

CLTS25F-C3	Orange	.27	6.7	.39	9.9	10	30.5	1
CLTS38F-C3	Orange	.41	10.5	.56	14.1	100	30.5	1
CLTS50F-C3	Orange	.51	12.8	.67	17.0	100	30.5	1
CLTS75F-C3	Orange	.76	19.3	.94	23.7	100	30.5	1
CLTS100F-C3	Orange	.92	23.2	1.09	27.7	100	30.5	1
CLTS125F-L3	Orange	1.29	32.8	1.50	38.1	50	15.2	1
CLTS25F-C	Black	.27	6.7	.39	9.9	100	30.5	1
CLTS38F-C	Black	.41	10.5	.56	14.1	100	30.5	1
CLTS50F-C	Black	.51	12.8	.67	17.0	100	30.5	1
CLTS75F-C	Black	.76	19.3	.94	23.7	100	30.5	1
CLTS100F-C	Black	.92	23.2	1.09	27.7	100	30.5	1
CLTS125F-L	Black	1.29	32.8	1.50	38.1	50	15.2	1

* Order number of reels required.
Contact Customer Service for additional sizes, materials, colors and bulk packaging.

Grommet Edging

- Use slotted wall product on irregularly shaped and round panel holes
- Use solid wall product on straight panels
- Adhesive ensures product stays in place
- Provided in .03" (.8mm) thick material making it highly flexible
- General purpose material for use up to 122°F (50°C)
- Packaged on a 100ft (30.5M) reel for easy handling and dispensing of product



Part Number	Width		Height		Material	Color	Panel Thickness Range		Std. Pkg. Qty.*
	In.	mm	In.	mm			In.	mm	
Adhesive Lined Grommet Edging – Slotted Wall									
GEE62F-A-C	.13	3.3	.16	4.1	Polyethylene	Natural	.036 – .062	.9 – 1.6	1
GEE62F-A-C0	.13	3.3	.16	4.1	Weather Resistant Polyethylene	Black	.036 – .062	.9 – 1.6	1
GEE99F-A-C	.17	4.3	.19	4.7	Polyethylene	Natural	.062 – .099	1.6 – 2.5	1
GEE99F-A-C0	.17	4.3	.19	4.7	Weather Resistant Polyethylene	Black	.062 – .099	1.6 – 2.5	1
GEE144F-A-C	.21	5.4	.22	5.6	Polyethylene	Natural	.099 – .144	2.5 – 3.7	1
GEE144F-A-C0	.21	5.4	.22	5.6	Weather Resistant Polyethylene	Black	.099 – .144	2.5 – 3.7	1

Part Number	Width		Height		Material	Color	Panel Thickness Range		Std. Pkg. Qty.*
	In.	mm	In.	mm			In.	mm	
Adhesive Lined Grommet Edging – Solid Wall									
GES62F-A-C	.13	3.3	.16	4.1	Polyethylene	Natural	.036 – .062	.9 – 1.6	1
GES62F-A-C0	.13	3.3	.16	4.1	Weather Resistant Polyethylene	Black	.036 – .062	.9 – 1.6	1
GES99F-A-C	.17	4.3	.19	4.7	Polyethylene	Natural	.062 – .099	1.6 – 2.5	1
GES99F-A-C0	.17	4.3	.19	4.7	Weather Resistant Polyethylene	Black	.062 – .099	1.6 – 2.5	1
GES144F-A-C	.21	5.4	.22	5.6	Polyethylene	Natural	.099 – .144	2.5 – 3.7	1
GES144F-A-C0	.21	5.4	.22	5.6	Weather Resistant Polyethylene	Black	.099 – .144	2.5 – 3.7	1

Part Number	Width		Height		Material	Color	Panel Thickness Range		Std. Pkg. Qty.*
	In.	mm	In.	mm			In.	mm	
Flame Retardant Grommet Edging – Slotted Wall**									
GEE36FR-C	.11	2.7	.12	3.0	Polyethylene	Natural	.026 – .036	.7 – .9	1
GEE62FR-C	.13	3.3	.16	4.1			.036 – .062	.9 – 1.6	1
GEE99FR-C	.17	4.3	.16	3.9			.062 – .099	1.6 – 2.5	1
GEE144FR-C	.21	5.4	.23	5.9			.099 – .144	2.5 – 3.7	1

Part Number	Width		Height		Material	Color	Panel Thickness Range		Std. Pkg. Qty.*
	In.	mm	In.	mm			In.	mm	
Flame Retardant Grommet Edging – Solid Wall**									
GES36FR-C	.11	2.7	.12	3.0	Polyethylene	Natural	.026 – .036	.7 – .9	1
GES62FR-C	.13	3.3	.16	4.1			.036 – .062	.9 – 1.6	1
GES99FR-C	.17	4.3	.16	3.9			.062 – .099	1.6 – 2.5	1
GES144FR-C	.21	5.4	.23	5.9			.099 – .144	2.5 – 3.7	1

* Order the number of reels required.
 ** Flame retardant products are manufactured from a material that is rated UL94V-0.



HSEC Thick Wall End Caps

- Manufactured from Black Cross-Linked Polyolefin
- Adhesive lined inner wall seals and provides excellent protection against moisture
- Shrink ratio of 3:1
- Temperature range of -67°F to 221°F (-55°C to 105°C)
- Voltage rating of 600V



Part Number	Min. Expanded I.D.		Max. Recovered I.D.		Copper Conductor Size Range		Cap Length		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	AWG / kcmil	mm2	In.	mm		
HSEC0.5-X	.47	11.9	.18	4.6	#8 – #4 AWG	10 to 25	1.38	35.1	10	100
HSEC0.8-X	.79	20.1	.30	7.6	#4 – 3/0 AWG	25 to 95	2.13	54.1	10	100
HSEC1.0-X	1.02	25.9	.45	11.4	#2–#4/0 AWG	35 to 95	3.23	82.0	10	100
HSEC1.5-5	1.58	40.1	.68	17.3	250 - 500 kcmil	120 to 240	3.86	98.0	5	50
HSEC2.0-5	2.25	57.2	.87	22.1	600 - 1000 kcmil	300 to 500	5.52	140.2	5	50
HSEC4.0-2	4.14	105.2	1.78	45.2	1500 - 2000 kcmil	720 to 1000	6.90	175.3	2	10



HSTTV Heat Shrink



- Manufactured from Flame Retardant Black Cross-Linked Polyolefin
- 6"L (152.4mm) pieces
- For dry locations
- Fast shrink time

- Shrink ratio of 2:1
- Temperature range of -67°F to 257°F (-55°C to 125°C)
- Voltage of 600V
- UL VW-1 Recognized, CSA Certified
- Mil Spec AMS-DTL-23053/5 Class 3



Part Number	Nominal Diameter / Size	Min. Expanded I.D.		Max. Recovered I.D.		Std. Pkg. Qty. (pieces)	Std. Ctn. Qty. (packages)
		In.	mm	In.	mm		
HSTTV05-Y	3/64	.046	1.2	.023	.6	26	10
HSTTV06-Y	1/16	.063	1.6	.031	.8	26	10
HSTTV09-Y	3/32	.093	2.4	.046	1.2	24	10
HSTTV12-Y	1/8	.125	3.2	.062	1.6	20	10
HSTTV19-Y	3/16	.187	4.8	.093	2.4	18	10
HSTTV25-Y	1/4	.250	6.4	.125	3.2	14	10
HSTTV38-Y	3/8	.375	9.5	.187	4.8	12	10
HSTTV50-Y	1/2	.500	12.7	.250	6.4	10	10
HSTTV75-Y	3/4	.750	19.0	.375	9.5	8	10
HSTTV100-Y	1	1.000	25.4	.500	12.7	6	10

Maximum UL Temperature Range is 125°C.
Contact Customer Service for additional sizes and materials available.



Heat Shrink Tools and Accessories

- For use with all PANDUIT® Heat Shrink
- Neoprene jacketed cord with molded strain relief
- Adjustable stand included
- UL Listed (tools only), CSA Certified (tools only)

- Mica insulation in the heat element provides extended life to HSG heat tools
- Accessories available for ease of use to reduce shrink time listed below



Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Heat Shrink Tool			
HSG-115V-650	Heat Gun	1	—
Heat Shrink Tool Accessories			
HSG-A1	Shrink tube reflector for tubing up to 3/4" inside diameter. Directs heat around tubing to reduce shrink time.	1	10
HSG-A2	Shrink tube reflector for tubing up to 1- 1/2" inside diameter. Directs heat around tubing to reduce shrink time.	1	10
HSG-A3	Shrink tube concentrator. Directs heat toward tubing and away from heat sensitive items.	1	10
HSG-A4	Black polyethylene case stores heat gun, stand and all three accessories.	1	—

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The information contained within this section contains portions of the TIA/EIA-568-B, TIA/EIA-569-A, TIA/EIA-606-A, TIA/EIA-607 standards published by the Telecommunications Industry Association (TIA).*

"For further information on how to obtain TIA standards please go to <http://global.ihs.com> or contact Global Engineering Documents at 1-800-854-7179 or 303-397-7956"

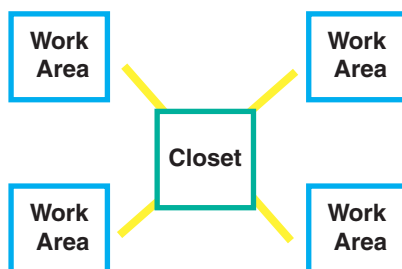
TIA/EIA-568-B Commercial Building Telecommunications Cabling Standard

Purpose

This standard specifies a generic telecommunications cabling system for commercial buildings that will support a multi-product, multi-vendor environment. The purpose of this standard is to enable the planning and installation of a structured cabling system for commercial buildings. This standard establishes performance and technical criteria for various cabling system configurations for accessing and connecting their respective elements. When applying specific applications to these cabling systems, the user is cautioned to consult application standards, regulations, equipment vendors, and system and service suppliers for applicability, limitations, and ancillary requirements.

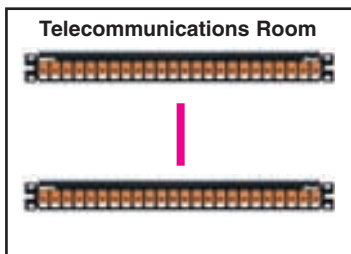
Horizontal Cabling

Shall be star topology:

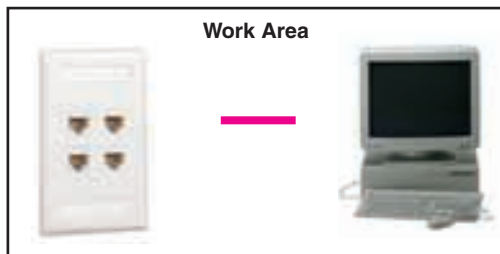


Each work area telecommunications outlet/connector shall be connected to a horizontal interconnect or cross-connect in a telecommunications room via the horizontal cable. Horizontal cabling shall contain no more than one transition point or consolidation point between the horizontal cross-connect and telecommunications outlet.

