

# WIREMOLD



## DS4000 / ALDS4000 Prewired Raceway INSTALLATION INSTRUCTIONS

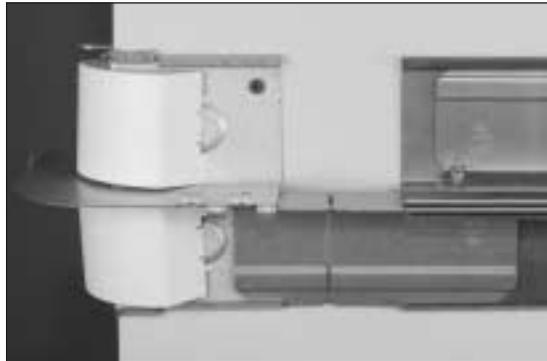
Installation Instruction No.: 43619 – July 2006

Wiremold / Legrand Electrical Systems conform to and should be installed and properly grounded in compliance with requirements of the current National Electrical Code, Canadian Electrical Code, or codes administered by local authorities.

All electrical products may represent possible shock or fire hazard if improperly installed or used. Wiremold electrical products are UL listed to U.S. and Canadian safety standards, made for interior use only, and should be installed in conformance with current local and/or the National Electrical Code.

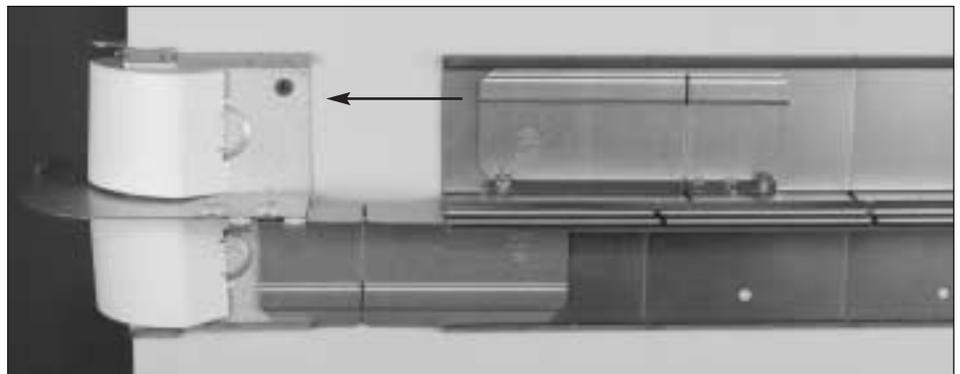


**Step 1.** If the installation requires Fittings, start at an appropriate location such as a corner. Refer to specific fitting installation instructions for proper mounting.



**Step 2.** Leaving Couplings loose, slide DS4000 Base section onto installed Adjust-to-Fit™ Couplings until Base Section butts against Fitting. Tighten Coupling Screws. Secure Base Section to the wall using #8 Fasteners spaced 48" [1.2m] apart

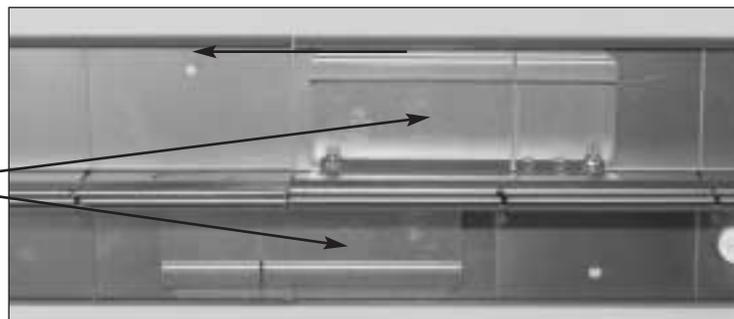
**Note:** ALDS4000 Base is not provided with mounting holes. Drill a hole at desired mounting location or use self-drilling screws.



**Note:** Wires have been removed for clarity.

**Step 3.** Butt succeeding DS4000 Base Sections tightly to installed base in order to maintain hole alignment. Slide Couplings into place and tighten.

