

# Providing a Brighter Solution™

A system is defined as a group of units, combined to form a whole, which operates in unison. Intermatic takes this definition one step further and combines complete communication with total connectivity. Instead of just putting forward a massive listing of part numbers, Intermatic provides its customers with a new approach to energy controls that combines six categories of products into singular solutions – helping everyone from distributors and electrical contractors to architects and designers provide their customers with smarter and more reliable energy control systems.

WEATHERPROOF





PROFESSIONAL LIGHTING



POOL & SPA CONTROLS

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SURGE PROTECTION



**CONSUMER PRODUCTS** 

### Icon Legend:

Underwriters Laboratories Listed

**.7**2.



UL Tested to Both UL & CSA Standards

Knockouts

CSA Tested to Both CSA & UL Standards

Temperature

CSA Tested to UL Standards

Shipping Weight

Canadian Standards Association Approved





### Draduct Indov

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AL501	
AL502DS	2
AL502TA	3
AI 508V 6	3
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	3
AL550DS	3
AL550TA	n
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CA3000 CA3500 CA3750 .56, 57 .56, 57 .56, 57 .56, 57 .56, 57 .56, 57 .56, 57 .56, 57 .56, 57 CASOOO CA5100 . . CA5500BR CA600 CA7100 CA9000 CL1 . . . CL111R CL115 . . CL191 . . CI 191K .134 .134 .134 **CL280** CL305P CL4 ... CL501 . CL 503TA .135 .135 .135 CL507 . . CL508 . . **CL509** CL635P CL635RK .135 CL635RS .135 .135 .135 CL711 . . . CL801BC8 CL802BSB6 CL802P7 CL8041 . .136 CL9 . . . . . CL905 . . . . CL905K . . . CL9S .136 CP150HPS CS110P CS110TA CS120TA 132 CS140K CS14P CS17K .132 .132 CS230R CS240 132 CS3300B CS508K .132 .133 CS508P CS508S CS7AC1 CS7CT4 133 CS7E1 ... DD150HPS .133 DD175MV .65 DT121C DT17C DT27C F1010 .51 E1020 E1120 .51 .51 F1220 .51 EH40 E1200 .50 E1200W EI210 . .50

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Intermatic's headquarters and main manufacturing facilities in Spring Grove, Illinois... making quality products since 1891.

Visit us on our website at www.intermatic.com for the most up to date information on Intermatic products.

C8845

C8865 C8866

E1205W EI205LA

EI215LA

EI210

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FI215

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IG1201F20113	LD622	ML11183138	PG100-240-3HLD 93	SM2200*347 SM2200*447	T40000R4
IG1201LH	LD622L	ML121RT138 ML200RT138	PG100-480-3DLL 93 PG100-480-3Y 93	SM2200*447 SM2200*547	T40003RT378
IG1240RC	LT10	ML200RTW138	PG1500-208-3Y 104	SM2200*647	T40004R5
IG1300-2T-1C116	LT13	ML300RTW138	PG1500-240-28 104	SM2200*7 47	T40004RT1
IG1300-4T-2C116	LT13N	MI 44T 138	PG1500-480-3D 104	CM2200*8 47	T40004RT3
IG141	LT13S	ML600TW	PG1500-480-3Y 104	SM4400*147	T40404R5
IG141T	LT406	ML60704138	PG20-208-3Y 102	SM4400*1047	T51211BC
IG143	LT406N	WL60/2138	PG20-240-2S	SM4400*11	T51311BC
IG143T	LT8K	ML60722138	PG20-240-3HLD 102	SM4400*1247	17401B
IG1866A114	LT9	ML60TW	PG20-480-3D 102	SM4400*1347	T7402B
IG1C	LV103	ML881138	PG20-480-3Y 102	SM4400*1447	T7801B
IG1C3R	LV108	ML900TW138	PG3000-208-3Y 96	SM4400*1647	T7802B
IG1CM118	LV181	ML90401	PG3000-240-28 96	SM4400*247 SM4400*347	18805P101C31
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IG2401ECS99	LZ11101RB139	MZ951145	PG3500-600-3D 94	SM6600*247 SM6600*347	UG28A2401S112
IG2401EH	LZ11101V140	MZ952145	PG3500-600-3Y 94	SM6600*347	UG28A2403D
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IG2401LH	LZ11771HK 140 LZ13RP4	NA401	PG4001-240-28 92	SM6600*547	UG28A4803Y
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IG9638S55114	LZ308	P7101ME83	PG5001-480-3Y 90	T102P26	WL070HPSPC66
IGFLUSH MOUNT KIT .118	LZ310	P7102ME83	PG5001-600-3D 90	T102R26	WL070MH 64
K112124	LZ312	P7103ME83	PG5001-600-3Y90	T103	WI 100HPS
K112224	LZ313	PA11486	PG60-208-3Y 97	T103P26	WL100MH 64
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K1222	LZ3W	PAV215C	PG60-240-3HLD 97	T10426	WL150MH 64
K4021C	LZ406	PAV220	PG60-480-3DLL 97	T10404R	WL175MH
K4022	LZ407	PAV220C	PG60-480-3Y	T104-20	WL250HPS64
K4024	LZ413	PAV315	PG80-208-3Y	T104P	WL250MH
K402721	LZ414	PAV320	PG80-240-3HLD	T10526	WL400MH 64
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K4121M22	LZ422WBR140	PE153F	PJB4175	T12404R	WP1000HGC19
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LC4536C	ML10781138	PG100-240-2S	SM2200*247	T40000R	

# Grounded in a tradition of innovation and service

In 1891, Intermatic began producing portable fare registers for streetcars. Over the next 115 years, Intermatic developed a huge variety of products that have increased the safety, productivity and convenience of homes and businesses around the world.

# Driven by new technology and the needs of our customers

Today, Intermatic is the leading supplier of high quality energy control products for industrial and commercial markets — moving into the 21st century with an extensive line of technology-driven products backed by an unparalleled level of customer service.

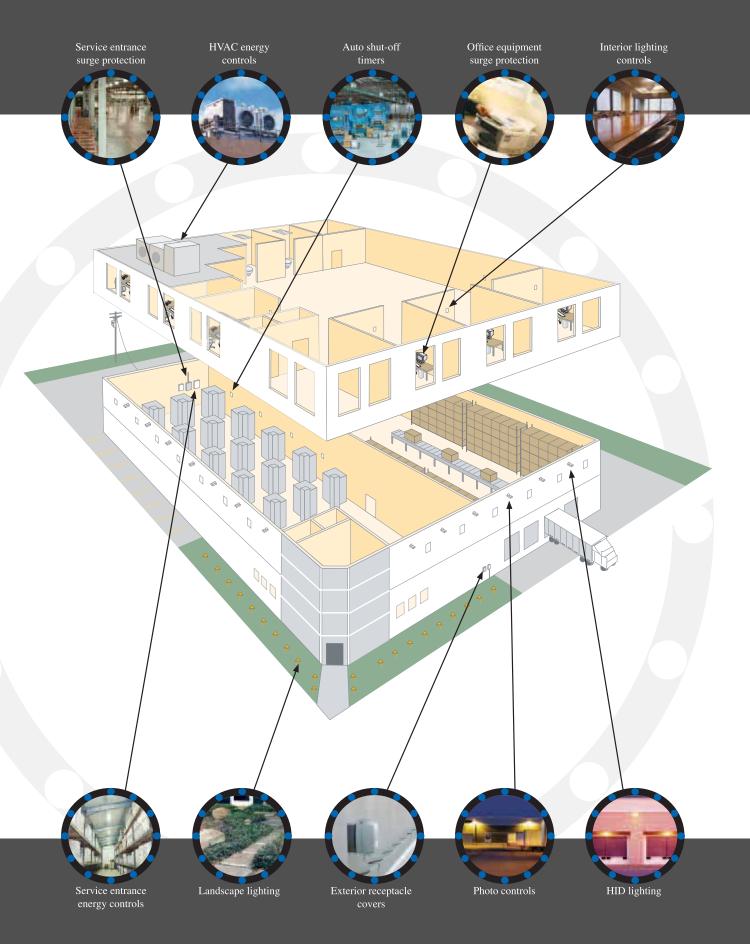
# Based on improving convenience and safety

Intermatic is committed to making life productive, convenient and safe through the innovative use of electrical current. Continual product innovation, creative marketing and effective brand management makes Intermatic the most pioneering company within the wholesale distribution channel.

# Your total energy management solution

Through our family of products, Intermatic provides a total solution for your energy management issues. Through our family of expert sales, training and technical personnel, Intermatic provides complete sales and marketing support.





# **Commercial and Industrial Applications**

Intermatic has everything contractors, maintenance personnel and plant or facility managers need to keep their factories, centers and businesses running at their peak.

# **Intermatic Commercial and Industrial Applications**

- Interior and exterior lighting control
- Parking lot lighting control
- Mechanical time switches
- Electronic time switches
- Service entrance and panelboard surge protection
- Point-of-use surge protection
- Exterior receptacle protection
- Landscape lighting

Intermatic has a full line of commercial and industrial products needed to reduce electricity and labor costs and decrease power quality problems. Small investments in Intermatic energy controls and surge protection can:

- Increase energy savings
- Increase up-time
- Increase productivity
- · Increase data retention

Whether it's part of a manufacturing, distribution or office environment, Intermatic offers a broad line of commercially related products for:

- · High amperage/voltage machinery
- Heavy duty pumps
- Motors
- Variable frequency drives
- HVAC systems

In addition to a broad range of products, Intermatic provides complete bid specifications and wiring diagrams for every model and each product is backed up by the industry's best sales support and technical assistance team.

Z-WAYL<sup>™</sup> For more than a century, Intermatic has been a premier supplier of commercial and industrial products and has developed a reputation for providing its customers with innovative products that far exceed their expectations. The new InTouch Wireless Controls<sup>™</sup> line of home controls will serve as the primary link to the Intermatic System. Brought to life with Z-Wave<sup>TM</sup> technology, InTouch Wireless Controls<sup>™</sup> will help our customers grow their business within the booming home controls industry and will help home and business owners achieve higher levels of convenience, security and safety.

# **Residential Applications**

Whether you're an electrical contractor, homebuilder or homeowner, Intermatic is the only name you need to know for increased levels of convenience, safety, security and electronic protection.

### **Intermatic Residential Applications**

- Interior and exterior lighting control
- Whole home energy controls
- Whole home surge protection
- Home office and home theatre surge protection
- Pool and spa controls
- Landscape lighting
- Exterior receptacle protection
- Security floodlighting

With electricity costs on the rise and power quality problems at an all time high, Intermatic has a full line of residential products needed to combat these issues. A minor investment in energy controls and surge protection can prove to have major long-term cost savings and home appliance/electronic preservation. Intermatic residential products provide homeowners with multiple benefits, including:

- Whole home energy savings
- Lighting automation to increase the beauty, Safety and security of your home
- Surge protection for home appliances and electronics
- Landscape lighting to accent your home and property
- Pool and spa controls for improved cost savings and convenience

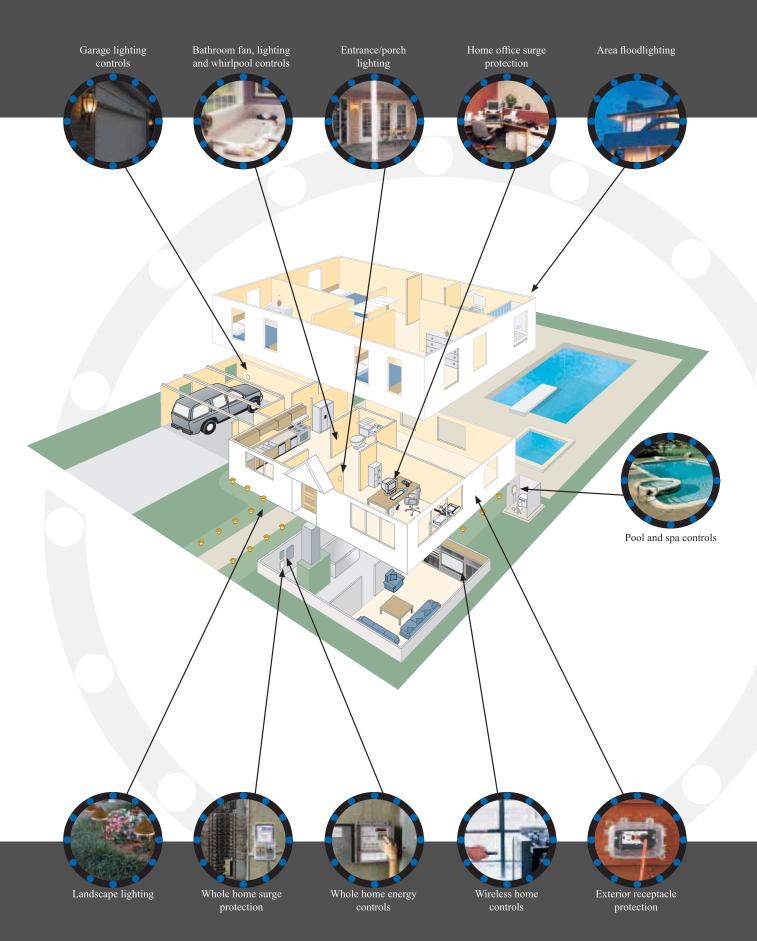
Intermatic provides the home building industry with the most comprehensive offering of residential energy control and surge protection products. Intermatic also offers weatherproof products, pool and spa controls and low voltage landscape lighting. Intermatic products can be used through a home and the surrounding property, including:

- Garages and outbuildings
- Landscaping
- Entrances
- Kitchens and bathrooms
- · Home offices and entertainment centers
- · Pool and spas

Intermatic has developed two marketing programs to benefit those within the residential market:

- Intermatic Authorized Installer
   Program helps contractors up-sell during
   a service call.
- **InGenius Homebuilder Program** helps builders of new homes increase their add-on opportunities.

**Z-WAY** The future of the digital home is closer than we realize. Intermatic has a growing list of home control products that work together to enhance the safety, security and convenience of our complex and eventful lives. Intermatic has the knowledge, ability and resources to revolutionize home automation.



# Intermatic provides you with everything you need in order to draw, secure and maintain steady sales growth

Opportunities include:

- Advanced Sales Support
- Sales Incentives
- · Sales Training
- Sales Programs and Promotions
- Merchandising
- Interactive Web Site

# The Industry's Best Sales Support

Our distributor sales training includes ways to best merchandise and up-sell our wide array of products. Training takes place at local, regional and national trade shows. In addition, Intermatic holds regular counter days and product "lunch and learns," hosted by our direct sales personnel and sales agents, on location at local distributors.

Call **800-391-4555** for toll-free technical support and assistance with programming, installation or application questions. Intermatic also works with engineers and specifiers and holds seminars for them on InTouch Wireless Controls™, surge supression products and Next Generation time switches. Contact your local Intermatic sales representative or visit **www.intermatic.com**.

Intermatic's order service support is set up to allow distributors and OEM customers to receive product when, where and how they want it. Drop shipments, multi-location shipments, blanket orders, express shipping and ship complete orders are complemented by a variety of other order support services. Our highly trained customer service representatives can also provide you with support for technical questions and applications by calling **815-675-7000** between 8:00 a.m. and 4:30 p.m. CST, Monday through Friday.



# Intermatic Merchandising/Support

### **Customized Sales Incentives**

Regular sales spiffs for sales and counter personnel are designed to motivate the seller and push product at every level. Customized sales support literature can also be designed for local made-to-order programs.

### **Comprehensive Sales Training**

Providing you with the industry's best electrical products is step one. Helping you get those products into the hands of your customer is step two. The best way to make that happen is to supply you with specific information on how to sell and up-sell within our five categories of products. On site or at the counter, Intermatic gives you the answers to frequently asked questions and provides you with good, better and best scenarios and competitive comparisons in order to help you help your customers make the best buying decision.

# **Motivational Sales Programs and Promotions**

Intermatic is a total business partner and backs the sale of its products with innovative programs and promotions at every level, with support provided to distributors, contractors and home builders

- The Power-Plus Program for distributors increases their margins and inventory turns while lowering their transaction costs.
- The Authorized Installer Program helps contractors add to their bottom line by up-selling and installing additional products during service calls.
- The InGenius Program helps home builders sell upgrades at model homes and in the sales office.

Intermatic also provides a regular selection of promotions that include shipper/displays, product introductions, contractor bonus packs and Intermatic branded merchandise.

### **Thought-provoking Merchandising**

Eighty percent of walk-in customers will buy additional products, if merchandising is done effectively. Sixty-five percent of all purchases are affected by displays and visual graphics. That is why Intermatic has invested heavily in merchandising resources in order to boost your return on investment. Intermatic's Industrial Merchandising program provides you with the support and information you need to achieve maximum results, increase impulse purchases and build effective displays.

Merchandising items include:

- · Plan-o-grams
- · Header cards
- Floor, wall and counter displays
- Self shipper displays
- P.O.P. displays
- Countermats
- Banners
- Spec and cross reference CDs
- Product demo and literature CDs

### **Interactive Web Site Marketing**

Intermatic's e-marketing program utilizes the Internet to provide fast, efficient, 24/7 communications with both distributors and end users. Intermatic's Web site includes:

- Authorized distributor locator
- Authorized installer locator
- Downloadable specifications, wiring diagrams and instruction manuals
- E-mail technical support
- General catalog (downloadable PDF)
- Warranty registration

In the future, a variety of enhancements will be implemented that will include improved navigation, product search by category or model number, competitive product search, ordering of product literature and an events/news page. Also, a new secured-access distributor intranet will provide additional product education and sales training, distributor spec sheets, pricing and promotions, a job-quoting tool and a discussion board.

For more information on Intermatic sales support, programs and promotions, contact your local Intermatic sales representative, visit **www.intermatic.com** or call **815-675-7000** between 8:00 a.m. and 4:30 p.m. CST, Monday through Friday.

# Five reasons to keep your eye on Intermatic

# Superior New Product Developments

Intermatic is able to leverage its global and technological resources to provide its customers with products full of innovative features and benefits and maintain its first-to-market stature.

# World-class Global Manufacturing

The Intermatic family is made up of a global workforce, who through lean manufacturing methods, produce the world's finest energy control products.

# **Excellent Supply Chain Management**

Regardless of its substantial growth, Intermatic has remained flexible and responsive and completely customer focused. At Intermatic, intensive quality control and on-time deliveries are customary.

# Complete Sales and Marketing Support

Over the course of the year, Intermatic helps promote its products through a variety of sales incentives, promotions and merchandising campaigns. We also offer distributor training and technical support at every level.

# Superior Enterprise Information Systems

Flexible, Web-based information gives us a competitive advantage and real-time information keeps us up to date to help take better care of our customers.





# Weatherproof Receptacle Covers with Patented Insert Design











These NEMA 3R receptacle covers ensure compliance with 2005 NEC Article 406.8 (B) (1) which requires that 15 and 20 ampere, 125 and 250 volt receptacles installed in a wet location have an enclosure that is weatherproof whether or not the attachment plug cap is inserted. They also meet the 1999 NEC Article 410-57(b) and are designed to meet the 1999 NEC Article 210-60(b), which requires that receptacles installed behind beds in hotels and motels be protected with a suitable guard.

All covers are shipped with gasket, mounting screws, base and cover assembly and patented inserts. The Flexi-Guard series provides inserts for a variety of applications; 16 for the WP3100/WP1100 single gang series and 70 for the WP1200 two gang series. The single gang Flexi-Guard models are all designed to mount horizontally or vertically. The patented insert design ensures flexibility in the field by simply inserting the proper insert into the base and cover assembly. The two gang Flexi-Guard models utilize six "split" inserts which create virtually any dual device combination, as well as providing additional flexibility because the inserts can be rotated 90, 180 or 270 degrees. This provides coverage for horizontally or vertically mounted devices as well as "left hand" or "right hand" applications without removing and switching the two installed devices.

The "jumbo covers" WP1150C, WP1250C, WP1050 and WP1050G provide protection for a single large cord set (up to 3/4" dia.) for portable spa heaters and other heavy duty applications. A lockable hasp is provided on selected models. The hasp accepts up to .315" (8 mm) diameter shank.

#### **NEMA 3R**

Meets UL and CSA Cold Impact Testing at -60°F (-51°C)

Patented: U.S. Patent #5 280 135 U.S. Design Pat. #342233 Canadian Patent #2 073 932 Other Patents Pending

### **Waterproof Cover Applications**

- Vending Machines
- RV Connectors
- Sprinkling Controls
- Car Lot Lighting
- Car Washes
- Food Preparation
- Hotel Applications
- Amusement Equipment
- Seasonal Lighting
- Drinking FountainsGate Controls
- Low Voltage Lighting
- Plant Grow Lighting
  - Scoreboard Controls
- Ventilating Fans
- Remote Power Needs
- Athletic Field Lighting
- Athletic Field Lighting
- Process Start Up
- Meat ProcessingPlant Watering
- Landscape Lighting
- Portable Spas
- Score Board Controls
- Equipment
- Engine Block Heaters
- Remote Feeders
- Outdoor Signs
- Portable Marquee
- Bug ZappersSeptic Lift Pumps
- Holiday Lighting
- Irrigation Pumps

### **Specifications**

All covers for flushmount, surface mount or FS junction box mounting.

Cover – Clear (gray or white on selected models) UV stabilized polycarbonate with two cord outlets 1/2" (12.7 mm) Wide by 9/16" (14.2 mm) High. Models WP1150C, WP1250C and WP1050 one cord outlet 3/4" (19.1 mm) Wide by 1-5/16" (33.3 mm) High.

Mounting Base and Inserts - Black UV stabilized polycarbonate.

Gasket - Neoprene - 1/8" (4.8 mm) thick with slits for mounting screws.

**Shipping Weight - WP3100C - .45 lbs. (0.20 kg)** 

WP1100C / WP1000HC - .38 lbs. (0.17 kg)

WP1110C / WP1010HC - .41 lbs. (0.19 kg)

WP1150C / WP1230C / WP1030C - .75 lbs. (0.34 kg)

WP1220C / WP1020C - .72 lbs. (0.33 kg) WP1250C / WP1050 - .9 lbs. (0.41 kg)





UL514D

C22.2-42.1

# Weatherproof Receptacle Covers with Patented Insert Design



### WP3100C - Vertical/Horizontal Cover

### Flexi-Guard Weatherproof While-In-Use Cover

### **Product Features**

- Complies with 2005 NEC® Article 406.8(B)(1): "15 and 20 Ampere, 125 and 250V receptacles installed in wet locations shall have an enclosure that is weatherproof whether or not the attachment plug cap is inserted"
- Easy to remove cord set exit ports

### **APPLICATIONS**

Provides an attractive, code compliant solution for protecting while-in-use outdoor receptacles.

### **SPECIFICATIONS**

- Mounts Vertically or Horizontally
- Hidden Hinges
- Three patented inserts for GFCI, Duplex, Toggle and Single Receptacles
- Inserts include keyhole slots for 16 installation configurations
- · Pre-adhered gasket
- · Heavy-duty polycarbonate construction
- Clear Cover
- Gray Base
- Meets requirements for cold impact testing at -60° F (-51°C)
- Lockable hasp for 1/8" shank lock

Warranty: Limited 1-year warranty





1.00 lbs







GFCI DEVICE SHOWN NOT INCLUDED



Single Gang Flexi-Guard
† Converts to toggle, 1-3/8", 1-5/8", 1-3/4", or 2-1/8" diameter round



# Weatherproof Receptacle Covers with Patented Insert Design

GFCI DEVICE SHOWN NOT INCLUDED



Single Gang Flexi-Guard † Converts to toggle, 1-3/8", 1-5/8", 1-3/4", or 2-1/8" diameter round



GFCI DEVICE SHOWN NOT INCLUDED



Single Gang Flexi-Guard † Converts to toggle, 1-3/8", 1-5/8", 1-3/4", or 2-1/8" diameter round

## WP1000RC - Vertical Cover WP1000HRC - Horizontal Cover

### **Recessed Weatherproof While-In-Use Cover Product Features**

- Complies with 2005 NEC® Article 406.8(B)(1)
- Heavy duty, polycarbonate cover for long lasting durability

#### APPLICATIONS

Provides an attractive, code compliant solution for protecting while-in-use outdoor receptacles.

### **SPECIFICATIONS**

- Device installs recessed in wall for a flush finish for Siding, Stucco or
- · Removable siding flange provides clear finish for all siding types
- Patented single gang inserts for GFCI, duplex, single receptacles, toggle switch and blank
- Heavy Duty Gasket ensures protection from the elements
- Recessed Sleeve adjusts to ensure lowest profile installation in every application
- Outlet box offers mounting options for stud, block, brick or cut-in
- Cord exit easily handles two 12/3 cord sets
- · Handles romex or conduit installations
- Wider access to device for easy cord set installation
- Heavy duty, UV resistant, polycarbonate constructed cover

Warranty: Limited 1-year warranty

# WP2000 Flexi-Guard Outlet Post

### Weatherproof While-In-Use Cover PRODUCT FEATURES

- Complies with 2005 NEC® Article 406.8(B)(1)
- . Heavy duty PVC construction for long lasting durability

### **APPLICATIONS**

Provides a new, code compliant solution for supplying power to gardens and other out-of-the-way areas. A remotely mounted energy saving photo control and/or timer also available to activate area lighting

### **SPECIFICATIONS**

- · Patented single gang inserts for GFCI, duplex, single receptacles, toggle switch and blank
- Provisions for installing mechanical or digital timers to control area lighting:
  - PB912M10R: 24 hour, 120 Volt mechanical timer allows for 2 ON/OFF daily cycles
  - PB313K: 24 hour, 120 Volt electronic timer allows for 8 ON/OFF daily cycles (Timers sold separately)
- Provisions for fixed-position, stem-mounting and stem & swivel mounting photo controls to control area lighting
- All ports accept 1/2",3/4", or 1" PVC conduit (adapters included)
- Base includes mounting holes and template for optional concrete/pavement mounting
- Cover includes lockable hasp

Warranty: Limited-1 year warranty

















# Weatherproof Receptacle Covers



### Die Cast

These heavy duty die cast receptacle covers ensure compliance with the National Electrical Code (NEC). These models offer the same features as the plastic models but are manufactured of heavy duty cast metal for severe applications such as schools and commercial buildings. The two gang model WP1030MC includes inserts for double gang duplex and GFCI requirements. This patented insert design uses the same inserts as all WP1000 series weatherproof covers and provides flexibility in the field by selecting and inserting the proper insert. For other applications see insert listing below.

All models are recommended for 14 gauge or lighter cord sets. A lockable hasp is provided (lock not included). The hasp accepts up to .315" (8 mm) diameter shank.

### **Specifications**

Cover - Gray die cast metal

**Mounting Base** – Gray die cast metal with cord outlets 1" (25.4 mm) Wide by 5/8" (15.9 mm) High; one for models WP1010MC and WP1010HMC and two for model WP1030MC.

Inserts - Black UV stabilized polycarbonate.

Gasket - Neoprene 1/8" (3.2 cm) thick with slits for mounting screws.

Shipping Weight - WP1010MC - 0.8 lbs. (0.36 kg)

WP1010HMC - 0.9 lbs. (0.41 kg)

WP1030MC - 1.1 lbs. (0.5 kg)

All models comply with 2005 NEC Article 250.146 which provides direct mounting of wiring devices to the switch box.

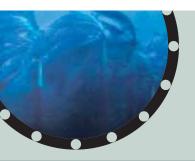




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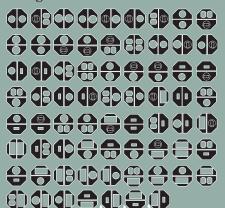
# Now you can handle even more with less.

#### **Inserts**

Inserts fit single gang models and two gang models of clear, gray or die cast design. The 2-gang inserts for models WP1020, WP1030, WP1020GC, WP1030GC, WP1030MC and WP1050 can be mounted at any angle 90, 180 or 270 degrees from that shown. Additional hardware, if required, and special 2-gang gasket is packaged with 2-gang (WP200 series) inserts.

### 16 Configurations for Single Gang WP1100C Series

### 70 Configurations for Double Gang WP1200C Series



### Additional inserts available for Flexi-Guard or Guardian Series



Gang **GFCI** Toggle

Round 1-3/8" 2-5/32"

1-5/8 2-21/32"

Single Gang Flexi-Guard **WP17** 

† Converts to toggle, 1-3/8", 1-5/8" 1-3/4" or 2-1/8" diameter round

Two Gang Flexi-Guard **WP217** 

‡ Converts to toggle 1-3/8" or 1-5/8" diameter round Intermatic Flexi-Guard Weatherproof Receptacle Covers let you handle even more configurations with fewer units. The unique patented inserts and covers allow you to keep even less inventory than before, and cover more jobs out in the field.

Our single gang models handle both vertical or horizontal applications, just by changing the hinge points. Our two-gang models include snap-together, rotating inserts that create combinations for almost every application. With these new Flexi-Guard models, now more than ever, Intermatic is the best NEC code solution under the

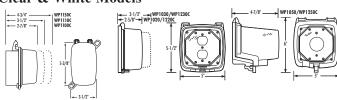
### **New Features**

Single gang plastic models feature pre-adhered gaskets and all covers feature keyhole slots on inserts for the quickest installation available

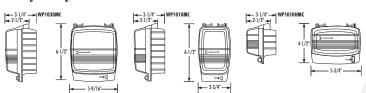
### Clear & Opaque Gray Models



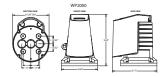
### Clear & White Models



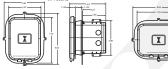
### **Heavy Duty Die Cast Models**

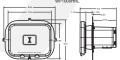


### **Outlet Post**



### Recessed





Inset Design US Patent #5 280 135 Canadian Patent #2073932

# Now you can handle even more with less.



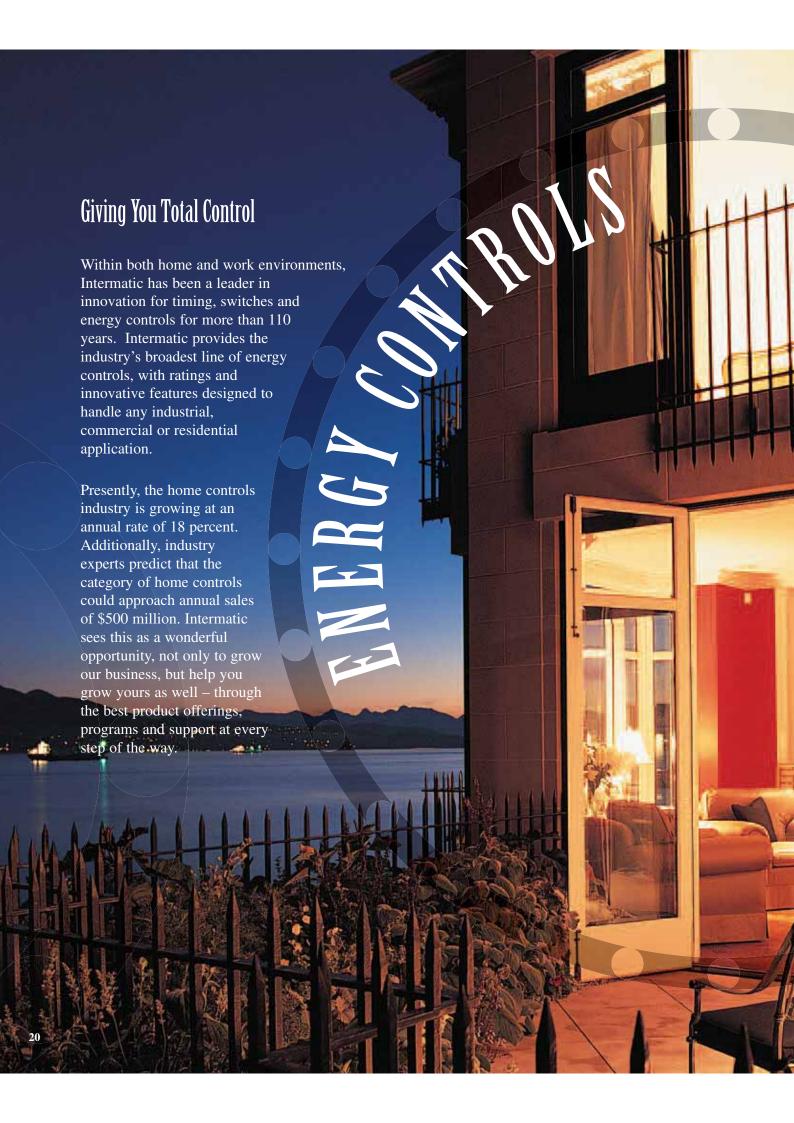
	Patented Single Gang Vertical or Horizontal	Two Gang with Patented Snap-Together Inserts	Patented Die Cast Metal	Patented Two Gang Fixed	Patented Single Gang Fixed
				575	
2-1/4" Standard Depth		Clear WP1220C		Clear WP1020C	Clear WP1000C Vertical WP100HC Horizontal*  Gray WP1000GC Vertical WP1000HGC Horizontal*
2-3/4" Standard Depth	Clear* White* WP1100WC				
3-1/8" Standard Depth		Clear WP1230C	Grey Die Cast WP1010MC Vertical Single Gang WP1030MC Two Gang WP1010HMC Horizontal Single Gang	Clear WP1030C	Clear WP1010C Vertical WP1010HC Horizontal*
3-5/8" Standard Depth	Clear* White* WP1110WC				
4-3/4" Standard Depth	Clear* WP1150C Vertical or Horizontal	Clear* WP1250C		Clear* WP1050	
	WP1100 Series Includes 3 Patented Inserts	WP1200 Series Includes 6 Snap Together Patented Inserts	WP1000MC Series Includes these Patented Inserts	WP1000 Series Includes these Inserts	WP1000 Series Includes these Inserts
			Two Gang  Single Gang	80	





- \* With lockable hasp
- † Converts to toggle, 1-3/8", 1-5/8", 1-3/4" or 2-1/8" diameter round ‡ Converts to toggle, 1-3/8" or 1-5/8" diameter round

Insert Design US Patent #5 280 135 Canadian Patent #2073932



# **Photo Controls**



A full line of thermal type photo controls and relay type photo controls provide "dusk-to-dawn" lighting control. The thermal type controls feature a cadmium sulfide photocell and sonic welded polycarbonate case and lens to seal out moisture. The design utilizes a dual temperature compensating bimetal and a metal film resistor for reliable long life operation over ambient temperature extremes. The thermal type photo controls provide a delay action which eliminates loads switching OFF due to car headlights, lightning, etc.

### **Applications**

- Parking Lot Lighting Billboard Lighting
- Area Lighting
- Municipal Lighting
- Car Lot Lighting
- · Security Lighting
- Roadway Lighting Street Lighting



K4321C

III 773A









# Fixed Position Mounting, Thermal Type — K4000C Series

Designed to fit into a standard outlet box, a post lamp or wall packs. Model K4321 includes a weatherproof wall plate with neoprene gasket. The UL listing for this model applies to the entire plate assembly when properly mounted to an approved outdoor junction box. All other models are equipped with a 3/8"-18 threaded side mounting, locking nut and washer gasket. All models with 9" leads.

Size - Plate - 4-1/2" (11.4 cm) High, 2-3/4" (7.0 cm) Wide; Mechanism - 1-5/16" (3.3 cm) W, 1-13/16" (4.6 cm) L, 13/16" (2.1 cm) D.

Model #	Watts Tungsten	VA Ballast	Amps Tungsten	Amps Ballast	Volts	
K4021C	1800	1000	15	8.3	120	
K4023C	3100-4150	1700-2300	15	8.3	208-277	
K4024	3100	1700	15	8.3	208	
K4022	3600	2000	15	8.3	240	
K4033	4150	2300	15	8.3	277	
K4027***	5205	2880	15	8.3	347	
K4035*	7200	4000	15	8.3	480	
K4321C**	1800	1000	15	8.3	120	

Note: Wall plate with gasket available for other models; order No. K4001.

- \* Not UL listed or CSA certified
- \* Wall plate included.

#### **Specifications**

Unless noted otherwise, the specifications listed below apply to K4000, K4100, K4200, K4300 & K4500 Series.

Size - See individual models. Most hard wired models supplied with 6" leads. K4000 fixed position models have 9" leads.

Switch Rating - See chart for each series. Note that the ballast wattage rating is based upon a 50% power

Activation - 1 - 5 FC "ON"; 3 - 15 FC "OFF" (without shield on models with shield.)

Color - Gray

Shipping Weight - See individual models.









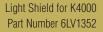


5 Year Warranty



K4021C







<sup>\*\*\*</sup> Certified by CSA to US and Canadian Standards.









# Stem Mounting, Thermal Type - K4100 Series

This series features single and multivolt models in both stem mount and stem mount with a swivel. All models are equipped with a light level slide adjustment and provide a 1/2"-14 threaded stem. A washer gasket and locking nut are packaged with each photo control. Models with "M" suffix have heavy duty die cast housings. Model K4251 and K4253 have photo eye located on top and are designed for spot/flood type fixtures.

Size - K4100 Series - 1-9/16" (4.0 cm) Square, 3" (7.6 cm) Long;

K4200 Series - 1/2"-14 threaded swivel, 1-9/16" (4.0 cm) Square, 5-1/2" (14.0 cm) Long;

Model K4236 - 5-3/4" (14.6 cm) High, 3" (7.6 cm) Diameter.

Model #	<b>Watts Tungsten</b>	VA Ballast	Amps Tungsten	Amps Ballast	Volts	
K4121C	1800	1000	15	8.3	120	
K4121M	2000	1800	16.7	15	120	
K4421M	1800	1000	15	8.3	120	
K4124	3100	1700	15	8.3	208	
K4122	3600	2000	15	8.3	240	
K4123C	3100-4150	1700-2300	15	8.3	208-277	
K4423M***	3100-4150	1700-2300	15	8.3	208-277	
K4133	4150	2300	15	8.3	277	
K4127****	5205	2880	15	8.3	347	
K4135*	7200	4000	15	8.3	480	
K4136M	2000-4625	1800	16.7	8.6	120 or 277	
**K4141C*	3000	3000	25	25	120	

<sup>\*</sup> Not UL listed or CSA certified.

<sup>\*\*\*\*</sup> Certified by CSA to US and Canadian Standards.









5 Year Warranty

Stem & Swivel Mounting, Thermal Type - K4200 Series

Model #	Watts Tungsten	VA Ballast	Amps Tungsten	Amps Ballast	Volts
K4221C	1800	1000	15	8.3	120
K4224	3100	1700	15	8.3	208
K4222	3600	2000	15	8.3	240
K4223C	3100-4150	1700-2300	15	8.3	208-277
K4233	4100	2300	15	8.3	277
K4227***	5205	2880	15	8.3	347
K4235*	7200	4000	15	8.3	480
K4236C	1800-4150	1000-2300	15	8.3	120 or 208-277
K4251***	1800	1000	15	8.3	120
K4253***	3100-4150	1700-2300	15	8.3	208-277

<sup>\*</sup> Not UL listed or CSA certified.

<sup>\*\*\*</sup>Certified by CSA to US and Canadian Standards.









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C22.2-177

<sup>1</sup> vear warrantv.

Model K4423M replaces K4123M

# **Photo Controls**



# Locking-Type Mounting, Thermal Type — K4500 Series

Easy to install; just plug in and twist. This series is equipped with standard 3-prong NEMA locking-type plug connections. Incorporates K4000 style thermal switch for reliable long life performance. Complies with ANSI

Size - 3-3/4" (9.5 cm) High, 3" (7.6 cm) Diameter.

Model #	<b>Watts Tungsten</b>	VA Ballast	Amps Tungsten	Amps Ballast	Volts	
K4521	1800	1000	15	8.3	120	
K4524**	3100	1700	15	8.3	208	
K4522	3600	2000	15	8.3	240	
K4533**	4100	2300	15	8.3	277	
K4535**	7200	4000	15	8.3	480	

<sup>\*</sup> Ballast rating meets UL testing at 50% power factor.

<sup>\*\*</sup> Not CSA certified.









Warranty

LB38068 .34 ka

**Accessories for Locking-Type Controls** 

Pole Bracket Adapter - Model K122 - 105 to 480 Volts; for use with K1200, K4500 or LC4500 Series locking-type controls. K121 - receptacle only, K121-30 receptacle with 30 inch leads. Shorting Cap - Model K4500 - 105 to 480 Volts; replaces locking-type photo control to complete circuit.





# Low Cost Locking-Type, Thermal Type — LC4500 Series

The LC4500 Series provides low cost reliable control for street lighting and other applications requiring a NEMA twist and lock type plug connection. An integral housing and lens, with UV protection, keeps moisture out and ensures long life. Complies with ANSI C136.10.

Activation - .5 FC minimum "ON"; 15 FC maximum "OFF".

Size - 2-3/4" (7.0 cm) High, 3" (7.6 cm.) Diameter.

Color - Translucent with color coded band for voltage identification.

Model #	Watts Tungsten	VA Ballast	Volts	
LC4521C	1000	1000	120	
LC4523	1700-2300	1700-2300	208-277	
LC4527	5205	2880	347	
LC4535**	1000	4000	480	
LC4536C	1000-2300	1000-2300	120 or 208-277	
LC4521LA	1000	1000	120	
LC4523LA	1700-2300	1700-2300	208-277	
LC4535LA**	1000	4000	480	
LC4536LAC	1000-2300	1000-2300	120 or 208-277	

LA Models equipped with 2400 volt open type spark gap arrester.

<sup>\*\*</sup> Not CSA certified













3 Year







<sup>\*</sup> Ballast rating meets UL testing at 50% power factor.







K1200





LC2000

# Relay Type Photo Controls With Adjustable Stem or Locking-Type Mounting — K1100, K1200 Series

This series features "instant ON/OFF switching" in two mounting types. Complies with ANSI C136.10.

Series K1100 - Equipped with an adjustable stem for mounting at almost any angle up to 80 degrees. Models equipped with three 6" color coded leads.

Series K1200 - Easy to install using NEMA plug-in locking type connection. Models are equipped with 2400 Volt open type spark gap arrester and standard 3-prong connector.

Size - K1100 Series - 5-3/4" (14.6 cm) High, 3" (7.6 cm) Diameter; 1/2"-14 NPT Stem;

**K1200 Series –** 3-3/4" (9.5 cm) High, 3" (7.6 cm) Diameter.

Activation - 1 FC "ON"; 3 - 10 FC "OFF"

Model #	Watts Tungsten	VA Ballast	Volts	
K1121	1800	1800	105-130	
K1122	1800	1800	210-240	
K1221	1800	1800	105-130	
K1222	1800	1800	210-240	

<sup>\*</sup> Ballast rating meets UL testing at 50% power factor.











Low Cost Relay Type Photo Control with Locking-Type Mounting —— LC2000

Features "Instant ON/OFF Switching". Complies with ANSI C136.10

Size - 2-3/16" (5.6 cm) High, 3-3/16" (8.1 cm) Diameter Activation - 1 to 3 FC "ON". Turn OFF to turn ON ratio is 4.

Model #	Watts Tungsten	VA Ballast	Volts	
LC2000	1000	1800	110-277	

Includes 110 Joule MOV Surge Arrester.









3 Year Warranty

# **Photo Controls**



# Solid State Photo Controls - Locking Type

The K4536SS Photo Control is electronically calibrated and provides reliable control of street lighting and other applications requiring a NEMA plug-in locking type connection. Complies with ANSI C136.10.

The K4536SST is the same as above, but provides a fixed "OFF" time adjustable in half hour increments from 6:00 PM to 2:00 AM and a fixed "ON" time adjustable in half hour increments from 4:00 AM to 8:00 AM. The fixed times are based on a real-time clock that sets itself based on the occurrence of sunrise and sunset.

Operation - Instant "ON", 10 Second Delay "OFF"

**Size -** same as LC4500 Series **Color -** same as LC4500 Series

Model #	Watts Tungsten	VA Ballast	Volts	
K4536SS	1000	1800	105-305	
K4536SST	1000	1800	105-305	

Includes 430 Joule MOV Surge Arrestor.







UL773A 3/4 lb

kg

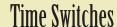
5 Year Warranty



K4536SS



K4536SST















-40°F (-40°C) to 130°F

# 24 Hour Dial

**T100 Series** – Designed for industrial, commercial and residential applications. Highest HP ratings in the industry for loads up to 40 amps, providing direct 24 hr. control of most loads. Provides 1 to 12 "ON/OFF" operations each day with minimum ON/OFF times of 1 hour. All models equipped with one "ON" and one "OFF" tripper.

### **Applications**

- Indoor/Outdoor Lighting
- Signs
- Filters
- Air Conditioning
- Electric Fences
- Heating/Ventilating Systems
- Fans
- Conveyers

- Post Lanterns
- Pool Heaters
- Hydrochlorinators
- Blowers
- Pumps
- Music and Signal Systems
- Poultry Foggers

### **Specifications**

Case – Drawn steel 7-3/4" (19.7 cm) H, 5" (12.7 cm) W, 3" (7.6 cm) D in gray finish. Spring hasp, with hole for lock, holds permanently attached, side hinged door closed. Three mounting holes on back plus handy box mounting holes.

Knockouts - Combination 1/2"-3/4" nominal knockouts, one on back and each side of case and two on bottom

**Optional Enclosures –** See Time Switch Cases page for optional enclosures.

Special Voltages and Cycles - See Time Switch Motors page for available motors.

**Switch Rating** – Each Pole; 40 Amp Resistive, 120-480 VAC; 40 Amp Tungsten, inductive or 1000 VA pilot duty, 120-277 VAC; 2 HP (24 FLA) 120 VAC; 5 HP (28 FLA) 240 VAC single phase; 7-1/2 HP (28 FLA) 208 VAC three phase; 10 HP (28 FLA) 240 VAC three phase.

Model # w/See-Thru Cover	Model # Plastic Case	Model # Steel NEMA 3R Case	Switch	Clock Motor Volts 60 Hz	AMPS (per pole)	HP Rating
T101PCD82	T101P	T101R	SPST	125	40	2
_	T102P	T102R	SPST	208-277	40	5
T103PCD82	T103P	T103R	DPST	125	40	2
T104PCD82	T104P	T104R	DPST	208-277	40	5
_			SPST	125	40	2
_	_		1NO / 1NC**	125	40	2
_			1NO / 1NC**	208-277	40	5
	w/See-Thru Cover T101PCD82 — T103PCD82	w/See-Thru Cover         Plastic Case           T101PCD82         T101P           —         T102P           T103PCD82         T103P	w/See-Thru Cover         Plastic Case         NEMA 3R Case           T101PCD82         T101P         T101R           —         T102P         T102R           T103PCD82         T103P         T103R	W/See-Thru Cover         Plastic Case         NEMA 3R Case         Switch           T101PCD82         T101P         T101R         SPST           —         T102P         T102R         SPST           T103PCD82         T103P         T103R         DPST           T104PCD82         T104P         T104R         DPST           —         —         SPST           —         1NO / 1NC**	W/See-Thru Cover         Plastic Case         NEMA 3R Case         Switch         Voits 60 Hz           T101PCD82         T101P         T101R         SPST         125           —         T102P         T102R         SPST         208-277           T103PCD82         T103P         T103R         DPST         125           T104PCD82         T104P         T104R         DPST         208-277           —         —         SPST         125           —         1N0 / 1NC**         125	w/See-Thru Cover         Plastic Case         NEMA 3R Case         Switch         Volts 60 Hz         (per pole)           T101PCD82         T101P         T101R         SPST         125         40           —         T102P         T102R         SPST         208-277         40           T103PCD82         T103P         T103R         DPST         125         40           T104PCD82         T104P         T104R         DPST         208-277         40           —         -         SPST         125         40           —         1N0 / 1NC**         125         40

<sup>\*</sup> Separate clock motor terminals for switching circuits not on line voltage.

