

RACEWAY, VERTICAL AND HORIZONTAL RACK MANAGEMENT

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Chapter Summary

- Tyco Electronics offers a comprehensive line of Cable Management products for surface, rack, and raised floor applications. If you have product needs beyond those listed in this catalog, please call the Tyco Electronics Product Information Center at 1-800-522-6752.



High Density Vertical Cable Management



Product Facts

- Two-piece doors with snap on hinges allow for quick opening from either side or complete removal
- Six snap-on gates retain cables when doors are opened or removed.
- Easy installation, can be done in minutes using standard hand tools.
- Works with EIA-310-D compliant two and four post equipment racks using industry standard mounting holes.
- 1/4" accessory mounting holes run the full height on both sides of cable manager to accommodate the attachment of cable management accessories.
- Separator panel with pass through openings, vertical slots for attaching straps and keyhole slots for attaching spools, included with each manager.
- Front and rear vertical sections can be spaced apart when mounting on racks deeper than 3" (76mm)
- Flat black powder coat aluminum with UL 94V-0 black plastic components
- Vertical cable manager includes:
 - Front and Rear vertical cabling section, (4) doors, (6) gates, (50) push-in fasteners, (12) cable strap mounts, Separator panel and mounting hardware.
 - On 10" and 12" wide cable managers only, (2) spool kits are included.

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Double Sided Vertical Cable Managers



Our double-sided vertical cable managers with closely spaced fingers on the front and the rear and are designed for routing high density cabling on and between racks. These high capacity managers have access doors and gates for the front and rear.

- Standard (Std) Fingers have 1U Spacing Vertically and are 8.5" Deep
- Extended (Ext) Fingers have 1U Spacing Vertically and are 11" Deep

Description	Part Numbers
Vertical Mgr, 84", Double-sided, 6" W, Std Fingers Front and Rear	1933534-1
Vertical Mgr, 84", Double-sided, 10" W, Std Fingers Front and Rear	1933535-1
Vertical Mgr, 84", Double-sided, 12" W, Std Fingers Front and Rear	1933536-1
Vertical Mgr, 84", Double-sided, 6" W, Ext Fingers Front and Rear	1933537-1
Vertical Mgr, 84", Double-sided, 10" W, Ext Fingers Front and Rear	1933538-1
Vertical Mgr, 84", Double-sided, 12" W, Ext Fingers Front and Rear	1933539-1

Double-Sided Combination Vertical Cable Managers

Our double-sided combination vertical cable managers which have closely spaced fingers on the front, are designed for routing high density cabling on and between racks. The rear of these managers have open fingers for managing large cable bundles. These high capacity managers have access doors for the front and gates for the front and rear.



Product Facts

- Standard (Std) Fingers have 1U Spacing Vertically and are 8.5" Deep
- Extended (Ext) Fingers have 1U Spacing Vertically and are 11" Deep
- Open Fingers have 9U Spacing Vertically and are 8.5" Deep

Description	Part Numbers
Vertical Mgr, 84", Double-sided, 6" W, Std Fingers Front, Open Fingers rear	1933540-1
Vertical Mgr, 84", Double-sided, 10" W, Std Fingers Front, Open Fingers rear	1933541-1
Vertical Mgr, 84", Double-sided, 12" W, Std Fingers Front, Open Fingers rear	1933542-1
Vertical Mgr, 84", Double-sided, 6" W, Ext Fingers Front, Open Fingers Rear	1933543-1
Vertical Mgr, 84", Double-sided, 10" W, Ext Fingers Front, Open Fingers Rear	1933544-1
Vertical Mgr, 84", Double-sided, 12" W, Ext Fingers Front, Open Fingers Rear	1933545-1

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Replacement Door Kits

Product Facts

- Kit includes an upper and lower door section
- Doors are for Double-Sided and Double-Sided Combination Vertical Managers

Description	Part Numbers
6" Replacement Door Kits	1933556-1
10" Replacement Door Kits	1933557-1
12" Replacement Door Kits	1933558-1

Side Cover Panel

Used to cover the side of the vertical cable manager at the end of a row

Description	Part Number
Side Cover Panel	1933563-1

Gate Kit



Product Facts

- Used on the rear of a Combination Manager when additional fingers are desired
- Gate kits are 2U high
- Kit includes (2) finger sections, (1) gate, and mounting hardware.
- UL 94V-0 black plastic components

