

# FL2000 Series Fiber Optic Panels

An adaptable termination, splicing and cable solution.

# Introduction

The FL2000 system is a flexible and modular series of fiber products for today's and tomorrow's evolving communications and data networks.

This product family is a complete line of modular panels developed for rack and wall mounting. The system is fully adaptable to small distribution frames, telephone closet (TC) applications, or active equipment racks.

FL2000 panels are designed for both 19- and 23-inch EIA rack or cabinet environments. FL2000 products provide termination, splicing and storage capabilities for in-building cables, outside plant cables and fiber optic terminal (FOT) equipment.

FL2000's modular design offers maximum flexibility to satisfy current needs and future growth requirements. A full line of options and accessories ensures compatibility with existing optical equipment. FL2000 panels accommodate value-added module (VAM) plug-ins, adding flexibilty and functionality to the optical transport system. Splitters, wavelength division multiplexers (WDMs) and other optical components can easily be incorporated.

All FL2000 panels accommodate 6pak adapters. 6paks are available in all connector styles and can be ordered as needed. CommScope's removable angled retainers allow easy access for single fiber maintenance.

FL2000 panels feature superior vertical cable protection and management. Rack mount panels are hinged on one side, allowing full access to the rear of the front bulkhead plate and the interior of the panel. They come equipped with mounting brackets to provide five-inch recess mounting. Mounting brackets are available for virtually any mounting application. Rack mount panels can be wall mounted as well. The FL2000 splice wheel allows easy storage of pigtail and buffer tube lengths and superior bend radius protection. The FL2000 splice deck is available to complete existing installations.



Single Fiber Access



Swing-out Bulkhead (Allows Full Access)



Rack Mount Termination Panel (Empty)



Rack Mount Termination/Splice Panel (Empty)



Rack Mount Termination Panel (With IFC)

# Product Overview

Recommended Applications	Multi-purpose modular solution ideal for cabinet, rack, wall mount or medium size frame applications. Ideal for small to medium fiber counts.
Description	Termination, termination/splice, storage, splice-only
Number of fibers, future growth potential	12 to 96 (up to 192 with LC connectors)
Flexibility/ability to grow	Ideal for growth
Interconnect	Yes
Cross-connect	Yes
Accommodates on-frame splicing	Yes. Built-in
Accommodates off-frame splicing	Yes. IFC cable and assembly available
Rear access	Not required
All front access	Yes
Customer premises application	Ideal
19" mounting	Yes
23" mounting	Yes
Cabinet mount	Yes
Wall mount	Yes
Mix equipment with fiber product?	Ideal
Use as dedicated fiber frame	Up to 400-fibers only.
VAM capabilities	Yes
Optimum jumper storage location	Can be configured with storage
Vertical cable guide	Ships with every panel

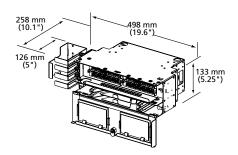
# Fiber Termination/Splice Panel with Adapters or Pigtails

#### **Features**

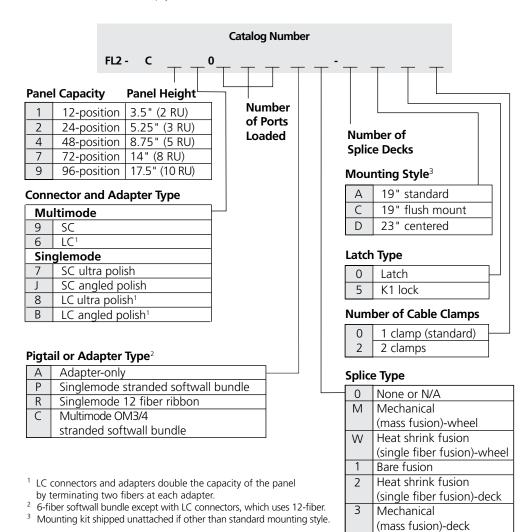
- · Termination and splice panel
- · VCG ships with each panel
- Uses CommScope's splice deck or splice wheel
- · Uses FL2000 6paks with angled retainers