The maximum total length including patch cords and work area cables is 328' (100 meters).



Patch cords in telecommunications room are recommended not to exceed 16' (5 meters).



Work area cables are recommended not to exceed 16' (5 meters).

A minimum of two outlets are required for each individual work area.



- One outlet/connector shall be a four-pair 100-ohm cable, Category 3 or higher (Category 5e or Category 6 recommended)
- Second outlet/connector(s) shall be a minimum of one of the following:
 - 1) four-pair 100-ohm Category 5e cable or Category 6
 - 2) two-fiber multimode optical fiber cable, either 62.5/125mm or 50/125mm

*See bibliography (page M13) for complete listing of standard documents referenced.

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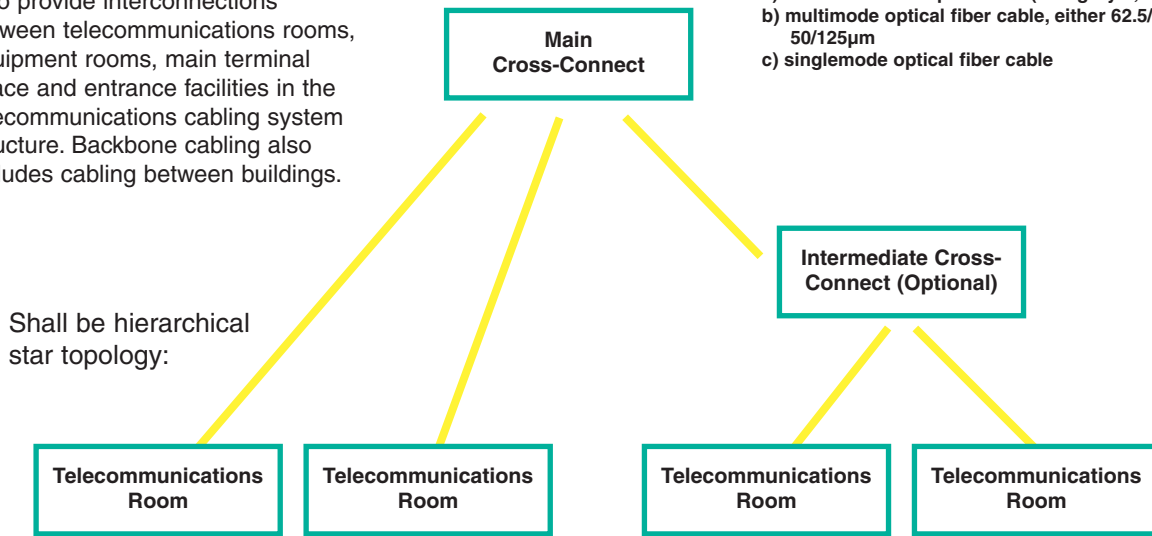
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Backbone Cabling

The function of the backbone cabling is to provide interconnections between telecommunications rooms, equipment rooms, main terminal space and entrance facilities in the telecommunications cabling system structure. Backbone cabling also includes cabling between buildings.

Recognized backbone cables are:

- a) 100-ohm twisted-pair cable (Category 3, 5e and 6)
- b) multimode optical fiber cable, either 62.5/125µm or 50/125µm
- c) singlemode optical fiber cable



Shall be hierarchical star topology:

Maximum distance between main cross-connect and telecommunications room:

- 100-ohm twisted-pair (voice only) = 2624' (800 meters)
- Category 3 100-ohm twisted-pair (appl. to 16 MHz) = 328' (100 meters)*
- Category 5e 100-ohm twisted-pair (appl. to 100 MHz) = 328' (100 meters)*
- Category 6 100-ohm twisted-pair (appl. to 100 MHz) = 328' (100 meters)*
- Multimode Fiber (62.5/125µm or 50/125µm = 6560' (2000 meters)
- Multimode Fiber (850nm laser optimized 50/125µm = 984' (300 meters)
- Singlemode Fiber = 9840' (3000 meters)

*Includes equipment patch cords at both ends.

Work Area

The Work Area is the location where the work station equipment interfaces with the telecommunications outlet/connector in the cabling system. The work station equipment can be any of a number of devices including but not limited to telephones, data terminals and computers.



Design for easy moves, adds and changes.

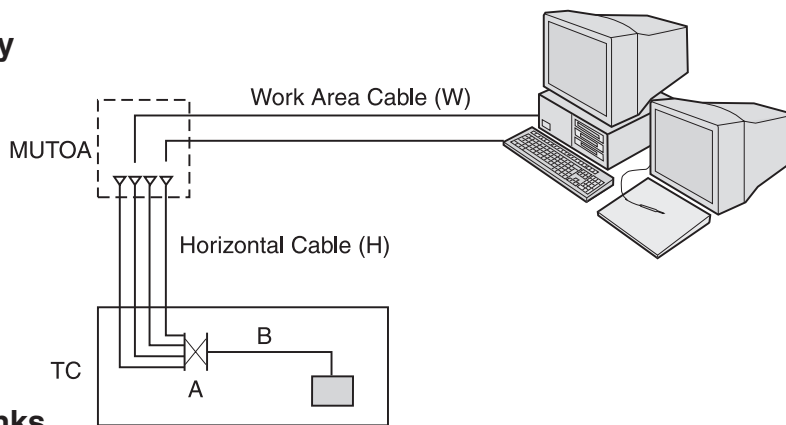
Application specific electrical components shall be placed external to the faceplate.

Open Office Cabling

Provides two additional cabling options for open office environments. A multi-user telecom outlet assembly (MUTOA) and consolidation point (CP).

Multi-User Telecom Outlet Assembly (MUTOA)

- Horizontal cables are terminated in a common location
- The work area cables shall be connected directly to work station equipment without any additional intermediate connections
- Shall serve no more than 12 work areas
- Shall be permanently mounted, not in ceiling spaces



Horizontal Distances for Copper Links

Allows for the Work Area cable to extend up to 72' (22 meters). As compensation for this increased work area cable length, the horizontal cable length must be reduced by the formulas shown below.

$$C = (102 - H)/1.2$$

$$W = C - 5 \leq 22 \text{ meters}$$

Where W is the work area cable length, H is the horizontal cable length, and C is the total combined length of work area cable, patch cords, and equipment cable. The table summarizes these formulas.

Maximum Length of Horizontal Cable H ft (meters)	Maximum Length of Work Area Cable W ft (meters)	Maximum Length of Work Area Cable Patch Cords and Equipment Cable C ft (meters)
295 (90)	16 (5)	33 (10)
279 (85)	30 (9)	46 (14)
262 (80)	44 (13)	59 (18)
246 (75)	57 (17)	72 (22)
230 (70)	72 (22)	89 (27)

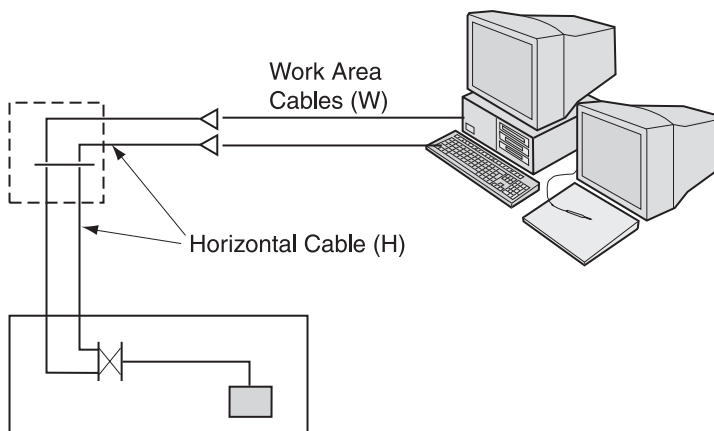
NOTE: The formulas and table above assume that the total length of the telecommunications closet patch cords is 16' (5 meters).

Horizontal Distances for Fiber Optical Links

Any combination of horizontal cables, work area cables, patch cords and equipment cables is acceptable as long as total length does not exceed 100 meters.

Consolidation Point Connector

- Interconnection point within horizontal cabling
- Work area outlet is retained
- Serve no more than 12 work areas
- No more than one allowed in each horizontal run
- Should be located at least 15 meters (49') from the telecommunications room



Telecommunications Room

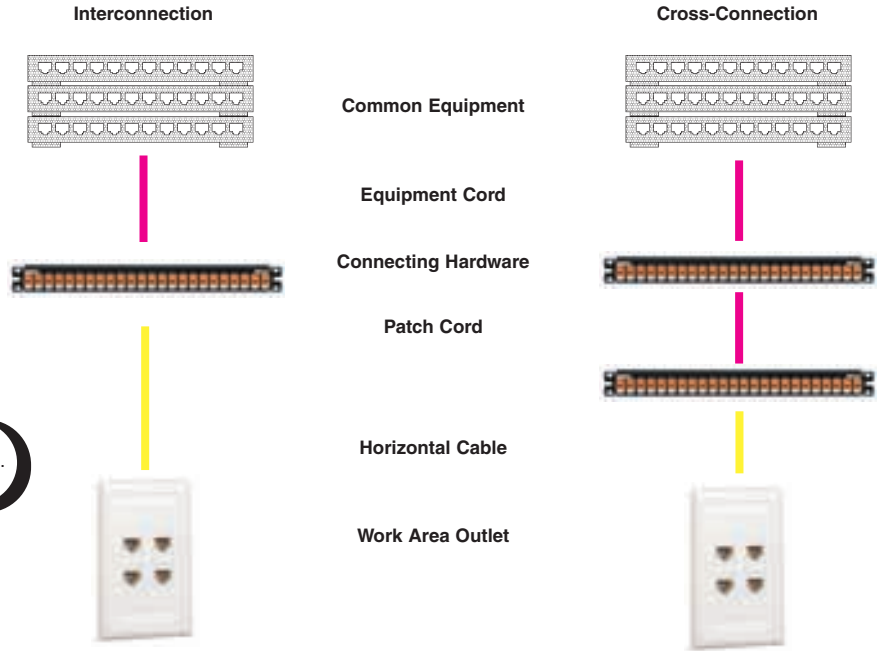
The primary function of the telecommunications room is the termination of horizontal and backbone cables to compatible connecting hardware.