Adjust-to-Fit™  
Couplings



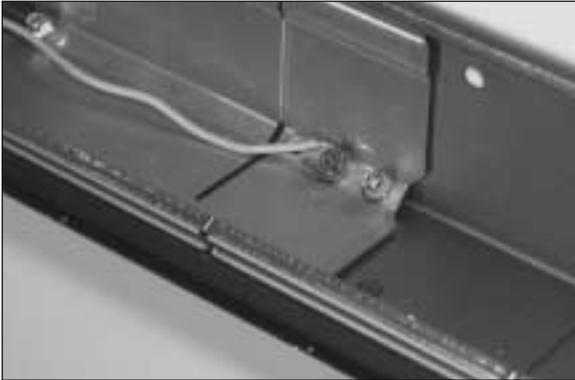
**Note:** Wires have been removed for clarity.

**Step 4.** Raceway can be fed using several methods.

1. Use DS40410A/ALDS4010A Entrance End Fitting. (See specific installation instructions.)
2. Use DS4010B Blank End Fitting. (See specific installation instructions.)
3. Drill a hole into Base Section for 1/2", 3/4", or 1" trade size conduit.

**For more information, visit [www.wiremold.com/ds4000](http://www.wiremold.com/ds4000).**

**Step 5.** Use the #10-32 hole in the Coupling to ground the system where it is fed.



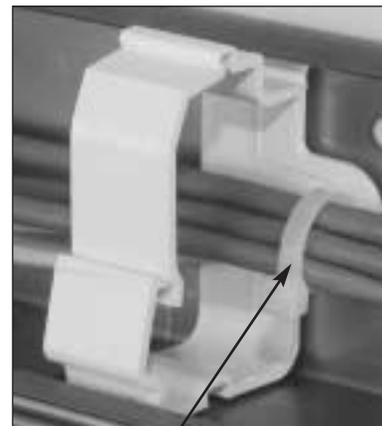
**Step 6.** Make wiring connections between raceway sections using connections that comply with NEC and code administered by local authorities.

## INSTALLATION OF COMMUNICATIONS CABLING

**Step 7. Wire Clip Installation** – Additional Wire Clips are provided for the upper channel of the Raceway.

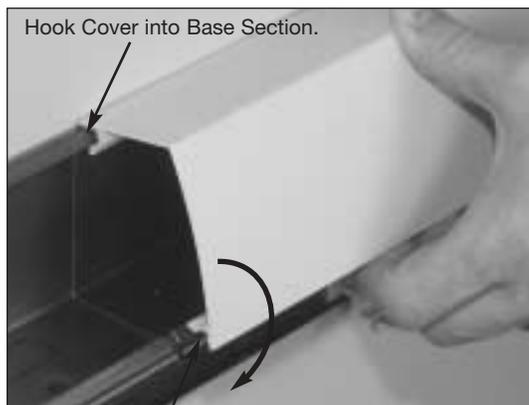


Rotate clip and snap into place.



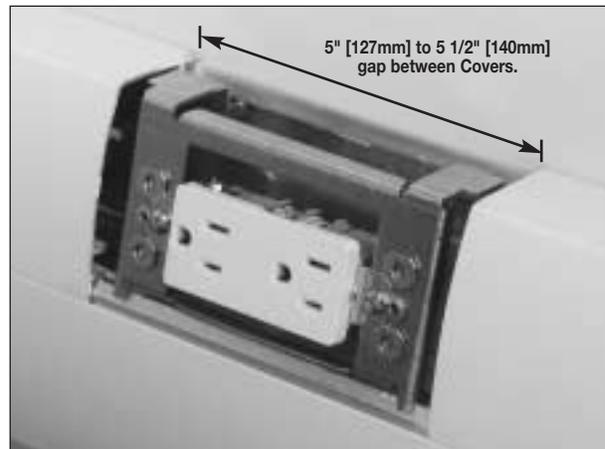
Wire Ties can be added if desired.

**Step 8.** Install Raceway Covers between Device Brackets (Raceway Covers will overlap fittings bases). Raceway Covers with pre-installed downward-facing flush activations will snap on in the same manner.



Snap Cover into place to complete installation.

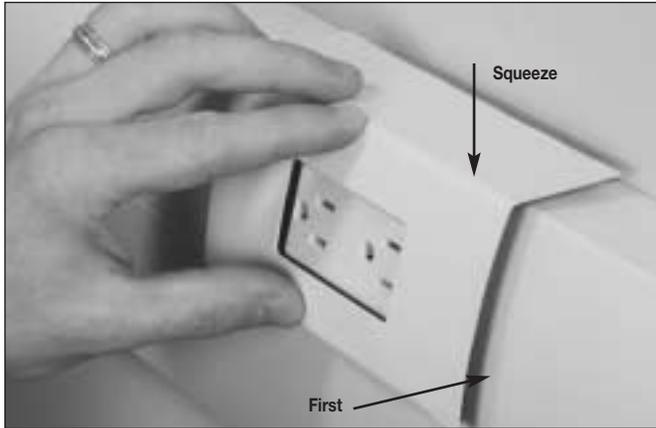
**NOTE:** Allow a 5 1/2" [140mm] maximum gap between DS4000/ALDS400 Series Raceway Covers.