For additional trippers (1 ON / 1 OFF per pack), order No. 156T1978A

<sup>\*\*</sup> Can be wired as SPDT.

<sup>†</sup> Only available in NEMA 3R case.

# **Time Switches**



# 24 Hr. w/Skipper, Optional Carryover

**T170 Series** – Same features as the T100 Series plus a skipper option to omit operation on selected days. Cutout screws are inserted in the dial for days which operation is to be skipped. Provides up to 10 ON/OFF operations each day with min. ON/OFF operations of 1 hour and max. ON time of 20 hours. Includes one CUTOUT tripper (also serves as an "ON" tripper), one "OFF" tripper and three skipping screws.

T170CR Series - Same features as the T170 Series Skipper models plus a min. of 16 hours carryover for maintaining preset schedules during power failures. Carryover automatically rewinds when power resumes; only one hour of rewinding time required for every two hours of power outage. 4PST models are ideal for 3-phase load control.

### **Specifications**

Case - T170 Series same as T100 except as noted under Optional Enclosures. T170CR only in NEMA 3R drawn steel 9-3/8" (23.8 cm) H, 5-1/2" (14.0 cm) W, 3-5/8" (9.2 cm) D in gray finish. Hasp, with hole for lock, holds permanently attached, side-hinged door closed. Bracket plus two holes on back below switch for mounting. Separate grounding terminal.

Optional Enclosures - 4 pole and 2 NO/ 2 NC models not available in standard or plastic case; only in NEMA 3R steel case. T170CR only available in steel NEMA 3R enclosure.

Special Voltages and Cycles - See Time Switch Motors for available motors. Contact factory for availability of time switch with 50 cycle or other voltages.

Special Voltages and Cycles - Same as T100 Series.

Switch Rating - Same as T100 Series.

Model #	Model # Steel NEMA 3R Case	Switch	Clock Motor Volts 60 Hz	AMPS (per pole)	HP Rating
T171		SPST	125	40	2
T172		SPST	208-277	40	5
T173	T173R	DPST	125	40	2
T174	T174R	DPST	208-277	40	5
T175		1N0 / 1NC**	125	40	2
T176		1NO / 1NC**	208-277	40	5
T1471BR*		4PST	125	40	2
T1472BR*		4PST	208-277	40	5
T1475BR*		4PST	480	40	5
T1871BR*		2N0 / 2NC***	125	40	2
T171CR		SPST	125	40	2
T173CR		DPST	125	40	2
T174CR		DPST	208-277	40	5
T1471BCR*		4PST	125	40	2

<sup>\*</sup> Separate clock motor terminals for switching circuits not on line voltage.

For additional trippers (1 ON / 1 OFF / 1 CUTOUT per pack), order No. 156T1948A. For additional skipper screws (3 skipper screws per pack), order No. 156T3085A.





LR3730 UL916





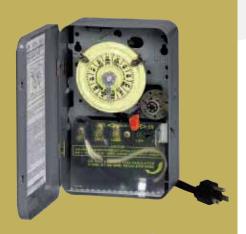


<sup>\*\*</sup> Can be wired as SPDT.

<sup>\*\*\*</sup> Can be wired as DPDT.









120V - 15A Receptacle







22.2-177 LR3730

-40°F (-40°C) to

# **Portable**

This portable cord connected time switch performs all the functions of the T100 and T170 series time switches plus it is completely portable eliminating the need for wiring. Supplied complete with 6' grounded cord set and receptacle installed.

### **Applications (Indoor Only)**

- Photo Copiers
- Portable Lights
- Signs Space Heaters

- Electric Water Heaters
- Space Healers
   Poultry Foggers

- Ventilating Systems
- Motors Pumps
- Blowers

### **Specifications**

Case – Drawn steel 7-3/4" (19.7 cm) High, 5" (12.7 cm) Wide, 3" (7.6 cm) Deep in gray finish. Spring hasp, with hole for lock, holds permanently attached, side hinged door closed. Three mounting holes on back plus handy box mounting holes.

**Knockouts** – Not applicable; prewired cord and receptacle.

Switch Rating - 15 Amp Resistive, 15 Amp Tungsten; 345 VA pilot duty (15 FLA), 125 VAC.

Model #	Switch	Clock Motor Volts 60 Hz	Amps (per pole)	Skipper Wheel	
P171-30	SPST	125	15	Yes	

For additional trippers Model Series P170 (1 ON/1 OFF/1 CUTOUT per pack), order No. 156T1948A.

# **Time Switches**



# 24 Hour Dial w/Skipper

The T1900 Supervisor Series provides up to 96 operations (48 ON /48 OFF) every 24 hours. This series provides operations with minimum ON / OFF times of 15 minutes. Trippers slide in and out of dial for fast accurate setting. The skipper models provide for operations to be omitted on selected day(s) of the week. Model with carryover provides a minimum of 16 hours of carryover to maintain preset schedules within +/- 2% accuracy during power failures. The carryover automatically rewinds when power resumes. Only one hour is required to rewind the carryover for each two hours of power outage.

### **Applications**

- Oil Well Pumps • Filters
- Poultry Feeders
- Recorded Music
  - lusic Silo Unloaders ment • Poultry Foggers

- Blowers
- Heaters
   Process Equipment
- Dairy EquipmentFans

### **Specifications**

**Case** – Drawn steel 7-3/4" (19.7 cm) High, 5" (12.7 cm) Wide, 3" (7.6 cm) Deep in gray finish. Spring hasp, with hole for lock, holds permanently attached, side hinged door closed. Three mounting holes on back plus handy box mounting holes.

**Knockouts –** Combination 1/2"-3/4" nominal knockouts, one on back and each side of case and two on bottom

Optional Enclosures - See Time Switch Cases for optional enclosures.

Special Voltages and Cycles - See Time Switch Motors for available motors.

Switch Rating - 20 Amp maximum 125, 208-277 and 480 VAC; 1/2 HP, 125 VAC; 1 HP, 250 VAC

Power Input – 5 Watts maximum.

Model #	MODEL # STEEL NEMA 3R CASE	Switch	Clock Motor Volts 60 Hz	Spring Wound Carryover	Amps	Skipper Wheel
T1905		SPDT	125	No	20	No
T1905E		SPDT	480	No	20	Yes
T1906		SPDT	208-277	No	20	No
T1975	T1975R	SPDT	125	No	20	Yes
T1976	T1976R	SPDT	208-277	No	20	Yes
T1975E	T1975ER	SPDT	480	No	20	Yes

For additional trippers (12 per pack), order No. 156T1950A.

Replacement Snap Switch 133T701A.









-40°F (-40°C to 130°I













2.2-177 2.75 lbs R3730 1.25 kg



# **Short Range Cycle Timer**

Short Range Cycle Timers provide repeat cycling for "ON" times. Ten combination "ON/OFF" trippers supplied with each switch.

### **Applications**

- · Ventilating Fans
- Spraying Equipment
- Livestock Feeders
- Poultry Fans

- Fogging EquipmentProcess Equipment
  - iment Poult
- Poultry Feeders
- Pumps
- Bulk Milk Coolers

### **Specifications**

Case - Same as T100 Series.

Knockouts - Same as T100 Series.

Optional Enclosures - Same as T100 Series.

Switch Rating - 20 Amp Resistive 125, 208-277 VAC; 1/2 HP, 125 VAC; 1 HP, 250 VAC

Model #	Switch	Clock Motor Volts 60 Hz	Dial Cycle	Tripper Actuating Time	Amps	
C8815	SPDT	125	10 Min.	5 Sec.	20	
C8835	SPDT	125	30 Min.	15 Sec.	20	
C8865	SPDT	125	1 Hr.	30 Sec.	20	
C8845	SPDT	125	4 Hr.	120 Sec.	20	
C8866	SPDT	250	1 Hr.	30 Sec.	20	

Note: The life of the switch contacts is affected by the size and type of the controlled load. The expected minimum life at 20 amps (resistive) load is 100,000 cycles.

Replacement Snap Switch 133T773A.

For additional trippers (12 trippers per pack), order No. 156T1950A.

# **Time Switches**



# Sprinkler/Irrigation Timer with 14-Day Skipper

These irrigation timers permit 1 to 60 "ON" operations every 24 hours. This series is designed for water metering in increments of 12 minutes to 20 hours - 45 minutes for maximum conservation of precious water resources. The 14-day skipper feature permits irrigation to be omitted on selected day(s) and also provides for "every other" day operation. The "ON/OFF/AUTOMATIC" switch allows shutdown during rainy days or extended watering during dry periods without disturbing the automatic cycle set on dial.

### **Applications**

- Multi-Station Hydro Indexing Valves
- Greenhouses
- Lawn Sprinkling Pumps

- Irrigation Control
- Feeders
- Drip Irrigation Systems

### **Specifications**

Case – Plastic NEMA 3R case. Cases include hanging bracket plus two mounting holes on back below switch for mounting.

**Knockouts** – Combination 1/2"-3/4" nominal knockouts, one on back and each side of case, and two on bottom.

#### Switch Rating -

T8805P101C - 15 Amps, 125 VAC, 1/2 HP, SPST.

**R8806P101C** – 25 Amps, 208-277 VAC, 2 HP, DPST relay. **R8815P101C** – 25 Amps, 120 VAC, 1-1/2 HP, DPST relay. **R8816P101C** – 25 Amps, 208-277 VAC, 3 HP, DPST relay.

T8845PV - 125 VAC, SPST, output 24 Volts - 20VA

Model #	Switch	Motor Voltage 60 Hz	Output Voltage 60 Hz	AMPS (per pole)	HP Rating
T8805P101C	SPST	125	_	15	1/2
R8806P101C	DPST	208-277	_	25	2
R8815P101C*	DPST	120	_	25	1-1/2
R8816P101C*	DPST	208-277	_	25	3
T8845PV**	SPST	125	24	20VA	_

<sup>\*</sup> Includes rain sensor input terminals- rain sensor not supplied.

For additional trippers (12 per pack), order No. 156T1950A.









3.75 lbs 1.7 kg

-40°F (-40°C) to 130°F

<sup>\*\*</sup> Includes 24 volt - 20 VA transformer.

















# Timing Control Center, 7-Day Dial with Carryover

This series provides photo control initiated / time switch terminated control. These time switches provide a different "ON/OFF" program each day of the week and a spring wound carryover. These time switches are recommended for applications where you need to turn a load "ON" at dusk and "OFF" at a preset time. The spring wound carryover provides a carryover of 16 hours minimum to maintain accurate load control even during power failure. When power resumes, the carryover automatically rewinds itself. Only 1 hour is required to rewind the carryover for each 2 hours of outage. The three models provide control of 1, 2 or 3 circuits. A light level adjustment is provided on the photo control. All models have single pole double throw switches and manual circuit by-pass switches.

Unit is designed to control the contactor control circuit only. It is not recommended for direct switching of tungsten, mercury vapor or similar loads.

### **Applications**

- Parking Lot Lighting Landscape Lighting
- · Billboard Lighting
- Entryway Lighting

- Storefront Lighting Stairway Lighting
- Car Lot Lighting
- Security Lighting

### **Specifications**

Case - Steel in gray finish 12-1/2" (31.7 cm) high, 8-1/4" (21.0 cm) wide, 4" (10.2 cm) deep. Indoor type with toggle action drawbolt and locking feature. Four mounting holes on back. Separate grounding terminal. Knockouts - Combination 1/2"-3/4" nominal knockouts, two on back one on each side and two on bottom. Also one 1" nominal on bottom center.

Optional Enclosures - None available.

Contact Rating - 15 Amp, 1/2 HP, 125/250 VAC; 420 VA pilot duty; 150 Watts Tungsten, 125 VAC (May also be used with 24 volt systems if wired in accordance with National Electrical Code Regulations.)

Model #	Description	Clock Motor Volts 60 Hz
T51211BC	Circuit A - Sunset, Photo Control ON - Preset Time Switch OFF	120
	Circuit B - Sunset, Photo Control ON - Sunrise, Photo Control OFF	_
T51311BC	Circuit A - Sunset, Photo Control ON - Preset Time Switch OFF	120
	Circuit B - Sunset, Photo Control ON - Sunrise, Photo Control OFF	_
	Circuit C - Preset Time Switch ON - Preset Time Switch OFF	_

All models have separate clock motor terminals for switching circuits not on line voltage. For additional trippers (7 ON / 7 Off per pack), order No. 156T2548A.

See Next Generation Electronic Time Switches with Astro Feature

# **Time Switches**



# Compact, 7-Day

The T2000 Series provides up to 84 (42 "ON/OFF") operations each week. Minimum "ON/OFF" times for this series are 2 hours each providing up to 6 "ON/OFF" operations each day.

### **Applications**

• Heating • Air Conditioning

Ventilating

Defrost Control

• Lights • Pumps

Motors

Fans

### **Specifications**

Case – Drawn steel 7-3/4" (19.7 cm) high, 5" (12.7 cm) wide, 3" (7.6 cm) deep in gray finish. Spring hasp, with hole for lock, holds permanently attached, side hinged door closed. Three mounting holes on back plus handy box mounting holes.

**Knockouts** – Combination 1/2"-3/4" nominal knockouts, one on back and each side of case and two on bottom.

Optional Enclosures - See Time Switch Cases for optional enclosures.

Special Voltages and Cycles - See Time Switch Motors for available motors.

Switch Rating - 20 Amp Resistive, 125 and 208-277 VAC; 1/2 HP 125 VAC; 1 HP 250 VAC

Model #	Switch	Clock Motor Volts 60 Hz	Amps
T2005	SPDT	125	20
T2006	SPDT	208-277	20

For additional trippers (12 per pack), order No. 156T1950A. Replacement Snap Switch 133T701A.



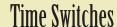






.2-177 2.75 3730 1.25 \_917

-40°F (-40°C) to 130°F (54°C)

















### 7-Day Dial With & Without Carryover

These time switches provide a different "ON/OFF" program each day of the week. They also provide for 4 pole single throw and 4 pole (2NO/2NC) switching. This series provides true 7-day load control with minimum ON and minimum OFF times of 3-1/2 hours. The "BC" models with carryover provide a carryover of 16 hours minimum to maintain accurate load control even during power failure. When power resumes, the carryover automatically rewinds itself. Only 1 hour is required to rewind the carryover for each 2 hours of outage.

### **Applications**

- Heating
- Air Conditioning
- Pumps
- Indoor Lighting

- Outdoor Lighting
- Motors
- Signs
- Billboards

- · Ventilating Systems Fans
- 3 Phase Loads

### **Specifications**

Case - Steel in gray finish 12-1/2" (31.7 cm) high, 8-1/4" (21.0 cm) wide, 4" (10.2 cm) deep. Indoor type with toggle action drawbolt and locking feature. Four mounting holes on back. Separate grounding terminal. Knockouts - Combination 1/2"-3/4" nominal knockouts, two on back, one on each side and two on bottom. Also one 1" nominal on bottom center.

Optional Enclosures - See Time Switch Cases for optional enclosures.

Special Voltages and Cycles - See Time Switch Motors for available motors. Contact factory for availability of time switch with 50 cycle or other voltages.

Switch Rating - Each Pole 40 amp resistive, 120-480 VAC; 40 amp tungsten, inductive or 1000 VA pilot duty, 120-277 VAC; 2 HP (24 FLA) 120 VAC; 5 HP (28 FLA) 240 VAC single phase; 7-1/2 HP (28 FLA) 208 VAC three phase; 10 HP (28 FLA) 240 VAC three phase.

Carryover - Minimum time - mechanical operation: 16 hours. Carryover accuracy +/-2%.

Model I#	Model # Steel NEMA 3R Case	Model with CarryOver	Switch	Clock Motor Volts 60 Hz	Amps (per pole)
T7401B	T7401BR	T7401BC	4PST	125	40
T7402B		T7402BC	4PST	208-277	40
T7801B		T7801BC	2NO/2NC	125	40
T7802B		T7802BC	2NO/2NC	208-277	40

<sup>\*</sup> All models (B or BC suffix) have separate clock motor terminals for switching circuits not on line voltage. For additional trippers (7 ON / 7 OFF per pack), order No. 156T2548A.

# **Time Switches**



# Astro Dial With Skipper & Carryover

This time switch self adjusts for seasonal changes. The astronomic dial automatically adjusts itself as the days grow shorter or longer. A skipper provides lighting control to be omitted on selected day(s) of the week. The carryover is designed to maintain preset schedule during power outages for a minimum of 16 hours. Only 1 hour is required to rewind the carryover for each 2 hours of outage. The 3PST switch configuration provides for control of 3-phase lighting. Three skipper screws are furnished.

### **Lighting Applications**

- Parking Lots
- Landscape Lights
- Stairways
- Billboards

- Entryways
- Security
- Storefronts
- Car Lots

### **Specifications**

Case - NEMA 3R drawn steel 11-1/2" (29.2 cm) high, 8-1/4" (20.9 cm) wide, 4-1/2" (11.4 cm) deep in gray finish. Hasp, with hole for lock, holds permanently attached, side hinged door closed. Mounting bracket plus two holes below switch on back for mounting. Separate grounding terminal.

Knockouts - Combination 1/2"-3/4" nominal knockouts, one on back and each side of case and two on hottom.

Optional Enclosures - None.

Switch Rating - Each pole: 40 amp tungsten up to 277 VAC; 1 HP, 120 VAC; 690 VA pilot duty.

Model #	Switch	Clock Motor Volts 60 Hz	Amps
V45471CR*	3PST	125	40
V45472CR*	3PST	208-277	40
V45471R	3PST	125	40
V45472R	3PST	208-277	40

<sup>#</sup> Indicate City and State nearest installation when ordering.

For additional skipper screws (3 skipper screws per pack), order No. 156T1957A.

For Electronic Time Switches which offer Astro Feature please see pages 42-44





















"LITTLE GRAY BOX"









2.2-177 2.75 R3730 1.25



# **Water Heater Time Switches**

The WH40 provides a convenient external override switch. Utilities in many areas of the country offer two electric rates for residential or commercial customers. One rate has the regular daytime electrical rate, the other is "off peak" rate. The off peak rate provides customers with "lower-priced" electricity during the nighttime and weekend periods. These time switches allow the customer to shift electricity use into these off-peak time periods in an attempt to save utility costs.

### **Applications**

Water Heater Control for:

• Residential • Commercial

Industrial

Institutional / Schools

Military Facilities

### **Specifications**

Case – Drawn steel 7-3/4" (19.7 cm) High, 5" (12.7 cm) Wide, 3" (7.6 cm) Deep in gray finish. Spring hasp, with hole for lock, holds permanently attached, side hinged door closed. Three mounting holes on back plus handy box mounting holes.

**Knockouts** – Combination 1/2"-3/4" nominal knockouts, one on back and each side of case and two on bottom

Special Voltages and Cycles - See Time Switch Motors for available motors.

Switch Rating – 40 Amp Resistive, Inductive or Tungsten 120-277 VAC; 1000 VA pilot duty 120-277 VAC; 2 HP (24 FLA) 125 VAC; 5 HP (28 FLA) 240 VAC.

Model #	Switch	Clock Supply Volts 60 Hz	Watts	External Switch	Amps/Pole
T104-20	DPST	208-240	10000	No	40
WH40	DPST	250	10000	Yes	40

For additional trippers (1 ON / 1 OFF per pack), order No. 156T1978A.

# **Time Switches**



## **Electronic Water Heater Timers**

These time switches provide automatic control for electric water heaters. They provide to-the-minute accuracy in programming and time keeping. The time switches can be programmed for repeat daily scheduling, 5-day working week scheduling, weekend scheduling or any individual day scheduling. Timers can be scheduled for operation during the lowest time-of-day rates or to switch off the electric heater during period of utilities peak power usage. The time switch can be set to operate for up to 6 on/off operations daily for a maximum of 42 on/off operations weekly. Both models provide a convenient external override switch and LED load indicator for ease in scheduling hot water as required for extra hot water demands. The timers include a "AA" alkaline battery carryover which protects both time keeping and program information for a minimum of 3 years.

#### **Applications**

Water Heater Control for:

Residential
 Institutional

Industrial

Military Facilities
 Schools

Commercial

#### **Specifications**

Case – Drawn steel 7-3/4" (19.7 cm) H x 5" (12.7 cm) W x 3" (7.6 cm) D in gray finish. Spring hasp, with hole for lock, holds permanently attached, side hinged door closed. Three mounting holes on back plus handy box mounting holes.

**Knockouts** – Combination 1/2"-3/4" nominal knockouts, one on back and each side of case and two on bottom

Switch Rating – 30 Amp Resistive or Inductive 120-240 VAC; 1 HP, 120 VAC; 1-1/2 HP, 240 VAC; 5 Amps Tungsten, 120/240 VAC.

Model #	Switch	Clock Supply Volts 50/60 Hz	Watts	External Switch	Amps/Pole
EH10	SPST	120	3600	Yes	30
EH40	DPST	240	7200	Yes	30



With Manual External Override and Load Indicator

#### 50/60 Hz Operation









-4°F (-20°C) to 122°F (50°C)





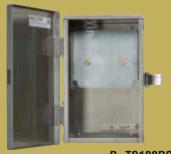
A. 2T2500GA
Plastic Case NEMA 3R



B. 2T2040GA Standard Case NEMA 1



C. 2T511GA Steel Indoor/Outdoor Case NEMA 3R



D. TS100RS Steel Indoor/Outdoor Case NEMA 3R

UL & CSA apply to all enclosures shown.





UL917 C22.2-17

# A. Plastic Case

#### Ends rusting problems forever.

Made of heavy-duty industrial grade plastic, Intermatic's rainproof all plastic case is perfect for applications where high humidity and/or dust can be a problem. Developed for use with pool and spa equipment, the non-corroding plastic case is useful for applications in other high moisture areas such as car washes, industrial water spray areas, etc; NEMA 3R case.

A hasp with a hole for lock holds the side-hinged door closed. A bracket plus two holes below the switch on the back are for mounting. Has five combination 1/2 - 3/4" nominal knockouts, one on back and each side of case, two on bottom.

Model Number	Description	Weight
2T2500GA*	Indoor / Outdoor Plastic Case — 9-3/8" x 5-1/2" x 3-3/4"	1.3 lbs
2T2502GA*	Beige Indoor / Outdoor Plastic Case — 9-3/8" x 5-1/2" x 3-3/4"	1.3 lbs

Available for SERIES T100, T170, T180, T1100, T1200, T1400, T1900, T2000, C8800, ET100C, ET170C, ET700C and models EH10, EH40, ET279C ET70115, ET70215, and ET8000 series

### **B.** Standard Case

Drawn steel with gray powder coat paint finish. Spring hasp (with hole for seal or lock) holds permanently attached hinged door closed. Has combination 1/2" - 3/4" nominal knockouts, one on back and on each side, and two on bottom. (Except "P" Series switches which are equipped with cord-connection and receptacle.) Convenient mounting holes. NEMA Type 1.

Model Number	Description	Weight
2T2040GA*	Standard Indoor Case – 7 3/4" x 5" x 3"	1.4 lbs
2T2292GA**	Indoor Case – 12-1/2" x 8-1/4" x 3-7/8"	7.0 lbs

Available for SERIES T100, T170, T180, T1100, T1200, T1400, T1900, T2000, C8800, ET100C, ET170C, ET700C and models EH10, EH40, ET279C ET70115, ET70215, and ET8000 series

## C. Indoor-Outdoor Case

For protecting time switch from rain, sleet, snow and ice. Drawn steel with gray or beige powder coat paint .036" construction with side-hinged door. Hasp provided for lock. Has combination 1/2-3/4" nominal knockouts, one on back and each side of case, and two on bottom. Separate grounding terminal. Convenient mounting holes. NEMA 3R.

Model Number	Description	Weight
2T511GA*	Standard Indoor/Outdoor Case — 9-3/8" x 5-1/2" x 3-5/8"	2.5 lbs
2T2485GA*	Beige Standard Indoor/Outdoor Case – 9-3/8" x 5-1/2" x 3-5/8"	2.5 lbs
2T2331GA**	Indoor/Outdoor Case – 9-3/8" x 5-1/2" x 3-5/8"	2.5 lbs
2T2293GA***	Indoor/Outdoor Case — 12-1/2" x 8-1/4" x 3-7/8"	2.5 lbs
2T1985GR****	Indoor/Outdoor Case — 9-3/8" x 5-1/2" x 3-5/8"	2.5 lbs

Available for SERIES T100, T170, T180, T1100, T1200, T1400, T1900, T2000, C8800, ET100C, ET170C, ET700C and models EH10, EH40, ET279C ET70115, ET70215, and ET8000 series

## D. Stainless Steel Indoor-Outdoor Case

Model Number	Description	Weight
TS100RS	Stainless Steel Indoor-Outdoor Case – 9 7/8" x 6 1/2" x 3 1/5"	3.5 lbs

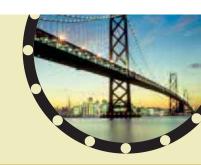
Available for SERIES T100, T170, T1400, T1900, T2000, C8800, ET100C, ET170C, ET700C, EH40, ET279C, ET70115, ET70215 and ET8000.

<sup>\*\*</sup> Available for SERIES T7400B, T7800B, T7400BC and T7800BC.

<sup>\*\*</sup> Available for SERIES T100CR, T170CR, T1400BR, T1400BCR, T1800BR and T1800BCR.

<sup>\*\*\*</sup> Available for SERIES T7400B, T7800B, T7400BC and T7800BC
\*\*\*\* Available for SERIES LS7000 only.

# **Time Switch Cases**



# E. 2-in-1 Raintight Case and Panel

For use where 2 time switches are to be mounted side by side. Heavy-duty spot-welded raintight construction with powder coat paint. Hasp (with hole for lock) holds permanently attached hinged door closed. Combination 1/2" - 3/4" nominal knockouts conveniently located (two on back, five on bottom and one on each side). Top mounting brackets plus two holes below switch level on back of case.

Model Number	Description	Weight
T10000R (replaces 2T2089GA)*	2-in-1 Indoor/Outdoor Case - 10-1/2" x 10-1/2" x 4"	6.5 lbs
T30000R*	Indoor/Outdoor Panel – 16-3/4" x 10-1/2" x 4-1/4"	11.0 lbs
T40000R*	Indoor/Outdoor Panel – 20-3/4" x 12-3/4" x 4-1/4"	17.0 lbs

<sup>\*</sup> Available for SERIES T100, T170, T180, T1900, T2000 and C8800. NOT FOR T1400/T1800/T1900 MODELS WITH BCR SUFFIX.

### F. Flushmount Case

For concealing mechanism in wall and giving a finished, flushed appearance. Heavy-duty, .063" formed steel construction with hinged door. Gray finish with powder coat paint. Combination 1/2" - 3/4" nominal knockouts one each side, and two on bottom, plus one 1" knockout on top and bottom. Convenient mounting holes. With or without key lock. Cutout 9-1/8" x 6" x 4-1/8" deep; flange 11" x 8"

<b>Model Number</b>	Description	Weight
2T308A*	Standard Flushmount w/Lock	6.5 lbs
2T2365GA** Flushmount Case w/Lock 7.0 lbs		7.0 lbs
6ET1398GA	Flush Cover for ET70415CR and ET70415CR24	2.5 lbs
2T2366GA	Flush Cover for ET70415CR and ET70415CR24 with lock	2.5 lbs

<sup>\*</sup> Available for SERIES T100, T170, T180, T1900, T2000 and C8800. NOT FOR T1400/T1800/T1900 MODELS WITH BCR SUFFIX.

\*\* Available for SERIES ET100C, ET170C, ET700C and models EH10, EH40, ET279C, ET7115C, ET7215C, ET70215C and ET70115C.

## G. Mounting Brackets

Heavy gauge steel mounting bracket mounts to a standard symmetrical rail TS35 according to DIN46277 and EN50022. Ideal for panel mounting of mechanical or electronic time switch controls, along side of other DIN rail mountable electrical devices. This snap-in type bracket accepts a wide range of Intermatic time switches including most T100, T170, T180, T1900, T2000, C8800, ET100, ET170, ET700 and ET70000 time switches.

Model Number	Description	Weight
22T535GR	Din Rail Bracket – 6" x 5" x 2"	1.0 lbs
22T338GR	Surface Mount Snap-in Bracket – 6" x 5" x 2"	1.0 lbs



E. T10000R 2-in-1 Raintight Case



F. 2T2365GA Flushmount Case



G. 22T338GR



22T535GR



C22.2-177

UL & CSA apply to all enclosures shown.



# **Electronic Energy Controls** 24-Hour Electronic Time Switches



#### **Applications:**

- Schools
- Offices
- Airports
- Stores Hotels
- Restaurants
- Apartments

#### For Controlling:

- Water Heaters
- Parking Lot Lighting
- Commercial Ovens
- Interior Lighting
- Air Conditioners
- Fans/Blowers/Pumps
- Livestock Feeders
- Poultry Equipment
- Process Equipment







## ET100 Series 24-Hour Time Switch (Same Operation Each Day)

These time switches provide the same dependable and uncomplicated performance as the T101 mechanical time switch...plus to-the-minute programming for accurate load control and reduced energy costs. Up to 8 set points or events (4 ON/4 OFF) can be preset to automatically repeat on a daily basis. The program can be overridden at any time by placing the selector switch in the Manual position. Two industrial grade "AA" Alkaline batteries provide 3 years minimum program and timing protection.

#### **Specifications**

Case - NEMA 1 - Drawn steel 7-3/4" (19.7 cm) High, 5" (12.7 cm) Wide, 3" (7.6 cm) Deep in gray finish. Note: The electronic mechanism snaps into the standard Intermatic time switch case, replacing mechanical mechanis

Knockouts - Combination 1/2"-3/4" nominal knockouts, one on back and each side of case and two on

Optional Enclosures - See Time Switch Cases for optional enclosures.

Special Voltages and Cycles - ALL models 50 or 60 Hz.

Switch Rating - Except model ET100C. 30 Amp Inductive/Resistive, 24 / 120 / 240 / 277 VAC 60 Hz; 20 Amp Resistive, 28 VDC; 1 HP 120 VAC 60 Hz; 2 HP 240 VAC 60 Hz; 5 Amp Tungsten, 120 / 240 / VAC 60 Hz; 20 Amp ballast,120-277 VAC 60 Hz. ET100C same ratings for 120 Volt loads only. Models ET105C normally closed contact ratings: 10A Resistive/General purpose, 12 - 277VAC; 10A Resistive/General purpose, 28VDC; 3A Ballast, 120 - 277VAC; 1/4 HP, 120 VAC; 1/2 HP, 240 VAC; 30 LRA; 12 FLA; 275 VA pilot duty, 120 - 240 VAC

Carry-over - Field replaceable "AA" batteries maintain program and accurate time keeping for 3 years minimum. Up front replacement does not require removal of mechanism or field wiring.

Wiring Terminals - #18 to #10 AWG wire.

Minimum ON/OFF Times - 1 minute.

Maximum ON/OFF Times - 23 hours 59 minutes.

#### **Engineering Specification**

24 Hour Electronic Time Switch

The time switch shall be a solid state electronic control capable of permitting 8 ON/OFF set points to be distributed on a daily schedule. The time and set points shall be programmable to the nearest minute with a minimum ON duration of 1 minute and a maximum ON duration of 23 hours and 59 minutes. The timer shall have a digital LCD readout to show time-of-day using 12 hour AM/PM indicator. The time switch shall provide a manual override control for both temporary or permanent override. Time switch shall operate over a temperature range of -40°F (-40°C) to 155°F (68°C).

An industrial grade AA alkaline battery shall protect program information and time-of-day for a minimum of 3 years. Switch configuration to be (SPST) or (DPST) with a UL listed rating of: 30 amp Inductive/Resistive, 24/120/240 Volts AC, 60 Hz; 20 amps Resistive, 28 VDC; 1 HP. 120 Volts AC. 60 Hz; 2 HP. 240 Volts AC. 60 Hz; 5 amps Tunosten, 120/240 Volts AC. 60 Hz; 20 amps Ballast, 120-277 Volts AC. 60 Hz. The time switch shall be powered by a \_ (120 volt), (120-277 volts) 50/60 Hz source. The time switch shall be enclosed in a lockable steel NEMA 1 rated enclosure. The time switch shall be UL listed under UL category 916 Energy Management Equipment and shall be INTERMATIC Model

Model#	Circuits	Switch	Clock Voltage	Amp Rating	HP Rating	Enclosure
ET100C	1	SPST	120	30	1HP	NEMA1
ET100CM <sup>1</sup>	1	SPST	120	30	1HP	Mech.
ET101C	1	SPST	120	30	1HP / 2HP	NEMA1
ET102C	1	SPST	120/208/240/277	30	1HP / 2HP	NEMA1
ET103C	1	DPST	120	30	1HP / 2HP	NEMA1
ET104C	1	DPST	120/208/240/277	30	1HP / 2HP	NEMA1
ET104CP <sup>2</sup>	1	DPST	120/208/240/277	30	1HP / 2HP	NEMA3R
ET105C	1	SPDT	120	10/30	1HP / 2HP	NEMA1

<sup>1</sup>Mechanism only no case

<sup>&</sup>lt;sup>2</sup>NEMA 3R UV resistant polycarbonate plastic case

# **Electronic Energy Controls** 7-Day Electronic Time Switches



# ET170 Series 7-Day Time Switch (Permits Different Operation Each Day)

These electronic time switches provide to-the-minute programming for accurate load control and reduced energy costs. Up to 20 set points or events (10 ON/10 OFF or any combination) can be preset to automatically repeat on a weekly or daily basis. The program can be overridden at any time by placing the selector switch in the Manual position. These time switches provide for true 7-day load control with up to 140 operations (70 ON/70 OFF or any combination) each week. Model ET279C provides 20 operations or momentary contact closures of 1 to 8 seconds (ten each or any combination) for two independent circuits.

#### **Specifications**

Case - NEMA 1 - Drawn steel 7-3/4" (19.7 cm) High, 5" (12.7 cm) Wide, 3" (7.6 cm) Deep in gray finish. NEMA 3R - Drawn steel 9-3/8" (23.8 cm) high, 5-1/2" (14.0 cm) wide, 3-5/8" (9.0 cm) deep in gray finish. Both types include permanently attached side hinged door with lockable hasp. Mounting holes and/or mounting bracket included. Separate grounding terminal.

Note: The electronic mechanism snaps into the standard Intermatic time switch case, replacing mechanical mechanisms, if desired, Knockouts - Combination 1/2"-3/4" nominal knockouts, one on back and each side of case and two on bottom.

Optional Enclosures - See Time Switch Cases for optional enclosures.

Special Voltages and Cycles - ALL models 50 or 60 Hz.

Switch Rating - 30 Amp Inductive/Resistive, 24 / 120 / 240 / 277 VAC 60 Hz; 20 Amp Resistive, 28 VDC; 1 HP 120 VAC 60 Hz; 2 HP 240 VAC 60 Hz; 5 Amp Tungsten, 120 / 240 / VAC 60 Hz; 20 Amp ballast, 120-277 VAC 60 Hz. ET100C same ratings for 120 Volt loads only. Model ET175C normally closed contact ratings: 10A Resistive/General purpose, 12 - 277VAC; 10A Resistive/General purpose, 28VDC; 3A Ballast, 120 - 277VAC; 1/4 HP, 120 VAC; 1/2 HP, 240 VAC; 30 LRA; 12 FLA; 275 VA pilot duty, 120 - 240 VAC Carry-over - Field replaceable "AA" batteries maintain program and accurate time keeping for 3 years minimum. Up front replacement does not require removal of mechanism or field wiring.

Wiring Terminals - #18 to #10 AWG wire.

Minimum ON/OFF Times - 1 minute.

Maximum ON/OFF Times - 6 days 23 hours 59 minutes.

#### **Engineering Specification**

7 Day 30 Amp Electronic Time Switches

The time switch shall be a solid state electronic control capable of permitting 20 ON/OFF set points to be distributed on independent daily schedules through a 7-day time period. The time switch shall include a 7-day repeat feature for simplifying programming of identical set points. The time and set points shall be programmable to the nearest minute with a minimum ON duration of 1 minute and a maximum ON duration of 6 days, 23 hours, 59 minutes. The timer shall have a digital LCD readout to show day of week and time-of-day using 12 hour AM/PM indicator. The time switch shall provide a manual override control for both temporary or permanent override. Time switch shall operate over a temperature range of -40°F (-40°C) to 155°F (68°C). An industrial grade AA alkaline battery shall protect program information and time-of-day for a minimum of 3 years. Switch configuration to be (SPST) or (DPST) with a UL listed rating of: 30 amp Inductive/Resistive 24/120/240 Volts AC, 60 Hz; 20 amps Resistive, 28 VDC; 1 HP, 120 Volts AC, 60 Hz; 2 HP, 240 Volts AC, 60 Hz; 5 amps Tungsten, 120/240 Volts AC, 60 Hz; 20 amps Ballast, 120-277 Volts AC, 60 Hz.

\_ (120 volt), (120-277 volts) 50/60 Hz source. The time switch shall be enclosed in a The time switch shall be powered by a \_ lockable steel NEMA 1 rated enclosure. The time switch shall be UL listed under UL category 916 Energy Management Equipment and shall be INTERMATIC Model

Model#	Circuits	Switch	Clock Voltage	Amp Rating	<b>HP Rating</b>	Enclosure
ET171C	1	SPST	120	30	1HP / 2HP	NEMA1
ET171CR <sup>1</sup>	1	SPST	120	30	1HP / 2HP	NEMA3R
ET173C	1	DPST	120	30	1HP / 2HP	NEMA1
ET174C	1	DPST	240	30	1HP / 2HP	NEMA1
ET175C	1	SPDT	120	10/30	1HP / 2HP	NEMA1
ET279C <sup>2,3</sup>	2	SPST	120	30	1HP / 2HP	NEMA1

<sup>&</sup>lt;sup>1</sup>NEMA 3R drawn steel enclosure.



#### **ENERGY CODE UPDATE**

In 2002 the Department of Energy (DOE) settled on ASHRAE 90.1-1999 as the commercial building standard for state building energy codes acting on its authority under the Energy Conservation & Production Act. The deadline set by the DOE for state compliance was July 15, 2004 by which each state must enact energy codes at least as strict as the standard or provide justification for non-compliance.

Intermatic offers a variety of products to assist the specifying engineer and contractor with meeting the ASHRAE 90.1-1999 requirements including the Next Generation series of programmable time switches, spring wound and electronic in-wall timers, and a full line of photo controls.









<sup>&</sup>lt;sup>2</sup>User selectable contacts independent 2xSPST, simultaneous DPST, or pulsed for mechanically held contactor operation

<sup>&</sup>lt;sup>3</sup>Complies with California Title 24 requirements for multi-level outdoor lighting control.



# Electronic Energy Controls 7-Day Electronic Astronomic Time Switches



#### **Applications:**

- Schools
- Offices
- Airports
- Stores
- Hotels
- Restaurants
- Parks
- Apartments

#### For Controlling:

- Water Heaters
- Parking Lot Lighting
- Commercial Ovens
- Interior LightingAir Conditioners
- Fans/Blowers/Pumps
- Livestock Feeders
- Poultry Equipment
- Process Equipment







5 lbs .1 kg

-40°F (-40°C) to 155°F



CPD82
NEMA 3R with clear cover

## ET8000 Series 7-Day Astronomic Time Switch (Tracks Sunrise & Sunset)

Intermatic's Electronic Astronomic 7-Day Time Switch automatically switches loads according to a preset weekly schedule with to-the-minute accuracy. The astronomic feature provides sunset ON and sunrise OFF settings to eliminate the need for separate photo control devices. The independent 7-day programming provides complete flexibility for applications where load switching differs each day of the week. Astronomic programming can be combined with independent programs to provide a sunset ON and timed OFF program.

#### **Specifications**

Case – NEMA 1 – Drawn steel 7-3/4" (19.7 cm) High, 5" (12.7 cm) Wide, 3" (7.6 cm) Deep in gray finish. NEMA 3R – Drawn steel 9-3/8" (23.8 cm) high, 5-1/2" (14.0 cm) wide, 3-5/8" (9.0 cm) deep in gray finish. Both types include permanently attached side hinged door with lockable hasp. Mounting holes and/or mounting bracket included. Separate grounding terminal.

Note: The electronic mechanism snaps into the standard Intermatic time switch case, replacing mechanical mechanisms, if desired.

Knockouts – Combination 1/2"-3/4" nominal knockouts, one on back and each side of case and two on

Optional Enclosures - See Time Switch Cases for optional enclosures.

Special Voltages and Cycles - ALL models 50 or 60 Hz.

Switch Rating – 30 Amp Inductive/Resistive, 24 / 120 / 240 / 277 VAC 60 Hz; 20 Amp Resistive, 28 VDC; 1 HP 120 VAC 60 Hz; 2 HP 240 VAC 60 Hz; 5 Amp Tungsten, 120 / 240 / VAC 60 Hz; 20 Amp ballast, 120-277 VAC 60 Hz. Model ET8115C normally closed contact ratings: 10A Resistive/General purpose, 12 - 277VAC; 10A Resistive/General purpose, 28VDC; 3A Ballast, 120 - 277VAC; 1/4 HP, 120 VAC; 1/2 HP, 240 VAC; 30 LRA; 12 FLA; 275 VA pilot duty, 120 - 240 VAC

**Carry-over** – Field replaceable "AAA" batteries maintain program and accurate time keeping for 3 years minimum. Up front replacement does not require removal of mechanism or field wiring.

Wiring Terminals - #18 to #10 AWG wire.

Minimum ON/OFF Times - 1 minute.

Maximum ON/OFF Times - 6 days 23 hours 59 minutes.

#### **Engineering Specification**

7 Day 30 Amp Electronic Time Switches

The time switch shall be a solid state electronic control capable of permitting 14 ON, 14 OFF set points to be distributed on independent daily schedules through a 7-day time period with 1 astro ON and 1 astro OFF set point per controlled channel. The time switch shall include a 7-day repeat feature for simplifying programming of identical set points. The time and set points shall be programmable to the nearest minute with a minimum ON duration of 1 minute and a maximum ON duration of 6 days, 23 hours, 59 minutes. The timer shall have a digital LCD readout to show day of week, time-of-day, and date using 12 hour AM/PM indicator. The time switch shall provide a manual override control for both temporary or permanent override. Time switch shall operate over a temperature range of -40°F (-40°C) to 155°F (68°C).

An industrial grade AAA alkaline battery shall protect program information and time-of-day for a minimum of 3 years. Switch configuration to be \_\_\_\_\_\_ (SPST) or (DPST) with a UL listed rating of: 30 amp Inductive/Resistive, 24/120/240 Volts AC, 60 Hz; 20 amps Resistive, 28 VDC; 1 HP, 120 Volts AC, 60 Hz;

2 HP, 240 Volts AC, 60 Hz; 5 amps Tungsten, 120/240 Volts AC, 60 Hz; 20 amps Ballast, 120-277 Volts AC, 60 Hz

The time switch shall be powered by a \_\_\_\_\_\_ (120 volt), (120-277 volts) 50/60 Hz source. The time switch shall be enclosed in a lockable steel NEMA 1 rated enclosure. The time switch shall be UL listed under UL category 916 Energy Management Equipment and shall be

Model#	Circuits	Switch	Clock Voltage	Amp Rating	HP Rating	Enclosure
ET8015C	1	SPST	120/208/240/277	30	1HP / 2HP	NEMA1
ET8015CPD82	1	SPST	120/208/240/277	30	1HP / 2HP	NEMA3R
ET8015CR1	1	SPST	120/208/240/277	30	1HP / 2HP	NEMA3R
ET8115C	1	SPDT	120/208/240/277	10/30	1HP / 2HP	NEMA1
ET8115CPD82	1	SPDT	120/208/240/277	10/30	1HP / 2HP	NEMA3R
ET8115CR1	1	SPDT	120/208/240/277	10/30	1HP / 2HP	NEMA3R
ET8215C <sup>2,3</sup>	2	SPST	120/208/240/277	30	1HP / 2HP	NEMA1
ET8215CPD82 <sup>2,3</sup>	2	SPST	120/208/240/277	30	1HP / 2HP	NEMA3R
ET8215CR1,2,3	2	SPST	120/208/240/277	30	1HP / 2HP	NEMA3R

<sup>&</sup>lt;sup>1</sup>NEMA 3R drawn steel enclosure

<sup>&</sup>lt;sup>2</sup>User selectable contacts independent 2xSPST, simultaneous DPST, or pulsed for mechanically held contactor operation.

<sup>&</sup>lt;sup>3</sup>Complies with California Title 24 requirements for multi-level outdoor lighting control.

# Electronic Energy Controls 365-Day Electronic Astronomic Time Switches



## ET70000 Series 365-Day Time Switch (1 & 2 Circuit Models)

These electronic time switches provide to-the-minute programming for 7-day or full year load control. Features: 12/24 Hr clock format, 1,000 + ON/OFF events, 99 holiday schedules, and auto daylight savings time adjustment. Flexible load control is enhanced by Astro, Variable Pulse, and Interval options as required for outdoor lighting control, bell ringing and after hours temporary override respectively. Non-volatile memory maintains all programmed switching times for the life of the time switch. A factory installed field replaceable lithium battery maintains accurate time keeping and calender information for a minimum of 8 years.

#### **Specifications**

Case – NEMA 1 – Drawn steel 7-3/4" (19.7 cm) High, 5" (12.7 cm) Wide, 3" (7.6 cm) Deep in gray finish. NEMA 3R – Drawn steel 9-3/8" (23.8 cm) high, 5-1/2" (14.0 cm) wide, 3-5/8" (9.0 cm) deep in gray finish. Both types include permanently attached side hinged door with lockable hasp. Mounting holes and/or mounting bracket included. Separate grounding terminal.

Note: The electronic mechanism snaps into the standard Intermatic time switch case, replacing mechanical mechanisms, if desired. **ON/OFF Events** -1,000+ Events.

Knockouts - Combination 1/2"-3/4" nominal knockouts, one on back and each side of case and two on

Optional Enclosures - See Time Switch Cases for optional enclosures.