- All connections between horizontal and backbone cables shall be cross-connects
- Shall be designed according to TIA/EIA-569-B

Cable Management Precautions:

- Avoid cable stress/tension
- Use appropriate cable routing and dressing fixtures
- Cables should not be routed in tightly circled bundles

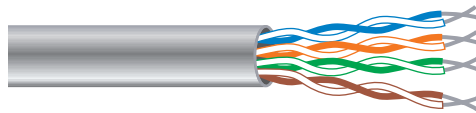
Installer Tip
Use **TAK-TY**® Hook & Loop cable ties in the telecommunications room. (See [page L2](#))



Media: UTP Cabling

Recognized Categories of UTP cabling are as follows:

- Category 6: Requirements specified up to 250 MHz
- Category 5e: Requirements specified up to 100 MHz
- Category 3: Requirements specified up to 16 MHz

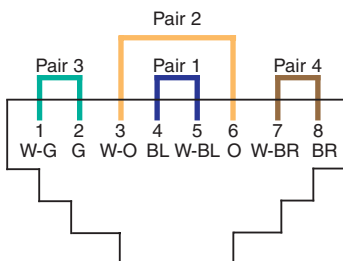


Horizontal Cabling:

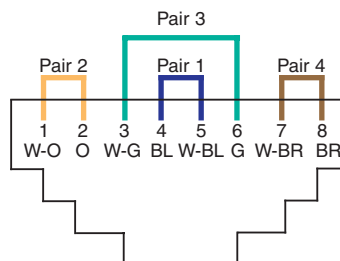
- Cable specified is 22 or 24 AWG solid 4-pair unshielded twisted-pair
- Overall shield (referred to as screened twisted-pair cable - ScTP) is also allowed

Cable shall be terminated to an 8 position modular jack.

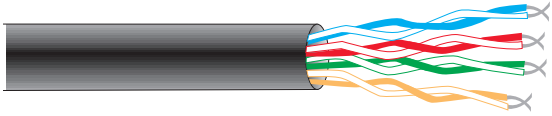
Pin/Pair Assignment: T568A



Pin/Pair Assignment: T568B (Optional)



Media: UTP Cabling Practices

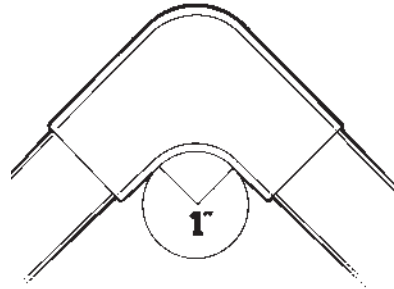


- Maintain pair twists as close as possible to the point of termination
- Untwisting shall not exceed 0.5" (13mm) for Category 5 cables or higher
- Untwisting shall not exceed 3.0" (25mm) for Category 3 cables
- Maximum pulling tension = 25lbs. (110N)
- Strip back jacket only as far as required for proper termination

Minimum bend radius under no load shall be four times the cable diameter

Maximum cable diameter for Category 5e cable is .25"

$$.25" \times 4 = 1.0"$$



Patch Cords

- Patch cords should be of stranded construction
- Patch cords require the same transmission requirements as horizontal cable with the exception of attenuation (20% more attenuation is allowed for stranded cable)
- Cross-connect jumpers and cables used for patch cords should be of the same performance category or higher as the horizontal cables to which they connect



Media: Optical Fiber

Optical fiber cabling for horizontal and backbone applications:

- Horizontal: Two-fiber multimode optical fiber cable, either 62.5/125µm or 50/125µm
- Backbone: Multimode, optical fiber cable, either 62.5/125mm or 50/125mm, or singlemode optical fiber cable

Inside Plant Cabling Practices:

- 2- and 4-fiber cables intended for horizontal or centralized cabling shall support a bend radius of 1" (25mm) under no-load conditions. Maximum pulling tension = 50lbf (222N)

Optical fiber patch cords:

- Must be two-fiber cable of an indoor construction, with the same fiber type as the optical fiber cabling



Cabling Transmission Performance and Test Requirements

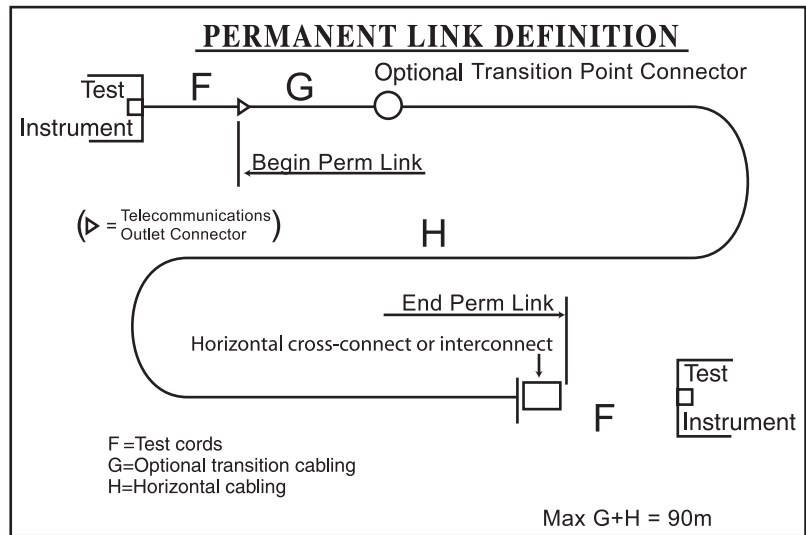
Specifies the electrical characteristics of field test instruments, test methods, and minimum transmission requirements for 100-ohm twisted-pair cabling.

Applicable to:

- 100-ohm four-pair UTP and ScTP cabling only
- Horizontal cable only

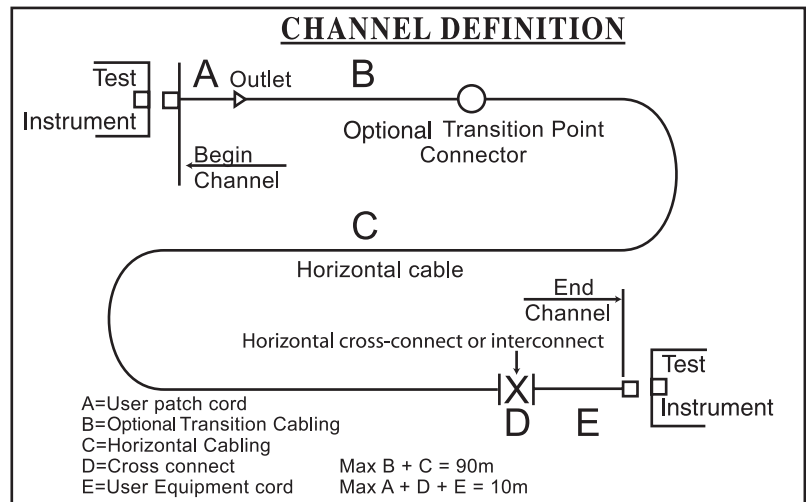
Permanent Link

- Used to verify the performance of permanently installed cabling
- Includes cable and connecting hardware only
- Limited to 295' (90 meters)



Channel

- Includes cable, connecting hardware and patch cords
- Defines entire channel
- Limited to 328' (100 meters)
- The total length of equipment cords, patch cords or jumpers and work area cords shall not exceed 10 m (33 ft.)



Test Parameters

The primary field test parameters are:

- Wire map
- Length
- Insertion loss
- Near-end crosstalk (NEXT) loss*
- Power sum near-end crosstalk (PSNEXT) loss
- Equal-level far-end crosstalk (ELFEXT)
- Power sum equal-level far-end crosstalk (PSELFEXT)
- Return loss
- Propagation delay
- Delay skew

*Near End Cross-Talk is defined as the coupling on one pair when another pair is transmitting.

Centralized Optical Fiber Cabling Guidelines

Provides guidelines for implementing a centralized optical fiber cabling system. It offers three alternatives to installing a cross-connect in the telecommunications room. These three alternatives are Pull-Through, Interconnect or Splice.

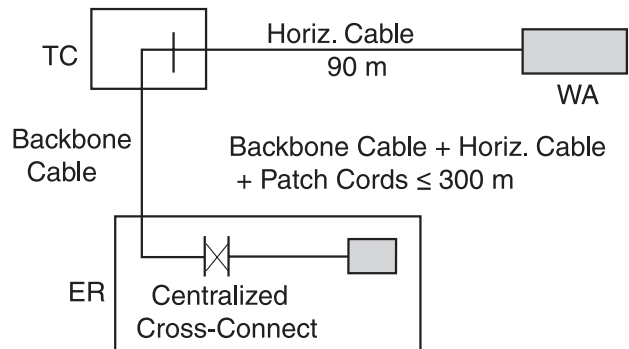
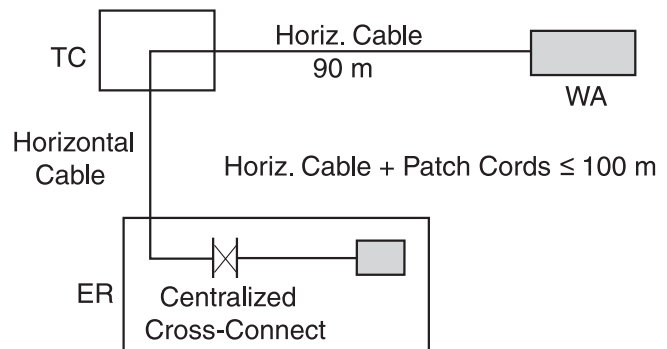
- Centralized cabling design shall allow for migration (in part or in total) of the pull-through, interconnect, or splice implementation to a cross-connection implementation
- Centralized cabling design shall allow for the addition and removal of horizontal and intrabuilding backbone fibers

Pull-Through

- The layout of both rack-mount and wall-mount termination hardware should accommodate modular growth in an orderly manner
- The specifications of ANSI/TIA/EIA-569-A shall be followed
- Centralized cabling shall support the labeling requirements of ANSI/TIA/EIA-606-A
- Continuous sheath cables pulled from a centralized cross-connect through the telecommunications room to the work area
- Length from the centralized cross-connect to the work area is limited to 295' (90 meters)

Interconnect or Splice

- Provide interconnection or splice in the telecommunications room
- Length from the centralized cross-connect to the work area is limited to 984' (300 meters)
- The intrabuilding backbone fiber count should be sized to deliver present and future applications to the maximum work area density within the area served by the telecommunications room
- Generally, two fibers are required for each application delivered to a work area



- System Overview
- Modules
- Ultimate ID System & Work Area
- Zone Cabling
- Patch Panels Copper Patch Cords & Punchdowns
- Fiber Connectors Enclosures & Patch Cords
- Racks & Cable Management
- Grounding & Bonding
- Fiber Routing
- Surface Raceway
- Labeling & Administration
- Cable Ties & Accessories
- Supplementary Technical Information
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TIA/EIA 569-A Commercial Building Standard for Telecommunications Pathways and Spaces

Purpose

This standard specifies the design and construction practices in support of telecommunications media and equipment. Standards are given for spaces and pathways into and through which telecommunications equipment and media are installed within and between commercial buildings.

