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NETKEY™ Network Solutions Overview

NETKEY Network Solutions provide a complete standards compliant infrastructure for voice, data and video applications. The universal mounting of keystone modules is compatible with a wide assortment of faceplates, surface mount boxes and modular patch panels. When teamed with complementary PANDUIT® products, the NETKEY solution covers all your needs from the telecommunications room to the workstation with the proven quality, high performance and reliability that professionals depend on from PANDUIT.

- World-class quality
- Reliable, high performance
- Upgradeable, keystone modular design
- Designed for lowest installed cost
- Standards compliant

Services and Supporting Program

CLIP PROGRAM

The Contractor Loyalty Incentive Program (CLIP) was developed to strengthen relationships and form alliances with valued contractors within the United States. Use *PANDUIT*® as your preferred vendor for connectivity, terminals, power connectors, cable ties, identification products, surface raceway, installation tooling and a host of related products, and earn credit towards *PANDUIT* tooling.

Benefits of being a CLIP participant include annual credit incentives, continuous training, potential project leads, alliance with a global, world-class wiring and communications manufacturer and exclusive promotions.

For more program details, go to www.panduit.com/clip or contact Customer Service at 800-777-3300.

NETKEY™ Copper Modules, Plugs and Patch Cords

A wide range of copper connectivity products for data, voice, audio and video have been designed around the versatile keystone housing. *NETKEY* Modules can be easily snapped in or out of *NETKEY* Faceplates, Surface Mount Boxes, Modular Furniture Faceplates, Modular Patch Panels, Multimedia Adapter Panels or other equipment with a standard keystone opening.

For Data and Voice applications:

- *NETKEY* Category 5e and 6 Copper Jack Modules meet TIA performance requirements and provide fast, consistent installations requiring no 110 punchdown installation tool

- *NETKEY* Category 3 Copper Jack Modules feature fast, consistent installations which require no 110 punchdown installation tool

- *PAN-PLUG*® RJ45 Plugs can be field installed to create user made patch cords up to Category 5e performance

- *NETKEY* Copper Patch Cords are available in a range of colors and lengths for Category 5e and Category 6 performance

For Audio/Video applications:

- F-Type and BNC coax keystone coupler modules

- S-video punchdown module for UTP copper cable

- RCA connector modules for audio and video applications

NETKEY™ Copper Modules, Plugs and Patch Cords

HORIZONTAL CABLE

1 Jack Module in Modular Patch Panel

2 Patch Cords

3 Modular Plug (For custom Patch Cords)
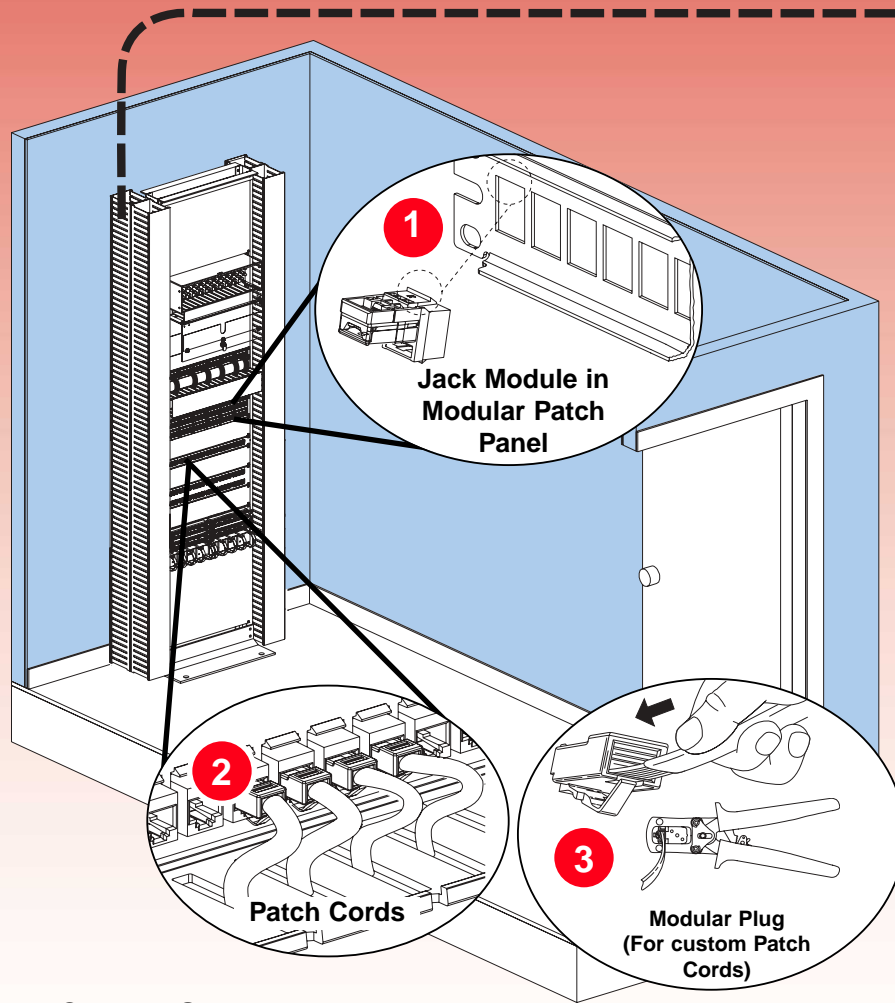
TELECOMMUNICATIONS ROOM

1 **Copper Modules (pages 8-11)**

All NETKEY Modules can be snapped in or out of NETKEY Faceplates, Surface Mount Boxes or Modular Patch Panels.
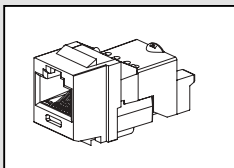
NETKEY Category 6 and 5e Jack Module
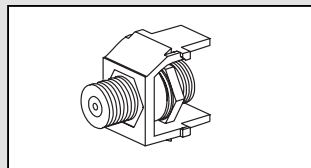
NETKEY F Type Coax Bulkhead Coupler Module
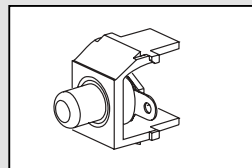
NETKEY RCA Solder Type Module
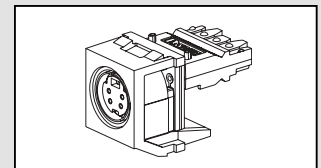
NETKEY S-Video Punchdown Module
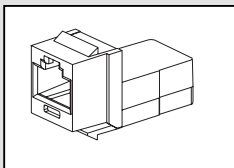
NETKEY Category 3 Jack Module
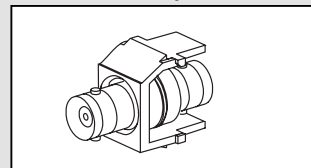
NETKEY 50 Ohm BNC Coax Coupler Module
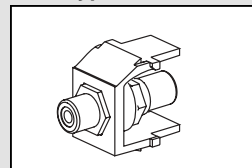
NETKEY RCA Pass Through Coupler Module
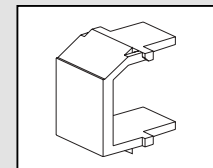
NETKEY Blank Module

HORIZONTAL CABLE

1

**Copper
Jack Module
in *NETKEY*™
Snap-On
Faceplate**
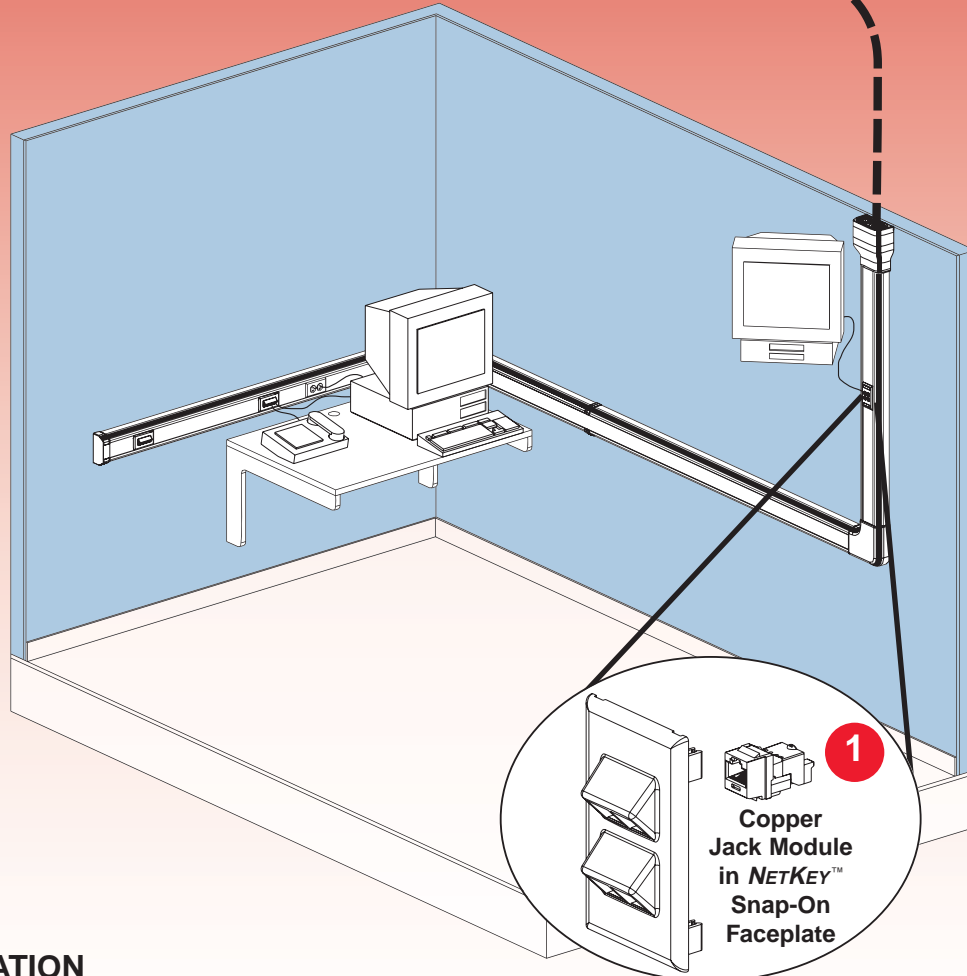
**WORKSTATION
AREA**

2 **Copper Patch Cords** *(pages 13-14)*
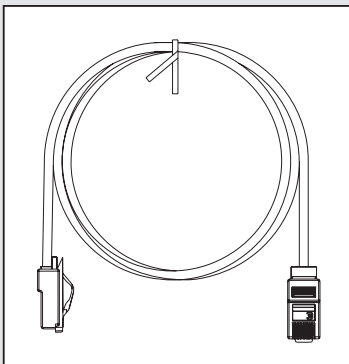
**Category 5e UTP Patch Cords
with unique tangle free plugs,
for use with *NETKEY* Category
5e components**

**Category 6 UTP Patch Cords
for use with *NETKEY*
Category 6 components**

3 **Copper Modular Plugs**
(page 12)
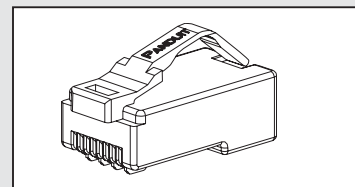
**Eight position, eight wire modular
plug for use with Category 5e or
3 cable and components;
unique tangle-free plug**

NETKEY™ Category 3, 5e and 6 Jack Modules ⓊⓁ ⓈⓅ

- No punchdown tool required, optional termination tool ensures conductors are fully terminated
- Terminate 4-pair 24 and 22 AWG solid and stranded unshielded twisted pair cable
- 8 position, 8 wire jack modules coded for T568-A and T568-B
- Meet or exceed all performance requirements including ACR, ELFEXT and Return Loss

- Color coded Category 3/5e sled or Category 6 termination cap indicates performance category
- Maintain twists of UTP cable ensuring optimal channel and link performance
- Compatible with NETKEY Faceplates, Surface Mount Boxes, Modular Modular Patch Panels, and Fiber Adapter Panel‡

NK388M

NK366UM

NK366M

NK5E88M

NK6TM

CJT

CGJT

Part Number	Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY Category 3 Universal Jack Module				
NK388MIW	Category 3 keystone universal eight position, eight wire jack module. Color coded for T568-A and T568-B wiring.	Off White*	1	50
NETKEY Category 3 Jack Module — USOC Coded 6 position, 6 wire				
NK366UMIW	Category 3 keystone six position, six wire jack module. Color coded for USOC wiring.	Off White*	1	50
NETKEY Category 3 Jack Module — 6 position, 6 wire				
NK366MIW	Category 3 keystone six position, six wire jack module.	Off White*	1	50
NETKEY Category 5e Universal Jack Module				
NK5E88MIW	Category 5e universal eight position, eight wire jack module. Termination Cap color coded for T568-A and T568-B wiring. Designates Category 5e Performance.	Off White**	1	50
NETKEY Category 6 Universal Jack Module				
NK6TMIW	Category 6 universal eight position, eight wire jack module. Termination Cap color coded for T568-A and T568-B wiring. Designates Category 6 Performance.	Off White**	1	50
NETKEY Category 3 and 5e Termination Tool				
CJT	Termination snap-tool assembles and terminates NETKEY Category 3 and 5e jack modules.	Black Only	1	10
NETKEY Category 6 Termination Tool				
CGJT	Termination snap-tool for NETKEY Category 6 jack module.	Black Only	1	10

‡ NETKEY modules are **NOT** compatible with PANDUIT® MINI-COM® Faceplates, Surface Mount Boxes, or Modular Patch Panels. Other colors available. See below.

*Standard color:	For other colors, substitute IW with:			
IW Off White	**EI** Elec. Ivory	**WH** White	**IG** Int. Gray	**BL** Black
Color shown is approximate.	Colors shown are approximate.			

**Standard color:	For other colors, substitute IW with:				
IW Off White	**EI** Elec. Ivory	**WH** White	**IG** Int. Gray	**BL** Black	**OR** Orange
Color shown is approximate.	**RD** Red	**BU** Blue	**GR** Green	**YL** Yellow	
	Colors shown are approximate.				

White Self Adhesive Labels* for Category 3, 5e and 6 Jack Modules

	Suggested Label Solutions for TIA/EIA-606-A Compliance		
	Desktop Printers	**Portable Printers**	**Label Size Width x Height In. (mm)**
	Laser/Inkjet	LS6	
Label Part Number	C138X019FJJ	C138X019FJ6	1.38" x 0.19" (34.9 x 4.8)

* For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).

Icons

• Provide identification of data and voice applications   • Snaps into select keystone jack modules

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
CIPIW-C	Plastic snap-in icon with phone image.	Off White	100	1000
CIDIW-C	Plastic snap-in icon with data image.	Off White	100	1000

*Other colors available. See below.

Cable Preparation Tools

Part Number	Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Wire Snipping Tool			
CWST	Copper wire snipping tool. Cuts wire flush up to 14 AWG. Ergonomic shape.	1	—
Wire Stripping Tool			
CJAST	Easy to use tool strips outer jacket of 4-pair UTP and ScTP cable, adjustable.	1	10

CWST

CJAST

*Standard color:	For other colors, substitute IW with:				
IW	EI	WH	IG	BL	OR
Off White	Elec. Ivory	White	Int. Gray	Black	Orange
Color shown is approximate.	RD	BU	GR	YL	VL
	Red	Blue	Green	Yellow	Violet
	Colors shown are approximate.				

NETKEY™ Audio/Video Modules

- Keystone modules with connectors for F-Type, BNC Coax, RCA connectors, and S-Video
- Blank keystone modules available for future expansion
- Designed to support audio and video applications
- Compatible with NETKEY Faceplates, Surface Mount Boxes, Modular Patch Panels and Adapter Panels‡

NKF

NKBNCM

NKRSMB

NKRSMR

NKRSMY

NKRSMW

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY F-Type Module				
NKFIW	Keystone module with 75 ohm industry standard F-Type coax bulkhead coupler.	Off White	1	10
NETKEY 50 Ohm BNC Coax Module				
NKBNCMIW	Keystone module with industry standard 50 ohm coax bulkhead coupler.	Off White	1	10
NETKEY RCA Solder Type Module — Black Insert				
NKRSMBIW	Keystone module supplied with one RCA solder type connector with black insert.	Off White	1	10
NETKEY RCA Solder Type Module — Red Insert				
NKRSMRIW	Keystone module supplied with one RCA solder type connector with red insert.	Off White	1	10
NETKEY RCA Solder Type Module — Yellow Insert				
NKRSMYIW	Keystone module supplied with one RCA solder type connector with yellow insert.	Off White	1	10
NETKEY RCA Solder Type Module — White Insert				
NKRSMWIW	Keystone module supplied with one RCA solder type connector with white insert.	Off White	1	10

‡NETKEY modules are **NOT** compatible with PANDUIT® MINI-COM® Faceplates, Surface Mount Boxes, or Modular Patch Panels. Other colors available. See below.

*Standard color:	For other colors, substitute IW with:			
IW	**EI**	**WH**	**IG**	**BL**
Off White	Elec. Ivory	White	Int. Gray	Black
Color shown is approximate.	Colors shown are approximate.			

NETKEY™ Audio/Video Modules (continued)

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY RCA Pass Through Module — Red Insert				
NKRTMRIW	Keystone module supplied with one RCA coupler with red insert.	Off White	1	10
NETKEY RCA Pass Through Module — Yellow Insert				
NKRTMYIW	Keystone module supplied with one RCA coupler with yellow insert.	Off White	1	10
NETKEY RCA Pass Through Module — White Insert				
NKRTMWIW	Keystone module supplied with one RCA coupler with white insert.	Off White	1	10
NETKEY S-Video Punchdown Module				
NKSPMIW	Keystone module with 110 style punchdown to SVHS connector.	Off White	1	10
S-Video Punchdown Base				
NKSPB	Base protects hand while terminating s-video module.	Black Only	1	10
NETKEY Blank Module				
NKBMIW-X	Blank keystone module to reserve space for future use.	Off White	10	50

NKRTMR

NKRTMY

NKRTMW

NKSPM

NKSPB

NKBM-X

‡*NETKEY* modules are **NOT** compatible with *PANDUIT® MINI-COM®* Faceplates, Surface Mount Boxes, or Modular Patch Panels.
Other colors available. See below.

*Standard color:	For other colors, substitute IW with:			
IW	EI	WH	IG	BL
Off White	Elec. Ivory	White	Int. Gray	Black
Color shown is approximate.	Colors shown are approximate.			

Eight Position Category 5e Modular Plugs

- Used to create field terminated patch cords up to Category 5e performance
- Simplifies termination due to unique process which requires no loading bar
- Unique tangle free latch prevents snags and provides easy release, saving time on frequent moves, adds and changes
- Exceeds FCC Part 68 and IEC 60603-07 specifications
- Contacts plated with 50 microinches of gold
- MPT5-8 crimp tool required for termination

MP588-L

WPT-8

MPT5-8

Part Number	Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Eight Position Modular Plug			
MP588-L	Eight position, eight wire modular plug for use with Category 5e, 5 or 3 cable and components. Unique tangle-free plug.	50	250
Wire Prep Tool for 8 Position Plugs			
WPT-8	Wire prep tool separates and holds conductors in position prior to insertion into plug for termination.	1	10
Modular Plug Crimp Tool			
MPT5-8	Crimp tool terminates 8 position plugs to UTP cable.	1	—

NETKEY™ Category 6 Patch Cords

• Features next generation stranded cable and enhanced performance modular plugs for superior performance
• Offered in a variety of lengths and colors
• Slender boot provided for added strain relief
• Tangle free feature virtually eliminates damage to latch caused by misuse
• 100% performance tested

Part Number	Description	Cable Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY **Category 6 Patch Cord — 3 ft.**				
UTPSP3	Category 6 UTP patch cord for use with NETKEY Category 6 components.	Off White	1	10
NETKEY **Category 6 Patch Cord — 5 ft.**				
UTPSP5	Category 6 UTP patch cord for use with NETKEY Category 6 components.	Off White	1	10
NETKEY **Category 6 Patch Cord — 7 ft.**				
UTPSP7	Category 6 UTP patch cord for use with NETKEY Category 6 components.	Off White	1	10
NETKEY **Category 6 Patch Cord — 10 ft.**				
UTPSP10	Category 6 UTP patch cord for use with NETKEY Category 6 components.	Off White	1	10
NETKEY **Category 6 Patch Cord — 14 ft.**				
UTPSP14	Category 6 UTP patch cord for use with NETKEY Category 6 components.	Off White	1	10
NETKEY **Category 6 Patch Cord — 20 ft.**				
UTPSP20	Category 6 UTP patch cord for use with NETKEY Category 6 components.	Off White	1	10

*For additional standard cable colors available from stock, add suffix BL (Black), BU (Blue), GR (Green) RD (Red) or YL (Yellow) to end of part number. For other cable colors VL (Violet) and OR (Orange), shipping lead time is 20 working days after receipt of order.
For non-standard lengths 3 to 20 feet (increments of 1 foot) change the length designation in the part number to the desired length.
Shipping lead time is 20 working days after receipt of order and minimum order quantity is 10 (1 carton each) for these lengths.

*Cable color:	For other colors, add suffix:				
	RD	BU	GR	YL	BL
Off White	Red	Blue	Green	Yellow	Black
Color shown is approximate.	Colors shown are approximate.				
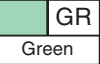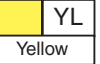
NETKEY™ Category 5e Patch Cords

- Unique tangle free latch prevents snags and provides easy release, saving time on frequent moves, adds and changes
- Exceeds FCC Part 68 and IEC 603-7 specifications
- Constructed of enhanced performance 24 AWG stranded UTP cable
- Contacts plated with 50 microinches of gold
- 100% performance tested

Part Number	Description	Cable Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY Category 5e Patch Cord — 3 ft.				
NK5EPC3	Category 5e UTP patch cord with unique tangle free plugs. For use with NETKEY Category 5e components.	Off White	1	10
NETKEY Category 5e Patch Cord — 5 ft.				
NK5EPC5	Category 5e UTP patch cord with unique tangle free plugs. For use with NETKEY Category 5e components.	Off White	1	10
NETKEY Category 5e Patch Cord — 7 ft.				
NK5EPC7	Category 5e UTP patch cord with unique tangle free plugs. For use with NETKEY Category 5e components.	Off White	1	10
NETKEY Category 5e Patch Cord — 10 ft.				
NK5EPC10	Category 5e UTP patch cord with unique tangle free plugs. For use with NETKEY Category 5e components.	Off White	1	10
NETKEY Category 5e Patch Cord — 14 ft.				
NK5EPC14	Category 5e UTP patch cord with unique tangle free plugs. For use with NETKEY Category 5e components.	Off White	1	10
NETKEY Category 5e Patch Cord — 20 ft.				
NK5EPC20	Category 5e UTP patch cord with unique tangle free plugs. For use with NETKEY Category 5e components.	Off White	1	10

*For additional standard cable colors available from stock, add suffix BL (Black), BU (Blue), GR (Green) RD (Red) or YL (Yellow) to end of part number. For other cable colors VL (Violet) and OR (Orange), shipping lead time is 20 working days after receipt of order. For non-standard lengths up to 20 feet (increments of 1 foot) change the length designation in the part number to the desired length. Shipping lead time is 20 working days after receipt of order and minimum order quantity is 10 (1 carton each) for these lengths.

*Cable color:

Off White

Color shown is approximate.

For other colors, add suffix:

RD	BU	GR	YL
Red	Blue	Green	Yellow

Colors shown are approximate.

White Self Adhesive Labels* for Patch Cords

Suggested Label Solutions for TIA/EIA-606-A Compliance			
	Desktop Printers	Portable Printers	Label Size Width x Height In. (mm)
	Laser/Inkjet	LS6	LS7	
Label Part Number	S100X125YAJ	S100X125VA6	—	1.00" x 1.25" (25.40 x 31.75)
	—	—	LS7-75NL-1	314.40" x 0.71" (7985.8 x 18.0)

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).

NETKEY™ Fiber Optic Adapter Modules, Connectors and Patch Cords

PANDUIT® offers a complete line of *NETKEY* Fiber Optic Adapter Modules, Connectors and Patch Cords featuring SC, ST and FJ® components for multimode and singlemode applications. Applications for *NETKEY* Fiber Optic Products include entrance facility cabling, backbone cabling between telecommunications rooms and fiber-to-the-desk.

- Adaptable system design provides flexibility for current and future network growth

- Compatible with *NETKEY* keystone products for complete modularity

- Fast, easy field installation of system components at the lowest installed cost

- Complete line of fiber connectivity to fit your specific network strategy

N*ET*K*EY*™ Fiber Optic Adapter Modules,

Backbone Cable

Horizontal Cable

1

Adapter Module in Patch Panel

All N*ET*K*EY* Adapter Modules can be snapped in or out of N*ET*K*EY* Faceplates, Surface Mount Boxes or Fiber Optic Adapter Panels.