Special Voltages and Cycles – Line voltage models 50 or 60 Hz; Low voltage models 60 Hz 24 Volts. Switch Rating – Each Pole; 20 amp resistive/general purpose, 12–277 Volts AC; 20 amp resistive/general purpose, 28 Volts DC; 20 amp ballast, 120–277 VAC; 1 HP, 120 VAC 60 Hz; 98 LRA; 22 FLA; 2 HP, 240 VAC 60 Hz; 80 LRA; 30 FLA; 5 amp tungsten, 120–240 VAC; 470 VA pilot duty, 12–240 VAC; TV-5, 120–240 VAC

Carry-over – Non-volatile memory requires no backup. Time keeping and calender data maintained within 0.01% accuracy for minimum of 8 years with one factory installed, field replaceable lithium coin cell.

Wiring Terminals – #18 to #10 AWG wire.

Minimum ON/OFF Times - 1 minute.

Maximum ON/OFF Times - 6 days 23 hours 59 minutes.

#### **Engineering Specification**

365 Day 1, 2, & 4 Circuit Electronic Astronomic Time Switches

The time switch shall be a solid state electronic control capable of permitting 1000 ON/OFF set points to be distributed on independent daily schedules through a 7-day time period and across 99 separate holiday schedules. The time switch shall include a 7-day repeat feature for simplifying programming of identical set points. The time and set points shall be programmable to the nearest minute with a minimum ON duration of 1 minute and a maximum ON duration of 6 days, 23 hours, 59 minutes. The timer shall have a digital LED readout to show day-of-week and time-of-day using 12/24 hour time format. The time switch shall provide a manual override control for both temporary or permanent override. Time switch shall operate over a temperature range of -40°F (-40°C) to 155°F (68°C). A non-volatile memory shall maintain all program data for the life of the time switch without the need for battery backup. The time switch shall include a factory installed lithium battery backup which shall maintain clock time and calendar data for 8 years minimum. Switch configuration to be SPDT for each circuit with a UL 916 Energy Management Equipment listed rating of: Normally Open Contacts Each Pole; 20 amp resistive/general purpose, 12-277 Volts AC; 20 amp resistive/general purpose, 28 Volts DC; 20 amp ballast, 120-277 VAC; 1 HP, 120 VAC 60 Hz; 98 LRA; 22 FLA; 2 HP, 240 VAC 60 Hz; 80 LRA; 30 FLA; 5 amp tungsten, 120-240 VAC; 470 VA pilot duty, 12-240 VAC; TV-5, 120-240 VAC Normally Closed Contacts 10 Amp Resistive/general purpose, 12-277 VAC; 10 Amp Resistive/general purpose, 28 Volts DC; 3 Amp ballast, 120-277 VAC; 1/4 HP, 120 VAC 60 Hz; 1/2 HP, 240 VAC 60 Hz; 30 LRA; 12 FLA; 275 VA pilot duty, 12-240 VAC. The time switch shall be enclosed in a lockable steel (NEMA 1) (NEMA 3R) enclosure. The time switch shall be powered by a \_\_\_\_ \_\_ (user selectable 120, 208, 240 or 277 VAC 50 or 60 Hz) (24 VAC 60 Hz) source. The time switch shall be INTERMATIC Model (ET70115C, ET70115CR or ET70115CR24 1-circuit) (ET70215C, ET70215CR or ET70215CR24 2-circuits)

Model#	Circuits	Switch	Clock Voltage	Amp Rating	HP Rating	Enclosure
ET70115C	1	SPDT	120/208/240/277	20	1HP / 2HP	NEMA1
ET70115CR1	1	SPDT	120/208/240/277	20	1HP / 2HP	NEMA3R
ET70115CR241	1	SPDT	24	20	1HP / 2HP	NEMA3R
ET70215C <sup>2,3</sup>	2	SPDT	120/208/240/277	20	1HP / 2HP	NEMA1
ET70215CR1,2,3	2	SPDT	120/208/240/277	20	1HP / 2HP	NEMA3R
ET70215CR241,2,3	2	SPDT	24	20	1HP / 2HP	NEMA3R

NEMA 3R drawn steel enclosure.

 ${\it ^2User\ selectable\ contacts\ independent\ 2xSPST,\ simultaneous\ DPST,\ or\ pulsed\ for\ mechanically\ held\ contactor\ operation.}$ 

<sup>3</sup>Complies with California Title 24 for multi-level outdoor lighting control.



#### ASHRAE 90.1-1999 Section 9.2.1.3 Exterior Lighting Control

Lighting for all exterior applications not exempted in 9.1 and 9.3.2 shall be controlled by a photosensor or astronomical time switch that is capable of automatically turning off the exterior lighting when sufficient daylight is available or the lighting is not required.

The Intermatic Next Generation series provides an easy to program time-of-day lighting control. The multiple zones, as required in the standard, are available in 1, 2, 4, 8, or 16 zones of control. Space control for each zone can be provided by a remote timed override. Each override can be set for the code required maximum of four hours.









-40°F (-40°C) to 155°F



# Electronic Energy Controls 365-Day Electronic Astronomic Time Switches



#### **Applications:**

- Schools
- Offices
- AirportsStores
- Hotels
- Restaurants
- Factories
- Parks
- Apartments

#### For Controlling:

- Water Heaters
- Parking Lot Lighting
- Commercial Ovens
- Interior Lighting
- Bells & Signals
- HVAC Equipment
- Fans/Blowers/Pumps
- Livestock FeedersPoultry Equipment
- Process Equipment











-40°F (-40°C) to 155°F (68°C)

## ET70000 Series 365-Day Time Switch (4, 8, & 16 Circuit Models)

These electronic time switches provide to-the-minute programming for 7-day or full year load control. Features: 12/24 Hr Clock Format, 4,000+ ON/OFF Events (8 & 16 circuit models only), 99 Holiday Schedules, and Auto Daylight Savings Time Adjustment. Flexible load control is enhanced by Astro, Variable Pulse, and Interval options as required for outdoor lighting control, bell ringing and after hours temporary override respectively. Non-volatile memory maintains all programmed switching times for the life of the time switch. A factory installed field replaceable lithium battery maintains accurate time keeping and calender information for a minimum of 8 years.

#### **Specifications**

Case - 4-Circuit NEMA 3R - Heavy duty .047" 18 gauge steel in gray finish; 12-1/2" (31.7 cm) High, 8-1/4" (21.0 cm) Wide, 4" (10.2 cm) Deep. 8-Circuit NEMA 3R - Heavy duty .048" steel in gray finish; 10-3/4" (27.3 cm) High, 11-1/2" (29.2 cm) Wide, 4-3/4" (12.1 cm) deep with lockable hasp. 16-Circuit NEMA 3R - Heavy duty .060" steel in gray finish; 20-5/8" (52.4 cm) High, 13-1/4" (33.7 cm) Wide, 5-1/8" (13.0 cm) Deep with lockable hasp.

ON/OFF Events - 4-Circuit - 1,000+ Events; 8 & 16-Circuit - 4,000+ Events.

Special Voltages and Cycles – Line voltage models 50 or 60 Hz; Low voltage models 60 Hz 24 Volts. Switch Rating – Each Pole; 20 amp resistive/general purpose, 12–277 Volts AC; 20 amp resistive/general purpose, 28 Volts DC; 20 amp ballast, 120–277 VAC; 1 HP, 120 VAC 60 Hz; 98 LRA; 22 FLA; 2 HP, 240 VAC 60 Hz; 80 LRA; 30 FLA; 5 amp tungsten, 120–240 VAC; 470 VA pilot duty, 12–240 VAC; TV-5, 120–240 VAC

Carry-over – Non-volatile memory requires no backup. Time keeping and calender data maintained within 0.01% accuracy for minimum of 8 years with one factory installed, field replaceable lithium coin cell.

Wiring Terminals – #18 to #10 AWG wire.

#### **Engineering Specification**

365 Day 8 & 16 Circuit Electronic Astronomic Time Switches

The time switch shall be a solid state electronic control capable of permitting 4000+ ON/OFF set points to be distributed on independent daily schedules through a 7-day time period and across 99 separate holiday schedules. The time switch shall include a 7-day repeat feature for simplifying programming of identical set points. The time and set points shall be programmable to the nearest minute with a minimum ON duration of 1 minute and a maximum ON duration of 6 days, 23 hours, 59 minutes. The timer shall have a digital LED readout to show day-ofweek and time-of-day using 12/24 hour time format. The time switch shall provide a manual override control for both temporary or permanent override. Time switch shall operate over a temperature range of -40°F (-40°C) to 155°F (68°C). A non-volatile memory shall maintain all program data for the life of the time switch without the need for battery backup. The time switch shall include a factory installed lithium battery backup which shall maintain clock time and calendar data for 8 years minimum. Switch configuration to be SPDT for each circuit with a UL 916 Energy Management Equipment listed rating of: Normally Open Contacts Each Pole; 20 amp resistive/general purpose, 12-277 Volts AC; 20 amp resistive/general purpose, 28 Volts DC; 20 amp ballast, 120-277 VAC; 1 HP, 120 VAC 60 Hz; 98 LRA; 22 FLA; 2 HP, 240 VAC 60 Hz; 80 LRA; 30 FLA; 5 amp tungsten, 120-240 VAC; 470 VA pilot duty, 12-240 VAC; TV-5, 120240 VACI Normally Closed Contacts 10 Amp Resistive/general purpose, 12-277 VAC; 10 Amp Resistive/general purpose, 28 Volts DC; 3 Amp ballast, 120-277 VAC; 1/4 HP, 120 VAC 60 Hz; 1/2 HP, 240 VAC 60 Hz; 30 LRA; 12 FLA; 275 VA pilot duty, 12-240 VAC. The time switch shall be enclosed in a lockable steel \_ (NEMA 3R) enclosure. The time switch shall be powered by a  $\_$ (user selectable 120, 208, 240 or 277 VAC 50 or 60 Hz) (24 VAC 60 Hz) source. The time switch shall be INTERMATIC Model \_ \_\_ (ET70815CR or ET70815CR24 8-circuit) (ET71615CR or ET71615CR24 16-circuits).

Model#	Circuits	Switch	Clock Voltage	Amp Rating	<b>HP Rating</b>	Enclosure
ET70415CR1	4	SPDT	120/208/240/277	20	1HP / 2HP	NEMA3R
ET70415CR241	4	SPDT	24	20	1HP / 2HP	NEMA3R
ET70815CR1	8	SPDT	120/208/240/277	20	1HP / 2HP	NEMA3R
ET70815CR241	8	SPDT	24	20	1HP / 2HP	NEMA3R
ET71615CR1	16	SPDT	120/208/240/277	20	1HP / 2HP	NEMA3R
ET71615CR241	16	SPDT	24	20	1HP / 2HP	NEMA3R

<sup>1</sup>Complies with California Title 24 requirements for multi-level outdoor lighting control.

# Electronic Energy Controls Next Generation Programming Software





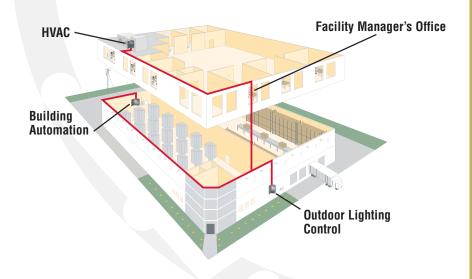
## Unleash the Power of the Next Generation Time Switch!

The NextGen programming software written specifically for installing contractors and maintenance personnel is the fastest and easiest way to program the Intermatic Next Generation series of electronic time switches.

#### **Features**

- Programming of all current Next Generation models (1, 2, 4, 8, & 16 circuits)
- Easy point-n-click programming of holiday and daily event schedules
- File save function for archiving event schedules for future editing and use
- On-line help manual gives easy to follow directions
- . One-button time and date programming synchronizes the time switch with your PC's date and time

#### Request Item# 300ET10018



Networking capabilities allow programming of the Next Generation time switches allowing facility managers to make schedule changes from across the building or campus through an intranet or even across country through the Internet.

#### NEXT GENERATION ACCESSORIES



ET7232M / ET7232M1

RS232 Serial Interface for all Next Generation Time switches. Also used as remote override for 1 & 2 circuit models.



8-Circuit remote override input header. (Not Pictured)

#### 156ET9403A

16-Circuit remote override input header.

#### LAN Connection to a PC

Office computers are typically connected through a local area networks (LANs) which provides an in-place backbone to allow control of Next Generation time switches from any linked PC. This applies to office buildings as well as distributed facilities such as university or corporate campuses.

#### **NextGen Distributed Control**

By linking distributed Next Generation time switches together with the facility manager's PC the time and associated cost of making periodic schedule changes is greatly reduced and all timing throughout the network can be synchronized to the second with the PC's internal clock.



# **Electronic Energy Controls Site Lighting Control Panels**



#### **Applications:**

- Schools
- Offices
- AirportsStores
- Hotels
- Restaurants
- Factories
- Apartments
- Electrical Utilities
- Municipalities

#### For Controlling:

- Roadway Lighting
- Parking Structures
- Parking Lots
- Billboards
   Entertainment Venues
- Ball Fields
- Driving Ranges
- Parks
- Outdoor Area Lighting



C22.2-177 LR3730

-40°F (-40°C) to 130°F (54°C)

## SiteMaster Site Lighting Control Panels

These heavy duty lighting control panels are designed for harsh environmental and lighting load conditions. Features include; Pre-wiring for quick installation, heavy-duty NEMA 3R enclosures, mercury or "Ice Cube" relays, agency approved disconnect, 40, 80, 120 Amp design, locking hasps, and dead-front storage. Mechanical or electronic timing, lightning arrester, photo control, and stainless steel options.

#### **SM2200 Series Specifications**

Gasketless panel with two 20 Amp DPST Relays. Pre-wired with one 20 Amp double-pole Square D Homeline™ main breaker. 120 V output: one twin 20 Amp breaker & one single-pole 20 Amp breaker (for 240 V output- quad breaker with common trip on outside and inside). Capable of controlling 40 Amps @ 120 V and 20 Amps @ 240 V or 12- 400 Watt HID fixtures.

#### **SM4400 Series Specifications**

Gasketless panel with two 20 Amp DPST Relays. Pre-wired with one 40 Amp double-pole Square D Homeline™ main breaker. 120 V output: Six single-pole 20 Amp breakers (240 V output: three double-pole 20 Amp breakers). Capable of controlling 80 Amps @ 120 V and 40 Amps @ 240 V or 24- 400 Watt HID fixtures.

#### **SM6600 Series Specifications**

Gasketless panel with one 60 Amp DPST mercury relay. Split buss service- Upper buss. 120 V output: Pre-wired with one 60 Amp double-pole Square D Homeline™ main breaker and one-single pole 20 Amp breaker (240 V output: one 60 Amp double-pole and one 20 Amp double-pole breaker) Lower Buss - for load connections. Eight single-pole 20 Amp breakers (for 240 V output - four double-pole breakers). Capable of controlling 120 Amp @ 120 V and 60 Amps @ 240 V or 36- 400 Watt HID fixtures.

#### SM6240DOT & SM6277DOT Series Specifications

Gasketless 14 AWG stainless-steel panel with 3-point locking system. SM6240DOT: 60 Amp DPST mercury relay. Split buss service- Upper buss. 120 V output: Pre-wired with one 60 Amp double-pole Square D Homeline™ main breaker and one single-pole 20 Amp breaker. Lower Buss - for load connections: Four double-pole 20 Amp breakers. Capable of controlling 60 Amps @ 240 V or 36- 400 Watt HID fixtures. Pre-installed 15 Amp GFCI duplex convenience receptacle. SM6277DOT: 60 Amp 3PST mercury relay. Input power 480/277 V 3-Phase: Pre-wired with one 60 Amp 3-Phase main breaker and one single-phase 20 Amp breaker. Load Output: Six 20 Amp 277 V Single-Phase breakers. Capable of controlling 180 Amps @ 277 V or 54- 400 Watt HID fixtures.

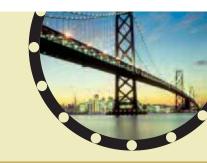
#### **Engineering Specification**

Site Lighting Control Panel

The site lighting control panel shall incorporate agency approved disconnect means with lockout capability, branch circuit breakers for feeding connected lighting loads, electrically held contactor suitable for switching attached loads, and timing mechanism for control of said contactor. The control panel shall be pre-wired for installation convenience and reliability. The control panel shall be designed to accept a variety of timing mechanisms including mechanical and electronic. The control panel and all related

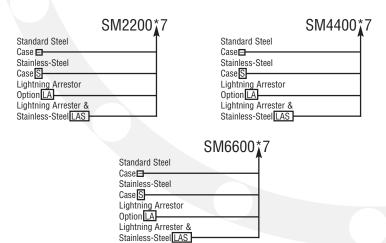
components shall operate over a temperature range of -31°F (-35°C) to 130°F (54°C). The capacity of each branch circuit within the control panel shall be 20 amps minimum. The control panel shall be a lockable steel NEMA 3R enclosure. The control panel shall be INTERMATIC Model \_\_\_\_\_\_\_\_(SM2200x-x 2-branch; 4,800 Watt HID) (SM4400x-x 6-branch; 9,600 Watt HID) (SM6600x-x 8-branch; 14,400 Watt HID) (SM6240DOT) (SM6277DOT).

# Electronic Energy Controls Pre-Wired For Faster Installations



Model#	Time Switch/Description	# Outputs	Output VAC	Photo Control
SM2200*1	T103M Mechanical Time Switch	2	120 VAC	No
SM2200*2	T103M Mechanical Time Switch	2	120 VAC	Yes
SM2200*3	ET101CM Electronic Time Switch	2	120 VAC	No
SM2200*4	ET101CM Electronic Time Switch	2	120 VAC	Yes
SM2200*5	ET279C Electronic Time Switch	2	120 VAC	No
SM2200*6	ET279C Electronic Time Switch	2	120 VAC	Yes
SM2200*7	ET104CM Electronic Time Switch	1	240 VAC	No
SM2200*8	ET104CM Electronic Time Switch	1	240 VAC	Yes
SM2200*16	ET8215CM Astronomic Time Switch	2	120 VAC	No
Model#	Time Switch/Description	# Outputs	Output VAC	Photo Control
SM4400*1	T103M Mechanical Time Switch	4	120 VAC	No
SM4400*2	T103M Mechanical Time Switch	4	120 VAC	Yes
SM4400*3	ET101CM Electronic Time Switch	4	120 VAC	No
SM4400*4	ET101CM Electronic Time Switch	4	120 VAC	Yes
SM4400*51	ET279C Electronic Time Switch	4	120 VAC	No
SM4400*61	ET279C Electronic Time Switch	4	120 VAC	Yes
SM4400*7	ET70115C Electronic Astro Time Switch	4	120 VAC	No
SM4400*81	ET70215C Electronic Astro Time Switch	4	120 VAC	No
SM4400*91	ET70215C Electronic Astro Time Switch	4	120 VAC	Yes
SM4400*10	T104M Mechanical Time Switch	2	240 VAC	No
SM4400*11	T104M Mechanical Time Switch	2	240 VAC	Yes
SM4400*12	ET104CM Electronic Time Switch	2	240 VAC	No
SM4400*13	ET104CM Electronic Time Switch	2	240 VAC	Yes
SM4400*14 <sup>1</sup>	ET70215C Electronic Astro Time Switch	2	240 VAC	No
SM4400*16	ET8215CM Astronomic Time Switch	4	120 VAC	No
Model#	Time Switch/Description	# Outputs	Output VAC	Photo Control
SM6600*1	T103M Mechanical Time Switch	8	120 VAC	No
SM6600*2	T103M Mechanical Time Switch	8	120 VAC	Yes
SM6600*3	ET101CM Electronic Time Switch	8	120 VAC	No
SM6600*4	ET101CM Electronic Time Switch	8	120 VAC	Yes
SM6600*5	ET104CM Electronic Time Switch	4	240 VAC	No
SM6600*6	ET104CM Electronic Time Switch	4	240 VAC	Yes
SM6600*71	ET279CM Electronic Time Switch	8	120 VAC	No
SM6600*81	ET279CM Electronic Time Switch	8	120 VAC	Yes
SM6600*9	ET70115C Electronic Astro Time Switch	8	120 VAC	No
SM6600*101	ET70215C Electronic Astro Time Switch	8	120 VAC	No
SM6600*16	ET8215CM Astronomic Time Switch	8	120 VAC	No

<sup>&</sup>lt;sup>1</sup>Two independent circuits for bi-level or 2-sided control. Complies with California Title 24 requirements for multi-level outdoor lighting control

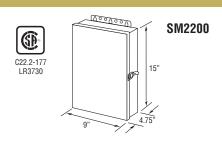


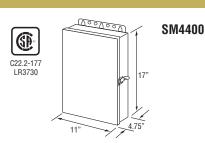


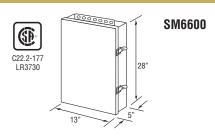
# SITE LIGHTING PANEL TIME SWITCH OPTIONS

Mechanical, Electronic, & Astronomic Field Changeable Mechanisms

#### **Panel Dimensions**









# **In-Wall Electrical Devices Spring Wound Auto-Off Timers**



#### **Applications:**

- Indoor Lighting
- Outdoor Lighting
- Lighting Overrides
- Exhaust Fans
- Whole House Fans
- Ventilating Fans
- Tennis Court Lighting
- Air Conditioners
- Steam Rooms
- Bathroom Fans
- Whirlpools
- Porch Lights
- Broom Closets
- Carriage Lights
- Television Sets
- Self Storage Units • Engine Block Heaters
- Process Controls











## FD Decorator Series Auto-Off Timers

These energy saving timers use no electricity to operate. These timers are designed to replace any standard wall switch, single or multi-gang, and automatically limit the "ON" time of fans, lights, motors, heaters and other energy consuming loads. Time limits of 5, 15, 30 and 60 minutes and 2, 4, 6 and 12 hours are available. The "hold feature" allows the user to override the automatic shut-off function for extended use of the load as required. Supplied with a molded white, ivory or almond time dial plate designed to fit either toggle or decorator style switch plates; single or multi-gang with no field modifications required to fit either style switch plate. Time saving "up front" terminal connection with teeter type terminals and an easy "press-on" knob design ensure quick and easy installation.

#### **Specifications**

Switch Rating -

Inductive: 20 Amp 125 VAC 50/60 Hz; 10 Amp 250 VAC 50/60 Hz; 10 Amp 277 VAC 50/60 Hz,

Tungsten: 7 Amp 125 VAC,

Motor: 1 HP 125 VAC 50/60 Hz; 2 HP 250 VAC 50/60Hz

Caution: Do not use for sunlamps, sauna, etc... Colors - Available in White, Ivory, and Almond

Style - Decorator Styling - Can be used with decorator or toggle type switch plates.

#### **Engineering Specification**

Spring Wound Auto Shut-Off Timer (a.k.a. Interval Timer)

Provide and install as indicated a mechanical spring wound timer that requires no electricity to operate the timing mechanism. The timer shall be supplied with a threaded shaft. The timer must be able to fit a standard 2-1/2 inch deep wall box and accept a rectangular decorator wall plate, standard toggle switch plate or be capable of mounting easily in a panel board. Timer contacts shall break current at the end of timed cycle. Various timing ranges and switch contact arrangements shall be available up to 12 hours, with or without "HOLD" feature for constant \_\_ (Fill in for required time range, contact arrangement and color).

SPST 5 minute F	without hold	with hold	without hold	with hold	
5 minute F	DEM			with hold	without hold only
	DEM				
15 minute F	ED5M	N/A	FD5MW	N/A	N/A
	D15MC	FD15MH	FD15MWC	FD15MHW	FD15MAC
30 minute F	D30MC	FD30MH	FD30MWC	FD30MHW	FD30MAC
60 minute F	D60MC	FD60MH	FD60MWC	FD60MHW	FD60MAC
2 hour F	-D2H	N/A	FD2HW	N/A	N/A
4 hour F	-D4H	N/A	FD4HW	N/A	N/A
6 hour F	D6H	FD60HH	FD6HW	FD6HHW	N/A
12 hour F	D12HC	FD12HH	FD12HWC	FD12HHW	N/A
SPDT Can be used a	as a normally	closed for "Rev	verse Action" a	pplications	
2 hour F	D32H	N/A	FD32HW	N/A	N/A
4 hour F	D34H	N/A	FD34HW	N/A	N/A
6 hour F	-D36H	N/A	FD36HW	N/A	N/A
12 hour N	V/A	N/A	FD312HW	N/A	N/A
DPST					
15 minute F	-D415M	N/A	N/A	N/A	N/A
30 minute F	-D430M	N/A	FD430MW	N/A	N/A
60 minute F	D460M	N/A	FD460MW	N/A	N/A
6 hour F	D46H	N/A	FD46HW	N/A	N/A
12 hour N	V/A	N/A	N/A	N/A	N/A

Decorator (FD) timers shipped with timer, color coordinated time dial and knob.

# In-Wall Electrical Devices Spring Wound Auto-Off Timers



## FF Commercial Series Auto-Off Timers

These energy saving commercial timers use no electricity to operate. These timers are designed to replace any standard wall switch, single or multi-gang, and automatically limit the "ON" time of fans, lights, motors, heaters and other energy consuming loads. Time limits of 5, 15, 30 and 60 minutes and 2, 4, 6 and 12 hours are available. The "hold feature" allows the user to override the automatic shut-off function for extended use of the load as required. Rugged time-dial plate takes the abuse encountered in commercial environments. Time saving "up front" terminal connection with teeter type terminals and an easy "press-on" knob design ensure quick and easy installation.

#### **Specifications**

Switch Rating -

Inductive: 20 Amp 125 VAC 50/60 Hz; 10 Amp 250 VAC 50/60 Hz; 10 Amp 277 VAC 50/60 Hz,

Tungsten: 7 Amp 125 VAC,

Motor: 1 HP 125 VAC 50/60 Hz; 2 HP 250 VAC 50/60Hz

Caution: Do not use for sunlamps, sauna, etc...

**Colors** – Commercial "brush metal" look.

Style - New simulated metal finish meets NEC requirements.

#### **Engineering Specification**

Spring Wound Auto Shut-Off Timer (a.k.a. Interval Timer).

Provide and install as indicated a mechanical spring wound timer that requires no electricity to operate the timing mechanism. The timer shall be supplied with a threaded shaft. The timer must be able to fit a standard 2-1/2 inch deep wall box with commercial wall plate or be capable of mounting easily in a panel board. Timer contacts shall break current at the end of timed cycle. Various timing ranges and switch contact arrangements shall be available up to 12 hours, with or without "HOLD" feature for constant ON. Timer shall be Intermatic Model FF\_\_\_\_\_\_ (Fill in for required time range and contact arrangement).

Time Cycle	Without Hold	With Hold	Without Hold	With Hold	
SPST			DPST		
5 Minute	FF5M	FF5MH	N/A	N/A	
15 Minute	FF15MC	FF15MH	FF415M	N/A	
30 Minute	FF30MC	FF30MH	FF430M	N/A	
60 Minute	FF60MC	FF60MHC	FF460M	N/A	
2 Hour	FF2H	N/A	N/A	N/A	
4 Hour	FF4H	N/A	N/A	N/A	
6 Hour	FF6H	FF6HH	FF46H	N/A	
12 Hour	FF12HC	FF12HHC	FF412H	N/A	
SPDT					
15 Minute	FF315M	N/A			
30 Minute	FF330M	N/A			
60 Minute	FF360M	N/A			
2 Hour	FF32H	FF32HH			
4 Hour	FF34H	FF34HH			
6 Hour	FF36H	N/A			
12 Hour	FF312H	FF312HH			



#### ASHRAE 90.1-1999 Section 9.2.1.2 Space Control

Each space enclosed by ceiling height partitions shall have at least one control device to independently control the general lighting within the space. Each control device shall be activated either manually by an occupant or automatically by sensing an occupant.

#### Each control device shall:

- (a) control a maximum of 2,500 sq ft area for a space 10,000 sq ft or less and a maximum of 10,000 sq ft area for a space greater than 10,000 sq ft,
- (b) be capable of overriding the shutoff control required in 9.2.1.1 for no more than four hours and
- (c) be readily accessible and located so the occupant can see the controlled lighting for a maximum of four hours.



# **In-Wall Electrical Devices Electronic Auto-Off Timers**



#### **ASHRAE 90.1-1999 Section 9.2.1.2 Space Control**

Each space enclosed by ceiling height partitions shall have at least one control device to independently control the general lighting within the space. Each control device shall be activated either manually by an occupant or automatically by sensing an occupant.

#### Each control device shall:

- (a) control a maximum of 2,500 sq ft area for a space 10,000 sq ft or less and a maximum of 10,000 sq ft area for a space greater than 10,000 sq ft,
- (b) be capable of overriding the shutoff control required in 9.2.1.1 for no more than four hours, and
- (c) be readily accessible and located so the occupant can see the controlled lighting for a maximum of four hours.







158°F

## EI200 Series Decorator Electronic Auto-Off Timer

The El200 series timers provide silent operation in time ranges from 30 minutes up to 12 hours. Four basic models available in three colors reduce the need to stock as many timers, freeing up shelf space and providing more specification flexibility. Replaces single-pole switches in a variety of applications.

#### **Specifications**

Switch - Single-pole Switch Rating -

> Resistive (heater): 15 Amp, 120 VAC 1800 Watts; Tungsten (incandescent): 8.3 Amp, 120 VAC 1000 Watts;

Ballast (Fluorescent): 8 Amp, 120 VAC;

Motor: 1/4 H.P., 120 VAC;

Caution: Do not use for sunlamps, sauna, etc... Colors - Available in White, Ivory, and Light Almond

Style - Decorator Styling.

Special Voltages and Cycles - 50 or 60 Hz.

#### **Engineering Specification**

Electronic Auto Shut-Off Timer (a.k.a. Interval Timer).

Provide and install as indicated an electronic timing mechanism. The timer shall be supplied with an LED display and single-button operation. The timer must be able to fit a standard wall box and accept a rectangular decorator wall plate. Timer contacts shall break current at the end of timed cycle. Timer shall be capable of single-pole operation. Various user selectable timing ranges shall be available up to 12 hours, with or without "HOLD" feature for constant ON. Timer shall be Intermatic Model (For 5/10/15/30 Minute El200 - Ivory, El200W - White, El200LA - Light Almond; For 10/20/30/60 Minute El210 - Ivory, El210W - White, El210LA - Light Almond; For 1/2/4/8 Hour El220 - Ivory, El220W - White, El220LA - Light Almond; For 2/4/8/12 Hour El230 - Ivory, El230W - White, El230LA - Light Almond).

Model#	Time Range	Switch	Clock Voltage	Max Wattage	Color	HOLD
EI200	5/10/15/30 Minute	Single-Pole	120 VAC	1,800	lvory	Yes
EI200W	5/10/15/30 Minute	Single-Pole	120 VAC	1,800	White	Yes
EI200LA	5/10/15/30 Minute	Single-Pole	120 VAC	1,800	Light Almond	Yes
EI205*	5/15/30/45/60 Minute	Single-Pole	120 VAC	1,800	lvory	No
EI205W*	5/15/30/45/60 Minute	Single-Pole	120 VAC	1,800	White	No
EI205LA*	5/15/30/45/60 Minute	Single-Pole	120 VAC	1,800	Light Almond	No
El210	10/20/30/60 Minute	Single-Pole	120 VAC	1,800	lvory	Yes
EI210W	10/20/30/60 Minute	Single-Pole	120 VAC	1,800	White	Yes
EI210LA	10/20/30/60 Minute	Single-Pole	120 VAC	1,800	Light Almond	Yes
El215**	15/30/60 Minute, 2/4Hour	Single-Pole	120 VAC	1,800	lvory	No
EI215W**	15/30/60 Minute, 2/4Hour	Single-Pole	120 VAC	1,800	White	No
EI215LA**	15/30/60 Minute, 2/4Hour	Single-Pole	120 VAC	1,800	Light Almond	No
El220	1/2/4/8 Hour	Single-Pole	120 VAC	1,800	lvory	Yes
El220W	1/2/4/8 Hour	Single-Pole	120 VAC	1,800	White	Yes
EI220LA	1/2/4/8 Hour	Single-Pole	120 VAC	1,800	Light Almond	Yes
EI230	2/4/8/12 Hour	Single-Pole	120 VAC	1,800	lvory	Yes
EI230W	2/4/8/12 Hour	Single-Pole	120 VAC	1,800	White	Yes
EI230LA	2/4/8/12 Hour	Single-Pole	120 VAC	1,800	Light Almond	Yes

Meets or exceeds CEC Title 24, ASHRAE 90.1 and IECC requirements for enclosed spaces.

<sup>\*\*</sup> Meets or exceeds ASHRAE 90.1 Requirements for enclosed spaces.

# In-Wall Electrical Devices 24-Hour Mechanical Time Switches



## Compact Mechanical In-Wall Time Switches

These compact heavy-duty 24-hour timers can be used to turn on lights, fans, pumps and other heavy-duty loads for energy savings, security and convenience. Its compact, quiet, low profile design has easy to set tabs for precise 24-hour control. Models are available for single gang, 2-gang and dual timer applications. Easy set tabs provide for minimum on/off times of 20 minutes for up to 36 ON/OFF events daily. A manual ON or OFF override provides for permanent on or off override of loads at any time.

Three models; E1120 - a single timer model, E1220 - a single timer with a 2-gang switch plate for a toggle switch, and E1221 - a single timer with a 2-gang switch plate for a decorator switch. All four models include a white metal single or 2-gang switch plate as required. The toggle or decorator switch is not included with timers. Model E1221 with decorator switch plate can be wired to control a decorator style receptacle or GFCI receptacle to provide for "timed receptacle" control.

#### **Specifications**

**Size** – All models 1-1/4" (3.18 cm) Deep. Model E1120 - 4-1/2" (11.43 cm) H, 2-3/4" (6.99 cm) W; Models E1220, E1221 and E1222 - 4-1/2" (11.43 cm) H, 4-9/16" (11.59 cm) W.

Switch Rating – 120 Volt AC, 60 Hz, 15 Amps, 1875 Watts Resistive 1350 Watts Tungsten, 1/2 HP Motor Load. 8 Amp Inductive

**Manual Control** – Timers can be turned on and off manually for temporary or permanent control. **Color** – White switch plate and trippers, black dial.

Model#	Plate Only	Switch	Volts /60Hz	Amps	Max Wattage	Min. On/Off Time	Max. On/Off Time
E1120	24EB5495	SPST	120	15	1875	20 mins.	23 hrs. 40 mins.
E1220	24EB5497	SPST	120	15	1875	20 mins.	23 hrs. 40 mins.
E1221	24EB5524	SPST	120	15	1875	20 mins.	23 hrs. 40 mins.

# Heavy Duty In-Wall Time Switches

These heavy duty timers can be used to turn on lights, fans, pumps and other heavy duty loads for energy savings, security and convenience. The timer is designed to mount to any standard junction box for replacing a wall switch. Models are available in single ON / OFF or multiple ON / OFF type. Both models have an easy to use manual override.

Model E1010 equipped with a 24 hour dial divided in half-hour increments with a permanently attached "ON" and "OFF" tripper permitting single "ON / OFF" control every 24 hours. Model E1020 equipped with a multiple program dial. The dial accommodates 12 "ON" and 12 "OFF" trippers. Furnished with two "ON" and two "OFF" trippers. Both timers have three color code leads and require a hot, neutral and one side of the load.

#### **Specifications**

**Size** – 4-1/4" (10.8 cm) High, 3-1/4" (9.5 cm) Wide, 1-3/8" (3.5 cm) Deep.

Switch Rating - 120 VAC 60 Hz; 1440 Watts Tungsten; 12 Full load Amps.; 15 Amp max load.

Timing Cycle – Minimum "ON" time 1/2 hour, maximum "ON" time 22-1/2 hours; Minimum time between any two "ON" trippers (and any two "OFF" trippers) is 2 hours.

Model#	Switch	Volts	Amps	Max Wattage	Color	
E1010	SPST	120	15	1800	Stonedust white housing	
E1020	SPST	120	15	1800	Stonedust white housing	

For additional trippers for E1020 (2 "ON" / 2 "OFF" per pack), order No. 156EB1945A.







#### ASHRAE 90.1-1999 Section 9.2.1.1 Automatic Lighting Shutoff

Interior lighting in buildings larger than 5,000 sq. ft. shall be controlled with an automatic control device to shut off building lighting in all spaces.

# This automatic control device shall function on either;

- (a) a time-of-day operated control device that turns lighting off at specific programmed times, and independent program schedule shall be provided for areas of no more than 25,000 sq ft but not more than one floor or
- (b) an occupant sensor that shall turn lighting off within 30 minutes of an occupant leaving a space or
- (c) by occupant intervention.







UL916 C22.2-177 2 76987 LR3730 1



#### **Applications:**

- Schools
- Offices
   Airports
- Airport
- Stores
   Hotels
- Restaurants
- Parks
- Apartments

UL917 2.5 lbs 22.2-177 1.1 kg

#### For Controlling:

- Hall Lights
- Ceiling Lights
- Whole House Fans
- Paddle Fans
- Porch Lights
- Outdoor Lights
- Air Conditioners
- Coffee MakersBoilers
- Attic Fans
- Industrial Fans
- Automated Control





# **In-Wall Electrical Devices** 24-Hour Mechanical Time Switches



#### **ASHRAE 90.1-1999 Section 9.2.1.1 Automatic Lighting Shutoff**

Interior lighting in buildings larger than 5,000 sq ft shall be controlled with an automatic control device to shut off building lighting in all spaces.

#### This automatic control device shall function on either:

- (a) a time-of-day operated control device that turns lighting off at specific programmed times, and independent program schedule shall be provided for areas of no more than 25,000 sq ft but not more than one floor or
- (b) an occupant sensor that shall turn lighting off within 30 minutes of an occupant leaving a space or
- (c) by occupant intervention.









## EI500 Series Decorator Digital 7-Day Time Switch

The El500 series compact 7-day timers provides up to 7-ON and 7-OFF operations per week which can be used for 24-hour or 7-day load control of lights, fans, pumps, and other medium-duty loads for energy savings, security, and convenience. Its compact, quiet, low profile design is easy to program for to-the-minute 24-hour or 7-day control. In addition, the display continuously shows time of day, day of the week, timer load and the load status. Available in three colors white, ivory, and light almond. Replaces single-pole switches in a variety of applications.

#### **Specifications**

Switch - Single-pole Switch Rating -

> Resistive (heater): 15 Amp, 120 VAC 1800 Watts; Tungsten (incandescent): 8.3 Amp, 120 VAC 1000 Watts;

Ballast (fluorescent): 8 Amp, 120 VAC;

Motor: 1/4 H.P., 120 VAC:

Caution: Do not use for sunlamps, sauna, etc...

Events - 7 ON & 7 OFF Events per Day.

Colors - Available in White, Ivory, and Light Almond

Style - Decorator Styling.

Special Voltages and Cycles - 50 or 60 Hz.

#### **Engineering Specification**

Electronic 7-Day Timer.

The timer switch shall be a solid state electronic control capable of permitting 7-ON and 7-OFF set points to be distributed through a 7-day time period. The time and set points shall be programmable to the nearest minute with a minimum ON duration of 1 minute and a maximum ON duration of 6 days, 23 hours, 59 minutes. The timer shall have a backlit digital LCD readout to show day-of-week and time-of-day using 12 hour AM/PM indicator. The time switch shall provide a manual override control for both temporary or permanent override. Time switch shall operate over a temperature range of 32°F (0°C) to 158°F (70°C). An internal rechargeable battery shall protect program information and time-of-day for a minimum of 36 hours. Switch configuration to be SPST with a UL listed rating of: 20 amp Resistive, 120 Volts AC, 50/60 Hz; 15 amps Resistive, 120 Volts AC, 50/60 Hz; 1/4 HP, 120 Volts AC, 50/60 Hz; 8.3 amps Tungsten, 120 Volts AC, 50/60 Hz; 10 amps Ballast, 120 Volts AC, 50/60 Hz The timer must be able to fit a standard wall box and accept a rectangular decorator wall plate. Timer contacts shall make or break current according to user adjustable program. Timer shall be Intermatic Model White - EI500W, Light Almond - EI500LA)

Model#	Switch	Clock Voltage	Max Wattage	Color
EI500C	Single-Pole	120 VAC 50/60 Hz	1,800	lvory
EI500WC	Single-Pole	120 VAC 50/60 Hz	1,800	White
EI500LAC	Single-Pole	120 VAC 50/60 Hz	1,800	Light Almond

# In-Wall Electronic Devices 7-Day Electronic Time Switch



## E1600 Series Decorator Electronic 7-Day Astro Time Switch

This easy to program timer provides up to 40 ON/OFF operations per week which can be used for 24-hour or 7-day load control. The astronomic feature provides sunset ON and sunrise OFF settings and the auto daylight savings adjustment means you can "set-it and forget-it". The independant 7-day programming provides complete flexibility for applications where load switching differs each day of the week. Astronomic programming can be combined with independant programs to provide a sunset ON and timed OFF program. A factory supplied CR2 lithium battery provides up to three years of time keeping without AC power and user program selections are stored in non-volatile memory. A low battery indicator appears in the display when the battery requires replacement. In addition, the display continuously shows time of day, day of the week, timer load and the load status. The timer has an isolated single pole single throw switch which allows the timer to switch any load type, including PAR lamps and motor loads from 12 to 277 volts AC or 12 to 28 volts DC, within the specified ratings. A "3 wire" design allows the timer to replace, or be used as a single-pole or 3-way (multi-way) switch.

#### **Specifications**

Switch - Single-pole or 3-way (Multi-way) Compatable

Switch Rating -

Resistive (heater): 20 Amp, 120-277 VAC

Tungsten (incandescent): 15 Amp, 120 VAC; 6 Amp, 208-277 VAC

Ballast (fluorescent): 16 Amp, 120-277 VAC

Motor: 1 H.P., 120 VAC; 2 H.P., 240 VAC; 4 Amp, DC Loads:12 VDC; 2 Amp, 28 VDC

Caution: Do not use for sunlamps, sauna, etc...

Events - 40 ON/OFF Events per week.

Colors - Available in White, Ivory, and Light Almond

Style - Decorator Styling.

Special Voltages and Cycles - 50 or 60 Hz.

Warranty - 5 Years

#### **Engineering Specification**

Electronic 7-Day astronomic Timer.

The timer switch shall be a solid state electronic control capable of permitting 40 ON/OFF set points to be distributed through a 7-day time period with 1 astro ON and 1 astro OFF set point per day. The time and set points shall be programmable to the nearest minute with a minimum ON duration of 1 minute and a maximum ON duration of 6 days, 23 hours, 59 minutes. The timer shall have a digital LCD readout to show day-of-week and time-of-day using 12 hour AM/PM indicator. The time switch shall provide a manual override control for both temporary or permanent override.

Time switch shall operate over a temperature range of 32°F (0°C) to 104°F (40°C). A lithium battery provides up to three years of time keeping without AC power and user program selections are stored in a non-volatile memory. Switch configuration to be SPST with a UL listed rating of: Resistive (heater): 20 Amp,120-277 VAC; Tungsten (incandescent):15 Amp, 120 VAC; 6 Amp, 208-277 VAC; Ballast (Fluorescent): 16 Amp, 120-277 VAC; Motor: 1 H.P., 120 VAC; 2 H.P., 240 VAC; 4 Amp, DC Loads: 12 VDC; 2 Amp, 28 VDC. The timer must be able to fit a standard wall box and accept a rectangular decorator wall plate. Timer contacts shall make or break current according to user adjustable program. Timer shall be Intermatic Model \_\_\_\_\_\_ (Ivory - E1600, White - E1600VM, Light Almond - E1600LA)

Model#	Switch	Contact	Max Wattage	Color
EI600C	Single-Pole / 3-way	12 - 277 VAC;12 - 28 VDC	1,800 - 4,155	lvory
EI600WC	Single-Pole / 3-way	12 - 277 VAC;12 - 28 VDC	1,800 - 4,155	White
EI600LAC	Single-Pole / 3-way	12 - 277 VAC;12 - 28 VDC	1,800 - 4,155	Light Almond



#### **Applications:**

- Schools
- Offices • Airports
- Stores
- Hotels
- Restaurants
- Parks
- Apartments

#### **For Controlling:**

- Indoor Lighting
- Outdoor Lighting
- Pumps & Fans
- HID Lighting
- Library Lights
   Classroom Lights
- Fluorescent Lighting
- PAR Lights
- HeatersRecreational Vehicles
- Air Conditioners
- Porch Lights
- Carrage Lights







32°F 7 (0°C) to 158°F







# InTouch™ — The Centerpiece for Peaceful Living

Z-wave<sup>™</sup> makes reliable wireless home control possible. Intermatic makes it a reality with the InTouch<sup>™</sup> series of wireless controls. Until now home controls had only two options — reliable controls that were too expensive or low cost controls that were unreliable. That's all changed with Intermatic's InTouch wireless controls, which bring reliable controls together with low cost to deliver a home solution everyone can enjoy.

Named the Best New Emerging Technology by CNET at the 2006 Consumer Electronic Show, and recipient of the Electronic House Product of the Year Award, Z-wave is a breakthrough technology that enables products from many different manufacturers to seamlessly work together. This same technology lies at the center of Intermatic's InTouch home control system.

Several factors contribute to make Z-wave a breakthrough innovation. First is the "mesh" network, which basically means that every line-powered device within the network acts as a repeater to route signals among distant devices. Second is that Z-wave networks operate in the 900Mhz band, providing a penetrating signal to deliver reliable communications between devices. Another factor is that with more than 4 billion unique house codes, Z-wave provides a secure network with no fear of interference from neighboring systems. Finally, Z-wave has made the leap from theory to reality as more than 100 companies are working in the Z-wave Alliance to develop actual products that benefit homeowners today and in the near future.

What this means to homeowners, is they now have all of the convenience, comfort and safety of a reliable home control system without concerns of system reliability, product/ installation costs or compatibility between products.

The Intermatic InTouch system helps homeowners "set the scene" for entertaining, working or just relaxing after a long day. Homeowners can now manage and monitor lighting, security systems and other electronics easily, conveniently and securely from anywhere in the world. Functions such as indoor and outdoor lighting, entry access, pool & spa functions, home theater systems, window treatments and heating & cooling are a breeze with Intermatic's InTouch control system.



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Intermatic's InTouch system has taken Z-wave technology to an even higher level of functionality with the introduction of its patent pending InTouch server technology. The InTouch server provides full two-way, real-time status of every device in the network including legacy Z-wave devices. The InTouch server also makes a host of never before seen features available to the installer and homeowner including:

- Greater network range doubling the number of "hops" a signal can take to get to its target from the Z-wave standard of 4 to 9.
- In-field firmware upgrade capability future-proofing an InTouch network from protocol changes
- System text and graphics messaging allowing streaming information such as sports scores, stock quotes, weather
  and news alerts as well as personal and system status messages
- Centralized scene and status information ability to remotely edit scenes from anywhere in the network
- Full Z-wave compatibility adding an InTouch Server to any manufacturer's Z-wave product instantly upgrades their capabilities to share many of the InTouch features

Imagine arriving home from a long day's work and as you step inside, the temperature of the room is just right, the lighting level is relaxed and inviting, your audio system is playing your favorite song, the shades are being drawn for the evening and your spa is warm and bubbling.