Description	Part Numbers
Gate Kit - 6"	1933546-1
Gate Kit - 10"	1933547-1
Gate Kit - 12"	1933548-1

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Replacement Gates



Product Facts

- Easy installation. Gates snap on and can be installed under doors
- Gates can be opened in either direction, and can be quickly removed for easy cable access.
- Includes (6) gates.
- UL 94V-0 black plastic

Description	Part Numbers
Replacement Gates, 6"	1933549-1
Replacement Gates, 10"	1933550-1
Replacement Gates, 12"	1933551-1

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Finger Bracket



Description	Part Number
Finger Bracket	1933552-1

Product Facts

- High-density finger bracket mounts directly to a relay rack and provides cable support at each rack mounting unit
- Fingers align with rack mounting units
- Includes (1) finger bracket and mounting hardware
- Flat black powder coat aluminum bracket with UL 94V-0 black plastic finger section

Cable Spools



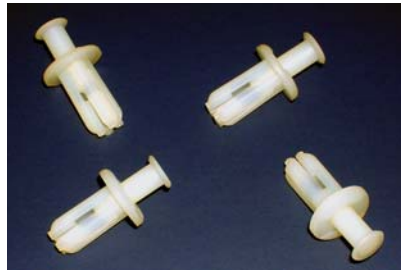
Description	Part Number
Cable Spools	1933553-1

Product Facts

- Spool provides 1.1" (28mm) bend radius
- Cable spools attach quickly to keyhole slots provided in mounting channels and optional back covers
- Facilitates storage and routing of cable
- Unique spool kit design provides for vertical and horizontal adjustability to suit any need.
- Spool kits includes (2) spools, mounting channels and hardware
- Flat black powder coat steel with UL 94V-0 black plastic

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Fasteners



Description	Part Number
Fasteners	1933554-1

Product Facts

- Used to quickly attach accessories to 1/4" (6mm) mounting holes in cable manager.
- Can be easily removed for relocation.
- Standard pack: 100 pieces
- White Plastic UL 94V-2

Cable Strap Mounts



Description	Part Number
Cable Strap Mounts	1933555-1

Product Facts

- Provides attachment for cable straps up to 3/4" (19mm) wide.
- Attach with Push-in fastener 1933554-1 to 1/4" (6mm) accessory mounting holes in cable manager.
- Standard pack: 100 pieces
- Black Plastic UL 94V-0

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Horizontal Management



Product Facts

- Snap-on removable hinged door remains open past 180°
- #12-24 mounting hardware is included.
- Flat black powder coat aluminum with UL 94V-0 black plastic components
- Standard Fingers are 5.5" Deep
- Extended Fingers are 8" Deep

Description	Part Numbers
Horizontal 1U, Single Sided, Standard Fingers	1933530-1
Horizontal 1U, Double Sided, Standard Fingers	1933531-1
Horizontal 2U, Single Sided, Standard Fingers	1933532-1
Horizontal 2U, Double Sided, Standard Fingers	1933533-1
Horizontal 3U, Single Sided, Standard Fingers	1933561-1
Horizontal 3U, Double Sided, Standard Fingers	1933562-1
Horizontal 1U, Single Sided, Extended Fingers	1933564-1
Horizontal 1U, Double Sided, Extended Fingers	1933565-1
Horizontal 2U, Single Sided, Extended Fingers	1933566-1
Horizontal 2U, Double Sided, Extended Fingers	1933567-1
Horizontal 3U, Single Sided, Extended Fingers	1933568-1
Horizontal 3U, Double Sided, Extended Fingers	1933569-1

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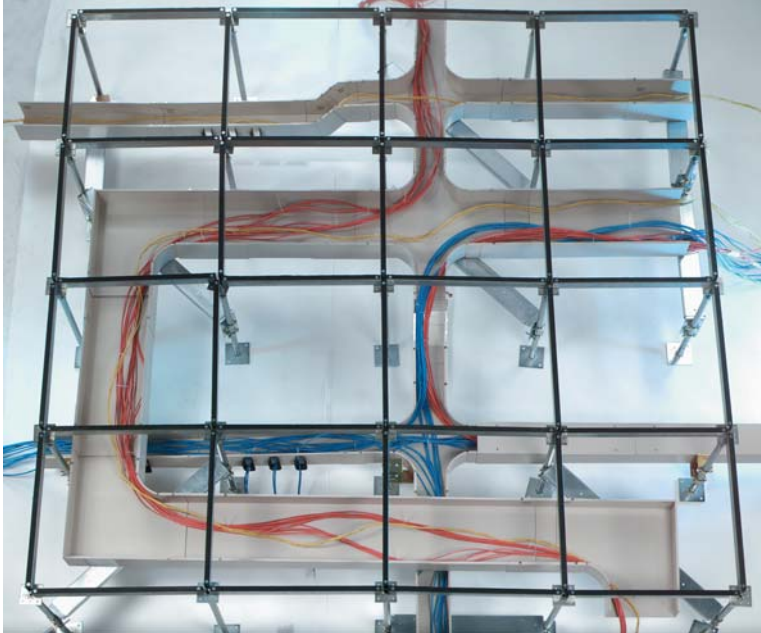
Cabletray Raceway System