72-Position Termination/Splice Panel (Shown Empty)



24-Position Termination/Splice Panel



# Empty Termination/Splice Chassis

#### **Features**

- Mounting
  - 19-inch EIA racks or cabinets, standard five-inch recess
  - Wall mounting option available
  - Other mounting kits available
- · Hinged on left front side for complete access to interior of termination section
- · Ability to quickly and easily configure, utilizing the 6pak assemblies (ordered separately)
- · Complete line of accessories including locks for security
- · Uses CommScope splice wheels or splice decks
- · Ships with vertical cable guide (VCG)

#### Fiber Chassis Data

- · Fiber capacity\*: 12, 24, 48, 72 & 96
- · Termination
- Splice
- · Pigtail storage



24-Position Termination/Splice Chassis



48-Position Termination/Splice Chassis



96-Position Termination/Splice Chassis

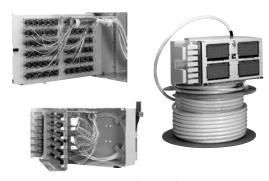
Description	Panel Height	Catalog Number
Empty termination/splice chassis; includes vertical cable guide (VCG) 12-position 24-position 48-position 72-position 96-position	3.5" (2 RU) 5.25" (3 RU) 8.75" (5 RU) 14" (8 RU) 17.5" (10 RU)	FL2-12TS350 FL2-24TS525 FL2-48TS875 FL2-72TS140 FL2-96TS175
Splice wheel Heat shrink (single fiber fusion) Mechanical (mass fusion) Heat shrink (single fiber fusion)-24 fiber Bare fusion (24-fiber)		FST-DRS12-HS FST-DRS12-MT FST-DRS24-HS FST-DRS24-FT
Splice deck Heat shrink (single fiber fusion) Mechanical (mass fusion) Bare fusion		FL2-RSPLCE-HS FL2-RSPLCE-MT FL2-RSPLCE-FT

<sup>\*</sup>Panels can double capacity with LC adapters.

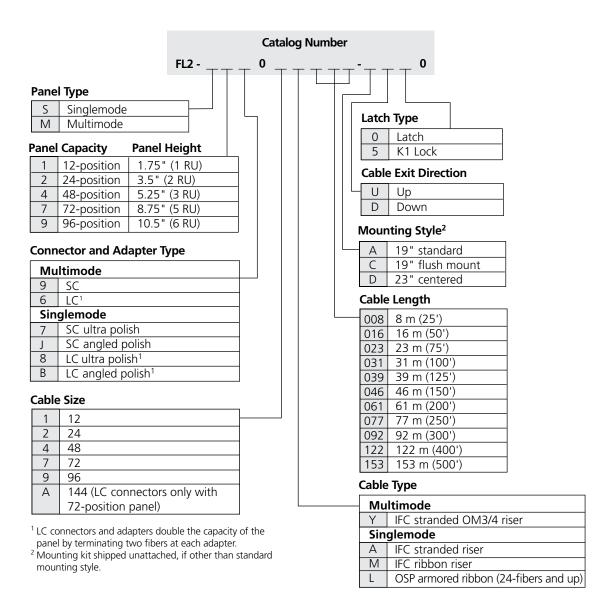
# Fiber Termination Panels with Multifiber Cable (Preterminated)

#### **Features**

- Panels with preterminated multifiber cable (IFC or OSP) ship as a single unit with cable clamp installed
- · Customizable panels come equipped with customer specified number of adapters, retainers, connectors, cable type and cable length
- · Panels with multifiber cable attached save costly installation time



Termination Panels (With Multifiber Cable)



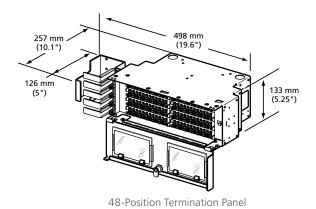
# Fiber Termination Panels with Adapters or Pigtails