General Guidelines

- Perimeter raceways are often installed at baseboard, chair-rail, or ceiling height and may contain work area outlets. When outlets are provided, the outlet height must comply with ADA requirements where applicable.
- Surface raceway may be used as a distribution system within and between rooms. The raceway may extend from building pathways to furniture pathways to connect furniture partitions or furniture systems.
- Surface raceway consists of base, cover and related fittings that mount directly on walls at appropriate work levels to provide a continuous perimeter pathway. Telecommunication outlets are located along the raceway and may be moved or added after initial installation if desired.
- Multi-channel raceway provides a separate perimeter pathway for different cable systems. Separate channels are maintained for each cable system throughout the routing scheme by a divider-wall, either pre-configured or modular.

Separation between Telecommunications and Power Cables

Co-installation of telecommunications cable and power cable is governed by the applicable electrical code for safety. Recommended separation examples of electrically conductive telecommunications cable from branch circuits are as follows:

- Separation from power conductors
- Separation and barriers within raceways
- Separation within outlet boxes or compartments

(Articles 388.70 and 800-52 of the 2002 NEC require a physical barrier between power and telecommunication cables).

Bend Radius Control

Surface raceway shall incorporate a bend radius of not less than 1-inch under a condition of maximum fill.

Pathway Sizing

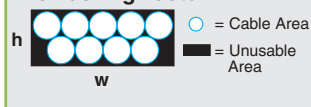
For planning perimeter pathways, the maximum fill shall be 40 percent. A maximum fill of 60 percent is allowed to accommodate unplanned additions after initial installation. The practical raceway capacity for telecommunication cabling will deviate depending on the cable-bending radius. The fill capacities of surface raceways may approach 60% when appropriate bend radius is provided. Factors that affect fill capacity (raceway usable area, fittings, terminations, etc.) are discussed on the following page.

TIA/EIA 569-A Commercial Building Standard for Telecommunications Pathways and Spaces (continued)

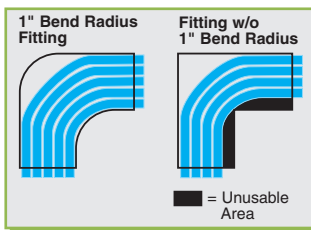
Initially one may think... $\frac{\text{RACEWAY AREA}}{\text{CABLE(S) AREA}} = \# \text{ of Cables that fit in the Channel}$ **But in reality this is impossible... Why?**

Consider this...

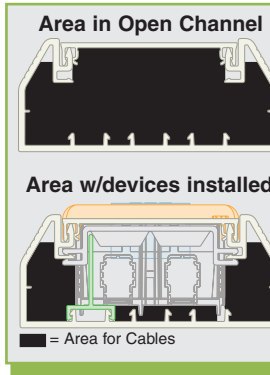
The Packing Factor



• Cable placed into the channel leave some unusable area depending on the diameter of the cable and shape of the raceway channel. Commonly referred to as the "packing factor."



• If the cables being routed require a 1" bend radius and the fittings have a smaller radius even less internal area is available for cables.



• Termination devices placed within the surface raceway also reduce the available internal area within the channel.*

• Add in other real world considerations, such as, interwoven/crossed cables and the usable area becomes even less.

Pathway Sizing (continued)

The following guidelines can be used to provide cable fill quantities when specifying *PANWAY™* Surface Raceway Systems.

$$\text{SPEC} = \frac{\text{Raceway Internal Area}}{\text{Cable Area}} \times 40\%$$

SPEC: The cable quantity to be used when specifying a new raceway. This quantity leaves room for adding cabling in the future.

$$\text{MAX} = \frac{\text{Raceway Internal Area}}{\text{Cable Area}} \times 60\%$$

MAX: The maximum cable quantity that will fit into the raceway (considering factors previously mentioned).[^]

[^]If the bend radius of the cable cannot be realized with the fittings of the system this value cannot be attained.

Example: Find the SPEC and MAX cable quantities for LDP3 (internal area = .21in²) when routing Category 5e UTP cabling (dia = .217")

1. Determine Cable Area:

$$\begin{aligned} \text{CABLE AREA} &= \pi r^2 \\ &= (3.14) (.217/2)^2 \\ &= .03695\text{in}^2 \end{aligned}$$

2. Determine SPEC Quantity:

$$\begin{aligned} \text{SPEC} &= .21\text{in}^2 / .03695\text{in}^2 \times .40 \\ &= 2.27 \text{ or} \\ &= \mathbf{2 \text{ Cables}} \end{aligned}$$

3. Determine MAX Quantity:

$$\begin{aligned} \text{MAX} &= .21\text{in}^2 / .03695\text{in}^2 \times .60 \\ &= 3.40 \text{ or} \\ &= \mathbf{3 \text{ Cables}} \end{aligned}$$

Note 1: New installations of perimeter raceway systems should be sized using a cable fill based on 40% of the raceway usable internal cross-sectional area. A maximum cable fill approaching 60% of the raceway usable cross-sectional area may be attained if the pathway provides the appropriate bend radius for the radius of the cable being routed.

Note 2: Power cable fill capacities of non-metallic surface raceways are determined by the UL 5A temperature test. The published power wire fill capacity tables indicate the maximum number of power conductors that can be placed into the raceway channel or indicated configuration.

* *PANDUIT®* Quick Wire Fill Capacities reference only the usable area for each system configuration.

NOTE: The information provided above is intended for use only as a guideline. Please refer to the specified document for detailed descriptions or standards information.

TIA/EIA-606-A Administration Standard for Commercial Telecommunications Infrastructure

Purpose:

The TIA/EIA-606-A standard establishes guidelines for owners, end users, manufacturers, consultants, contractors, designers, installers, and facilities administrators involved in the administration of the telecommunications infrastructure. This standard includes requirements for identifiers, records, and **labeling**.

Classes of Administration

Four classes of administration are specified in the standard to accommodate the varying degrees of complexity present in telecommunications infrastructures. The specifications for each class include requirements for identifiers, records and labeling.

Identifiers An identifier is a unique designation used to refer to each element of the infrastructure.

Records A collection of detailed information related to a specific element of the telecommunications infrastructure.

Labeling A label is a physical representation of an identifier that is attached to the element identified. The size, color, and contrast of all labels should be selected to ensure that the identifiers are easily read. Labels should be visible during the installation of and normal maintenance of the infrastructure. Labels should be resistant to the environmental conditions at the point of installation (such as moisture or heat), and should have a design life equal to or greater than that of the labeled component. **To maximize legibility, all labels shall be printed or generated by a mechanical device.**

Class 1 addresses the needs of a premises that is served by a single equipment room (ER). This equipment room is the only telecommunications space (TS) administered.

Required in class 1 administration are identifiers for the TS, each telecommunications grounding busbar (TGB), the telecommunications main grounding busbar (TMGB), and all elements of the horizontal links (**Patch Panel Ports, IDC (Punch Down Block) Connectors, Copper Four-Pair Horizontal Cable, Fiber Cable, Outlets, & other Connectors**).

Class 2 provides for the needs of a single building with one or more telecommunication spaces.

Required in Class 2 administration are all identifiers required in Class 1 plus building backbone cable identifier, building backbone pair or optical fiber identifier, and firestopping location identifier.

Class 3 addresses the needs of a campus, including its buildings, and outside plant elements.

Required in Class 3 administration are all identifiers required in Class 1 & 2 plus building identifiers, campus backbone identifiers, campus backbone pair or optical fiber identifiers.

Class 4 addresses the needs of a multi-site system.

Required in Class 4 administration are all identifiers required in Class 1, 2 & 3 plus campus or site identifier.

System Overview

Modules

Ultimate ID System & Work Area

Zone Cabling

Patch Panels Copper Patch Cords & Punchdowns

Fiber Connectors Enclosures & Patch Cords

Racks & Cable Management

Grounding & Bonding

Fiber Routing

Surface Raceway

Labeling & Administration

Cable Ties & Accessories

Supplementary Technical Information

Glossary & Index

TIA/EIA-606-A Administration Standard for Commercial Telecommunications Infrastructure (continued)

Patch Panel Ports



In the TS, each patch panel port **shall be labeled** with the an portion of the identifier. This requirement may be met by labeling a patch panel with the a portion of the identifier, and each port with the n portion where:

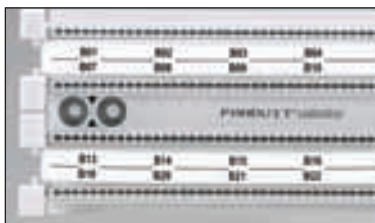
a = one or two alpha characters uniquely identifying a single patch panel, or a group of patch panels with sequentially numbered ports

n = two to four numeric characters designating the port on a patch panel in the TS

EXAMPLE:

"B07" = patch panel B, position 07

IDC (Punch Down Block) Connector



In the TS, each section of an IDC connector (punch-down block) terminating a four-pair cable **shall be labeled** with the an portion of the identifier. This requirement may be met by labeling an IDC connector or group of IDC connectors with the a portion of the identifier, and the section of an IDC connector terminating a four-pair cable labeled with the n portion where:

a = one or two alpha characters uniquely identifying an IDC connector, or a group of IDC connectors, serving as part of the horizontal cross-connect

n = two to four numeric characters designating the section of an IDC connector on which a four-pair horizontal cable is terminated in the TS

EXAMPLE:

"B04" = IDC block B, position 04

Copper Four-Pair Horizontal Cable



Each end of a horizontal cable **shall be labeled** within 300mm (12 in) of the end of the cable jacket with the horizontal link identifier, which shall be visible on the exposed part of the cable jacket. This shall include each cable in the TS, at the work area, and at a CP (consolidation point), if present. A horizontal link identifier shall have a format of fs-an where:

f = numeric character(s) identifying the floor of the building occupied by the TS

s = alpha character(s) uniquely identifying the TS on floor f, or the building area in which the space is located

a = one or two alpha characters uniquely identifying a single patch panel, a group of patch panels with sequentially numbered ports, an IDC connector, or a group of IDC connectors, serving as part of the horizontal cross-connect

n = two to four numeric characters designating the port on a patch panel in the TS, or the section of an IDC connector on which a four-pair horizontal cable is terminated in the TS

EXAMPLE:

"1A-AO4" = cable origination point first floor, closet A, rack A, position 04

TIA/EIA-606-A Administration Standard for Commercial Telecommunications Infrastructure (continued)

Fiber Cable



Each end of a horizontal cable (a pair of optical fibers in a cable) shall be labeled within 300mm (12 in) of the end of the cable jacket with the horizontal link identifier, which shall be visible on the exposed part of the cable jacket. This shall include each cable in the TS, at the work area, and at a CP (consolidation point), if present. A horizontal link identifier shall have a format of fs-an where:

f = numeric character(s) identifying the floor of the building occupied by the TS

s = alpha character(s) uniquely identifying the TS on floor f, or the building area in which the space is located

a = one or two alpha characters uniquely identifying a single patch panel, or a group of patch panels with sequentially numbered ports

n = two to four numeric characters designating the port on a patch panel in the TS

