WIREMOLD

legrand®

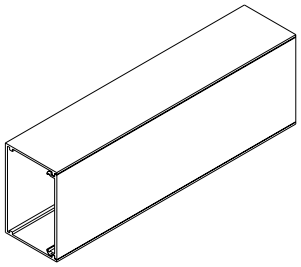
AL3300 Aluminum Surface Raceway

INSTALLATION INSTRUCTIONS

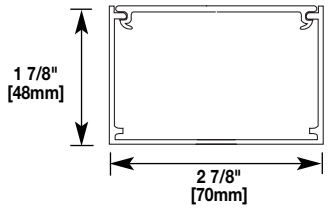
Installation Instruction No.: INST014 R2 – Updated April 2005

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

All electrical products may represent a possible shock or fire hazard if improperly installed or used. Wiremold electrical products are UL listed, made for interior use and should be installed by qualified electrical people in conformance with current local and/or the National Electrical Code.



MAXIMUM CROSS SECTION



Note: Raceway may be configured in single or multiple channels to accommodate power or communications wiring.

AL3300 RACEWAY WIRE FILL CAPACITIES FOR POWER CAPACITY OF CROSS SECTIONAL AREA

		WITH OFFSET DIVIDER	WITHOUT OFFSET DIVIDER	WITH HALF DIVIDER	WITHOUT HALF DIVIDER
WIRE TYPE	6 AWG	10	24	17	33
THWN/THHN	8 AWG	14	33	23	47
	10 AWG	28	66	47	95
	12 AWG	44	104	74	150
	14 AWG	60	140	99	202

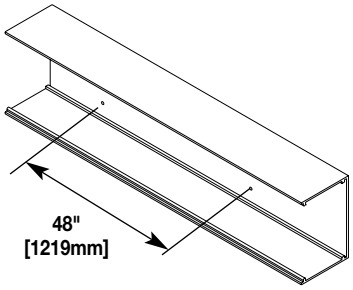
AL3300 RACEWAY CABLE FILL CAPACITIES FOR DATA/COMMUNICATION

CABLE/WIRE SIZE		OD [In.]	OD [mm]	W/O Divider (4.75 sq. in.) 20%*	W/O Divider (4.75 sq. in.) 40%**	W/Offset Divider (.95 sq. in.) 20%*	W/Offset Divider (.95 sq. in.) 40%**	W/Half Divider (2.08 sq. in.) 20%*	W/Half Divider (2.08 sq. in.) 40%**
UNSHIELDED	4-pair, 24 AWG, Cat.5	0.220	[5.6]	24	49	4	9	10	21
TWISTED PAIR	4-pair, 24 AWG, Cat.3	0.190	[4.8]	33	67	6	13	14	29
	4-pair, 24 AWG, Cat.6	0.250	[6.3]	19	38	3	7	8	16
TELEPHONE	2-pair, 24 AWG	0.140	[3.6]	61	123	12	24	27	54
	3-pair, 24 AWG	0.150	[3.8]	53	107	10	21	23	47
	4-pair, 24 AWG	0.190	[4.8]	33	67	6	13	14	29
	25-pair, 24 AWG	0.410	[10.4]	7	14	1	2	3	6
COAXIAL	RG58/U	0.195	[5.0]	31	63	6	12	13	27
	RG59/U	0.242	[6.1]	20	41	4	8	9	18
	RG62/U	0.242	[6.1]	20	41	4	8	9	18
	RG6/U	0.270	[6.9]	16	33	3	6		14
TWINAXIAL	100 Ohm	0.330	[8.4]	11	22	2	4	4	9
SHIELDED	Type 1	0.390	[9.9]	7	15	1	3	3	6
TWISTED PAIR	Type 2	0.465	[11.8]	5	11	1	2	2	4
	Type 3	0.245	[6.2]	20	40	4	8	8	17
FIBER OPTIC	Two Standard (Duplex) Multimedia, 62.5/125 um	0.190	[4.8]	33	67	6	13	14	29

***NOTE:** * 20% cable fill is calculated to approximate reduction in cable capacity due to connectors mounted within raceway and fittings that may restrict cross sectional area.*

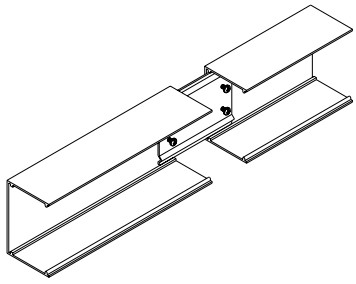
*** 40% cable fill is the maximum designed cable fill base on a proposed revision to TIA/EIA 569-A.*