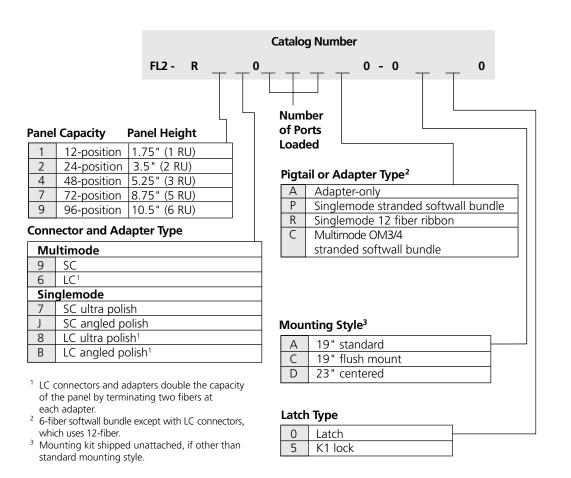
#### **Features**

- · Termination-only panel
- · VCG ships with each panel
- · Uses FL2000 6 packs with angled retainers



72-Position Termination Panel





# **Empty Termination Chassis**

#### **Features**

- Mounting
  - 19-inch EIA racks or cabinets, standard five-inch recess
  - Wall mounting option available
  - Other mounting kits available
- · Hinged on left front side; allows full access to rear of front plate and interior of panel
- · FL2000 6pak adapter plug-ins ordered separately
- · Equipped with removable metal doors with Plexiglass®1 windows
- · Designation labels included with each panel
- · Complete line of accessories including locks for security
- · Ships with vertical cable guide (VCG)

#### Fiber Chassis Data

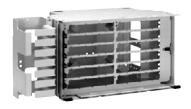
- · Fiber capacity\*: 12, 24, 48, 72 & 96
- · Termination
- · Pigtail storage



<sup>&</sup>lt;sup>1</sup> Plexiglass is a registered trademark of Atoglas Division of Atofina Chemicals, Inc.



24-Position Termination Chassis



72-Position Termination Chassis



96-Position Termination Chassis

Description	Panel Height	Catalog Number
Empty termination/splice chassis; includes vertical cable guide (VCG) 12-position 24-position 48-position 72-position 96-position	1.75" (1 RU) 3.5" (2 RU) 5.25" (3 RU) 8.75" (5 RU) 10.5" (6 RU)	FL2-12RPNL FL2-24RPNL FL2-48RPNL FL2-72RPNL FL2-96RPNL

# Slack Storage Solutions

# Storage Deck Chassis

Mounts with FL2000 termination panels to provide jumper storage. May be wall, rack or cabinet mounted.

# Storage Deck

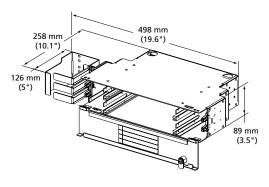
Storage Capacity (1 patch cord per deck)			
1.7 mm patch cord 35 m (115') per deck			
3.0 mm patch cord	patch cord 20 m (66') per deck		
Storage Capacity (2 to 4 patch cords per deck)			
1.7 mm patch cord 39 m (128') per deck			
1.7 mm patch cord	39 m (128') per deck		

# Ordering Information

Description	Catalog Number	
Storage deck chassis (storage decks ordered separately)		
2 storage deck capacity; 89 mm x 483 mm x 258 mm (3.5" x 19" x 10.2")	FL2-2RSTORE	
6 storage deck capacity; 222 mm x 483 mm x 258 mm (8.75" x 19" x 10.2")	FL2-6RSTORE	



Storage Deck Chassis



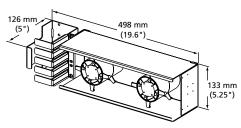
Storage Deck Chassis (Front View) FL2-2RSTORE

## Horizontal Interbay Management Panel

Manages and stores fiber within the frame.