EXAMPLE:

"1D-D003" = cable origination point first floor, closet D, rack D, position 003

Outlets



In the work area, each individual telecommunications outlet/connector shall be labeled with the horizontal link identifier. The labeling shall appear on the connector, faceplate, or MUTOA, in a way that clearly identifies the individual connector associated with the particular identifier. A horizontal link identifier shall have a format of fs-an where:

f = numeric character(s) identifying the floor of the building occupied by the TS

s = alpha character(s) uniquely identifying the TS on floor f, or the building area in which the space is located

a = one or two alpha characters uniquely identifying a single patch panel, a group of patch panels with sequentially numbered ports, an IDC connector, or a group of IDC connectors, serving as part of the horizontal cross-connect

n = two to four numeric characters designating the port on a patch panel in the TS

EXAMPLE:

"1A-B07" = origination point first floor, closet A, rack B, position 07

Connectors



In the work area, each individual telecommunications outlet/connector shall be labeled with the horizontal link identifier. The labeling shall appear on the connector, faceplate, or MUTOA, in a way that clearly identifies the individual connector associated with the particular identifier. A horizontal link identifier shall have a format of fs-an where:

f = numeric character(s) identifying the floor of the building occupied by the TS

s = alpha character(s) uniquely identifying the TS on floor f, or the building area in which the space is located

a = one or two alpha characters uniquely identifying a single patch panel, a group of patch panels with sequentially numbered ports, an IDC connector, or a group of IDC connectors, serving as part of the horizontal cross-connect

n = two to four numeric characters designating the port on a patch panel in the TS

EXAMPLE:

"1A-B07" = origination point first floor, closet A, rack B, position 07

TIA/EIA-607 Commercial Building and Bonding Requirement for Telecommunications

Purpose

Requires a separate network grounding system that joins the power grounding system at the service entrance.

Bibliography of References

ANSI/TIA/EIA-568-B.1, *Commercial Building Telecommunications Cabling Standard —Part 1: General Requirements*

ANSI/TIA/EIA-568-B.2, *Commercial Building Telecommunications Cabling Standard —Part 2: Balanced Twisted-Pair Cabling Components —Addendum 1: Transmission Performance Specifications for 4-pair 100 Ω Category 6 Cabling*

ANSI/TIA/EIA-568-B.3, *Optical Fiber Cabling Components Standard*

ANSI/TIA/EIA-569-A, *Commercial Building Standard for Telecommunications Pathways and Spaces*

ANSI/TIA/EIA-606-A, *Administration Standard for the Telecommunications Infrastructure of Commercial Buildings*

ANSI/TIA/EIA-607, *Commercial Building Grounding and Bonding Requirements for Telecommunications*

For further information on how to obtain TIA standards please go to <http://global.ihs.com> or contact Global Engineering Documents at 1-800-854-7179 or 303-397-7956.

Common Terms

Access Floor

A floor which is raised by a system of pedestals and/or stringers to support removable floor panels to provide access to the space below. The same concept as a ceiling that consists of removable panels.

Access Code

The digits that a telephone user must dial to obtain access to a specific service connection via a particular out going line. The 8 or 9 dialed on a hotel or company telephone is a good example.

Access Control

The process in which a network or any of the components within it controls using entity (person, program, etc.) access.

The most common form of access control is the use of user identification numbers and passwords.

Access Network

A "sub-network" which is implemented to provide simple access to a more complex network. The access network often allows communication between a limited, local, group of users and also additional access to a wider area population.

Access Provider

A company that provides customers access to the Internet.

Address

The unique identifier for a network device (computer, printer, hub, switch, etc) within a network, used to identify the source and receiver of a message.

American Wire Gauge (AWG)

A standardized method of specifying the size of wires. For example home wiring is carried out using AWG #14 or #12 whereas telecommunication wire is normally AWG #22, #24 or #26. The AWG number refers to the number if times the copper is drawn through a die to reduce its diameter. I.e: 24 AWG is drawn twenty four times. Therefore the larger the AWG number, the smaller the diameter of the wire.

Analog Transmission

Use of voltage amplitude or frequency variations to transmit signals. Derived from the term "analogous" meaning similar to something. In voice, video, or imaging, the sine wave of the transmitted signal is the same as that of the original signal. Voice and data signals that are not digitally switched.

Application Layer

The name of the layer within the OSI seven layer network architecture model which performs the functions necessary to ensure the proper interaction between a computer application program and all other network and system software so that the desired bus end result is achieved.

Asynchronous Transmission

The movement of binary bits across a transmission medium where the transmitter and receiver have no common time reference. During asynchronous transmission it is common to place controlling start and stop bits (framing) around each individual encoded character.

Asynchronous Transmission Mode (ATM)

A technology used for Broadband Integrated Services Digital Network (BISDN). A high-speed cell switched technology that transmits broadband signals in fixed length 53 byte cells.

Attenuation

The loss of the strength of the signal as it is transmitted from output to input measured in dBs. Lower the dB values indicate less signal loss thus better signal transmission.

Attenuation to Crosstalk Ratio (ACR)

A calculation that accounts for the loss of signal strength and noise coupling between the pairs on Unshielded Twisted Pair (UTP) cable. It is determined by subtracting the attenuation dB value from the crosstalk dB value.

Autotest

A function of field test devices that allows the device to automatically run all of the required tests in a sequential manner.

System Overview	
Modules	
Ultimate ID System & Work Area	<p>Backbone Cabling The components (cable and connecting hardware) that provide connections between entrance facilities, equipment rooms, and telecommunications rooms.</p>
Zone Cabling	<p>Balanced Transmission Line A line having conductors with equal resistance per unit length and equal capacitance and inductance between each conductor and ground.</p> <p>Balun Balanced/Unbalanced. An impedance matching device, which converts, unbalanced signal transmission to balanced. Matches coax to twisted pair.</p>
Patch Panels Copper Patch Cords & Punchdowns	<p>Bandwidth The portion of a spectrum of frequencies, which can be effectively used to transmit information, expressed in Hz.</p>
Fiber Connectors Enclosures & Patch Cords	<p>Baseband Signal Any transmission, analog or digital, where the signal travels from the transmitter to the receiver at the original frequency.</p> <p>Baseband Transmission A transmission technique in which the total available bandwidth is dedicated to a single communications channel. Only one single message can be transmitted at a time.</p>
Racks & Cable Management	<p>Basic Link A link test configuration that consists of up to 90 meters (295 feet) of horizontal cable with a connector on each end and up to 2 meters of test equipment cord on each end.</p>
Grounding & Bonding	<p>Baud Rate The signaling rate of a transmission medium. A 2400 baud line carries 2400 signal changes per second. This number may or may not be equal to the bit rate depending on whether or not one signal change equals one bit.</p>
Fiber Routing	<p>Bend Radius Indicates the minimum radius that a cable may be bent before disrupting the signal carrying capabilities of the cable.</p>
Surface Raceway	<p>Binary Code An encoding technique in which a logical pattern of zeros and ones is used to represent "real world" information.</p>
Labeling & Administration	<p>Bit Error Rate (BER) The ratio of bits received in error to the total number of bits transmitted in a digital signal transmission.</p> <p>Bits per Second (BPS) A measure of the transmission speed of a signal transmission system. May not be the same as baud rate depending on how the encoding of logical ones and zeros is performed.</p>
Cable Ties & Accessories	<p>BNC Connector A specific type of connector used for coaxial cable connection that requires a twist-lock type of connection.</p>
Supplementary Technical Information	<p>Bonding A continuous electrical path formed by permanently joining metallic components together to safely conduct any electrical current imposed and to limit any potential differences between the metal components.</p>
Glossary & Index	<p>Bridge A general term used to describe electronic devices, which interconnect segments of the same logical network, or to connect separate LANs.</p>

Bridge Tap

An undefined length of wire connected between the normal end points of a circuit, which introduces an unwanted modification of the transmission path characteristics.

Broadband Transmission

The transmission of multiple signals at the same time over the same physical medium, sharing the entire bandwidth of the medium. Signals are divided, usually by frequency divisions.

Buffer Coating

A thin thermoplastic coating applied to the acrylate layer of optical fiber to provide strength and protection against environmental hazards.

Buffer Tube

A loose fitting cover for loose tube constructed optical fiber cables to provide protection and isolation.

Bus Topology

The physical layout of a LAN whereby connection between devices is accomplished by connecting all devices to a single transmission medium (wire, fiber, etc.).

Byte

A set of eight bits. May also be referred to as an octet. A general term, computer and data communications devices often use 8 bit bytes which do not have any "real world" equivalent.

Cable

A collection of metallic wires or optical fibers surrounded by an insulator through which electric current or light can be passed.

Campus

Buildings and grounds having legal contiguous interconnection.

Capacitance

The tendency of an electronic component or conductor to store electrical energy.

Carrier Sense Multiple Access with Collision Detection (CSMA/CD)

An access method used in LAN technology, which allows devices to contend for network access. A device, which has data to transmit monitors the line (carrier sense) and transmits data when it determines the medium is free (no transmissions from other stations). Since more than one device may attempt to transmit at the same time, this process can result in collisions. If a collision is detected (collision detect) during transmission, the transmitting device (all transmitting devices) cease transmission and wait a period of time and then try again (multiple access). This access method with a randomized exponential back off is the medium access method specified in the IEEE 802.3 (Ethernet) LAN specification.

Central Office (CO)

The access provider's facility where customers lines are terminated and where the switching equipment to interconnect the lines is located.

Central Processing Unit (CPU)

A combination of the logic processor and timing control used as the basis of a digital computer. Commonly used to mean "computer".

Centralized Cabling

Based upon TIA/EIA TSB72 and incorporated into TIA/EIA-568-B.3. Allows optical fiber cabling to extend up to 300 meters from the work area outlet to a centralized cross-connect by using an interconnect or splice in the telecommunications room. Also allows cables to be pulled through the telecommunications room to a centralized cross-connect up to 90 meters from the work area outlet.