At Intermatic, we call this living the InTouch lifestyle. Previous home controls systems capable of providing a similar level of service as InTouch were expensive, took weeks to install and didn't deliver the same functionality.

InTouch provides the safety, security and convenience homeowners are looking for while making it price-accessible for everyone. With an InTouch residential controls package from Intermatic, electrical contractors, designers, home builders and custom installers can provide homeowners with a robust and intelligent system for a fraction of the cost of current competitive systems. Best of all, the system can be expanded easily to grow with homeowners' changing needs. And since it's powered by Z-wave technology, InTouch is 100% compatible with the growing number of Z-wave enabled products.

InTouch products are backed by a 10-year warranty and more than 115 years of experience in the electrical industry. The controllers, switches and receptacles are designed to complement any décor and the intuitive controls are designed for minimal programming effort and maximum system functionality.

#### For the Professional installer:

- Earn back lost sales by offering customers an affordable, full-bodied system at a price that will shock them for being so
  affordable.
- Easy Installation equals less spent on time and labor.InTouch devices install with existing wiring and both network setup and system programming are quick and easy.
- Fewer SKUs means less inventory. Intermatic's growing line of InTouch products offer changeable faceplates and combination switches to keep the number of devices the distributor or installer needs to inventory to a minimum.
- · Adaptability makes InTouch the perfect solution for new construction as well as retrofit applications.

#### For the Homeowner:

- Advanced technology fosters a progressive lifestyle at a price anyone can afford.
- Home controls add value to the home, increasing prestige and resale values.
- · Reliable and secure control network for consistent comfort, convenience and safety.
- Energy savings brought about by improved electrical management.
- · Easily modified as your electronic needs change and grow.



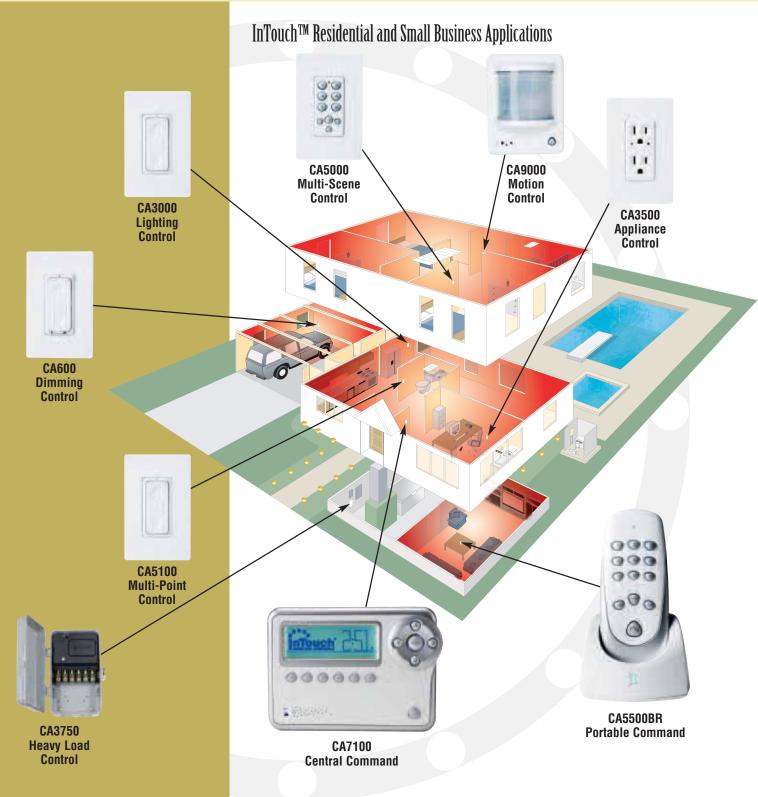














### InTouch™ Product Line

## CA7100

#### **In-Wall Master Control**

- · Features include multiple scene functions, programming based on time, action or a combination of both, along with a full 2-way control system
- Built-in astro clock allows lights to go on at sunset and off at sunrise, never having to reset the timer
- Voltage: 120 volts 50/60 Hz
- · Agency approval: FCC, CSA c/us

### CA5500BR

#### Hand Held Remote with Smartbase

- . Offers remote scene control, status feedback and a rechargeable nickel metal hydride battery
- The Smartbase also features network memory backup
- · Agency approval: FCC

### CA5000

#### **Multi-Button Scene Controller**

- · Offers remote scene control and status feedback
- Includes three interchangeable faceplates
- · Colors include White, Ivory and Light Almond
- Voltage: 120 volts 50/60 Hz
- Agency approval: FCC, CSA c/us

## CA5100

#### **Accessory Wall Controller**

- · Features include remote scene control, and mini-scenes
- Includes three interchangeable faceplates
- Colors include White, Ivory and Light Almond
- Voltage: 120 volts 50/60 Hz
- Agency approval: FCC, CSA c/us

## CA9000

#### Wireless PIR Sensor

- · Features remote scene control and adjustable time delay
- · Requires three AA alkaline batteries
- · Agency approval: FCC

## **CA600**

#### **Wall Dimmer Switch**

- Offers local and remote scene control.
- ON/OFF/dim/bright features and LED feedback

  The 3-way option allows consumers to control lights from multiple locations, using standard switches, and the mini-scene function allows a light switch to also trigger a small scene of up to five additional devices
- Includes three interchangeable faceplates
- · Colors include White, Ivory and Light Almond
- Voltage: 120 volts 50/60 Hz
- Rating: 600 W Tungsten
- Agency approval: FCC, CSA c/us

## CA3000

#### **Wall Switch**

- · Includes local and remote scene control, ON/OFF, 3-way option and mini-scenes
- Includes three interchangeable faceplates
- Colors include White, Ivory and Light Almond
- Voltage: 120 volts 50/60 Hz
- Rating: 1800 Watts 15A Tungsten;
  1800 Watts 15A Resistive/Inductive;
  1820VA 15A Ballast; 1/2HP Motor
  Agency approval: FCC, CSA c/us

## CA3500

#### Split-Duplex Receptacle

- Features one controlled grounded receptacle and local control
- Includes three interchangeable faceplates
- · Colors include White, Ivory and Light Almond
- Voltage: 125 volts 50/60 Hz
- · Rating: 15 Amps General Purpose
- · Agency approval: FCC, CSA c/us

### CA3750

#### **Contactor Module**

- For large loads such as air conditioners, spas and heaters, the contactor module features a local ON/OFF control and LED feedback
- Voltage: 120, 208, 240, 277 volts 50/60 Hz
  Rating: 6600 Watts 30 A Resistive; 5500VA 25 Amps Inductive; 5540 Watts 20 Amps @ 277VAC Ballast; 4400 Watts 20 Amps Tungsten; 3HP @ 220VAC Motor
- Agency approval: FCC, CSA c/us

#### CA7100



**CA5500BR** 

CA600





CA5000

CA3000





CA5100

CA3500





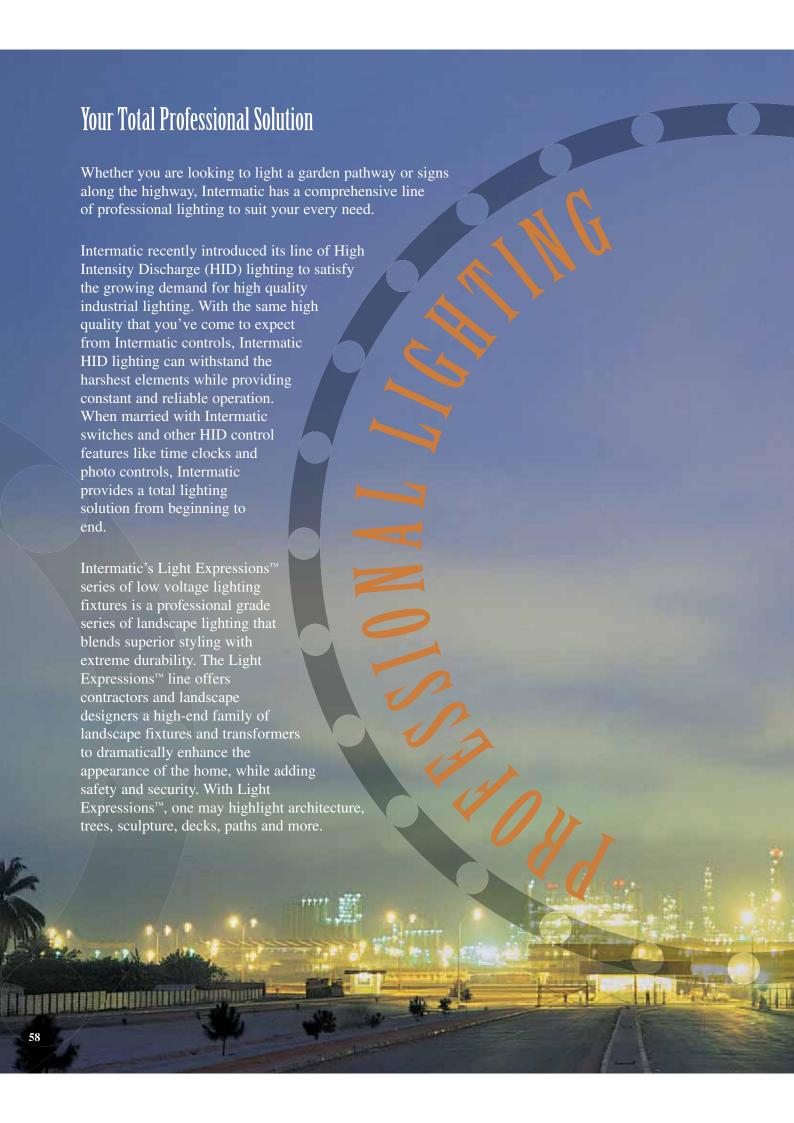
CA9000

CA3750









# **Professional Grade Transformers**

# Light Expressions

Intermatic® professional grade transformers are the most reliable low voltage transformers available. Manufactured by Intermatic Incorporated – recognized worldwide for high quality timers and system controls - these transformers are especially designed for trouble-free operation and long lasting durability. Ensure that all of your professional lighting installations operate trouble-free and provide long-lasting service by using only Intermatic® professional grade transformers.

"Your success can depend on it!"

## Every professional grade transformer includes these important product features:

- Heavy gauge steel housings with rain-tight covers (Model AL60TW uses a high impact polymer construction)
- Complete ground shield protection for safe operation. Suitable for use with submersible luminaries or submersible pumps
- · Suitable for use with submersible luminaries or submersible pumps
- . Meets UL and cCSAus safety standards
- · Automatic or resettable circuit breakers for overload protection, helps prevent damage to electrical components, caused by overheating

#### A. AL300TPWS

- · Heavy-duty 16 ga. stainless steel case
- Built-in photo control option
- Manual ON/OFF switch
- · Fully programmable timer
- One set of 300 watt terminal blocks
- · Heavy-duty power cord
- 5 Year limited warranty
- · Resettable circuit breaker
- · Rain tight enclosure with lifetime limited warranty

#### B. AL600TPWS

- · Heavy-duty 16 ga. stainless steel case
- Built-in photo control option
- Manual ON/OFF switch
- · Fully programmable timer
- Two sets of 300 watt terminal blocks
- · Heavy-duty power cord
- . 5 year limited warranty
- · Resettable circuit breaker
- · Rain tight enclosure with lifetime limited warranty

#### C. AL900TPWS

- · Heavy-duty 16 ga. stainless steel case
- · Built-in photo control option
- Manual ON/OFF switch
- · Fully programmable timer
- . Three sets of 300 watt terminal blocks
- · Heavy-duty power cord
- . 5 year limited warranty
- · Resettable circuit breaker
- · Rain tight enclosure with lifetime limited warranty

#### D. AL300RTW

- . Heavy-duty 18 ga. steel housing
- Manual ON/OFF switch Fully programmable timer
- One set of 300 watt terminal blocks
- · Heavy-duty power cord
- 5 year limited warranty
- · Automatic circuit breaker
- · Rain tight enclosure

#### E. AL600TW

- · Heavy-duty 18 ga. steel housing
- Manual ON/OFF switch
- · Fully programmable timer
- Two sets of 300 watt terminal blocks
- · Heavy-duty power cord
- 5 year limited warranty
- · Automatic circuit breaker
- · Rain tight enclosure

#### F. AL900TW

- · Heavy-duty 18 ga. steel housing
- · Manual ON/OFF switch
- Fully programmable timer
- Three sets of 300 watt terminal hlocks
- · Heavy-duty power cord
- 5 year limited warranty
- · Automatic circuit breaker
- · Rain tight enclosure











All Intermatic AL Transformers meet UL1838 Standards





# **Professional Grade Transformers**

# Light Expressions









#### G. AL60TW

- High-impact polymer case
- Manual ON/OFF switch
- · Fully programmable timer
- 2 sets of ON/OFF trippers
- · Automatic circuit breaker
- · Ground shield protection
- · Heavy-duty power cord
- 5 year limited warranty · Rain tight enclosure

#### H. AL300MTW

#### TRANSFORMER:

- 300VA (True Watts) multi-tap (12V, 13V, 15V)
- · Heavy 18 ga. painted steel housing
- · Resettable circuit breaker
- · Heavy duty power cord code compliant for use with submersible luminaries
- · Easy hook-up to color coded and labeled leads
- · Conduit ready with knockouts
- . 10 year limited warranty on transformer

#### INDEPENDENT DIGITAL SELE ADJUSTING INDOOR TIMER:

- Set it once, no re-setting required
- · Automatically adjusts sunrise/sunset times
- Automatically adjusts for daylight savings time
- · Battery back-up included
- Easy to read LCD display
- One year limited warranty on timer

#### I. AL600MTW

#### TRANSFORMER:

- 600VA (True Watts) multi-tap (12V, 13V, 15V)
- · Heavy 18 ga. painted steel housing
- Resettable magnetic circuit breakers (2)
- · Heavy duty power cord code compliant for use with submersible luminaries
- · Easy hook-up to color coded and labeled leads
- · Conduit ready with knockouts
- 10 year limited warranty on transformer

#### INDEPENDENT DIGITAL SELF ADJUSTING INDOOR TIMER:

- · Set it once, no re-setting required
- · Automatically adjusts sunrise/sunset Times
- · Automatically adjusts for daylight savings time
- · Battery back-up included
- · Easy to read LCD display
- One year limited warranty on timer

#### J. AL300BW

- · High-impact PVC case
- Water tight enclosure, can be buried to ground level
- · Can be controlled externally
- Three 1.5" I.D. knockouts for line voltage conduit
- · Automatic circuit breaker
- · Ground shield protection for safe operation
- 5 year limited warranty

All Intermatic AL Transformers meet UL1838 Standards

# **Professional Landscape Lighting**

# Light Expressions

Our Professional Grade Lighting line includes a wide range of weatherproof transformers, low voltage fixtures, specialty insulated cables and a variety of accessories. Intermatic offers an expanded selection of fixtures designed for easy installation. All have the most advanced features that result from our many years of experience in low voltage lighting.





**AL111**Well Light with 14W
Poly-Star bulb



AL115 Submersible Light with 20W halogen MR16 bulb



AL375V Metal Light with 18W wedge base bulb and Verde finish



**AL380C**Copper Light with
18W wedge base bulb



Accessories

**Low Voltage Cable** 



**AL385V**Brass Light with 18W wedge base bulb and Verde Patina finish



AL395 Brass Light with 18W wedge base bulb and Aged Brass finish



AL395V Brass Light with 18W wedge base bulb and Verde Patina finish



AL401 Metal Floodlight with 35W MR16 bulb and Black finish



AL10210 10/2 100 ft. AL102-5C 10/2 500 ft. AL12210 12/2 100 ft. AL122-5C 12/2 500 ft.



AL402 Metal Floodlight with 50W PAR36 bulb and Black finish



AL402TA
Metal Floodlight with
50W PAR36 bulb and
Textured Architectural
Bronze finish



**AL403**Metal Floodlight with
35W Halogen MR16
bulb and Black finish



AL403TA
Metal Floodlight with
35W Halogen MR16
bulb and Textured
Architectural Bronze
finish



AL8-12
Designed specifically
for weatherproof,
outdoor, hard-wire
installations



AL1160 Fixture Ground Stake, 1/2" Female Thread, Heavy Duty Plastic



# **Professional Landscape Lighting** Light Expressions









**AL405** Brass Light with 18W wedge base bulb and Aged Brass finish



**AL405V** Brass Light with 18W wedge base bulb and Verde Patina finish



**AL406** Metal Deck Light with 8W bayonet bulb and Black finish



AL406TA Metal Deck Light with 8W bayonet bulb and Textured Architectural Bronze finish



AL407TA Metal Cone Walk Light with 18W wedge base bulb and Textured Architectural Bronze finish



AL408TA Metal Dome Walk Light with 18W wedge base bulb and Textured Architectural Bronze finish



**AL409** Metal Bollard Light with 50W MR16 bulb and Black finish



AL409TA Metal Bollard Light with 50W MR16 bulb and Textured Architectural Bronze finish



**AL425C** Copper Ellipse Light with 18W wedge base bulb



AL501 Mini Floodlight with 35W halogen MR16 bulb and Black finish



AL502 Large Floodlight with 50W PAR36 bulb and Black finish



AL502DS Large Floodlight with 50W PAR36 bulb and Dark Sand finish

# **Professional Landscape Lighting**

# Light Expressions





AL502TA Large Floodlight with 50W PAR36 bulb and Architectural Bronze finish



AL506 Metal Floodlight with 35W halogen MR16 bulb and Black finish



**AL508V** Large Path Light with 18W wedge base bulb and Verde finish



AL510V Large Brass Floodlight with 50W PAR36 bulb and Verde finish





AL521 Cast Metal Acorn Style Path Light with 35W halogen MR16 bulb and Black finish



AL550 3 Tier Path Light with 18W wedge base bulb and Black finish



**AL550DS** 3 Tier Path Light with 18W wedge base bulb and Dark Sand finish



AL550TA
3 Tier Path Light with
18W wedge base bulb
and Architectural
Bronze finish







# High Intensity Discharge (HID) Lighting

Intermatic's line of HID lighting is the perfect solution for a wide variety of outdoor lighting needs. In addition, Intermatic has a full array of controls and sensors designed to complement any residential, commercial or industrial lighting system.

### Wall Packs

Ideal for: Parking Areas, Entrances, Walkways, Underpasses, Loading Docks, Recreation Areas and Tunnels.

- . UL listed for wet locations
- Heavy duty die-cast aluminum powder coating construction
- · Corrosion-resistant hardware
- 1/2" tapped holes available for installing photocell (photocell optional)









WL050MH WL070MH WL100MH



WL035HPS WL050HPS WL070HPS WL100HPS



WL150MH WL175MH



WL150HPS







WL250HPS







WL400HPS

# High Intensity Discharge (HID) Lighting



# **Floodlights**

Ideal for: Buildings, Backyards, Highway Signs, Outdoor Advertising Boards, Parks and Sports Fields

- UL and CUL listed for wet locations
- Heavy duty die-cast aluminum powder coating construction
- · Corrosion-resistant hardware

- High impact-resistant tempered glass
- · Lamp holder E-26, UL approved
- Multi-tap ballast: 120/208/240/277 Volts

Part Number	Wattage	Lamp	Voltage	Finish	Lens
FL035HPS	35W	High Pressure Sodium	120V	Bronze	Glass
FL050HPS	50W	High Pressure Sodium	120V	Bronze	Glass
FL070HPS	70W	High Pressure Sodium	120V	Bronze	Glass

			120/208/240/277V		
FL050MH	50W	Metal Halide	Quad Tap	Bronze	Glass
			120/208/240/277V		
FL070MH	70W	Metal Halide	Quad Tap	Bronze	Glass
			120/208/240/277V		
FL100HPS	100W	High Pressure Sodium	Quad Tap	Bronze	Glass
			120/208/240/277V		
FL100MH	100W	Metal Halide	Quad Tap	Bronze	Glass

			120/208/240/277V		
FL150HPS	150W	High Pressure Sodium	Quad Tap	Bronze	Glass
			120/208/240/277V		
FL150MH	150W	Metal Halide	Quad Tap	Bronze	Glass
			120/208/240/277V		
FL175MH	175W	Metal Halide	Quad Tap	Bronze	Glass

			120/208/240/277V			
FL250HPS	250W	High Pressure Sodium	Quad Tap	Bronze	Glass	
			120/208/240/277V			
FL250MH	250W	Metal Halide	Quad Tap	Bronze	Glass	
			120/208/240/277V			
FL400HPS	400W	High Pressure Sodium	Quad Tap	Bronze	Glass	
			120/208/240/277V			
FL400MH	400W	Metal Halide	Quad Tap	Bronze	Glass	

# **Dusk-to-Dawn Lights**

Ideal for: Perimeter and Security Lighting, Loading Platforms, Barnyards, Parking Lots, Rural Homes, Public Entrances and OFF-Street Parking

- UL listed for wet locations
- Precision die-cast aluminum housing with natural finish
- UV-stabilized PS Lens
- 24" arm

- Dusk-to-dawn with twist-lock photo control
- · Mounting hardware included
- Lamp holder E-39, 4KV and UL approved
- 120 Volt fixture

Part Number	Wattage	Lamp	Voltage	Lens	Arm	
DD150HPS	150W	High Pressure Sodium	120V	Polycarbonate	24"	
DD175MV	175W	Mercury Vapor	120V	Polycarbonate	24"	





FL035HPS FL050HPS FL070HPS



FL070MH FL100MH



FL100HPS



FL150MH FL175MH





FL250MH FL400MH



FL250HPS FL400HPS





DD150HPS



# High Intensity Discharge (HID) Lighting

FL150Q



FL300Q FL500Q



CP150HPS



WL070HPSPC



# **Quartz Floodlights**

Ideal for: Building Facades, Signs, Sports Fields and Emergency and Temporary Floodlighting

- UL and CUL listed for wet locations
- Die-cast aluminum construction
- Tempered door glass
- Hinged front door

- 1/2" threaded swivel mount
- Dark bronze finish
- 120 Volt fixture

Part Number	Wattage	Lamp	Voltage	Finish	Lens
FL150Q	150W	Quartz Halogen	120V	Bronze	Glass
FL300Q	300W	Quartz Halogen	120V	Bronze	Glass
FL500Q	500W	Quartz Halogen	120V	Bronze	Glass

# **Canopy Lights**

Ideal for: Parking Areas, Entrances, Walkways, Underpasses, Loading Docks and Recreation Areas

- UL listed for wet locations
- Heavy duty die-cast aluminum powder coating construction
- High impact polycarbonate lens
- · Corrosion-resistant hardware

- 1/2" tapped holes available for installing photocell (photocell optional)
- multi tap ballast: 120/208/240/277 Volts

Part Number	Wattage	Lamp	Voltage	Finish	Lens
			120/208/240/277V		
CP150HPS	150W	High Pressure Sodium	Quad Tap	Bronze	Polycarbonate

## Wall Fixture with Photocell

Ideal for: Parking Areas, Entrances, Walkways, Underpasses, Loading Docks and Recreation Areas

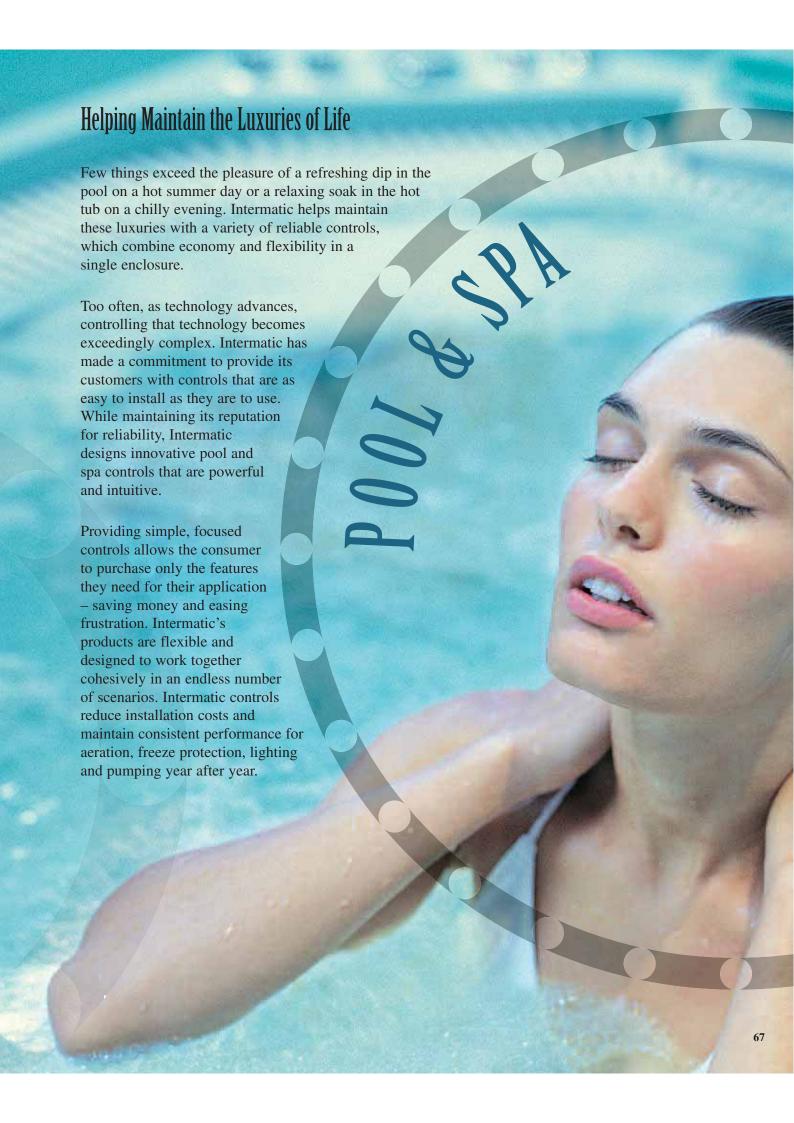
- UL listed for wet locations
- High-impact polycarbonate lens and housing
- Aluminum baseplate with conduit access
- Corrosion-resistant hardware

- 120 Volt installed photocell included
- Multi-tap ballast: 120 Volt fixture

Part Number	Wattage	Lamp	Voltage	Finish	Lens
WL070HPSPC	70W	High Pressure Sodium	120V	Bronze	Polycarbonate









# **Digital Wireless Controls**



**PE950** 



PE650



# PE40000 Series

# I-Wave Wireless Pool/Spa Control

Intermatic's wireless pool and spa controls utilize ground-breaking Z-wave™ technology. While some controls communicate transmission problems, Intermatic's wireless devices allow total and uninterrupted communication between the controller and the equipment.

Intermatic's modular approach provides for added diversity and convenience. Modules are capable of working independently or within a system. Portions can be added or replaced without interfering with the original system, and each system can be designed to incorporate as many or as few features as needed to accomplish the task at hand — making Intermatic the most value added and cost-effective choice.

All I-Wave Models include wireless transmitter and transceiver, two PE24VA valve actuators, five total circuits (three timed and two on demand), two-speed control, water temperature display, heater temperature control, fireman switch, freeze protection and 125 Amp breaker base.

#### **Applications**

- · Pool/Spa combinations
- · Water features
- Fountains

#### **Specifications**

**Case** — 26.0" (66.3 cm) high x 18.0" (45.9 cm) wide x 5.5" (14.0 cm) deep, 0.048" steel with electrostatically applied light beige finish.

**Knockouts:** Two combination 3/4"-1"-1-1/4" and eleven combination 1/2"-3/4" knockouts on the bottom. Two 3/4"-1" combination and four combination 1/2"-3/4" knockouts on the back. Low voltage compartment has two combination 1/2"-3/4" knockouts and one 3/4" hole with a shutter bushing installed. Two combination 3/4"-1" and one combination 1/2-3/4" knockouts. One  $1-3/4" \times 2-3/4"$  knockout on the right side.

Switch Rating: P1353ME - see page 70; P4243ME - see page 71

Model	Mechanisms	Switch	Transformer	Volts 60Hz	Shipping Weight
PE45343RC	P1353ME and P4243ME	5 - SPST	None	120 or 208-240	44.0 lbs.
PE45343RCT1	P1353ME and P4243ME	5 - SPST	100 Watt	120 or 208-240	51.0 lbs
PE45343RCT3	P1353ME and P4243ME	5 - SPST	300 Watt	120 or 208-240	56.0 lbs
PE650	Wireless Receiver	- ,	-	-	5.5 lbs
PE950	Wireless Transmitter	-	-	_	5.5 lbs





PE45343RC

# Salt Chlorine Generators



## PE25 & PE40 Series

## I-Pure Stand Alone Salt Chlorine Generator

While traditional Salt Chlorine Generators can be difficult to manage and operate, the new I-Pure Salt Chlorine Generator takes the hassle out of sanitizing pools and spas. The I-Pure system produces more chlorine than other Salt Chlorine Generators and provides homeowners with easy-to-use, high quality sanitation at a competitive price.

Designed for pools up to 25,000 gallons or 40,000 gallons, the I-Pure Stand Alone Salt Generator's self-adjustable control dial allows users to increase or decrease chlorine production with ease. The simplified controls of the I-Pure deliver easy pool maintenance.

#### **Applications**

Residential Pools

• Commercial Pools

Water Features

Fountains

#### **Specifications**

Case — 15.0" (38.3 cm) high x 10.5" (26.8 cm) wide x 4.5" (11.4 cm) deep.

Voltage: 120VAC or 240VAC (See Below)

**Shipping Weight:** See Chart **Agency Approval:** ARL

#### Checklist for proper operation:

 Salt
 3000 to 4000 ppm

 Free Chlorine
 1 to 3 ppm

 PH
 7.2 to 7.8

Total Alkalinity 80 to 180 - adjust per calcium hardness level

Stabilizer (Cyanuric Acid) 60 - 80
Nitrates 0 ppm
Metals 0 ppm
Phosphates 0 ppm

Calcium Hardness Determine level for individual pool surface

Saturation Index -0.3 to 0.3 (0 is ideal)

Model	Max Gallons	Volts 60 Hz	Shipping Weight
PE25K120V	25,000	120	22.0 lbs (9.9 kg)
PE25K240V	25,000	208-240	22.0 lbs (9.9 kg)
PE40K120V	40,000	120	22.0 lbs (9.9 kg)
PE40K240V	40,000	208-240	22.0 lbs (9.9 kg)

## **I-Pure Demo Kits**

**PEDCHLR** - Empty I-Pure shell only **PEDCELL** - Empty I-Pure cell only

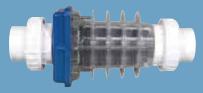


**PE40K240V** 



#### **Cell Features**

The I-Pure system utilizes plates that are specially coated to convert regular table salt into natural chlorine. The system uses the most advanced self-cleaning technologies, including reversed polarity, which allows the Cell to stay cleaner and last longer than other self-cleaning cells. The clear Cell also allows for easy regular inspections for calcium build-up.



PE25KCELL

Replacement 25,000 gallon cell only

#### PE40KCELL

Replacement 40,000 gallon cell only

# **Digital Control Mechanisms**



P1353ME



133PE1484A



# P1353ME Digital Pool/Spa Mechanism



Designed as part of the I-Wave system and for aftermarket and retro-fit applications, the P1353ME has the ability to program three circuits and snap into almost any Intermatic enclosure. Five pre-programmed modes of operation include single speed pump or two-speed pump and booster/cleaner pump combinations. In addition, programmed modes that include auxiliaries can control pumps up to 3HP as well as underwater, garden and/or fountain lighting. Countdown and Override features allow cycle interruptions when pool/spa service is required. All timing and protection associated with filter pump/cleaner pump combinations and two speed pumps has already been integrated into the software.

#### **Applications**

- Single Speed Pump Combos
- Two-Speed Pump/Booster Pump Combos
- Pool & Spa Lighting
- **Key Features Include**
- Memory Back-Up
- Heater Protection (Fireman Switch)
- Three On/Off Events per Day per Circuit
- Wired Remote 133PE1484A (optional)

- Water Feature Applications
- Garden & Fountain Lighting
- · Landscape Lighting
- 120V or 240V Input
- LCD Display
- Freeze Protection Probe 178PA28A (optional)

#### Mode 1 - (Aux1, Aux2, Aux3)

The time switch is a 3-circuit switch with all three switches controlling auxiliary devices.

#### Mode 2 - (Pump High, Pump Low, Aux3)

The time switch is a 2-circuit switch with the 1st & 2nd switch controlling a two-speed pump. The 3rd switch is controlling any auxiliary device. All protection associated with a two speed pump is preprogrammed into this mode.

#### Mode 3 – (Pump, Aux2, Cleaner Pump)

The time switch is a 3-circuit switch with the 1st switch controlling a single speed pump, the 2nd switch controls any auxiliary device, and the 3rd switch operates a booster/cleaner pump. All timing & protection associated with a filter pump/cleaner pump combination is preprogrammed into this mode.

#### Mode 4 - (PumpHigh, PumpLow, Cleaner Pump)

The time switch is a 2-circuit switch with the 1st & 2nd switch controlling a 2-speed pump. The 3rd switch is controlling a booster/cleaner pump. All protection associated with a 2-speed pump and booster/cleaner pump combination is preprogrammed into this mode.

#### Mode 5 - (Pump L1, Pump L2, Aux3)

The time switch is a 2-circuit switch with the 1st & 2nd switch controlling a 240V pump, where both L1 & L2 are required to be disconnected when the pump is OFF. The 3rd switch is controlling any auxiliary device.

#### **Specifications**

Input Voltage - 120 Volt or 208-240 Volt, 50/60 Hz.

Number of Circuits - Up to three SPST 3HP circuits.

Switch Rating (each circuit) – 20 Amp Resistive, 120/240 VAC, 50/60 Hz; 20 Amp FLA @ 120 VAC, 96 Amp LRA @ 120 VAC, 50/60 Hz; 17 Amp FLA @ 240 VAC, 80 Amp LRA @ 240 VAC, 50/60 Hz; 5 Amp Tungsten, 120/240 VAC, 50/60 Hz; 5 Amp Ballast, 120/240V VAC, 50/60 Hz

Shipping Weight - 3.0lbs. (1.4 kg.)

Note: The P1353ME will not retro-fit into any enclosure that uses stand off posts to attach the mechanism.

# **Digital Control Mechanisms**



# P4243ME Pump/Valve Actuator Mechanism

Designed as part of the I-Wave system, this electronic control mechanism, especially designed for pool/spa combinations, will snap into most Intermatic panels and enclosures in use today. Designed as a very versatile, user-friendly device, it can be combined with a number of different Intermatic controls in order to facilitate a variety of custom applications. This mechanism can handle two motor loads, up to 3 HP, switch up to 3 valve actuators, the heater thermostats and also allow the user to select pool and spa heater operation.

The control options are numerous. For example, the Pool-to-Spa operation can be activated three different ways. By a remote installed count down timer, a radio receiver or a simple toggle switch. In the pool mode, any new or existing timer or manual switch may be used to control the filter pump operation. In the Spa mode, the filter pump and an additional piece of equipment can be controlled by a wired remote on the spa side (133PE1484A), by wireless remote, or by the buttons provided on the face of the mechanism.

If combined with the P1353ME Digital Pool/Spa mechanism, the two units can handle all the equipment variations of a pool/spa combination, including two-speed filter pump, cleaner pump, up to three 24 volt valve actuators, two stage protected heater, jet pump, blower and lights.

#### **Applications**

- Pool/Spa Combinations
- Blower
- Pool & Spa Lighting
- Water Feature

- Filter Pump
- Jets
- Landscape Lighting

#### **Specifications**

Input Voltage - 120 Volt or 208-240 Volt, 50/60 Hz.

**Switch Rating (each circuit)** – 17 Amp resistive 120-240V, 10 Amp Tungsten – 120V, 1.5 HP – 120V, 3 HP – 240V, 60Hz

Number of Circuits – Up to two DPST 3HP circuits Shipping Weight – 5 lbs (2.2 kg)



P4243ME



133PE1484A













# PE100 Series Mini PE Series Digital Pool or Spa Controls



Intermatic's Mini-PE Series Digital Controls couple the standard features of our compact T100 Series mechanical time switches with the convenience of digital automation. One of Intermatic's latest innovations, the P1353ME allows the ability to program up to three circuits. Beyond single and two-speed pump/booster pump applications, auxiliary modes can control pumps up to 3HP as well as underwater, garden and/or fountain lighting.

Countdown and override features allow cycle interruptions when pool/spa service is required. All timing and protection associated with filter pump/booster pump combos and two-speed pumps has already been integrated into the digital software. The Mini-PE Series is available in both metal and plastic enclosures and with a wired remote command, freeze probe or both. See chart below for details.

Intermatic makes it simple to convert your Mini-PE Series Digital Control into a Wireless Control System. Simply install a Panel Mounted Transceiver (RC650) and Hand-Held Transceiver (PE950) to any Mini-PE Series control, which allows the system to display the status of each of the three circuits as well as pool or spa water temperature, pool or spa thermostat set point, heating status and overall communication status.

#### **Applications**

- Single Speed Pump/Booster Pump Combos
- Water Feature Applications
- Pool & Spa Lighting
- Two-Speed Pump/Booster Pump Combos
- Garden & Fountain Applications
- · Landscape Lighting

#### **Specifications**

**Case** – NEMA 3R rated for indoor-outdoor installation. 9-3/8" (23.8 cm) high, 5-1/2" (14.0 cm) wide, 3-5/8" (9.2 cm) deep in beige finish. "P" suffix models are same dimensions, except made from outdoor grade plastic.

**Knockouts** – Combination 1/2" – 3/4" nominal knockouts, one on back and each side of case and two

Switch Rating (each circuit) – 20 Amp Resistive, 120/240 VAC, 50/60 Hz; 20 Amp FLA @ 120 VAC, 96 Amp LRA @ 120 VAC, 50/60 Hz; 17 Amp FLA @ 240 VAC, 80 Amp LRA @ 240 VAC, 50/60 Hz; 5 Amp Tungsten, 120/240 VAC, 50/60 Hz; 5 Amp Ballast, 120/240V VAC, 50/60 Hz

**Shipping Weight –** 3.7 lbs (1.7 kg) **Agency Approval –** CSA/C-US

Model #	Description	Switch	Clock Supply
PE153	Digital Time Clock in Metal Enclosure	3 - SPST	120 or 240V
PE153W	Digital Time Clock in Metal Enclosure with 100' Wired Remote Command	3 - SPST	120 or 240V
PE153F	Digital Time Clock in Metal Enclosure with Freeze Protection Probe	3 - SPST	120 or 240V
PE153WF	Digital Time Clock in Metal Enclosure with 100' Wired Remote Command & Freeze Protection Probe	3 - SPST	120 or 240V
PE153P	Digital Time Clock in Plastic Enclosure	3 - SPST	120 or 240V
PE153PW	Digital Time Clock in Plastic Enclosure with 100' Wired Remote Command	3 - SPST	120 or 240V
PE153PF	Digital Time Clock in Plastic Enclosure with Freeze Protection Probe	3 - SPST	120 or 240V
PE153PWF	Digital Time Clock in Plastic Enclosure with 100' Wired Remote Command & Freeze Protection Probe	3 - SPST	120 or 240V

NOTE: See page 68 for PE650 and PE950 specifications and page 70 for P1353ME specifications

## **Digital Controls**



## **PE Series Digital Controls**



For pool, spa or water feature applications, the PE Series Digital Controls includes one P1353ME mechanism that controls a total of three timed circuits, including single-speed or two-speed filter pumps, cleaner/booster pumps, pool lights, spa lights and landscape lights.

Intermatic makes it simple to convert your PE Series Digital Control into a Wireless Control System. Simply install a Panel Mounted Transceiver (RC650) and a Hand-Held Transceiver (PE950).

### **Applications**

- Single Speed Pump/Booster Pump Combos
- Two-Speed Pump/Booster Pump Combos
- Pool & Spa Lighting

- Water Feature Applications
- Garden & Fountain Applications
- Landscape Lighting

### PE25300

Case - 16-1/2" (41.9 cm) high x 10-7/8" (27.6 cm) wide x 4-1/4" (10.8 cm) deep, 0.048" steel with electrostatically applied light beige finish.

**Knockouts** – One 1.09 diameter through hole, six combination 1/2"-3/4" knockouts, and three combination 3/4"-1" knockouts on the bottom. Two combination 1/2"-3/4" on the left side and one combination 3/4"-1" on the back. One knockout  $1-3/4" \times 2-3/4"$  on the right side for mounting switches or GFCI.

Panel Rating - 60 Amp 120/240 V.A.C or 120/208 VAC single phase

Switch Rating - P1353ME - See page 70

Agency Approval - CSA/C-US

### PE35300

Case -22" (55.9 cm) high x 14-3/4" (37.5 cm) wide x 4-1/4" (10.8 cm) deep, 0.048" steel with light beige finish.

**Knockouts** – One 1.09 diameter through hole, six combination 1/2"-3/4" knockouts, 2 combination 3/4", 1", 1-1/4" knockouts, four 1/2" knockouts on the bottom. Two combination 1/2"-3/4" knockouts on the left side and four combination 1/2"-3/4" knockouts, two combination 3/4"-1" on the back. One knockout 1-3/4" x 2-3/4" on the right side for mounting switches or GFCI.

Panel Rating - 80 Amp 120/240 VAC or 120/208 VAC single phase

Switch Rating - P1353ME - See page 70

Agency Approval - CSA/C-US

Model #	Description/Mechanism	Switch	Clock Supply Volts 60 Hz	Shipping Weight
PE25300	P1353ME	3-SPST	120 or 240	14.0 lbs (6.3 kg)
PE35300	P1353ME	3-SPST	120 or 240	19.0 lbs (8.6 kg)

## PE1500RC Series

## Mini-Wave Wireless Pool/Spa Control Panels

For pool/spa combinations or pool/water feature combinations, the PE1541RC controls four circuits, two PE24VA valve actuators, Wireless Panel Mounted Transceiver (PE650) and Hand-Held Transceiver (PE950), which allows the system to display the status of each of the four on-demand circuits, pool and spa water temperature, pool and spa thermostat set point, heating status and overall communication status. PE1501RC does not include actuators and is designed for pool or spa applications.

### **PE1500RC**

Panel Rating - 100 Amp 120/240 VAC or 120/208 VAC single phase

Switch Rating – 17A Resistive, 120/240 VAC., 50/60 Hz; 1.5 HP @ 120 VAC., 50/60 Hz; 3.0 HP @ 240 VAC., 50/60 Hz; 10 Amp Tungsten, 120/240 VAC, 50/60 Hz

Shipping Weight - 24.3 lbs. (10.9 kg)

Agency Approval - CSA/C-US

Model #	Description/Mechanism	Circuits	Actuators	Switch	Clock Supply Volts 60 Hz
PE1541RC	PB313E	4	2	4-SPST	120 or 240
PE1501RC	PB313E	4	None	4-SPST	120 or 240









## **Mechanical Controls**







# T10000R Series Pool & Spa Control Centers



The T10000R Series Control Centers feature an all-weather enclosure and contain one or two heavy duty timer mechanisms. In addition, they have provision to install switches or GFCI receptacle on the side and additional switches inside. The enclosure accepts any combinations of P1353ME or P4243ME or T100M or RC2000M or PF1000M Series mechanisms.

## **Applications**

- Filter Pumps-Booster Pump Combinations
- Filter Pump-Light Controls
- Pool-Spa Combinations

- · Yard Lighting
- Signs

### **Specifications**

Case - 12" (30.5 cm) H x 12" (30.5 cm) W x 4-1/4" (10.8 cm) D, 0.048" steel with electrostatically applied light beige finish.

**Knockouts** – Five combination 1/2"-3/4" and two combination 3/4"-1" knockouts on the bottom. One combination 1/2"-3/4" on the left side and one combination 3/4"-1" on the back.

One knockout 1-3/4" x 2-3/4" on the right side for mounting switches or GFCI.

Center Rating – 92 Amp per leg, 168 Amp Max. 120-240 VAC or 120-208 VAC single phase - 60 Hz Time Switch Rating – 30 Amp Resistive Inductive, Tungsten or 1000 VA pilot duty each pole 120/208/240 VAC; 2 HP (24 FLA) - 120 VAC; 5 HP (28 FLA) - 240 VAC

**Shipping Weight** – See Table. **Agency Approval** – CSA/C-US

Model #	Description/Mechanism	Switch	Clock Supply Volts 60 Hz	Shipping Weight
T10000R	Enclosure Only	None	NA / NA	9.3 lbs (4.2 kg)
T10101R	Two T101M	SPST - SPST	120 /120	11.0 lbs (5.0 kg)
T10004R	One T104M	NA – DPST	NA / 240	10.5 lbs (4.7 kg)
T10404R	Two T104M	DPST - DPST	240 / 240	11.0 lbs (5.0 kg)
T10604R*	T106M & T104M	SPDT - DPST	240 / 240	11.0 lbs (5.0 kg)
T12404R**	T104M201 & T104M	DPST -DPST	240 / 240	11.0 lbs (5.0 kg)

<sup>\*</sup> For 2 Speed Pump Applications.

For additional trippers (1 "ON" 1 "OFF" per pack), order No. 156T1978A.

For additional "OFF" trippers (25 "OFF" per pack), order No. PA115. For Stand offs for décor knockouts (4 stand-offs per pack), order No. 21T156A.

<sup>\*\*</sup> The heater protection switch (fireman switch) is closed when the time switch contacts are open to allow remote operation of the heater. A flow or pressure switch therefore must always be part of the heater control circuit.

## **Mechanical Controls**



## T20000R Series 60 Amp Pool/Spa Control Panels



The T20000R Series Control Panels feature an all-weather enclosure and contain a 4 circuit breaker base, an equipment grounding bar and a mechanical time switch mechanism. The circuit breaker base accepts interchangeable type breakers made by a number of different manufacturers. In addition, the enclosure has provision for installing additional switches or GFCI receptacles on the side and inside.

## **Applications**

• Filter Pumps

• Signs

- Lights
- · Air Conditioners
- · Ventilating Systems
- Heaters

### **Specifications**

Case - 16-3/4" (42.6 cm) H x 8-7/8" (22.5 cm) W x 4-3/8" (11.1 cm) D. 0.048" steel with electrostatically applied light beige finish.