2

Fiber Connectors

3

Patch Cords

TELECOMMUNICATIONS ROOM

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1 N*ET*K*EY* **Fiber Optic Adapter Modules and Panels (pages 25 and 62)**
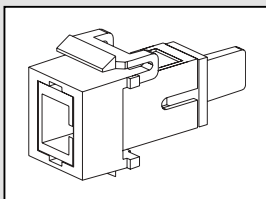
N*ET*K*EY* SC Simplex Keystone Adapter Module
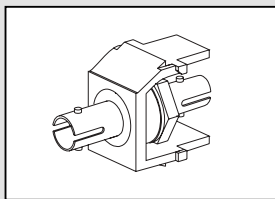
N*ET*K*EY* ST Simplex Keystone Adapter Module
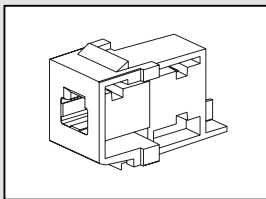
N*ET*K*EY* MT-RJ Multimode Keystone Adapter Module
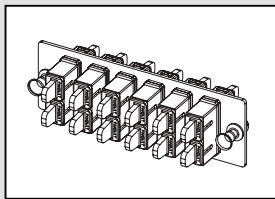
N*ET*K*EY* Fiber Optic Adapter Panels

2 **Fiber Optic Connectors (pages 20-22)**
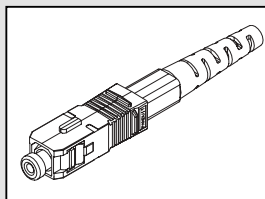
SC O*PTI*-C*RIMP*® Connectors — Multimode
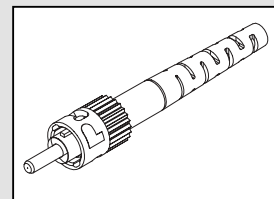
ST O*PTI*-C*RIMP* Connectors — Multimode
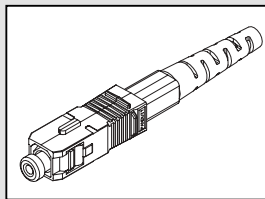
SC Field Polish Connectors — Singlemode and Multimode
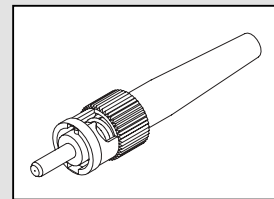
ST Field Polish Connectors — Singlemode and Multimode

Connectors and Patch Cords

6 Port
NETKEY
Surface
Mount
Box with
Fiber Spool
and *NETKEY*
FJ ® **Duplex**
Jack Modules
recommended
at Workstation
Outlet

2

2

2

2

***NETKEY* FJ Duplex**
Jack Module
in *NETKEY*
Snap-On Faceplate
recommended at
Work Area Outlet

WORKSTATION
AREA

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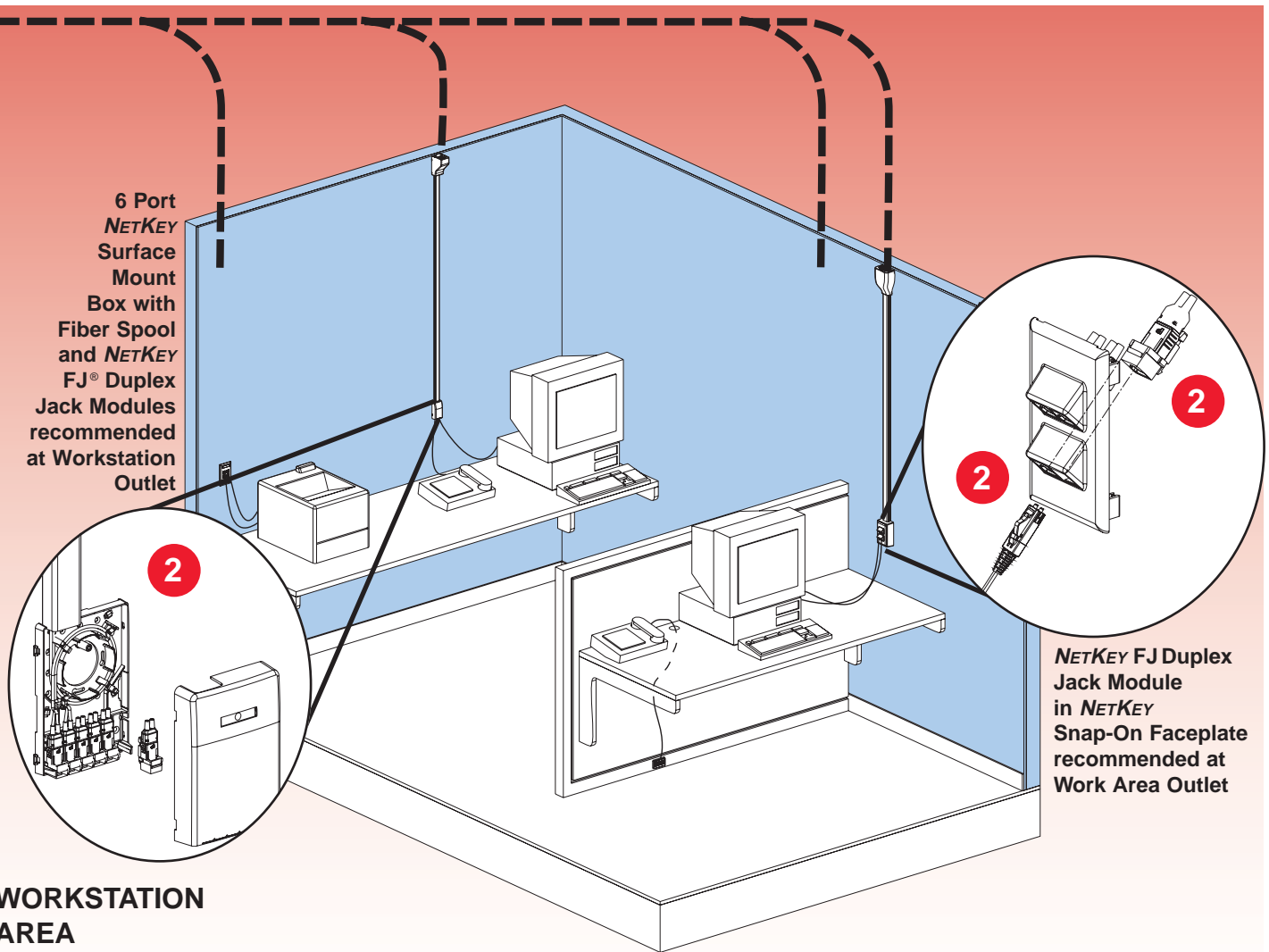
2 ***NETKEY* FJ Duplex Jack Modules and Plugs**
(pages 18-19)

OPTI-CRIMP ® **Termination Kit FJMVKIT**
on page 23.

Field Polish Termination Kit FJKITG
on page 24.
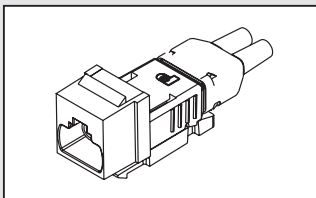
***NETKEY* FJ *OPTI-CRIMP* Jack**
Modules — Multimode
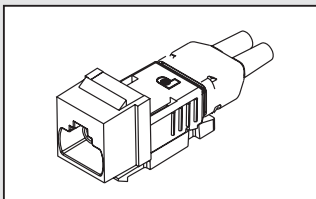
***NETKEY* FJ Field Polish Jack**
Modules — Singlemode and Multimode
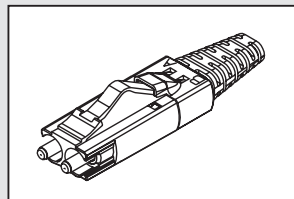
***NETKEY* FJ Field Polish Plugs —**
Singlemode and Multimode

3 ***NETKEY* Fiber Optic Patch Cords**
(pages 26-28)
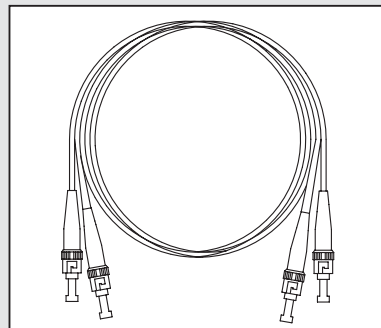
***NETKEY* Multimode 62.5/125μm**
Patch Cords
***NETKEY* Multimode 50/125μm**
Patch Cords
***NETKEY* Singlemode 9/125μm**
Patch Cords

NETKEY™ FJ® Duplex Jack Modules and Plugs

- FOCIS-6 TIA/EIA-568-B.3 compliant connectors
- RJ45 small form factor duplex jack module — double the port density in one module space
- Robust design protects fibers from mechanical and environmental stress
- Non-optical disconnect maintains data transmission under tensile loads
- Keystone module snaps into all keystone telecommunications room products and work area outlets
- NETKEY FJ Duplex Fiber Optic Jack Modules are commonly used with NETKEY Faceplates, Surface Mount Boxes and Patch Panels

- To comply with industry standards, the cover and the boots are blue for all singlemode connectors and electric ivory for all multimode connectors
- Maintains fixed orientation versus simplex connectors
- Each duplex jack module includes housing, cover, two ferrule assemblies, two crimp sleeves, one boot for 900µm tight-buffered fiber, one boot for 3mm jacketed cable and one dust cap
- Each duplex plug includes housing, insert, two ferrule assemblies, two crimp sleeves, one boot for 3mm jacketed cable and two dust caps

NETKEY FJ OPTI-CRIMP® Duplex Jack Module Performance

- Mechanical crimp termination consistently provides higher than industry standard cable retention
- Pre-polished fiber stub eliminates polishing and adhesive, reducing installation time by 70% over standard FJ connectors
- FJ OPTI-CRIMP Jack Modules and crimp tool allow visual verification of optimal continuity during crimp termination with the FVFLKIT Visual Fault Locator Kit (included in FJMVKIT Termination Kit)
- Use OPTI-CRIMP Termination Kit (FJMVKIT) on
- Insertion loss: 0.3dB typical (62.5/125µm), 0.35dB typical (50/125µm)
- Return loss: >20dB
- Fiber cable type: Tight-buffered only
- Fiber cable size: 3.0mm jacketed cable or 900µm tight-buffered fiber
- Ferrule type: 2.5mm zirconia ceramic (highest durability for repeated matings)

NKMOJOC62EI

Part Number	Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY FJ OPTI-CRIMP Multimode Duplex Fiber Optic Jack Module — Pre-Polished Crimp				
NKMOJOC62EI	NETKEY FJ OPTI-CRIMP 62.5/125µm multimode duplex keystone jack module with phosphor bronze split sleeves.	Electric Ivory	1	10
NKMOJOC50EI	NETKEY FJ OPTI-CRIMP 50/125µm multimode duplex keystone jack module with phosphor bronze split sleeves.	Electric Ivory	1	10

‡NETKEY modules are **NOT** compatible with PANDUIT® MINI-COM® Faceplates, Surface Mount Boxes, or Modular Patch Panels.

NETKEY™ FJ® Field Polish Jack Module and Plug Performance

- Field polish termination utilizes familiar pot and polish procedure
- _PANDUIT_® recommends anaerobic adhesive on
- Use Field Polish Termination Kit (FJKITG) on
- Insertion loss: 0.10dB typical (multimode), 0.2dB typical (singlemode)
- Return loss: >20dB (multimode), >40dB (singlemode)
- Fiber cable type: Tight-buffered recommended
- Fiber cable size: 3.0mm jacketed cable or 900µm tight-buffered fiber
- Ferrule type: 2.5mm zirconia ceramic (highest durability for repeated matings)
- Duplex Fiber Optic Jack Modules are commonly used with _NETKEY_ Faceplates, Surface Mount Boxes and Patch Panels

NKMOJEI

NKSOJBU

NKMOPEI

NKSOPBU

Part Number	Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY FJ Duplex Fiber Optic Jack Modules — Field Polish				
NKMOJEI	_NETKEY_ FJ multimode duplex keystone jack module with phosphor bronze split sleeves — 62.5/125µm or 50/125µm fiber.	Electric Ivory	1	10
NKSOJBU	_NETKEY_ FJ singlemode duplex keystone jack module with zirconia ceramic split sleeves.	Blue	1	10
NETKEY FJ Duplex Fiber Optic Plugs — Field Polish				
NKMOPEI	_NETKEY_ FJ multimode duplex plug — 62.5/125µm or 50/125µm fiber.	Electric Ivory	1	10
NKSOPBU	_NETKEY_ FJ singlemode duplex plug.	Blue	1	10

‡_NETKEY_ modules are **NOT** compatible with _PANDUIT MINI-COM_® Faceplates, Surface Mount Boxes, or Modular Patch Panels.

White Self Adhesive Labels* for _NETKEY_ FJ Duplex Jack Modules

	Suggested Label Solutions for TIA/EIA-606-A Compliance		
	Desktop Printers	**Portable Printers**	**Label Size Width x Height In. (mm)**
	Laser/Inkjet	LS6	
Label Part Number	C138X019FJJ	C138X019FJ6	1.38" x 0.19" (34.9 x 4.8)

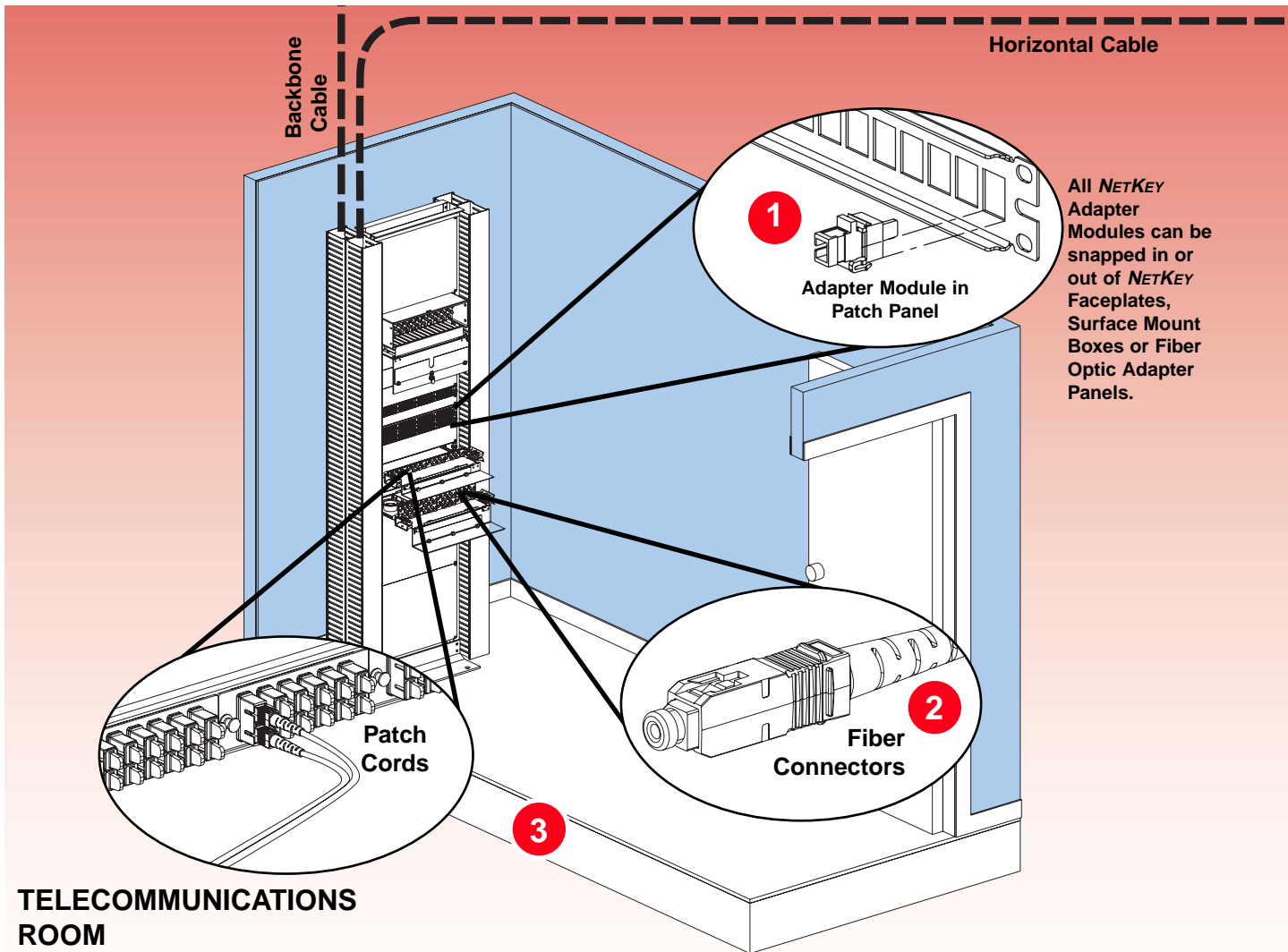*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).

SC and ST *OPTI-CRIMP®* Multimode Fiber Optic Connectors

- Mechanical crimp termination consistently provides higher than industry standard cable retention
- Pre-polished fiber stub eliminates polishing and adhesive, reducing installation time by 50% over standard SC and ST connectors
- SC and ST *OPTI-CRIMP* Connectors and crimp tool allow visual verification of optimal continuity during crimp termination with the FVFLKIT Visual Fault Locator Kit (included in FJMVKIT Termination Kit)

- Use *OPTI-CRIMP* Termination Kit (FJMVKIT) on page 23
- Compliant with TIA/EIA-568-B.3 performance requirements
- Fiber cable type: Tight-buffered only
- Fiber cable size: 3.0mm jacketed cable or 900µm tight-buffered fiber
- Ferrule type: 2.5mm zirconia ceramic (highest durability for repeated matings)

SC *OPTI-CRIMP* Connector Performance

- FOCIS-3 TIA/EIA-568-B.3 compliant connectors
- Insertion loss: 0.3dB typical (62.5/125µm), 0.35dB typical (50/125µm)
- Return loss: >20dB
- Non-optical disconnect maintains data transmission under tensile loads (jacketed cable only)
- Each SC *OPTI-CRIMP* Connector includes transparent inner housing assembly with pre-polished fiber stub, outer housing, crimp sleeve, one boot for 900µm tight-buffered fiber, one boot for 3mm jacketed fiber and one dust cap

FSCMMBL

FSCMMRD
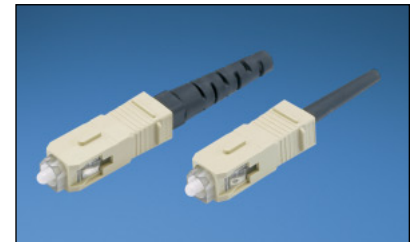
Part Number	Description	Boot Color	Std. Pkg. Qty.	Std. Ctn. Qty.
SC *OPTI-CRIMP* Multimode Fiber Optic Connectors — Pre-Polished Crimp				
FSCMMBL	SC *OPTI-CRIMP* 62.5/125µm multimode connector.	Black	1	10
FSCMMRD	SC *OPTI-CRIMP* 62.5/125µm multimode connector.	Red	1	10
FSCMM50BL	SC *OPTI-CRIMP* 50/125µm multimode connector.	Black	1	10
FSCMM50RD	SC *OPTI-CRIMP* 50/125µm multimode connector.	Red	1	10

ST *OPTI-CRIMP* Connector Performance

- FOCIS-2 TIA/EIA-568-B.3 compliant connectors
- Insertion loss: 0.3dB typical (62.5/125µm), 0.35dB typical (50/125µm)
- Return loss: >20dB

- Each ST *OPTI-CRIMP* Connector includes connector body/ferrule assembly with pre-polished fiber stub, spring, bayonet, crimp sleeve, one boot for 900µm tight-buffered fiber, one boot for 3mm jacketed cable and one dust cap

FSTMMBL

FSTMMRD

Part Number	Description	Boot Color	Std. Pkg. Qty.	Std. Ctn. Qty.
ST *OPTI-CRIMP* Multimode Fiber Optic Connectors — Pre-Polished Crimp				
FSTMMBL	ST *OPTI-CRIMP* 62.5/125µm multimode connector.	Black	1	10
FSTMMRD	ST *OPTI-CRIMP* 62.5/125µm multimode connector.	Red	1	10
FSTMM50BL	ST *OPTI-CRIMP* 50/125µm multimode connector.	Black	1	10
FSTMM50RD	ST *OPTI-CRIMP* 50/125µm multimode connector.	Red	1	10

SC and ST Field Polish Fiber Optic Connectors

- Field polish termination utilizes familiar pot and polish procedure
- *PANDUIT*® recommends anaerobic adhesive on
- Use Field Polish Termination Kit (FJKITG) on
- Compliant with TIA/EIA-568-B.3 performance requirements
- Fiber cable type: Tight-buffered recommended

- Fiber cable size: 3.0mm jacketed cable or 900µm tight-buffered fiber
- Ferrule type: 2.5mm zirconia ceramic (highest durability for repeated matings)
- Each connector comes with a 3mm boot and a 900µm boot

SC Field Polish Connector Performance

- FOCIS-3 TIA/EIA-568-B.3 compliant connectors
- Insertion loss: 0.10dB typical (multimode), 0.15dB typical (singlemode)
- Return loss: >20dB (multimode), >40dB (singlemode)
- Pre-assembled inner housing simplifies assembly
- Non-optical disconnect maintains data transmission under tensile loads (jacketed cable only)
- Free floating housing ensures complete latching even when inserted by the boot, especially in high density spacing applications
- High temperature thermoplastic design allows the use of high glass transition temperature epoxies (with cure temperatures up to 150°C)
- Flammability rating meets Telcordia GR-326-CORE, Issue 3
- Each SC Connector includes inner housing assembly, outer housing, crimp sleeve, one boot for 900µm buffered fiber, one boot for 3mm jacketed cable and one dust cap

Part Number	Description	Boot Color	Std. Pkg. Qty.	Std. Ctn. Qty.
SC Multimode Fiber Optic Connectors — Field Polish				
FSCMBL	SC multimode fiber optic connector — 62.5/125µm or 50/125µm fiber.	Black	1	10
FSCMRD	SC multimode fiber optic connector — 62.5/125µm or 50/125µm fiber.	Red	1	10
SC Singlemode Fiber Optic Connectors — Field Polish				
FSCSBU	SC singlemode fiber optic connector.	Blue	1	10

FSCMBL

FSCMRD

FSCSBU

ST Field Polish Connector Performance

• FOCIS-2 TIA/EIA-568-B.3 compatible connectors
• Insertion loss: 0.15dB typical (multimode), 0.20dB typical (singlemode)
• Return loss: >20dB (multimode), >40dB (singlemode)
• Each ST Connector includes metal connector body/ferrule assembly,
  spring, metal bayonet, crimp sleeve, one boot for 900µm tight-buffered
  fiber, one boot for 3mm jacketed cable and one dust cap

FSTMABL

FSTMARD

FSTSABU
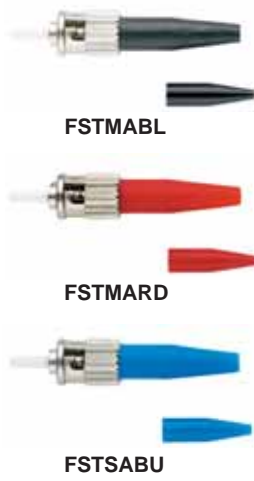
Part Number	Description	Boot Color	Std. Pkg. Qty.	Std. Ctn. Qty.
ST Multimode Fiber Optic Connectors — Field Polish				
FSTMABL	ST multimode fiber optic connector — 62.5/125µm or 50/125µm fiber.	Black	1	10
FSTMARD	ST multimode fiber optic connector — 62.5/125µm or 50/125µm fiber.	Red	1	10
ST Singlemode Fiber Optic Connectors — Field Polish				
FSTSABU	ST singlemode fiber optic connector.	Blue	1	10

Fiber Optic Termination Kits and Components

OPTI-CRIMP® Fiber Optic Termination Kit — Pre-Polished Crimp

- For *PANDUIT*® pre-polished crimp connector termination
- No adhesive or electricity required for termination
- Includes FVFLKIT Visual Fault Locator Kit that provides visual verification of optimal continuity between the field fiber and the pre-polished fiber stub during crimp termination
- Includes non-consumable and consumable components
- Also includes strippng templates for *PANDUIT OPTI-CRIMP* connectors and FJ® *OPTI-CRIMP* duplex jack modules

FJMVKIT

Part Number	Part Description	Std. Pkg. Qty.
FJMVKIT	Includes all tools and consumables necessary for termination of SC, ST and FJ *OPTI-CRIMP* multimode connectors and jack modules (also includes FVFLKIT Visual Fault Locator Kit).	1

Components for *OPTI-CRIMP* Fiber Optic Termination Kit (FJMVKIT)

FVFLKIT

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Non-Consumables			
CST115	Plier nose wire stripper for #20 thru #10 AWG solid wire.	1	—
FALC	Alcohol bottle.	1	10
FBFSP	Fiber buffer stripper.	1	10
FGLS	Safety glasses.	1	10
FJQCVR	Fiber cleaver tool.	1	10
FKC	Fiber cable strength member scissors.	1	10
FSCDVR	Screwdriver.	1	50
FCRP5	Universal crimp tool (hex sizes: .048", .100", .128", .151", .190").	1	—
FVFLKIT	Visual fault locator kit (includes visual fault locator, patch cord, batteries and instructions).	1	—
Consumables			
FST	Safety stickers for fiber scraps.	1	10
FWP-C	Cloth wipes.	100	1000
PFX-0	Permanent marking pen, fine tip.	12	144
Replacement Parts			
FJQCVRB	Replacement blade for FJQCVR.	1	10
CD-FCRP5	FCRP5 die set.	1	—
FVFL	Visual fault locator (includes batteries and instructions).	1	—
FVFLPC	Patch cord for FVFL visual fault locactor (1 meter long).	1	10

Field Polish Fiber Optic Termination Kit

- For *PANDUIT*® field polish connector termination
- Fast acting adhesive; no electricity required for termination
- Kit provides consumables for terminating up to 100 field polish connectors
- Includes non-consumable and consumable components
- Also includes stripping templates for *PANDUIT* field polish connectors and FJ® Duplex Jack Modules and Plugs

FJKITG

Part Number	Part Description	Std. Pkg. Qty.
Field Polish Termination Kit		
FJKITG	Includes tools and consumables necessary for termination of 2.5mm ferrule field polish multimode connectors (FJ Duplex Jack Modules and Plugs, SC and ST). Also terminates 2.5mm ferrule singlemode connectors.	1
Refurbishment Kit for FJKITG		
FJKITG-RFB	Consumables refurbishment kit. Includes all of the same consumable items in the same quantities as FJKITG.	1

Components for Field Polish Fiber Optic Termination Kit (FJKITG)

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Non-Consumables			
CST115	Plier nose wire stripper for #20 thru #10 AWG solid wire.	1	—
FALC	Alcohol bottle.	1	10
FBFSP	Fiber buffer stripper.	1	10
FBFSPM^	Miller fiber cable buffer stripper.	1	10
FCRP5	Universal crimp tool (hex sizes: .48", .100", .128", .151", .190").	1	—
FCVR	Fiber cleaver.	1	10
FGLS	Safety glasses.	1	10
FJPKGU	Universal polishing puck.	1	10
FKC	Fiber cable strength member scissors.	1	10
FPAD	Fiber polishing pad.	1	10
FSCDVR	Screwdriver.	1	50
FSCP	Fiber inspection microscope.	1	—
FTWZR	Tweezers.	1	10
FWBTL	Water bottle.	1	10
Consumables			
FJPMR	Primer.	1	10
FJPXY	Anaerobic adhesive (10ml).	1	10
FPP1-L	1µm polishing paper (AL_2O_3).	50	250
FPP5-L	5µm polishing paper (AL_2O_3).	50	250
FPF1-V	Singlemode polishing film — 1µm diamond.	5	10
FLCFPLF-X	Singlemode 0.05µm Lapping Film.	10	—
FSWB-C	Cleaning swabs.	100	1000
FST	Safety stickers for fiber scraps.	1	10
FSYR-X	Syringes with needle tips.	10	50
FWP-C	Cloth wipes.	100	1000
PFX-0	Permanent marking pen.	12	44

^Not included in FJKITG or FJKITG-RFB.