AL3300B BASE



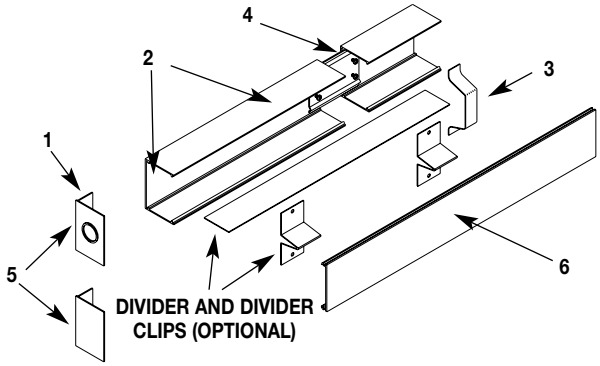
To attach AL3300B Series base sections to mounting surface. Drill 9/32" holes in the base (approx. 48" o.c.). Fasten base with #8 flat head screws.

AL3301 COUPLING



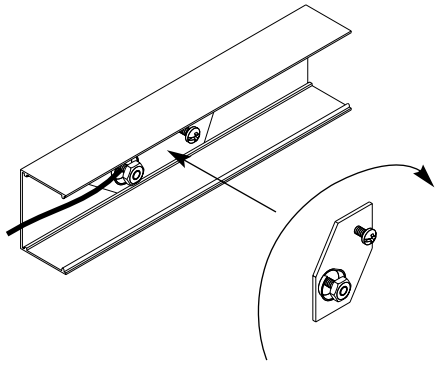
At AL3300B base section butt joints, slide AL3301 Coupling into first base section. Mount next base to surface. Center coupling on joint. Tighten locking screws.

AL3300 SYSTEM PRODUCT APPLICATION



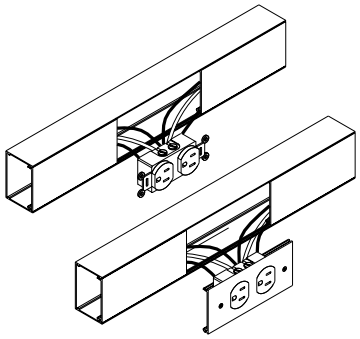
1. Provide electrical feed through 1/2" or 3/4" trade size K.O.'s in at AL3310B1 end.
2. Attach base section to mounting surface by drilling 9/32" holes in base then fastening with #8 flat head.
3. Secure conductors in place with AL3300WC Wire Clips.
4. Join additional raceway sections with AL3301 Coupling.
5. Close end with either AL3310B or AL3310B1 End Fitting.
6. Snap cover into base to complete installation.

AL3309 GROUND CLAMP



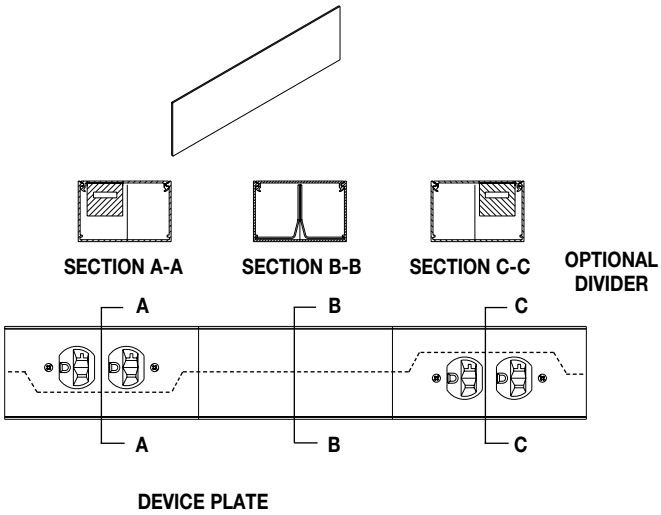
Position AL3309 Ground clamp into rib in AL3300B raceway Base. Tighten locking screw. Attach ground wire using brass cup washer and green hex nut to ground lug.

AL3300 SERIES DEVICE PLATES



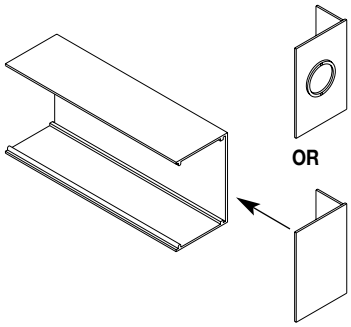
For AL3346 and AL3356 Series Device Plates, install wiring to devices as required. Attach device to plate using #6 screws and "keep" nuts (provided). Snap device plate onto AL3300B raceway base.