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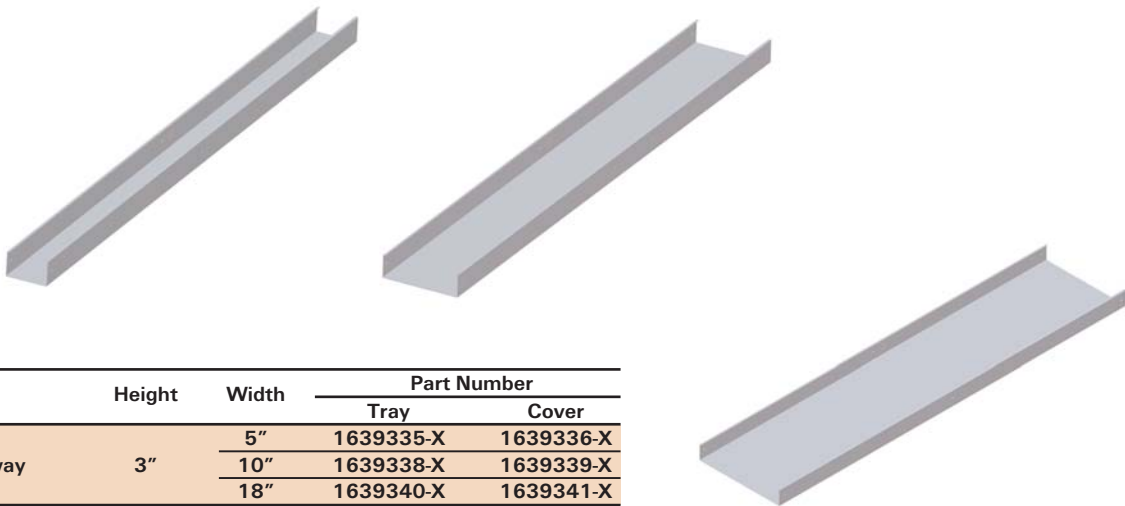


Product Facts

- Aluminum construction (unpainted)
- No cutting or bending required
- No specialized tools required
- No adhesives required
- No fasteners required for snap-on covers
- Solid base design protects cables from sagging
- User-defined layout (assistance available)
- UL approved (UL5)
- All turns and bends use a 2" minimum bend radius
- Telescoping connecting sections allow for complete adjustability
- Mounting techniques include support brackets for mounting:
 - directly to floor
 - to raised floor pedestals
 - to walls or ceiling hung
- IBM qualified and approved