SC, ST and MT-RJ Adapter Modules

- Robust designs meet TIA/EIA-568-B.3 performance requirements
- SC and ST Adapter Modules are compliant with TIA-FOCIS requirements
- MT-RJ Adapter Modules are compatible with TIA-FOCIS requirements
- Keystone module design can be used in all keystone telecommunications room products and work area outlets
- Modules available in multiple colors — allows color-coding for network segregation
- Simplex Fiber Optic Adapter Modules are commonly used with *NETKEY™* Patch Panels‡
- Duplex Fiber Optic Adapter Modules are commonly used with *NETKEY* Faceplates and Surface Mount Boxes‡

NKSCM

NKSTM

NKMJM

Part Number	Description	No. of Module Spaces	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY SC Simplex Fiber Optic Adapter Module					
NKSCMIW	Keystone module supplied with one SC multimode simplex adapter with phosphor bronze split sleeve.	1	Off White	1	10
NETKEY ST Simplex Fiber Optic Adapter Module					
NKSTMIW	Keystone module supplied with one ST multimode simplex adapter with phosphor bronze split sleeve.	1	Off White	1	10
NETKEY MT-RJ Multimode Duplex Fiber Optic Adapter Module					
NKMJMIW	MT-RJ multimode duplex keystone adapter module.	1	Off White	1	10

‡*NETKEY* modules are **NOT** compatible with *PANDUIT® MINI-COM®* Faceplates, Surface Mount Boxes, or Modular Patch Panels.
Other colors available. See below.

*Standard color:	**For other colors, substitute IW with:**			
IW	EI	WH	IG	BL
Off White	Elec. Ivory	White	Int. Gray	Black
Color shown is approximate.	**Colors shown are approximate.**			

NETKEY™ Fiber Optic Patch Cords

Multimode 62.5/125µm and 50/125µm Fiber Optic Patch Cords

- Designed and tested to pass all TIA/EIA-568-B.3 performance requirements
- Insertion loss per connection: 0.10dB typical; 0.30dB maximum
- 100% factory tested for insertion loss
- Insertion loss data recorded for every multimode patch cord
- Lifetime traceability of test data to a Q.C. number on each patch cord
- Highest quality flame retardant fiber optic cable with tight-buffered coating on each optical fiber
- SC Duplex Patch Cords include SC Duplex Clips to maintain polarity

Singlemode 9/125µm Fiber Optic Patch Cords

- Passes all TIA/EIA-568-B.3 performance requirements
- 100% factory inspected end face geometry in compliance with Telcordia GR-326-CORE, Issue 3
- Typical insertion loss per connection: 0.25dB
- UPC polished (55dB min. Return Loss)
- 100% factory tested and inspected for insertion loss and return loss
- Insertion loss and return loss data recorded for every singlemode patch cord
- Lifetime traceability of test data to a Q.C. number on each patch cord
- Highest quality flame retardant fiber optic cable with tight-buffered coating on each optical fiber

LABELCORE™ Fiber Optic Cable Identification System

- Made of flexible PVC material
- Provides a larger labeling surface on small cables allowing legends to be clearly seen
- Locate on straight section of cable at least 2" from fiber boot
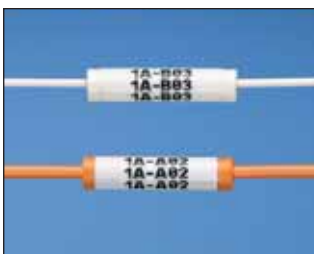
Part Number	Description	Std. Pkg. Qty.	Std. Ctn. Qty.
NWSLC-3	Orange cable identification sleeve, 3mm simplex cable.	100	1000
NWSLC-7	White cable identification sleeve, 3mm duplex cable.	100	1000

*Order number of sleeves required.

Self-Laminating Labels* for LABELCORE Fiber Optic Cable Identification System

Apply LABELCORE Sleeve to cable

Wrap self-laminating label around LABELCORE Sleeve

Suggested Label Solutions for TIA/EIA-606-A Compliance			
LABELCORE Sleeve Part Number	Desktop Printers	Portable Printers	
	Laser/Inkjet	LS6	LS7
NWSLC-3	S100X160YAJ	S100X160VA6	LS7-75NL-1
NWSLC-7	S100X220YAJ	S100X220VA6	LS7-75NL-1

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).

NETKEY™ Fiber Optic Patch Cords (continued)

Multimode 62.5/125µm and 50/125µm Fiber Optic Patch Cords
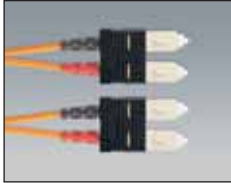
Part Number	Description	Length (m)	Std. Pkg. Qty.	Std. Ctn. Qty.
SC to SC Multimode Duplex Patch Cords — 3mm Jacketed Cable				
F6D3-3M1	SC to SC multimode duplex patch cord, 3mm jacketed cable (one duplex SC connector on each end) — 62.5/125µm.	1	1	10
F6D3-3M2		2	1	10
F6D3-3M3		3	1	10
F6D3-3M5		5	1	10

For 50/125µm cable, substitute F5 for F6 in the part number.

Part Number	Description	Length (m)	Std. Pkg. Qty.	Std. Ctn. Qty.
ST to ST Multimode Duplex Patch Cords — 3mm Jacketed Cable				
F6D2-2M1	ST to ST multimode duplex patch cord, 3mm jacketed cable (two ST connectors on each end) — 62.5/125µm.	1	1	10
F6D2-2M2		2	1	10
F6D2-2M3		3	1	10

For 50/125µm cable, substitute F5 for F6 in the part number.

Part Number	Description	Length (m)	Std. Pkg. Qty.	Std. Ctn. Qty.
ST to SC Multimode Duplex Patch Cords — 3mm Jacketed Cable				
F6D2-3M1	ST to SC multimode duplex patch cord, 3mm jacketed cable (two ST connectors on one end and one duplex SC connector on the other end) — 62.5/125µm.	1	1	10
F6D2-3M2		2	1	10
F6D2-3M3		3	1	10

For 50/125µm cable, substitute F5 for F6 in the part number.

Part Number	Description	Length (m)	Std. Pkg. Qty.	Std. Ctn. Qty.
FJ® Plug to FJ Plug Multimode Duplex Patch Cords — 3mm Jacketed Cable				
F6D6P-6PM1	FJ plug to FJ plug multimode duplex patch cord, 3mm jacketed cable (one FJ plug on each end) — 62.5/125µm.	1	1	10
F6D6P-6PM2		2	1	10
F6D6P-6PM3		3	1	10

For 50/125µm cable, substitute F5 for F6 in the part number.

Part Number	Description	Length (m)	Std. Pkg. Qty.	Std. Ctn. Qty.
FJ Plug to SC Multimode Duplex Patch Cords — 3mm Jacketed Cable				
F6D6P-3M1	FJ plug to SC multimode duplex patch cord, 3mm jacketed cable (one FJ plug on one end and one duplex SC connector on the other end) — 62.5/125µm.	1	1	10
F6D6P-3M2		2	1	10
F6D6P-3M3		3	1	10

For 50/125µm cable, substitute F5 for F6 in the part number.

Part Number	Description	Length (m)	Std. Pkg. Qty.	Std. Ctn. Qty.
FJ Plug to ST Multimode Duplex Patch Cords — 3mm Jacketed Cable				
F6D6P-2M1	FJ plug to ST multimode duplex patch cord, 3mm jacketed cable (one FJ plug on one end and two ST connectors on the other end) — 62.5/125µm.	1	1	10
F6D6P-2M2		2	1	10
F6D6P-2M3		3	1	10

For 50/125µm cable, substitute F5 for F6 in the part number.

NETKEY™ **Fiber Optic Patch Cords (continued)**

Singlemode 9/125µm Fiber Optic Patch Cords
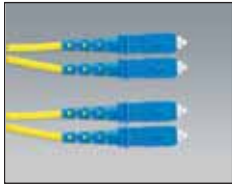
Part Number	Description	Length (m)	Std. Pkg. Qty.	Std. Ctn. Qty.
SC to SC Singlemode Duplex Patch Cords — 3mm Jacketed Cable				
F9D3-3M1	SC to SC singlemode duplex patch cord, 3mm jacketed cable (two SC connectors on each end) — 9/125µm.	1	1	10
F9D3-3M2		2	1	10
F9D3-3M3		3	1	10
F9D3-3M5		5	1	10
F9D3-3M10		10	1	10
ST to ST Singlemode Duplex Patch Cords — 3mm Jacketed Cable				
F9D2-2M1	ST to ST singlemode duplex patch cord, 3mm jacketed cable (two ST connectors on each end) — 9/125µm.	1	1	10
F9D2-2M2		2	1	10
F9D2-2M3		3	1	10
ST to SC Singlemode Duplex Patch Cords — 3mm Jacketed Cable				
F9D2-3M1	ST to SC singlemode duplex patch cord, 3mm jacketed cable (two ST connectors on one end and two SC connectors on the other end) — 9/125µm.	1	1	10
F9D2-3M2		2	1	10
F9D2-3M3		3	1	10
FJ® Plug to FJ Plug Singlemode Duplex Patch Cords — 3mm Jacketed Cable				
F9D6P-6PM1	FJ plug to FJ plug singlemode duplex patch cord, 3mm jacketed cable (one FJ plug on each end) — 9/125µm.	1	1	10
F9D6P-6PM2		2	1	10
F9D6P-6PM3		3	1	10
FJ Plug to SC Singlemode Duplex Patch Cords — 3mm Jacketed Cable				
F9D6P-3M1	FJ plug to SC singlemode duplex patch cord, 3mm jacketed cable (one FJ plug on one end and two SC connectors on the other end) — 9/125µm.	1	1	10
F9D6P-3M2		2	1	10
F9D6P-3M3		3	1	10
SC to SC Singlemode Simplex Patch Cords — 3mm Jacketed Cable				
F9S3-3M1	SC to SC singlemode simplex patch cord, 3mm jacketed cable (one SC connector on each end) — 9/125µm.	1	1	10
F9S3-3M2		2	1	10
F9S3-3M3		3	1	10
F9S3-3M5		5	1	10
F9S3-3M10		10	1	10

NETKEY™ Faceplates, Modular Furniture Faceplates and Surface Mount Boxes

NETKEY Outlet Products feature a selection of flush mount and sloped communication faceplates, furniture faceplates and surface mount boxes. These products provide a broad range of solutions that are easily installed and offer absolute modularity. All products provide an aesthetically pleasing solution that will compliment all types of work areas (office, schools, factories, etc.)

- Completely modular, accepting all *NETKEY* Modules for copper, fiber, coax and audio video applications

- Superior design provides lower profile, higher density outlet products, creating a cost effective solution for easy moves, adds and changes

- Outlet solutions consist of a variety of faceplate styles and port densities, as well as surface mount boxes

- *ULTIMATE ID*™ *NETKEY* Faceplates provide a clean and efficient way to label according to TIA/EIA-606-A Standard

NETKEY™ Faceplates, Modular Furniture Faceplates and Surface Mount Boxes
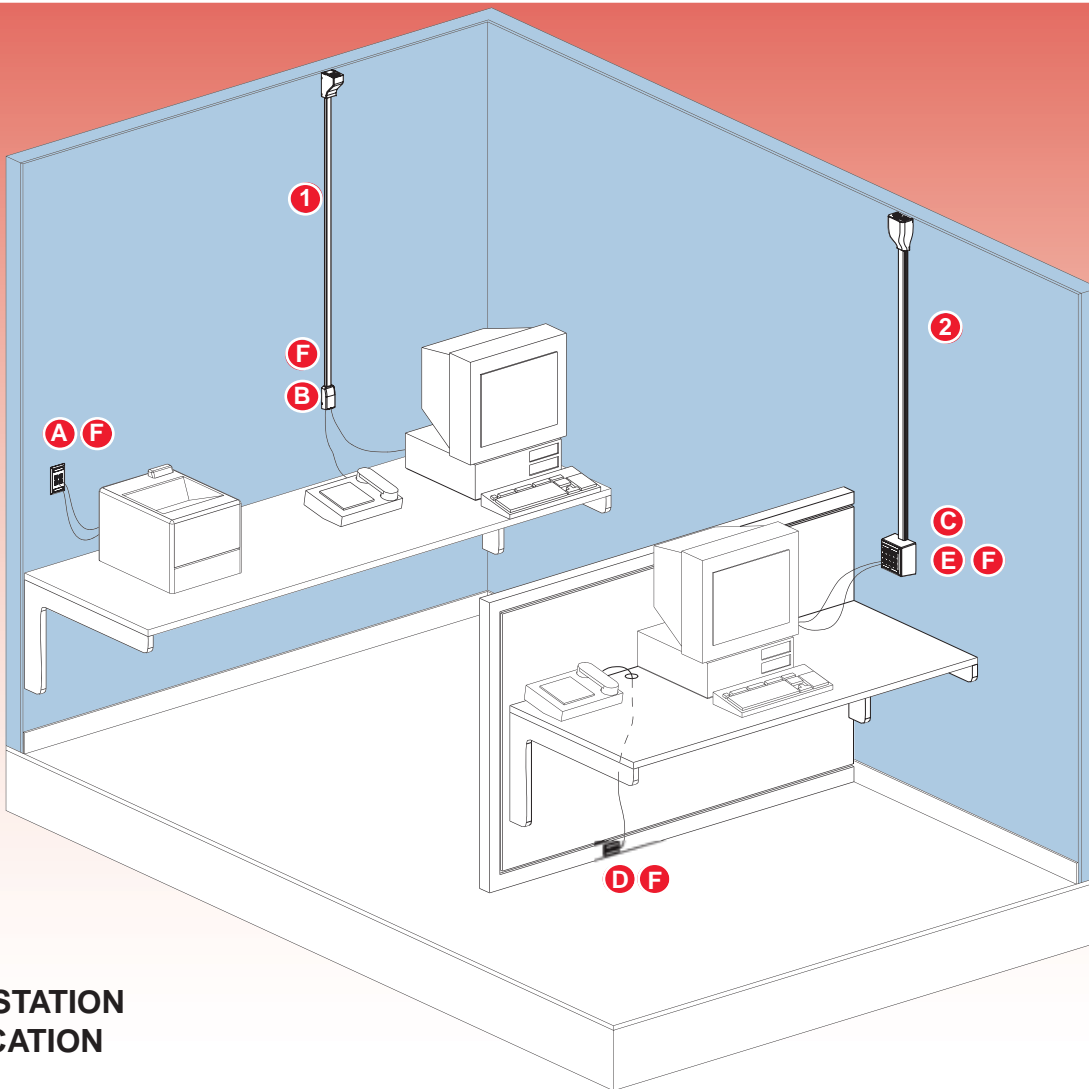
WORKSTATION APPLICATION

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① **②**
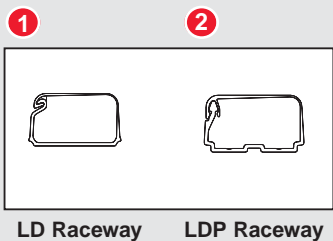
LD Raceway **LDP Raceway**

NETKEY **Faceplates, Modular Furniture Faceplates and Surface Mount Boxes** _(pages 35-42)_

Ⓐ **Ⓑ** **Ⓒ** **Ⓓ**
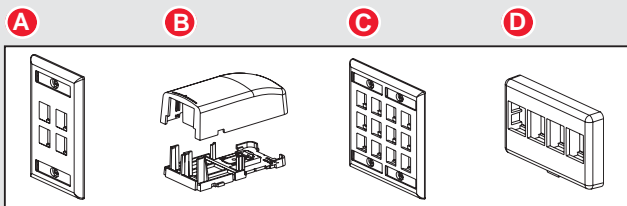
NETKEY
4 Position Single Gang Faceplate

NETKEY
2 Position Surface Mount Box

NETKEY
12 Position Double Gang Faceplate

NETKEY
Snap-In Modular Furniture Faceplate

Outlet Box

Ⓔ
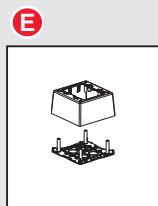
Power Rated Double Gang Two Piece Deep Box _(see page 41)_

NETKEY **Modules**
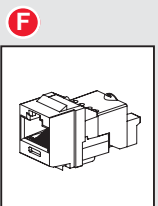
Ⓕ

NETKEY™ Flush Mount Faceplates with Label and Label Cover ⓊⓁ ⓈⓅ

• Accept all NETKEY Modules for UTP (including Category 5e and Category 6),
  Fiber Optic and Audio/Video, which snap in and out for easy moves, adds
  and changes‡
• Available in 1, 2, 4 and 6 module single gang and 12 module double gang styles
• All faceplates supplied with mounting screws
• Includes labels/label covers for easy port identification, replacement
  label/label covers available
• Optional screw covers can be used in place of labels and clear label covers

NK1F   NK2F

NK4F   NK6F

NK12F

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NK1FIW	Single gang, vertical faceplate accepts one NETKEY Module.	Off White	1	10
NK2FIW	Single gang, vertical faceplate accepts two NETKEY Modules.	Off White	1	10
NK4FIW	Single gang, vertical faceplate accepts four NETKEY Modules.	Off White	1	10
NK6FIW	Single gang, vertical faceplate accepts six NETKEY Modules.	Off White	1	10
NK12FIW	Double gang, vertical faceplate accepts twelve NETKEY Modules.	Off White	1	10

‡NETKEY faceplates are NOT compatible with PANDUIT® MINI-COM® Modules.
Other colors available. See below.

NETKEY Flush Mount Faceplates ⓊⓁ ⓈⓅ

• Accept all NETKEY Modules for UTP (including Category 5e and Category 6),
  Fiber Optic and Audio/Video, which snap in and out for easy moves, adds
  and changes‡
• Available in 1, 2 and 4 module single gang styles
• All faceplates supplied with mounting screws
• Optional adhesive labels available

NK1FN   NK2FN

NK4FN

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NK1FNIW	Single gang, vertical faceplate accepts one NETKEY Module.	Off White	1	10
NK2FNIW	Single gang, vertical faceplate accepts two NETKEY Modules.	Off White	1	10
NK4FNIW	Single gang, vertical faceplate accepts four NETKEY Modules.	Off White	1	10

‡NETKEY faceplates are NOT compatible with PANDUIT MINI-COM® Modules.
Other colors available. See below.

*Standard color:	For other colors, substitute IW with:		
IW	EI	WH	IG
Off White	Elec. Ivory	White	Int. Gray
Color shown is approximate.	Colors shown are approximate.		

NETKEY™ Horizontal Sloped Faceplates with Label and Label Cover

- Accept all *NETKEY* Modules for UTP (including Category 5e and Category 6), Fiber Optic and Audio/Video, which snap in and out for easy moves, adds and changes‡
- All faceplates supplied with mounting screws
- Includes labels/label covers for easy port identification, replacement covers available
- Optional screw covers can be used in place of labels and clear label covers

NK2HSF

NK4HSF

CSC-X**

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY Horizontal Sloped Faceplates with Label and Label Cover				
NK2HSFIW	Single gang sloped, horizontal faceplate accepts two *NETKEY* Modules.	Off White	1	10
NK4HSFIW	Single gang sloped, horizontal faceplate accepts four *NETKEY* Modules.	Off White	1	10
Faceplate Screw Cover				
CSCIW-X	Package of ten color matched screw covers. Covers single gang screw mount faceplate label slot.	Off White	10	100

‡ *NETKEY* faceplates are NOT compatible with *PANDUIT® MINI-COM®* Modules.
Other colors available, see below.

*Standard color:	For other colors, substitute IW with:
IW	EI	WH
Off White	Elec. Ivory	White
Color shown is approximate.	Colors shown are approximate.

White Non-Adhesive Labels* for Flush Mount and Horizontal Sloped Faceplates

Suggested Label Solutions for TIA/EIA-606-A Compliance			
	Desktop Printers	Portable Printers		Label Size Width x Height In. (mm)
	Laser/Inkjet	LS6	LS7	
Label Part Number	C195X040Y1J	C195X040YI6	—	1.95" x 0.40" (49.5 x 10.2)
	—	—	LS7-38-1**	314.40" x 0.35" (7985.8 x 9.0)

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).
**For non-adhesive solution with LS7-38-1, do not remove liner from label.

ULTIMATE ID® NETKEY™ Flush Mount Faceplates

- Designed to efficiently support TIA/EIA-606-A standard labeling requirements
- Accept all NETKEY Modules for UTP (including Category 5e and Category 6), Fiber Optic and Audio/Video, which snap in and out for easy moves, adds and changes
- Supplied with color coordinated screw cover and clear station and port label covers, labels sold separately
- Can be clearly identified with the PANACEA® LS7 Hand-Held Thermal Transfer Printer

- Computer printable label sheets for desktop printers and write-on labels available (page 35)
- Replacement screw covers and label covers available (page 35)
- Optional icons available (page 35)
- Custom mounting screws included

UINK2F

UINK4F

Part Number	Description	Color*	Labels Required	Std. Pkg. Qty.	Std. Ctn. Qty.
UINK2FIW	Single gang, vertical faceplate holds up to two NETKEY Modules.	Off White	1–One Port 1–Two Port	1	10
UINK4FIW	Single gang, vertical faceplate holds up to four NETKEY Modules.	Off White	1–One Port 2–Two Port	1	10

Other colors available. See below.

*Standard color:	For other colors, substitute IW with:
IW Off White	**EI** Elec. Ivory **WH** White
Color shown is approximate.	**Colors shown are approximate.**

ULTIMATE ID Laser/Ink Jet Labels

- Printable with standard laser or ink jet printers and available in white and electrical ivory‡
- Designed to efficiently support TIA/EIA-606-A standard labeling requirements
- Laser/Ink Jet labels for use with ULTIMATE ID faceplates, patch panels, marker ties, modular furniture faceplate and surface mount boxes

- Durable multi-layer construction
- Each standard package contains five 8.50" x 11.00" sheets
- Non-adhesive labels are easily removed from label sheets
- Unique die-cut non-adhesive material configuration leaves no exposed adhesive remains on sheets after labels are removed
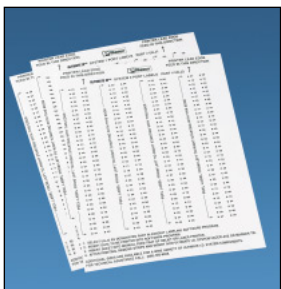
Part Number	Description	Width (in)	Height (in)	Color ‡	Std. Pkg. Qty.	Std. Ctn. Qty.
UILJ1	One port label sheets, 264 labels per sheet.	0.680	0.236	White	1	10
UILJ2	Two port label sheets, 132 labels per sheet.	1.315	0.236	White	1	10

‡For Electric Ivory labels, add EI at end of part number.

PAN-MARK® for WINDOWS^ Labeling Software

- *PAN-MARK* for WINDOWS Labeling Software has preloaded and ready to use, thermal transfer, dot-matrix, laser and ink jet label formats, including *ULTIMATE ID*™. For detailed instructions to create *ULTIMATE ID* labels using *PAN-MARK*, request SA-IDSP01
- ODBC (Open Data-Base Connectivity) allows importing of information from electronic databases such as EXCEL^ and ACCESS^ directly onto the label formats
- Easy to install and supplied on CD-ROM
- Uses full range of WINDOWS fonts including True Type* fonts

- Use image library to add commonly used symbols to your labels (Fax, Data, Voice, etc.)
- Import Bitmap (.bmp) graphic images into a label
- Create alpha and numeric serializations

System Requirements:
- WINDOWS 95, 98, Me, 2000, NT 4.x; minimum 486 processor; minimum 8MB of RAM; 30 MB hard drive space

Part Number	Description	Std. Pkg. Qty.	Std. Ctn. Qty.
PROG-WIN2CD	WINDOWS labeling software, CD-ROM	1	10

^WINDOWS, EXCEL and ACCESS are registered trademarks of Microsoft Corp. in the United States and other countries.
*True Type is a registered trademark of Apple Computing, Inc.