Storage Capacity	
Stores up to 137 m (550') using oval storage method	

Description	Catalog Number	
FL2 HORIZ INTERBAY ST	FL2-HZSTORE	
FL2 HORIZ STORAGE 5	FL2-HZSTORE-B	
FL2 HORIZ INTER	FL2-HZSTORE-FLMT	
KIT, HORIZ STORAGE WA	FL2-HZSTORE-WMNT	



Horizontal Interbay Management Panel FL2-HZSTORE

# Chassis Solutions

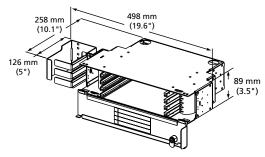
## **Splice Chassis**

#### **Features**

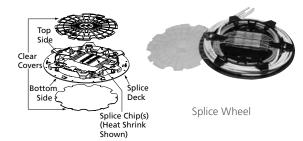
- Offers a combination of splicing protection and associated fiber/pigtail storage
- · Splice chassis can be mounted in conjunction with any FL2000 termination panel or as a stand-alone splice panel
- · Occupies same footprint and offers same mounting options as FL2000 termination panels
- · Accepts the CommScope splice wheel for efficient management of fiber cable and splice protection
- · Accepts the CommScope splice deck
- · Ships with vertical cable guide (VCG)

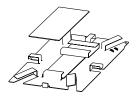
#### Fiber Chassis Data

- · Fiber capacity: 48, 96 & 144
- · Splice
- · Pigtail storagee



Splice Chassis





Splice Deck

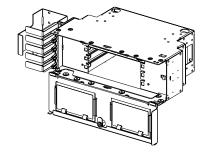
Description	Panel Height	Catalog Number
Splice chassis for use with splice wheel (Only accepts splice wheel)	3.5" (2 RU)	FL2-48SPNL2
48-fiber capacity 96-fiber capacity	7" (4 RU)	FL2-96SPNL2
144-fiber capacity	8.75" (5 RU)	FL2-144SPNL2
144-fiber capacity	8.73 (31(0)	1 LZ-14431 INLZ
Splice wheel		
Heat shrink (single fiber fusion)		FST-DRS12-HS
Bare fusion		FST-DRS12-FT
Mechanical (mass fusion)		FST-DRS12-MT
Splice chassis for use with splice deck (Also accepts splice wheel)		
48-fiber capacity	3.5" (2 RU)	FL2-48SPNL
96-fiber capacity	7" (4 RU)	FL2-96SPNL
144-fiber capacity	8.75" (5 RU)	FL2-144SPNL
Splice deck		
Heat shrink (single fiber fusion)		FL2-RSPLCE-HS
Bare fusion		FL2-RSPLCE-FT
Mechanical (mass fusion)		FL2-RSPLCE-MT
Cable clamp kit (kit of 1)		
Outer diameter 5 mm to 20 mm (0.2" to 0.8")		FL2-ACC007

# Value-Added Module (VAM) Chassis

The FL2000 VAM chassis is designed to accommodate CommScope's VAM plug-in modules in FL2000 installations. The chassis protects and manages optical components and is purchased empty, then loaded with various plug-in modules or blank plates, all of which can be mixed and matched. The chassis can be mounted in 5-inch recess, 19- or 23-inch rack mount, frame and cabinet environments. Vertical cable guides match the vertical cable management features of existing FL2000 system. The chassis accommodates 4, 6 or 9 plug-in modules.



VAM Chassis (Shown Unloaded)



FL2-4VAM525

## Ordering Information

Description	Dimensions (HxWxD)	Catalog Number
10.5" FL2000 VAM chassis, unloaded; (accommodates 9 single plug-in modules	267 mm x 483 mm x 258 mm (10.5" x 19" x 10.1")	FL2-9VAM105
7" FL2000 VAM chassis, unloaded; (accommodates 6 single plug-in modules	267 mm x 483 mm x 258 mm (10.5" x 19" x 10.1")	FL2-9VAM105
5.25" FL2000 VAM chassis, unloaded; (accommodates 4 single plug-in modules	267 mm x 483 mm x 258 mm (10.5" x 19" x 10.1")	FL2-9VAM105

Note: The FL2000 VAM system is designed to accept only front access modules; i.e., all input and output adapters, pigtails and/or bare fibers must be located on the front of the plug-in modules.