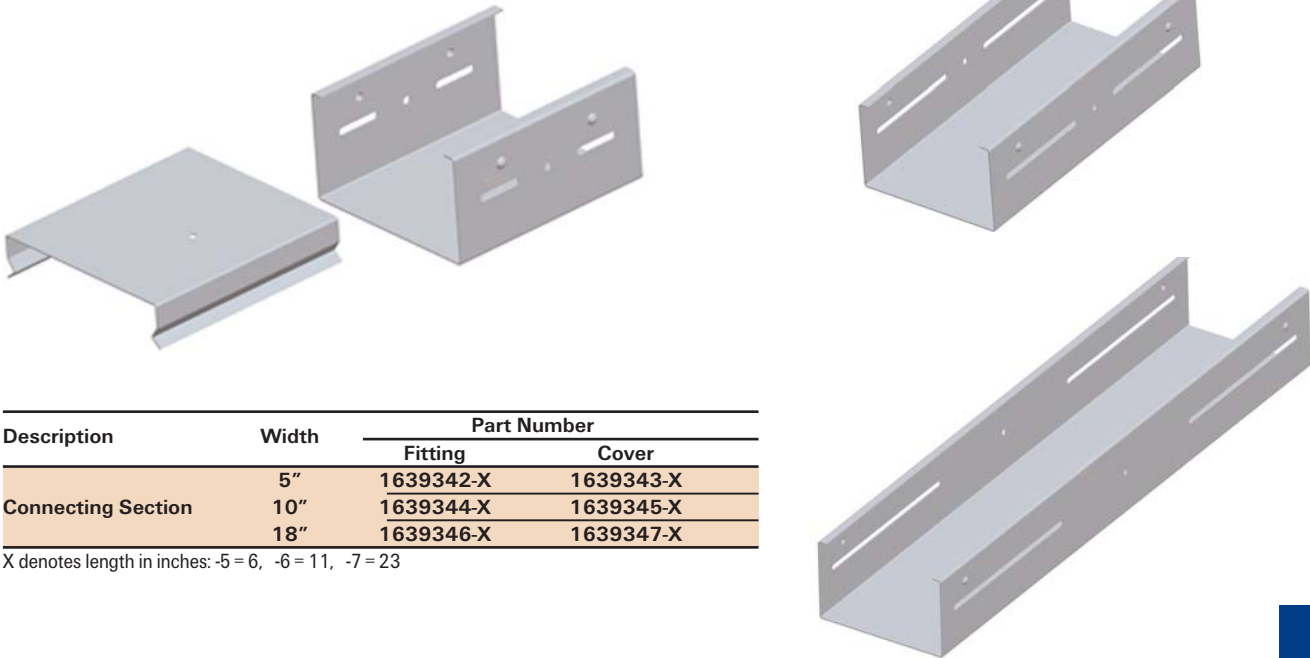
Cabletray Raceway and Cover



Description	Height	Width	Part Number	
			Tray	Cover
CableTray Raceway	3"	5"	1639335-X	1639336-X
		10"	1639338-X	1639339-X
		18"	1639340-X	1639341-X
FiberTray Raceway Vented	3"	5"	1639337-X	1639336-X

X denotes tray length in feet: -1 = 1, -2 = 2, -3 = 4, -4 = 6

Connecting Section



Description	Width	Part Number	
		Fitting	Cover
Connecting Section	5"	1639342-X	1639343-X
	10"	1639344-X	1639345-X
	18"	1639346-X	1639347-X

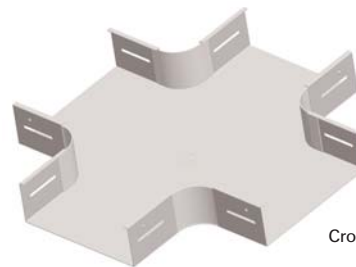
X denotes length in inches: -5 = 6, -6 = 11, -7 = 23

Cabletray Raceway System

Horizontal Fittings T, Cross, and L (90°, 45°, 15°) Sections and Covers



T Section



Cross Section

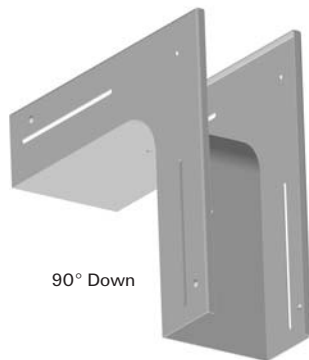


L Section

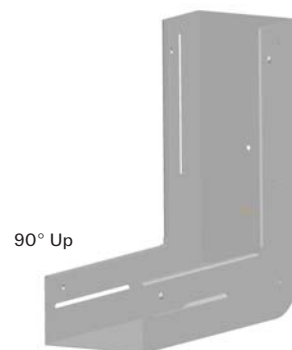
Description	Part Number	
	Fitting	Cover
T Section	1639348-X	1639349-X
Cross Section	1639350-X	1639351-X
L Section	90°	1639352-X
	45°	1639362-X
	15°	1639364-X
		1639353-X
		1639363-X
		1639365-X