ULTIMATE ID Labeling Software for WINDOWS^

- Fast and easy creation of labels for *ULTIMATE ID* Network Labeling System patch panels, faceplates, surface mount boxes, and marker ties
- Create alpha and numeric serializations
- ODBC (Open Data-Base Connectivity) allows importing of information from electronic databases such as EXCEL^ and ACCESS^ directly onto the label formats
- *ULTIMATE ID* formats are preloaded and ready to use
- On-line help function files, including the TIA/EIA-606-A Labeling Compliance Brochure that assists in understanding the TIA/EIA-606-A standard and insure network labeling compliance
- Easy to install and supplied on CD-ROM

- Image library that includes commonly used symbols for fax, data and voice
- Automatically aligns legends with ports on patch panels and faceplates
- Vertical line function enables users to separate legends
- Automatic font sizing
- Supports most WINDOWS printer drivers and is compatible with standard desktop laser and ink jet printers

System Requirements:
- WINDOWS 95, 98, Me, 2000, NT 4.x, and XP; minimum 486 processor; minimum 10MB of RAM; 30 MB hard drive space

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
UISW	WINDOWS labeling software, CD-ROM, compatible with WINDOWS 95, 98, Me, 2000, NT 4.x and XP.	1	10

^WINDOWS, EXCEL and ACCESS are registered trademarks of Microsoft Corp. in the United States and other countries.

ULTIMATE ID™ Write-On Labels

• Write-on labels for use in ULTIMATE ID faceplates, surface mount boxes and patch panels

Part Number	Description	Width (in)	Height (in)	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
UIWOL1-L	One port write-on label.	0.680	0.236	White	50	250
UIWOL2-L	Two port write-on label.	1.315	0.236	White	50	250

The TIA/EIA-606-A standard states that all labels shall be mechanically generated, write-on labels are not standard compliant.

ULTIMATE ID Replacement Label Covers and Screw Covers

• Replacement label and screw covers available for use with ULTIMATE ID faceplates, patch panels, hook & loop marker ties and surface mount boxes

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
UILC1CL-X	One port label or screw cover.	Clear	10	100
UILC2CL-X	Two port label cover.	Clear	10	100

*For colors other than Clear, replace CL in part number with appropriate color suffix to match ULTIMATE ID component.

ULTIMATE ID Icons

• Provides port identification of data and voice applications

• Snaps into ULTIMATE ID faceplates

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
UICIDIW-C	Plastic snap-in icon with data image.	Off White	100	1000
UICIPIW-C	Plastic snap-in icon with phone image.	Off White	100	1000

*For colors other than Off White, replace IW suffix at end of part number with EI (Electric Ivory), WH (White), IG (International Gray), BL (Black), OR (Orange), RD (RD), BU (Blue), GR (Green), YL (Yellow) or VL (Violet). ULTIMATE ID Icons are not TIA/EIA-606-A standard compliant.

PANDUIT® Electrical Screw-On Faceplates ⓊⓁ ⒼⓈⓅ

• Designed for use with standard electrical devices
  or communications module frames
• All faceplates supplied with mounting screws
• Available in three colors and stainless steel

CP106

CP106-2G

CPG

CPG-2G

WPS-20

WPS-202

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
Single Gang "106" Duplex Faceplate				
CP106IW	Covers one NEMA standard "106" duplex electrical outlet. In communication applications covers one standard "106" communication module frame. Supplied with one mounting screw.	Off White	1	10
Double Gang "106" Duplex Faceplate				
CP106IW-2G	Covers two NEMA standard "106" duplex electrical outlets. In communication applications covers two standard "106" communication module frames. Supplied with two mounting screws.	Off White	1	10
Single Gang Rectangular Faceplate				
CPGIW	Covers one NEMA standard rectangular electrical outlet. In communication applications covers one standard rectangular communication module frame. Supplied with two mounting screws.	Off White	1	10
Double Gang Rectangular Faceplate				
CPGIW-2G	Covers two NEMA standard rectangular electrical outlets. In communication applications covers two standard rectangular communication module frames. Supplied with four mounting screws.	Off White	1	10
Stainless Steel Single Gang "106" Duplex Faceplate				
WPS-20	Covers one NEMA standard "106" duplex electrical outlet. In communication applications covers one standard "106" communication module frame. Supplied with one mounting screw.	Stainless Steel Only	1	10
Stainless Steel Double Gang "106" Duplex Faceplate				
WPS-202	Covers two NEMA standard "106" duplex electrical outlets. In communication applications covers two standard "106" modules frames. Supplied with two mounting screws.	Stainless Steel Only	1	10

‡See page 37 for NETKEY "106" Duplex and Rectangular Module Frames.
*Other colors available. See below

*Standard color:	For other colors, substitute IW with:	
IW	EI	WH
Off White	Elec. Ivory	White
Color shown is approximate.	Colors shown are approximate.	

NETKEY™ "106" Duplex and Rectangular Module Frames

- Accept all NETKEY Modules for UTP (including Category 5e and Category 6), Fiber Optic and Audio/Video, which snap in and out for easy moves, adds and changes‡
- Mount behind all standard "106" or rectangular electrical cover plates

NK4106MF

NK4RMF

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY "106" Duplex Module Frame				
NK2106MFIW	Two position screw mount module frame accepts all NETKEY Modules. Compatible with NEMA standard outlet boxes and "106" duplex faceplates.	Off White	1	10
NK4106MFIW	Four position screw mount module frame accepts all NETKEY Modules. Compatible with NEMA standard outlet boxes and "106" duplex faceplates.	Off White	1	10
NETKEY Rectangular Module Frame				
NK4RMFIW	Four position screw mount module frame accepts all NETKEY Modules. Compatible with NEMA standard outlet boxes and rectangular faceplates.	Off White	1	10

‡NETKEY frames are NOT compatible with PANDUIT® MINI-COM® Modules.
Other colors available. See below.

*Standard color:	For other colors, substitute IW with:			
IW	EI	WH	IG	BL
Off White	Elec. Ivory	White	Int. Gray	Black
Color shown is approximate.	Colors shown are approximate.			

NETKEY™ Modular Furniture Faceplates ⓤ ⓒ

- Accept all NETKEY Modules for UTP (including Category 5e and Category 6), Fiber Optic and Audio/Video, which snap in and out for easy moves, adds and changes‡
- Faceplate snaps into modular furniture openings
- Individual NETKEY Modules snap in and out

Panel Cutout Requirements

1.345" to 1.405"
(34.2mm to 35.7mm)

2.670" to 2.750"
(67.8mm to 69.8mm)
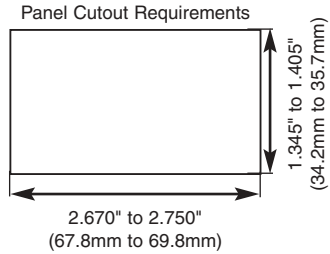
NK4MFBL

MFFPEBL

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY Snap-In Modular Furniture Faceplate				
NK4MFBL	Snap mount four position modular furniture faceplate which accepts all NETKEY modules.	Black	1	10
Modular Furniture Faceplate Extender				
MFFPEBL	Accepts NETKEY modular furniture faceplate. Increases depth for additional module clearance.	Black	1	10

‡NETKEY faceplates are NOT compatible with PANDUIT® MINI-COM® Modules.
Other colors available. See below.

*Standard color:	For other colors, substitute IW with:			
IW Off White	**EI** Elec. Ivory	**WH** White	**IG** Int. Gray	**BL** Black

Color shown is approximate.
Colors shown are approximate.

White Adhesive Labels* for Modular Furniture Faceplates

Suggested Label Solutions for TIA/EIA-606-A Compliance			
	Desktop Printers	Portable Printers	Label Size Width x Height In. (mm)
	Laser/Inkjet	LS6	LS7	
Label Part Number	C252X030FJJ	—	—	2.52" x 0.30" (64.0 x 7.62)
	—	C252X030FJ6	—	2.52" x 0.30" (64.0 x 7.62)
	—	—	LS7-25-1	314.40" x 0.24" (7985.8 x 6.0)

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).

NETKEY™ Surface Mount Boxes

- Accept all NETKEY Modules for UTP (including Category 5e and Category 6), Fiber Optic and Audio/Video, which snap in and out for easy moves, adds and changes‡
- Cable entry from side and rear breakouts and from opening in base
- Mount easily with screws, adhesive tape or optional magnet
- Boxes work with PANDUIT® Raceway^
- Four and six position surface mount boxes include label and clear label cover
- Available in three colors

NK2B-A**

NK4B-A**

NK6B-A**
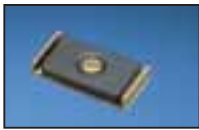
CBM-X

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY Two Position Surface Mount Box — Adhesive Backed				
NK2BIW-A	Two position adhesive backed surface mount box accepts two NETKEY Modules. Compatible with PANDUIT LD3 or LD5 Raceway.	Off White	1	10
NETKEY Four Position Surface Mount Box — Adhesive Backed				
NK4BIW-A	Four position adhesive backed surface mount box accepts four NETKEY Modules. Compatible with PANDUIT LD3, LD5 or LD10 Raceway.	Off White	1	10
NETKEY Six Position Surface Mount Box — Adhesive Backed				
NK6BIW-A	Six position adhesive backed surface mount box accepts six NETKEY Modules. Compatible with PANDUIT LD3, LD5 or LD10 Raceway.	Off White	1	10
Surface Mount Box Mounting Magnet — Optional				
CBM-X	Package of ten magnets for mounting surface mount box base to metal desks or file cabinets, supplied with adhesive tape.	—	10	100

‡NETKEY surface mount boxes are NOT compatible with PANDUIT MINI-COM® Modules.
^See PANDUIT PAN-WAY® Non-Metallic Surface Raceway System Catalog (SA-SRCB02) for these parts.
Other colors available. See below

*Standard color: **For other colors, substitute IW with:**

IW		EI	WH
Off White		Elec. Ivory	White

Color shown is approximate.   Colors shown are approximate.

White Adhesive Labels* for All Surface Mount Boxes

Suggested Label Solutions for TIA/EIA-606-A Compliance				
	Desktop Printers	**Portable Printers**		**Label Size Width x Height In. (mm)**
	Laser/Inkjet	LS6	LS7	
Label Part Number	C125X030FJJ	—	—	1.25" x 0.30" (31.8 x 7.62)
	—	C125X030FJ6	—	1.25" x 0.30" (31.8 x 7.62)
	—	—	LS7-50-1	314.40" x 0.47" (7985.8 x 11.9)

White Non-Adhesive Labels* for 4 and 6 Port Surface Mount Boxes

Suggested Label Solutions for TIA/EIA-606-A Compliance				
	Desktop Printers	**Portable Printers**		**Label Size Width x Height In. (mm)**
	Laser/Inkjet	LS6	LS7	
Label Part Number	C195X040Y1J	C195X040Y16	—	1.95" x 0.40" (49.5 x 10.2)
	—	—	LS7-38-1**	314.40" x 0.35" (7985.8 x 9.0)

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).
**For non-adhesive solution with LS7-38-1, do not remove liner from label.

Outlet Boxes for Screw-On Faceplates

- Work with *PANDUIT®* LD3, LD5, LD10 Profile Raceways‡
- JBX3510 is a two piece snap together box with adhesive backing for low voltage applications
- Power rated boxes feature two piece screw-on base and cover
- All boxes accept NEMA standard screw-on faceplates and devices
- Available in three colors

JBX3510-A**

JBP1D

JBP2

JBP2D

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
Low Voltage Single Gang Two-Piece Snap-Together Box				
JBX3510IW-A	Two-Piece box with adhesive backing. Accepts screw-on NEMA standard single gang faceplates. L = 5.02" (127.4mm) W = 3.27" (83.0mm) H = 1.62" (41.1mm) Conduit Breakouts: 1/2", 3/4", 1". LD3, 5, and 10 breakouts.	Off White	1	10
Power Rated Single Gang Two-Piece Deep Box				
JBP1DIW	Single Gang Box—base and cover (two screws included). Accepts screw-on NEMA standard single gang faceplates. L = 5.19" (131.9mm) W = 3.45" (87.7mm) H = 2.75" (69.8mm) Conduit breakouts: 1/2", 3/4", 1". LD3, 5, and 10 breakouts.	Off White	1	10
Power Rated Double Gang Two-Piece Box				
JBP2IW	Double Gang Box—base and cover (four screws included). Accepts screw-on NEMA standard double gang faceplates. L = 5.05" (128.2mm) W = 5.05" (128.2mm) H = 1.62" (41.1mm) Conduit Breakouts: 1/2", 3/4". LD3, 5, and 10 breakouts.	Off White	1	10
Power Rated Double Gang Two-Piece Deep Box				
JBP2DIW	Double Gang Box—base, cover and divider wall (four screws included). Accepts screw-on NEMA standard double gang faceplates. L = 5.19" (131.9mm) W = 5.19" (131.9mm) H = 2.75" (69.8mm) Conduit Breakouts: 1/2", 3/4", 1". LD3, 5, and 10 breakouts.	Off White	1	10

‡For these parts and additional box styles see *PAN-WAY®* Non-Metallic Surface Raceway Systems Catalog (SA-SRCB02). Other colors available. See below.

*Standard color:	For other colors, substitute IW with:	
IW	EI	WH
Off White	Elec. Ivory	White
Color shown is approximate.	Colors shown are approximate.	

Notes

PANZONE™ Zone Cabling Products

PANDUIT provides a complete line of Zone Cabling products for workspace environments, including open office architecture and industrial applications. Each zone cabling product serves as a high capacity main cable distribution point for a particular zone, feeding workstation outlets with short cable runs for voice, data and video connections.

• Provide flexibility to reconfigure offices to meet frequently changing organizational requirements

• Provide the ability to make moves, adds and changes quickly and easily to reduce long-term maintenance

• Reduce network downtime when changes are required

• Accommodate multi-media solutions and can be used in floor, ceiling and wall mount applications

PANZONE™ Zone Cabling Products

From Telecommunications Room

To Workstations

② In-Ceiling Box

①

④

③

Interconnection Point

From Telecommunications Room

To Workstations
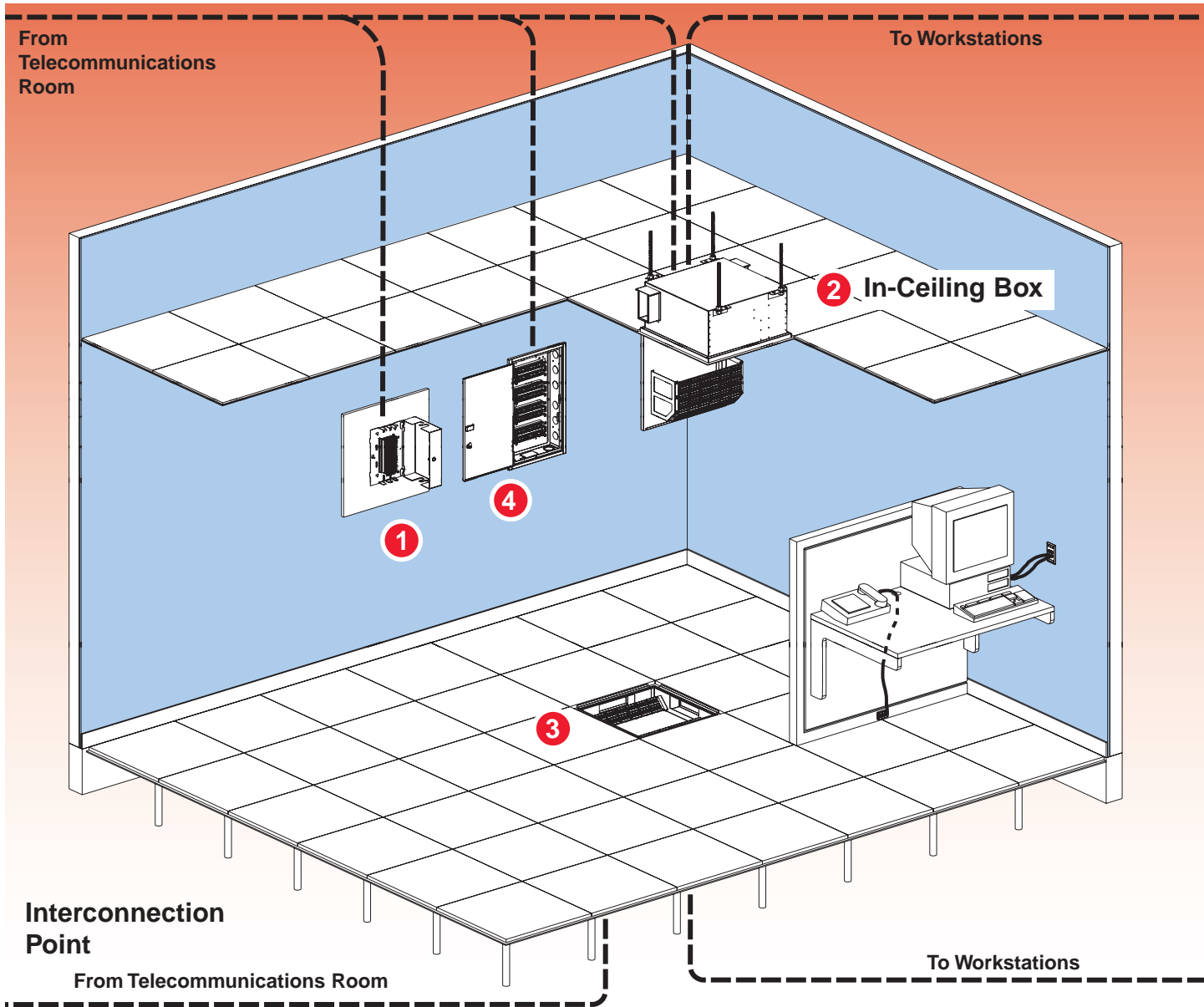
PANZONE Zone Cabling Products *(pages 45-47)*

①
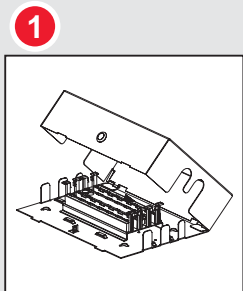
Consolidation Box for in-ceiling or wall mount applications (Includes Punchdown Block)

②
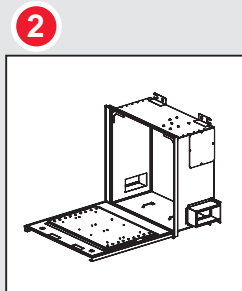
In-Ceiling *PANZONE* Cabling Box

③
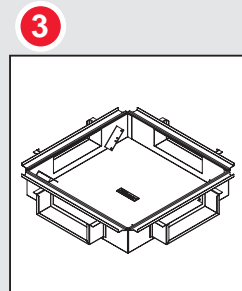
In-Floor *PANZONE* Cabling Box

④
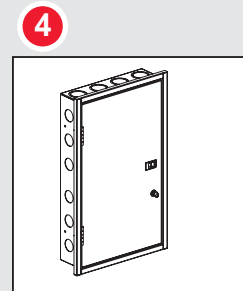
***PANZONE* Enclosure**

PANZONE™ Active In-Ceiling Zone Cabling Box

- Designed to accept up to 3 RU of active electronics as deep as 15.5" and up to 6 RU of 19" standard passive connectivity
- AC power ready (receptacle not included)
- UL2043 approved for use in air-handling spaces
- Meets NEC standards
- 25 pound door weight capacity
- Includes doorplate, equipment mounting bracket, plenum rated foam kit and 9 CFM fan

Part Number	Description	Std. Pkg. Qty.	Std. Ctn. Qty.
CICZC2X2A	Fully assembled In-Ceiling Zone Cabling Box. Mounts in 2x2, 2x4 and 2x6 ceiling panels. Dimensions: 23.50"L x 23.50"W x 12.13"D (596.90mm x 596.90mm x 308.10mm).	1	1

CICZC2X2A

PANZONE™ **Enclosure**

- Enclosure can be directly mounted to a wall, recessed into a wall or used in under floor applications
- Enclosure includes grommet edging, labels and *TAK-TY*® Cable Ties
- Enclosure accommodates up to four 100 pair punchdown bases or optional patch panel bracket (PZBPPB) can be used to accommodate up to 2 RU of standard 19" patch panels
- Conduit knockouts are available on all four sides
- Option of flat cover or hinged lockable door (each sold separately)

**PZB4
with PZB4-HC**

Part Number	Description	Std. Pkg. Qty.	Std. Ctn. Qty.
PANZONE Enclosure			
PZB4	*PANZONE* Enclosure can be mounted directly to a wall, recessed into a wall or used in under floor applications. Hinged door or flat cover sold separately. Dimensions: 25"H x 14.5"W x 4.65"D (635.00mm x 368.3mm x 118.11mm).	1	—
Hinged Door			
PZB4-HC	Hinged door to be used with *PANZONE* Enclosure (PZB4) when mounting to a wall or under floor. Door is reversible so that it can hinge from either side and includes lock with tab release.	1	—
Flat Cover			
PZB4-FC	Flat cover to be used with *PANZONE* Enclosure (PZB4) when mounting to wall or underfloor. Cover includes four screw slots and screws.	1	—
Patch Panel Bracket			
PZBPPB	*PANZONE* Patch Panel Bracket accommodates up to 2RU of standard 19" Patch Panels. Hinges in middle of bracket allow for easier installation and punchdown of cables.	1	10

PANZONE™ Cabling Products

- Provides an efficient and cost effective way to design and deploy cabling systems for open office architecture
- Moves, adds and changes are very efficient and require less down time
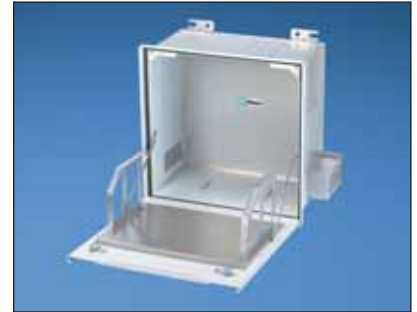
CICZC2X2
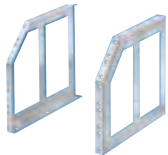
CICZCBRKT

**CIFZC4
CIFZC8
CIFZC11**

WMCPEPPBL

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.
In-Ceiling Zone Cabling Box			
CICZC2X2	Fully assembled In-Ceiling Zone Cabling Box. Accepts up to six 100 pair punchdown bases *(see page 81)*. With optional brackets (CICZCBRKT) this box also accepts up to 9 RU of 19" patch panels. Mounts in 2x2, 2x4 and 2x6 ceiling panels. Dimensions: 24" x 24" x 12" (L x W x D).	—	1
In-Ceiling Zone Cabling Bracket (Optional)			
CICZCBRKT	In-Ceiling zone cabling bracket designed to accept up to 9 rack units and mounts inside (CICZC2X2), in-ceiling zone cabling box, sold separately.	9	1
In-Floor Zone Cabling Box			
CIFZC4	Fully assembled In-Floor Zone Cabling Box which requires 6" minimum access floor. Accepts *PANDUIT*® 19" patch panels, up to 4 rack units total. Plenum rated. Works with standard 24" x 24" raised floor panels. Dimensions: 24" x 24" x 4" (L x W x D).	4	1
In-Floor Zone Cabling Box			
CIFZC8	Fully assembled In-Floor Zone Cabling Box which requires 8" minimum access floor. Accepts *PANDUIT* 19" patch panels, up to 8 rack units total. Plenum rated. Works with standard 24" x 24" raised floor panels. Dimensions: 24" x 24" x 6" (L x W x D).	8	1
In-Floor Zone Cabling Box			
CIFZC11	Fully assembled In-Floor Zone Cabling Box which requires 14" minimum access floor. Accepts *PANDUIT* 19" patch panels, up to 11 rack units total. Plenum rated. Works with standard 24" x 24" raised floor panels. Dimensions: 24" x 24" x 12" (L x W x D).	11	1
Punchdown Consolidation Point Enclosure			
WMCPEPPBL	Fully assembled aluminum enclosure, which includes 100 pair *PAN-PUNCH*™ base and *TAK-TY*® Hook and Loop Cable Ties. Dimensions: 3.44" H x 9.47" W x 13.22" L. Rated UL2043 for air handling spaces can also be mounted to wall, under floor, or hung from ceiling supports.	—	1

*One rack space = 1.75" (44.45mm).

