

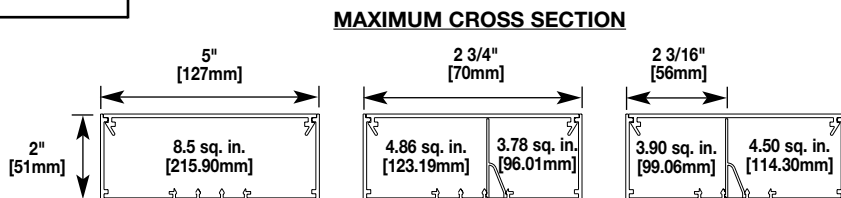
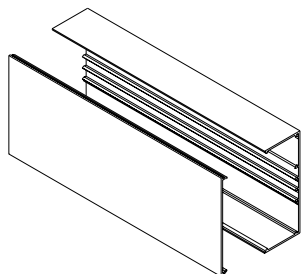


# AL5200 Aluminum Surface Raceway

## INSTALLATION INSTRUCTIONS

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.



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

### AL5200 RACEWAY WIRE FILL CAPACITIES FOR POWER

CAPACITY OF CROSS SECTIONAL AREA WITH DUPLEX DEVICE (1.34 Sq.in.)

WIRE TYPE	3.78" [89mm]	3.86" [99mm]	4.36" [114mm]	4.85" [122mm]	8.5" [216mm]
THWN/THHN #6	16	19	24	26	55
#8	23	27	34	37	76
#10	47	55	68	75	155
#12	74	87	108	118	244
#14	99	117	145	159	329

### AL5200 RACEWAY WIRE FILL CAPACITIES FOR POWER

CAPACITY OF CROSS SECTIONAL AREA WITH OUT DEVICE

WIRE TYPE	2.4" [61mm]	2.85" [72mm]	3.5" [85mm]	3.9" [99mm]	4.5" [114mm]	4.8" [122mm]	8.5" [216mm]
THWN/THHN #6	18	22	27	30	34	37	65
#8	25	30	37	42	48	51	91
#10	52	62	76	84	98	104	184
#12	82	97	119	113	154	164	290
#14	110	131	161	179	207	220	391