System Overview	
Modules	
Ultimate ID System & Work Area	<p>Centralized Processing The method whereby data from various locations is moved to a single point for computer based processing. The opposite to distributed processing.</p>
Zone Cabling	<p>Channel 1) A data communications path such as a wire, a fiber optic conductor or a broadcast frequency. 2) TIA/EIA- 568-B.1 defines a channel as up to 90 meters of horizontal cable with connectors at the work area outlet and telecommunications room, plus up to 10 meters of patch cords and equipment cords at the work area outlet and in the equipment room for a maximum length of 100 meters.</p>
Patch Panels Copper Patch Cords & Punchdowns	<p>Characteristic Impedance The termination impedance of a balanced transmission line which will minimize end to end reflections.</p> <p>Circuit A physical electrical or optical path along which electrons or light flows.</p>
Fiber Connectors Enclosures & Patch Cords	<p>Circuit Switching The process whereby a circuit is switched into place at the inception of a telephone call, or computer data transfer session, and then maintained in place until the communications is discontinued.</p>
Packs & Cable Management	<p>Client The hardware (workstation) or software which requests the computational services of a specific server.</p> <p>Clock (Or clocking signal) A transmission signal, of precisely defined frequency or pulse rate, used to synchronize a data transmitter and receiver.</p>
Grounding & Bonding	<p>Coaxial Cable An unbalanced cable where an inner conductor and an outer grounded shield are positioned about a common axis. This type of cable has good noise immunity.</p>
Fiber Routing	<p>Collision In an IEEE 802.3 (Ethernet) network the presence of two or more transmissions on the channel at the same time is considered to be a collision.</p>
Surface Raceway	<p>Collision Detection A method used in LAN technology to detect the presence of two or more signals on the channel at the same time. In Baseband systems this process is simply a matter of determining the total energy level of the signal. One signal one energy level, two signals, twice the energy level. In an Ethernet network once a collision is detected all transmission is ceased and retransmitted after a random period of time.</p>
Labeling & Administration	<p>Collocation The process whereby equipment from multiple access providers is located at the same place usually to facilitate maintenance.</p>
Cable Ties & Accessories	<p>Common Carrier 1) A communications service supplier that is regulated in the public interest by the F.C.C. Examples include AT&T, Sprint, and MCI. 2) A communications service supplier that is rated and regulated (in the public interest) by a Federal, State or Local Utilities Commission.</p>
Supplementary Technical Information	<p>Common Mode Noise The transient (unwanted) voltage that appears between each signal conductor to ground. Caused by electrostatic or electromagnetic induction.</p>
Glossary & Index	<p>Communications Plenum Cable (CMP) Cable that has an outer jacket that is rated for low smoke/ low flame tolerance and can be installed in areas in which conditioned air is circulated.</p>

Communications Riser Cable (CMR)

Cable that has an outer jacket that has fire resistant characteristics to prevent the carrying of fire from floor to floor and therefore can be installed in vertical runs in multi-story buildings.

Communications Server

An intelligent device providing communications services for a population of users. Heavily used in local area networks to provide access to wide area services.

Community Antenna Television (CATV)

A television distribution service utilizing a broadband cable based transmission. Otherwise known as "Cable TV".

Compatibility

Equipment components that can be used interchangeably with each other.

Compression

Any technique, which is used to reduce the number of bits, required to define information during transmission.

Concentrator

1) An analog or digital device, which serves to reduce the number of trunks, required. 2) A device, which gathers, messages from many lines and outputs them on to one line usually at a higher speed. Function is similar to that of a Multiplexer.

Congestion

The condition, in a packet switched network, when node transmission buffers are full and no more incoming packets can be accepted.

Connecting Hardware

A device providing mechanical cable terminations.

Connectivity

The state which allows the transfer of electrical signals from source to destination.

Connector

A mechanical attachment at the end of a conductor or optical fiber which facilitates their connection to a device.

Connecting (plug), duplex; optical fiber

A remateable device that terminates two fibers and mates with a duplex receptacle.

Consolidation Point

A location that provides the interconnection between horizontal cables extending from building pathways to horizontal cables extending into furniture pathways.

Core

The center portion of an optical fiber through which the light is propagated.

Coupler

A device which is utilized to connect two other devices.

Cross-Connect

A location that provides for the termination and interconnection or cross-connection for backbone and horizontal cables.

Cross-Connection

A connection scheme that utilizes patch cords or jumper wires to connect cabling runs, subsystems, and equipment.

Cross Talk

The undesirable coupling of signal from one conductor or pair to another. Measured in dB.

System Overview	
Modules	
Ultimate ID System & Work Area	<p>Customer Premises Equipment (CPE) The equipment which is installed at a customer site to interface with and connect to the common carrier's external facilities.</p> <p>Data Any representation such as characters or bits etc to which meaning may be assigned.</p>
Zone Cabling	<p>Data Link Any serial data communications transmission path between two devices.</p>
Patch Panels Copper Patch Cords & Punchdowns	<p>Data Link Layer The layer of the OSI model that assembles messages and coordinates their flow through bridges.</p> <p>Data Network Any network of interconnected devices constructed for, and used for, the transfer of data between the devices.</p>
Fiber Connectors Enclosures & Patch Cords	<p>Data Rate A measure of transmission speed. Normally specified in bits per second.</p> <p>Data Stream The flow of individual data bits being transmitted through a communications channel to accomplish the transfer of information.</p>
Racks & Cable Management	<p>Data Transfer Rate The average flow per unit time of information from source to destination. The rate may be measured in terms of bits, bytes, blocks, frames, packets, etc., per second, minute, hour, etc.</p>
Grounding & Bonding	<p>Data/Voice Multiplexor (DVM) A device used to combine voice and data signals on the same transmission line.</p>
Fiber Routing	<p>Decibel (dB) A unit of measure of relative power. The unit used to describe levels of attenuation.</p> <p>Demarcation Point The point that defines the boundary for the end of the customer premises and the beginning of the public network.</p>
Surface Raceway	<p>Digital Signal A signal that is transmitted in binary code. The data is encoded into a series of bits (0,1) transmitted across the cable and deciphered at the receiver.</p>
Labelling & Administration	<p>Distributed Processing The positioning of interconnected computers such that the application based "work to be done" is performed at the best physical and/or functional points throughout a network.</p>
Cable Ties & Accessories	<p>Drop An available service point. Often used to describe the wiring (in a network) which is unique to a particular user.</p> <p>Drop Cable In local area network technology the cable used to connect a device to interface to the backbone network.</p>
Supplementary Technical Information	<p>Effective Bandwidth The maximum bit transmission rate through a specific medium.</p>
Glossary & Index	<p>EIA/TIA 568-B A standard for commercial building wiring. Its purpose is to provide a generic telecommunications wiring system to support multi-product, multi-vendor installations. Topics covered include: media, topology, cable length & performance, installation practices, and lab and field testing.</p>

Electromagnetic Interference (EMI)

Electromagnetic energy, which leaks from/into, any transmission medium that causes unwanted signals on the cable, device, or equipment.

Encryption

The mathematical process whereby the data in a message is modified to protect it from access to anyone other than the intended receiver.

Enterprise Networking

Information access in a multi vendor environment between a corporation's internal resources and suppliers, customers and other strategic partners.

Entrance Facility

The point which public and private network service cables enter a building and are terminated in an entrance room or space.

Equal Level Far End Crosstalk (ELFEXT)

A measure of unwanted signal coupling between pairs of a UTP cable measured at the end opposite the signal transmitter, relative to the received signal, accounts for the attenuation of the signal across the cable.

Equipment Room (Telecommunications)

An environmentally controlled centralized space for telecommunications equipment that usually houses a main or intermediate cross-connect.

Error Control

The facilities within a transmission system or network which ensure the reliable transfer of data.

Error Correction

The mechanism used to correct detected errors in a transmission. Correction is normally achieved by retransmissions of data.

Error Detection

The process whereby transmission errors are detected by using simple parity checks or more complex cyclic redundancy checks.

Ethernet

The LAN method developed by Xerox, DEC, and Intel. Uses the CSMA/CD physical access method. Originally in 1979, special 50 ohm co-axial cable and 10 million bit per second digital transmission was specified. Over the years it has evolved to Gigabit transmissions over UTP and optical fiber. Specified under the auspices of IEEE 802.3 committee.

Extended LAN

A local area network, which has had its dimensions, extended by the use of bridges.

Facsimile (FAX)

A process of transmitting text, graphics, etc via communications lines to a remote point where a hard copy is reproduced. Transmission may be Analog or Digital.

Far-end Cross Talk (FEXT)

A measure of unwanted signal coupling between pairs of a UTP cable measured at the end opposite the signal transmitter.

Federal Communications Commission (FCC)

A board of five individuals appointed by the President of the United States and charged with the task of regulating (for the public good) communications within the U.S.

System Overview	
Modules	
Ultimate ID System & Work Area	<p>Fiber Data Distribution Interface (FDDI) An interface to a Fiber Optic Distribution Bus which utilizes the IEEE 802.8 specifications.</p> <p>Fiber Loss The energy loss in a light signal caused by transmission through a fiber optic medium.</p>
Zone Cabling	<p>Fiber Optics A transmission medium which is constructed using fine glass fibers and through which information (data) is transferred using light waves created by a laser or light emitting diode.</p>
Patch Panels Copper Patch Cords & Punchdowns	<p>File Server A device in a LAN (or any other network) which services the filing needs of other computers, where network information is stored and retrieved.</p>
Fiber Connectors Enclosures & Patch Cords	<p>Fire Stop A device or material that is installed in architectural barriers to prevent passage of flame, smoke, water, or gases through the rated barrier.</p> <p>Floor Distributor International expression for horizontal cross-connect.</p>
Racks & Cable Management	<p>Frame A data unit that contains data and control information to transfer data between devices on a network and is defined by the data link layer (point to point) protocol.</p>
Grounding & Bonding	<p>Frame Relay A service transfers data link layer transmission frames from defined source to defined destination.</p>
Fiber Routing	<p>Frequency The rate, in Hertz, at which a signal pattern is repeated.</p> <p>Frequency Band A specified range of available frequencies.</p>
Surface Raceway	<p>Full Duplex Transmission (FDX) Bi-directional transmission. Transmission in both directions at the same time.</p>
Labeling & Administration	<p>Fusion Splice A method of splicing optical fibers together by applying heat, usually from a laser, to melt and fuse the ends of the fibers together to form a permanent bond.</p> <p>Gateway The hardware or software products, which create, access from one TOTAL environment to another. (The term is often used to describe a device that interconnects networks at ANY level.)</p>
Cable Ties & Accessories	<p>Gigabit Ethernet A carrier sense multiple access with collision detection LAN standard developed by the IEEE 802 committee that operates at a data rate up to 1 gigabit per second.</p>
Supplementary Technical Information	<p>Gender (Connector) Connectors are assigned gender to describe their physical type. Connectors which have pins are considered to be male and those that have sockets are considered to be female.</p>
Glossary & Index	<p>Graded Index Fiber An optical fiber design in which the refractive index of the core is lower on the outer layer of the core and gradually increases as it moves through the layers to the center of the core. This allows the light to travel faster on the outer layers of the core than in the center. This reduces modal dispersion and increases the fiber bandwidth.</p>

Ground

A circuit connection to the earth.

Half Duplex (HDX)

The process whereby a device can receive or transmit but never do both at the same time.