Notes

Copper Punchdown and Modular Patch Panels

The *NETKEY*™ Solution offers a variety of patch panels for use in telecommunications rooms. Modular patch panels are available in all metal versions or with snap-in faceplates. These panels accommodate all *NETKEY* Modules, which allow different transmission media (fiber, copper, and coax) to share a common patch panel. Alternatively, *NETKEY* punchdown panels are available in Category 5e or 6 and offer a simple punchdown style termination. All *NETKEY* modular and punchdown patch panels can be used for voice or data applications in the telecommunications room.
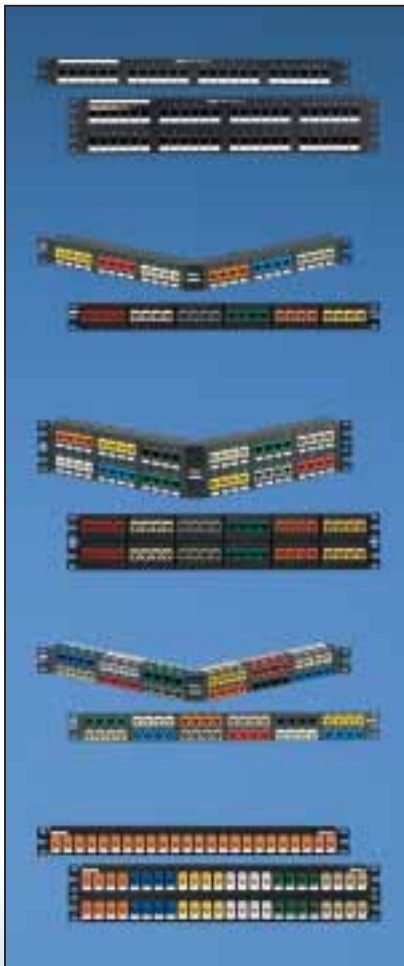
- Modular system eases installation moves, adds and changes
- Angled patch panels eliminate the need for horizontal cable managers
- High density patch panels conserve valuable rack space
- Backwards compatibility supports existing infrastructure

Copper Punchdown and Modular Patch Panels

To Workstations

⑥ Wall Mount Patch Panel

① Punchdown Style Patch Panel

⑤

② ③ ④ Module in Modular Patch Panel

TELECOMMUNICATIONS ROOM
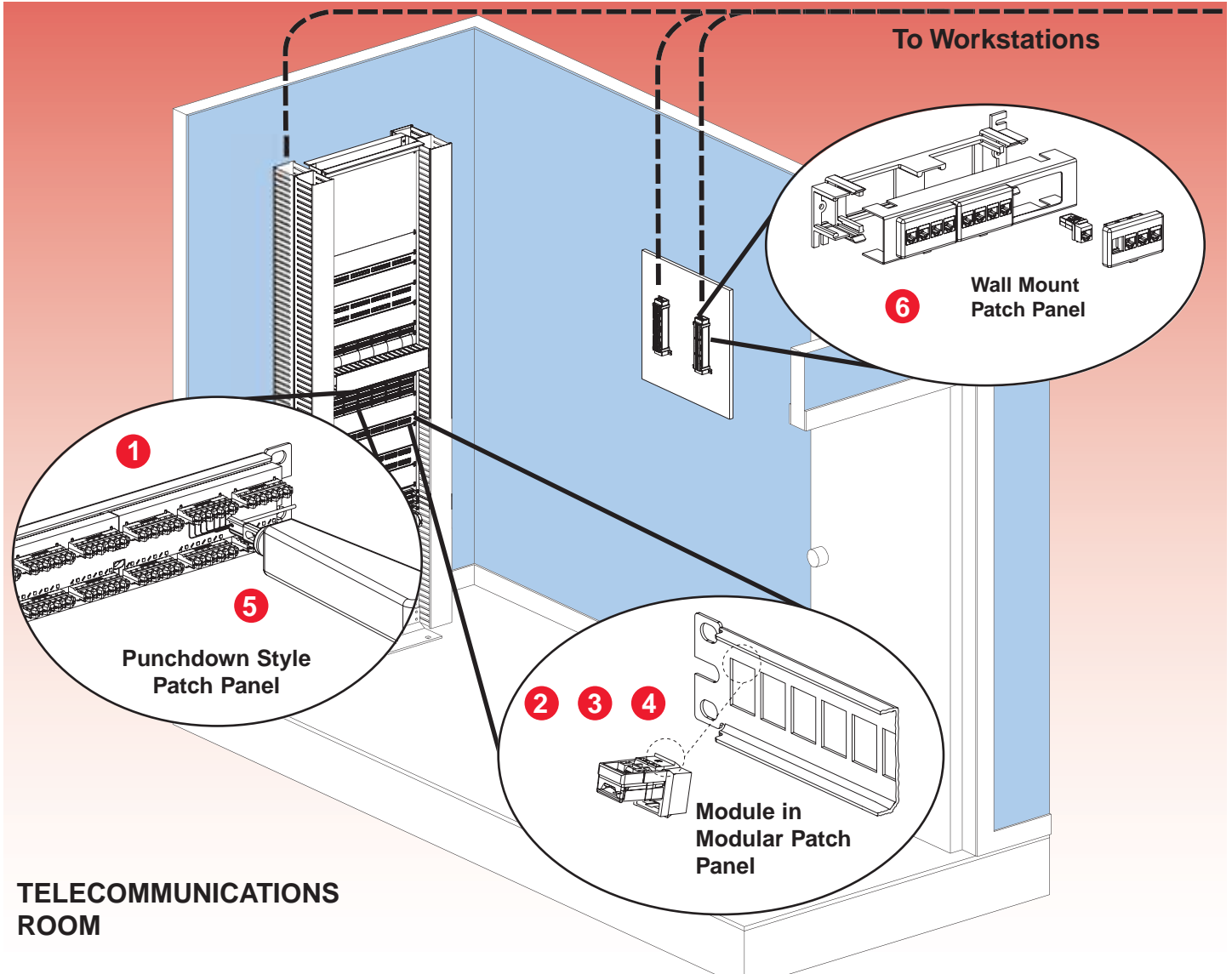
Copper Punchdown and Modular Patch Panels *(pages 51-55)*
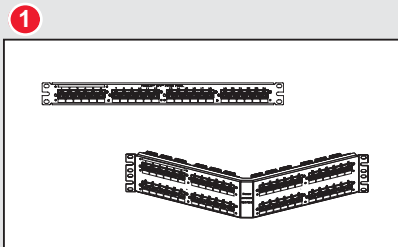
❶ Punchdown Style Patch Panels (Rack Mount)
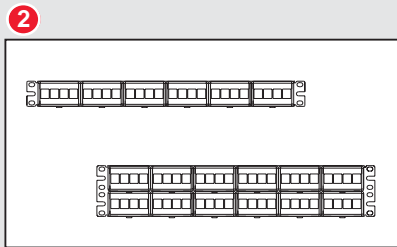
❷ Modular Faceplate Patch Panels (Rack Mount)
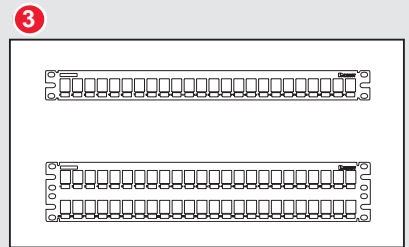
❸ All Metal Modular Patch Panels (Rack Mount)
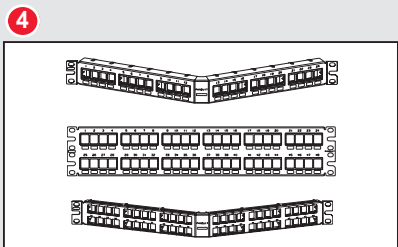
❹ Standard and High Density Flush Mount Patch Panels (Rack Mount)
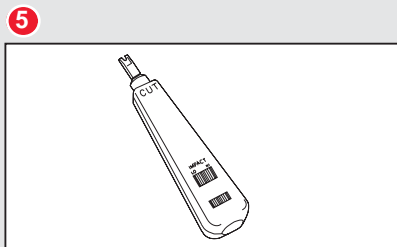
❺ Punchdown Tool
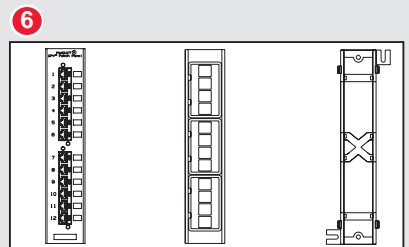
❻ Wall Mounting Bracket and Panels

Category 6 Punchdown Style Patch Panels

- Meet Category 6 channel requirements including POWERSUM ACR, ELFEXT and Return Loss
- Protective circuit board cover
- Removable 6-port circuit board design
- Punchdown style termination on back of patch panel
- Wiring scheme clearly identified on universal label

- Terminate 4-pair 24 and 22 AWG 100 ohm unshielded twisted pair cable
- Integral cable tie mounts
- Accept icons for port identification
- Angled patch panels eliminate the need for horizontal cable managers

DP12688TP

DPA24688TP

DP24688TP

DPA48688TP

DP48688TP

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
Category 6 Universal *GIGA-PUNCH*™ Punchdown Patch Panel — 12 port, 89D Mount				
DP12688TP	Category 6, 12 port, 8 position, 8 wire *GIGA-PUNCH* style punchdown patch panel. Mounts to 89D bracket. Color coded for T568-A and T568-B wiring schemes.	—	1	10
Category 6 Universal *GIGA-PUNCH* Punchdown Patch Panels — 24 port, 1RU				
DPA24688TP	Category 6, angled 24 port, 8 position, 8 wire *GIGA-PUNCH* style punchdown patch panel. One rack space. Color coded for T568-A and T568-B wiring schemes.	1	1	10
DP24688TP	Category 6, 24 port, 8 position, 8 wire *GIGA-PUNCH* style punchdown patch panel. One rack space. Color coded for T568-A and T568-B wiring schemes.	1	1	10
Category 6 Universal *GIGA-PUNCH* Punchdown Patch Panels — 48 port, 2RU				
DPA48688TP	Category 6, angled 48 port, 8 position, 8 wire *GIGA-PUNCH* style punchdown patch panel. Two rack spaces. Color coded for T568-A and T568-B wiring schemes.	2	1	10
DP48688TP	Category 6, 48 port, 8 position, 8 wire *GIGA-PUNCH* style punchdown patch panel. Two rack spaces. Color coded for T568-A and T568-B wiring schemes.	2	1	10

*One Rack space = 1.75" (44.45mm).

White Adhesive Labels* for Category 6 Punchdown Style Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance			
	Desktop Printers	Portable Printers	Label Size Width x Height In. (mm)
	Laser/Inkjet	LS6	LS7	
Label Part Number	C379X030FJJ	—	—	3.79" x 0.30" (96.2 x 7.6)
	—	C379X030FJ6	—	3.79" x 0.30" (96.2 x 7.6)
	—	—	LS7-25-1	314.90" x 0.25" (7885.8 x 6.4)

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).

GIGA-PUNCH Termination Tools

Part Number	Description	Std. Pkg. Qty.
GIGA-PUNCH Single Wire Punchdown Tool		
GPST	Single wire punchdown tool and blade for *GIGA-PUNCH* style IDC's. Terminates and cuts UTP cable in one operation.	1 pc.
GIGA-PUNCH Replacement Blade		
GPSTB	Replacement blade for *GIGA-PUNCH* single wire punchdown tool.	1 pc.

GPST

Category 5e Punchdown Style Patch Panels

- Exceed all Category 5e requirements including POWERSUM ACR, ELFEXT and Return Loss
- Protective circuit board cover
- Removable 6-port circuit board design
- Punchdown style termination on back of patch panel
- Wiring scheme clearly identified on universal label

- Terminate 4-pair 24 and 22 AWG 100 ohm unshielded twisted pair cable
- Integral cable tie mounts
- Accept icons for port identification
- Angled patch panels eliminate the need for horizontal cable managers

NK5EPP12W

DPA245E88110U

NK5EPP24

DPA485E88110U

NK5EPP48

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
Category 5e Universal 110 Punchdown Patch Panel — 12 port, 89D Mount				
NK5EPP12W	Category 5e, 12 port, 8 position, 8 wire 110 style punchdown patch panel. Mounts to 89D bracket. Color coded for T568-A and T568-B wiring schemes.	—	1	10
Category 5e Universal 110 Punchdown Patch Panels — 24 port, 1RU				
DPA245E88110U	Category 5e, angled 24 port, 8 position, 8 wire 110 style punchdown patch panel. One rack space. Color coded for T568-A and T568-B wiring schemes.	1	1	10
NK5EPP24	Category 5e, 24 port, 8 position, 8 wire 110 style punchdown patch panel. One rack space. Color coded for T568-A and T568-B wiring schemes.	1	1	10
Category 5e Universal 110 Punchdown Patch Panels — 48 port, 2RU				
DPA485E88110U	Category 5e, angled 48 port, 8 position, 8 wire 110 style punchdown patch panel. Two rack spaces. Color coded for T568-A and T568-B wiring schemes.	2	1	10
NK5EPP48	Category 5e, 48 port, 8 position, 8 wire 110 style punchdown patch panel. Two rack spaces. Color coded for T568-A and T568-B wiring schemes.	2	1	10

*One Rack space = 1.75" (44.45mm).

White Adhesive Labels* for Category 5e Punchdown Style Patch Panels

	Suggested Label Solutions for TIA/EIA-606-A Compliance			
	Desktop Printers	Portable Printers		Label Size Width x Height In. (mm)
	Laser/Inkjet	LS6	LS7	
Label Part Number	C379X030FJJ	—	—	3.79" x 0.30" (96.2 x 7.6)
	—	C379X030FJ6	—	3.79" x 0.30" (96.2 x 7.6)
	—	—	LS7-25-1	314.90" x 0.25" (7885.8 x 6.4)

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).

Termination Tools

PDT110

Part Number	Description	Std. Pkg. Qty.
Single Punchdown Tool		
PDT110	Punchdown tool and blade for 110 style IDC's. Terminates and cuts UTP cable in one operation.	1 pc.
Replacement Blade		
PDTH110	Replacement blade for single pair punchdown tool.	1 pc.

NETKEY™ All Metal Modular Patch Panels

- Accept all NETKEY Modules for UTP (including Category 5e and Category 6), Fiber Optic and Audio/Video, which snap in and out for easy moves, adds and changes‡
- Mount to standard EIA 19" racks
- TIA/EIA-606-A compliant white write-on areas to identify panels and ports

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY Modular Patch Panel				
NKMP24	All metal 24 port modular patch panel accepts all NETKEY Modules.	1	1	10
NETKEY Modular Patch Panel				
NKMP48	All metal 48 port modular patch panel accepts all NETKEY Modules.	2	1	10

NKMP24

NKMP48

‡NETKEY patch panels are NOT compatible with PANDUIT® MINI-COM® Modules.
*One rack space = 1.75" (44.45mm).

White Adhesive Labels* for All Metal Modular Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance				
	Desktop Printers	Portable Printers		Label Size Width x Height In. (mm)
	Laser/Inkjet	LS6	LS7	
Label Part Number	C379X030FJJ	—	—	3.79" x 0.30" (96.2 x 7.6)
	—	C379X030FJ6	—	3.79" x 0.30" (96.2 x 7.6)
	—	—	LS7-25-1	314.90" x 0.25" (7885.8 x 6.4)

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).

NETKEY™ Modular Faceplate Patch Panels

- Accept all NETKEY Modules for UTP (including Category 5e and Category 6), Fiber Optic and Audio/Video, which snap in and out for easy moves, adds and changes‡
- Mount to standard EIA 19" Racks
- Front removable faceplates provide front access
- Excellent for multi-media applications

NKFP24

NKFP48

NKFP12W

WB89D

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY Modular Faceplate Patch Panel				
NKFP24	24 port patch panel with six removable four position modular faceplates.	1	1	10
NETKEY Modular Faceplate Patch Panel				
NKFP48	48 port patch panel with twelve removable four position modular faceplates.	2	1	10
NETKEY Modular Faceplate Patch Panel				
NKFP12W	12 port patch panel with three removable four position modular faceplates. Mounts on 89D mounting bracket.	—	1	10
89D Mounting Bracket				
WB89D	Wall mount bracket accepts 12 port snap-in faceplate patch panel. Can also be used to mount industry standard 66 blocks.	—	1	10

‡NETKEY patch panels are NOT compatible with PANDUIT® MINI-COM® Modules.
*One rack space = 1.75" (44.45mm).

White Adhesive Labels* for Modular Furniture Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance			
	Desktop Printers	Portable Printers		Label Size Width x Height In. (mm)
	Laser/Inkjet	LS6	LS7	
Label Part Number	C261X030FJJ	—	—	2.61" x 0.30" (66.29 x 7.6)
	—	C261X030FJ6	—	2.61" x 0.30" (66.29 x 7.6)
	—	—	LS7-25-1	314.90" x 0.25" (7885.8 x 6.4)

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).

NETKEY™ Flush Mount Modular Patch Panels

• Rear mounted faceplates allow modules to be flush with front of patch panel
• Accept all NETKEY Modules for UTP (including Category 5e and Category 6), Fiber Optic and Audio/Video, which snap in and out for easy moves, adds and changes‡
• Pre-printed numbers above each port for easy identification
• White write-on areas for port and/or panel identification
• Mount to standard TIA/EIA 19" rack
• Angled patch panels eliminate the need for horizontal cable managers
• Compatible with PANDUIT® PATCHRUNNER™ Cable Management System

NKPPA24FM

NKPPA48FM

NKPP24FM

NKPP48FM

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY Angled Flush Mount Modular Patch Panels				
NKPPA24FM	Angled 24 port flush mount patch panel, supplied with 6 four port rear mounted faceplates.	1	1	10
NKPPA48FM	Angled 48 port flush mount patch panel, supplied with 6 eight port rear mounted faceplates.	2	1	10
NETKEY Flush Mount Modular Patch Panels				
NKPP24FM	24 port flush mount patch panel, supplied with 6 four port rear mounted faceplates.	1	1	10
NKPP48FM	48 port flush mount patch panel, supplied with 6 eight port rear mounted faceplates.	2	1	10

‡NETKEY patch panels are NOT compatible with PANDUIT MINI-COM® Modules.
*One rack space = 1.75" (44.45mm).

NETKEY High Density Flush Mount Modular Patch Panels

• High density patch panels increase the density of the installation
• Accept all NETKEY Modules for UTP (including Category 5e and Category 6), Fiber Optic and Audio/Video, which snap in and out for easy moves, adds and changes‡
• Pre-printed numbers above each port for easy identification
• Mount to standard TIA/EIA 19" rack
• Rear mounted faceplates allow modules to be flush with front of patch panel
• Angled patch panels eliminate the need for horizontal cable managers
• Compatible with PANDUIT PATCHRUNNER Cable Management System

NKPPA48HD

NKPP48HD

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY Angled High Density Flush Mount Modular Patch Panel				
NKPPA48HD	Angled 48 port high density patch panel, supplied with 6 eight port rear mounted faceplates.	1	1	10
NETKEY High Density Flush Mount Modular Patch Panel				
NKPP48HD	48 port high density patch panel, supplied with 6 eight port rear mounted faceplates.	1	1	10

‡NETKEY patch panels are NOT compatible with PANDUIT MINI-COM Modules.
*One rack space = 1.75" (44.45mm).

White Adhesive Labels* for Modular Furniture Patch Panels

Suggested Label Solutions for TIA/EIA-606-A Compliance			
	Desktop Printers	Portable Printers		Label Size Width x Height In. (mm)
	Laser/Inkjet	LS6	LS7	
Label Part Number	C261X030FJJ	—	—	2.61" x 0.30" (66.29 x 7.6)
	—	C261X030FJ6	—	2.61" x 0.30" (66.29 x 7.6)
	—	—	LS7-25-1	314.90" x 0.25" (7885.8 x 6.4)

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).

Blank Filler Panels

• Filler panels reserve rack space for future use and help keep installations manageable by acting as a divider
• Mount to standard EIA 19" racks or wall bracket
• Stackable
• Includes mounting screws

CPAF1BL

DPFP1

CPAF2BL

DPFP2

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
1RU Blank Filler Panel				
CPAF1BL	Angled filler panel, 1RU.	1	1	10
DPFP1	Filler panel, 1RU.	1	1	10
2RU Blank Filler Panel				
CPAF2BL	Angled filler panel, 2RU.	2	1	10
DPFP2	Filler panel, 2RU.	2	1	10

*One rack space = 1.75" (44.45mm).

Fiber Optic Trays, Drawers, Enclosures and Fiber Optic Adapter Panels

The *NETKEY*™ Solution features a wide range of fiber connectivity solutions. *OPTICOM*® Fiber Optic Enclosures are designed to effectively manage optical fiber terminations and splices. Each is designed for use with *PANDUIT*® Fiber Optic Adapter Panels, which are available for SC, ST and *NETKEY* FJ® and MT-RJ connectors. *OPTICOM* Fiber Optic Enclosures are available in rack mount and wall mount versions and can be customized to meet any requirements.
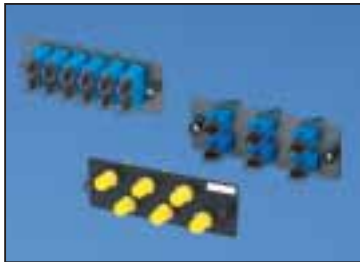
- *OPTICOM* Fiber Optic Enclosures mount to all standard EIA equipment racks

- Enclosures are modular, scalable and provide excellent bend radius protection

- When used with fiber management accessories and network identification products, *OPTICOM* Fiber Optic Enclosures provide a complete fiber management system

- *OPTICOM* Fiber Adapter Panels snap quickly into the front of all *OPTICOM* Fiber Optic Enclosures

- Complete line of fiber connectivity to fit your specific network strategy

Fiber Optic Trays, Drawers, Enclosures and FAP Panels

Rack Mount Tray

6

1

5
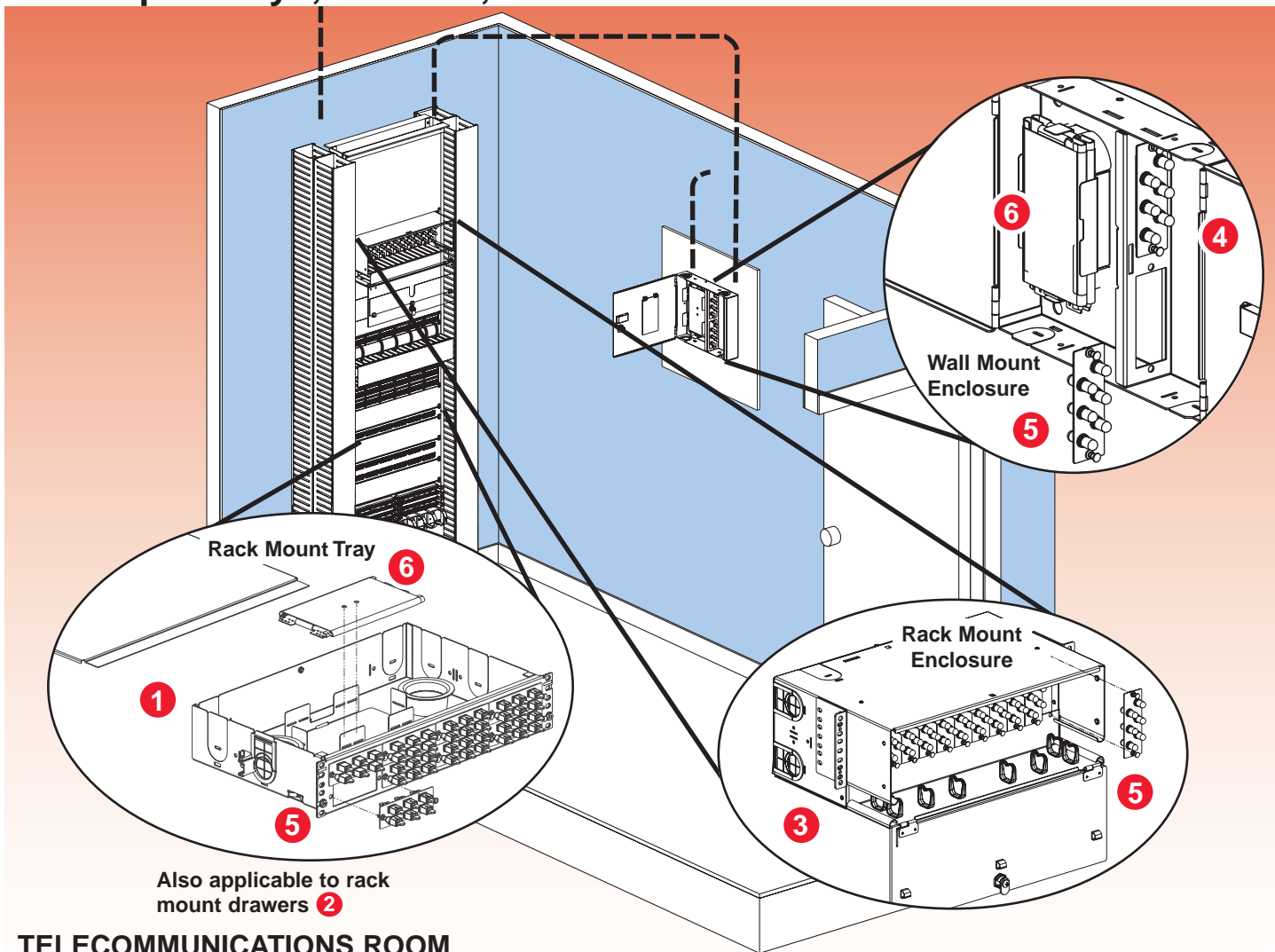
Also applicable to rack mount drawers 2

Wall Mount Enclosure

6

4

5

Rack Mount Enclosure

3

5

TELECOMMUNICATIONS ROOM

Fiber Optic Trays, Drawers, Enclosures and FAP Panels *(pages 59-63)*

1
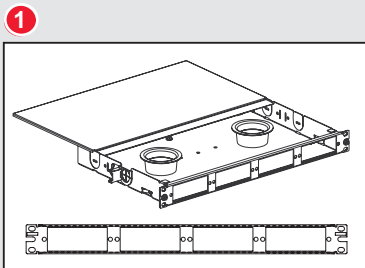
Rack Mount Trays and FAP Patch Panels
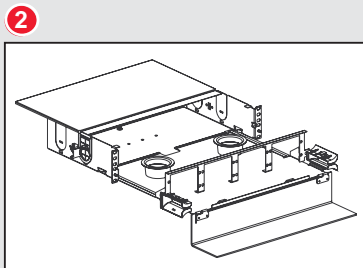
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Rack Mount Drawers

3

Rack Mount Enclosures

4

Wall Mount Enclosures

5

Fiber Adapter Panels

6
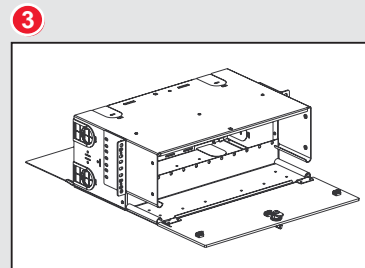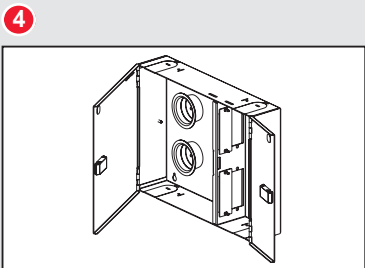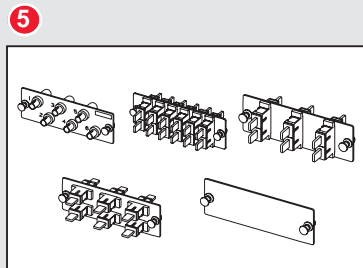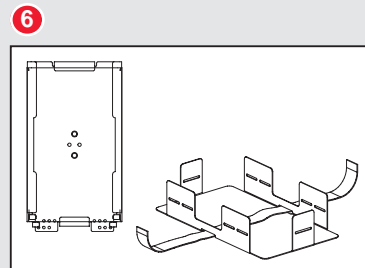
Splice Trays and Stacking Unit

OPTICOM® Fiber Optic Rack Mount Trays

- Removable rear tray cover provides easy access to splices and cable storage
- Rear tray capacity for splice tray installation
- Side and rear cable entry
- Mounts to standard EIA 19" racks or cabinets
- Mounting hardware allows for Fiber Adapter Patch Panel to be preassembled to unit before mounting to rack
- FMT1 designed to accommodate up to 1" innerduct; FMT2 designed to accommodate up to 1 1/2" innerduct
- Side cable entries designed to align with *PANDUIT® NETKEY*™ Vertical Cable Management Panels
- Fiber Optic Cable Routing Accessory Kit included**

Part Number	Description	Color	No. of Rack Spaces*	Std. Pkg. Qty.
1RU Fiber Optic Tray				
FMT1	1 RU Tray with 48 fiber capacity. Mounts behind fiber adapter patch panel (CFAPPBL1). Includes fiber optic routing kit. Dimensions: 1.75" (44.86mm) H x 19.00" (482.60mm) W x 11.16" (283.36mm) D.	Black	1	1
2RU Fiber Optic Tray				
FMT2	2 RU Trays with 96 fiber capacity. Mounts behind fiber adapter patch panel (CFAPPBL2). Includes fiber optic routing kit. Dimensions: 3.48" (88.29mm) H x 19.00" (482.60mm) W x 11.16" (283.36mm) D.	Black	2	1
4 Position Fiber Adapter Patch Panel — 1RU				
CFAPPBL1	Mounts to EIA 19" racks or FMT1 and accepts four FAP or FKP Fiber Adapter Panels. Dimensions: 1.72" (43mm) H x 19" (482mm) W.	Black	1	1
8 Position Fiber Adapter Patch Panel — 2RU				
CFAPPBL2	Mounts to EIA 19" racks or FMT2 and accepts eight FAP or FKP Fiber Adapter Panels. Dimensions: 3.47" (88mm) H x 19" (482mm) W.	Black	2	1

FMT1

FMT2

CFAPPBL1

CFAPPBL2

*One rack space = 1.75" (44.45mm).
**Fiber Optic Cable Routing Accessory Kit contains various fiber optic cable management components such as cable ties, adhesive backed mounts, grommets, and fiber slack management spools.
FAP Adapter Panels and FKP Multimedia Panels sold separately, see page 64.