#### Value-Added Module (VAM) System

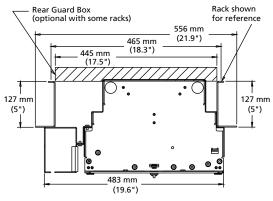
CommScope offers an expansive line of monitor, splitter, WDM and CWDM VAM plug-in modules designed to meet all application needs. Details at www.commscope.com or contact CommScope Customer Service.

# Panel Accessories – 19-Inch Rack Mount Installation Kits

#### Standard Mount Kit

#### **Features**

- · Panels shipped with
  - Left-side "L" bracket
  - Left-side 2.5" wide vertical cable guide (VCG)
- · Other mounting options are available upon request. Please contact CommScope's Technical Assistance Center.

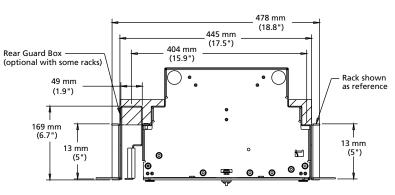


Standard Mount Kit

## **Ordering Information**

Description	Panel Height	Catalog Number
Standard mount kit	1.75" (1 RU) 3.5" (2 RU)	FL2-VCGKIT0175 FL2-VCGKIT0350
Kit includes: VCG with integrated mounting holes	5.25" (3 RU)	FL2-VCGKIT0530 FL2-VCGKIT0525
	7" (4 RU)	FL2-VCGKIT0700
	8.75" (5 RU) 10.5" (6 RU)	FL2-VCGKIT0875 FL2-VCGKIT1050
	14" (8 RU)	FL2-VCGKIT1400
	17.5" (10 RU)	FL2-VCGKIT1750

#### Flush Mount Kit



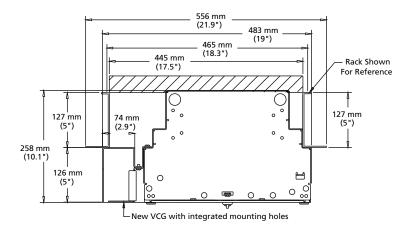
Flush Mount Kit

Description	Panel Height	Catalog Number
Flush mount kit Allows 1", 2" or 4" recess mounting Kit includes: VCG and mounting flanges	1.75" (1 RU) 3.5" (2 RU) 5.25" (3 RU) 7" (4 RU) 8.75" (5 RU) 10.5" (6 RU) 14" (8 RU) 17.5" (10 RU)	FL2-FLMT0175 FL2-FLMT0350 FL2-FLMT0525 FL2-FLMT0700 FL2-FLMT0875 FL2-FLMT1050 FL2-FLMT1400 FL2-FLMT1750

# Panel Accessories – 19-Inch Rack Mount Installation Kits

#### Maximum Mount Kit

Allows entire panel to be contained within frame footprint.



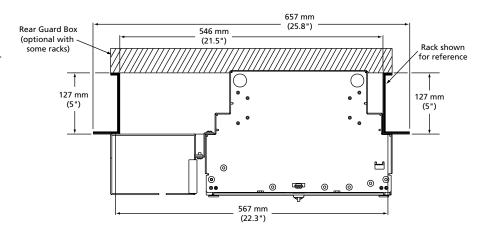
Maximum Mount Kit

Description	Panel Height	Catalog Number
Maximum mount kit Kit includes: VCG with integrated mounting holes	1.75" (1 RU) 3.5" (2 RU) 5.25" (3 RU) 7" (4 RU) 8.75" (5 RU) 10.5" (6 RU) 14" (8 RU) 17.5" (10 RU)	FL2-19MAX0175 FL2-19MAX0350 FL2-19MAX0525 FL2-19MAX0700 FL2-19MAX0875 FL2-19MAX1050 FL2-19MAX1400 FL2-19MAX1750

# Panel Accessories – 23-Inch Rack Mount Installation Kits

## Wide VCG Mount Kit

Allows for increased fiber capacity within the VCG.