X denotes width in inches: -1 = 5, -2 = 10, -3 = 18

Vertical Fittings



90° Down

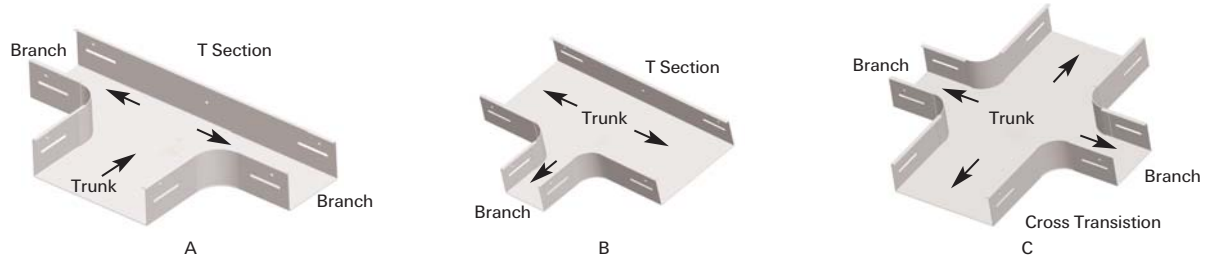


90° Up

Description	Part Number	
	Fitting	Cover
Vertical 90° Up	1639354-X	1639355-X
Vertical 45° Up	1639356-X	1639357-X
Vertical 90° Down	1639358-X	1639359-X
Vertical 45° Down	1639360-X	1639361-X

X denotes width in inches: -1 = 5, -2 = 10, -3 = 18

Cabletray Transitions



Description	From	To	Figure	Part Number	
				Fitting	Cover
T Section	10" Trunk	Two 5" Branches	A	1639348-4	1639349-4
	10" Trunk	One 5" Branch	B	1639348-5	1639349-5
	18" Trunk	Two 10" Branches	A	1639348-6	1639349-6
	18" Trunk	One 10" Branch	B	1639348-7	1639349-7
Cross Section	10" Trunk	Two 5" Branches	C	1639350-4	1639351-4
	18" Trunk	Two 10" Branches	C	1639350-5	1639351-5
Straight Section - Right	5"	10"	—	1639370-5	1639371-5
Straight Section - Left	5"	10"	—	1639372-5	1639373-5
	18"	10"	—	1639374-6	1639375-6

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Cabletray Accessories

Description	Part Number
Cable Separator	1639376-X
Rack Drop, 5 inch width	1639377-1
Vertical Drop	1639378-X
Vertical Drop Cover 5"	1639343-6
Vertical Drop Cover 10"	1639345-6
Vertical Drop Cover 18"	1639347-6
Slack Tray, 5 inch width	1639367-1
Slack Tray Cover, 5 inch width	1639368-1
End Cap	1639366-X
End Cap Covers 5"	1639343-5
End Cap Covers 10"	1639345-5
End Cap Covers 18"	1639347-5

X denotes width in inches: -1 = 5, -2 = 10, -3 = 18

Cabletray Mounting System

Mounting Components

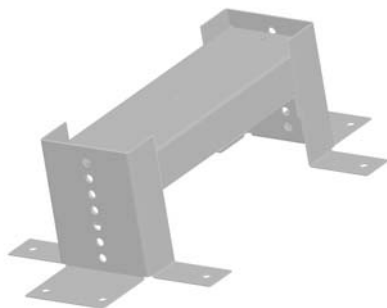
Description	Part Number
Spanner Bracket	1639379-W
Pedestal Bracket, 5 inch width	1639380-1
Universal Mounting Bracket Kit	1639381-X
Adjustable Floor Bracket	Y-1639382-Z

W denotes inches: -1 = 24, -2 = 34, -3 = 24 EQ, -4 = 34 EQ
EQ = meets seismic requirements

X denotes FiberTray width in inches: -1 = 5, -2 = 10, -3 = 18

Y denotes Range of height above floor in inches: blank = (2 to 3 1/2),
1- = (2 to 8 1/2), 2- = (6 to 15)

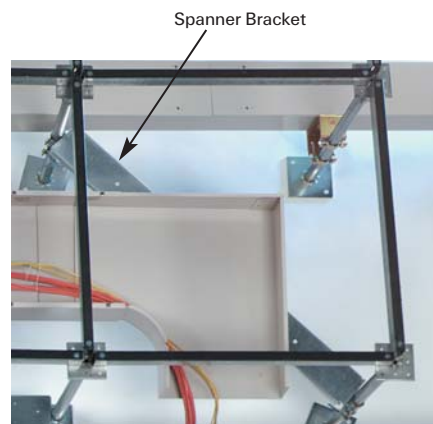
Z denotes inches: -1 = 5, -2 = 10, -3 = 18, -4 = 34



Adjustable Floor Bracket



Pedestal Bracket



Spanner Bracket

Hardware Components

Description	Part Number	Package Qty.
Grounding Wires with Hardware	9-1201816-2	10
Fastening Hardware	7-1201816-0	100
Fastening Clips	4-1199891-8	100