OPTICOM® Fiber Optic Rack Mount Drawers and Enclosures

OPTICOM Fiber Optic Rack Mount Enclosures

- Drawers slide out for easy front access
- Accepts PANDUIT® FAP Panels and NETKEY™ FKP Multimedia Panel‡
- Rear tray capacity for splice tray installation
- Mount to standard EIA 19" racks or cabinets
- Side and rear cable entry
- Side cable entries align with NETKEY Vertical Cable Management Panels
- FMD1 accommodates up to 1" innerduct; FMD2 accommodates up to 1 1/2" innerduct
- Removable rear tray cover for additional access to splices and cable storage
- Includes Fiber Optic Cable Routing Accessory Kit**, Patented Bend Radius Control Clips and port ID Label

"Drawer" shown above as fully assembled.‡

Part Number	Description	Color	No. of Rack Spaces*	Std. Ctn. Qty.
1RU Fiber Optic Drawer				
FMD1	One rack space slide out drawer accepts 4 FAP or FKP adapter panels. Supports up to 24 ST, 48 SC, 48 LC, or 48 FJ® terminations. Dimensions: 1.75" (44.45mm) H x 19.85" (504.19mm) W x 15.33" (389.38mm) D.	Black	1	1
2RU Fiber Optic Drawer				
FMD2	Two rack space slide out drawer accepts 8 FAP or FKP adapter panels. Supports up to 48 ST, 96 SC, 96 LC, or 96 FJ terminations. Dimensions: 3.48" (88.30mm) H x 19.85" (504.19mm) W x 15.40" (391.16mm) D	Black	2	1

FMD1

FMD2

*One rack space = 1.75" (44.45mm).
**Fiber Optic Cable Routing Accessory Kit contains various fiber optic cable management components such as cable ties, adhesive backed mounts, grommets, fiber slack management spools, and spiral wrap.
‡FAP Adapter Panels and FKP Multimedia Panels sold separately, .

OPTICOM Fiber Optic Rack Mount Enclosures

- Built in bend radius control
- Can be mounted to standard EIA 19" or 23" rack
- Removable front and rear door
- Includes Fiber Optic Cable Routing Accessory Kit** and label
- Port ID Label provided and mounts to front door
- Rear top and bottom cable entry
- Accept PANDUIT FAP Panels and NETKEY FKP Multimedia Panel‡

Part Number	Description	Color	No. of Rack Spaces*	Std. Ctn. Qty.
4RU Fiber Optic Rack Mount Enclosure				
FRME4	Enclosure will accept up to 12 FAP or FKP Panels. Supports up to 72 ST, 144 SC, 144 LC, or 144 FJ terminations. Dimensions: 6.60" (167.64mm) H x 17.06" (433.32mm) W x 11.65" (295.91mm) D.	Black	4	1

FRME4

*One rack space = 1.75" (44.45mm).
**Fiber Optic Cable Routing Accessory Kit contains various fiber optic cable management components such as cable ties, cable tie brackets, clips, grounding lugs, and grommets.
‡FAP Adapter Panels and FKP Multimedia Panels sold separately, .

OPTICOM® Fiber Optic Wall Mount Enclosures

• Compact design allows installation in tight areas
• Separate doors for service side and user side
• Low profile push-to-close door latch
• Port ID labels included
• Accept *PANDUIT*® FAP Panels and *NETKEY*™ FKP Multimedia panels‡
• Enclosures have splicing capabilities when used with optional splice tray and holder
• Includes Fiber Optic Cable Routing Accessory Kit**

Shown above with FAP panels installed.‡

FWME2

FWME4

FWME8

Part Number	Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
12 Port Fiber Optic Wall Mount Enclosure				
FWME2	Wall mount enclosure will accept up to 2 FAP or FKP Panels. Accepts optional splice tray holder (FSTHS) and splice tray (FSTK). Supports up to 12 ST, 24 SC, 24 LC, or 24 FJ® terminations. Dimensions: 10.18" (258.57mm) H x 12.00" (304.80mm) W x 2.32" (58.93mm) D.	Black	1	1
24 Port Fiber Optic Wall Mount Enclosure				
FWME4	Wall mount enclosure will accept up to 4 FAP or FKP Panels. Accepts optional splice tray holder (FST6H4) and splice tray (FST6). Supports up to 24 ST, 48 SC, 48 LC, or 48 FJ terminations. Dimensions: 12.25" (311.15mm) H x 16.11" (409.19mm) W x 3.52" (89.41mm) D.	Black	1	1
48 Port Fiber Optic Wall Mount Enclosure				
FWME8	Accepts up to 8 FAP or FMP panels, 2 splice tray holders (FSTHS) and 8 splice trays (FSTK). Supports up to 64 ST, 96 SC, 96 LC, or 96 FJ fiber optic terminations. Dimensions: 16.11"H x 20.25"W x 3.52"D (409.2mm x 514.2mm x 89.4mm)	Black	1	1

**Fiber Optic Cable Routing Accessory Kit contains various fiber optic cable management components such as cable ties, cable tie brackets, clips, and grommets.
‡FAP Adapter Panels and FKP Multimedia Panels sold separately, for FSTHS, FSTK, FST6H4 and FST6.

OPTICOM® Fiber Optic Adapter Panels for use with OPTICOM Enclosures

- Snap quickly into the front of all OPTICOM Fiber Optic Enclosures, Drawers, and Fiber Adapter Patch Panels

- FKP6 Panel accepts all NETKEY™ Modules‡

FKP6

FAP6WST

FAP6WEISC

FAP3WEIDSC

FAP6WEIDSC

FAPB

Part Number	Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY Module Multi-Media Panel-6 Port				
FKP6	Six position panel accepts any NETKEY module. Used in multi-media fiber optic, UTP and Coax applications.	Black	1	10
Loaded 6 ST Adapter FAP				
FAP6WST	Fiber adapter panel loaded with six multimode ST adapters with phosphor bronze sleeves.	Black	1	10
Loaded 6 SC Simplex Adapter FAP				
FAP6WEISC	Fiber adapter panel loaded with six multimode electric ivory SC simplex adapters with phosphor bronze sleeves.	Black	1	10
Loaded 3 SC Duplex Adapter FAP				
FAP3WEIDSC	Fiber adapter panel loaded with three multimode electric ivory SC duplex adapters with phosphor bronze sleeves.	Black	1	10
Loaded 6 SC Duplex Adapter FAP				
FAP6WEIDSC	Fiber adapter panel loaded with six multimode electric ivory SC duplex adapters with phosphor bronze sleeves.	Black	1	10
Blank FAP				
FAPB	Blank adapter panel.	Black	1	10

‡NETKEY SC, ST and MT-RJ Fiber Optic Adapter Modules <u>see page 25</u>.

OPTICOM® Splice Tray Kits and Stacking Units

For use with either mechanical or fusion splices. Complete Splice Tray kits include:
• Mechanical and Fusion adhesive backed splice holders (Each splice holder holds 6 splices)
• Cable ties to manage incoming and outgoing cable

• PVC Tubing to protect buffered fiber upon exit or entry into tray
• One splice tray base
• One splice tray protective cover

FST6

FSTHE
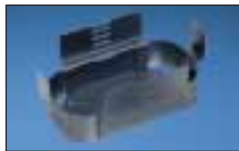
FST6H4

FSTK

FSTHS

Part Number	Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
Splice Tray Kit — For Trays, Drawers, and FWME4				
FST6	Accommodates up to 12 mechanical or fusion splices for use in OPTICOM Fiber Optic Wall Mount Enclosures and Fiber Optic Trays and Drawers. Dimensions: 0.40"H x 4.48"W x 7.90"L (10.16mm x 200.66mm x 113.79mm). For use with FST6H4 or FSTHE.	Black	1	10
Splice Tray Stacking Unit — For Trays and Drawers				
FSTHE	Stacking unit holds and secures up to four (4) splice trays, FST6. Can be mounted with included adhesive strips. Splice trays held in place with PANDUIT® TAK-TY® Cable Ties. Dimensions: 1.75"H x 4.56"W x 8.06"L (44.45mm x 115.82mm x 204.72mm). For use with FMT1, FMT2, FMD1, or FMD2.	Black	1	10
Splice Tray Stacking Unit — For FWME4 only				
FST6H4	Holds and secures (4) FST6 splice trays with accommodation for fiber spooling. Dimensions: 3.18"H x 4.63"W x 7.93"L (80.77mm x 117.60mm x 201.42mm).	Black	1	10
Splice Tray Kit — For FWME2 only				
FSTK	FSTK accommodates up to 6 mechanical or fusion splices. Dimensions: 0.38"H x 3.43"W x 6.65"L (9.65mm x 87.12mm x 118.91mm). For use with FSTHS only.	Black	1	10
Splice Tray Stacking Unit — For FWME2 only				
FSTHS	Holds two FSTK splice trays with accommodations for fiber spooling. Dimensions: 1.60"H x 3.50"W x 6.50"L (40.64mm x 88.90mm x 165.10mm).	Black	1	10

Notes

Telecommunications Racks, Cable Management and Accessories

The *NETKEY* ™ Solution features a wide range of cable management solutions. *PANDUIT* ® is a world leader in high quality racks and cable management solutions for telecommunication equipment rooms and premise wiring applications. As the demand for system performance increases, it becomes essential to protect and manage cables in order to maintain system reliability. *PANDUIT* continues to provide innovative products that create the ultimate solutions for managing, protecting and showcasing your network.

- Multiple options allow user to configure system to their preferences

- Integral bend radius control helps protect cable from being pinched, crushed or strained

- Easy access to cable pathways simplifies moves, adds and changes while allowing the user to maintain an organized system

- Modular design allows for use with all *NETKEY* products to provide an aesthetically pleasing solution

- Easy field installation of components provides the lowest installed cost

Telecommunications Racks and Cable Management

- Slotted duct organizes and manages cables for simple moves, adds and changes
- Score lines allow fingers to be removed for pathway to horizontal manager
- Cable pass through holes facilitate routing of cable from front to rear
- Adjustable wire retainers hold cable in place during cable installation and maintenance
- Rack identification and numbering allows quick location of EIA mounting spaces
- Rack has 800 lbs. UL listed load rating
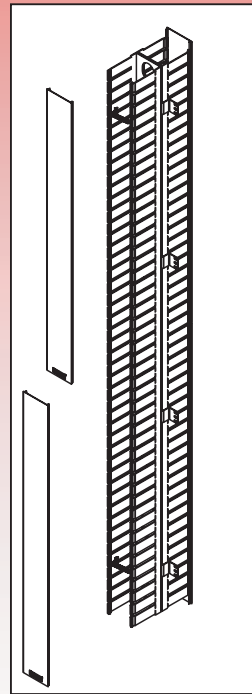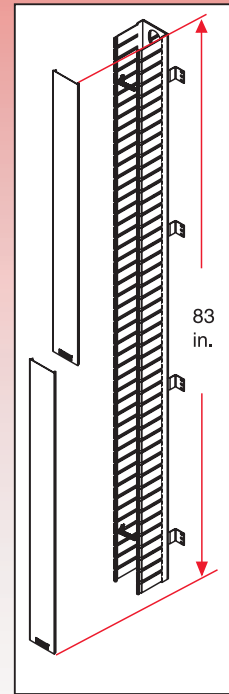
WMPV45   **WMPVF45**

Capacity Chart			
Part Number	Description	.187 Dia. Cable	
		Front	Back
WMPV45	4 x 5 Duct Front and Rear	240	240
WMPVF45	4 x 5 Duct Front Only	240	—

Floor Footprint for Standard Equipment Rack (19" width) with Vertical Cable Manager

Front of rack

Top View of WMPV45

Top View of WMPVF45 with WMPVCB

Pitch Dimension = 25.31 For Reference Only

20.25 = 19" Rack

1.25

12.5

3.00

1.25

16.00 = 19" Rack

2.12

Back of rack

7.0 WMPV45 with WMPVCB

4.3

3.18

10.27

4.09

5.86 WMPV45

Telecommunications Racks, Cable Management and Accessories

Standard Equipment Rack Spacing Identification
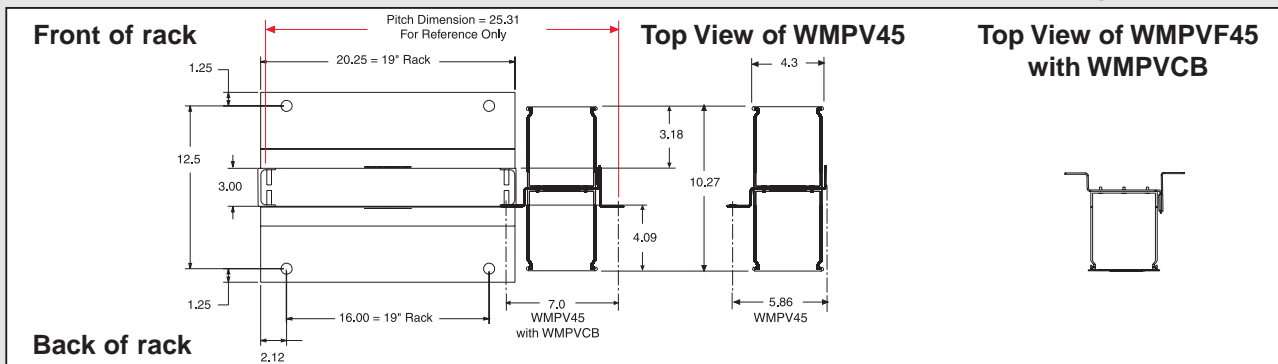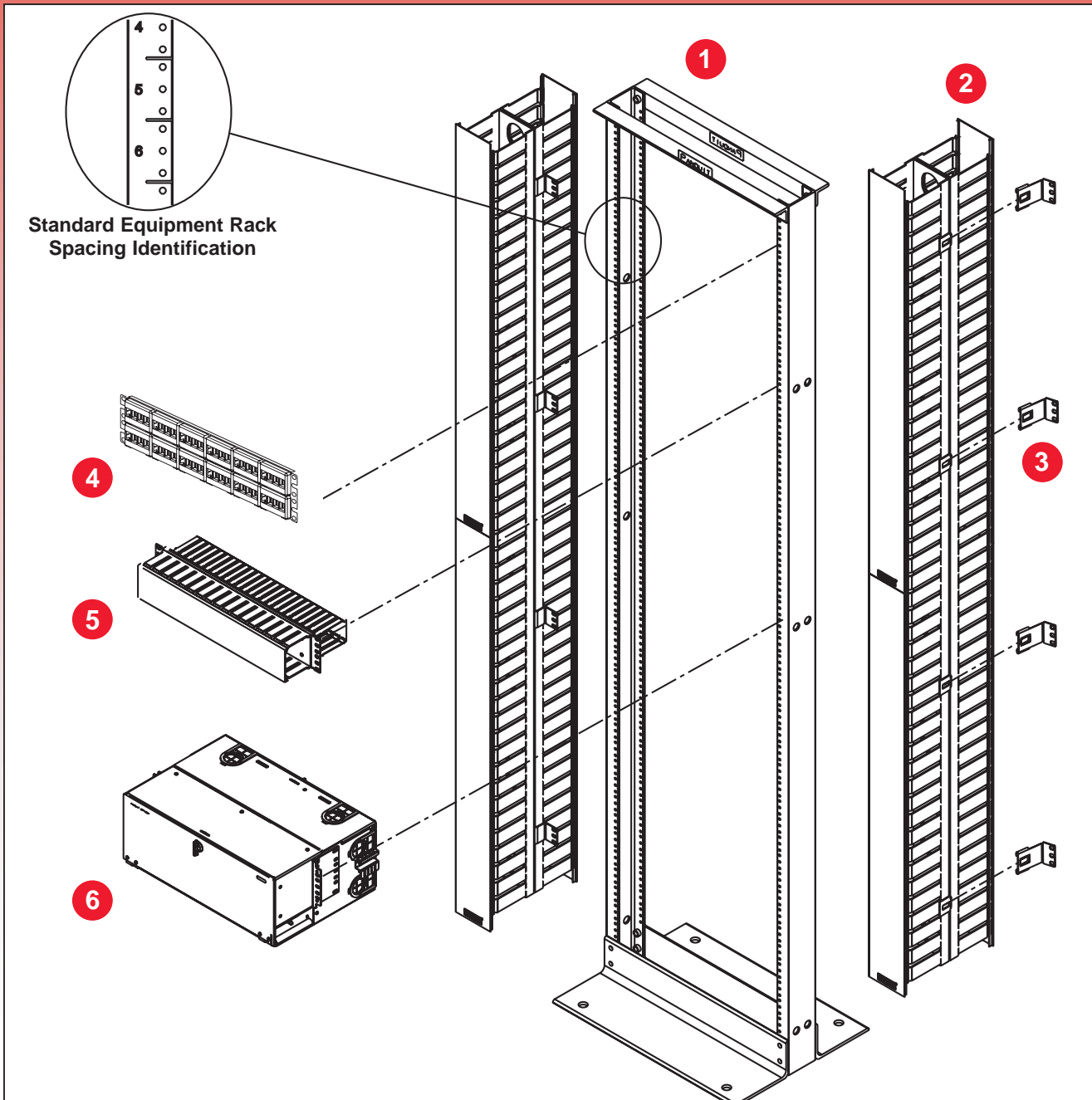
Cable Management *(pages 70-73)*

1 Standard Equipment Rack

2 Vertical Cable Manager

3 Center Bracket Kit (4 brackets included) — for ganging racks

5 Horizontal Cable Management

Patch Panels *(pages 53-57)*

4 Modular Patch Panel

Fiber Enclosures *(pages 61-65)*

6 Fiber Enclosure
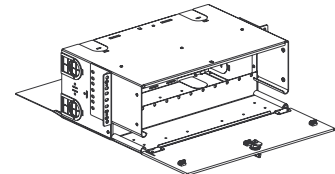
Standard 19" Rack, Shelves and Hinged Wall Brackets ⓊⓁ

Standard 19" Rack

- Rack identification and numbering allows quick location of EIA mounting spaces
- Can be used with all *PANDUIT®* Cable Management and Patch Panel products in addition to any industry standard 19" component
- Sturdy aluminum construction/Assembly required
- Double-sided #12-24 universal mounting hole spacing
- 25 #12-24 mounting screws included
- Meets EIA-310-D

CMR19X84

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
Standard EIA 19" Rack				
CMR19X84	84" High Standard EIA 19" Rack.	45	1	—
#12-24 Mounting Screws				
S1224-C	Package of 100 #12-24 mounting screws.	—	100	1000

*One rack space = 1.75" (44.45mm).

Equipment Shelves for 19" Rack

- Load rating 30 and 50 lbs. maximum
- Mount to standard EIA 19" racks
- Stackable
- Includes #12-24 Mounting Screws

SRM19FM2

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
SRM19FM1	Mounts to front of the channel on any 19" rack using EIA hole spacing and extends back 15". Can hold up to 30 lbs.	1	1	—
SRM19FM2	Mounts to front of the channel on any 19" rack using EIA hole spacing and extends back 15". Can hold up to 50 lbs.	2	1	—

*One rack space = 1.75" (44.45mm).

Hinged Wall Brackets

- Mount to wall or standard EIA 19" racks
- 6" depth
- Integral cable tie slots manage cable slack
- Hinge allows easy access to cabling
- Opening on base allows for easy access through wall
- Stackable for larger installations
- Include white write-on labeling areas
- Accept #12-24 universal mounting hole spacing
- Quick release hinged design for fast moves, adds and changes

WBH2

WBH4

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
WBH2	Two rack space hinged bracket. Mounts to wall or to 19" rack. Accepts standard 19" patch panels and equipment.	2	1	—
WBH4	Four rack space hinged bracket. Mounts to wall or to 19" rack. Accepts standard 19" patch panels and equipment.	4	1	—

*One rack space = 1.75" (44.45mm).

Vertical Cable Management Panels

- Panels supplied as side mount version
- WMPVCB kit option allows mounting to adjacent racks
- Duct finger progression equivalent to one rack space (1.75"), allowing clear pathway between horizontal and vertical cable management when finger is removed
- Organizes cables on front and rear of telecommunications racks

- Covers are easily removed so cables are accessible for quick revisions
- Supplied with mounting brackets, screws and covers
- Cable pass through holes for front to rear cabling
- Wire retainer holds cable in place when cover is removed

WMPV45 WMPVF45

WMPVCB

WR5-C

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
Vertical Cable Manager				
WMPV45	Full rack length cable manager with 4" x 5" x 83" (102 x 127 x 2108mm) slotted duct and cover on front and rear. Mounts to rear of rack.	45	1	—
Vertical Cable Manager — Front Only				
WMPVF45	Full rack length cable manager with 4" x 5" x 83" (102 x 127 x 2108mm) slotted duct and cover on front only. Mounts to rear of rack.	45	1	—
Vertical Cable Manager Center Panel Adapter				
WMPVCB	Bracket kit to mount Vertical Cable Managers to and between two adjacent racks. Includes four brackets.	—	1	10
Wire Retainer for Vertical Cable Managers				
WR5-C	Snaps into slots of vertical cable management panels.	—	100	1000

*One rack space = 1.75" (44.45mm)
Maximum vertical cable management capacity: 4" x 5" (WMPV45): 240 Cat 5e, 24 AWG, 4 pair UTP cables per side.

Vertical Cable Management D-Rings

- Flexible material allows arm to rotate 90° so entire cable bundles can be inserted and removed
- Standard EIA hole spacing allows product to be mounted to any standard rack system
- Rounded edges prevent damage to cable insulation
- 1/4" mounting holes allow for a variety of screws to secure the D-Ring to a surface
- Creates a structured pathway and allows for open access

CMVDR1

CMVDR2

CMVDRC

CMVDR1S

CMVDR2S

Part Number	Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
Vertical Cable Management D-Ring — 1" Wide				
CMVDR1	Plastic vertical D-ring 1" wide. Mounts to standard EIA racks. OVERALL DIM.: 5.72" x 2.05" x 2.38" (145.2mm x 52.07mm x 60.32mm) Internal DIM.: 4.80" x 1.18" (121.92mm x 29.97mm)	Black	1	10
Vertical Cable Management D-Ring — 2" Wide				
CMVDR2	Plastic vertical D-ring 2" wide. Mounts to standard EIA racks. OVERALL DIM.: 5.72" x 3.30" x 2.38" (145.2mm x 83.82mm x 60.32mm) Internal DIM.: 4.80" x 2.40" (121.92mm x 60.9mm)	Black	1	10
Vertical Cable Management D-Ring — Center Mounted Between Racks				
CMVDRC	Center mounted D-ring for routing cables between two adjacent racks. OVERALL DIM.: 5.66" x 8.75" x 1.75" (143.64mm x 222.25mm x 44.45mm) Internal DIM.: 4.72" x 5.09" (119.88mm x 129.29mm)	Black	1	10
Short Vertical Cable Management D-Ring — 1" Wide				
CMVDR1S	Short Plastic vertical D-ring 1" wide. Mounts to standard EIA racks. OVERALL DIM.: 3.26" x 2.05" x 2.38" (82.80mm x 52.07mm x 60.32mm) Internal DIM.: 2.40" x 1.18" (60.9mm x 29.97mm)	Black	1	10
Short Vertical Cable Management D-Ring — 2" Wide				
CMVDR2S	Short Plastic vertical D-ring 2" wide. Mounts to standard EIA racks. OVERALL DIM.: 3.26" x 3.30" x 2.38" (82.80mm x 83.82mm x 60.32mm) Internal DIM.: 2.40" x 2.40" (60.9mm x 60.9mm)	Black	1	10

Horizontal Cable Management System

- Patented dual hinged cover allows cable access without removing cover
- Pass through holes allow front to rear cabling
- Mounts to standard 19" EIA racks
- Flexible front fingers allow easy moves, adds and changes of patch cords

- Flexible rear fingers allow access for cable termination of patch panel
- Rear pathway allows cable routing around rack channels into vertical cable management

WMPSE

WMPFSE

WMP1E

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
Horizontal Cable Manager — 1RU				
WMPSE	One rack space horizontal cable manager, slotted duct and cover: 1.5" x 3" (38.1 x 76.2mm) on front and 1" x 5" (25.4 x 131.8mm) on rear. Includes 2 strain relief clips and mounting screws.	1	1	—
Horizontal Cable Manager — 1RU Front Only				
WMPFSE	One rack space horizontal cable manager, slotted duct and cover: 1.5" x 3" (38.1 x 76.2mm) on front only. Includes mounting screws.	1	1	—
Horizontal Cable Manager — 2RU				
WMP1E	Two rack space horizontal cable manager, slotted duct and cover: 3" x 3" (76.2 x 76.2mm) on front and 2" x 5" (50.8 x 131.8mm) on rear. Includes 3 wire retainers, 2 strain relief clips and mounting screws.	2	1	—
Horizontal Cable Manager — 2RU Front Only				
WMPF1E	Two rack space horizontal cable manager, slotted duct and cover: 3" x 3" (76.2 x 76.2mm) on front only. Includes 3 wire retainers and mounting screws.	2	1	—

*One rack space = 1.75" (44.45mm).