Knockouts - Five combination 1/2"-3/4" and three 3/4" - 1" on the bottom, one combination 1/2"-3/4" on the left side, one 3/4"-1" on the back and one combination 1-3/4" x 2-3/4" knockout on the right side for mounting switches or GFCI

Panel Rating - 60 Amp 120/240 VAC or 120/208 VAC; Single Phase-60 Hz

Time Switch Rating - 30 Amp Resistive Inductive, Tungsten or 1000 VA pilot duty each pole 120/208/240 VAC; 2 HP (24 FLA) - 120 VAC; 5 HP (28 FLA) - 240 VAC

Shipping Weight - See table. Agency Approval - CSA/C-US

Model #	Description/Mechanism	Switch	Clock Supply Volts 60 Hz	Shipping Weight
T21000R	Enclosure only	None	NA	11.2 lbs (5.0 kg)
T21001R	T101M	SPST	120	14.0 lbs (6.3 kg)
T21004R	T104M	DPST	240	14.0 lbs (6.3 kg)
T20004R*	T104M	DPST	240	14.0 lbs (6.3 kg)

<sup>\*</sup> T20004R has a limited availability, T21004R is the replacement model. For additional trippers (1 "ON" 1 "OFF" per pack), order No. 156T1978A For additional "OFF" trippers (25 "OFF" per pack), order No. PA115 For Stand offs for décor knockouts (4 stand-offs per pack), order No. 21T156A







T20004R



## **Mechanical Controls**



T30000R5





T32404R

## T30000R Series 100 Amp Pool/Spa Control Panels



The T30000R Series Control Panels reduce installation costs and provide all of the electrical requirements for any pool and/or spa installation. They offer an all-in-one electrical control center which can be custom wired for a wide variety of requirements, and eliminate the need for additional junction boxes and service panels. The enclosure accepts any combinations of P1353ME or P4243ME or T100M or RC2000M or PF1000M Series mechanisms

### **Applications**

- Filter Pumps • Security Systems
- Booster Pumps • Fountains
- Heating Systems
- Lights
- Cleaning Systems
- · Sprinkler Systems
- · Valve Actuators
- · Yard Lights

### **Specifications**

Case - 16-1/2" (41.9 cm) H x 10-7/8" (27.6 cm) W x 4-1/4" (10.8 cm) D, 0.048" steel with electrostatically applied beige finish

Knockouts - Two 1/2", three combination 1/2"-3/4", and two combination 3/4"-1" knockouts on the bottom. Four 1/2", three combination 1/2"-3/4" on the back. One combination 3/4"-1" on the left side. One 1-3/4" x 2-3/4" knockout on the right side for mounting switches and GFCI.

Panel Rating - 100 Amp., 120-240 VAC or 120-208 VAC single phase - 60Hz.

Timer Switch Rating - 30 Amp Resistive Inductive, Tungsten or 1000 VA pilot duty each pole 120/208/240 VAC; 2 HP (24 FLA) - 120 VAC; 5 HP (28 FLA) - 240 VAC

Shipping Weight - See table.

Agency Approval - CSA/C-US

Model #	Description/Mechanism	Switch	Clock Supply Volts 60 Hz	Shipping Weight
T30000R5	Enclosure Only	None	NA / NA	18.6 lbs (8.4 kg)
T30004R	One T104M	None / SPST	NA / 240	18.6 lbs (8.4 kg)
T30401R	T104M & T101M	DPST / SPST	240 / 120	18.6 lbs (8.4 kg)
T30404R	Two T104M	DPST / DPST	240 / 240	18.6 lbs (8.4 kg)
T30604R	T106M & T104M	SPDT / DPST	240 / 240	18.6 lbs (8.4 kg)
T32404R	T104M201 & T104M	DPST / DPST	240 / 240	18.6 lbs (8.4 kg)

<sup>\*</sup> The heater protection switch (fireman switch) is closed when the time switch contacts are open to allow remote operation of the heater. A flow or pressure switch therefore must always be part of the heater control circuit. For additional trippers (1 "ON" 1 "OFF" per pack), order No. 156T1978A. For additional "OFF" trippers (25 "OFF" per pack), order No. PA115.

For Stand offs for décor knockouts (4 stand-offs per pack), order No. 21T156A.

## **Quality Pool & Spa Controls**



## T40000R Series 125 Amp Pool/Spa Control Panels



The T40000R Series Control Panels reduce installation costs and provide all of the electrical requirements for any pool and/or spa installation. They offer an all-in one electrical control center which can be custom wired for a wide variety of requirements, and eliminate the need for additional junction boxes and service panels. The enclosure accepts any combinations of P1353ME or P4243ME or T100M or RC2000M or PF1000M Series

## **Applications**

- Filter Pumps
- Booster Pumps
- Heating Systems
- LightsYard Lights
- Cleaning Systems

- Security Systems
  - Fountains
- Sprinkler Systems

## .

## **Specifications**

Case - 20-3/4" (52.7 cm) high x 12-3/4" (32.4 cm) wide x 4-1/4" (10.8 cm) deep, 0.048" steel with electrostatically applied light beige finish

**Knockouts** – Seven combination 1/2"-3/4" and three combination 3/4"-1" knockouts on the bottom. Five combination 1/2"-3/4" on the left side. One  $1-3/4" \times 2-3/4"$  knockout on the right side for mounting switches and GFCI

### Panel Rating - 1

Timer Switch Rating – 30 Amp Resistive Inductive, Tungsten or 1000 VA pilot duty each pole 120/208/240 VAC; 2 HP (24 FLA) - 120 VAC; 5 HP (28 FLA) - 240 VAC

**Shipping Weight** – See table. **Agency Approval** – CSA/C-US

Model #	Description/Mechanism	Switch	Clock Supply Volts 60 Hz	Shipping Weight
T40000R	Enclosure Only	None	NA	16.0 lbs (7.2 kg)
T40004R	One T104M	DPST	NA / 240	20.5 lbs (9.2 kg)
T40404R	Two T104M	DPST	240 / 240	21.2 lbs (9.5 kg)

For additional trippers ( 1 "ON" 1 "OFF" per pack ), order No. 156T1978A

For additional "OFF" trippers (25 "OFF" per pack), order NO. PA115.

For additional stand-offs for décor knockouts (4 stand-offs per pack), order No. 21T156A.

## **T40000R Series**

## 100 Amp Specialty Control Panels

These specialty Control Panels are the same as the T40000R Series, except they have been designed for specialty applications. Models include a factory installed GFCI, or stainless steel panel for high corrosive environments or an inside wiring compartment for two devices. These enclosures accept any combinations of T100M, P1353ME, P4243ME or T100M or RC2000M or PF1000M Series mechanisms.

### Applications - Same as above.

## **Specifications**

Case, Knockouts, Timer Switch Rating & Agency Approval – Same as above Panel Rating – 115 Amp. 120-240 VAC or 120-208 VAC single phase - 60 Hz. Shipping Weight – See table.

Model #	Description/Mechanism	Switch	Clock Supply Volts 60 Hz	Shipping Weight
T40000R4*	Inside Compartment	None / None	NA / NA	19.4 lbs (8.7 kg)
T40004RSS**	One T104M	None / DPST	NA / 240	20.5 lbs (9.2 kg)
T40004R5	One T104M & GFCI Installed	None / DPST	NA / 240	21.6 lbs (9.7 kg)
T40404R5	Two T104M & GFCI Installed	DPST / DPST	240 / 240	24.6 lbs (11.0 kg)

<sup>\*</sup> Enclosure only with inside wiring compartment for twist-lock receptacle and GFCI.

For additional trippers ( 1 "ON" 1 "OFF" per pack ), order No. 156T1978A

For additional "OFF" trippers (25 "OFF" per pack), order NO. PA115.

For additional stand-offs for décor knockouts (4 stand-offs per pack), order No. 21T156A.





<sup>\*\*</sup> Stainless Steel Enclosure.



## **Safety Transformers**







## T10000RT, T40000RT & PE45343RCT Series **Pool Panels with Transformer**



These Panels with Transformer offer an all-in-one, easy to wire and extremely cost effective electrical control center for any pool or spa installation. Inside the enclosure are the time switch, the transformer and other components needed for the completion of this installation. The T40000RT Series panels will accept additional Intermatic mechanisms and/or components.

The PE45343RCT Series includes all the features of the PE Series Digital Controls plus two PE24VA valve actuators, Wireless Panel Mounted Transceiver (PE950), which allows the system to display the status of each of the five circuits (3 timed and 2 on demand), pool and spa water temperature, pool and spa thermostat set point, heating status and overall communication status.

## **Applications**

- · Low Voltage Outdoor Lighting
- Fountains

### · Low Voltage Pool/Spa Lighting

### **Specifications**

### T10000RT Series

Case - 12" (30.5 cm) H x 12" (30.5 cm) W x 4-1/4" (10.8 cm) D, 0.048" steel with electrostatically applied light beige finish

**Knockouts** – Five combination 1/2"-3/4" and two combination 3/4"-1" knockouts on the bottom. One combination 1/2"-3/4" on the left side and one combination 3/4"-1" on the back. One knockout 1-3/4" x 2-3/4" on the right side for mounting switches or GFCI

Center Rating - 92 Amp per leg, 168 Amp Max. 120-240 VAC or 120-208 VAC single phase - 60 Hz.

### **T40000RT Series**

Case - 20-3/4" (52.7 cm) high x 12-3/4" (32.4 cm) wide x 4-1/4" (10.8 cm) deep, 0.048" steel with electrostatically applied light beige finish.

Knockouts - Seven combination 1/2"-3/4" and three combination 3/4"-1" knockouts on the bottom. Five combination 1/2"-3/4" on the left side. One 1-3/4" x 2-3/4" knockout on the right side for mounting switches and GFCI.

Panel Rating - T40000RT Series - 100 Amp 120-240 VAC or 120-208 VAC single phase - 60 HZ Timer Switch Rating - 30 Amp Resistive Inductive, Tungsten or 1000 VA pilot duty each pole 120/208/240 VAC; 2 HP (24 FLA) - 120 VAC; 5 HP (28 FLA) - 240 VAC

### PE45343RCT Series

Case - 12" (30.5 cm) H x 12" (30.5 cm) W x 4-1/4" (10.8 cm) D, 0.048" steel with electrostatically applied light beige finish

Knockouts - Five combination 1/2"-3/4" and two combination 3/4"-1" knockouts on the bottom. One combination 1/2"-3/4" on the left side and one combination 3/4"-1" on the back. One knockout 1-3/4" x 2-3/4" on the right side for mounting switches or GFCI

Panel Rating - T40000RT Series - 100 Amp 120-240 VAC or 120-208 VAC single phase - 60 HZ

### Agency Approval - CSA/C-US

Model #	Transformer	Input 60 Hz	Output	Mechanism	Shipping Weight
T10004RT1	100 Watt	120V, 1 Amp	12V, 13V,	T104M	14.0 lbs (6.3 kg)
T10004RT3	300 Watt	120V, 3 Amp	12V, 13V, 14V	T104M	20.0 lbs (9.0 kg)
T40003RT3	300 Watt	120V, 3 Amp	12V, 13V, 14V	T103M	32.0 lbs (14.4 kg)
T40004RT1	100 Watt	120V, 1 Amp	12V, 13V,	T104M	26.0 lbs (11.7 kg)
T40004RT3	300 Watt	120V, 3 Amp	12V, 13V, 14V	T104M	32.0 lbs (14.4 kg)
PE45343RCT1	100 Watt	120V, 1 Amp	12V, 13V	P1353ME & P4243ME	56.0 lbs (25.2 kg)
PE45343RCT3	300 Watt	120V, 3 Amp	12V, 13V, 14V	P1353ME & P4243ME	61.0 lbs (27.5 kg)

For additional trippers (1 "ON" 1 "OFF" per pack ), order No. 156T1978A.

For additional "OFF" trippers (25 "OFF" per pack), order No. PA115.

For stand-offs for décor knockouts (4 stand-offs per pack), order No. 21T156A.Note: See Page 29 for a detailed list of T100M replacement mechanisms and page 16 for PE650 and PE950 specifications

## **Safety Transformers**



## PX100, PX300 & PX600 SeriesSafety Transformers



These Safety Transformers are specifically designed to supply 12 volts to pool/spa lights, submersible fixtures and outdoor garden lights. A grounded shield between the primary and secondary windings assures safe operation and the built-in circuit protection will disconnect power to the transformer in case of defect or overload.

### **Applications**

Pool Lights

Spa Lights

Garden Lights

Fountain Lights

### Specifications - PX100/S, PX300/S

**Enclosure** -7.25" (19.4 cm) H x 5.25" (13.3 cm) W x 4.5" (11.4 cm) D. Stainless steel or steel with electrostatically applied light beige finish. Mounting brackets top and bottom.

Knockouts - Total of ten combination 1/2" - 3/4" knockouts, (2) right side, (2) left side, (2) back, (4) bottom.

Electrical Rating - See table.

Shipping Weight - See table.

### Specifications - PX600/S

**Enclosure** - 10" (25.4 cm) high x 10" (25.4 cm) wide x 5" (12.7 cm) deep. Stainless steel or steel with electrostatically applied light beige finish. Mounting brackets top and bottom.

**Knockouts** – Two combination 1/2"-3/4", and 4 combination 3/4"-1" knockouts on the bottom. Total of six combination 1/2"-3/4" knockouts, (2) right side, (2) left side, (2) back.

Electrical Rating - See table.

Shipping Weight - See table.

Model #	Description	Input	Output	Shipping Weight
PX100	100 Watt Beige Steel Enclosure	120V, 1AMP	12 or 13V	7.0 lbs (3.2 kg)
PX100S	100 Watt Stainless Steel Enclosure	120V, 1AMP	12 or 13V	7.0 lbs (3.2 kg)
PX300	300 Watt Beige Steel Enclosure	120V, 3AMP	12,13 or 14V	13.0 lbs (5.9 kg)
PX300S	300 Watt Stainless Steel Enclosure	120V, 3AMP	12,13 or 14V	13.0 lbs (5.9 kg)
PX600	600 Watt Beige Steel Enclosure	120V, 6AMP	12,13 or 14V	26.0 lbs (11.7 kg)
PX600S	600 Watt Stainless Steel Enclosure	120V. 6AMP	12.13 or 14V	26.0 lbs (11.7 kg)







## **Freeze Protection Controls**







**PF1103MT** 



# PF1100 Series Single Circuit Freeze Protection Controls



These Freeze Protection Controls are designed to protect the pool and spa equipment and plumbing against freeze damage. They turn the pump and the heater ON when the outdoor temperature drops below the temperature set by the user-adjustable thermostat.

Models without timer connect to a timing or switching device and together, they control operation of the equipment as well as protect it against freeze damage. Models with timer provide both automation and protection for the equipment.

### **APPLICATIONS**

- Filter Pumps
- Filter Pump/Booster Pump Combinations
- Waterfalls
- Water Features

### **SPECIFICATIONS**

CASE - 0.034 inch drawn steel, electrostatically coated, beige color. Hasp, with hole for lock, holds permanently attached side-hinged door closed. 9-3/8" (23.8 cm) high x 5-1/4" (14.0 cm) wide x 3-5/8" (9.2 cm) deep.

KNOCKOUTS - 1/2" - 3/4" combination knockouts, one back, one on each side, two bottom.

THERMOSTAT RANGE - 45°F - 32°F with 5 degrees differential.

ELECTRICAL RATING - See table SHIPPING WEIGHT - See table. AGENCY APPROVAL - CSA/C-US

Model #	Description	Input	Rating H.P.	Shipping Weight
PF1102	Thermostat only. For 240V installation.	240V	3	3.7 lbs (1.7 kg)
PF1102M	Same as above, mechanism only.	240V	3	2.0 lbs (0.9 kg)
PF1102T	Timer with thermostat. For 240V installation.	240V	3	4.5 lbs (2.0 kg)
PF1102MT	Same as above, mechanism only.	240V	3	2.5 lbs (1.1 kg)
PF1103	Thermostat only. For 120/240V installation.	120/240V*	1.5/3	3.7 lbs (1.7 kg)
PF1103M	Same as above, mechanism only.	120/240V*	1.5/3	2.0 lbs (0.9 kg)
PF1103T	Timer with thermostat. For 120/240V installation	120/240V*	1.5/3	4.5 lbs (2.0 kg)
PF1103MT	Same as above, mechanism only.	120/240V*	1.5/3	2.5 lbs (1.1 kg)

<sup>\*</sup> Neutral must be installed.

## **Freeze Protection Controls**



## PF1100 & PF1200 Series

## 

## Multi Circuit Freeze Protection Control Centers & Panels

These heavy-duty Freeze Protection Controls are designed specifically for pools requiring one or two time switches and protect the pool and spa equipment and plumbing against freeze damage. They turn the pump and the heater ON when the outdoor temperature drops below the temperature set by the user-adjustable thermostat. In addition, they have a provision to install switches inside or GFCI receptacle on the side of enclosure.

Fountains

### **Applications**

- Filter Pumps
- · Filter Pump-Booster Pump
- Combinations Pool-Spa Combinations

## **Specifications**

### PF1112T, PF1202T

Case - 12" (30.5 cm) H x 12" (30.5 cm) W x 4-1/4" (10.8 cm) D, 0.048" steel with electrostatically applied light beige finish.

**Knockouts** – Five combination 1/2"-3/4" and two combination 3/4"-1" knockouts on the bottom. One combination 1/2"-3/4" on the left side and one combination 3/4"-1" on the back. One knockout 1-3/4" x 2-3/4" on the right side for mounting switches or GFCI

Center Rating – 92 Amp per leg, 168 Amp Max. 120-240 VAC or 120-240VAC single phase - 60 Hz. Electrical Rating – See table.

Thermostat Range – 44°F - 32°F with 5 degrees differential.

Shipping Weight - See table.

Agency Approval - CSA/C-US

### PF1222TB

 $\textbf{Case} - 16\text{-}1/2" \ (41.9 \ \text{cm}) \ \text{H} \times 10\text{-}7/8" \ (27.6 \ \text{cm}) \ \text{W} \times 4\text{-}1/4" \ (10.8 \ \text{cm}) \ \text{D}, \ 0.048" \ \text{steel} \ \text{with electrostatically applied beige finish}.$ 

**Knockouts** – Two 1/2", three combination 1/2"-3/4", and two combination 3/4"-1" knockouts on the bottom. Four 1/2", three combination 1/2"-3/4" on the back. One combination 3/4"-1" on the left side. One 1-3/4" x 2-3/4" knockout on the right side for mounting switches and GFCI.

Panel Rating - 100 Amp max., 120-240 VAC or 120-208 VAC single phase - 60 Hz.

Electrical Rating - See table.

Thermostat Range - 44°F - 32°F with 5 degrees differential.

Shipping Weight - See table.

Agency Approval - CSA/C-US

Model #	Description	Electrical Input	Rating HP	Shipping Weight
PF1112T	For pools requiring one time switch	240V	3	8.0 lbs (3.6 kg)
PF1202T	For pools with cleaner, requiring two time switches	240V	3	10.0 lbs (4.5 kg)
PF1222TB	Same as a PF1202T with 4/8 breaker base and heater protection	1 240V	3	17.0 lbs (7.7 kg)

For additional trippers (1 "ON" 1 "OFF" per pack ), order No. 156T1978A. For additional "OFF" trippers (25 "OFF" per pack), order NO. PA115.

For additional stand-offs for décor knockouts (4 stand-offs per pack), order No. 21T156A.



PF1112T



PF1202T



PF1222TB













## Air Operated Pool/Spa & Pool-to-Spa Controls



This line of Air Operated Controls is specially designed to control pool/spa combinations economically and reliably for up to 100 ft. away from the equipment. Everything needed to control the filter pump, valves, heater thermostat, booster pump, blower or lights is included in a single package and can be installed in less than two hours. A number of accessories are available to enhance the control capacity of these units. Comes complete with two PE24VA 24-Volt valve actuators.

## **Applications**

Pool/Spa Combinations

Water Features

### **Specifications**

Case – 0.048" steel with electrostatically applied light beige finish. See table for nominal dimensions.

Maximum Range – 100 ft. (The actual distance between the control and air button depends on the amount of displaced air, the inside diameter of the air hose and other factors beyond the control of the manufacturer.)

Timer - 24 Hour Electronic.

Specifications/Features	RC2163E	RC2163FE	RC2263E	RC2403RT
Voltage	120/240	120/240	120/240	120/240
Remote Command	1-Air	Any Switch*	1-Air	2-Air
Filter Pump Timer Controlled in Pool Mode	Υ	Υ	Υ	Υ
Single Speed Only (HP)	3 HP	3 HP	NA	NA
Single or Two Speed (HP)	NA	NA	2 HP	2 HP
Heater Control (Single or Two Stage)	Υ	Υ	Υ	NO
Number of Valve Actuator Connections	3	3	3	0
Heater Protection (Optional)	Υ	Υ	NO	NO
Blower	NO	NO	Υ	Υ
Independent Circuit (DPST 30A, 3HP-240V)	NO	NO	NO	Y
Standard Enclosure (In)	12.9 x 10.9 x 4.3			
Number of Breaker Space	NA	NA	NA	NA
Shipping Weight (lbs)	20.0 (9.0 kg)	20.0 (9.0 kg)	23.7 (10.7 kg)	19.0 (8.6 kg)
Reference Picture	RC2163E	RC2163E	RC2163E	RC2163E

<sup>\*</sup>Can use spring wound timer, toggle switch or remote control with transmitter to operate equipment

Specifications/Features		RC2163BE	RC2163BFE	RC2263BE	
Voltage		120/240	120/240	120/240	
Remote Com	nmand	1-Air	Any Switch*	1-Air	<b>A</b> 7
Filter Pump	Timer Controlled in Pool Mode	Υ	Υ	Υ	
	Single Speed Only (HP)	3 HP	3 HP	NA	
	Single or Two Speed (HP)	NA	NA	2 HP	
Heater Contr	Heater Control (Single or Two Stage)		Υ	Υ	
Number of V	alve Actuator Connections	3	3	3	
Heater Prote	ction (Optional)	Υ	Υ	NO	
Blower		NO	NO NO	Υ	
Independent	Circuit (DPST 30A, 3HP-240V)	NO	NO	NO	
Standard En	Standard Enclosure (In)		16.8 x 10.9 x 4.3	16.8 x 10.9 x 4.3	
Number of Breaker Space		8/16	8/16	8/16	
Shipping We	Shipping Weight (lbs)		24.3 (10.9 kg)	28.0 (12.6 kg)	
Reference Pi	cture	RC2263BE	RC2263BE	RC2263BE	

## **Electronic Time Switches**



# P1000 & P7000 Series Electronic Time Switches and Mechanisms

This line of electronic time switches in safety enclosures are specially suited for applications where a need to turn equipment up to 8 ON and OFF cycles daily, and where the automatic operation of the equipment requires occasional override by someone other than a qualified service professional. Electronic technology allows up-to-the-minute programming accuracy. The unique "door within the door" provides safe access to the timer control buttons, but prevents entry into the wiring compartment. Light indicator illuminates when timer is in ON position. An override feature is provided to allow pool service without interruption of ON-OFF settings. Select feature allows timer to be continuously ON, OFF or in Auto mode. The addition of a radio receiver (Model P1203FR) provides a 2nd circuit for any other load (light, blower etc.) requiring control from a remote location. Typical application for the clock circuit would be the pool pump, and a pool light for the radio circuit. In case of power failure, a replaceable battery preserves programming for up to three years.



- Filter pumps
- Pool/Spa lights
- Water Features
- Fountains

## **Specifications**

Case – All plastic NEMA 3R rated for indoor-outdoor installation. 9-3/8" (23.9 cm) H, 5-1/2" (14.0 cm) W, 3-5/8" (9.2 cm) D in beige finish.

**Knockouts** – Combination 1/2" - 3/4" nominal knockouts, (1) on back and each side of case, and (2) on bottom

 $\textbf{Rating} - \texttt{P1102FE-3.0 HP} @ 240V, 30 \text{ Amp resistive}; \\ \texttt{P1203FR-1.5 HP} @ 120V, 3.0 \text{ HP} @ 240V, 30 \text{ Amp resistive}; \\ \texttt{Radio Circuit-15 Amp resistive}, 10 \text{ Amp Tungsten}, 1 \text{ HP motor load-120 VAC}$ 

Shipping Weight - 3.75 lbs (1.7 kg)

Agency Approval - CSA/C-US

Model Number	Description	Switch	Supply Voltage 50/60 Hz
P1102ME	24-Hour Electronic Mechanism Only	One DPST	240V only clock & load
P1103ME	24-Hour Electronic Mechanism Only	One DPST	120V for clock
			120V or 240V only clock & load
P7101ME	7-Day Electronic Mechanism Only	One DPST	120V only clock & load
P7102ME	7-Day Electronic Mechanism Only	One DPST	240V only clock & load
P7103ME	7-Day Electronic Mechanism Only	One DPST	120V for clock
			120V or 240V only clock & load
P1102FE	24-Hour Electronic Time Switch	One DPST	240V only clock & load
P1103FE	24-Hour Electronic Time Switch	One DPST	120V for clock
			120V or 240V only clock & load
P1203FR	24-Hour Electronic Time Switch	One DPST	3.0 HP - 208-240V only clock & load
	Radio Receiver Module	One SPST	120V only receiver & load



P1102ME



P1102FE



P1203FR

## **Radio Remote Controls**









RC600 & RC900 Outdoor Radio Remote Controls



These Modular Radio Receivers are one half of a two part remote control system. They operate as ordinary ON/OFF switches but they also respond to the signals of a hand held transmitter — the other half of the system. The modules are designed for indoor or outdoor use, and can handle a variety of switching applications, typical around the house or farm. By the push of a button on the face of the transmitter, the user is able to turn ON-OFF the connected load (lights, pump, etc.) from any remote location, inside or outside of the house, safely and conveniently. In addition, a single transmitter can operate up to three receivers and is able to "teach" each module a different code (Transmitter model RC939 sold separately).

## **Applications**

- Pool/Spa Pumps, Lights and Heaters
- Fountain Pumps
- Outdoor Lighting
- Motorized Valves

- Air Blowers
- Signs
- · Motorized Gates

### **Specifications**

Enclosure - Beige outdoor grade plastic.

Maximum Range - 100 ft. See transmitter model RC939 for details.

Model #	Description	Electrical Rating	Size	Shipping Weight
RC613	Receiver with ON/OFF Button	15 Amp Resistive, 10 Amp (1200 W)	4-1/2" H (11.4 cm)	0.5 lbs (0.2 kg)
		Tungsten, 1 HP, Motor Load - 120 V	3" W (7.6 cm), 1-1/4" D (4.0 cm)	
RC613L	RC613 with (3) 36" Long Leads	Same as RC613	Same as RC613	0.7 lbs (0.3 kg)
RC613R	Heavy Duty Receiver Module	30 Amp Resistive, 120/240 V	7-3/4" H (19.7 cm)	1.4 lbs (0.6 kg)
		12.5 Amp (1500 W), 1.5 HP - 140 V	4" W (10.7 cm)	
		1.5 HP - 140 V, 3 HP - 240 V,	3-1/2" D (8.9 cm)	
		Double Pole, Single Throw Contacts		
RC615	Timer Interface Module	Same as RC613	Same as RC613	0.5 lbs (0.2 kg)
	without Manual Button			

## Hand Held Radio Transmitter

This hand held radio transmitter operates the shared equipment of a pool/spa combination by the touch of a button. In addition, more buttons are available on the transmitter to turn ON-OFF a booster pump, a blower and lights.

## **Applications**

• Pool-Spa Combinations

Water Features

## **Specifications**

Enclosure - Beige plastic, 4-3/8" (11.1 cm) H, 2-3/4" (7.0 cm) W and 1" (2.5 cm) D.

Model #	Description	Range*	Battery	Shipping Weight
RC939	3 Channel Radio Transmitter	100 ft.	9V Transistor type	0.5 lbs (0.2 kg)

<sup>\*</sup> The range is 100 feet but depends on many factors like the age of the battery, proximity of large metal objects, the location of the receiver and environmental conditions at the time of transmission.

## **Portable Outdoor Timers**



## P1200 Series Two-Circuit Portable Outdoor Timer



These Portable Two-circuit Above Ground Pool Timers incorporate a plug in for a timed circuit (normally used for a pool pump) and a plug in for a live circuit (typically used for a pool light). GFCI protected circuits and a three-prong grounded plug for the time switch supply are also built-in.

## **Applications**

- Above ground pool pumps
- Above ground pool lights

### **Specifications**

Case - NEMA 3R rated for indoor-outdoor installation.

9-3/8" (23.8 cm) high x 5-1/2" (14.0 cm) wide x 3-5/8" (9.2 cm) deep

**Knockouts** - Combination 1/2" - 3/4" nominal knockouts, one on the back and each side of case, two pre-cut on bottom

Timer - 24 hour with 23-1/2 hour maximum ON time. Two ON, two OFF trippers - standard. Dial will accept up to 12 sets of trippers.

Shipping Weight - 2.8 lbs. (1.3kg)

Model	Description	Electrical	Plug & Receptacle		
P1261P	PB913N84 Timer	15 Amp (1800 W), Resistive or Tungsten 1 HP, 15 FLA (96 LRA)	5-15		
P1261PE	PB313E Electronic Timer	Motor Load 15 Amp (1800 W), Resistive or	5-15		
		Tungsten 1 HP, 15 FLA (96 LRA) Motor Load	•		

For additional trippers ( 2 "ON" 2 " OFF" per pack ), order No. 156PB10398A

# P1100 Series Portable Outdoor Timers — Heavy Duty Outdoor Timers

These Portable Outdoor Timers are specially designed to control the filter pump of a portable pool or spa, but they can also be used to turn ON and OFF (in off-season) outdoor decoration, engine block heaters and other appliances, indoors or outdoors.

### **Applications**

Filter Pumps
Signs
Engine Block Heaters
Air Conditioners
Lights
Fans

## **Specifications**

 $\textbf{Case} - \textbf{Outdoor grade plastic. 5" (12.7 cm) H x 5-1/2" (13.97 cm) W x 3-3/4" (9.52 cm) D. Cord - 3 wire, outdoor grade, 22" long.$ 

Timer – 24 hour with 23-1/2 hour maximum ON time. Two ON, two OFF trippers - standard. Dial will accept up to 12 sets of trippers.

Shipping Weight – 1.7 lbs (0.7 kg)

Model #	Description	Electrical	Plug & Receptacle
P1101	Timer	15 Amp (1800 W), Resistive or Tungsten	
		1 HP Air Conditioner, 15 FLA (96 LRA), Motor Load	5-15
P1121	Timer	15 Amp (1800 W), Resistive or Tungsten	Ω
		1 HP Air Conditioner, 15 FLA (96 LRA), Motor Load	5-15
P1131	Heavy-Duty Timer with	Resistive, 1 HP, 16 FLA (96 LRA) Motor Load	5L-20
	Twist-Lock Plug & Receptacle		5L-20
P1161	Safety Timer with Ground Fault Circuit Protection	15 Amp (1800 W) Resistive, Tungsten	5-15
		15 FLA (90 LRA) Motor	5-15

For additional trippers ( 2 "ON" 2 " OFF" per pack ), order No. 156PB10398A





## Pool/Spa Accessories







For maximum convenience in pool/spa automation, PAV Series water valves can be used in conjunction with Intermatic PE24VA valve actuators.

## **PJB Series**

## Pool/Spa Junction Box & Mounting Bracket

These polymeric, water tight, multi-fixture Junction Boxes are especially designed for pools, pool-spa combinations and landscape applications. The PJB4175 provides safe and reliable connection for up to four lights. While the PJB2175 supports up to two lights. They will accommodate flexible cords from #16-3 up to #12-3 and #10-3 in any combination and non-metallic conduits from 1/2 to 1 inch, including one for supply conductor feed. An optional wall/post mounting bracket is also available.

## **Applications**

- Pool Lights
- Spa Lights
- · Landscape Lights

### **Specifications**

Case - Outdoor grade plastic. PJB4175 - 7.5" L x 4.75" W x 5.0" D. PJB2175 - 7.0" L x 3.0" W x 4.0" D

Model #	Description	<b>Light Connection</b>	Case Qty.	Shipping Weight
PJB2175	Pool/Spa Light Junction Box	2	24	19.2 lbs (8.6 kg)
PJB4175	Pool/Spa Light Junction Box	4	12	13.2 lbs (6.0 kg)
PA114	Wall/Post Mounting Bracket	_	10	5lbs (2.3 kg)

## **PAV Series**

## Maintenance Free Water Valves

Intermatic's Maintenance Free Water Valves have been designed to provide reliable control of water flow to pools, spas, solar collectors, cleaners and water features. These 2-way and 3-way valves have excellent flow characteristics while maintaining back pressure. Manufactured with Intermatic's high quality standards, the PAV Series Water Valves offer long maintenance free performance

### **Applications**

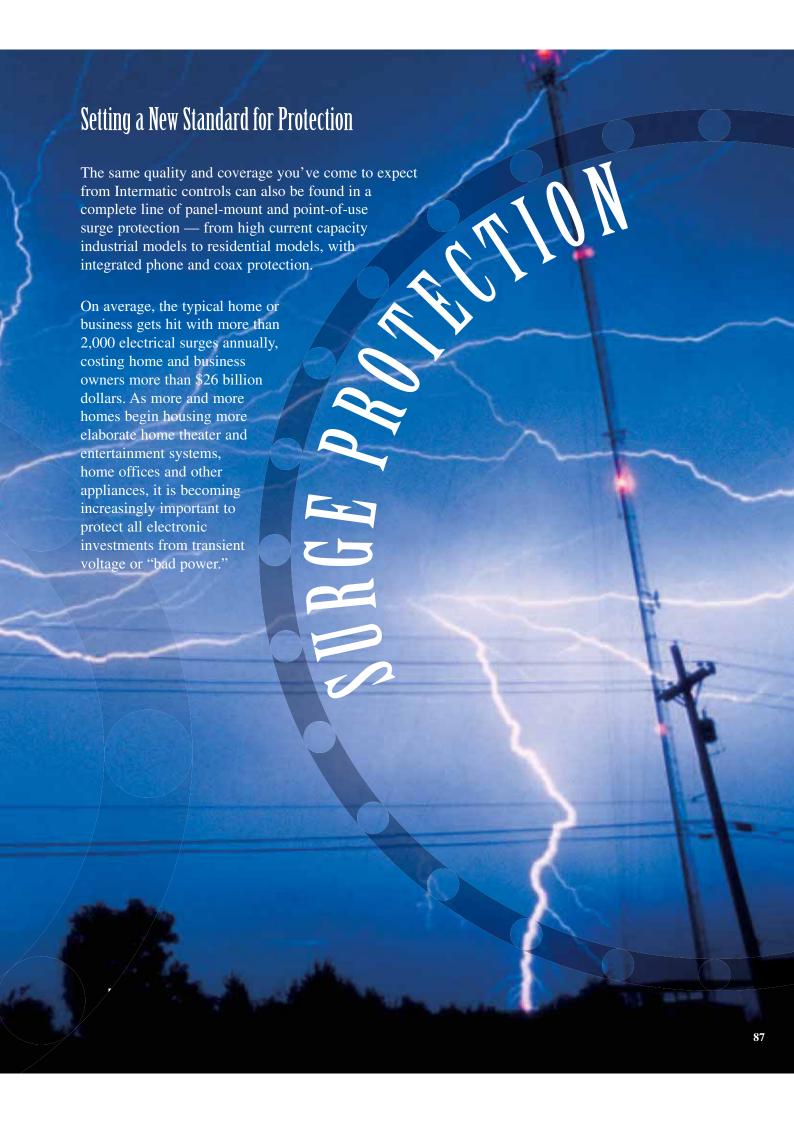
- Pools
- Spas
- Fountains
- Water Features

## **Standard Features**

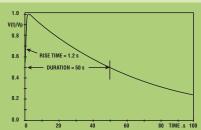
- Teflon-coated diverter requires no lubrication and ensures maintenance free performance
- $\bullet$  Innovative field adjustable stop ensures precise valve positioning
- $\bullet$  1-1/2" valves fit 1-1/2" and 2" plumbing, 2" plumbing, 2" valves fit 2" and 2-1/2" plumbing
- Available in standard PVC and high temperature CPVC

Model	Port Size	Configuration	Material	Shipping Weight Each	
PAV215	1-1/2"	2-WAY	PVC	1.5 lbs (0.6 kg)	
PAV215C	1-1/2"	2-WAY	CPVC	1.5 lbs (0.6 kg)	
PAV220	2"	2-WAY	PVC	1.6 lbs (0.7 kg)	
PAV220C	2"	2-WAY	CPVC	1.6 lbs (0.7 kg)	
PAV315	1-1/2"	3-WAY	PVC	1.5 lbs (0.6 kg)	
PAV315C	1-1/2"	3-WAY	CPVC	1.5 lbs (0.6 kg)	
PAV320	2"	3-WAY	PVC	1.6 lbs (0.7 kg)	
PAV320C	2"	3-WAY	CPVC	1.6 lbs (0.7 kg)	

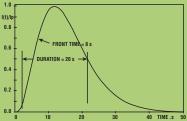
Model # Description		Voltage	Shipping Weight Each
PE24VA	Valve Actuator	24 VAC	3.5 lbs (2.2 kg)



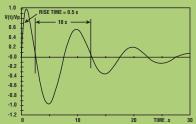
## Why Every Facility Needs Surge Protection



### Voltage Waveform



### **Current Waveform**



100 kHz Ringwave

**System Voltage** 

The wiring diagrams characterize common voltage configurations available for the products. Refer to individual product pages for models available in below configurations. Match the voltage configuration below with your voltage configuration at your Service Entrance, Distribution Panel or Panelboard location where you want protection.



120 Volt Single Phase 2 Wire plus Ground





(High Leg Delta) 4 Wire plus Ground



480 Volt

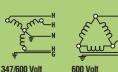


120/240 Volt Single Phase 3 Wire plus Ground









600 Volt

277/480 Volt

4 Wire plus Ground

hree Phase Wye Wire plus Ground

process within your building is controlled by electrical and electronic components which all require surge protection to function reliably.

Electrical disturbances and downtime cost North American Companies more than \$26 billion every year. Every

ANSI/IEEE has defined common disturbances which occur in modern facilities per the waveforms to the left. Depending on the proximity of the equipment to your power entry points, the severity increases. As the transient event propagates throughout your building, it degrades your electronic components by stressing them with excess voltage and current.

Every modern facility is a strong candidate for protection. Intermatic has a broad line of Service Entrance, Panelboard and Point-of-Use Protection to select from.

### Service Entrance, Panelboard and Point-of-Use surge protection can be found in the following types of facilities and installations:

- Manufacturing
- · Healthcare/Medical
- · Education/University
- Data Centers
- Telecom/Cell Sites
- Utility

- Correctional
- · Military Installations
- Airports
- · Broadcast Studios
- · Financial Institutions
- Retail

- General Office
- Semiconductor Fabrication
- · Wastewater Facilities
- Restaurants
- Entertainment Facilities

## Virtually all devices which are powered by electricity are vulnerable. Surge Suppression is required for protection of the following types of systems:

- · Computer/Peripherals
- Network Servers/ Routers/Modems
- Telecom Equipment
- · Variable Frequency Drives
- Lighting Ballasts
- HVAC Controls
- Fire Alarm Systems
- · Security Systems
- Lighting Control and Dimming Systems
- · Automatic Test Equipment
- · Wafer Fabrication Equipment
- . Uninterruptible Power Supplies
- . Bar Code Scanning Equipment
- Programmable Logic Controllers
- CNC Machines
- · Pumps, motors and related equipment which has electronic controls or starters

## **Surge Suppression Definitions**

Surge Current Capacity is the rated surge current that a design will withstand based on the standard 8 x 20 microsecond current waveform. Nema LS-1 states that this should be given for each mode of a surge protection device, since devices can have different components in each mode.

**Modes of Protection** are the coupling paths that exist in a single or three phase system.

### In a three phase wye system there are 10 potential modes where a transient can be coupled:

L1 to Neutral L1 to Ground L2 to Neutral L2 to Ground L3 to Neutral L3 to Ground L1 to L2 L2 to L3 L3 to L1 Neutral to Ground

### In a three phase delta system there are six potential modes where a transient can be coupled:

L1 to Ground L2 to Ground L3 to Ground L1 to L2 12 to 13 13 to 11

All modes must have suppression components coupled between them in order to be 100% effective.

MCOV (Maximum Continuous Operating Voltage) is the maximum steady state rms voltage at which the unit can safely operate. The recommended MCOV is 115% of nominal voltage for all voltage configurations.

EMI/RFI Noise Attenuation is a way to rate filter performance over a range of specific frequencies. IEEE characterizes line noise as less than two times peak voltage. Line noise can be somewhat attenuated by the capacitance found in MOVs, but typically requires the addition of capacitors to increase effectiveness, EMI/RFI filters should be UL1283 Listed for safety.

## **Standards and Guidelines**



ANSI/IEEE C62.41.1-2002 and ANSI/IEEE C62.41.2-2002 are the recognized American National Standards for establishing the surge withstand capability of equipment connected to utility power circuits in residential, commercial or industrial applications. The standard has established the following Location Categories which can be applied to virtually any type of facility.

### Category C

### Category B

### Category A

· Outlets and long branch circuits

- Outside and Service Entrance
- Any underground lines
- · Overhead line to detached building
- · Feeders and short branch circuits
- · Distribution panel devices
- · Lighting systems in large buildings

The following values and waveforms are recognized within Categories C, B and A. Location Category C is the Outside and Service Entrance and the harshest surge environment.

Combina	ation Waves		Ring Waves			
1.2 x 50 ı	microsecond / 8 x 2	0 microsecond	100KHz 0.5	microsecond		
Location Category	Location Voltage (Peak) Category 1.2 x 50 µ sec.		Location Category	Voltage (peak)	Current (peak)	
A	6,000 Volt	500 Amp	А	6,000 Volts	200 Amp	
В	6,000 Volt	3,000 Amp	В	6,000 Volts	500 Amp	
C low	6,000 Volt	3,000 Amp				
C high	10,000 Volt	10,000 Amp				

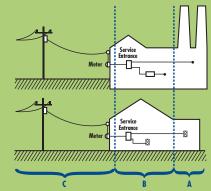
## Product Selection Chart — Surge Suppression Recommendations

## The following guidelines can be followed for Intermatic products:

Choose Model by Voltage and distance from incoming Service

Location	480 VAC	277/480 VAC	120/208 VAC Wye	Refer to Page
Large Servic	e Entrance (2000 to 4000	Amperes)		
Best	PG5001-480-3DLL	PG5001-480-3Y	PG5001-208-3Y	90
Better	PG4501-480-3DLL	PG4501-480-3Y	PG4501-208-3Y	91
Good	PG4001-480-3DLL	PG4001-480-3Y	PG4001-208-3Y	92
Small Servic	e Entrance (Less than 16	00 Amperes)		
Best	PG4501-480-3DLL	PG4501-480-3Y	PG4501-208-3Y	91
Better	PG4001-480-3DLL	PG4001-480-3Y	PG4001-208-3Y	92
Good	PG100-480-3DLL	PG100-480-3Y	PG100-208-3Y	93
Large Distrib	ution Panel (1000 to 160	O Amperes)		
Best	PG4001-480-3DLL	PG4001-480-3Y	PG4001-208-3Y	92
Better	PG100-480-3DLL	PG100-480-3Y	PG100-208-3Y	93
Good	PG80-480-3DLL	PG80-480-3Y	PG80-208-3Y	95
Small Distrib	ution Panel (600 to 1000	Amperes)		
Best	PG100-480-3DLL	PG100-480-3Y	PG100-208-3Y	93
Better	PG80-480-3DLL	PG80-480-3Y	PG80-208-3Y	95
Good	PG60-480-3DLL	PG60-480-3Y	PG60-208-3Y	97
Large Panell	oard (225 to 400 Ampere	s)		
Best	PG80-480-3DLL	PG80-480-3Y	PG80-208-3Y	95
Better	PG60-480-3DLL	PG60-480-3Y	PG60-208-3Y	97
Good	PG40-480-3D	PG40-480-3Y	PG40-208-3Y	100
Small Panell	poard (60 to 200 Amperes			
Best	PG60-480-3DLL	PG60-480-3Y	PG60-208-3Y	97
Better	PG40-480-3D	PG40-480-3Y	PG40-208-3Y	100
Good	PG20-480-3D	PG20-480-3Y	PG20-208-3Y	102

Note for the PG 60/80/100 models equivalent models are available in Nema 3R enclosures for outdoor applications (see PG2500, PG3000, PG3500 Series).



ANSI/IEEE C62.45 is the American National Standard for uniform testing of surge suppression devices. All Intermatic testing follows these guidelines.

Nema Standard LS-1 is the National Electrical Manufacturers Association specification guideline for low voltage surge protection devices.

Underwriters Laboratories - UL1449 has recently been revised (August 1998) and requires surge suppression devices to safely pass overvoltage tests, abnormal overvoltage tests, short circuit withstand tests as well as assigns suppress voltage ratings based on a 6 KV, 500 Amp combination wave or impulse.

UL1283 - The safety standard for EMI/RFI noise attenuation filters. While this device does not rate filters or performance - it does provide a level of testing to ensure the filter is safe for commercial application.

## There are four main factors to consider when specifying the appropriate device for your facility:

- 1. What is the amperage (size) of the Switchboard or Panelboard at the point of installation?
- 2. What is the geographic location of the facility?(i.e. the relative level of lightning exposure and utility grid switching activity)
- 3. What is the density of electronic equipment and how critical is the application? (i.e. a 7 x 24 computer data center would require a higher level of protection than a retail store)
- 4. What is the level of transient and noise producing loads within your facility? (i.e. a heavy industrial manufacturing environment or a densely populated computer data center would require a higher level of protection)

## NOTES:

- Pick appropriate model to match the voltage of your Service Entrance, Distribution Panel or Panelboard.
- · See individual product pages for other available voltages.
- · A facility without any Service Entrance protection would warrant a higher level of protection at downstream locations.





The PG5000 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations. Dimensions: 28.66"H x 15.11"W x 8.05"D Weight: 65 lbs.

## PG5000 Series

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- 40 kA Brute Force MOVs
- 200 KAIC Surge Rated Fuses
- Fault Current Tested to 200 KAIC
- Easily Replaceable Master Surge Module
- NEMA 3R Style Enclosure
- Redundant Protection per mode
- Safety Interlocked Disconnect
- Thermally Protected MOVs for maximum safety
- EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Lugs accept #10 to #2 AWG
- 10 year product warranty
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

## **Integral Diagnostics**

- LED Indicator Lights
- Form C Contacts
- Intermatic Thermal Monitoring System
- Digital Surge Counter
- Audible Alarm

		Surge Current Capacity (8 x 20 usec) (per mode) <sup>2</sup>		Per Phase <sup>3</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup>					
Intermatic	MCOV1									
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
PG5001-240-2	2S 120/24	O VAC Sir	igle Phase	(split)						
	115%	200 kA	200 kA	200 kA	200 kA	400 kA	400 V	400 V	330 V	700 V
PG5001-208-3	3Y 120/20	8 VAC Th	ree Phase	Wye						
	115%	200 kA	200 kA	200 kA	200 kA	400 kA	400 V	400 V	330 V	700 V
PG5001-240-3	3HLD 120,	/240 VAC	Three Pha	se High Le	g Delta					
	115%	200 kA	200 kA	200 kA	200 kA	400 kA	400 V /	400 V /	330 V	900 V
							(700 V)	(700 V)		
PG5001-480-3	3Y 277/48	O VAC Th	ree Phase	Wye						
	115%	200 kA	200 kA	200 kA	200 kA	400 kA	800 V	700 V	700 V	1,500 V
PG5001-480-3	3DLL 480	VAC Thre	e Phase D	elta						
	115%	_	_	_	200 kA	200 kA	_	_	_	1,500 V
PG5001-600-3	347/60	O VAC Th	ree Phase	Wye						
	115%	200 kA	200 kA	200 kA	200 kA	400 kA	1,000 V	1,000 V	1,000 V	1,800 V
PG5001-600-3	3D 600 VA	C Three I	Phase Deli	ta						
	115%	_	200 kA	_	200 kA	400 kA	_	1,500 V	_	1,800 V

### NOTES.

NOTES.

MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage.

<sup>&</sup>lt;sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.

<sup>&</sup>lt;sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.

<sup>&</sup>lt;sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



## PG4500 Series

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- 40 kA Brute Force MOVs
- 200 KAIC Surge Rated Fuses
- Fault Current Tested to 200 KAIC
- Easily Replaceable Master Surge Module
- NEMA 3R Style Enclosure
- Redundant Protection per mode
- Safety Interlocked Disconnect
   Thermally Protected MOVs for maximum safety
   EMUREI Elleration. Up to 64 dR from 20 kHz to
- $\bullet$  EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Lugs accept #10 to #2 AWG
- 10 year product warranty
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

## **Integral Diagnostics**

- LED Indicator Lights
- Form C Contacts
- Intermatic Thermal Monitoring System
- Digital Surge Counter
- · Audible Alarm

			rge Curren 20 usec) (			Per Phase <sup>3</sup>	UL 1449 6 kV,	9 Clampino 500 Amp (	y Voltage ( 8 x 20 use	SVR) c)⁴
Intermatic	MCOV1									
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
PG4501-240-	2S 120/24	O VAC Sii	igle Phase	(split)						
	115%	150 kA	150 kA	150 kA	150 kA	300 kA	400 V	400 V	330 V	700 V
PG4501-208-	3Y 120/20	8 VAC Th	ree Phase	Wye						
	115%	150 kA	150 kA	150 kA	150 kA	300 kA	400 V	400 V	330 V	700 V
PG4501-240-	3HLD 120	/240 VAC	Three Pha	se High Le	g Delta					
	115%	150 kA	150 kA	150 kA	150 kA	300 kA	400 V /	400 V /	330 V	900 V
							(700 V)	(700 V)		
PG4501-480-	3Y 277/48	O VAC Th	ree Phase	Wye						
	115%	150 kA	150 kA	150 kA	150 kA	300 kA	800 V	700 V	700 V	1,500 V
PG4501-480-	3DLL 480	VAC Thre	e Phase D	Delta						
	115%	_	_	_	150 kA	150 kA	_	_	_	1,500 V
PG4501-600-	3Y 347/60	O VAC Th	ree Phase	Wye						
	115%	150 kA	150 kA	150 kA	150 kA	300 kA	1,000 V	1,000 V	1,000 V	1,800 V
PG4501-600-	3D 600 VA	AC Three	Phase Del	ta						
	115%	_	150 kA	_	150 kA	300 kA	_	1,500 V	_	1,800 V

### NOTES



The PG4500 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions:
28.66"H x 15.11"W x 8.05"D
Weight: 65 lbs.

<sup>&</sup>lt;sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage.

<sup>&</sup>lt;sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.

 $<sup>^3</sup>$  Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.

<sup>&</sup>lt;sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



The PG4000 Series is a hardwired suppression device (installed in parallel) and recommended for all **ANSI/IEEE Category locations. Dimensions:** 28.66"H x 15.11"W x 8.05"D Weight: 65 lbs.

## PG4000 Series

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- 40 kA Brute Force MOVs
- 200 KAIC Surge Rated Fuses
- Fault Current Tested to 200 KAIC
- Easily Replaceable Master Surge Module
- NEMA 3R Style Enclosure
- Redundant Protection per mode
- · Safety Interlocked Disconnect
- . Thermally Protected MOVs for maximum safety
- EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Lugs accept #10 to #2 AWG
- 10 year product warranty
- Redundant Protection per mode
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

## **Integral Diagnostics**

- LED Indicator Lights
- Form C Contacts
- Intermatic Thermal Monitoring System
- Digital Surge Counter
- · Audible Alarm

			rge Curren 20 usec) (			Per Phase <sup>3</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup>			
Intermatic	MCOV1									
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
PG4001-240-	2S 120/24	O VAC Si	igle Phase	(split)						
	115%	125 kA	125 kA	125 kA	125 kA	250 kA	400 V	400 V	330 V	700 V
PG4001-208-	3Y 120/20	8 VAC Th	ree Phase	Wye						
	115%	125 kA	125 kA	125 kA	125 kA	250 kA	400 V	400 V	330 V	700 V
PG4001-240-	3HLD 120,	/240 VAC	Three Pha	se High Le	g Delta					
	115%	125 kA	125 kA	125 kA	125 kA	250 kA	400 V /	400 V /	330 V	900 V
							(700 V)	(700 V)		
PG4001-480-	3Y 277/48	O VAC Th	ree Phase	Wye						
	115%	125 kA	125 kA	125 kA	125 kA	250 kA	800 V	700 V	700 V	1,500 V
PG4001-480-	3DLL 480	VAC Thre	e Phase D	elta						
	115%	_	_	_	125 kA	125 kA	_	_	_	1,500 V
PG4001-600-	3Y 347/60	O VAC Th	ree Phase	Wye						
	115%	125 kA	125 kA	125 kA	125 kA	250 kA	1,000 V	1,000 V	1,000 V	1,800 V
PG4001-600-	3D 600 VA	C Three	Phase Del	ta						
	115%	_	125 kA	_	125 kA	250 kA	_	1,500 V	_	1,800 V

<sup>&</sup>lt;sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage. <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.

<sup>&</sup>lt;sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems. <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



## **PG100 Series**

### **Features**

- Panel Extension design for mounting above or below 20" wide panel
- Available wiring space on each side for branch circuit or main input conductors
- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode, replaceable master module
- Integral 200 KAIC fusing and thermal protection
- Fault Current Tested to 200 KAIC
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)
- UL1449, 2nd Edition and UL1283 Listed, cULus
- NEMA 12 Style Enclosure
- Lugs accept #10 to #2 AWG
- Available with flush mount cover PG1-FMP
- 10 year product warranty
- EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz

## **Integral Diagnostics**

- LED Indicator Lights for each mode
- Form C Contacts
- Audible Alarm

		Su (8 x	irge Curren 20 usec) (	t Capacity per mode)	2	Per Phase <sup>3</sup>	UL 1449 6 kV,	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup>				
Intermatic	MCOV1											
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L		
PG100-240-2S	120/240	VAC Sing	gle Phase (	split)								
	115%	100 kA	100 kA	100 kA	100 kA	200 kA	330 V	330 V	330 V	600 V		
PG100-208-3Y	120/208	VAC Thre	ee Phase \	Nye								
	115%	100 kA	100 kA	100 kA	100 kA	200 kA	330 V	330 V	330 V	600 V		
PG100-240-3H	LD 120/2	40 VAC T	hree Phase	High Leg	Delta							
	115%	100 kA	100 kA	100 kA	100 kA	200 kA	330 V	330 V	330 V	900 V		
							(600 V)	(700 V)				
PG100-480-3Y	277/480	VAC Thre	ee Phase \	Nye								
	115%	100 kA	100 kA	100 kA	100 kA	200 kA	800 V	800 V	700 V	1,500 V		
PG100-480-3D	LL 480 V	AC Three	Phase De	Ita								
	115%	_	_	_	100 kA	100 kA	_	_	_	1,200 V		
NOTEC.												



The PG100 Series is a hard wired suppression device installed in parallel) and recommended for all **ANSI/IEEE Category locations.** Dimensions: 16.0"H x 20.0"W x 6.0"D Weight: 40 lbs



Flush Mount Plate PG1-FMP

<sup>&</sup>lt;sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage.
<sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.

<sup>&</sup>lt;sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.

<sup>&</sup>lt;sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



The PG3500 Series is a hardwired suppression device (installed in parallel) and recommended for all **ANSI/IEEE Category locations. Dimensions:** 28.66"H x 15.11"W x 8.05"D Weight: 60 lbs.

## PG3500 Series

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- 40 kA Brute Force MOVs
- 200 KAIC Surge Rated Fuses
- Fault Current Tested to 200 KAIC
- Easily Replaceable Master Surge Module
- NEMA 3R Style Enclosure
- Redundant Protection per mode
- · Thermally Protected MOVs for maximum safety
- $\bullet$  EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Lugs accept #10 to #2 AWG
- 10 year product warranty
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

## **Integral Diagnostics**

- LED Indicator Lights
- Intermatic Thermal Monitoring System
- · Audible Alarm
- Form C Contacts

			rge Curren 20 usec) (			Per Phase <sup>3</sup>		9 Clamping 500 Amp (		
Intermatic	MCOV1									/
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
PG3500-240-	2S 120/24	O VAC Sir	igle Phase	(split)						
	115%	100 kA	100 kA	100 kA	100 kA	200 kA	400 V	400 V	330 V	700 V
PG3500-208-	3Y 120/20	8 VAC Th	ree Phase	Wye						
	115%	100 kA	100 kA	100 kA	100 kA	200 kA	400 V	400 V	330 V	700 V
PG3500-240-	3HLD 120,	/240 VAC	Three Pha	se High Le	g Delta					
	115%	100 kA	100 kA	100 kA	100 kA	200 kA	400 V /	400 V /	330 V	900 V
							(700 V)	(700 V)		
PG3500-480-	3Y 277/48	O VAC Th	ree Phase	Wye						
	115%	100 kA	100 kA	100 kA	100 kA	200 kA	800 V	700 V	700 V	1,500 V
PG3500-480-	3DLL 480	VAC Thre	e Phase D	elta						
	115%	_	_	_	100 kA	100 kA	_	_	_	1,500 V
PG3500-600-	3Y 347/60	O VAC Th	ree Phase	Wye						
	115%	100 kA	100 kA	100 kA	100 kA	200 kA	1,000 V	1,000 V	1,000 V	1,800 V
PG3500-600-	3D 600 VA	C Three I	Phase Deli	ta						
	115%	_	100 kA	_	100 kA	200 kA	_	1,500 V	_	1,800 V

<sup>&</sup>lt;sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage.

<sup>&</sup>lt;sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.
<sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.

<sup>&</sup>lt;sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



## **PG80 Series**

### **Features**

- Panel Extension design for mounting above or below 20" wide panel
- Available wiring space on each side for branch circuit or main input conductors
- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode, replaceable master module
- Integral 200 KAIC fusing and thermal protection
- EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)
- UL1449, 2nd Edition and UL1283 Listed, cULus
- NEMA 12 Style Enclosure
- Lugs accept #10 to #2 AWG
- Available with flush mount cover PG1-FMP
- 10 year product warranty
- Fault Current Tested to 200 KAIC



- LED Indicator Lights for each mode
- Form C Contacts
- Audible Alarm

		Տւ (8 Հ	ırge Currer ( 20 usec)	nt Capacity (per mode	/ ) <sup>2</sup>	Per Phase <sup>3</sup>	UL 1449 6 kV,	OClamping 500 Amp	g Voltage (8 x 20 us	(SVR) ec) <sup>4</sup>
Intermatic	MCOV1									
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
PG80-240-2S	120/240	/AC Sing	le Phase (s	plit)						
	115%	80 kA	80 kA	80 kA	80 kA	160 kA	330 V	330 V	330 V	600 V
PG80-208-3Y	120/208	AC Thre	e Phase W	/ye						
	115%	80 kA	80 kA	80 kA	80 kA	160 kA	330 V	330 V	330 V	600 V
PG80-240-3H	LD 120/24	O VAC Th	ree Phase	High Leg I	Delta					
	115%	80 kA	80 kA	80 kA	80 kA	160 kA	330 V	330 V	330 V	900 V
							(600 V)	(700 V)		
PG80-480-3Y	277/480 \	AC Thre	e Phase W	/ye						
	115%	80 kA	80 kA	80 kA	80 kA	160 kA	800 V	800 V	700 V	1500 V
PG80-480-3D	LL 480 VA	C Three	Phase Del	ta						
	115%	_	80 kA	_	80 kA	80 kA	_	_	_	1,200 V
NOTEC:										

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage.
  <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



The PG80 Series is a hardwired suppression device (installed in parallel) and recommended for all **ANSI/IEEE Category locations. Dimensions:** 16.0"H x 20.0"W x 6.0"D Weight: 40 lbs.



Flush Mount Plate PG1-FMP



The PG3000 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations. Dimensions: 28.66"H x 15.11"W x 8.05"D Weight: 60 lbs.

## PG3000 Series

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- 40 kA Brute Force MOVs
- Thermally Protected MOVs for maximum safety
- EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- 10 year product warranty

- Redundant Protection per mode
- 200 KAIC Surge Rated Fuses
- Fault Current Tested to 200 KAIC
- Easily Replaceable Master Surge Module
- NEMA 3R Style Enclosure
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

## **Integral Diagnostics**

- LED Indicator Lights
- Intermatic Thermal Monitoring System
- Audible Alarm
- Form C Contacts

			ırge Curreı ( 20 usec)			Per Phase <sup>3</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup>			
Intermatic	MCOV1							,		
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
PG3000-240-	2S 120/24	O VAC Si	ngle Phase	e (split)						
	115%	80 kA	80 kA	80 kA	80 kA	160 kA	400 V	400 V	330 V	700 V
PG3000-208-	3Y 120/20	8 VAC Th	ree Phase	Wye						
	115%	80 kA	80 kA	80 kA	80 kA	160 kA	400 V	400 V	330 V	700 V
PG3000-240-	3HLD 120,	/240 VAC	Three Pha	se High L	eg Delta					
	115%	80 kA	80 kA	80 kA	80 kA	160 kA	400 V /	400 V /	330 V	900 V
							(700 V)	(700 V)		
PG3000-480-	3Y 277/48	O VAC Th	ree Phase	Wye			,			
	115%	80 kA	80 kA	80 kA	80 kA	160 kA	800 V	700 V	700 V	1,500 V
PG3000-480-	3DLL 480	VAC Thre	e Phase [	Delta						
	115%	_	_	_	80 kA	80 kA	_	_	_	1,500 V
PG3000-600-	3Y 347/60	O VAC Th	ree Phase	Wye						
	115%	80 kA	80 kA	80 kA	80 kA	160 kA	1,000 V	1,000 V	1,000 V	1,800 V
PG3000-600-	3D 600 VA	C Three	Phase Del	lta						
	115%	_	80 kA	_	80 kA	160 kA	_	1,500 V	_	1,800 V

### NOTES:

<sup>&</sup>lt;sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage.

<sup>&</sup>lt;sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.

<sup>&</sup>lt;sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.

<sup>&</sup>lt;sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



## **PG60 Series**

### **Features**

- Panel Extension design for mounting above or below 20" wide panel
- Available wiring space on each side for branch circuit or main input conductors
- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode, replaceable master module
- Integral 200 KAIC fusing and thermal protection
- EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)
- UL1449, 2nd Edition and UL1283 Listed, cULus
- NEMA 12 Style Enclosure
- Lugs accept #10 to #2 AWG
- Available with flush mount cover PG1-FMP
- 10 year product warranty
- Fault Current Tested to 200 KAIC

## **Integral Diagnostics**

- LED Indicator Lights for each mode
- Form C Contacts
- Audible Alarm

		Sı (8)	ırge Currer ( 20 usec)	nt Capacity (per mode	) <sup>2</sup>	Per Phase <sup>3</sup>	UL 1449 6 kV,	O Clamping Voltage (SVR) 500 Amp (8 x 20 usec)4		
Intermatic	MCOV1									
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
PG60-240-2S	120/240 V	/AC Sing	le Phase (s	plit)						
	115%	60 kA	60 kA	60 kA	60 kA	120 kA	330 V	330 V	330 V	600 V
PG60-208-3Y	120/208 V	/AC Thre	e Phase W	/ye						
	115%	60 kA	60 kA	60 kA	60 kA	120 kA	330 V	330 V	330 V	600 V
PG60-240-3H	LD 120/24	O VAC Th	ree Phase	High Leg	Delta					
	115%	60 kA	60 kA	60 kA	60 kA	120 kA	330 V	330 V	330 V	900 V
							(600 V)	(700 V)		
PG60-480-3Y	277/480 V	/AC Thre	e Phase W	/ye						
	115%	60 kA	60 kA	60 kA	60 kA	120 kA	800 V	800 V	700 V	1,500 V
PG60-480-3D	LL 480 VA	C Three	Phase Del	ta						
	115%	_	_	_	60 kA	60 kA	_	_	_	1,200 V



The PG60 Series is a hardwired suppression device (installed in parallel) and recommended for all **ANŚI/IEEE Category locations. Dimensions:** 16.0"H x 20.0"W x 6.0"D Weight: 40 lbs.



Flush Mount Plate PG1-FMP

<sup>&</sup>lt;sup>†</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage. <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.

<sup>&</sup>lt;sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.

<sup>&</sup>lt;sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



The PG2500 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations. Dimensions:

16.47"H x 10.59"W x 4.9"D Weight: 28 lbs.



Flush Mount Plate IG1FMP-PG

## PG2500 Series

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode
- 200 KAIC Surge Rated Fuses
- Thermally Protected MOVs for maximum safety
- Fault Current Tested to 200 KAIC
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)
- EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- NEMA 3R Style Enclosure
- Pre-wired with 40" of #10 AWG wire leads
- 10 year product warranty

### **Integral Diagnostics**

- LED Indicator Lights for each mode
- Form C Contacts
- Audible Alarm

Model G2401SECA G2083YECA G2403DECA G4803YECA			urge Currer x 20 usec)			Per Phase <sup>3</sup>		9 Clamping Voltage (SVR) 500 Amp (8 x 20 usec) <sup>4</sup>		
Intermatic	MCOV1									
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
IG2401SECA	120/240 V	AC Singl	e-Phase (S	Split)						
	115%	60 kA	60 kA	60 kA	60 kA	120 kA	400 V	400 V	330 V	600 V
IG2083YECA	120/208 V	AC Three	Phase W	ye						
	115%	60 kA	60 kA	60 kA	60 kA	120 kA	400 V	400 V	330 V	600 V
IG2403DECA	120/240 V	AC Three	Phase Hi	gh Leg De	elta					
	115%	60 kA	60 kA	60 kA	60 kA	120 kA	400 V /	400 V /	330 V	700 V
							(600 V)	(700 V)		
IG4803YECA	277/480 V	AC Three	Phase W	ye						
	115%	60 kA	60 kA	60 kA	60 kA	120 kA	800 V	800 V	400 V	1,500 V
IG4803DECA	480 VAC	Three Pha	se Delta							
	115%	_	120 kA	_	60 kA	180 kA	_	1,500 V	_	1,200 V
-										

### NOTES

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage.
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



## PG2000 Series

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode
- 200 KAIC Surge Rated Fuses
- . Thermally Protected MOVs for maximum safety
- Fault Current Tested to 200 KAIC
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)
- EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- NEMA 3R Style Enclosure
- Pre-wired with 40" of #10 AWG wire leads
- 10 year product warranty

### **Integral Diagnostics**

- LED Indicator Lights
- Form C Contacts
- Intermatic Thermal Monitoring System

		Sur (8 x	ge Currei 20 usec)	nt Capacity (per mode	)2	Per Phase <sup>3</sup>		49 Clamping Voltage (SVR) V, 500 Amp (8 x 20 usec) <sup>4</sup>			
Intermatic	MCOV1										
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L	
IG2401ECS	120/240 VA	C Single-F	hase (S <sub>l</sub>	plit)							
	115%	30 kA	30 kA	30 kA	30 kA	60 kA	500 V	400 V	400 V	700 V	
IG2083ECY	120/208 VA	C Three Pl	hase Wy	е							
	115%	30 kA	30 kA	30 kA	30 kA	60 kA	400 V	500 V	400 V	700 V	
IG2403ECD	120/240 VA	C Three Ph	ase High	Leg Delt	a						
	115%	30 kA	30 kA	30 kA	30 kA	60 kA	400 V /	400 V /	330 V	700 V	
							(700 V)	(700 V)			
IG4803ECY	277/480 VA	C Three Pl	hase Wy	е							
	115%	30 kA	30 kA	30 kA	30 kA	60 kA	800 V	800 V	400 V	1,500 V	
IG4803ECD	480 VAC T	hree Phase	Delta								
	115%	_	60 kA	_	30 kA	90 kA	_	1,500 V	_	1,500 V	

### NOTES:



The PG2000 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions:
16.47"H x 10.59"W x 4.9"D Weight: 28 lbs.



Flush Mount Plate IG1FMP-PG



<sup>&</sup>lt;sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage.

<sup>&</sup>lt;sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.

<sup>&</sup>lt;sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.

<sup>&</sup>lt;sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



The PG40 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEÉE Category locations. **Dimensions:** 11.0"H x 5.875"W x 3.75"D Weight: 22 lbs.



Flush Mount Plate PG2-FMP

## **PG40 Series**

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode
- Integral 200 KAIC fusing and thermal protection
- Thermally protected MOVs for maximum safety
- Fault current tested to 200 KAIC
- EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- NEMA 4 style enclosure
- Pre-wired with 30" of #10 AWG wire leads
- · Available with flush mount cover PG2-FMP
- 10 year product warranty
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

## **Integral Diagnostics**

- LED indicator lights for each mode
- Form C Contacts
- · Audible alarm

		St (8)	ırge Currer ( 20 usec)	nt Capacity (per mode	) <sup>2</sup>	Per Phase <sup>3</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup>				
Intermatic	MCOV1									<b>A</b> .	
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L	
PG40-240-2S	120/240 \	IAC Singl	le Phase (s	plit)							
	115%	40 kA	40 kA	40 kA	40 kA	80 kA	330 V	330 V	400 V	700 V	
PG40-208-3Y	120/208 \	/AC Three	Phase W	ye							
	115%	40 kA	40 kA	40 kA	40 kA	80 kA	330 V	330 V	400 V	700 V	
PG40-240-3H	LD 120/24	O VAC Th	ree Phase	High Leg	Delta						
	115%	40 kA	40 kA	40 kA	40 kA	80 kA	330 V	330 V	400 V	900 V	
							(600 V)	(600 V)			
PG40-480-3Y	277/480 \	/AC Three	Phase W	ye							
	115%	40 kA	40 kA	40 kA	40 kA	80 kA	800 V	800 V	800 V	1,500 V	
PG40-480-3D	480 VAC	Three Pha	se Delta								
	115%	_	40 kA	_	40 kA	80 kA	_	1,200 V	_	1,200	

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage. <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems. <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



## **EH Series**

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode
- 200 KAIC Surge Rated Fuses
- . Thermally Protected MOVs for maximum safety
- Fault Current Tested to 200 KAIC
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)
- EMI/RFI Filtration 20 to 30 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition Listed, cULus
- NEMA 12 Style Enclosure
- Pre-wired with 30" of #10 AWG wire leads
- 10 year product warranty

## **Integral Diagnostics**

- LED Indicator Lights
- Intermatic Thermal Monitoring System

		Surge Current Capacity Per (8 x 20 usec) (per mode) <sup>2</sup> Phase <sup>3</sup>						9 Clamping 500 Amp (		
Intermatic	MCOV1									
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
IG1201EH 1	20 VAC Sin	igle Phase	9							
	115%	26 kA	26 kA	26 kA	_	52 kA	500 V	500 V	500 V	_
IG2401EH 1	20/240 VAC	Single P	hase (split	t)						
	115%	26 kA	26 kA	26 kA	26 kA	52 kA	400 V	400 V	400 V	700 V
IG2083YEH	120/208 VA	C Three	Phase Wy	е						
	115%	26 kA	26 kA	26 kA	26 kA	52 kA	400 V	400 V	400 V	700 V
IG2403DEH	120/240 VA	C Three	Phase Hig	h Leg Del	ta					
	115%	26 kA	26 kA	26 kA	26 kA	52 kA	400 V /	400 V /	400 V	700 V
							(700 V)	(700 V)		
IG4803YEH	277/480 VA	C Three	Phase Wy	е						
	115%	26 kA	26 kA	26 kA	26 kA	52 kA	800 V	800 V	400 V	1,500 V
IG4803DEH	480 VAC T	hree Phas	e Delta							
	115%	_	52 kA	_	26 kA	78 kA	_	1,200 V	_	1,500 V



The EH Series is a hardwired suppression device (installed in parallel) and recommended for all **ANŚI/IEEE Category locations. Dimensions:** 7.5"H x 4.25"W x 4.0"D Weight: 5.5 lbs.



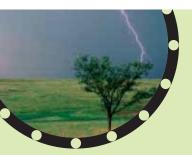
Flush Mount Plate IG1FMP-H



<sup>&</sup>lt;sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage. <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.

<sup>&</sup>lt;sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.

<sup>&</sup>lt;sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.





The PG20 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations. Dimensions: 11.0"H x 5.875"W x

3.75"D Weight: 22 lbs.



Flush Mount Plate PG2-FMP

## PG20 Series

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode
- Integral 200 KAIC fusing and thermal protection
- Thermally protected MOVs for maximum safety
- Fault current tested to 200 KAIC
- EMI/RFI Filtration Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- NEMA 4 style enclosure
- Pre-wired with 30" of #10 AWG wire leads
- · Available with flush mount cover PG2-FMP
- 10 year product warranty
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

## **Integral Diagnostics**

- LED indicator lights for each mode
- Form C Contacts
- · Audible alarm

		St (8)	ırge Currer ( 20 usec)	nt Capacity (per mode	) <sup>2</sup>	Per Phase <sup>3</sup>	(SVR) ec)4			
Intermatic	MCOV1									$\Lambda$
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
PG20-240-2S	120/240 \	/AC Sing	le Phase (s	plit)						
	115%	20 kA	20 kA	20 kA	20 kA	40 kA	330 V	330 V	400 V	700 V
PG20-208-3Y	120/208 \	/AC Three	Phase W	ye						
	115%	20 kA	20 kA	20 kA	20 kA	40 kA	330 V	330 V	400 V	700 V
PG20-240-3H	LD 120/24	O VAC Th	ree Phase	High Leg	Delta					
	115%	20 kA	20 kA	20 kA	20 kA	40 kA	330 V	330 V	400 V	900 V
							(600 V)	(600 V)		
PG20-480-3Y	277/480 \	/AC Three	Phase W	ye						
	115%	20 kA	20 kA	20 kA	20 kA	40 kA	800 V	800 V	800 V	1,500 V
PG20-480-3D	480 VAC	Three Pha	se Delta							
	115%	_	20 kA	_	20 kA	40 kA	_	1,200 V	_	1,200 V

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage. <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



## LH Series

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- 200 KAIC Surge Rated Fuses
- . Thermally Protected MOVs for maximum safety
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration 20 to 30 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition, cULus
- NEMA 12 Style Enclosure
- Pre-wired with 30" of #10 AWG wire leads
- 10 year product warranty
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

## **Integral Diagnostics**

- LED Indicator Lights
- Intermatic Thermal Monitoring System

		Surge Current Capacity (8 x 20 usec) (per mode) <sup>2</sup>				Per Phase <sup>3</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup>				
Intermatic	MCOV1										
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L	
IG1201LH	120 VAC Sir	igle Phas	е								
	115%	13 kA	13 kA	13 kA	_	26 kA	500 V	500 V	400 V	_	
IG2401LH	120/240 VAC	Single F	hase (split	)							
	115%	13 kA	13 kA	13 kA	13 kA	26 kA	400 V	500 V	400 V	700 V	
IG2083LYH	120/208 VA	C Three	Phase Wye	!							
	115%	13 kA	13 kA	13 kA	13 kA	26 kA	500 V	500 V	400 V	700 V	
IG2403LDH	120/240 VA	C Three	Phase Hig	h Leg Del	ta						
	115%	13 kA	13 kA	13 kA	13 kA	26 kA	500 V /	500 V /	500 V	700 V	
							(700 V)	(700 V)			
IG4803LYH	277/480 VA	C Three	Phase Wye	!							
	115%	13 kA	13 kA	13 kA	13 kA	26 kA	800 V	800 V	500 V	1,500 V	
IG4803LDH	480 VAC T	hree Phas	e Delta								
	115%	_	26 kA	_	13 kA	39 kA	_	1,500 V	_	1,500 V	

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage. <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



The LH Series is a hardwired suppression device (installed in parallel) and recommended for **ANSI/IEEE Category locations for A Dimensions:** 7.5"H x 4.25"W x 4.0"D Weight: 5.5 lbs.



Flush Mount Plate IG1FMP-H



The PG1500 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations. Dimensions:

11.0"H x 5.875"W x 3.75"D Weight: 22 lbs.



Flush Mount Plate PG2-FMP

## PG1500 Series

### **Features**

- L-N, N-G protection modes (4 mode)
- Redundant protection per mode
- Integral 200 KAIC fusing and thermal protection
- Thermally protected MOVs for maximum safety
- Fault current tested to 200 KAIC
- EMI/RFI filtration Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- NEMA 4 style enclosure
- Pre-wired with 30" of #10 AWG wire leads
- · Available with flush mount cover PG2-FMP
- 10 year product warranty
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

## **Integral Diagnostics**

- LED indicator lights for each mode
- Form C Contacts
- Audible alarm

		Surge Current Capacity (8 x 20 usec) (per mode) <sup>2</sup>				Per Phase <sup>3</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup>			
Intermatic	MCOV1									$\overline{A}$
Model	L-N	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
PG1500-240-	2S 120/24	O VAC Si	ngle Phase	e (split)						
	115%	80 kA	_	40 kA	80 kA	80 kA	330 V	700 V	400 V	600 V
PG1500-208-	3Y 120/20	8 VAC Thi	ree Phase	Wye						
	115%	80 kA	_	40 kA	80 kA	80 kA	330 V	700 V	400 V	600 V
PG1500-480-	3Y 277/48	O VAC Thi	ree Phase	Wye						
	115%	80 kA	_	40 kA	80 kA	80 kA	800 V	1,500 V	800 V	1,500 V
PG1500-480-	3D 480 VA	C Three F	Phase Del	ta						
	115%	_	80 kA	_	80 kA	160 kA	_	1,200 V	_	1,200 V

NOTES

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage.
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



## PG1000 Series

### **Features**

- L-N, N-G protection modes (4 mode)
- Redundant protection per mode
- Integral 200 KAIC fusing and thermal protection
- Thermally protected MOVs for maximum safety
- Fault current tested to 200 KAIC
- EMI/RFI filtration Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- NEMA 4 style enclosure
- Pre-wired with 30" of #10 AWG wire leads
- Available with flush mount cover PG2-FMP
- 10 year product warranty
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

## **Integral Diagnostics**

- LED indicator lights for each mode
- Form C Contacts
- Audible alarm

	Surge Current Capacity (8 x 20 usec) (per mode) <sup>2</sup>				Per Phase <sup>3</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup>				
MCOV <sup>1</sup> L-N	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L	
S 120/24	O VAC Si	ngle Phase	(split)							
115%	40 kA	_	40 kA	40 kA	40 kA	330 V	700 V	400 V	600 V	
Y 120/20	8 VAC Th	ree Phase	Wye							
115%	40 kA	_	40 kA	40 kA	40 kA	330 V	700 V	400 V	600 V	
Y 277/48	O VAC Th	ree Phase	Wye							
115%	40 kA	_	40 kA	40 kA	40 kA	800 V	1,500 V	800 V	1,500 V	
D 480 VA	C Three I	Phase Del	ta							
115%	_	40 kA	_	40 kA	80 kA	_	1,200 V	_	1,200 V	
3	L-N 2S 120/24 115% BY 120/20 115% BY 277/48 115% BD 480 VA	MCOV¹ L-N L-N 2S 120/240 VAC Si 115% 40 kA BY 120/208 VAC Thi 115% 40 kA BY 277/480 VAC Thi 115% 40 kA BD 480 VAC Three F	MCOV1   L-N   L-G	NCOV    L-N   L-G   N-G    S   120/240   VAC   Single Phase   (split)     115%   40 kA   —   40 kA     120/208   VAC   Three Phase   Wye     115%   40 kA   —   40 kA     277/480   VAC   Three Phase   Wye     115%   40 kA   —   40 kA     15%   40 kA   —   40 kA	MCOV1	NCOV    L-N	NCOV    L-N	MCOV    L-N	MCOV    L-N	

### NOTES.



suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations. Dimensions: 11.0"H x 5.875"W x 3.75"D Weight: 22 lbs.



Flush Mount Plate PG2-FMP



MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage.

<sup>&</sup>lt;sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1.

<sup>&</sup>lt;sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.

<sup>&</sup>lt;sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



## **Modular Protection System**

# There are four main factors to consider when specifying the appropriate device for your facility:

- 1. What is the amperage (size) of the Switchboard or Panelboard at the point of installation?
- 2. What is the geographic location of the facility? (i.e. the relative level of lightning exposure and utility grid switching activity)
- 3. What is the density of electronic equipment and how critical is the application? (i.e. a 7 x 24 computer data center would require a higher level of protection than a retail store)
- 4. What is the level of transient and noise producing loads within your facility? (i.e. a heavy industrial manufacturing environment or a densely populated computer data center would require a higher level of protection)

### NOTES:

- Pick appropriate model to match the voltage of your Service Entrance, Distribution Panel or Panelboard.
- See individual product pages for other available voltages.
- A facility without any Service Entrance protection would warrant a higher level of protection at downstream locations.

## Product Selection Chart — Modular Models

The following guidelines can be followed for Intermatic products:

### **Choose Model by Voltage**

	, ,			
Location	480 VAC Delta	277/480 VAC Wye	120/208 VAC Wye	Refer to Page
Large Servi	ce Entrance 2000 to 4000	Amp		
Best	SG320K-480-3D	SG320K-480-3Y	SG320K-208-3Y	107
Better	SG240K-480-3D	SG240K-480-3Y	SG240K-208-3Y	108
Good	UG40A4803D	UG404803Y	UG40A2083Y	110
Small Servi	ce Entrance Less than 16	00 Amp		
Best	SG240K-480-3D	SG240K-480-3Y	SG240K-208-3Y	108
Better	SG160K-480-3D	SG160K-480-3Y	SG160K-208-3Y	109
Good	UG30A4803D	UG30A4803Y	UG30A2083Y	111
Distribution	Panel 1000 to 1600 Amp			
Best	SG160K-480-3D	SG160K-480-3Y	SG160K-208-3Y	109
Better	UG30A4803D	UG30A4803Y	UG30A2083Y	111
Good	UG28A4803D	UG28A4803Y	UG28A2083Y	112
Panelboard	60 to 400 Amp			
Best	UG30A4803D	UG30A4803Y	UG30A2083Y	111
Better	UG28A4803D	UG28A4803Y	UG28A2083Y	112

## **Modular Protection System**



## SG320 Series

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration Up to 50 dB from 20 kHz to 100 MHz
- Replaceable Modules for low MTTR
- NEMA 12 Enclosure

- 40 kA Brute Force MOVs
- Redundant Protection per mode
- Thermally Protected MOVs for maximum safety
- UL1449, 2nd Edition and UL1283 Listed, UL and cUL
- 5 year product warranty

### **Installation:**

• Recommended installation is with 30-100 Amp breaker

## **Integral Diagnostics**

- LED Indicator Lights
- Form C Contacts

- · Audible Alarm
- Digital Surge Counter

	Surge Current Capacity (8 x 20 usec) (per mode)				Per Phase <sup>2</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>3</sup>				
MCOV1										
L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L	
3Y 120/20	8 VAC Th	ree Phase	Wye							
115%	160 kA	160 kA	120 kA	160 kA	320 kA	400 V	400 V	700 V	800 V	
3HLD 120/	240 VAC	Three Phas	e High Le	g Delta						
115%	160 kA	160 kA	120 kA	160 kA	320 kA	400 V /	400 V /	700 V	800 V	
						(800 V)	(800 V)			
3Y 277/48	O VAC Th	ree Phase	Wye							
115%	160 kA	160 kA	120 kA	160 kA	320 kA	800 V	800 V	1,500 V	1,500 V	
3D 480 VA	C Three I	Phase Del	ta							
115%	_	160 kA	_	160 kA	320 kA	_	1,500 V	_	2,500 V	
	L-G -3Y 120/20 115% -3HLD 120/2 115% -3Y 277/48 115% -3D 480 VA	MCOV' L-G L-N -3Y 120/208 VAC Th -115% 160 kA -3HLD 120/240 VAC Th -115% 160 kA -3Y 277/480 VAC Th -115% 160 kA -3D 480 VAC Three I	NCOV    L-G	R x 20 usec) (per mode   MCOV    L-G	NCOV    L-N   L-G   N-G   L-L	NCOV    L-G	NCOV    L-G	NCOV    L-G	Columbia   Columbia	

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage.
- <sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.
- <sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.





The SG320 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one bolt-on module per phase for easy maintenance.

Dimensions: 16"H x 14"W x 6"D Weight: 29 lbs.

### REPLACEMENT MODULE INFORMATION

System Number:	Quantity & Part Number
SG320K-208-3Y	(3) SG160-120V-M
SG320K-240-3HLD	(2) SG160-120V-M
	(1) SG160-240V-M
SG320K-480-34	(3) SG160-277V-M
SG320K-480-3D	(3) SG160-480V-M

## **Modular Protection System**





The SG240 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one bolt-on module per phase for easy maintenance.

**Dimensions:** 16"H x 14"W x 6"D Weight: 28 lbs.

## REPLACEMENT MODULE INFORMATION

System Number:	Quantity & Part Number
SG240K-208-3Y	(3) SG120-120V-M
SG240K-240-3HLD	(2) SG120-120V-M
	(1) SG120-240V-M
SG240K-480-34	(3) SG120-277V-M
SG240K-480-3D	(3) SG120-480V-M

## SG240 Series

### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration Up to 50 dB from 20 kHz to 100 MHz
- Replaceable Modules for low MTTR
- NEMA 12 Enclosure

- 40 kA Brute Force MOVs
- Redundant Protection per mode
- . Thermally Protected MOVs for maximum safety
- UL1449, 2nd Edition and UL1283 Listed, UL and cUL
- . 5 year product warranty

### **Installation:**

• Recommended installation is with 30-100 Amp breaker

## **Integral Diagnostics**

- LED Indicator Lights
- Form C Contacts

- · Audible Alarm
- Digital Surge Counter

		Surge Current Capacity (8 x 20 usec) (per mode)				Per Phase <sup>2</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>3</sup>				
Intermatic	MCOV1										
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L	
SG240K-208-	3Y 120/20	8 VAC Th	ree Phase	Wye							
	115%	120 kA	120 kA	120 kA	120 kA	240 kA	400 V	400 V	700 V	800 V	
SG240K-240-	3HLD 120/	240 VAC	Three Phas	e High Le	g Delta						
	115%	120 kA	120 kA	120 kA	120 kA	240 kA	400 V /	400 V /	700 V	800 V	
							(800 V)	(800 V)			
SG240K-480-	3Y 277/48	O VAC Th	ree Phase	Wye							
	115%	120 kA	120 kA	120 kA	120 kA	240 kA	800 V	800 V	1,500 V	1,500 V	
SG240K-480-	3D 480 VA	C Three I	Phase Del	ta							
	115%	_	120 kA	_	120 kA	240 kA	_	1,500 V	_	2,500 V	

- MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage.
- <sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.
- <sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



### SG160 Series

#### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration Up to 50 dB from 20 kHz to 100 MHz
- Replaceable Modules for low MTTR
- NEMA 12 Enclosure

- 40 kA Brute Force MOVs
- Redundant Protection per mode
- Thermally Protected MOVs for maximum safety
- UL1449, 2nd Edition and UL1283 Listed, UL and cUL
- 5 year product warranty

#### **Installation:**

• Recommended installation is with 30-100 Amp breaker

### **Integral Diagnostics**

- LED Indicator Lights
- Form C Contacts

- Audible Alarm
- Digital Surge Counter

	Տւ (8	ırge Curren x 20 usec)	t Capacity (per mode)	)	Per Phase <sup>2</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>3</sup>				
MCOV1										
L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L	
3Y 120/20	8 VAC Th	ree Phase	Wye							
115%	80 kA	80 kA	120 kA	80 kA	160 kA	400 V	400 V	700 V	800 V	
3HLD 120/	240 VAC	Three Phas	se High Le	g Delta						
115%	80 kA	80 kA	120 kA	80 kA	160 kA	400 V /	400 V /	700 V	800 V	
						(800 V)	(800 V)			
-3Y 277/48	O VAC Th	ree Phase	Wye							
115%	80 kA	80 kA	120 kA	80 kA	160 kA	800 V	800 V	1,500 V	1,500 V	
-3D 480 VA	C Three	Phase Del	ta							
115%	_	80 kA	_	80 kA	160 kA	_	1,500 V	_	2,500 V	
	L-G -3Y 120/20 115% -3HLD 120/2 115% -3Y 277/48 115% -3D 480 VA	MCOV <sup>1</sup>   L-G   L-N    -3Y   120/208   VAC   Th    -31HLD   120/240   VAC    -3115%   80   kA    -33Y   277/480   VAC   Th    -33Y   480   VAC   Three	NCOV    L-G	MCOV¹ L-G L-N L-G N-G 3Y 120/208 VAC Three Phase Wye 115% 80 kA 80 kA 120 kA 3HLD 120/240 VAC Three Phase High Le 115% 80 kA 80 kA 120 kA 3Y 277/480 VAC Three Phase Wye 115% 80 kA 80 kA 120 kA 3D 480 VAC Three Phase Delta	NCOV    L-G	NCOV    L-G	NCOV    L-G	NCOV    L-G	Columbia   Columbia	

#### NOTES:





The SG160 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one bolt-on module per phase for easy maintenance.

Dimensions: 16"H x 14"W x 6"D Weight: 27 lbs.

#### REPLACEMENT MODULE INFORMATION

System Number:	Quantity & Part Number
SG160K-208-3Y	(3) SG80-120V-M
SG160K-240-3HLD	(2) SG80-120V-M
	(1) SG80-240V-M
SG160K-480-34	(3) SG80-277V-M
SG160K-480-3D	(3) SG80-480V-M

<sup>&</sup>lt;sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage.

<sup>&</sup>lt;sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.

<sup>&</sup>lt;sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



The UG40 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one module per phase for easy maintenance. **Dimensions:** 20.75"H x 10.75"W x 4.75"D Weight: 23 lbs.

#### REPLACEMENT MODULE INFORMATION

System Number:	Quantity & Part Number
UG40A2401S	(2) UG41120A
UG40A2083Y	(3) UG41120B
UG40A2403D	(2) UG41120A
	(1) UG41208A
UG40A2403G	(3) UG41240A
UG40A4803Y	(3) UG41277A
UG40A4803D	(3) UG41480A

### **UG40 Series**

#### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- Integral Disconnect
- Redundant Protection per mode
- Thermally Protected MOVs for maximum safety
- UL1449, 2nd Edition, cULus
- 10 year product warranty

- Fault Current Tested to 200 KAIC
- 200 KAIC Surge Rated Fuses
- EMI/RFI Filtration 20 to 30 dB from 20 kHz to 100 MHz
- Replaceable Modules for low MTTR
- NEMA 3R Style Enclosure
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

### **Integral Diagnostics**

- LED Indicator Lights
- Audible Alarm

- Intermatic Thermal Monitoring System
- Form C Contacts

			urge Curren x 20 usec)			Per Phase <sup>2</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>3</sup>			
Intermatic	MCOV1									
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
UG40A2401S	120/240V	AC Singl	e Phase (sp	lit)						A
	115%	45 kA	45 kA	90 kA	45 kA	90 kA	500 V	500 V	500 V	800 V
UG40A2083Y	120/208 V	AC Three	Phase Wy	re						
	115%	45 kA	45 kA	135 kA	45 kA	90 kA	500 V	500 V	500 V	700 V
UG40A2403D	120/240 V	AC Three	Phase Hi	gh Leg De	elta					
	115%	45 kA	45 kA	135 kA	45 kA	90 kA	500 V /	500 V /	500 V	800 V
							(800 V)	(700 V)		
UG40A2403G	240 VAC	Three Ph	ase Delta							
	115%	_	90 kA	_	45 kA	125 kA	_	700 V	_	800 V
UG40A4803Y	277/480 V	/AC Thre	e Phase W	ye						
	115%	45 kA	45 kA	135 kA	45 kA	90 kA	900 V	900 V	800 V	1,500 \
UG40A4803D	480 VAC	Three Ph	ase Delta							
	115%	_	90 kA	_	45 kA	135 kA	_	1,500 V	_	1,500 \
NOTES:										
1 MCOV is Mavi	mum Continu	uoue Opera	tina Voltago o	vnracead in	narcant of	nominal voltage				

 $<sup>^2</sup>$  Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.

<sup>&</sup>lt;sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



### **UG30 Series**

#### **Features**

- All mode Protection (L-N, L-G, N-G, L-L)
- Fault Current Tested to 200 KAIC
- 200 KAIC Surge Rated Fuses
- Redundant Protection per mode
- EMI/RFI Filtration 20 to 30 dB from 20 kHz to 100 MHz
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)
- Thermally Protected MOVs for maximum safety
- Replaceable Modules for low MTTR
- UL1449, 2nd Edition, cULus
- NEMA 3R Style Enclosure
- 10 year product warranty

### **Integral Diagnostics**

- LED Indicator Lights
- Intermatic Thermal Monitoring System

				nt Capacity (per mode		Per Phase <sup>2</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>3</sup>			
Intermatic	MCOV1									
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
UG30A2401S	120/240 V	/AC Sing	le Phase (s	plit)						
	115%	45 kA	45 kA	90 kA	45 kA	90 kA	500 V	500 V	400 V	700 V
UG30A2083Y	120/208 V	/AC Thre	e Phase W	/ye						
	115%	45 kA	45 kA	135 kA	45 kA	90 kA	500 V	500 V	400 V	700 V
UG30A2403D	120/240 V	AC Three	Phase Hi	gh Leg De	Ita					
	115%	45 kA	45 kA	135 kA	45 kA	90 kA	500 V /	500 V /	400 V	700 V
							(700 V)	(700 V)		
UG30A2403G	240 VAC	Three Ph	ase Delta							
	115%	_	90 kA	_	45 kA	135 kA	_	700 V	_	700 V
UG30A4803Y	277/480 V	/AC Thre	e Phase W	/ye						
	115%	45 kA	45 kA	135 kA	45 kA	90 kA	800 V	800 V	800 V	1,500 V
UG30A4803D	480 VAC	Three Ph	ase Delta							
	115%	_	90 kA	_	45 kA	135 kA	_	1,500 V	_	1,500 V

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage. <sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.
- <sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



The UG30 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one module per phase for easy maintenance. **Dimensions:** 12.88"H x 10.94"W x 4.65"D Weight: 15 lbs.