### AL5200 RACEWAY WIRE FILL CAPACITIES FOR COMMUNICATION

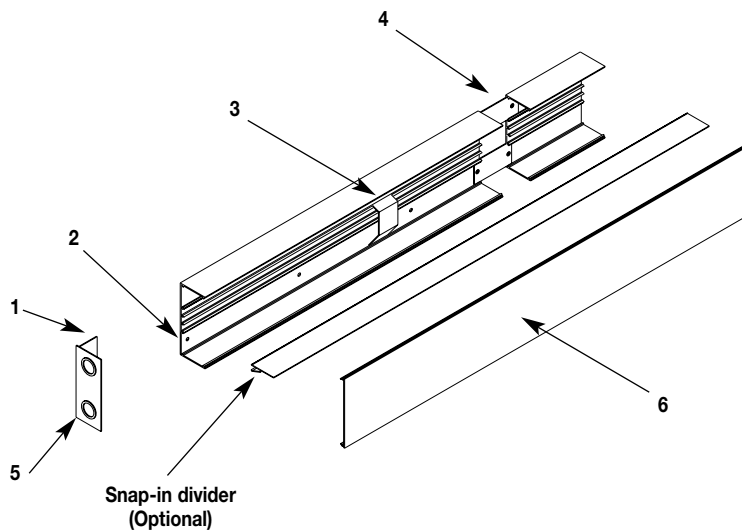
CAPACITY CROSS SECTIONAL AREA

CABLE/WIRE SIZE	OD Inches [mm]	8.5" [216mm]		4.85" [122mm]		3.78" [89mm]		3.86" [99mm]		4.36" [114mm]	
		20%*	40%**	20%*	40%**	20%*	40%**	20%*	40%**	20%*	40%**
UNSHIELDED TWISTED PAIR	4-pair, 24 AWG, cat.3	0.190 [4.8]	60 20	34 68	26 53	27 54	30 61				
	4-pair, 24 AWG, cat.4	0.220 [5.6]	44 89	25 51	19 39	20 40	22 45				
	4-pair, 24 AWG, cat.5	0.250 [6.3]	34 69	19 39	15 30	17 31	17 35				
TELEPHONE	2-pair, 24 AWG	0.140 [3.6]	10 221	63 126	49 98	50 100	56 113				
	3-pair, 24 AWG	0.150 [3.8]	96 193	54 109	42 85	43 87	49 98				
	4-pair, 24 AWG	0.190 [4.8]	60 120	34 68	26 53	27 54	30 61				
	25-pair, 24 AWG	0.410 [10.4]	12 125	7 14	5 11	5 11	6 13				
COAXIAL	RG58/U	0.195 [5.0]	57 114	32 64	25 50	25 51	29 58				
	RG59/U	0.242 [6.1]	37 74	21 42	16 32	16 33	18 37				
	RG62/U	0.242 [6.1]	37 74	21 42	16 32	16 33	18 37				
	RG6/U	0.270 [6.9]	29 59	16 33	13 26	13 26	15 30				
TWINAXIAL	100 Ohm	0.330 [8.4]	19 39	11 22	8 17	9 18	10 20				
SHIELDED TWISTED PAIR	TYPE 1	0.390 [9.9]	14 28	8 16	6 12	6 12	7 14				
	TYPE 2	0.465 [11.8]	10 20	5 11	4 8	4 9	5 10				
	TYPE3	0.245 [6.2]	36 72	20 41	20 32	16 32	18 36				
FIBER OPTIC	Two Standard(Duplex) Multimode, 62.5/125um	0.190 [4.8]	60 120	34 68	26 53	27 54	30 61				

**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.

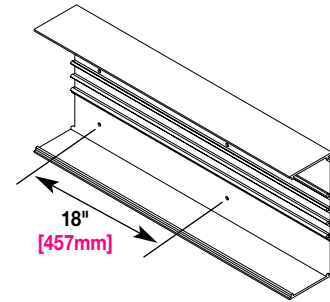
## AL5200 SYSTEM PRODUCT APPLICATION



1. Provide electrical feed through 1/2" or 3/4" [12.7mm or 19.1mm] trade size KOs in AL5210B2 end caps.
2. Attach base section to mounting surface by drill 9/32" [7.1mm] holes in the base and using #8 flat head screws.
3. Secure conductors in place with AL520wc Wire Clip.
4. Join additional raceway sections with two AL5201 Couplings.
5. Close ends with AL5210B2 Blank End Fittings.
6. Snap cover into base to complete installation.

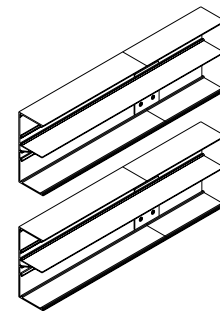
**IMPORTANT: All mounting methods must not exceed 4'-0" [1.22m] interval and must result in a flush interior surface.**

## AL5200B RACEWAY BASE



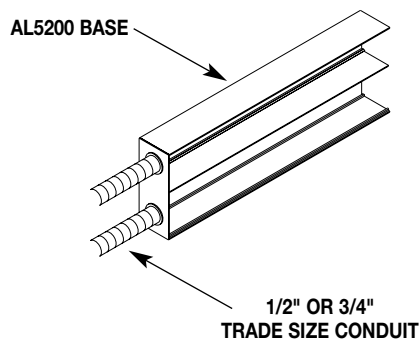
To attach AL5200B Series Base sections to mounting surface, drill 9/32" holes in The base (approx. 18" O.C.) Fasten with #8 flat head screws.