OPEN-ACCESS™ Cable Management Components

• Unique snap on D-rings for complete flexibility
• Mounts to standard EIA 19" racks
• Easy to install

• Pass through holes for easy cable installation

Part Number	Description	No. of Rack Spaces*	Std. Pkg. Qty.	Std. Ctn. Qty.
OPEN-ACCESS Horizontal Cable Manager — 1RU				
CMPH1	One rack space horizontal cable manager. Includes pre-assembled D-rings on front and rear. Front D-ring size = 1.5" x 3" (38mm x 76mm). Rear D-ring size = 1.5" x 5" (38mm x 127mm).	1	1	10
OPEN-ACCESS Horizontal Cable Manager — 1RU Front Only				
CMPHF1	One rack space horizontal cable manager. Includes pre-assembled D-rings on front. Front D-ring size = 1.5" x 3" (38mm x 76mm).	1	1	10
OPEN-ACCESS Horizontal Cable Manager — 2RU				
CMPH2	Two rack space horizontal cable manager. Includes pre-assembled D-rings on front and rear. Front D-ring size = 3" x 3" (76mm x 76mm). Rear D-ring size = 3" x 5" (76mm x 127mm).	2	1	10
OPEN-ACCESS Horizontal Cable Manager — 2RU Front Only				
CMPHF2	Two rack space horizontal cable manager. Includes pre-assembled D-rings on front. Front D-ring size = 3" x 3" (76mm x 76mm).	2	1	10
OPEN-ACCESS Horizontal Cable Manager — 2RU High Capacity Front Only				
CMPHH2	Two rack space high capacity horizontal cable manager. Includes pre-assembled D-rings on front. Front D-ring size = 3" x 5" (76mm x 127mm).	2	1	10

CMPH1

CMPHF1

CMPH2

CMPHF2

CMPHH2

*One rack space = 1.75" (44.45mm).

NEW! J-PRO™ Cable Support System

- Complete horizontal and vertical 1" bend radius control helps prevent degradation of cable performance
- UL 2043 and CAN/ULC S102.2 approved and are suitable for use in air handling spaces
- Durable non-metallic J Hook materials provide the ability to manage and support a large number of cables
- Pre-riveted assemblies allow for attachment to ceilings, beams, threaded rods, drop wires and under floor supports to meet requirements of a variety of applications
- Wide cable support base prevents pinch points that could cause damage to cable
- Cable tie channel allows user to easily install 3/4" TAK-TY® Cable Ties to retain cable bundle

Part Number	Part Description	Max. Bundle Capacity		Material*	Max. Static Load		Std. Pkg. Qty.
		In.	(mm)		Lbs.	(kg)	
Wall Mount							
JP2W-L20	J Hook for wall mount applications only. One 1/4" (M6) mounting hole for user supplied screw.	2	(50.8)	Nylon	30	(13.61)	50
Ceiling Mount							
JP2CM-L20	J Hook with ceiling mount bracket that has one 3/16" (M5), 1/4" (M6), and 3/8" (M10) mounting hole.	2	(50.8)	Nylon J Hook with metal attachments	30	(13.61)	50
Drop Wire and Threaded Rod Clip							
JP2DW-L20	J Hook with clip for use with #12 wire, threaded rod up to 3/8" in diameter, or 1/8" – 3/8" thick flanges.	2	(50.8)	Nylon J Hook with metal attachments	10	(4.53)	50
Screw-On Beam Clamps							
JP2SBC50-L20	J Hook with screw-on beam clamp for use with flanges up to 1/2" thick.	2	(50.8)	Nylon J Hook with metal attachments	30	(13.61)	50
JP2SBC50R-L20	J Hook with screw-on beam clamp for use with flanges up to 1/2" thick. Rotates 360 degrees.	2	(50.8)	Nylon J Hook with metal attachments	30	(13.61)	50
Hammer-On Beam Clamps							
JP2HBC25R-L20	J Hook with hammer-on beam clamp for use with flanges 1/8" – 1/4" thick. Rotates 360 degrees.	2	(50.8)	Nylon J Hook with metal attachments	30	(13.61)	50
JP2HBC50R-L20	J Hook with hammer-on beam clamp for use with flanges 5/16" – 1/2" thick. Rotates 360 degrees.	2	(50.8)	Nylon J Hook with metal attachments	30	(13.61)	50
JP2HBC75R-L20	J Hook with hammer-on beam clamp for use with flanges 9/16" – 3/4" thick. Rotates 360 degrees.	2	(50.8)	Nylon J Hook with metal attachments	30	(13.61)	50
Purlin Clips							
JP2ZP-L20	J Hook with z-purlin clip for use with angled flanges up to 1/4" thick.	2	(50.8)	Nylon J Hook with metal attachments	30	(13.61)	50
JP2CP-L20	J Hook with c-purlin clip for use with vertical flanges up to 1/4" thick.	2	(50.8)	Nylon J Hook with metal attachments	30	(13.61)	50
Under Floor Pedestal Support Clamp							
JP2UF100-L20	J Hook with under floor pedestal support clamp for use with pedestal support up to 1" in diameter.	2	(50.8)	Nylon J Hook with metal attachments	30	(13.61)	50

JP2W-L20   JP2CM-L20

JP2DW-L20

JP2SBC50-L20 JP2SBC50R-L20

JP2HBC25R-L20
JP2HBC50R-L20
JP2HBC75R-L20

JP2ZP-L20   JP2CP-L20

JP2UF100-L20

Contact customer service for information on the J-MOD™ Future Ready Cable Support System, which allows for complete flexibility of assembly in multiple configurations.
*Suitable for use in air handling spaces per UL 2043. Listed in accordance with CAN/ULC S102.2 when mounted as single units or in pairs. Minimum spacing of 4 ft. (1220mm) required between mount points. (Flame Spread Rating = 0, Smoke Developed Classification = 30).

Ladder Rack Cable Management Accessories

- Provide attractive installations
- Allow for easier moves, adds and changes
- Reduce stress on sensitive communication cabling

- Maintain bend radius control
- Maintain cabling performance
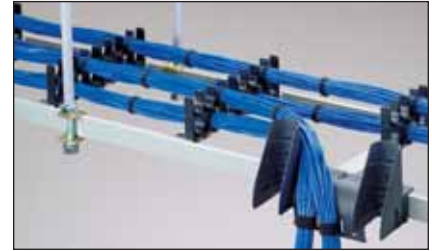
CRS6-X

CRS1-X

CRS4-125-X

CRS1-125-X

CMWB

CMWW

CMW-KIT

TRC18FR-X8

Part Number	Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
Six Space Stackable Cable Rack Spacer — 0.8" O.D. Cable				
CRS6-X	Six (6) space stackable cable rack spacer. Mounts to ladder rack with standard cross section cable ties. Accepts cable up to 0.8" in diameter.	Black	10	100
One Space Stackable Cable Rack Spacer — 0.8" O.D. Cable				
CRS1-X	One (1) space stackable cable rack spacer. Use with CRS6 to fill width of ladder rack. Mounts to ladder rack with standard cross section cable ties. Accepts cable up to 0.8" in diameter.	Black	10	100
Four Space Stackable Cable Rack Spacer — 1.25" O.D. Cable				
CRS4-125-X	Four (4) space stackable cable rack spacer. Mounts to ladder rack with standard cross section cable ties. Accepts cable up to 1.25" in diameter.	Black	10	100
One Space Stackable Cable Rack Spacer — 1.25" O.D. Cable				
CRS1-125-X	One (1) space stackable cable rack spacer. Use with CRS4 to fill width of ladder rack. Mounts to ladder rack with standard cross section cable ties. Accepts cable up to 1.25" in diameter.	Black	10	100
Cable Management Waterfall Base				
CMWB	Used to maintain bend radius control vertically when transferring cable off of ladder rack. Mounts to ladder rack with standard cross section cable ties (included).	Black*	1	10
Cable Management Waterfall Wing				
CMWW	Used in conjunction with CMWB to maintain bend radius control horizontally when transferring cable off ladder rack.	Black*	1	10
Cable Management Waterfall Kit				
CMW-KIT	Cable Management Waterfall Kit. Includes CMWB, 2 CMWW and cable ties.	Black*	1	10
Threaded Rod Cover				
TRC18FR-X8	Used to protect cabling from threaded rod. Vertical slit allows easy installation over 1/2" or 5/8" threaded rod. Material is flame retardant polyethylene that meets UL94V-0 specifications. For indoor use only. Available in 18" lengths.	Gray	10	100

*For white Waterfall part numbers, include a suffix of 10. For example: CMWB10.

Cable Management Accessories

- Use where depth is critical or space is limited
- Mounting slot design allows product to be used on equipment that has standard EIA hole spacing
- Organize cable vertically or horizontally

- Bundle and secure cable to prevent snags and stress
- Organize cable in a variety of applications

BR2-1.3
BR2-1.3-A

PPF2SV-S25-V
PPF2SV-S25-V69

PPF2S-S25-V
PPF2S-S25-V69

WBS6-Q

CCMKIT1

Part Number	Description	Color	Std. Pkg. Qty.	Std. Ctn. Qty.
2" Bundle Retainer				
BR2-1.3	2" bundle retainer supports cable in vertical or horizontal configurations. Standard EIA hole spacing for mounting. Maximum bundle capacity: 2.0" (50.8mm)	Black	1	10
BR2-1.3-A	2" bundle retainer supports cable in vertical or horizontal configurations. Adhesive base and standard EIA hole spacing provides mounting options. Maximum bundle capacity: 2.0" (50.8mm)	Black	1	10
Flat *PAN-POST*™ Standoff for *TAK-TY*® Hook and Loop Cable Ties				
PPF2SV-S25-V	Nylon Flat *PAN-POST* Standoff. Standard TIA hole spacing allows product to be mounted with user supplied screws to standard cabinets and racks. Used with *TAK-TY* Hook and Loop Cable Ties.	Natural	5	100
PPF2SV-S25-V69	Flame Retardant Nylon Flat *PAN-POST* Standoff. Standard TIA hole spacing allows product to be mounted with user supplied screws to standard cabinets and racks. Used with *TAK-TY* Hook and Loop Cable Ties.	Natural	5	100
Flat *PAN-POST* Standoff for Cable Ties				
PPF2S-S25-V	Nylon Flat *PAN-POST* Standoff. Standard TIA hole spacing allows product to be mounted with user supplied screws to standard cabinets and racks. Used with Miniature, Intermediate and Standard cable ties.	Natural	5	100
PPF2S-S25-V69	Flame Retardant Nylon Flat *PAN-POST* Standoff. Standard TIA hole spacing allows product to be mounted with user supplied screws to standard cabinets and racks. Used with Miniature, Intermediate and Standard cable ties.	Natural	5	100
6" Wire Bundle Strap				
WBS6-Q	Secures up to 6 square inches of cable. Wall mount with user supplied screws or nails. Standard TIA hole spacing allows product to be mounted with user supplied screws to standard cabinets and racks. 1.00" W x 2.54" H x 4.82" L (25.4mm x 64.5mm x 122.56mm).	Natural	25	125
Communication Cable Management Kit for Cabinets				
CCMKIT1	A kit of wire management accessories specifically designed for use in a network cabinet or enclosure. Kit includes the following: 12 Adhesive backed cable tie mounts, 24 Nylon cable ties, 1 roll *TAK-TY*, 8 Flat *PAN-POST* Standoffs, 6 Push style cable tie mounts, 4 Vertical wire saddles	—	1 Kit	100 Kits

PAN-WRAP™ Split Harness Wrap

- Patented slot pattern provides improved flexibility and abrasion protection in any application
- Large overlap accommodates a wide range of bundle diameters
- Unique wall design provides for easy wire or cable breakouts

- Innovative design maintains uniform bundle protection in dynamic applications
- Packaged on a reel for easy handling and dispensing of product

Part Number	Material**	Color	Length per Reel Ft. (M)	Max. Bundle Dia. In. (mm)	Min. Bundle Dia. In. ‡ (mm)	Nominal I.D. in (mm)	Temp. Range	Std. Pkg. Qty.*
PW50F-T20	Polyethylene	Black	200 (61.1)	.55 (14.0)	.43 (10.9)	.50 (12.7)	-40°F to 122°F (-40°C to 50°C)	1
PW50F-T	Polyethylene	Natural	200 (61.1)	.55 (14.0)	.43 (10.9)	.50 (12.7)	-40°F to 122°F (-40°C to 50°C)	1
PW75F-C20	Polyethylene	Black	100 (30.5)	.81 (20.6)	.55 (14.0)	.75 (19.1)	-40°F to 122°F (-40°C to 50°C)	1
PW75F-C	Polyethylene	Natural	100 (30.5)	.81 (20.6)	.55 (14.0)	.75 (19.1)	-40°F to 122°F (-40°C to 50°C)	1
PW100F-L	Polyethylene	Natural	50 (15.2)	1.13 (28.7)	.81 (20.6)	1.00 (25.4)	-40°F to 122°F (-40°C to 50°C)	1
PW100F-L20	Polyethylene	Black	50 (15.2)	1.13 (28.7)	.81 (20.6)	1.00 (25.4)	-40°F to 122°F (-40°C to 50°C)	1
PW150F-Q	Polyethylene	Natural	25 (7.6)	1.63 (41.4)	1.13 (28.7)	1.50 (38.1)	-40°F to 122°F (-40°C to 50°C)	1
PW150F-Q20	Polyethylene	Black	25 (7.6)	1.63 (41.4)	1.13 (28.7)	1.50 (38.1)	-40°F to 122°F (-40°C to 50°C)	1
PW50FR-T	Flame Retardant Polyethylene	Natural	200 (61.1)	.55 (14.0)	.43 (10.9)	.50 (12.7)	-40°F to 122°F (-40°C to 50°C)	1
PW50FR-T20	Flame Retardant Polyethylene	Black	200 (61.1)	.55 (14.0)	.43 (10.9)	.50 (12.7)	-40°F to 122°F (-40°C to 50°C)	1
PW75FR-C	Flame Retardant Polyethylene	Natural	100 (30.5)	.81 (20.6)	.55 (14.0)	.75 (19.1)	-40°F to 122°F (-40°C to 50°C)	1
PW75FR-C20	Flame Retardant Polyethylene	Black	100 (30.5)	.81 (20.6)	.55 (14.0)	.75 (19.1)	-40°F to 122°F (-40°C to 50°C)	1
PW100FR-L	Flame Retardant Polyethylene	Natural	50 (15.2)	1.13 (28.7)	.81 (20.6)	1.00 (25.4)	-40°F to 122°F (-40°C to 50°C)	1
PW100FR-L20	Flame Retardant Polyethylene	Black	50 (15.2)	1.13 (28.7)	.81 (20.6)	1.00 (25.4)	-40°F to 122°F (-40°C to 50°C)	1
PW150FR-Q	Flame Retardant Polyethylene	Natural	25 (7.6)	1.63 (41.4)	1.13 (28.7)	1.50 (38.1)	-40°F to 122°F (-40°C to 50°C)	1
PW150FR-Q20	Flame Retardant Polyethylene	Black	25 (7.6)	1.63 (41.4)	1.13 (28.7)	1.50 (38.1)	-40°F to 122°F (-40°C to 50°C)	1

*Order number of reels required.
‡Diameter can be further reduced with the use of cable ties.
**Flame retardant products are manufactured from a material that is rated UL94V-0.

PAN-WRAP™ Installation Tool

• Patented installation tool with 180° opening allows easy loading of maximum bundle diameters to speed installation, providing the lowest installed cost

Part Number	Color	For Use With	Std. Pkg. Qty.
PWT50	White	PW50F	1
PWT75	White	PW75F	1
PWT100	White	PW100F	1
PWT150	White	PW150F	1

TAK-TY® Hook and Loop Cable Ties

Provide an excellent solution for managing network and telecommunication cable

• Prevent over tensioning of high performance UTP and fiber optic cables
• Adjustable, releasable and reusable
• Ideal for applications requiring frequent cabling moves, adds or changes
• One piece design simplifies installations and provides improved durability
• Refer to Cable Tie Catalog (SA-CTCB03) for information on our complete line of cable ties, wiring accessories and abrasion protection products

These handy cable ties are very easy to release and re-use, making them ideal for applications where changes are anticipated or continuous access is required. These products are also great for applications where overtightening is a concern, and they will not pinch or abrade wires. Can be used with a variety of PANDUIT® mounts.

These versatile cable ties are available in different colors and different styles to satisfy your application requirements.

Applications

High performance cables can be managed more effectively with the use of TAK-TY Hook and Loop Cable Ties. Use them in the telecommunications room on both the front and back of racks as shown.

Ties can be used to secure various sizes of cable bundles.

HLT Style can be mounted directly to a rack with a screw.

Wide color choice allows for quick and easy color coding of separate cable bundles.

TAK-TY® Hook and Loop Cable Ties (continued)

- HLC ties — Pass hook portion through plastic cinch ring. Pull end of tie against ring to tension. Secure hook portion against loop portion of tie body to fasten
- HLT & HLS ties — Hook on one side and loop on the other, so it adheres to itself; wrap around bundle and secure end of tie on the body
- Releasable and reusable hundreds of times
- No risk of over tensioning and damaging high performance cabling
- No installation tool needed
- No waste since excess can be wrapped around bundle
- All styles may be used with the ABMT mount; HLM Series may be used with the ABM3H, ABM4H, and TMEH mounts; HLT Series may be used with TMEH mount
- HLSP and HLTP (Black and Maroon) are unique Hook & Loop styles that are UL Listed (#E56854) for use in air handling spaces per NEC, Section 300-22 (C) and (D)

HLC

HLT/HLTP

HLS/HLSP/HLM

HLTP/HLSP only

Color Chart		
Color	**Part No. Suffix**	**Example**
Black	0	HLT2I-X0
Red	2	HLT2I-X2
Orange	3	HLT2I-X3
Yellow	4	HLT2I-X4
Green	5	HLT2I-X5
Blue	6	HLT2I-X6
Gray	8	HLT2I-X8
White	10	HLT2I-X10
Maroon	12	HLTP2I-XI2

Part Number	Length In. (mm)	Width In. (mm)	Thickness In. (mm)	Head Width In. (mm)	Max. Bundle Dia. In. (mm)	Min. Loop Tensile Strength* Lbs. (N)	Std. Pkg. Qty.	Std. Ctn. Qty.
Cinch Ties — Cinch ring provides extra strength and bundle tightness (Black)								
HLC3S-X0	12.0 (305)	.750 (19.1)	.10 (2.5)	1.10 (27.9)	3.00 (76)	50 (222)	10	100
HLC5S-X0	18.0 (457)				5.00 (127)		10	100
Loop Ties — Slot allows for pre-wrapping of bundles (See Color Chart)								
HLT2I-X0	8.0 (203)	.500 (12.7)	.10 (2.5)	1.00 (25.4)	1.91 (49)	40 (178)	10	100
HLT3I-X0	12.0 (305)				3.18 (81)		10	100
UL Listed Loop Ties — PLENUM Rated (Maroon or Black)								
HLTP2I-X12‡	8.0 (203)	.500 (12.7)	.10 (2.5)	1.00 (25.4)	1.91 (49)	40 (178)	10	100
HLTP3I-X12‡	12.0 (305)				3.18 (81)		10	100
Strip Ties — Rolls Perforated in Convenient 6", 12" and 18" strips (See Color Chart)								
HLS1.5S-X0	6.0 (152)	.750 (19.1)	.10 (2.5)	—	1.50 (38)	50 (222)	10	100
HLS3S-X0	12.0 (305)				3.20 (81)		10	100
HLS5S-X0	18.0 (457)				5.00 (127)		10	100
UL Listed Strip Ties — PLENUM Rated (Maroon or Black)								
HLSP1.5S-X12‡	6.0 (152)	.750 (19.1)	.10 (2.5)	—	1.50 (38)	50 (222)	10	100
HLSP3S-X12‡	12.0 (305)				3.20 (81)		10	100
HLSP5S-X12‡	18.0 (457)				5.00 (127)		10	100
15' and 75' Rolls — Can be cut to desired length, eliminating waste (See Color Chart)								
HLM-15R0	180.0 (4572)	.330 (8.4)	.10 (2.5)	—	Various	18 (80)	1	10
HLS-15R0	180.0 (4572)	.750 (19.1)				50 (222)	1	10
HLS-75R0	900.0 (22,860)						1	10

*Minimum 2" overlap required to achieve loop tensile rating.
‡Also available in Black (-X0) which has an 18 lb. (80N) minimum loop tensile strength.

ULTRA-CINCH™ Hook & Loop Ties

- Exclusive material with hooks and loops on same side to secure a greater range of bundle diameters, including smaller bundles
- Low profile, contoured cinch ring reduces overall bundle size
- Releasable and reusable hundreds of times
- Tapered tip threads easily

- Sturdy brass grommet (on UGCTC and UGCTE styles) allows cable bundles to be securely fastened to surfaces
- *PANDUIT®* recommends flat-head screws for use in grommet applications

NOTE: Minimum 2" overlap required to achieve loop tensile rating

Part Number	Length In. (mm)	Width In. (mm)	Thickness In. (mm)	Head Height In. (mm)	Max. Bundle Dia In. (mm)	Min. Loop Tensile Strength* Lbs. (N)	Std. Pkg. Qty.	Std. Ctn. Qty.
Cinch Ties								
UCT3S-X0	12.0 (305)	.850 (21.6)	.100 (2.5)	1.100 (27.9)	3.00 (76)	50 (222)	10	100
UCT5S-X0	18.0 (457)				5.00 (127)		10	100
Cinch Ties with Center Mount Grommet (Bundle is centered over mounting point)								
UGCTC3S-X0	12.0 (305)	.850 (21.6)	.100 (2.5)	1.100 (27.9)	3.00 (76)	50 (222)	10	100
UGCTC5S-X0	18.0 (457)				5.00 (127)		10	100
Cinch Ties with End Mount Grommet (Bundle is offset from mounting point)								
UGCTE3S-X0	12.0 (305)	.850 (21.6)	.100 (2.5)	1.100 (27.9)	3.00 (76)	50 (222)	10	100
UGCTE5S-X0	18.7 (475)				5.00 (127)		10	100

*Minimum 2" overlap required to achieve loop tensile rating.

TAK-TAPE™ Hook and Loop Strips

- Hook and Loop fastener for general purpose bundling
- Strongest, low profile material in the industry
- Thin and flexible to quickly wrap around bundle
- Adjustable, releasable and reusable
- Large continuous roll you can cut to size
- Handy, reusable plastic case (TTS20) keeps material clean

Part Number	Length		Width		Max. Bundle Dia.		Min. Loop Tensile Str.*		Std. Pkg. Qty.	Std. Ctn. Qty.
	Ft.	M	In.	mm	In.	mm	Lbs.	N		
TTS-20R0	20	6	.750	19.1	Various	Various	50	222	1	10
TTS-35RX0	35	11	.750	19.1	Various	Various			1^	10

*Minimum 2" overlap required to achieve loop tensile rating.
^Std. Pkg. Qty. of TTS-35RX0 denotes 1 package of ten 35' rolls.

TAK-TY® Hook and Loop Cable Tie Mounts

- Smooth edges allow easy insertion of *TAK-TY* Hook and Loop Cable Ties and prevent abrasion of cabling insulation
- Cradle design retains cable bundle to prevent movement
- Flame retardant material provides increased flammability rating (UL94V-0)

- Black or natural color to match application environment
- Tear tab on adhesive backed mounts allows user to quickly remove adhesive liner to speed installation
- Universal screw hole with counterbore accepts #6 (M3) screws

Part Number	Material	Color	Environment	Mounting Method	Static Load. Lbs. (g)	Std. Pkg. Qty.	Std. Ctn. Qty.
ABMT-A-C	Nylon 6.6	Natural	Indoors	Rubber Adhesive	.38 (174)	100	1000
ABMT-S6-C				#6 (M3) Screw	—		
ABMT-A-C20		Black		Rubber Adhesive	.38 (174)		
ABMT-S6-C20				#6 (M3) Screw	—		
ABMT-S6-C60	Flame Retardant Nylon 6.6						
ABMT-S6-C69		Natural					

Convenience packaging of 25 pcs. per package is available. Replace -C in part number with -Q.