Hard Wired

Describes a connection between two or more devices, which is direct and permanent.

Header

The controlling information in a transmission frame, which precedes the data, field. May be abbreviated to HDR.

Hertz

A measure of frequency. The same as cycles per second.

Horizontal Cabling

The cabling and components that extend from the horizontal cross-connect in the Telecommunications Room to the termination point at the Work Area outlet.

Horizontal Cross-connect

A termination point, such as a patch panel or punch down block, located in the Telecommunications Room that allows for equipment and backbone cabling to be connected to horizontal cabling with patch cords or jumper wires. Sometimes referred to as Floor Distributor.

Hub

A device from which a number of transmission links radiate. The network so formed has the same configuration as a star topology.

Hybrid Network

- 1) A network that combines analog and digital Signaling.
- 2) A network that combines local and global connection.
- 3) A network which consists of more than one architecture.
- 4.) Any combination of the previous definitions.

Identifier

An item of information that links a specific element of the telecommunications infrastructure with its corresponding record.

IEEE (IEEE)

Institute of Electrical and Electronic Engineers. A United States professional membership organization active in the creation and promotion and support of specifications and standards. IEEE Computer Society. 5855 Naples Plaza, Suite 301, Long Beach, CA 90803.

IEEE 802.3

The specification for the physical layer in a LAN, which uses CSMA/CD as it's access method, a bus configuration and baseband transmission. Based on original DIX Ethernet specifications.

IEEE 802.5

The specification for the physical layer in a LAN which uses token passing as it's access method, a ring configuration and (normally) baseband transmission. Used in IBM's implementation of ring technology.

IEEE 802.6

The specification for a Metropolitan area network.

IEEE 802.8

The specification for a fiber distribution bus using token passing as its access method.

System Overview	
Modules	
Ultimate ID System & Work Area	<p>Impedance The combined effect of the electrical resistance, capacitance and inductance of a transmission medium. Expressed in ohms.</p> <p>Infrastructure (Telecommunications) The Telecommunications components, excluding the equipment, that together provides the fundamental support for the distribution of all information within a building or campus.</p>
Zone Cabling	<p>Insertion Loss Loss resulting from the insertion of a device such as a coupler, connector, or splice in a transmission line.</p>
Patch Panels Copper Patch Cords & Punchdowns	<p>Integrated Service Digital Network (ISDN) A type of network which transfers all information from source to destination in a digital form. The network is generally formed using a combination of circuit and packet switched facilities.</p>
Fiber Connectors Enclosures & Patch Cords	<p>Inter Exchange Carrier 1. (IEC) Any common carrier who is licensed by either the FCC of a state utility commission to carry transmissions between "local" telephone areas. Examples, currently, are AT&T Long Lines, MCI, US Sprint etc. 2. (IXC) Same as 1.</p>
Racks & Cable Management	<p>Interbuilding Backbone A backbone cabling system providing communications between more than one building.</p> <p>Interconnection A connection scheme that provides for connecting of a cable to another cable or to an equipment cable without utilizing patch cords or jumper wires.</p>
Grounding & Bonding	<p>Intermediate Cross-connect The connection point between a backbone cable extending from the Main Cross-connect and the backbone cable extending from the horizontal cross-connect. Sometimes referred to as the Building Distributor.</p>
Fiber Routing	<p>Intrabuilding Backbone A backbone cabling system providing communications within a building.</p>
Surface Raceway	<p>Interference Noise or other distortion during the transmission of data which may cause errors.</p> <p>Internetwork A single logical network formed by connecting two or more dissimilar networks.</p>
Labeling & Administration	<p>Interoperability The process whereby computational devices can operate interactively with each other across a network without data conversion or human intervention.</p>
Cable Ties & Accessories	<p>Jitter Temporary effects caused by instability in transmission systems.</p> <p>Jumper A cable or wire used to establish a temporary circuit connection.</p>
Supplementary Technical Information	<p>Laser Light Amplification by Stimulated Emission of Radiation. A device which emits light at a single frequency with all radiation "in phase". The emitted light may also be referred to as "coherent" light.</p>
Glossary & Index	<p>Light Emitting Diode (LED) A solid state device which radiates light at a single frequency. Abbreviated to LED.</p>

Link

A transmission path that includes the cable and connecting hardware. Does not include equipment, work area cables, equipment cables, or patch cables.

Local Area Network (LAN)

An interconnecting network where distances are relatively short, speeds are high and reliability is excellent.

Local Exchange Carrier (LEC)

The local regulated provider of public switched telecommunication services.

Longitudinal Conversion Loss (LCL)

A measure of circuit balance. A measure of the differential voltage induced on a conductor pair as a result of subjecting that pair to longitudinal voltage.

Loose Tube Fiber

An optical fiber cable construction in which the buffer coating of the fiber is loosely placed around the fiber and filled with water blocking gel. Designed for outside plant use.

Loss

Reduction of transmission signal strength.

Main Cross-connect

A connection point between entrance cables, equipment cables, interbuilding backbone cables, and intrabuilding backbone cables. Sometimes referred to as Campus Distributor.

Manchester Encodation

A transmission encodation scheme where binary ones are represented by positive transitions within a time period and binary zeros are represented by negative transitions. This scheme is useful in high speed transmission over short distance and is utilized in DIX Ethernet, IEEE 802.3, and many other baseband LAN implementations.

Medium

Any physical substance which is used for the transmission of signals.

Megabit

One million bits.

Megabyte

One "computer million" (1.048576 million) eight bit bytes.

Megahertz

One million hertz or one million cycles per second.

Mode

A path of light.

Modem

A device which is used to process a digital signal so that it can be transmitted on an analog transmission line. The word is derive from a contraction of the words modulator and demodulator. Modems may use amplitude, frequency, or phase shift, modulation.

Modular Jack

A female telecommunications interface connector as specified in IEC 603-7 and FCC Part 68 Subpart F.

Modular Plug

A male telecommunications interface connector as specified in IEC 603-7 and FCC Part 68 Subpart F.

System Overview	
Modules	
Ultimate ID System & Work Area	<p>Multimedia Applications that communicate information by more than one means or cabling media.</p> <p>Multimode Optical Fiber An optical fiber that allows many bound modes to propagate in the core.</p>
Zone Cabling	<p>Multiplexing The combining of two or more communications channels into a common, high-capacity channel from which the original signals may be individually recovered.</p>
Patch Panels Copper Patch Cords & Punchdowns	<p>Multi-user Telecommunications Outlet Assembly A grouping in one location of several telecommunications outlet/connectors.</p> <p>Multi-user Telecommunications Outlet Assembly (MUTOA) A group of telecommunications outlets located in one housing assembly to provide a common Work Area outlet for up to twelve work areas in open office applications. Work Area equipment cords are routed from the MUTOA directly to the Work Area equipment.</p>
Fiber Connectors Enclosures & Patch Cords	<p>Near End Crosstalk (NEXT) Unwanted coupling of signals between pairs of twisted pair cables measured at the source (near) end of a transmission link.</p>
Racks & Cable Management	<p>Network An interconnected group of devices utilizing a method or architecture, which eliminates the need for having every device directly, connected to every other device.</p>
Grounding & Bonding	<p>Network Interface Card (NIC) A circuit card that is installed in equipment to provide the means to connect the equipment to the network communications channel.</p>
Fiber Routing	<p>Noise Portions of a signal in a transmission medium, which are the result of external influences and are NOT part of the original transmission.</p>
Surface Raceway	<p>Nominal Velocity of Propagation (NVP) The coefficient used to determine the speed of transmission through a medium relative to the speed of light.</p> <p>Open Office An office area with division provided by furniture, movable partitions, or other temporary needs rather than building permanent structural walls.</p>
Labeling & Administration	<p>Optical Fiber Any glass or plastic fiber that is manufacture for the transmission of light signals.</p>
Cable Ties & Accessories	<p>OSI Model Seven-layer model developed by the International Organization for Standardization (ISO) to create an open systems networking environment.</p>
Supplementary Technical Information	<p>Outlet (Telecommunications) A fixed connecting device where the horizontal cable is terminated and provides an interface to the work area cabling.</p> <p>Packet A predefined unit of data, which is moved from source to destination through a specific packet, switched network.</p>
Glossary & Index	<p>Patch Cord A length of cable with connectors on both ends, used to join telecommunications links at a cross-connect.</p>

Patch Panel

Connecting hardware that provides a means to connect horizontal or backbone cables to an arrangement of fixed connectors that may be accessed using patch cords or equipment cords to form cross connections or interconnections.

Pathway

The physical vertical and horizontal route of the communications cable in a structured cabling system.

Peripheral Device

Equipment that is connected external to and controlled by a computer. Examples are printers, CD Rom drives, scanners, and modems.

Permanent Link

Cabling and connecting hardware that extends from the horizontal cross connect to the work area outlet. May not exceed 90 meters (295 feet).

Physical Layer

The layer in a layered network architecture, such as the ISO OSI seven level structure for example, which is responsible for the actual transmission of bits across a medium. Typical specifications include RS 232-C and the physical layer signaling specified in IEEE 802.3. May also be referred to as the physical level.

Plenum

A compartment or chamber to which one or more air ducts are connected and that forms part of the air distribution system.

Power Sum

Used to specify a combination crosstalk from multiple sources. In a four-pair cable, it is a combination of crosstalk from the other three pairs.

Premises Wiring

A generic term that includes interbuilding, intrabuilding, and horizontal cabling that is owned by a single tenant or landlord.

Private Branch Exchange (PBX)

A device that allows private local voice and other voice related services to be switched over a network.

Propagation Delay

The amount of time that passes between when a signal is transmitted and when it is received at the opposite end of the cabling.

Protocol

A set of rules and procedures governing the formatting of messages and the timing of their exchange between devices on a network covering addressing, transmitting, receiving, and verifying.

Pull Strength

The rated strength of a cable and of the force that can be exerted on it during installation.

Raceway

Any enclosed channel designed for housing wires, cables, or busbar.

Receiver (Optical)

An optoelectronic circuit that converts an optical signal to an electrical serial logic signal.

Record

A collection of detailed information related to a specific element of the telecommunications infrastructure.