## AL5200B RACEWAY BASE



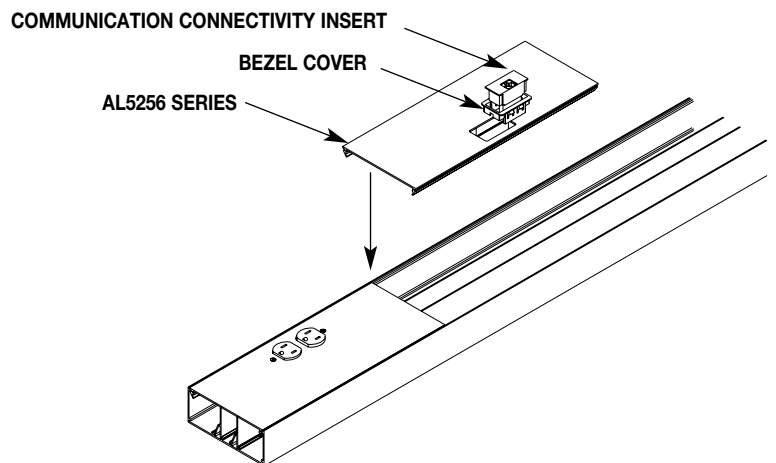
Snap in AL5200D Divider into raceway base as shown. Refer to cross-sectional drawings above for versatile divider location.

## AL5210B2 (SHOWN)



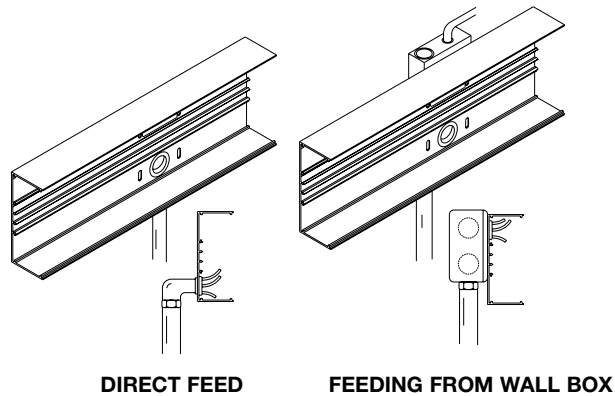
**End feeding:** AL5210B2/AL5210B3 and AL5210B3 Series end fittings have concentric 1/2" and 3/4" trade size KOs in end. Provide Electrical feed through KOs. Insert fitting into End of raceway base. Secure in place by tightening two screws.

## AL5256 DEVICE PLACE SERIES



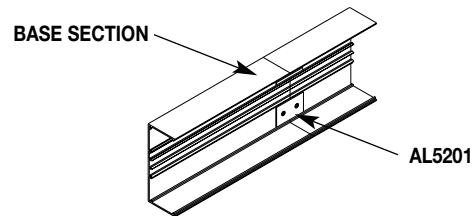
**To Install:** Snap-in Bezel Cover into AL5256 Device place. After installing the bezel, Snap-in the communication connectivity into the bezel cover as required. Snap-in AL5256 Device Place Series into AL5200B Raceway base to complete install.

## USING AL5214 WALL BOX CONNECTOR



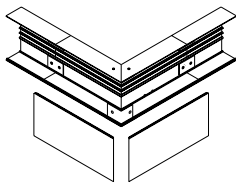
AL5214 Wall Box Connector connects to two in line AL5200B base sections via AL5201 Couplings supplied.

## AL5201 COUPLING



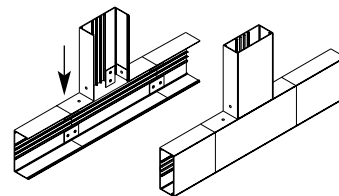
At AL5200B Base section butt joints, slide two (2) AL5201 Coupling into first base section. Mount next base to surface. Center couplings on joint. Tighten Locking screws.

## AL5218 EXTERNAL CORNER COUPLING



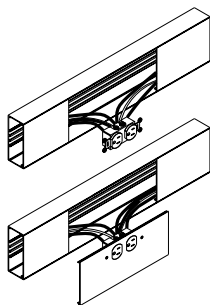
At 90° Outside Corner, Position AL5218 External Elbow at end of AL5200B Base. Slide other base section to other end of AL52018 Center couplings on joints and Tighten screws. After wiring system. Snap on AL5218 mitered covers.

## AL5215 TEE ELBOW



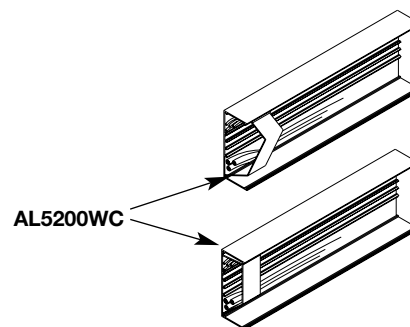
AL5215 Tee (shown above) and AL5216 Cross: Position fitting at end of AL5200B Base. Install other base sections to other ends of the fitting. Center couplings on joints and tighten screws. Install fitting covers after wiring.