Flush Mount Plate UG1-FMP

#### REPLACEMENT MODILLE INFORMATION

HEI ENGLINENT MODULE	INI UTIMATION
System Number:	Quantity & Part Number
UG30A2401S	(2) UG29120A
UG30A2083Y	(3) UG29120A
UG30A2403D	(2) UG29120A
	(1) UG29208A
UG30A2403G	(3) UG29240A
UG30A4803Y	(3) UG29277A
UG30A4803D	(3) UG29480A



The UG28 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one module per phase for easy maintenance. **Dimensions:** 12.88"H x 10.94"W x 4.65"D Weight: 15 lbs.



#### Flush Mount Plate UG1-FMP

#### REPLACEMENT MODULE INFORMATION System Number: **Quantity & Part Number** UG28A2401S (2) UG27120A UG28A2083Y (3) UG27120A UG28A2403D (2) UG27120A (1) UG27208A UG28A4803Y (3) UG27277A UG28A4803D (3) UG27480A

### **UG28 Series**

#### **Features**

- Nine mode Protection (L-N, L-G, L-L)
- Fault Current Tested to 200 KAIC
- 200 KAIC Surge Rated Fuses
- Redundant Protection per mode
- EMI/RFI Filtration 20 to 30 dB from 20 kHz to 100 MHz
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)
- Thermally Protected MOVs for maximum safety
- Replaceable Modules for low MTTR
- UL1449, 2nd Edition, cULus
- NEMA 3R Style Enclosure
- 10 year product warranty

#### **Integral Diagnostics**

- LED Indicator Lights
- Intermatic Thermal Monitoring System

			ırge Currer x 20 usec)			Per Phase <sup>2</sup>	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec) <sup>3</sup>			
Intermatic	MCOV1									
Model	L-G	L-N	L-G	N-G	L-L		L-N	L-G	N-G	L-L
UG28A2401S	120/240 \	/AC Sing	le Phase (s	plit)						
	115%	45 kA	45 kA	_	45 kA	90 kA	500 V	500 V	-	700 V
UG28A2083Y	120/208 \	/AC Thre	e Phase W	/ye						
	115%	45 kA	45 kA	_	45 kA	90 kA	500 V	500 V	_	700 V
UG28A2403D	120/240 V	AC Three	Phase Hi	gh Leg D	elta					
	115%	45 kA	45 kA	_	45 kA	90 kA	500 V /	500 V /	_ \	700 V
							(700 V)	(700 V)		
UG28A4803Y	277/480 \	/AC Thre	e Phase W	/ye						
	115%	45 kA	45 kA	_	45 kA	90 kA	800 V	800 V	_	1,500 V
UG28A4803D	480 VAC	Three Ph	ase Delta							
	115%	_	90 kA	_	45 kA	135 kA	_	1,500 V	_	1,500 V
-										

NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage.
- <sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems. <sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.

### **Industrial Point-of-Use Protection**



### F20 Series

#### **Features**

- · All mode Protection
- Thermally Protected MOVs for maximum safety
- UL1449, 2nd Edition and UL1283 Listed, cULus
- NEMA 4 Enclosure
- EMI/RFI Filtration 26 to 39 dB
  5 year product warranty

### **Integral Diagnostics**

- LED Indicator Lights
- Intermatic Thermal Monitoring System
- Form C Contacts

Surge Currer	
(8 x 20 usec)	(per mode)

UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 usec)<sup>3</sup>

Intermatic	MCOV <sup>1</sup>					Per							
Model	L-G	L-N	L-G	N-G	L-L	Phase <sup>2</sup>	L-N	L-G	N-G	L-L			
IG1201F20 120 VAC Single Phase													
	115%	16 kA	16 kA	16 kA	_	32 kA	500 V	500 V	500 V	_			
IG2401F20 240 VAC Single Phase													
	115%	_	32 kA	_	16 kA	48 kA	_	700 V	_	700 V			

#### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage.
- <sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems.
- <sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition.



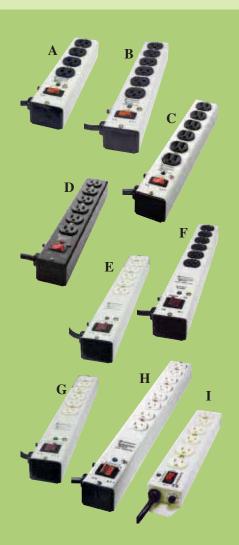
The F20 Series is a hardwired in line suppression device for protection of loads up to 20 Amps including fire alarm circuits, industrial controls, PLC's and any other sensitive electronic equipment.

Dimensions:
4.54"H x 3.5"W x 2.2"D
Weight: 2.5 lbs.



Din Rail Adapter Kit IG1DIN-F20

### **Industrial Point-of-Use Protection**





#### **Features**

- Designed for heavy industrial use
- 3-mode Surge Protection (L-N, L-G, N-G)
- UL1449, 2nd Edition, cULus
- EMI/RFI noise filtration

### A. IG11246 🚇

- 4-outlets
- 6 ft. cord
- · Lighted On/Off switch

### B. IG11466 🚇

- 6-outlets
- 6 ft. cord
- Lighted On/Off switch
- Enhanced EMI/RFI noise filtration, UL1283

### C. IG11266



- 6-outlets
- 6 ft. cord
- · Lighted On/Off switch

### D. IG11266BLK10 (19.4)

- Black
- 6-outlets
- 10 ft. cord
- · Lighted On/Off switch

### E. IG2066 & IG20615



- 6 specification-grade outlets
- Master On/Off switch
- Enhanced EMI/RFI noise filtration, UL1283
- 6 ft. cord (IG2066); 15 ft. cord (IG20615)

See chart on page 115 for UL1449 ratings and EMI/RFI filtration.

### **Computer Control Centers**

#### **Features**

- 6 centralized switches
- One unswitched receptacle
- · Metal housing
- · Static discharge pad
- 15 Amp, resettable circuit breaker

### J. IG141 🚇



Standard model

### K. IG141T

- Standard model with phone/fax/modem protection
- RJ11 connectors

- 14 gauge SJT power cord with molded plug
- · Protection monitoring circuitry with LED light indicator
- 15 amp resettable breaker
- · Ivory metal housing

### F. IG1866A

- 6-outlets
- . 6 ft. cord
- · Audible alarm
- Master On/Off switch
- Enhanced EMI/RFI noise filtration, UL1283

### G. IG20B12 & IG2012B15



- 6 specification-grade outlets
- Master On/Off switch
- Enhanced EMI/RFI noise filtration, UL1283
- 6 ft. cord (IG20B12); 15 ft. cord (IG2012B15)

### H. IG2086

- 8 specification-grade outlets
- Master On/Off switch
- Enhanced EMI/RFI noise filtration, UL1283
- 6 ft cord

### I. IG9638S55 🕮



- 6 specification-grade outlets
- Lighted On/Off switch
- · Steel housing
- 15 ft. cord

- 9 ft., 14 gauge power cord
- LED Indicator Light monitors power on & protection status
- L-N, L-G and N-G surge protection
- cULus
- UL1449, 2nd Edition

### L. IG143

- Enhanced EMI/RFI noise attenuation
- · Dual choke design for lower clamping

### M. IG143T



- Enhanced model with phone/fax/modem protection
- RJ11 connectors

### **Industrial Point-of-Use Protection**



### Mounting Bracket & Plate

### N. IG1SRMP

• Allows any IG strip to be mounted on a 19" equipment rack

#### O. 24EG5133

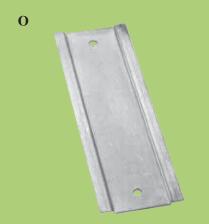
• Secures mounting bracket for all IG strips in extruded aluminum alloy housing (See models on chart with \*)

#### Product Selection Chart - Point of Use Models

				Energy	Capacity		UL1449 Clamping	EMI-RFI No Filtration	ise	
	Number			Max.	Max.	Connected	Voltage (SVR)			Prod.
Intermatic	of	Cord	Electrical	Joule.	Surge.	Equipment	6 kV, 500A	Frequency	Max.	Warr.
Model	Outlets	Length	Rating	Rating	Amperage	\$ Coverage	(8 x 20 µ sec)	Range (Hz)	Reduc	. (yrs)
Industrial Grad	le						L-N/L-G/N-G			
IG11246*	4	6	120 V/15 A	480	24,000 A	\$10,000	400/400/400	100k-20M	25dB	5
IG11266*	6	6	120 V/15 A	480	24,000 A	\$10,000	400/400/400	100k-20M	25dB	5
IG11266BLK10*	6	10	120 V/15 A	480	24,000 A	\$10,000	400/400/400	100k-20M	25dB	5
IG11466*	6	6	120 V/15 A	480	24,000 A	\$10,000	400/400/400	100k-20M	40dB	5
IG1866A*	6	6	120 V/15 A	960	48,000 A	\$25,000	330/330/330	100k-100M	62dB	5
IG2066*	6	6	120 V/15 A	960	48,000 A	\$25,000	330/330/330	100k-100M	62dB	5
IG20615*	6	15	120 V/15 A	960	48,000 A	\$25,000	330/330/330	100k-100M	62dB	5
IG20B12*	6	6	120 V/15 A	480	24,000 A	\$ 5,000	400/400/400	100k-20M	25dB	5
IG2012B15*	6	15	120 V/15 A	480	24,000 A	\$ 5,000	400/400/400	100k-20M	25dB	5
IG9638S55	6	15	120 V/15 A	480	24,000 A	_	400/400/400	100k-20M	21dB	5
IG2086*	8	6	120 V/15 A	960	48,000 A	\$25,000	330/330/330	100k-100M	62dB	5
Computer Cont	rol Cente	rs								
IG141	6	9	120 V/15 A	480	24,000 A	\$10,000	400/400/400	100k-20M	25dB	5
IG141T	6	9	120 V/15 A	480	24,000 A	\$10,000	400/400/400	100k-20M	25dB	5
IG143	6	9	120 V/15 A	960	48,000 A	\$25,000	330/330/330	100k-100M	62dB	5
IG143T	6	9	120 V/15 A	960	48,000 A	\$25,000	330/330/330	100k-100M	62dB	5

\* = Extruded aluminum housing NOTE: Cord lengths can be modified up to 25 feet. Consult Factory for pricing and availability.









### **Residential Hardwired Protection**













**Flush Mount Plates IG1240FMP3 IG3240FMP3** 

### **IG Series**

#### **Features**

- Hardwired models provide greater capacity to handle surge energy (based on their close location to the service ground) compared to standard plug-in strips
- Designed for 120/240 volt single or (split-phase) panels
- . Dual LED indicator(s) provides surge protection status on AC

#### A. IG1300-2T-1C

- 120/240 VAC Single (Split) Phase
- 6 Modes of Surge Protection (L1-N, L2-N, L1-G, L2-G, N-G, L1-L2)
- Provides protection for 2 Telephone Lines (Analog Phone Line, Modem, or DSL) and 1 Coax Line (Cable TV, Cable Internet or Satellite TV)
- UL 1449 Listed, 2nd Edition and UL497A Listed, cULus
- NEMA 3R Raintight Enclosure for indoor or outdoor installations (9.38"H x 5.25"W x 4.0"D)
- Tested to 65 kAIC per NEC Section 285
- . 5 Year Product Warranty
- \$10,000 Connected Equipment Coverage
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

#### B. IG1300-4T-2C

- 120/240 VAC Single (Split) Phase
- 6 Modes of Surge Protection (L1-N, L2-N, L1-G, L2-G, N-G, L1-L2)
- Provides protection for 4 Telephone Lines (Analog Phone Line, Modem, or DSL) and 2 Coax Lines (Cable TV, Cable Internet or Satellite TV)
- UL 1449 Listed, 2nd Edition and UL497A Listed, cULus
- NEMA 3R Raintight Enclosure for indoor or outdoor installations (9.38"H x 5.25"W x 4.0"D)
- Tested to 65 kAIC per NEC Section 285
- 5 Year Product Warranty
- \$10,000 Connected Equipment Warranty (Appliances and Electronics) [5 year]
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

#### C. IG1240RC

- 120/240 VAC Single (Split) phase
- 6 Modes of Surge Protection (L1-N, L2-N, L1-G, L2-G, N-G, L1-L2)
- Green LED indicator provides status of protection; Red LED indicator indicates reduced protection
- NEMA 4 plastic housing (5.65"H x 4.18"W x 3.33"D)
- · 5 year product warranty
- UL Listed UL1449, 2nd edition, cULus
- Tested to 65 kAIC per NEC Section 285
- \$10,000 Connected Equipment Coverage (Appliances and Electronics) [5 year]
- . Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

#### **IG1240FMP3**

• Includes faceplate, screws and mounting bracket for IG1240RC

### D. IG3240RC

- 120/240 VAC Single (Split) phase
- 6 Modes of Surge Protection (L1-N, L2-N, L1-G, L2-G, N-G, L1-L2)
- Green LED indicator provides status of protection; Red LED indicator indicates reduced protection
- NEMA 4 metal housing (6.28"H x 4.4"W x 3.25"D)
- 10 year product warranty
- UL Listed UL1449, 2nd edition, cULus
- Tested to 65 kAIC per NEC Section 285
- \$25,000 Connected Equipment Coverage (Appliances and Electronics) [5 year]
- Complementary Listed as Secondary Surge Arrester (OWHX,E135626)

#### **IG3240FMP3**

. Includes faceplate, screws and mounting bracket for IG3240RC











### **Residential Hardwired Protection**



### E. IG251

- Handles up to 600 Amp service capacity
- Enclosure size (6.0"H x 3.5"W x 3.0"D)
- Epoxy encapsulation protects surge components from moisture, dirt and corrosion
- 5 year product warranty
- UL 1449 2nd edition listed as a Transient Voltage Surge Suppressor
- 250 Volt MCOV for generator applications

Intermatic Model	Service Voltage	Phase		eads Length	Gauge	Wire Config.	Peak Surge Current Per Phase/ System	UL 1449 Clamping Voltage (SVR) 6 kV, 500 Amp (8 x 20 µ sec) L-N L-G N-G L-L
IG1300-2T-1C	120/240	2	4	24	14	L1, L2, N, GND	20 kA/60 kA	400 400 400 700
IG1300-4T-2C	120/240	2	4	24	14	L1, L2, N, GND	20 kA/60 kA	400 400 400 700
IG1240RC	120/240	2	4	30	14	L1, L2, N, GND	20 kA/60 kA	400 400 400 700
IG3240RC	120/240	2	4	30	14	L1, L2, N, GND	60 kA/180 kA	330 330 330 600
IG251	120/240	2	4	24	12	L1, L2, N, GND	48 kA/115 kA	600 — — 1200

### Stand Alone Telephone / Modem / DSL Internet Lines

### F. IG2TM

- Provides protection for 2 lines
- Tip to Ground, Tip to Ring and Ring to Ground Modes
- 40 kA surge protection per line
- Gas Tube Protection 350 Volt DC Breakdown
- UL497A
- Nema 1 Type Enclosure

Model Numbe	er Application	Lines	Gauge	Wire Configuration	Breakdown Voltage	Application	
IG2TM	phone/modem/DSL	up to 2	#24-#16 AWG	4 wire	350 Vdc	Indoor	

nc

### G. IG4TM

- Protection same as IG2TM
- Protects 4 Lines

Model Number	Application	Lines	Gauge	Wire Configuration	DC Breakdown Voltage	Application	
IG4TM	phone/modem/DSL	up to 4	#24-#16 AWG	8 wire	350 Vdc	Indoor	

#### H. IG2T3R

- Protection same as IG2TM
- Provides protection for 2 lines (expandable to 12 Lines)
- Nema 3R Type Enclosure

Model Number	Application	Lines	Gauge	Wire Configuration	Breakdowi Voltage	1 Application
IG2T3R	phone/modem/DSL	2 standard	#24-#16 AWG	4 wire (up to 24 wire)	350 Vdc	Indoor/Outdoor
		(up to 12)				







Η



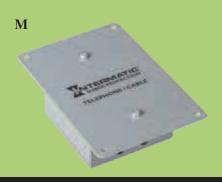
# **Residential Hardwired Protection**











### Stand Alone Local Antenna/Cable - Satellite/Cable Internet Protection

### I. IG1CM

- Provides Protection for 1 Line (Expandable to 2 Lines)
- 10 kA surge protection per line
- Gas Tube Protection 90 Volt DC Breakdown

Model Number	Application	Lines	Thread Type	Breakdown Voltage	Application
IG1CM	Cable TV/internet/satellite	1	F	90 Vdc	Indoor

#### J. IG1C3R

- Protection same as IG1CM
- Provides Protection for 1 Line (Expandable to up to 6 Coax Lines)
- Nema 3R Type Enclosure

Model Number	Application	Lines	Thread Type	DC Breakdown Voltage	Application
IG1C3R	Cable TV/internet/satellite	1 Standard (up to 6)	F	90 Vdc	Indoor/Outdoor

#### K. IG2T

• Spare Telephone / Modem / DSL Internet Protection Module

Model Number	Lines	For Use In:	
IG2T Spare	2	IG2TM, IG1CM, IG2T3R, IG1C3R, IG1300-2T-1C	

#### L. IG1C

• Spare Coax Cable Protection Module

Model Number	Lines	For Use In:	
IG1C Spare	1	IG1CM, IG1C3R, IG2TM, IG4TM, IG2T3R	

#### M. IGFlush Mount Kit

• Flush mount kit for IG2TM, IG4TM, and IG1CM

Model Number	For Use In:	
IG Flush Mount Kit	IG2TM IG4TM, IG1CM	

 $\mathbf{L}$ 

### **Surge Arresters**



#### Features:

- Designed for outdoor installations on service entrance and utility meter cabinets
- · Approved for outdoor applications such as irrigation equipment, pumps, lighting fixtures, traffic signaling devices, farm equipment, HVAC controls and motors
- Parallel metal oxide varistors (MOV) from each line to grounded neutral provide increased product capability
- Molded polycarbonate housing with 1/2" x 20 threaded nipple is weatherproof and UV resistant
- Epoxy encapsulation protects components from moisture, dirt and corrosion
- UL listed as a secondary surge arrester, ANSI/IEEE C62.11 for Category "C" locations "OWHX"
- 2 year product warranty

### A. AG2401C 🗓 🌀



- 120/240 single phase, 2 pole 3 wire device
- 18" 14 gauge leads

### B. AG2083C



- 120/208 VAC, 3 pole 4 wire device
- 18" 12 gauge leads

### C. AG2403C



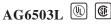
- 240 VAC, 3 pole 4 wire device
- 18" 12 gauge leads

### D. AG4803C



- 277/480 VAC or 480 VAC, 3 pole 4 wire device
- 18" 12 gauge leads

#### E. AG6503C &



- Up to 600 V three phase, 3 pole 4 wire device
- 18" 12 gauge leads (AG6503); 36" 10 gauge leads (AG6503L)

### F. AG4801

- 277V or 480V VAC single phase, 2 pole 3 wire device
- 18" 10 gauge leads
- 18" 6 gauge green ground lead

### G. AG2401C-IND

- 120/240 single phase, 2 pole 3 wire device
- 18" 14 gauge leads

### H. AG6503C-IND

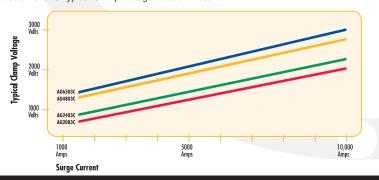


- Up to 600 V three phase 3 pole 4 wire device
- 18" 12 gauge leads

Model	lel Service Voltage Poles		Number of Leads/ Wire s Length Configuration		Actual Clamping Voltage (Line to Ground)		
Standard (No	LED's)				1500A	5000A	10000A
AG2401C	120/240V	1 or 2	3/18"	L1, L2, GND/N	490	980	1410
AG2083C	208V	3	4/18"	L1, L2, L3, GND/N	490	980	1410
AG2403C	240V	3	4/18"	L1, L2, L3, GND/N	740	1330	1850
AG4801	277V or 480V	1 or 2	3/18"	L1, L2, GND	1450	2130	2620
AG4803C	480V	3	4/18"	L1, L2, L3, GND/N	1450	2130	2620
AG6503C	Up to 600V	3	4/18"	L1, L2, L3, GND/N	1640	2340	2920
AG6503L	Up to 600V	3	4/36"	L1, L2, L3, GND/N	1640	2340	2920
Enhanced (w	ith LED's)						
AG2401C-IND	120/240V	1 or 2	3/18"	L1, L2, GND/N	490	980	1410
AG6503C-IND	Up to 600V	3	4/18"	L1, L2, L3, GND/N	1640	2340	2920

#### Match the correct model to the voltage of your system/machine

The chart below shows Typical Clamp Voltage for each model.

















### NTERMATIC

Surge Protection devices, with Connected Equipment Coverage, offers the user extended protection for sensitive equipment. In the unlikely event that a damaging transient surge passes through the surge device and damage occurs to the connected equipment, Intermatic will pay up to \$25,000 to repair or replace the equipment based on the specified model and coverage provided. Refer to the warranty document included with the product for specific coverage details and limitations.

### A. UG240R (9)



- 120/240 V Surge Arrester for up to 600 Amp service
- 2 pole 3 wire configuration for installation on utility cabinets and outdoor service panels
- Enclosure size (6.0"H x 3.5"W x 3.0"D)
- · Steel weatherproof housing with lockable cover
- · Epoxy encapsulation protects components from moisture, dirt and corrosion
- UL listed as a Secondary Surge Arrester (OWHX)
- LED indicator provides surge protection status
- 5 year product warranty

### B. IG250LA (9)



- 120/240 V Surge Arrester for up to 600 Amp service
- Designed for applications frequently subjected to high level surge energy
- Enclosure size (6.63"H x 3.75"W x 2.5"D)
- · Epoxy encapsulation protects components from moisture, dirt and corrosion
- UL listed as a Secondary Surge Arrester (OWHX)
- LED indicator provides surge protection status
- 5 year product warranty

Model	Service Voltage	Phase	Number of 24" Leads	Wire Configuration	Peak Surge Current Per Phase/ Per System	Clamping Voltage @500A	Enclosure Size (inches)	Weight Lbs
UG240R	120/240	2	3	L1, L2, N	48 kA/115 kA	L-N: 555	6.06 x 3.81 x 3.31	2.4
						L-L 1028		
IG250LA	120/240	2	3	L1, L2, N	48 kA/115 kA	L-N: 555	6.0 x 3.5 x 3.0	2.4
						L-L: 1028		

#### Surge Protection Device Connected Equipment Coverage

Due due t Time	Dana #	Madal Numb			Maximum Repair or
Product Type	Page #	Model Numb	IG20B12		Replacement Coverage
Metal Multi-Outlet Strip	114	IG2012B15	1G2UB12		#55000
Metal Multi-Outlet Strip	114	IG11246	IG11266	IG11466	
Computer Control Center	114	IG141	IG141T		UP COUNTED FRIDE
Residential Grade Protector	116	IG1240RC	IG1300-2T-1C	IG1300-4T-20	10000 ×
	117	IG2TM	IG4TM	IG2T3R	MANTY
	118	IG1CM	IG1C3R		
Metal Multi-Outlet Strip	114	IG1866A	IG2046		ONNETTO .
	114	IG2066	IG2086		185250 F
Computer Control Center	114	IG143	IG143T		2000
Residential Grade Protector	116	IG3240RC			MANT





# Entering a New Century of Energy Management and Home Security!

### **Indoor and Outdoor Timers**

Intermatic offers a wide variety of styles to meet today's application requirements.

Intermatic timers add convenience by turning lights ON when needed, and saves energy by turning lights OFF when not needed. They give homes a lived-in look providing an easy and economical way to improve home security.

Outdoor timers also let users control outside lights and holiday displays while staying comfortably inside.

# Power Failure Lights & Photo Controls

Intermatic power failure lights have many practical applications in the home: in bedrooms, hallways, stairways, bathrooms, kitchens and more.

Photo controls are a simple solution to turning lights on when dark, off when light.

### **Do-it-Yourself Security Alarms**

The Burglary Prevention Council statistics show that residential break-ins occur every 11 seconds.

Intermatic answers the demand for easy-to-install, affordable security products with a full line of DIY portable security alarms that have superior features.

Intermatic Wireless Alarms provide economical home security. There are no monthly fees or setup charges. The wireless feature offers easy do-ityourself installation at affordable prices.







Heavy-Duty Digital 7-Day Wall Switch Timers to control fans, lights & appliances with "never set it again" feature



All purpose Heavy-Duty Lamp & Appliance Timers



24 Hr. Heavy-Duty Programmable Digital Timer for lamps, stereos, & appliances



### **Intermatic Home Controls**







Until now, the ability to reliably and cost efficiently control lighting and electronics and electrical devices in the home, using Radio Frequency, was extremely limited. Intermatic introduces a line of cost effective plug-in modules, in-wall receptacles and switches and easy-to-use controllers that allow fingertip control of multiple items in and around the house. Intermatic's Home Controls incorporate Z-Wave™ technology — the most advanced, low cost and highly efficient Radio Frequency based technology in the industry.

#### **Innovative Features:**

- All items are controlled by Radio Frequency (no wiring is involved)
- · Easy DIY installation
- All products use unique Z-Wave<sup>™</sup> technology
- Two-way feedback lets you know if the system is properly set up and if the system is working properly
- The cost for this highly reliable system is priced much less than comparable systems that require contractor installation
- All modules and in-wall products can be set for timing control
- Each module includes a "repeater" function, for unmatched reliability
- Controllers can control up to 192 devices and can create "scenes" to create the light level look wanted

### A. HA01C Wall Receptacle

- Replaces standard wall receptacles
- One receptacle is controlled
- LED shows feedback from controller during setup and that the controlled device is working
- · Use with decora wall plate (not included)

#### **Specifications:**

- · For indoor use only
- 15 Amps Resistive
- 8.3 Amps Tungsten
- 120VAC, 60 Hz
- Temperature operating range: 0°C to 60°C

#### B. HA02C Plug-In Appliance Module

- Controls appliances up to 15 Amps and lighting (including compact fluorescent bulbs)
- Heavy-duty 3 prong plug and receptacle
- Manual override
- LED shows feedback from controller during setup and that the controlled device is working

### **Specifications:**

- For indoor use only
- 15 Amps Resistive
- 1200 W Inductive
- 1/2 HP120VAC, 60 Hz
- 8.3 Amps Tungsten
- Temperature operating range: 0°C to 60°C

#### C. HA03C Plug-In Indoor Lamp Module

- Controls ON/OFF/DIM for incandescent lamps
- · Manual override
- LED shows feedback from controller during setup and that the controlled device is working

#### **Specifications:**

- For indoor use only
- 300 Watts
- 120VAC, 60 Hz
- Temperature operating range: 0°C to 60°C

#### D. HA04C Outdoor Lighting Module

- Controls ON/OFF outdoor devices
- Weather resistant
- 6" cord
- Manual override
- LED shows feedback from controller during setup and that the controlled device is working

#### **Specifications:**

- 15 Amp Resistive
- 1/2 HP
- 1200 W Inductive120 VAC, 60 Hz
- Temperature operating range: -35°C to 60°C







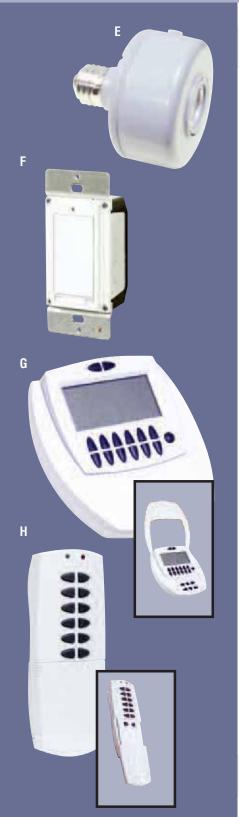


• 8.3 Amp Tungsten





### **Intermatic Home Controls**



### E. HA05C Outdoor Lamp Screw-In Module

- For incandescent and PAR lamps
- · Fits most outdoor fixtures
- ON/OFF functions
- Manual override
- LED shows feedback from controller during setup and that the controlled device is working

#### **Specifications:**

- 300 W Tungsten, 4 W compact fluorescent
- 120 VAC, 60 Hz
- Temperature operating range: -35° C to 60° C

#### F. HA06C Indoor Wall Switch

- · Rocker style uses decorative wall plate (not included)
- ON/OFF/DIM controls
- Manual override
- LED shows feedback from controller during setup and that the controlled device is working

#### **Specifications:**

- For indoor use only
- 300 Watts Tungsten
- 120 VAC, 60 Hz
- Temperature operating range: 0°C to 70°C

#### G. HA07 Master Remote Controller

- Controls all Intermatic Home Settings devices
- Large LCD screen shows all functions when set-up is successful, dim levels, channels and time functions
- · Easy to set up
- · Attractive design can be set on a table or wall mounted
- ALL ON/ALL OFF buttons controls devices to warn would-be intruders
- · Controls up to 12 channels
- Each channel can control up to 16 devices
- Timing controls for all devices include:
  - Set the Astronomic feature and you will never have to reset the timer for the everyday changes in SUNRISE and SUNSET times.
  - Multiple time options: all week, 5 days, weekends or individual days
  - RANDOM timing option for a "lived-in" look
  - Optional automatic Daylight Savings Time function
- 8 dimming levels
- . Requires 4 AA batteries (not included).

#### **Specifications:**

• Temperature operating range: 0°C to 60°C

#### H. HA09C Handy Remote Control

- Controls all Intermatic Home Controls devices
- Easy to set up
- · Attractive, easy to hold
- Controls up to 6 channels
- Each channel can control up to 16 devices
- 8 dimming levels
- Requires 4 AAA batteries (not included)

### **Specifications:**

 $\bullet$  Temperature operating range: 0°C to 60°C

### **Indoor Plug-In Timers**



### Heavy Duty Lamp & Appliance Timers

#### A. TN111C

### **Lamp & Appliance Timer**

- 2 ON / 2 OFF settings per day
- · Controls lamps & appliances
- · Ideal for all-purpose use
- Ratings: 15 Amp Resistive, 1750 Watts Tungsten, 1/3 HP, 125 VAC, 60 Hz

#### B. TN111GC **Lamp & Appliance Timer With Lighted Dial**

- . Transparent plastic dial acts as a night light
- 2 ON / 2 OFF settings per day
- · Ideal for all-purpose use
- Ratings: 15 Amp Resistive, 1750 Watts Tungsten, 1/3 HP, 125 VAC, 60 Hz

#### C. TN811C **Multi-Setting Timer**

- 24 ON / 24 OFF settings per day
- · Convenient programmable settings
- Enhances safety & security by making home look more "lived-in"
- Ratings: 15 Amp Resistive, 1750 Watts Tungsten, 1/3 HP, 125 VAC 60 Hz

#### D. TN711C

### **Random Pattern Security Timer**

- 2 on/2 off settings per day
- Turns lights on and off automatically within ±15 min. of the set times
- · Eliminates the predictable "timer-controlled" look
- Ratings: 15 Amp Resistive, 1750 Watts Tungsten, 1/3 HP, 125 VAC. 60 Hz

#### E. TN311C **Heavy-Duty Grounded Timer**

- 3 on/3 off settings per day
- For air conditioners, heaters and other heavy electrical loads
- Ratings: 15 Amp Resistive, 1750 Watts Tungsten & Resistive, 125 VAC, 60 Hz, 12 FLA, 72 LRA, 120 VAC Motor (12 AMP Air Conditioner)

Override switch with on/off indicator faces up - easiest to view and change

Unique "time of day" window quickest and easiest to set

Oversized color-coded trippers simplest to use























### **Digital Plug-in Timers**

#### F. DT17C

#### 7-Day Heavy-Duty Digital Timer

- Up to 14 ON / 14 OFF settings per day or 98 ON / 98 OFF settings per week
- · Random setting option avoids predictable "timercontrolled" look
- . 3-prong grounded plug and receptacle
- . Controls lamps (including fluorescent), TVs, stereos and appliances
- Easy-to-set hand-held programming with battery backup
- · Manual override feature
- Ratings: 15 Amp Resistive & Inductive, 500 Watts Tungsten, 1/3 HP 120 VAC

### G. DT121C **Digital Lamp Timer**

- 2 ON / 2 OFF settings per day
- · Controls indoor lamps
- · To-the-minute accuracy
- · Large display, easy to read
- · Manual override feature
- . Ratings: 8.3 Amp Resistive and Inductive, 300 Watts Tungsten, 120 VAC, 60 Hz

#### H. DT27C

#### **Heavy-Duty Digital Timer with Astronomic Feature**

- Up to 7 ON/OFF settings per day
- · Astronomic features allow setting it once without ever having to reset it again; follows daily changes in sunrise/sunset times
- Random setting option avoids predictable "timercontrolled" look
- 3-prong grounded plug and receptacle
- Controls lamps (including fluorescent), TVs, stereos and
- · Easy to program
- · Battery backup
- Manual override feature
- 15 Amp Resistive and Inductive, 500 Watts Tungsten, 1/3 HP, 120 VAC, 60 Hz

#### TB121C

### **Digital Table Top Timer**

- 2 ON / 2 OFF settings per day
- Attractive tabletop styling in decorative platinum
- 5 ft. cord
- · Easy to reach
- · Large display, easy to read
- To-the-minute accuracy
- · Manual override feature
- · Ratings: 8.3 Amp Resistive and Inductive, 300 Watts Tungsten, 120 VAC, 60 Hz



### **Appliance & Wall Switch Timers**





### **Heavy Duty Appliance Timers**

#### A. HB112C Air Conditioner & **Appliance Timer**

- . Automatically controls 240 volt air conditioners, heaters, heavy-duty appliances and lamps
- · 3.750 watt capacity
- · Plugs directly into wall outlet
- 2 ON/2 OFF settings per day
- 3-prong 220-240 Volt grounded plug and receptacle
- . Manual override ON/OFF switch

#### B. HB114C Air Conditioner & **Appliance Timer**

- Same as HB112C except for the following:
- 5,000 Watt capacity



3750W/240V/ 2 H.P. 240V Max. Motor Load

5000W/240V/ 2 H P 240V Max Motor Load

#### C. HB113C Air Conditioner & **Appliance Timer** Same as HB112C except

for the following:



. 2,500 Watt capacity



1 H.P. 120V Max.

Motor Load

### **Wall Switch Timers**

### D. STO1C Heavy Duty In-Wall Timer with **Astronomic Feature**

Can be used with four separate programming options: Same settings Monday through Friday, Saturday & Sunday, all 7 days of the week or individual daily settings.

- . DST for 2006, 2007 and flexible for future changes, if
- · Set it once and never set it again; follows daily changes in sunrise/sunset times
- For single pole and three way applications up to 100 ft.
- · Controls lighting including fluorescent and heavy duty loads such as fans and appliances
- Up to 6 ON/OFF settings per 7-day period a total of 42 ON/42 OFF settings per week
- Easy-to-set 6 button programming
- · LCD digital clock and readout
- · To-the-minute setting accuracy
- · Battery backup
- · Random setting feature available to avoid predictable "timer controlled" look
- · Manual override feature
- Use with decorator-style wall plate (not included)
- · Ratings:

Resistive: 15 A, 120-277 VAC Tungsten: 15 A, 120 VAC, 6 A, 208-277 VAC Ballast: 8 A, 120 VAC, 4 A, 208-277 VAC Motor: 1 HP, 120 VAC, 2 HP, 240 VAC DC Loads: 4 A. 12 VDS, 2 A. 28 VDS

#### E. STO1AC 🐠 Heavy Duty In-Wall Timer with Astronomic Feature

Same as ST01C except Almond color

### EJ351C Programmable 24-hour **Security Timer**

- Up to 24 ON/24 OFF settings per day
- Random setting turns light ON and OFF at slightly different times each day
- Self-learning feature: if not manually programmed, it will repeat the first 24 hr. ON/OFF pattern
- 15 minute memory guard protects against power failure
- · Replaces any standard wall light switch
- Use with existing wall plate; standard (toggle) or decorator (rocker) styles
- Ratings: 500 Watts Incandescent, 120 VAC, 60 Hz

#### **EJ500C Indoor Digital Wall Switch Timer** with Astronomic Feature

- · Flushmount design
- . 6 ON/6 OFF settings per day
- · Controls incandescent and fluorescent (class "P" ballast)
- · Easy to set programming
- Set it once and never set it again; follows daily changes in sunrise/sunset times
- · Battery backup guards against memory loss
- · Replaces any standard wall switch
- Use with decorative style wall plate(not included)
- Ratings: 500 Watts Incandescent, 120 VAC, 60 Hz

#### H. EJ500AC **Indoor Digital Wall Switch Timer** with Astronomic Feature

Same as EJ500C except Almond Color

### **Outdoor Timers**



#### A. HB31R Heavy Duty Outdoor Timer (15 Amp)

- Up to 2 ON / 2 OFF settings per day
- Full 15 Amp capacity controls lighting and heavy-duty loads such as motors and pool pumps
- Grounded plug
- Manual override ON/OFF switch
- · Waterproof cover
- Heavy-duty 12" grounded cord
- 120 VAC, 60 Hz

#### B. HB35R Outdoor Timer (10 Amp)

- 2 ON / 2 OFF settings per day
- Grounded plug
- Manual override ON/OFF switch
- · Waterproof cover
- Heavy-duty 15" cord
- 120 VAC, 60 Hz

### C. HB51RC Outdoor Timer with Light Sensor

- Highly versatile control with choice of operating modes
- Photo ON / Timer OFF mode provides automatic ON at dusk, OFF after owner's choice on 2, 4, 6 or 8 hours
- Photo ON / Photo OFF mode offers automatic ON at dusk, OFF at dawn
- 8.3 Amp lighting timer
- Manual override ON/OFF switch
- Grounded, compact 6" cord

#### D. HB61RC Digital Outdoor Timer with Light Sensor

- Photo ON at dusk, OFF at dawn
- Photo ON at dusk, OFF at 1 hour increments from 1-9 hours
- Immediate ON/OFF at owner's selection in 1 hour increments for 1-9 hours
- Manual override
- Grounded 6" cord and receptacle

Model Number	Max. ON Time	Min. ON Time	Capacity
HB31R	23-1/2 hrs.	1/2 hr.	15 Amps, 1800 Watts Resistive; 15 Amps, 1800 Watts Tungsten,
			15 FLA, 90 LRA; 120 VAC Operating Temp.: -40°C to +40°C
HB35R	23-1/2 hrs.	1/2 hr.	10 Amps, 1200 Watts Resistive; 10 Amps, 1200 Watts Tungsten;
			120 VAC Operating Temp.: -40°C to +40°C
HB51RC	Dusk to 8 hr.	Dusk to 2 hr.	8.3 Amps, 1000 Watts Resistive; 8.3 Amps, 1000 Watts Tungsten,
			120 VAC Operating Temp.: -35°C to +40°C
HB61RC	Dusk to 8 hr.	Dusk to 2 hr.	8.3 Amps, 1000 Watts Resistive; 8.3 Amps, 1000 Watts Tungsten,
			120 VAC Operating Temp.: -35°C to +40°C





### **Outdoor Timers**









#### E. HB77R Digital Outdoor Timer

- 15 Amp capacity controls lighting and heavy-duty loads such as motors and pool pumps
- 14 ON / OFF settings per day a total of 42 ON / OFF settings per week - can be used with 4 separate programming options
- Same settings Monday through Friday
- Same settings Saturday and Sunday
- Same settings all 7 days of the week
- Various daily settings
- Easy hand-held programming
- Replaceable button cell batteries (included) maintains program, during power failure

#### F. HB1116R 6 Outlet Electromechanical Timer with Stake

- 2 ON/OFF settings per day
- Full 15 Amp capacity controls lighting and heavy loads such as motors, engine block heaters and pool pumps
- · Weatherproof cover
- 24" grounded cord
- Grounded receptacle
- · Circuit breaker
- Manual override ON/OFF switch
- For wall mounting or stake mounting

### G. HB88RC

### **Programmable Outdoor Timer**

- 15 Amp capacity controls lighting and heavy duty loads such as engine block heaters, holiday and landscape lighting, pool/spa pumps and more
- 7 day / 7 event programming
- Multiple daily programming options
- Same settings Monday through Friday
- Same settings Saturday and Sunday
- Same settings all 7 days of the week
- Individual daily settings
- Two timed receptacles
- Battery backup
- Ratings: 15 Amp Resistive and Tungsten, 1000W Inductive, 1/2 HP, 120 VAC, 60 Hz

Max. ON Time	Min. ON Time	Capacity
6 days 1 min.		15 Amps Resistive and Inductive, 500 Watts Tungsten, 1/3 H.P.,
23 hrs. 59 min.		120 VAC Operating Temp.: -35°C to +40°C
HB1116R 23-1/2 hrs.		15 Amps, 1800 Watts Resistive; 15 Amps 1800 Watts Tungsten
		15 FLA, 90 LRA, 120 VAC Operating Temp.: -40°C to +40°C
6 days	1 min.	15 Amps, 1000 Watts Resistive; 15 Amps 1000 Watts Tungsten
23 hrs. 59 min.		1/2 HP; 120 VAC; 60 Hz
	6 days 23 hrs. 59 min. 23-1/2 hrs.	Time         Time           6 days         1 min.           23 hrs. 59 min.         1/2 hr.           23-1/2 hrs.         1/2 hr.           6 days         1 min.

# Photo Controls Power Failure Light



### **Safety Light Products**

#### A. NE1C

#### Screw-In Photo Control

- Automatically turns electrical load ON at dusk, OFF at dawn
- · Screws into any standard incandescent light socket
- Controls interior and exterior lights

#### B. NE20

### Automatic Security Light Dual Photo Cell with Flicker Eliminator

- Automatically turns electrical load ON at dusk, OFF at dawn
- · Advanced technology circuit saves energy
- · Screws into any standard incandescent light socket
- · Controls interior and exterior lights

# C. NE3BC Digital Photo Control, Time Controlled

- Automatically turns light ON at dusk and OFF 6 hours later
- · Soft start extends bulb life
- Controls incandescent lights up to 150 Watts
- Screw into any standard incandescent light socket
- · Controls indoor and exterior lights
- Handles up to 150 Watt incandescent and 45 Watt fluorescent bulbs

### Power Failure Light

### G. PR3C

### 3-in-1 Power Failure Light

- Light automatically comes on when power goes out
- · Automatic guide light
- Can be used as a handy rechargeable flashlight
- Screw-off cover with replaceable #14 flashlight bulb
- Plugs into any polarized indoor wall socket
- · Provides safety and security
- Unique receptacle for plugging in additional lamp or appliance
- 120 Volts, 60 Hz, 1 Watt

#### D. NE200C

#### **Plug-In Photo Control**

- Automatically turns electrical load ON at dusk, OFF at dawn
- For outdoor spot and flood lamps, used on driveways and patios
- Also ideal for indoor or outdoor PL lamp fixtures (compact fluorescent)

#### E. NE250C Outdoor Photo Control

- Automatically turns electrical load ON at dusk, OFF at dawn
- For outdoor spot and flood lamps, used on driveways and patios
- Handles up to 150 Watt incandescent bulbs

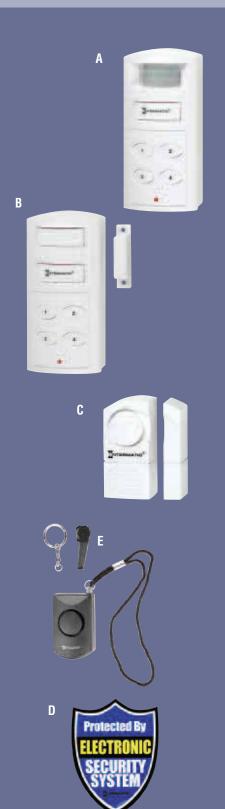
#### F. NE5C Plug-In Photo Control

- Automatically turns electrical load ON at dusk, OFF at dawn
- · Plugs into any polarized indoor wall socket
- Controls indoor devices such as table light, floor light, radio or TV





## Intermatic Do-It-Yourself Security



### **Security Alarms**

### A. SP230B

### **Wireless Alarm with Motion Sensor**

- Place on wall, table or shelf
- Piercing alarm activated when movement is detected
- Warning sticker included
- Programmable code entered on keypad activates/deactivates alarm
- 110 dB siren

#### B. SP130B **Wireless Door Alarm with** Programmable Keypad

- Piercing alarm activated when contact point is broken
- Mounts on door
- Code entered on keypad activates/deactivates alarm
- 110 dB siren

#### C. SP440B

#### **Wireless Window Alarm**

- Piercing alarm activated when contact point is broken
- Mounts on window
- ON/OFF switch activates/deactivates alarm
- 90 dB siren

### D. SP500

#### **Window Stickers** • Discourages intruders

- 4 pack

### E. SP640B

#### **Personal Security Alarm** • Piercing alarm sounds when pin is removed

- Small enough to hold in the palm of the hand
- Alerts others that help is required
- Includes flashlight and belt clip
- 90 dB siren



Malibu®, the leading landscape lighting brand, has been making lighting systems to enhance the beauty, safety and security of American homes for almost 40 years. In that time we've learned a lot about how American consumers use their outdoor space, and we've seen the definition of "outdoor lifestyle" grow. People spend more time outdoors than ever before, and it's important to them to decorate their outdoor space. Malibu® helps them make their outdoors as beautiful, livable and enjoyable as their indoors.

### **Fixtures For Every Need**

The traditional approaches to outdoor lighting are to provide uplight, to highlight trees or bushes and create a focal point for beauty; downlight to place along walkways and steps or outline driveways for safety; and backlight to illuminate walls or fences and light up a home's exterior for security. To fill these needs, Malibu® offers a wide variety of floodlights and decorative fixtures, path and garden lights. Traditional lighting approaches are still very relevant today, but the trend that expands gracious living to a home's outdoor space has led to a new approach, the creation of outdoor decorative elements that provide function and beauty in the daytime, as well as illumination at night. These items include an illuminated birdbath, lighthouse and rock spotlights.

### Market Leading Power Packs and Accessories

Malibu® high quality Power Packs offer dependable power and integrated Internatic timers to ensure that your customers' landscape lighting delivers bright reliable light in any weather, year in and year out. Malibu® bulbs and cable complete the picture to give you safe, weather-resistant installations.

### Malibu® Products are Affordable and Guaranteed

Malibu® is committed to building the best products available across several price ranges. We also offer one of the most comprehensive warranties in the industry; from 3 years to lifetime depending on the fixture, and 5 years on Power Packs.

For more information and to view the most up-to-date listing of Malibu® Landscape Lighting products, see our Landscape Lighting catalog, or visit our web site at www.intermatic.com.