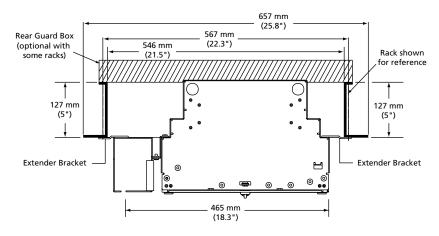
Wide VCG Mount Kit

Description	Panel Height	Catalog Number
Wide VCG mount kit Kit includes: VCG with integrated mounting holes	1.75" (1 RU) 3.5" (2 RU) 5.25" (3 RU) 7" (4 RU) 8.75" (5 RU) 10.5" (6 RU) 14" (8 RU) 17.5" (10 RU)	FL2-23VCG0175 FL2-23VCG0350 FL2-23VCG0525 FL2-23VCG0700 FL2-23VCG0875 FL2-23VCG1050 FL2-23VCG1400 FL2-23VCG1750

# Panel Accessories – 23-Inch Rack Mount Installation Kits

#### **Centered Mount Kit**

Allows for standard mounting in a 23-inch rack.



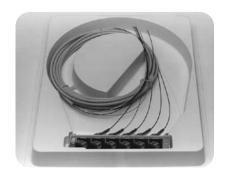
Centered Mount Kit

Description	Panel Height	Catalog Number
Centered mount kit (with extender brackets) This kit can be used with flush mount brackets to achieve 23" flush mounting, as well as 1", 2" or 4" recess mounting	1.75" (1 RU) 3.5" (2 RU) 5.25" (3 RU) 7" (4 RU) 8.75" (5 RU) 10.5" (6 RU) 14" (8 RU) 17.5" (10 RU)	FL2-EB0175P FL2-EB0350P FL2-EB0525P FL2-EB0700P FL2-EB0875P FL2-EB1050P FL2-EB1400P FL2-EB1750P

### 6pak Adapter — Adapters and Pigtails

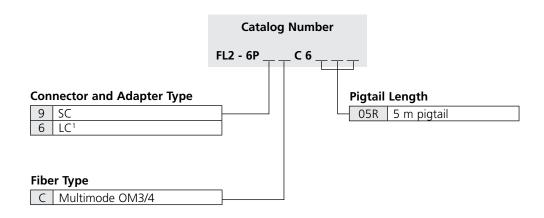
#### **Features**

- · Can be purchased and installed as growth necessitates
- · Available with preterminated three- or five-meter pigtails
- $\cdot$  Pigtails consist of a single outer jacket containing six color-coded 900  $\mu m$  fibers
- · One end of pigtail terminated with chosen connector style and installed into the 6pak adapters
- · Saves installation time



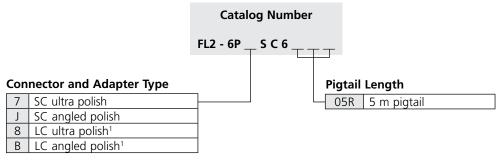
6pak Adapter (Shown with SC Adapters and Pigtails)

## Stranded Multimode Pigtails and Adapters



<sup>&</sup>lt;sup>1</sup> LC 6paks are loaded with 12-fiber pigtails

# Stranded Singlemode Pigtails and Adapters



<sup>&</sup>lt;sup>1</sup> LC 6paks are loaded with 12-fiber pigtails

## 6pak Adapter - Adapters only

#### **Features**

- Completely interchangeable between FL2000 panel, FL1000 rack and wall box products
- · Can be ordered with all standard types of adapters and connectors
- Feature CommScope's removable angled retainers which provide superior fiber management
- · No tools required to install into FL2000 and FL1000 products
- · Can be ordered with adapters only or for quick and easy installation, with preterminated three- or five-meter pigtails