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## FORWARD FACING ACTIVATIONS

Snap Activation Plate onto Raceway Base.



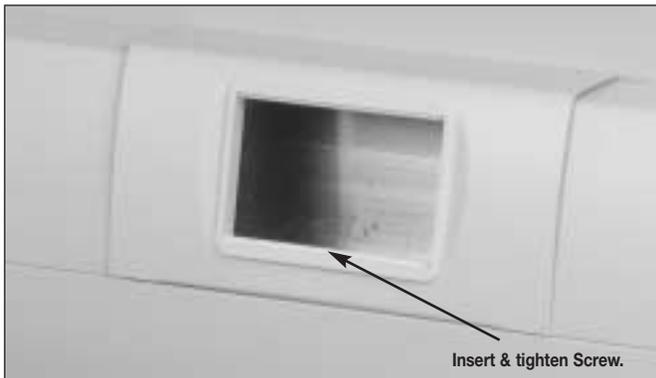
Installation complete. (DS4047R shown.)



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## DS4047MAB – No Bracket required

Install Device Plate first. Insert and tighten Screw then snap in desired Adapter Bezel.



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## DOWNWARD FACING ACTIVATIONS

Snap on Cover and secure with Screw to complete installation.

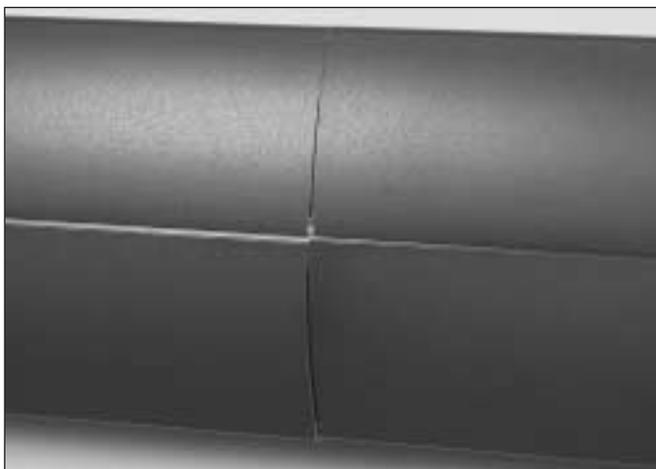


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## DS4006 Seam Clip

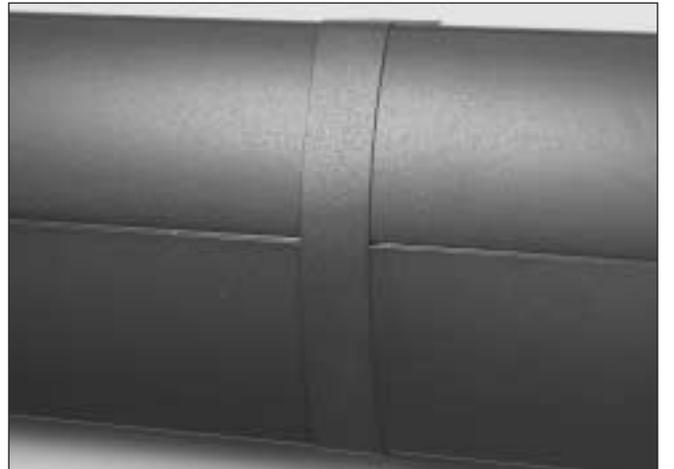
### Step 1.

The DS4006 Seam Clip is used to cover the cut edge of a cover section. Make sure any gaps between raceway Covers are less than 1/16" [1.5mm].



### Step 2.

Installation Complete.