Lighting the way to outdoor living

# 12 volt fixtures provide important benefits not available with conventional 110 volt systems

- Fast, easy installation
- Flexibility to add and adjust fixtures as landscape matures
- Economical operation, thanks to longer lamp life & less energy usage
- No hard wiring required
- No need for junction box on each fixture
- Maximum eye appeal both night (when on) & day (when off)

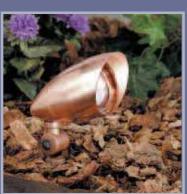


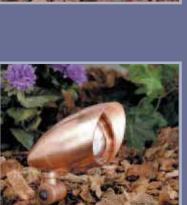


















**CS110P** Metal Walk Light with 11W wedge base bulb and Pewter finish



CS110TA Metal Walk Light with 11W wedge base bulb and Architectural Bronze finish



CS120TA Metal Walk Light with 18W wedge base bulb and Architectural Bronze finish



CS14P Metal Carriage Light with 11W wedge base bulb and Pewter finish



**CS17K** Metal Mission Light with 11W wedge base bulb and Antique Copper finish



CS140K Metal Lantern Light with 18W wedge base bulb and Antique Copper finish



CS180C Copper Floodlight with 20W halogen MR16 bulb



CS200C Copper Tier Light with 18W wedge base bulb



**CS230R** Metal Mission Light with 18W wedge base bulb and Aged Brass finish



**CS240** Metal Parfait Light with 18W wedge base bulb and Aged Brass finish



CS3300B Metal Walk Light with 11W wedge base bulb and Oiled Bronze finish



CS508K Metal floodlight with 35W halogen MR16 bulb and Antique Copper finish





**CS508P**Metal floodlight with 35W halogen MR16 bulb and Pewter finish



CS508S Metal floodlight with 35W halogen MR16 bulb and Sand finish



CS508TA
Metal floodlight with
35W halogen MR16
bulb and Architectural
Bronze finish



CS7AC1 Metal garden light with 11W wedge base bulb and Antique Copper and Oil Rubbed bronze finish





CS7CT4
Metal garden light
with 4W wedge base
bulb and Black finish



CS7E1 Metal garden light with 4W wedge base bulb and Black finish



NA320 Natural Rock Light with 20W MR11 bulb



NA401 Metal Birdbath Light with 35 watt MR16 bulb and Verdigris finish





NA501 Metal Hanging Floral Basket Light with 7 watt wedge base bulb and Verde finish





#### **Finishes & Colors**

Choose from classic or contemporary designs in a variety of finishes and textures. Use Malibu® fixtures to blend into your landscape design, add an elegant touch to a garden path or highlight architecture for safety and security.



**Aged Brass** 



Antique Copper (K)



Architectural Bronze (TA)



Black Chrome (BC)



Black Satin Bronze (BSB)





Copper (C)



Graphite (GR)



Oil Rubbed Bronze (OB)





Rustic Brick (RB)



Sand (S)





Verde Patina (V)



Verdigris

Due to Intermatic's dedication to technological advancement, it is possible that specifications and/or appearances of our products may have changed after the printing of this literature. See price list for the latest available product light sets.



CL1 Metal floodlight with 50W halogen MR16 bulb and Black finish



**CL111R** Well Light with 11W Poly-Star bulb and Black finish



**CL115** Submersible Light with 20W halogen MR16 bulb and Black finish



**CL191** Metal Tier Light with 11W wedge base bulb and Black finish



**CL191K** Metal Tier Light with 11W wedge base bulb and Antique Copper finish



**CL191S** Metal Tier Light with 11W wedge base bulb and Sand finish



**CL191V** Metal Tier Light with 11W wedge base bulb and Verde finish



**CL280** Metal Tulip Light with 18W wedge base bulb and Black finish



**CL305P** Metal Walk Light with 11 watt wedge base bulb and Pewter finish



CL4 Metal Hanging Lantern with 7W wedge base bulb and Black finish



CL501 Metal Well Uplight with 35 watt MR16 bulb and Black finish



CL503TA Metal Surface Light with 7 watt wedge base bulb and Architectural Bronze finish





**CL507**Metal Floodlight with 20W halogen MR16 bulb and Black finish



CL508 Metal Floodlight with 35W halogen MR16 bulb and Black finish



**CL509**Metal Wall Wash
Floodlight with 20W
halogen bi-pin bulb
and Black finish



CL635R Metal Bollard Light with 20W MR11 bulb and Black Finish





**CL635P**Metal Bollard Light with 20W MR11 bulb and Pewter finish



**CL635RS**Metal Bollard Light
with 20W MR11 bulb
and Sand finish



**CL635RK**Metal Bollard Light with 20W MR11 bulb and Antique Copper finish



**CL711**Metal Mushroom
Light with 10W
halogen bi-pin bulb
and Black finish





CL801BC8
Metal garden light with
4 and 11W wedge base
bulbs, Black Chrome
finish and Frosted
Crackel Glass Globe



CL802BSB6
Metal garden light with
4 and 11W wedge base
bulbs, Black Satin
Bronze finish and
Mocha Marble Glass
Globe



CL802P7
Metal garden light with
4 and 11W wedge base
bulbs, Pewter finish and
Square Frosted Glass
Globe

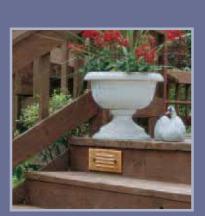


CL803S2 Metal garden light with 4 and 11W wedge base bulbs, Sand finish and Frosted Ribbed Glass Globe













**CL8041**Metal garden light with 4 and 11W wedge base bulbs, Black finish and Alabaster-Style Glass Globe



**CL9**Metal Floodlight with 20W halogen bi-pin bulb and Black finish



**CL9S**Metal Floodlight with 20W halogen bi-pin bulb and Sand finish



CL905 Metal Half Brick Light with 7W wedge base bulb and Black finish



**CL905K**Metal Half Brick Light with 7W wedge base bulb and Antique
Copper finish



LT8 Metal Surface Light with 7W wedge base bulb and Black finish



LT8K Metal Surface Light with 7W wedge base bulb and Antique Copper finish



**LT9**Metal Floodlight with
10W halogen bi-pin
bulb and Black finish



LT10
Metal Shaded Flare
Light with 11W
wedge base bulb and
Black finish



LT13

Metal Three Tier Light with 7W wedge base bulb and Black finish



LT13N Metal Three Tier Light with 7W wedge base bulb and Nickel finish



LT13S
Metal Three Tier Light
with 7W wedge base
bulb and Sand finish





LT406 Metal Two Tier Light with 4W wedge base bulb and Black finish



LT406N Metal Two Tier Light with 4W wedge base bulb and Nickel finish









#### Low Voltage Polymer



LD622L/ML60721 **Plastic Deck Light** 4W wedge base bulb



LV181/ML10781 **Plastic Tier Light** 7W wedge base bulb



LV103/ML91103 **Plastic Floodlight** 11W wedge base bulb



LV108/ML90708 **Plastic Floodlight** 7W wedge base bulb



LV183/ML11183 **Plastic Tier Light** 



LD641/ML60704 **Plastic Deck Light** 11W wedge base bulb 7W wedge base bulb



LX9Z/ML90401 **Plastic Floodlight** 4W wedge base bulb



LX1/ML10401 **Plastic Tier Light** 4W wedge base bulb



LD622/ML60722 **Plastic Deck Light** 4W wedge base bulb

### **Power Packs**

Intermatic offers the widest variety of Power Packs in any wattage and control option your system may require. Power Packs are available from 44 to 900 watts, allowing you to choose which power supply is right for your

All Power Packs are certified for safe operation and long life. Keyhole mountings are featured for ease of operation and installation. See chart below for available Power Packs and features.

Models	Max. Wattage Output	Specifications	
ML44T	44 Watt	Timer with 2 sets of trippers	
ML60TW	60 Watt	Timer with 2 sets of trippers and ground shield	
ML88T	88 Watt	Timer with 2 sets of trippers	
ML100T	100 Watt	Timer with 2 sets of trippers	
ML121RT	121 Watt	Timer with 2 sets of trippers	
ML200RT	200 Watt	Timer with 2 sets of trippers	
ML200RTW	200 Watt	Timer with 2 sets of trippers and ground shield	
ML300RTW	300 Watt	Timer with 2 sets of trippers and ground shield	
ML600TW	600 Watt	Timer with 2 sets of trippers and ground shield	
ML900TW	900 Watt	Timer with 2 sets of trippers and ground shield	

IMPORTANT: When planning your lighting and choosing a Power Pack, your total bulb wattage must not exceed maximum transformer wattage

### **Power Pack Models**



ML44T ML60TW ML88T



**ML100T ML121RT** 



ML200RT ML200RTW



ML300RTW



ML600TW



ML900TW



Low Voltage Cable

For fast, easy installation of Malibu® light fixtures, use low voltage cable. It's safe, weather-resistant, self sealing and available in 16, 14 and 12 gauge sizes.



Solar accent lighting is the simplest and safest way to brighten your home's walkways, decorate patios and flower beds or create an enchanting lake view. Solar powered light fixtures cost nothing to operate and each fixture automatically recharges during the day and turns on at dusk. Malibu solar accent lights utilize the latest in L.E.D. technology to create lights that are brighter and stay lit longer than other solar-powered brands. Choose from our new brighter white L.E.D. light fixtures or from our more traditional amber colored L.E.D. fixtures. Each fixture contains a scientifically designed solar collector panel that converts sunlight into electrical energy. With no plug-in receptacles or power packs, solar accent lights can be installed even in remote areas where the sun shines and regular power sources aren't available. Malibu solar lights operate independently, allowing you to use as many as you like.

### Premium Metal Walk Light



LZ7CT4
Metal Contemporary
Walk Light with White
L.E.D.



**LZ7FC4**Metal French Country
Walk Light with White
L.E.D.



LZ7Z6
Premium Cast Metal
Zen style Walk Light
with White L.E.D.



**LZ51GR**Metal French Lantern with White L.E.D.,
Graphite Finish





LZ191
Cast Metal Tier Light
with White L.E.D.
LZ191K
Copper finish



**LZ305P**Metal Pillar-Style
Walklight with White
L.E.D. and Pewter
finish



**LZ601**Metal Lantern with
Graphite Finish and
White L.E.D.



LZ602 Metal Diamond Mission Light with Aged Brass Finish and White L.E.D.





**LZ603**Metal Pagoda Light with Black Finish and White L.E.D.



LZ111010B Metal Walklight with White L.E.D. and Oil Bronze finish.



**LZ11101P**Metal Walklight with
White L.E.D. and
Pewter finish.



**LZ11101RB**Metal Walklight with
White L.E.D. and
Rustic Brick finish.

### **Understanding Solar-Powered Accent Lighting**

Solar lights are not for every lighting application. Malibu Solar Lights produce a glow that is ideal for outlining locations and darkened areas such as steps, walks, etc. Solar Lights are perfect for for those applications where a regular power source is unavailable, where some sort of accent light is desired and where the area has exposure to the full daylight sun. Malibu Solar Lights can be installed just about anywhere; as long as there is enough sunlight available to recharge the batteries. The specially designed solar panel collects natural sunlight and converts it into electrical power that is stored in highly efficient, rechargeable batteries. Be sure all Solar collector panels are installed in a sunny location where they will receive adequate, unobstructed sunlight each day. Solar Light performance will be diminished during cloudy, rainy, or wintery weather conditions. With fully charged batteries, Solar Lights will provide many hours of nighttime illumination.





**LZ11101V**Metal Walklight with White L.E.D. and Verde finish.



LZ11771H

Metal Prairie Style
Light with White L.E.D.
and Architectural
Bronze finish.



**LZ11771HK**Metal Prairie Style
Light with White L.E.D.
and Antique
Copper finish.



LZ14001H
Metal Lantern Light
with White L.E.D. and
Black finish.
LZ14001HP
Pewter finish.



**LZ21811K**Metal Fence Post Light with White L.E.D. and Antique Copper finish.



LZ25030RB Small Metal Prairie style Lantern with Amber L.E.D. and Rustic Brick finish. LZ25030V

Verde finish.



**LZ230**Metal Mission Light with White L.E.D. and Aged Brass finish.

### **Metal Walk Lights**



**LZ406**Metal Tier Light with Amber L.E.D.



**LZ407**Metal Tier Light with White L.E.D. and Pewter finish.



**LZ418**Metal Walklight with
Oil Rubbed Bronze
Finish, White L.E.D..



LZ422WBR
Dark Brown Walklight
with White L.E.D..
LZ422W
Black Walklight with
White L.E.D..





**LZ10130**Metal Tier Light with Amber L.E.D..



**LZ10131**Metal Tier Light with White L.E.D..



**LZ10131P**Metal Tier Light with White L.E.D. and Pewter finish.



### Plastic Walk Lights



**LZ1**Plastic Tier Light with Amber L.E.D..



**LZ1W**Plastic Tier Light with White L.E.D..



LZ3
Plastic Contemporary
Solar Fixture with
Amber L.E.D.
LZ3W
White L.E.D.



LZ4H
Plastic Hanging
Carriage Light with
Amber L.E.D.
LZ4HW
White L.E.D.
LZ4HWGR
White L.E.D. with
Graphite finish.





LZ4M Plastic Carriage Light with White L.E.D. and Black finish. LZ4MK

Antique Copper finish.



Plastic Carriage Light with White L.E.D. and Rubbed Bronze finish.



**LZ6**Table Top Accent Light with Amber L.E.D.



LZ302
Plastic Post Top Light with White L.E.D.









**LZ312**Path Marker Light with White L.E.D.



**LZ701/LZ701W**Plastic Walklight with
White or Amber L.E.D.
and Brown finish.



**LZ702/LZ702W**Plastic Walklight with
White or Amber L.E.D.
and Black finish.



**LZ703/LZ703W**Plastic Walklight with White or Amber L.E.D. and Black finish.







**LZ704/LZ704W**Plastic Walklight with White or Amber L.E.D. and Brown finish.



**LZ705/LZ705W**Plastic Walklight with White or Amber L.E.D. and Black finish.



LZ20601P
Plastic Coach Light
with White L.E.D. and
Pewter finish.

### **Solar Flood Lights**



**LZ413**Plastic Flood Light Set with Remote Panel and 3 White L.E.D.s per Lamp



**LZ413RP4**Plastic Flood Light Set with 4 Lamps, 3 White L.E.D.s per lamp



**LZ414**Plastic Flood Light Set with Remote Panel and 3 White L.E.D.s per Lamp



**LZ415**Flood Light with 3
White L.E.D.s





**LZ419**Resin Flood Light with 3 White L.E.D.s



**LZ605RP**Metal Flood Light with
12 White L.E.D.s, Black
Finish



### **Specialty Solar Lights**



**LZ303RB**Metal Hanging Lantern with White L.E.D. and Rustic Brick finish.



**LZ305FP**Metal Pillar-Style
Walklight with White
Flickering L.E.D.s and
Pewter finish.



LZ310
Cast Metal Lamp-Post
Replacement Fixture
with 1 Watt White
L.E.D.



**LZ314**Address Light with Amber L.E.D.





**LZ511A,B,C,R**Driveway Markers with
Steady ON or Flash
Modes



**LZ604B**Solar Island Torch with Flickering Amber
L.E.D.s



**LZ706**Resin Pagoda Light with Amber L.E.D. and Natural finish.



**LZ16220**Plastic Deck Light with Amber L.E.D.







LZ90004
Replacement Batteries



LZ1WU Replacement Bulb



LZ15004 Nickel Metal Hydride replacements



**LZ16551**Plastic Floating Light with White L.E.D.



LZB1
Plastic Solar Luminary
with Amber L.E.D

### **Novelty Solar lights**



**LZ306**Decorative Frog Light with White L.E.D.



**LZ307**Large Turtle with White L.E.D.



LZ308
Decorative Lighthouse with Amber L.E.D.



LZ313
Turtle with Amber
L.E.D.

### Kits



LZ13RP4 Metal Tier Light Set with 2 White L.E.D.s per Lamp and Remote Panel, Black Finish



LZ53RP4
Metal Deck Light Set
with 2 White L.E.D.s
per Lamp and Remote
Panel, Oil Rubbed
Bronze Finish



LZ280RP4
Metal Tulip Set with 2
White L.E.D.s per
Lamp and Remote
Panel, Oil Rubbed
Bronze Finish



LZ635RP4
Metal Bollard Set with
2 White L.E.D.s per
Lamp and Remote
Panel, Black Finish



LZ501RP4
Metal Walk Light Set
with 2 White L.E.D.s
per Lamp and Remote
Panel, Oil Rubbed
Bronze Finish

### Malibu® Outdoor Living



### **Mosquito Sentinel 360**



### **ACCESSORIES**

#### MZ951

Mosquito Sentinel 360 Octenol Lure

#### **MZ952**

Mosquito Sentinel 360 Replacement Nets

#### **MZ953**

Mosquito Sentinel 360 Replacement Bulbs



- Attracts and kills mosquitoes in your yard
- Provides 360° protection against mosquitoes up to 1/2 acre
- Uses safe low-voltage power No propane cylinders to refill







MZ904



MZ204G







Patented chemical developed at University
 of Florida

Mosquito Defense System





MZ102



MZ902



- Blocks Mosquitoes up to 100 square feet!
   Patented Inhibitor blocks mosquito's ability to track your scent.
- Easy to Use
- Long Lasting
- Inhibitor refill lasts up to 3 weeks.

### **Time Switch Motors**

Model (Series)	Description	Dort #	UPC*
to be used	Description	Part #	Item #
	OLD STYLE T100		
T100, T170	24V 60Hz	N/A	
T100R201,	125V 50Hz	N/A	
T1400BR,	125V 60Hz	WG430-10D	11972 6
T1800BR,	208/277V 50Hz	WG434-20D§	11978*
T180, T500,	208/277V 60Hz	WG433-20D	11976 5
WH10,30,	480V 60Hz	WG436-20	11979*
WH40,70,80	/ NEW OTYLE 7400		
	NEW STYLE T100	0144570 400	10000 0
T100, T170	24V 60Hz	CW1570-10D	10828 8
T180,	125V 60Hz	WG1570-10D	11915 4
T100R201,	125V 50Hz	WG1571-10D	11919 2
T100R301,	208/277V 50Hz	WG1574-10D	11932 1
WH10,30,	208/277V 60Hz	WG1573-10D	02012 2
WH40,70,80	480V 60Hz	WG1576-10D	11938 3
MOTOR ONLY			
T100CR,	24V 60Hz	N/A	
T170CR,	125V 50Hz	WG1381-10§	11903*
T1400BCR,	125V 60Hz	WG1380-11§	11902*
T1800BCR	208/277V 50Hz	N/A	
	208/277V 60Hz	WG1383-11§	11904*
	480V 60Hz	N/A	
	CARRYOVER COM		
T100CR,	24V 60Hz	N/A	
T170CR,	125V 50Hz	131T93GA	60090
T1400BCR,	125V 60Hz	131T68GA	21170
T1800BCR	208/277V 50Hz	131T70GA	60091
	208/277V 60Hz	131T69GA	21180
	480V 60Hz	N/A	
MOTOR ONLY			
AT1300R	24V 60Hz	N/A	
	125V 50Hz	N/A	
	125V 60Hz	WG430-20D	02009 2
	208/277V 50Hz	WG434-20§	11978*
	208/277V 60Hz	WG433-20D	02010 8
	480V 60Hz	WG436-20	11979*
Malibu Repl.	125V 60Hz	WG630D	02013*
Motors	125V 60Hz	WG1750-10§	11911*
	125V 60Hz	N/A	
MOTOR ONLY	1		
T1900,	24V 60Hz	N/A	
T8800,	125V 50Hz	N/A	
R8800	125V 60Hz	WG730-14D	12001*
	208/277V 50Hz	N/A	
	208/277V 60Hz	WG733-14D	12005 1
	480V 60Hz	WG736-14D	12008 2
MOTOR ONLY			
T7400B	24V 60Hz	N/A	
T7800B	125V 50Hz	N/A	
	125V 60Hz	WG1600-11	11939 0
	208/277V 50Hz	N/A	
	208/277V 60Hz	WG1603-11D	11951 2

Model (Series) to be used	Description	Part #	UPC* Item #
MOTOR ONL	Υ		
T7400BC	24V 60Hz	N/A	
T7800BC	125V 50Hz	WG1381-10§	11903
	125V 60Hz	WG1380-11	11902 4
	208/277V 50Hz	N/A	
	208/277V 60Hz	WG1383-11	11905 5
	480V 60Hz	N/A	
MOTOR AND	CARRYOVER COM	BINED	
T7400BC	24V 60Hz	N/A	
T7800BC	125V 50Hz	131T93GA	60090
	125V 60Hz	131T68GA§	21170
	208/277V 50Hz	N/A	
	208/277V 60Hz	131T69GA	21180
	480V 60Hz	N/A	
	CARRYOVER COM		
V41079CR	24V 60Hz	N/A 121T02CA	6000
V45000 V46100C	125V 50Hz 125V 60Hz	131T93GA 131T68GA§	60090 21170
V46100C			21170
	208/277V 50Hz 208/277V 60Hz	N/A 131T69GA	01100
	480V 60Hz	N/A	21180
MOTOR ONL		IN/A	
V45400	24V 60Hz	N/A	
V46400	125V 50Hz	WG1381-10§	11903
V40400	125V 60Hz	WG1380-11§	11900
	208/277V 50Hz	N/A	11300
	208/277V 50Hz	WG1383-11§	11904
	480V 60Hz	N/A	11304
MOTOR ONL		14//1	
T2000	24V 60Hz	CW720-10§	10846
	125V 50Hz	N/A	
	125V 60Hz	WG720-10D	11997 (
	208/277V 50Hz	WG724-10§	12000
	208/277V 60Hz	WG723-10D§	11999 4
	480V 60Hz	N/A	
MOTOR ONL	Υ		
V47000	24V 60Hz	N/A	
V48000	125V 50Hz	N/A	
V49000	125V 60Hz	WG690-10	11991
	208/277V 50Hz	N/A	
	208/277V 60Hz	N/A	
	480V 60Hz	N/A	
MOTOR ONL	Υ		
LS7000	24V 60Hz	CW190-10D	10839 4
	125V 50Hz	WG191-10§	11957
	125V 60Hz	WG190-15D	11956 7
	208/277V 50Hz	WG194-10§	11960
	208/277V 60Hz	N/A	
	480V 60Hz	N/A	
MOTOR ONL			
E1000	24V 60Hz	N/A	
	125V 50Hz	N/A	
	125V 60Hz	WG230-13D	11966 6
	208/277V 50Hz	N/A	
	208/277V 60Hz	WG233-18§	60037
	480V 60Hz	N/A	

Model (Series) to be used	Description	Part #	UPC* Item #
MOTOR ONLY	2000p		
C8815	24V 60Hz	N/A	
U0013			
	125V 50Hz	N/A	10010.0
	125V 60Hz	WG790-11D	12019 8
	208/277V 50Hz	N/A	
	208/277V 60Hz	N/A	
MOTOR ONLY	480V 60Hz	N/A	
MOTOR ONLY	0.41/.0011	N1/A	
C8825	24V 60Hz	N/A	
	125V 50Hz	N/A	100111
	125V 60Hz	WG760-10	12011*
	208/277V 50Hz	N/A	
	208/277V 60Hz	N/A	
	480V 60Hz	N/A	
MOTOR ONLY			
C8835	24V 60Hz	N/A	
	125V 50Hz	N/A	
	125V 60Hz	WG780-12D	12017 4
	208/277V 50Hz	N/A	1
	208/277V 60Hz	N/A	
	480V 60Hz	N/A	<u> </u>
MOTOR ONLY			
C8845	24V 60Hz	N/A	
	125V 50Hz	N/A	
	125V 60Hz	WG750-10D	12010 5
	208/277V 50Hz	N/A	
	208/277V 60Hz	N/A	
	480V 60Hz	N/A	
MOTOR ONLY			
C8855	24V 60Hz	N/A	
	125V 50Hz	N/A	
	125V 60Hz	WG800-11D	10854 7
	208/277V 50Hz	N/A	
	208/277V 60Hz	N/A	
	480V 60Hz	N/A	
MOTOR ONLY	1001 00112	14/11	
C8865	24V 60Hz	CW770-10§	10852*
	125V 50Hz	N/A	
	125V 60Hz	WG770-10D	12013 6
	208/277V 50Hz	N/A	12010 0
	208/277V 60Hz	WG773-10	12014*
	480V 60Hz	N/A	12014
MOTOR ONLY	400 0 00112	IV/A	
C8866	24V 60Hz	CW770-10§	10852*
00000	125V 50Hz	N/A	10032
	125V 50Hz	WG770-10	12012*
	208/277V 50Hz 208/277V 60Hz	WG774-10 WG773-10	12015*
	7 US / 2 / 1 / 1 / NUH7	VV(a / / 3-10)	12014*
	480V 60Hz	N/A	

All time switch motors are available in voltage and cycle shown in 2nd column. For example: To order new style T100 Series Motor in 60Hz

NOTE: Carryover only sold as a complete unit with motor. \*\*These voltages and corresponding motor numbers apply to all model

§ Available while supplies last.

Internal revisions may result in the motor you receive having a different dash number (WG430-3 vs. WG430-10) than the motor ordered. This revision has no effect on the motor function.

### **24-Hour Time Switches**

INTERMATIC	Paragon	Tork
24 Hour Time S	witches (1 hour minimun	n "ON" time)
T101	4001-00	1101/1191
T102	4002-71	1102
T103	4003-00	1103/1962
T104	4004-71, 4004-20	1104/1962
T105	4005-00S	3121
T101B	4001-00V	_
T101R	4011-00	1101-0/1191-0
T102R	4012-20	_
T103R	4013-00	1103-0/1962-0
T104R	4014-71, 4014-20	1104-0
T106R	_ /	_
24 Hour Time S	witches with Skip-A-Day	
(1 hour minimu		
T171	P101S	7100
T172	_	7102
T173	4003-00S, P103S	7200
T174	4004-71S, P104S	7202
T175	4005-00S	7120
T176	4006-71S	7122
T171R	4013-00S	7100-0
T172R	4014-20S	7102-0
T173R	4013-00S	7200-0
T174R	4014-20S, 4014-71S	7202-0
T176R	_	7122-0
T1471BR	47017-0S	7300
T1472BR	47017-20S	7302
T1475BR	_	_
T1871BR	_	7220
	witches with Skip-A-Day	and
	r minimum "ON" time	
T1471BCR	47217-00S	7300L/7300L-0
T171CR		
T173CR	4213-0S	7200L
T174CR	4114-27S	7202L
	me Switches with manua	I
"external overri	de"	14/110
WH40		WH2

### **Specialty Time Switches**

INTERMATIC	Paragon	Tork			
Irrigation Time	Irrigation Time Switches (12 minute minimum "ON" time)				
T8805P101C	_	_			
R8806P101C	_				
Cycle Time Swi	tches (5 minute-4	hour dial)			
C8815	_	8121			
C8835	_	8301			
C8845	_	_			
C8855	_	8061			
C8865	_	8601			
C8866	_	8602			
<b>Lighting Contro</b>	l Centers (7 day d	ial)			
T51211BC	_	T920L			
T51311BC	_	T930L			

### **Swimming Pool Time Switches**

INTERMATIC	Paragon	Tork
24 Hour Time Sw	ritches in Plastic Case	
T101P	4011-00P	1101-N
T102P	_	_
T103P	4013-00P	1103-N
T104P	4014-71P	1104-N
24 Hour Time Sw	itches w/ Heater Circuit	
T101R201	41011-00	_
T104R201	41014-20	1104FM
T101P201	41011-00M	_
T104P201	41014-20M	_
2 in 1 24 Hour Ti	me Switches	
T10101R	4912-99	1101D
T10404R	4918-99	1104D
T12404R	4928-99	1104DF

### **Astronomic Time Switches**

INTERMATIC	Paragon	IOTK
Astro Dial		
V45471R	4003SZ,47017-00S & 00SZ	7200Z/7300Z
V45472R	47017-71S & 71SZ	7202Z/7302Z
V45471CR	47217-00SZ	7200ZL/7300ZL
V45472CR	47217-20SZ & 27SZ	7202ZL/7302ZL

# Special Timing Cycle INTERMATIC Paragon

INTERMATIC	Paragon	Tork
24 Hour Time S	witches 15 minute m	ninimum "ON" time
T1905	1015-00RS	8001
T1905R	42011-00	_
T1906	1015-00RS	8004
T1975	1015-00RS	8007
T1976	1015-00RS	8008
T1975E	1015-40TS	8001-U
Signal Timers		
ET279C	25001-0S	_
ET279C	25002-0S	_
ET279C	23001-00S	5701/5702
ET279C	23002-20S	_
ET279C	23002-00S	_
24 Hour Switchin	ng (with adjustable 10	-60 min.) "ON" times
T185	8025-00	4277
<b>Momentary Cor</b>	ntact Time Switches (	with dry contacts for
low voltage ren	note and mechanical	ly held contactor
control)		
ET279C	47016-00S	1847A
ET279C	47216-00S	1847AL
ET279C	_	1847AW
ET279C	7216-00	1847AWL

### 7-Day Time Switches

INTERMATIC	Paragon	Tork
T7401B	7007-00	W100/W200/ W300/W400
T7402B	7007-20, 7007-71	W202/W302/W402
T7801B	7008-00	W120/W220
T7802B	7008-20, 7008-71	W222
T7401BC	7217-00	W300L/W400L
T7402BC	7217-20	W302L/W402L
T7801BC	7218-00	W220L

### **In-Wall Timers**

INTERMATIC	Grasslin	Paragon	lork		
24-Hour Electro	24-Hour Electro-Mechanical In-Wall Timers				
E1010	_	_	_		
E1020/E1120	KM2 ST-16	701A/701AC	WB101		
E1221	_	701A-2G	WB103		
E1220	KM2 ST-2G	_	WB103		
24 Hour Electronic In-Wall Timers					
EJ351C	ETC-502	_	_		
EJ353C	ETC-503	_	_		
EI500C	_	_	_		

### Digital In-Wall Timers

INTERMATIC	Paragon	Tork
Interval Timers	– Electronic	
EI15MH	E500/ET2000/ET1100	
El200	_	_
El210	_	_
El220	_	_
El230	_	_

### **Spring Wound Timers**

INTERMATIC†	M.H. Rhodes Mark Time	Tork††	Paragon†††	
FF5M/FD5M	90004/9305M	A505M	SW5M/SWD5M	
FF15M/FD15M	90005/9315M	A515M	SW15M/SWD15M	
FF30M/FD30M	90006/9330M	A530M	SW30M/SWD30M	
FF60M/FD60M	90008/9360M	A560M	SW60M/SWD60M	
FF2H/FD2H	90281/9302H	A502H	SW2H/SWD2H	
FF4H/FD4H	90240/9304H	A504H	SW4H/SWD4H	
FF6H/FD6H	90007/9306H	A506H	SW6H/SWD6H	
FF12H/FD12H	90001/9312H	A512H	SW12H/SWD12H	
FF5MH	90030		SW5MH	
FF15MH/FD15MH	90539/9315MH	A515MH	SW15MH/SWD15MH	
FF30MH/FD30MH	90032/9330MH	A530MH	SW30MH/SWD30MH	
FF60MH/FD60MH	90024/9360MH	A560MH	SW60MH/SWD60MH	
FF6HH/FD6HH	90017/9306HH	A506HH	SW6HH/SWD6HH	
FF12HH/FD12HH	90015/9312HH	A512HH	SW12HH/SWD12HH	

INTERMATIC†	M.H. Rhodes	Tork††	Paragon†††
*SPDT (for reverse	action applications)		
FF32HH	9302HH		_
FF34HH	9304HH		
FF36H/FD36H			_
FF312H	_		_
FF315M	90012		_
FF330M	90011		_
FF360M	90010	_	_
DPST (for breaking	both sides of 240 volt loa	nds)	
FF415M/FD415M	_		_
FF430M/FD430M	_		_
FF460M/FD460M			_
FF46H/FD46H			_
FF412H		_	_

<sup>†</sup> FF Models with brushed aluminum plate for commercial/industrial applications. FD Models-decorator design with ivory or white time dial for use with existing toggle or decorator style switch plate. †† Decorator models only. ††† PSW series no longer available; replaced by SW and SWD series

### Next Generation 365 Day Multi-Function Electronic Time Switches

INTERMATIC	Paragon	Tork	Lithonia
ET70115C (SPDT)	EL71/Series	DT100**	_
*(SPST)	EC7001/208-240V	DT100-2**	
**(DPDT)	EC7001/277V	DT100-3**	
,	EC7001/208-277V	DZS100**	
	EC7004/208-240V*		
	EC7004/277V*		
	EC7004/208-277V*		
	EC71/18S/120V		
	EC71D/18S/240V		
	EC71ST/120V		
	EC71ST/240V		
	EC71ST/277V		
	EC71STM/120V		
	EC71STM/277V		
	EC365/C/120V		
ET70115CR (SPDT)	EL71PC/Series	DZS100A	
	EC71STN3/120V	DTS100A	
**(DPDT)		DG180	_
		DG180-2	
ET70115CR24		DG180-3	
for 24 Volt / 60 Hz		DG100	
Input only		DG100-2	
		DG100-3	
		DG120**	
		DG120-2**	
		DZS100**	
		DZS100-2**	
		DZS100-3**	
		DGS100	
		DGS100-2	
		DGS100-3	
		DGS180	
		DGS180-2	
		DGS180-3	
		DGM100**	
		DGM100-2**	
		DGM100-3**	
		DWZ100A**	

IMPORTANT NOTE:	Review manufacturer's literature for
	possible feature differences

INTERMATIC	Paragon	Tork	Lithonia
ET70215C	EL72/Series	DT200	
	EC72/120V	DT200-2	
	EC72/240V	DT200-3	
	EC72/277V		
	EC72D/120V		
	EC72D/240V		
	EC72ST/120V		
	EC72ST/240V		
	EC72ST/277V		
ET70215CR	EL72PC/Series	DZS200A	
	EC72STN3/120V	DTS200A	
ET70215CR24		DZM200A	
for 24 Volt / 60 Hz		DS200	
Input only		DS200-2	
		DS200-3	
		DZS200	
		DZS200-2	
		DZS200-3	
		DZM200	
		DZM200-2	
		DZM200-3	
ET70415CR	EL74	DZS400A	/ - V
	EC74/50S/120V	DTS400A	
ET70415CR24	EC74/50S/240V	Z400B	
for 24 Volt / 60 Hz	EC74/120D/120/240V	Z400B-2	
Input only	EC74/192MA/120/240V	K400Z	
		K400Z-2	
		K401Z	
		K401Z-2	
		DIN103A	
		(3PDT)	
ET70815CR	EL78	K600Z	LITE-
	EC77/140/120, 240V	K800Z	KEEPER
ET70815CR24		K600Z-2	LK8
for 24 Volt / 60 Hz		K800Z-2	
Input only		K601Z	
		K601Z-2	
		K801Z	
		K801Z-2	
ET71615CR	EL712	Al200	LK16
ET71615CR24	EC712/120, 240V	A1600	CK16
for 24 Volt / 60 Hz	EC128		LK32†
Input only			CK32†

### Weatherproof Outdoor Receptacle Covers

Intermatic	Taymac	Carlon	Cooper	Arlington	T&B	Raco	P&S
WP1000C	n/a	E9UVCRN	n/a	n/a	n/a	5752-0*	n/a
WP1000GC	n/a	E9UVGRN	n/a	n/a	n/a	n/a	n/a
WP1000HC	n/a	E9UHCRN	n/a	n/a	n/a	5761-0*	n/a
WP1000HGC	n/a	E9UVGRN	n/a	n/a	n/a	n/a	n/a
WP1000RC	71101*	n/a	n/a	DBV* series	n/a	n/a	n/a
WP1000HRC	n/a	n/a	n/a	DBV* series	n/a	n/a	n/a
WP1010C	n/a	E9UDVCRN	n/a	n/a	n/a	n/a	n/a
WP1010HC	n/a	n/a	n/a	n/a	n/a	n/a	n/a
WP1010HMC	MX3300	n/a	n/a	n/a	CKMD*	n/a	n/a
WP1010MC	MX3200	n/a	n/a	n/a	CKSDV*	n/a	n/a
WP1020C	MM2440C	n/a	n/a	DBUL1DC	n/a	n/a	n/a
WP1030C	n/a	n/a	n/a	n/a	n/a	n/a	n/a
WP1030MC	MX6200*	n/a	n/a	n/a	2CKD*	n/a	n/a
WP1050	MM7440C	n/a	n/a	n/a	n/a	n/a	n/a
WP1100C	MM400C	n/a	WIU-1	DBU1C	CKNM*	n/a	WIUC10CL
WP1110C	n/a	n/a	n/a	n/a	n/a	n/a	n/a
WP1150C	MM740C	n/a	WIU-1D	n/a	n/a	n/a	WIUC10DL
WP1100WC	n/a	n/a	WIU-1W	DBUL1	n/a	n/a	WIUC10WL
WP1110WC	n/a	n/a	n/a	n/a	n/a	n/a	n/a
WP1220C	MM2440C*	E9U2CRN*	WIU-2*	n/a	2CKNM*	5770-0*	n/a
WP1230C	n/a	n/a	n/a	n/a	n/a	n/a	WIUC20CL
WP1250C	MM7440C*	n/a	n/a	n/a	n/a	5789-0	n/a
WP2000	n/a	n/a	n/a	n/a	n/a	n/a	n/a

<sup>\*</sup>Competitive product does not meet all possible device configurations and installation methods that the Intermatic cover handles.

### 7-Day Electronic Time Switches

INTERMATIC	Paragon	Tork	<b>EZ Controls</b>
ET171C (SPST)	EC7000/120*	ES101, EW101	EZ-701-1
*(SPDT)		ES120*, EW120*	
	EC7004/120	DG100*, DG180*	EZ-701-1A
		DIN101A*	
ET173C (DPST)	EC7005/120	ES103, EW103	EZ-701-2
			EZ-701-2A
ET174C (DPST)	EC7000/208-240*	ES103-2,ES103-3	EZ-701-72
*(SPDT)		ES120-2*, ES120-3*	
	EC7000/277*	EW103-2,	
	EC7004/208-240	EW103-3	
	EC7004/277		
	EC7005/120, 208-240		
	EC7005/277		
ET279C (SPST)	EC11 Series*	DGM100**	EZ-701-2M**
*(SPDT) **(DPDT)	EC7001/120*	CD100A, DS200**	
		DIN100*, DIN200*	
ET8115C	EC71/30S/120	E, ES & EW120	EZ-T105
		DG100, DG180	EZ-701-1A
(SPST)			
		DIN101A	
ET8215C	_	DG120 (DPDT)	_
ET8215C	EC71D/30SM/	DGM100	EZ-701-2M
*(SPDT) **(DPDT)	120*		
EH10††	-	EH10	_
EH40††	_	EH20	_
++ With external load indi	icator and external load overrid	ρ	

### 24 Hour Electronic Time Switches

INTERMATIC	Paragon	Tork	EZ Controls
ET100C (SPST)	EC1015P/120*	E101, E120*	EZ-T101
*(SPDT)	EC4000/120*		
	EC4004/120		
	EC4004P/120		
	EC4004PC/120		
	EC4000P/120*		
	EC4000PC/120*		
	EC11 & 11D/120*		
ET101C (SPST)	_	E101, E120*	EZ-T101
*(SPDT)			
ET102C (SPST)	EC1015P/208-277	E101-2	EZ-T102
*(SPDT)	EC4000/208-277*		
	EC4004/208-277	E101-3	
	EC4004P/208-277		
	EC4000P/208-277	E120-2*	
	EC4004PC/208-277		
	EC4005P/120, 208-240	**	
	EC4005PC/120, 208-24	0**	
**(DPST)	EC11D/240*	E120-3*	
ET103C (DPST)	_	E103	EZ-T103
ET104C (DPST)	EC4005/120-240	E103-2, E103-3	EZ-T104

### **Astronomic Electronic Time Switches**

INTERMATIC	Paragon	Tork	EZ Controls
ET70115CR† (SPDT)	EC71ST/120	DZS100	EZ-701-2AS
	EC71ST-N3/120V		
	EC71ST/277	DZS100-3	EZ-701-72AS

### High Intensity Discharge (HID) Lighting

Intermatic	RAB Stonco		
WL050MH	WP1H50	LPSC50MA-8	
WL070MH	WP1H70	LPSC70MA-8	
WL100MH	WP1H100	LPM2C100MA-8	
WL150MH	WP2H150QT	WPM150MA-8	
WL175MH	WP2H175QT	WPM175MA-8	
WL250MH	WP3H250QT	WP250MA-8	
WL400MH	WP4H400QT	WP400MA-8	
WL035HPS	WP1SN35	WNPS35NLXL	
WL050HPS	WP1SN50	WNPS50NLXL	
WL070HPS	WP1SN70	WNPS70NLXL-8	
WL100HPS	WP1SN100	WNPS100NLXL-8	
WL150HPS	WP2SH150QT	WPM150NLXL-8	
WL250HPS	WP3SC250QT	WP250NLXL-8	
WL400HPS	WP4SC400QT	WP400LXL-8	
FL050MH	FFH50	TLX50NMAL-1	
FL070MH	FFH70	SLA70NMAL-1	
FL100MH	EZHH100QT	SLA100MAL-8	
FL150MH	EZHH150QT	SLA150MAL-8	

Intermatic	RAB	Stonco
FL175MH	EZHH175QT	SLA175MAL-8
FL250MH	FZH250QT	SLM250MAL-8
FL400MH	FZH400QT	SLM400MAL-8
FL035HPS	FF35	TLX35NLXL-1
FL050HPS	FF50	TLX50NLXL-1
FL070HPS	FF70	TLX70NLXL-1
FL100HPS	EZSH100	SLA100LXL-8
FL150HPS	EZSH150QT	SLA150LXL-8
FL250HPS	FZS250QT	SLM250LXL-8
FL400HPS	FZS400QT	SLM400LXL-8
DD175MV	YLM175	DTDA175NMML-1
DD150HPS	YLS150	DTDA150NLXL-1
FL150Q	QF150	EQX150L
FL300Q	QF300	EQ300L
FL500Q	QF500	EQ500L
WL070HPSPC	WPTS70	TLW70NLXL-1
CP150HPS	VAN5S150QT	LCQ155LXL-8

### **Electronic Astronomic Time Switches**

Intermatic	Paragon	Tork	
SPST Astro Time Sw	ritches in NEMA 1 Case		
ET8015C	_	_	
SPST Astro Time Sw	ritches in NEMA 3R Case		
ET8015CR	EC365DST1/120V	_	
SPDT Astro Time Sw	ritches in NEMA 1 Case		
ET8115C	_	_	
SPDT Astro Time Sw	ritches in NEMA 3R Case		
ET8115CR	EL71/120V	DWZ100A	
	EL71/208-240V	DZS100A	
	EL71/277V		
DPST Astro Time Sw	vitches in NEMA 1 Case		
ET8215C	_	_	
DPST Astro Time Sw	vitches in NEMA 3R Case		
ET8215CR	EC365DST2/120V	DW200A	
	EC365DST2/277V	DZS200A	
	EL72/120V		
	EL72/208-240V		
	EL72/277V		

### **Electronic Auto-Off Timers**

Intermatic	Leviton	Leviton			
5-10-15-30 Minute Rar	ige				
El200	6230MI	_			
El200LA	6230MA	_			
El200W	6230MW	_			
10-20-30-60 Minute Ra	inge				
El210	6260MI	6560MI			
El210LA	6260MA	6560MA			
El210W	6260MW	6560MW			
1-2-4-8 Hour Range					
El220	_	_			
El220LA	_	_			
El220W	_	_			
2-4-8-12 Hour Range					
El230	6212HI	6512HI			
El230LA	6212HA	6512HA			
El230W	6212HW	6512HW			

### **Photo Controls**

Intermatic	ALR	Tork	Ripley	Mulberry	Precision	Paragon	Fisher Pierce
K4021C	AA105	3000	7001/7011	30850	A105	LB201-00	FA105/FA305/6241A/6210
4024	AA106	_	_	30851	_	_	_
4022	AA107	_	_	30852	_	_	6242A
4033	AA108	_	_	_		_	_
(4023C	AA1068	3002	7002/7003/7012/7013	30853	A1068	LB201-71	FA1068
(4035	_	_	_	_	_		_
(4321C	AA105W	3010	7105	30855	A105W	LB201W-00	FA105W
(4121C	PT15	2101/2100		30825/30820	T-15	CW201-00	6241B/FT15
(4124	AT16	_	_	30827	_	_	
(4122	AT17	_	_	30829		_	6242B
(4123C	PT168/AT368	_			T-168	CW201-71	FT168
(4133	AT18	_		30831	—		—
(4135	AT19/PT19/AT39	7			T-19		FT19
4135 4141C				30847	T-30	CW302-00	
	AT30 (metal)	2105 (polycarbonate)					
4221C	SAT15/SPT15	2001/3020	_	30826/30868	ST-15	CW201S-00	SFT15
4224	SAT16		_				
4222	SAT17		_	_			
4233	SAT18						
4235	SAT19/SPT19			_	ST-19		SFT19
4236	PT20/SAT168/SPT168	2104/2102/2002	_	30830/30833/3082	ST-168	CW201-71	SFT168
4121M	AT15	2101	_	_	TL15AL	CW201-00	FT15
4123M	AT168	2104	_	_	_	CW201-71	FT168
(4136M	AT20	2107	_	_	_	CW201-70	_
4251	TL115	2021	_	_	ET-15	PN201-00	FL115
4253	TL168	2022	_	_	ET-168	_	_
C4521C/K4521	LC120	2003/5001S	_	30834	P-2275/M2275	TL201-00	NFP120/N6401-NS
C4521LA	BF120/M120	2003S/5021S	7046	_	P2275LA	_	NFP120H/N7760-SSS**
.C4523	LC208-277	2004/5004S	_	30837	P68275	TL201-71	NFP277
C4523LA	BF208-277/M208-277	2004S/5024S	7049	_	8672**	_	NFP-277H/M208-277
C4535	_	_	_	30842	P7275	_	
C4535LA	BF480/M480	2008D/5008S/2008**	_	_	LM7275/8694**	_	
.C4536C	_	_	6190**	30844	P26275/8690N**	TL201-70	7790B-NSS**
C4536LA	BFPV/MPV	2007D/5007S/2007**	_	_	8690**	_	7790B-ESS**/N7790B
4524			_	30836	_	_	—
4522				30838			
4533	_			30840			
(4535		2008		30842	P7275		
4023*	AA1068W/AA1068P	2006		30042	A1068W/A1068P		
1121	— AA 1068W/AA 1068P	_					<u> </u>
					_		<del>_</del>
1122	_	0005		_			7700/7700/77000/77000
C2000	_	2005	6146/6281		EC120		7760/7762/7790B/7792B
C2000		2007	_		EC240,ECDV		7770/7772/7790B
ccessories							
4500	SC10	2500/5500	6005/6007	30846	JP275	SC201-99	NS1038-1
(121	AM1ANB	2223/2224	_	_	603	_	NS47681
(122	AM1A, AM2A, AM2ANB	2421/2422	5925/5926/5927	30862	M2A	TB201-99	NS476-71/NS476-732

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<sup>\*</sup> With K4001 \*\* Quick response type

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