## AL5246P SERIES DEVICES PLATE



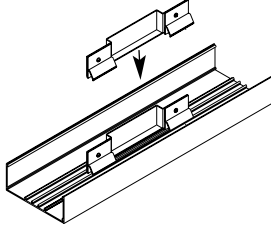
AL5246P Series Device Plates, Install wiring to plate using #6 screws and "Keps" nuts provided. Snap device plate assembly onto AL5200B base raceway.

## AL5200WC WIRE CLIP



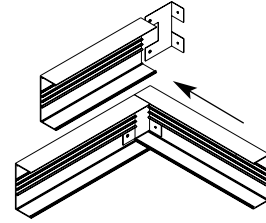
For retaining wires in long raceway run, Snap-in AL5200WC Series Wire Clips into AL5200B Base as required.

### AL5260 OFFSET DIVIDER



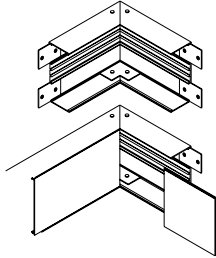
For AL5260 Adjustable offset Divider. Snap-Fits into AL5200B Base like regular AL5200D Divider Used to allow offsets and to extend over ribs in the AL5200B Base.

### AL5217A INTERNAL CORNER COUPLING



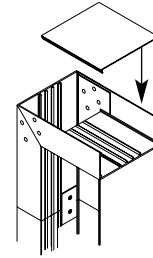
Install one side of AL5217A Internal Coupling, BEFORE mounting raceway base. Fasten first base section to wall, then slide adjoining base onto coupling legs. Tighten all four coupling screws.

### AL5217 INTERNAL ELBOW



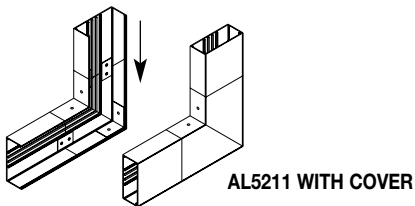
Install AL5217 to first raceway. BEFORE mounting raceway base. Fasten base section to surface. Butt next section of base. Center couplings over base joints, tighten set screws.

### AL5217N INVERTED ELBOW



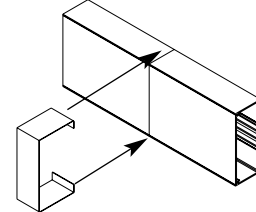
For connecting a vertical run of AL5200 with a horizontal over head run with its cover facing up. Assemble AL5217N to raceway base with AL5201 Coupling supplied.

### AL5211 FLAT ELBOW



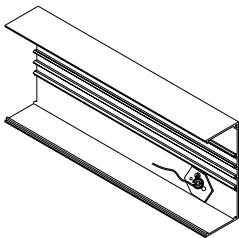
At 90o turn on same surface, position AL5211 Flat Elbow at end of AL5200B Base. Position next bases section onto other end of AL5211. Center couplings over base joints and tighten screws. Install AL5211 Covers and AL5200C cover as shown after wiring.

### AL5206 COVER CLIP



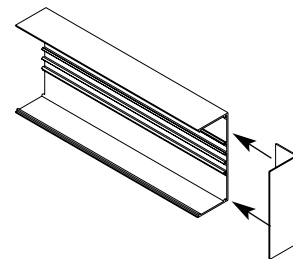
To close any gaps that occur from field Cutting, at either the base or the cover. Snap AL5206 Cover Clip over Joints in Either AL5200B Base or AL5200C cover on the assembled raceway.

### AL5209 GROUND ADAPTER



Position AL5209 GND ground clamp into rib in AL5200B Base. Fasten mounting screw. Attach Ground wire to green ground lug.

### AL5201B BLANK END FITTING



At end of AL5200 Raceway run: Slide AL5201B Blank end fitting in last base section. Secure in Place by tightening two screws.



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