Horizontal Finger Duct Panels



A

B

Product Facts

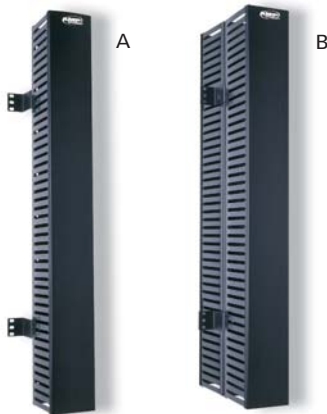
- Cable management accessories for EIA standard 19" equipment racks
- Suitable for high performance twisted pair and optical fiber distribution cables and patch cords
- Horizontal finger duct panels available in single- and double-sided versions

Description		Panel Height	Front (H x D)	Rear (H x D)	Figure	Part Number
Single-Sided	Cable Management Panel	1U (1.75")	1.5" x 2"	—	—	1375161-X
			1.5" x 3"	—	—	1375162-X
		2U (3.50")	3.0" x 3"	—	A	1375163-X
	Front Replacement Covers	1U (1.75")	—	—	—	1479225-X
		2U (3.50")	—	—	—	1479222-X
Double-Sided	Cable Management Panel	1U (1.75")	1.5" x 2"	1" x 4"	—	1375160-X
			1.5" x 3"	1" x 4"	—	1375159-X
		2U (3.50")	3.0" x 3"	2" x 4"	B	1375158-X
	Front Replacement Covers	1U (1.75")	—	—	—	1479225-X
		2U (3.50")	—	—	—	1479222-X
	Rear Replacement Covers	1U (1.75")	—	—	—	1479224-1
		2U (3.50")	—	—	—	1479223-1

X denotes cover style: -1 = Standard, -2 = Extended

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Vertical Finger Duct Panels



A

B

Product Facts

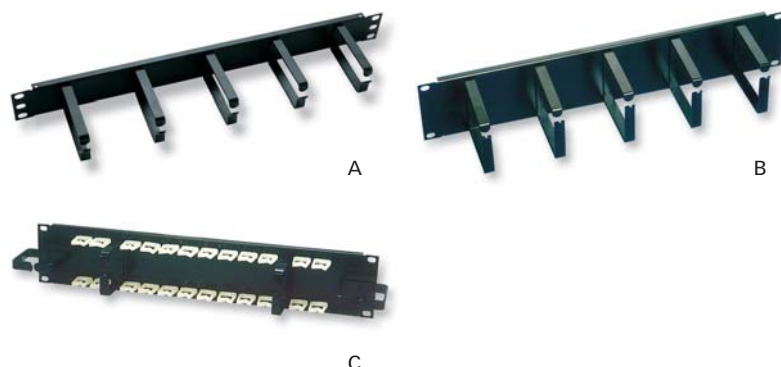
- Cable management accessories for EIA standard 19" equipment racks
- Suitable for high performance twisted pair and optical fiber distribution cables and patch cords
- Vertical finger duct panels available in single- and double-sided versions
- Center mount Vertical Finger Duct Panels mount between racks for added stability
- Replacement covers are packaged ten (10) per box

Mounting Position		Panel Height	Front (W x D)	Rear (W x D)	Figure	Part Number
Single-Sided	Side Mount	35"	4" x 5"	—	A	1375165-1
		78"	4" x 5"	—	—	1375258-1
	Center Mount	35"	4" x 5"	—	B	1375167-1
		78"	4" x 5"	—	—	1375260-1
Double-Sided	Side Mount	35"	4" x 5"	4" x 5"	A	1375164-1
		78"	4" x 5"	4" x 5"	—	1375257-1
	Center Mount	35"	4" x 5"	4" x 5"	B	1375166-1
		78"	4" x 5"	4" x 5"	—	1375259-1
Replacement Covers	Front or Rear	35"	—	—	—	1479226-1
	Front	78"	—	—	—	1479227-1
	Rear	78"	—	—	—	1479227-2

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Management Panels

Horizontal Ringed Cable Management Panels



Description		Figure	Part Number
1U Panel	1.75"	A	558329-1
2U Panel	3.50"	B	558331-1
	3.50" with Cable Clips	C	569049-1