AL3300D SERIES DIVIDER



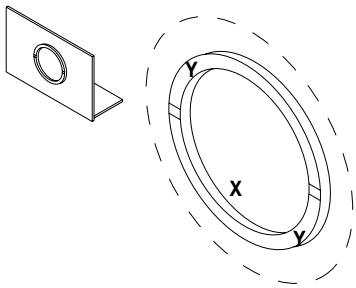
Position AL3300D Divider into AL3300B raceway base as shown. See cross sections below and refer to wire fill charts.

AL3310B FEED END FITTING
AL3310B BLANK END FITTING



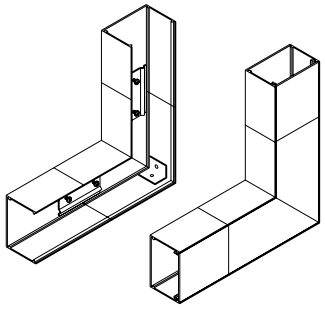
At end of AL3300B raceway run, slide AL3310B Blank End fitting in last base section. Secure in place by tightening two #8-32 screws.

K.O. REMOVAL



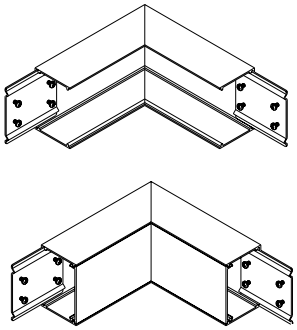
To remove only 1/2" trade size KO apply pressure or light impact at "X" location. To remove 3/4" trade size KO apply pressure or light impact at "Y" location.

AL3311 90° FLAT ELBOW



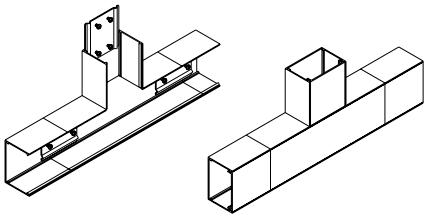
At 90° turn , position AL3311 Flat Elbow at end of AL3300B base. Position next bases section onto other end of AL3311. Center couplings over base joints and tighten screws. Install fitting cover after wiring.

AL3317 INTERNAL ELBOW



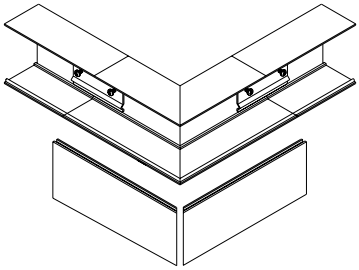
Install AL3317 to raceway base BEFORE mounting raceway base. Fasten base section to surface joints, tighten setscrews. Install fitting cover after wiring.

AL3315 TEE FITTING



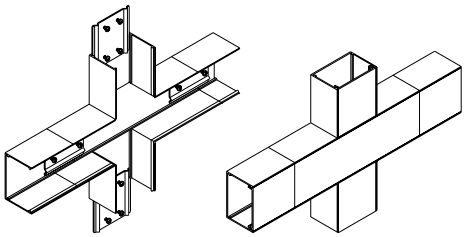
AL3315 Tee Fitting, position fitting at end of AL3300B base. Install other base section to other end of fitting. Center couplings on joints and tighten screws. Install fitting cover after wiring.

AL3318 EXTERNAL ELBOW



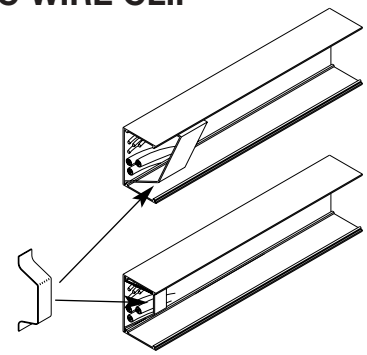
At 90° outside corner, position AL3318 External Elbow at end of the fitting. Center couplings on joints and tighten screws. Install fitting cover after wiring.

AL3316 CROSS FITTING



AL3316 cross Fitting, position fitting at end of AL3300B base. Install other base sections to other ends of the fitting. Center couplings on joints and tighten screws. Install fitting cover after wiring.

AL3300WC WIRE CLIP



For retaining wires in long raceway runs, snap-in AL3300WC Wire Clip approx. 30" apart into AL3300B Base.

WIREMOLD

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