### DS4000 Raceway Wire Fill Capacities for Power

WIRE SIZE THHN/THWN	O.D. Inches [mm]		NUMBER OF CONDUCTORS (40% FILL)				
			WITHOUT DEVICES	w/DUPLEX RECT. DEVICES 1.59in. <sup>2</sup> [1025mm <sup>2</sup> ]	w/SURGE GFCI DEVICES 2.30in. <sup>2</sup> [1485mm <sup>2</sup> ]	w/LARGE SINGLE RECEPTACLE 3.00in. <sup>2</sup> [1935mm <sup>2</sup> ]	40% FILL w/DOWNWARD ACTIVATION/CROSSOVER
14 AWG	0.111	[2.8]	206	141	111	83	46
12 AWG	0.130	[3.3]	150	103	81	60	33
10 AWG	0.164	[4.2]	95	64	51	38	21
8 AWG	0.216	[5.5]	54	37	29	22	12
6 AWG	0.254	[6.5]	39	27	21	15	8

**NOTE:** For additional information, refer to the Technical Section of the current version of ED439 (Wiremold Buyer's Guide).

### DS4000 Raceway Wire Fill Capacities for Communication

CABLE TYPE	CATEGORY/ DESIGNATION	O.D.		40% FILL 1/2 COMPARTMENT	40% FILL w/DOWNWARD ACTIVATION/CROSSOVER
		Inches	[mm]		
UNSHIELDED TWISTED PAIR	4-pair, 24 AWG Cat 3	0.190	[4.8]	70	28
	4-pair, 24 AWG Cat 5e	0.210	[5.3]	57	23
	4-pair, 24 AWG Cat 6	0.250	[6.3]	40	16
	4-pair, 24 AWG Cat 6a*	0.354	[9.0]	20	8
	25-pair, 24 AWG	0.410	[10.4]	15	6
COAXIAL	RG6/U	0.270	[6.9]	35	14
FIBER	ZipCord	0.118 x 0.236	[3 x 6]	72	29
	Round 4 Strand Fiber	0.187	[4.8]	73	29
	Round 6 Strand Fiber	0.256	[6.5]	38	15

\*Category 6 Augmented cable for 10 gigabit ethernet – max allowed cable diameter per Addendum 11 to ANSI/TIA-568-B.2.

### DS4000 Raceway Fittings Wire Fill Capacity Chart

WIRE SIZE THHN	O.D.		DS4010A*		DS4011		DS4015		DS4017**		DS4018**		DS4075		DS4075A**	
	Inches	[mm]	40%	60%	40%	60%	40%	60%	40%	60%	40%	60%	40%	60%	40%	60%
THHN 14 12 10 8 6	0.111	[2.8]	125	187	171	256	62	93	160	239	142	213	106	160	142	213
	0.130	[3.3]	91	137	125	187	45	68	116	175	104	156	78	116	104	156
	0.164	[4.2]	57	86	78	118	28	43	73	110	65	98	49	73	65	98
	0.216	[5.5]	33	50	45	68	16	25	42	63	38	57	28	42	38	57
	0.254	[6.5]	24	36	33	49	12	18	31	46	27	41	20	31	27	41
UTP 2-pair, 24 AWG 4-pair, 24 AWG Cat 3 4-pair, 24 AWG Cat 5e 4-pair, 24 AWG Cat 6 4-pair, 24 AWG Cat 6a* 25-pair, 24 AWG	0.150	[4.8]	68	103	94	140	49	74	87	131	78	117	58	87	78	117
	0.190	[4.8]	43	64	58	87	31	46	55	82	49	73	36	55	49	73
	0.210	[5.3]	35	52	48	72	25	38	45	67	40	60	30	45	40	60
	0.250	[6.3]	25	37	34	51	18	27	32	47	28	42	21	32	28	42
	0.354	[9.0]	12	18	17	25	9	13	16	24	14	21	10	16	14	21
0.410	[10.4]	12	18	16	24	9	13	15	23	14	20	10	15	14	20	
Coaxial RG6/U	0.270	[6.9]	21	32	29	43	15	23	27	41	24	36	18	27	24	36
Fiber ZipCord Round 4 Strand Fiber Round 6 Strand Fiber	0.118 x 0.236	[3 x 6]	44	65	59	89	31	47	56	83	50	74	37	56	50	74
	0.187	[4.8]	44	66	60	90	32	48	56	85	50	75	38	56	50	75
	0.256	[6.5]	24	35	32	48	17	26	30	45	27	40	20	30	27	40

\* Entrance end fitting fill rate is calculated using backfeed capability and radius inserts. Inserts are removable and fitting can obtain maximum raceway fill from utilizing end fitting knockouts and removing radius control inserts.

\*\* Calculated using radius control inserts. Inserts are factory installed and may be removed in order to obtain full raceway capacity if radius control is not required.