System Overview	
Modules	
Ultimate ID System & Work Area	<p>Redundant Circuits Transmission paths that are available if the "primary" circuit fails or is otherwise unavailable.</p> <p>Regional Bell Operating Company (RBOC) Each of the seven regional based holding companies which were created by the break-up of the AT&T monopoly and are responsible for all local telephone services and operate in a variety of other communications related markets.</p>
Zone Cabling	<p>Report A presentation of a collection of information from the various records.</p>
Patch Panels Copper Patch Cords & Punchdowns	<p>Return Loss A measure of the signal reflections occurring along a channel or link and is related to various electrical mismatches along the cabling, expressed in dB.</p> <p>Ring Topology The network structure whereby connection between devices is accomplished by arranging them in a physical ring. This is the structure used by IBM in its token passing ring implementation of local area network technology.</p>
Fiber Connectors Enclosures & Patch Cords	<p>Router A devices which performs routing functions. Such a device may alter physical, data link and network level protocols to effect interconnection between dissimilar network types.</p>
Racks & Cable Management	<p>Service Provider (SP) A company that provides connection to a part of the Internet, or other services such as application programming interfaces.</p>
Grounding & Bonding	<p>Screened Twisted Pair Cabling (ScTP) A balanced twisted pair cable surrounded by a metallic braid, foil, or both and bound in a single cable sheath.</p>
Fiber Routing	<p>Shielded Twisted Pair (STP) A cable surrounded by a metallic braid, foil, or both and bound in a single plastic sheath containing balanced twisted pair conductors that are individually shielded.</p> <p>Signal to Noise Ratio The ratio between the detected signal power and noise in a receiver, expressed in dB.</p>
Surface Raceway	<p>Simplex Transmission Unidirectional transmission. One direction only.</p>
Labelling & Administration	<p>Single Mode Fiber A fiber optic transmission medium designed to carry light waves at a single frequency.</p> <p>Skew The time delay between any two transmitted signals.</p>
Cable Ties & Accessories	<p>Software A set of computer instructions stored in computer memory and used to direct the CPU to execute a specific task(s).</p>
Supplementary Technical Information	<p>Space (Telecommunications) An area used for housing the installation and termination of telecommunications equipment and cable, e.g., common equipment rooms, equipment rooms, common telecommunications rooms, telecommunications rooms, work areas, and maintenance holes/handholes.</p>
Glossary & Index	<p>Standard A collection of requirements that encompasses properties of components and systems that are intended to ensure an accepted degree of functionality and longevity.</p>

Star Topology

The network structure where all devices are connected through a single switching point.

Step Index Optical Fiber

A fiber, which has a constant refractive index at its core but a different refractive index as the outer cladding, is approached. This design minimizes losses at the core/cladding interface and is preferred for single mode long distance transmission.

Switching

The process whereby a connection is transferred from one circuit to another by interconnecting the two circuits.

Synchronous Optical Network (Sonet)

A Bellcore optical transmission network operating at T3 speeds.

T1 Carrier

A specialized digital (AT&T) transmission system operating at a total speed of 1.544 Million bits per second using specific time division multiplexing techniques. A T1 carrier can support 24 voice circuits.

T3 Carrier

A specialized digital (AT&T) transmission system operating at a total speed of 44.736 million bits per second using specific time division multiplexing techniques. A T3 carrier can support 672 voice circuits.

Telecommunications

A general term for voice and/or data communication, which is implemented using coded signals over a medium.

Telecommunications Industry Association (TIA)

An organization that sets standards for cabling, pathways, spaces, grounding, bonding, administration, field testing and other aspects of the telecommunications industry.

Telecommunications Room

An enclosed space for housing telecommunications equipment, cable terminations, and cross-connect cabling used to serve work areas on the same floor. Typical location for the horizontal cross-connect.

Throughput

The amount of data transferred between two points in a given amount of time.

Tight Buffer

A cable construction which provides each optical fiber with a tight buffer of protective thermoplastic coating to a diameter of 900 microns.

Time Domain Reflectometer (TDR)

A device that sends a signal down a cable, and then measures the magnitude and amount of time required for the reflection of that signal to return. Often used to measure the length of cables and to locate faults.

Token Ring

A LAN configuration wherein a physical ring structure is used and device access is controlled by a rotating token.

Topology

The physical arrangement of devices in a network regardless of their logical relationships. Examples are; star, ring, bus.

Transceiver

- 1) In the IEEE 802.3 sense the attachment device which connects the controller interface to the transmission cable. Under IEEE 802.3 this device contains the carrier sense logic, the transmit/receive logic and the collision detect logic.
- 2) Any device which performs and transmission and reception function.

Transients

Short duration transmission signals interruptions.

Transition Point

A location in the horizontal cabling subsystem where flat undercarpet cabling connects to round cabling.

System Overview	
Modules	
Ultimate ID System & Work Area	<p>Transmission The transfer of information from one point to another using one of many physical methods and one of many media.</p> <p>Transmission Medium Any material which is used to carry a representation (electrical, optical etc.) of information.</p>
Zone Cabling	<p>Unshielded Twisted Pair A twisted pair transmission medium, which has no outer shielding. While this reduces the noise elimination of the conductors it improves the maximum transmission speeds attainable.</p> <p>Virtual Circuit A connection, which "appears" and "performs" as if a physical connection exists between source and destination even if one does not.</p>
Patch Panels Copper Patch Cords & Punchdowns	<p>Virtual Network A network that is programmed, not hardwired, to meet a customers specifications. Created on as needed basis. May be referred to as Virtual Private Network (VPN).</p>
Fiber Connectors Enclosures & Patch Cords	<p>Wavelength Length of a sine wave measured from one point on a wave to the corresponding point on the next wave, such as from peak to peak. Wavelength of light is usually measured in nanometers.</p>
Racks & Cable Management	<p>Wavelength Division Multiplexing (WDM) Modulates a series of data streams using a different wavelength of light for each stream and simultaneously transports the multiple wavelengths over a single fiber. Increases the information carrying capacity of fiber optic transmission systems. Also referred to as Dense Wavelength Division Multiplexing (DWDM).</p>
Grounding & Bonding	<p>Work Area (WA) A building space where the occupants interact with telecommunications terminal equipment.</p>
Fiber Routing	
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Acronyms

AC	Alternating Current
A-D or A/D	Analog to Digital conversion
ACR	Attenuation to Crosstalk Ratio
ANSI	American National Standards Institute
ATM	Asynchronous Transfer Mode
AWG	American Wire Gauge
BAS	Building Automation Systems
DSL	Digital Subscriber Line
DTE	Data Terminal Equipment
EIA	Electronics Industry Association
ELFEXT	Equal Level Far End Crosstalk
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interference
EMT	Electrical Metallic Tubing
ESD	Electrostatic Discharge
FCC	Federal Communications System
FDDI	Fiber Distribution Data Interface
FDM	Frequency Division Multiplexing
FEXT	Far End Crosstalk
FOCIS	Fiber Optic Connector Interface Standard
FOTP	Fiber Optic Test Procedure
GHz	Gigahertz
Gnd	Ground
HVAC	Heating, Ventilation, Air Conditioning
Hz	Hertz
IBCS	Intelligent Building Cabling System

System Overview		
Modules		
Ultimate ID System & Work Area	IC	Intermediate Cross Connect
	IDC	Insulation Displacement Connector
	IEEE	Institute of Electrical and Electronic Engineers
Zone Cabling	ISDN	Integrated Services Digital Network
	ISO	International Organization for Standardization
Patch Panels Copper Patch Cords & Punchdowns	ITU	International Telecommunications Union
	LEC	Local Exchange Carrier
	LED	Light Emitting Diode
Fiber Connectors Enclosures & Patch Cords	MAC	Media Access Control Moves, Adds, and Changes
	MC	Main Cross-connect
Racks & Cable Management	MHz	Megahertz
	MM	Multimode
Grounding & Bonding	MUTO	Multi-user Telecommunications Outlet
	MUX	Multiplexer
Fiber Routing	NEXT	Near End Crosstalk
	NIC	Network Interface Card
Surface Raceway	NVP	Nominal Velocity of Propagation
	OEM	Original Equipment Manufacturer
Labeling & Administration	OSP	Outside Plant cable
	OTDR	Optical Time Delay Reflectometer
Cable Ties & Accessories	PBX	Private Branch Exchange
	PCM	Pulse Code Modulation
Supplementary Technical Information	POP	Point of Presence
	PVC	Polyvinyl Chloride
	RFI	Radio Frequency Interference
Glossary & Index	RFQ	Request for Quote
	ScTP	Screened Twisted Pair cable

SM	Singlemode
SNR	Signal to Noise Ratio
SONET	Synchronous Optical Network
SP	Service Provider
STP	Shielded Twisted Pair
TBB	Telecommunications Bonding Backbone
TDM	Time Division Multiplexing
TGB	Telecommunications Grounding Busbar
TIA	Telecommunications Industry Association
TMGB	Telecommunications Main Grounding Busbar
TR	Telecommunications Room
UL	Underwriters Laboratory
UPS	Uninterruptible Power Supply
USOC	Universal Service Order Code
VCSEL	Vertical Cavity Surface Emitting Laser
WDM	Wave Division Multiplexing
WP	Waterproof Outlet

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SP2-3L-C	H24	T45TIW	J37	T70SDB-X	J14,J28,J72
SP2-4-C	H24	T45TRI	J37	T70TDB	J25
SP2-4/0-Q	H24	T45WC2IW	J37	T70TDC	J25
SP2-4/0L-Q	H24	T45WCIW	J37	T70TDT	J25
SP2-4L-C	H24	T45WR-X	J37	T70TIW	J24
SP2-500-12	H24	T50F-C	L26	T70TRCIW	J25
SP2-500L-12	H24	T50F-C1	L26	T70TRI	J25
SP2-7-C	H24	T50F-C10	L26	T70TRIW	J25
SP2-7L-C	H24	T50F-C16	L26	T70WC2IW	J25
SP2-8-C	H24	T50F-C2	L26	T70WCIW	J25
SP2-8L-C	H24	T50F-C3	L26	T70WM40TRIW	J25

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WCM35OCIW	J5
WCM35TI	J5
WCM35TIW	J5
WCM35TRIW	J5
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WMCPEPPBL	D4
WMCPESGBL	D4
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WMPFS23	G17
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PANDUIT® PAN-NET® Performance Guarantee

All PANDUIT PAN-NET non-consumable products have a 20 year performance guarantee. When installed per TIA or ISO/IEC standards, the PANDUIT PAN-NET Network Cabling System will operate the application(s) which the system was designed to support.

Applications may include, but are not limited to:

- 10/100/1000 Mbps Ethernet (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 155, 622, 1.25 Gbps ATM
- SONET
- FDDI/CDDI
- IBM System 3x-AS/400
- Appletalk
- ISDN

In order to qualify for the guarantee, the structured cabling system must be installed per the following:

1. Meet all TIA/EIA commercial building wiring standards.
2. PANDUIT categorized product must be used in conjunction with an equivalent or higher Category UL or ETL verified cable.
3. PANDUIT products must be installed per appropriate PANDUIT instruction sheets.

Note: All networks shall be installed per applicable standards and manufacturer's guidelines.

If any PANDUIT PAN-NET product fails to perform as stated above, PANDUIT will provide new components at no charge.

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PANDUIT is committed to maintaining a leadership position in the Network Connectivity Market. As new technologies evolve, PANDUIT will continue to develop state-of-the-art components which will be added to the PAN-NET product line.