Product Facts

- Panels mount to the front of 19" racks and provide for the orderly dressing and routing of cable assemblies
- Threaded studs on the back of the panels allow the installation of an optional Cable Support Bar (see this chapter)
- 2U (3.50") 569049-1 comes with cable clips

Vertical Ringed Cable Management Panels

PART NUMBER 559371-1



Product Facts

- Lightweight durable 11 AWG aluminum
- Front and rear management designed into one piece
- Compact size for simple, quick installation
- Mounts to standard EIA hole pattern
- High capacity management rings for large patching applications
- One design accommodates both end-mount and inter-bay management needs
- Partial or full rack loading
- Requires rack with standard EIA hole pattern on both front and rear surfaces of channel uprights
- Dimensions – 24.40" H x 3.47" W
- Four Cable Management Rings, Dimensions – 3.50" W x 6.25" D

Rack Mount Cable Trough, Top

PART NUMBER 559370-1

- Features down-radiused cable exit to vertical cable management
- Dimensions (overall) – 4.20" H x 19.00" W x 3.75" D
- Mounts in 1U (1.75") of rack space

Rack Mount Cable Trough, Bottom/Middle

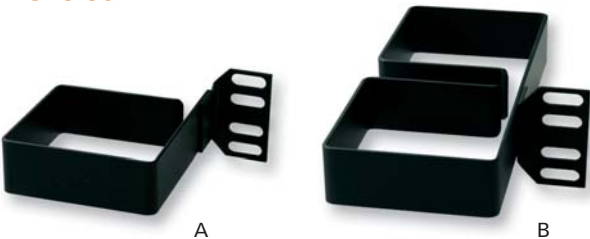
PART NUMBER 559369-1

- Dimensions (overall) – 5.22" H x 19.00" W x 3.75" D
- Mounts in 3U (5.25") of rack space

Product Facts

- Light weight durable 11 AWG aluminum
- Fit standard 19" racks
- Mounts to standard EIA hole pattern
- Provide cable management within the rack bay or multiple rack line-ups

Rack Mount Cable Management Rings, Vertical

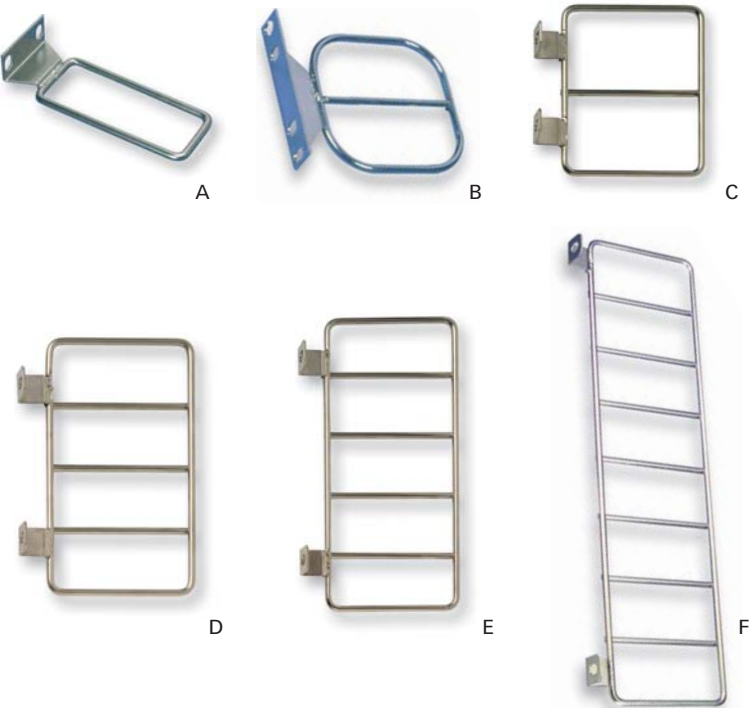


Description	Figure	Part Number
Single Ring	A	558334-1
Double Ring (for front and rear management)	B	406498-1

Product Facts

- Mount between adjacent panels
- Provide a vertical “trough” for patch cable management

Rack Mount Cable Management Rings



Description		Figure	Part Number
1U Ring	1.75-inch	A	558312-1
2U Ring	3.50-inch	B	558265-1
3U Ring	5.25-inch	C	556560-1
4U Ring	7.00-inch	D	556561-1*
5U Ring	8.75-inch	E	556745-1
9U Ring	15.75-inch	F	556562-1

*Note: Use two for a 14-inch panel.