### ALDS4000 Raceway Wire Fill Capacities for Power

WIRE SIZE THHN/THWN	O.D. Inches [mm]		NUMBER OF CONDUCTORS (40% FILL)			
			WITHOUT DEVICES	w/DUPLEX RECT. DEVICE 1.59in. <sup>2</sup> [1025mm <sup>2</sup> ]	w/SURGE GFCI DEVICE 2.30in. <sup>2</sup> [1485mm <sup>2</sup> ]	LARGE SINGLE RECEPTACLE 3.00in. <sup>2</sup> [1935mm <sup>2</sup> ]
14 AWG	0.111	[2.8]	200	134	105	76
12 AWG	0.130	[3.3]	146	98	77	56
10 AWG	0.164	[4.2]	92	62	48	35
8 AWG	0.216	[5.5]	53	36	28	20
6 AWG	0.254	[6.5]	38	26	20	15

**NOTE:** For additional information, refer to the Technical Section of the current version of ED439 (Wiremold Buyer's Guide).

### ALDS4000 Raceway Wire Fill Capacities for Communication

CABLE TYPE	CATEGORY/ DESIGNATION	O.D.		40% FILL 1/2 COMPARTMENT
		Inches	[mm]	
UNSHIELDED TWISTED PAIR	4-pair, 24 AWG Cat 3	0.190	[4.8]	68
	4-pair, 24 AWG Cat 5e	0.210	[5.3]	56
	4-pair, 24 AWG Cat 6	0.250	[6.3]	40
	4-pair, 24 AWG Cat 6a*	0.335	[8.5]	22
	25-pair, 24 AWG	0.360	[9.1]	18
COAXIAL	RG6/U	0.270	[6.9]	34
FIBER	ZipCord	0.118 x 0.236	[3 x 6]	70
	Round 4 Strand Fiber	0.187	[4.8]	71
	Round 6 Strand Fiber	0.256	[6.5]	38

\*Category 6 Augmented cable for 10 gigabit ethernet – max allowed cable diameter per Addendum 11 to ANSI/TIA-568-B.2.

### ALDS4000 Raceway Fittings Wire Fill Capacity Chart

WIRE SIZE THHN	O.D. Inches [mm]	ALDS4011		ALDS4015		ALDS4017		ALDS4018	
		40% <sup>**</sup>	60% <sup>**</sup>						
THHN 14 12 10 8 6	0.111 [2.8]	122	182	49	73	75	112	133	199
	0.130 [3.3]	89	133	35	53	54	82	97	145
	0.164 [4.2]	56	84	22	34	34	51	61	92
	0.216 [5.5]	32	48	13	19	20	30	35	53
	0.254 [6.5]	23	35	9	14	14	21	25	38
UTP 2-pair, 24 AWG 4-pair, 24 AWG Cat 3 4-pair, 24 AWG Cat 5e 4-pair, 24 AWG Cat 6 4-pair, 24 AWG Cat 6a* 25-pair, 24 AWG	0.150 [4.8]	67	100	27	40	41	61	73	109
	0.190 [4.8]	42	62	17	25	25	38	45	68
	0.210 [5.3]	34	51	14	20	21	31	37	56
	0.250 [6.3]	24	36	10	14	15	22	26	39
	0.354 [9.0]	13	20	5	8	8	12	15	22
0.410 [10.4]	12	17	5	7	7	11	13	10	
Coaxial RG6/U	0.270 [6.9]	21	31	8	12	13	19	22	24
Fiber ZipCord Round 4 Strand Fiber Round 6 Strand Fiber	0.118 x 0.236 [3 x 6]	42	64	17	25	26	39	46	69
	0.187 [4.8]	43	64	17	26	26	40	47	70
	0.256 [6.5]	23	34	9	14	14	21	25	38

\* Entrance end fitting fill rate is calculated using backfeed capability and radius inserts. Inserts are removable and fitting can obtain maximum raceway fill from utilizing end fitting knockouts and removing radius control inserts.

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*For more information, visit [www.wiremold.com/ds4000](http://www.wiremold.com/ds4000).*

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**WIREMOLD**



**Wiremold / Legrand**

*U.S. and International:*

60 Woodlawn Street • West Hartford, CT 06110

1-800-621-0049 • FAX 860-232-2062 • Outside U.S. 860-233-6251

*Canada:*

570 Applewood Crescent • Vaughan, Ontario L4K 4B4

1-800-723-5175 • FAX 905-738-9721