Description	Catalog Number
Multimode SC LC*	FL2-6PMMSC FL2-6PMMLC FL2-6PMMSC-A for Aqua OM3/4 FL2-6PMMLC-A for Aqua OM3/4
Singlemode SC ultra polish SC angled polish LC ultra polish* LC angled polish*	FL2-6PSMSC FL2-6PSMASC FL2-6PSMLC FL2-6PSMALC
6pak blank plug-in	FL2-6PBLNK

<sup>\*</sup> LC 6pak adapter accommodates 12 LC connectors.



6pak Adapter (Shown with Singlemode Simplex Adapters)



6pak Adapter (Shown with Multimode Simplex Adapters)

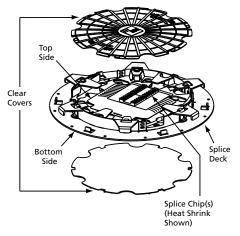


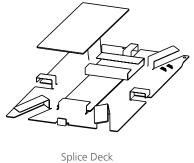
6pak Adapter Blank

# Splice Wheel and Splice Deck



Splice Wheel





Splice Wheel

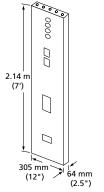
Description	Catalog Number
Splice wheel	
12 position splice tray Single fiber fusion	FST-DRS12-HS
12 position splice tray Bare fiber fusion	FST-DRS12-FT
12 ribbon position splice tray 12 fiber mass fusion	FST-DRS12-MT *
24 position splice tray single fiber fusion (For use when LC adapters loaded)	FST-DRS24-HS
Splice deck	
Heat shrink (single fiber fusion)	FL2-RSPLCE-HS
Bare fusion	FL2-RSPLCE-FT
Mechanical (mass fusion)	FL2-RSPLCE-MT*

<sup>\*</sup>For use with ribbon fiber

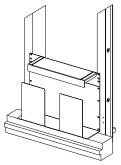
## Miscellaneous



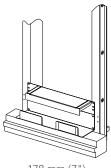
Locks



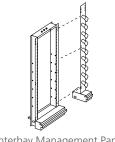
End Guard UEGP-7PW



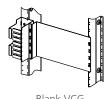
356 mm (14") Lower Cable Trough FL2-ACC011



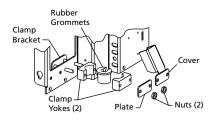
178 mm (7") Lower Cable Trough FL2-ACC012



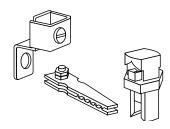
Interbay Management Panel E-501-L139



Blank VCG FL2-BLNKVCG1050



Cable Clamp Kit



Bonding/Grounding Kit

Description	Catalog Number
Lock Key lock #1; includes lock and key #1 Key lock #2; includes lock and key #2 Key lock #3; includes lock and key #3	IPA-K1 IPA-K2 IPA-K3
End guard (H x W x D) 2.14 m x 64 mm x 305 mm (7' x 2.5" x 12"); right or left side	UEGP-7PW
Interbay management panel 2.14 m x 127 mm (7' x 5") mounts to a standard (19" or 23" rack)	E-501-L139
Lower cable trough (H x W x D) 356 mm x 483 mm x 127 mm (14" x 19" x 5") 178 mm x 483 mm x 127 mm (7" x 19" x 5")	FL2-ACC011 FL2-ACC012
Bonding grounding kit: kit of 1	FL2-ACC006
Cable clamp kit: kit of 1 Outer diameter 5 mm to 20 mm (0.2" to 0.8")	FL2-ACC007
Cable clamp kit: kit of 1 for use with 12-fiber termination or termination/splice panels	FL2-ACC033
Blank VCG to add cable management to frame not fully loaded 10.5"	FL2-BLNKVCG1050

CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement.

We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow. Discover more at commscope.com

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