Product Facts

- Rings are installed directly on 19" racks with the same mounting screws used to secure the panels to the rack
- Provide a space-saving alternative to cable management panels
- Must be ordered to match the height of the panels to which they are attached

Cable Support Bars

Cable Support Bars

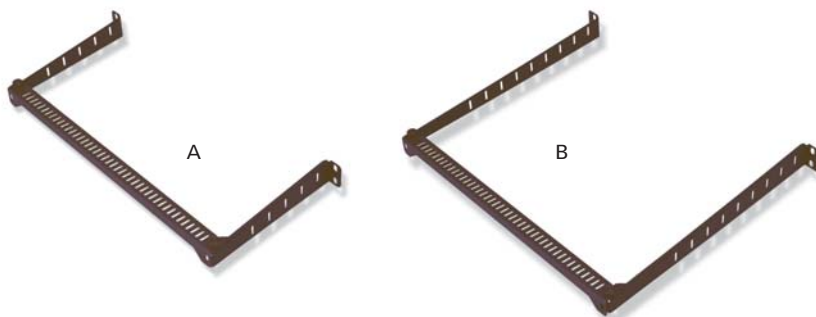


Product Facts

- Designed to provide additional cable support and routing control in the rear of 19" racks and panels
- See support bar to patch panel compatibility chart
- Cable support bars that mount directly to rack provide the best support. Other bars are available for specialty application

Description	Figure	Compatible with Panel	Part Number
Mounts to back of rack, 5" deep	A	(mounts to rack)	557548-1
Mounts to back of rack, 2" deep	B	(mounts to rack)	406042-1
Mounts to rear of Cable Management Panels	–	558329, 558331, 569049	558301-1
Mounts to rear of 110Connect and SL Series Patch Panels	–	406330, 406331, 406332 1475194, 1479155, 147155, 406981 1479156, 1375014, 1375015, 1375016, 1479449, 1479450, 1479206, 1479208	1479860-1
Mounts to rear of XG and SL Multimedia Patch Panels, 1U	–	1933307, 1933309, 1933319, 1933321 1933331, 1933323	1933425-1

MRJ21 Cable Support Bars



Product Facts

- Mounts to the back of 19" racks
- Designed to provide additional cable support and routing control behind 19" racks and panels
- MRJ21 slotted manager bar for easy tie down
- Horizontal and vertical mounting option for MRJ21 tie down bar

Description	Depth	Figure	Part Number
MRJ21 Cable Manager Bar	6"	–	1933352-1
	9"	A	1933352-2
	12"	–	1933352-3
	16"	B	1933352-4

VELCRO Cable Ties



Description	Part Number
1" x 8"	1375253-X
1" x 12"	1375254-X
5/8" x 5 yards	1375255-X
1" x 12" Flame Retardant*	1375256-2

X denotes color: -2 = Black, -3 = White, -4 = Gray, -5 = Orange, -6 = Blue, -7 = Red, -8 = Yellow, -9 = Green, 1-0 = Violet

*Note: Complies with NEC 300-22(c) and (d) for use in environmental air handling spaces. Available in Black only.



Product Facts

- For 8-inch and 12-inch ties, an order quantity of one equals one roll of ten ties

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AMP-TY Nylon Cable Ties



Dimensions (Approximate)			Minimum Tensile Strength	Maximum Bundle Diameter in(mm)	Package Quantity	Color	Part Number
Length in(mm)	Width in(mm)	Thickness in(mm)					
4 (103.0)	0.096 (2.44)	0.037 (0.94)	18 lbs 80.1 N	0.75 (19.10)	1000	Natural	2-604771-9
						Black	2-604771-0
					100	Natural	1-604771-9
						Black	1-604771-0
6 (155.0)	0.140 (3.56)	0.045 (1.14)	30 lbs 133.5 N	1.25 (31.75)	1000	Natural	2-603227-9
						Black	2-603227-0
					100	Natural	1-603227-9
						Black	1-603227-0
8 (204.0)	0.184 (4.67)	0.047 (1.19)	50 lbs 222.5 N	1.75 (44.45)	1000	Natural	2-604772-9
						Black	2-604772-0
					100	Natural	1-604772-9
						Black	1-604772-0
12 (300.0)	0.183 (4.65)	0.051 (1.30)	50 lbs 222.5 N	3.00 (76.20)	1000	Natural	2-604751-9
						Black	2-604751-0
					100	Natural	1-604751-9
						Black	1-604751-0

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