PAN-TY® Cable Ties

Engineered with quality features to increase productivity and reduce your total installed cost:
• High strength
• Low thread force
• No sharp edges
• Fingertip grip
• Curved tip

Consistent quality assurance with tests conducted by military and independent testing labs:
• One piece construction for consistent performance and reliability
• Materials and colors to suit the application and environment
• Many styles/sizes are UL Listed and/or UL Recognized

Part Number	Max. Bundle Diameter In. (mm)		Length In. (mm)		Min. Loop Tensile Strength Lbs. (N)	Std. Pkg. Qty.	Std. Ctn. Qty.
Nylon 6.6 (Locking)							
PLT.6SM-C	.60	(15)	2.8	(71)	8 (36)	100	1000
PLT.7M-C	.68	(17)	3.1	(79)		100	1000
PLT1M-C	.87	(22)	3.9	(99)	18	100	1000
PLT1.5M-C	1.25	(32)	5.6	(142)	(80)	100	1000
PLT2M-C	2.00	(51)	8.0	(203)		100	1000
PLT1.5I-C	1.38	(35)	5.6	(142)		100	1000
PLT2I-C	2.00	(51)	8.0	(203)	40	100	1000
PLT2.5I-C	2.50	(64)	9.7	(246)	(178)	100	1000
PLT3I-C	3.00	(76)	11.4	(290)		100	1000
PLT4I-C	4.00	(102)	14.5	(368)		100	1000
PLT1S-C	1.00	(25)	4.8	(122)		100	1000
PLT1.5S-C	1.50	(38)	6.2	(157)		100	1000
PLT2S-C	1.88	(48)	7.4	(188)		100	1000
PLT2.5S-C	2.50	(64)	9.8	(249)	50	100	1000
PLT3S-C	3.00	(76)	11.5	(292)	(222)	100	1000
PLT4S-C	4.00	(102)	14.5	(368)		100	1000
PLT4.5S-C	4.50	(114)	15.5	(394)		100	1000
PLT5S-C	5.00	(127)	17.5	(445)		100	500
PLT6LH-L	6.00	(152)	21.9	(556)		50	500
PLT7LH-L	7.00	(178)	24.7	(627)		50	500
PLT8LH-L	8.00	(203)	27.6	(701)		50	500
PLT9LH-L	9.00	(229)	30.5	(775)	120	50	500
PLT10LH-L	10.31	(262)	34.3	(871)	(534)	50	1000
PLT2H-L	2.00	(51)	8.1	(206)		50	500
PLT2.5H-L	2.50	(64)	9.8	(251)		50	500
PLT3H-L	3.00	(76)	11.4	(290)		50	500
PLT4H-L	4.00	(102)	14.5	(368)		50	500
PLT5H-L	5.00	(127)	17.7	(450)		50	500
PLT6H-L	6.00	(152)	20.9	(530)	175	50	500
PLT8H-L	9.00	(229)	30.6	(779)	(778)	50	500
PLT13H-Q	13.00	(330)	43.3	(1100)		25	500
PLT2EH-C‡	2.00	(51)	9.0	(229)		100	1000
PLT5EH-Q	5.00	(127)	20.1	(510)		25	250
PLT6EH-Q	6.00	(152)	22.2	(564)	250	25	250
PLT8EH-C‡	8.00	(203)	28.3	(719)	(1112)	100	1000
PLT10EH-C‡	10.00	(254)	34.2	(869)		100	500
PLT12EH-C‡	12.00	(305)	40.1	(1018)		100	500
Nylon 6.6 (Releasable)							
PRT1S-C	1.00	(25)	4.8	(122)		100	1000
PRT1.5S-C	1.50	(38)	6.3	(160)		100	1000
PRT2S-C	1.88	(48)	7.4	(188)	50	100	1000
PRT3S-C	3.00	(76)	11.5	(292)	(222)	100	1000
PRT4S-C	4.00	(102)	14.5	(368)		100	1000
PRT2H-L	2.00	(51)	8.4	(213)		50	500
PRT3H-L	3.00	(76)	11.4	(290)	80	50	500
PRT4H-L	4.00	(102)	14.5	(368)	(356)	50	500
PRT2EH-C‡	2.00	(51)	9.0	(229)		100	1000
PRT5EH-Q	5.00	(127)	20.1	(510)		25	250
PRT6EH-Q	6.00	(152)	22.2	(564)	250	25	250
PRT8EH-C‡	8.00	(203)	28.3	(719)	(1112)	100	1000
PRT10EH-C‡	10.00	(254)	34.2	(869)		100	500
PRT12EH-C‡	12.00	(305)	40.1	(1018)		100	500

Part Number	Max. Bundle Diameter In. (mm)		Length In. (mm)		Min. Loop Tensile Strength Lbs. (N)	Std. Pkg. Qty.	Std. Ctn. Qty.
Flame Retardant Nylon 6.6 (Locking) Meets UL94V-0 Flammability							
PLT1M-M69‡	.87	(22)	4.0	(102)	18 (80)	1000	25000
PLT2M-M69‡	2.00	(51)	8.0	(203)		1000	25000
PLT1.5I-M69‡	1.38	(35)	5.6	(142)	40 (178)	1000	25000
PLT2I-M69‡	2.00	(51)	8.0	(203)		1000	25000
PLT2S-M69‡	1.88	(48)	7.4	(188)	50 (222)	1000	10000
PLT4S-M69‡	4.00	(102)	14.5	(368)		1000	5000
PLT4H-TL69‡	4.00	(102)	14.6	(371)	120 (534)	250	2500
Polypropylene (Locking) for Chemical Resistance							
PLT1M-M109‡	.87	(22)	3.9	(99)	11 (49)	1000	50000
PLT1.5I-M109‡	1.38	(35)	5.6	(142)	18 (80)	1000	25000
PLT2S-M109‡	1.88	(48)	7.4	(188)		1000	10000
PLT3S-M109‡	3.00	(76)	11.5	(292)	30 (133)	1000	10000
PLT4S-M109‡	4.00	(102)	14.5	(368)		1000	5000
PLT2H-TL109‡	2.00	(51)	8.1	(206)		250	2500
PLT3H-TL109‡	3.00	(76)	11.4	(290)	50 (222)	250	2500
PLT4H-TL109‡	4.00	(102)	14.5	(368)		250	2500
TEFZEL* (Locking) For Nuclear and Harsh Environments							
PLT1M-C76	.87	(22)	4.0	(102)	18 (80)	100	1000
PLT2I-C76	2.00	(51)	8.0	(203)	25 (111)	100	1000
PLT2S-C76	1.88	(48)	7.4	(188)		100	1000
PLT3S-C76	3.00	(76)	11.6	(295)	50 (222)	100	1000
PLT4S-C76	4.00	(102)	14.6	(371)		100	1000
PLT3H-L76	3.00	(78)	11.5	(292)	120	50	500
PLT4H-L76	4.00	(102)	14.6	(371)	(534)	50	500
HALAR (Locking) For Plenum Applications**							
PLT1M-C702	.87	(22)	4.0	(102)	18 (80)	100	1000
PLT2S-C702	1.88	(48)	7.4	(188)	50 (222)	100	1000
PLT3S-C702	3.00	(76)	11.6	(295)	50 (222)	100	1000

*TEFZEL is the Registered Trademark of E.I. DuPont De Nemours Co.
**HALAR is the Registered Trademark of Solvay Solexis, Inc.

Temperature Ranges:

Material	Minimum	Maximum
Nylon 6.6	-40°F (-40°C)	185°F (85°C)
Nylon 12	-40°F (-40°C)	194°F (90°C)
Flame Ret. Nylon 6.6	-40°F (-40°C)	212°F 100°C)
Polypropylene	-40°F (-40°C)	238°F (115°C)
TEFZEL*	-50°F (-46°C)	338°F (170°C)
HALAR**	-50°F (-46°C)	302°F (150°C)

Applicable cable ties meet the requirements of Aerospace Standard SAE AS2390A. For color and material availability, see www.panduit.com.

Weather Resistant Nylon 6.6
Available in Weather Resistant Nylon 6.6 material that resists the effect of ultraviolet light in outdoor applications. (Add "0" suffix, i.e. PLT2S-C0).
‡Bulk package part number.

CONTOUR-TY® Cable Ties

- Low profile head avoids snags and reduces overall bundle size
- Fully enclosed head for consistent strength
- Parallel-entry threads like a belt at 180° with the same performance as conventional ties

- Outside serrations protect bundle
- Available in Natural Nylon 6.6 (indoor use) or Weather Resistant Black Nylon 6.6 (outdoor use) for a wide variety of applications
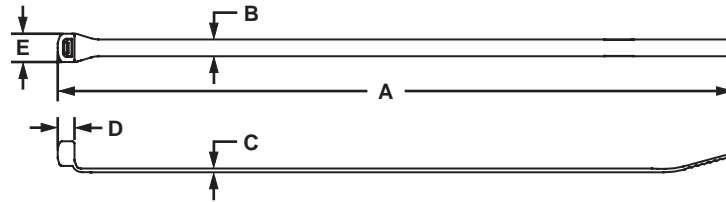
Part Number	Length A In. (mm)	Width B In. (mm)	Thickness C In. (mm)	Head Height D In. (mm)	Head Width E In. (mm)	Max. Bundle Dia. In. (mm)	Min. Loop Tensile Strength Lbs. (N)	Recommended PANDUIT Installation Tool Part No.	Bulk Pkg. Qty.	Bulk Ctn. Qty.
Miniature Cross Section										
CBR1M-M	4.1 (104)	.098 (2.5)	.038 (1.0)	.140 (3.6)	.195 (5.0)	1.00 (25)	18 (80)	GTS, GS2B, PTS, PPTS, STS2	1000	50000
CBR1.5M-M	5.6 (142)		.042 (1.1)	.146 (3.7)	.209 (5.3)	1.50 (38)			1000	50000
CBR2M-M	7.2 (183)					2.00 (51)			1000	25000
Intermediate Cross Section										
CBR1.5I-M	5.9 (150)	.140 (3.6)	.040 (1.0)	.180 (4.6)	.250 (6.4)	1.50 (38)	40 (178)	GTS, GS2B, PTS, PPTS, STS2	1000	50000
CBR3I-M	10.4 (264)		.052 (1.3)	.192 (4.9)	.262 (6.7)	3.00 (76)			1000	50000
CBR4I-M	13.6 (345)					4.00 (102)			1000	25000
Standard Cross Section										
CBR2S-M	7.6 (193)	.190 (4.8)	.044 (1.1)	.190 (4.8)	.332 (8.4)	2.00 (51)	50 (222)	GTS, GS2B, GTH, GS4H, PTS, PPTS, STS2, STH2	1000	50000
CBR3S-M	10.8 (274)		.052 (1.3)	.215 (5.5)		3.00 (76)			1000	50000
CBR4S-M	14.0 (356)					4.00 (102)			1000	25000
Heavy-Standard Cross Section										
CBR2HS-D	8.0 (203)	.250 (6.4)	.058 (1.4)	.240 (6.1)	.388 (9.9)	2.00 (51)	85 (378)	GTH, GS4H, GS4EH, STH2, ST2EH	500	5000
Light-Heavy Cross Section										
CBR4LH-TL	14.6 (371)	.300 (7.6)	.070 (1.8)	.322 (8.2)	.490 (12.4)	4.00 (102)	120 (534)	GTH, GS4H,GS4EH, PPTEH, STH2, ST2EH	1000	50000
CBR6LH-TL	20.9 (531)					6.00 (152)			1000	50000

Available in Weather Resistant Nylon 6.6 material that resists the effect of ultraviolet light in outdoor applications. (Add "0" suffix, i.e. CBR1M-M0).

Notes

PAN-PUNCH™ 110 Punchdown System

The *PANDUIT*® *PAN-PUNCH* 110 Punchdown System provides a better choice for Category 5e data and voice applications. Field terminable patch cord connectors feature an exclusive insulation displacement contact and cable retaining clips for quick and easy field termination. The *PAN-PUNCH* System provides a high quality, reliable interconnect or cross connect for an end-to-end structured cabling solution.


- Total compatibility with existing 110 systems

- Designed to accommodate high performance cabling applications

- 100 and 300 pair bases feature an exclusive, deeper channel which allows enhanced cable management for larger diameter cables

- *PAN-PUNCH* system maintains cable twists to within 1/2" of the termination for Category 5e compliance

PAN-PUNCH™ 110 Punchdown System

① **③** **⑦** **②**

Connecting Block Termination

④ **Field Terminable Patch Cord Connector**

⑤ **110 Rack Mount Kit** **⑥**
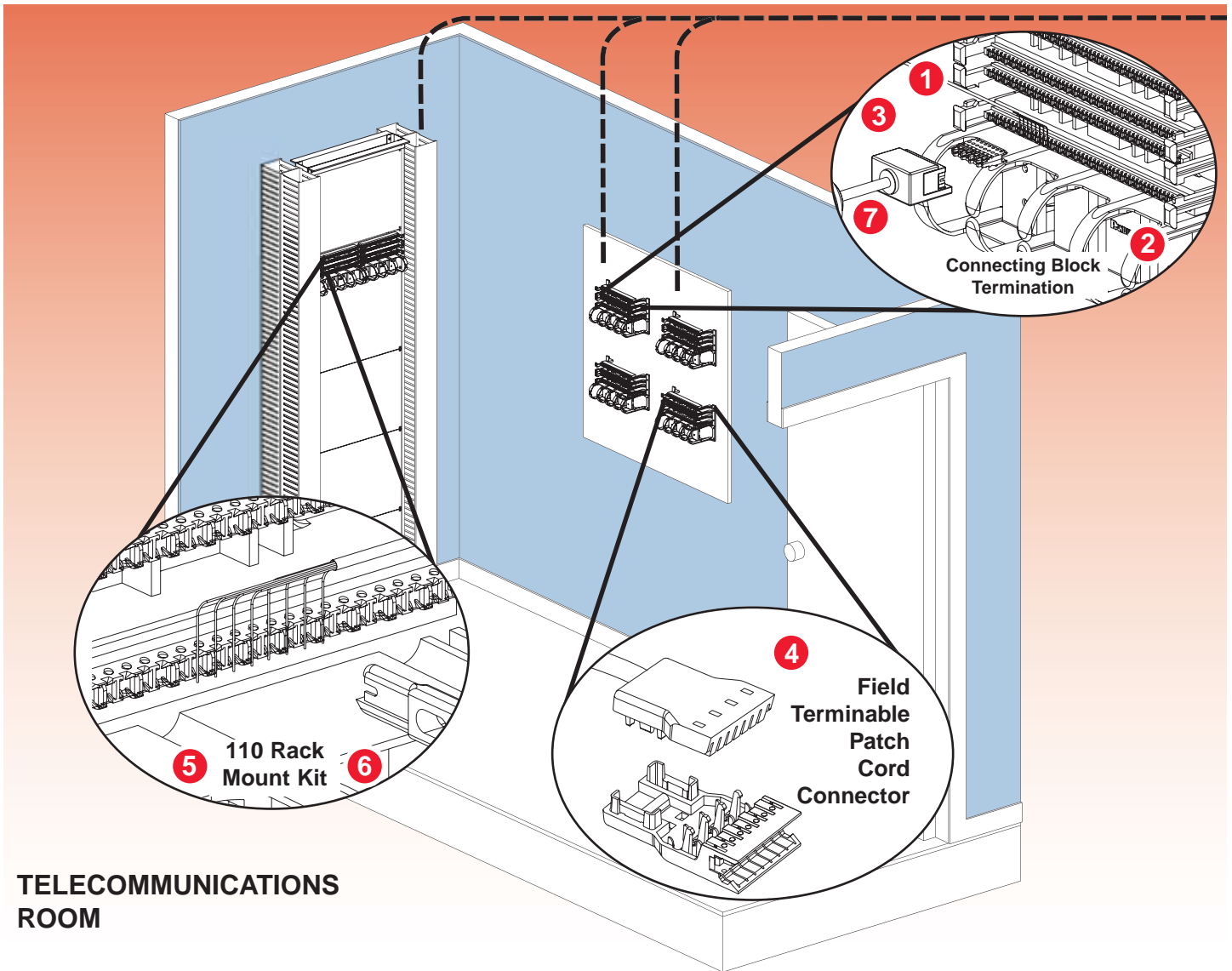
TELECOMMUNICATIONS ROOM

PAN-PUNCH Category 5e 110 Punchdown System *(pages 87-91)*

①

PAN-PUNCH **100 Pair Base with Legs**

②
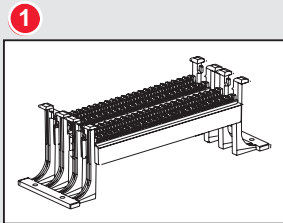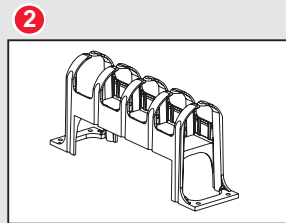
Jumper Trough with Legs (Cable Management)
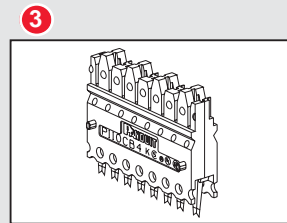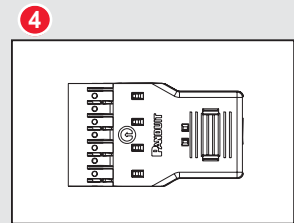
③

PAN-PUNCH **Category 5e 110 Connecting Block — 4 Pair**

④

PAN-PUNCH **Category 5e Field Terminable 110 Patch Connector — 4 Pair**

⑤

110 Rack Mount Kit

⑥

Single 110 Punchdown Tool

⑦
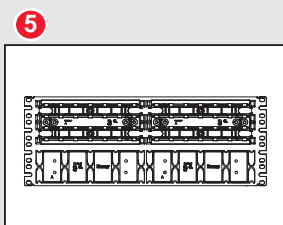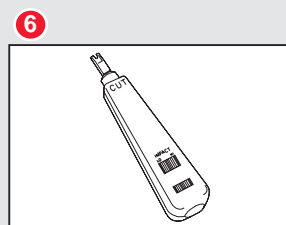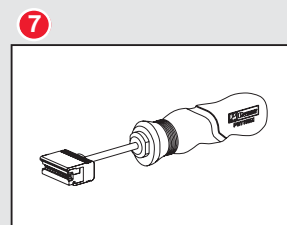
5-Pair 110 Punchdown Tool

PAN-PUNCH™ 110 Bases and Jumper Troughs

- *PAN-PUNCH* bases available in 100 pair and 300 pair versions
- Exclusive deeper channel to facilitate TIA/EIA Category 5e cabling installations with larger diameter cables
- Sturdy one piece design
- Highly visible, color coded wiring strip
- Jumper trough unique finger design maintains the cable bend radius which meets Category 5e installation requirements

P110BW100-X

P110B100-X

P110BW300-X
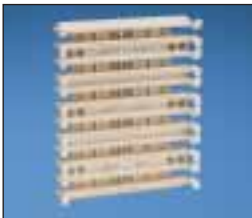
P110B300-X

P110JT-X   **P110JTW-X**

Part Number	Description	Std. Pkg. Qty.
PAN-PUNCH 100 Pair Base with Legs		
P110BW100-X	Positions and holds UTP cable for termination with PAN-PUNCH 110 Connecting Blocks. Legs allow cables to be routed behind bases.	1
PAN-PUNCH 100 Pair Base without Legs		
P110B100-X	Positions and holds UTP cable for termination with PAN-PUNCH 110 Connecting Blocks. For frame or rack mount wiring behind bases.	1
PAN-PUNCH 300 Pair Base with Legs		
P110BW300-X	Positions and holds UTP cable for termination with PAN-PUNCH 110 Connecting Blocks. Legs allow cables to be routed behind bases.	1
PAN-PUNCH 300 Pair Base without Legs		
P110B300-X	Positions and holds UTP cable for termination with PAN-PUNCH 110 Connecting Blocks. For frame or rack mount wiring behind bases.	1
Jumper Trough with Legs		
P110JTW-X	Provides optimum cable management when used with PAN-PUNCH 110 bases. Legs allow cables to be routed behind bases.	1
Jumper Trough without Legs		
P110JT-X	Provides optimum cable management when used with PAN-PUNCH 110 bases.	1

PAN-PUNCH™ 110 Labels

Part Number	Description	Std. Pkg. Qty.	Std. Ctn. Qty.
110 Designation Label Holder			
P110LH	Snaps into 110 base. Accepts loose piece or computer printable designation labels.	6	60

P110LH

White Non-Adhesive Labels* for 110 Bases

	Suggested Label Solutions for TIA/EIA-606-A Compliance			
	Desktop Printers	**Portable Printers**		**Label Size Width x Height In. (mm)**
	Laser/Inkjet	LS6	LS7	
Label Part Number	C788X050Y1J	—	—	7.88" x 0.50" (200.0 x 12.7)
	—	C788X050XY16	—	7.88" x 0.50" (200.0 x 12.7)
	—	—	LS7-50-1**	314.40" x 0.50" (7985.8 x 12.7)

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).
**For non-adhesive labeling solution, do not remove liner from label.

PAN-PUNCH™ 110 Connecting Blocks and Field Terminable Connectors

PAN-PUNCH Connecting Block

- Can be terminated a minimum of 200 times in cross-connect applications
- Highly visible color coded wiring slots
- Insulated contacts eliminate shorting of adjacent contacts
- Can be used with single or multipair punchdown tools
- UL 94V-0 high impact polycarbonate material
- Compatible with existing 110 systems
- TIA/EIA-568-B Category 5e compliant

P110CB4-C
P110CB4-X

P110CB5-C
P110CB5-X

Part Number	Description	Std. Pkg. Qty.	Std. Ctn. Qty.
PAN-PUNCH Category 5e 110 Connecting Block — 4 Pair			
P110CB4-C	Dual IDC terminates UTP cable on 110 base and UTP cable or 110 patch cords for cross-connecting.	100	1000
P110CB4-X		10	100
PAN-PUNCH Category 5e 110 Connecting Block — 5 Pair			
P110CB5-C	Dual IDC terminates UTP cable on 110 base and UTP cable or 110 patch cords for cross-connecting.	100	1000
P110CB5-X		10	100

PAN-PUNCH Field Terminable Connector

- IDC's provide reliable, gas-tight connections
- Strain relief reduces stress on cable
- Polarized to prevent reverse installation to connector block
- Contains two piece, snap-together housing – cable is user supplied
- Cable retaining clips secure jacket to the housing which makes it easy to sort and install wires
- Clear cover makes wire visible after terminating

P110PC1-X

P110PC2-X

P110PC4-X

Part Number	Description	Std. Pkg. Qty.	Std. Ctn. Qty.
PAN-PUNCH Category 3 Field Terminable 110 Patch Connector — 1 Pair*			
P110PC1-X	Contains two piece, snap-together housing – cable is user supplied. Terminates 1 pair 24 AWG solid or stranded cable.	10	100
PAN-PUNCH Category 5e Field Terminable 110 Patch Connector — 2 Pair			
P110PC2-X	Contains two piece, snap-together housing – cable is user supplied. Terminates 2 pair 24 AWG solid or stranded cable.	10	100
PAN-PUNCH Category 5e Field Terminable 110 Patch Connector — 4 Pair			
P110PC4-X	Contains two piece, snap-together housing – cable is user supplied. Terminates 4 pair 24 AWG solid or stranded cable.	10	100

*Category 3.

PAN-PUNCH™ 110 Punchdown Kits and Vertical Cable Manager

- Available with 100 or 300 pair bases with 4 or 5 pair connecting blocks
- Convenient packaging includes all of the components required to completely wire a 100 pair 110 base or 300 pair 110 base
- Vertical Cable Manager mounts to plywood backboard and adjacent to bases and jumper troughs. White metal back board with large D-rings, designed for wall mount vertical cable management from small to large installations

- 19" Rack Mount Panels designed for rack mount applications
- "Base and Trough" version requires 4 rack spaces
- Connector kits include all the necessary components to wire and label a 200 pair installation
- Rack mount panels offer optimum density with all the connections on the front

Part Number	Description	Std. Pkg. Qty.	Std. Ctn. Qty.
PAN-PUNCH Category 5e 19" Rack Mount Panel (Base and Troughs)			
P110B1004R4WJ	Two 100 pair bases and jumper troughs premounted to 19" rack mount panel with 4-pair connector kit with 5 four pair connectors and 1 five pair connector per row of 25 pairs. Four rack space panel.	1	10
PAN-PUNCH Category 5e 19" Rack Mount Panel (Base and Troughs)			
P110B1005R4WJ	Two 100 pair bases and jumper troughs premounted to 19" rack mount panel with 5-pair connector kit with 5 five pair connectors per row of 25 pairs. Four rack space panel.	1	10
PAN-PUNCH Category 5e 100 Pair Field Terminated Kit			
P110KB1004	Field terminated. Includes a base, 4-pair connector kit with 5 four pair connectors and 1 five pair connector per row of 25 pairs, two-label holders, and two white designation labels.	1	10
PAN-PUNCH Category 5e 100 Pair Field Terminated Kit			
P110KB1005	Field terminated. Includes a base, 5-pair connector kit with 5 five pair connectors per row of 25 pairs, two-label holders, and two white designation labels.	1	10
PAN-PUNCH Category 5e 300 Pair Field Terminated Kit			
P110KB3004	Field terminated. Includes a base, 4-pair connector kit with 5 four pair connectors and 1 five pair connector per row of 25 pairs, two-label holders, and two white designation labels.	1	10
PAN-PUNCH Category 5e 300 Pair Field Terminated Kit			
P110KB3005	Field terminated. Includes a base, 5-pair connector kit with 5 five pair connectors per row of 25 pairs, two-label holders, and two white designation labels.	1	10
Vertical Cable Manger for Backboard Mounting			
P110VCM	Mounts to plywood backboard and adjacent to bases and jumper troughs. Metal backboard and large D-rings, designed for wall mount vertical or horizontal cable management from 100 pair up 1/2" D x 6 1/2" H x 10 3/4" W.	1	10

P110B100*R4WJ

P110KB100*

P110VCM

110 Punchdown Tools and Wire Prep Tools

CJAST

PDT110

PDT110M

Part Number	Description	Std. Pkg. Qty.	Std. Ctn. Qty.
Wire Stripping Tool			
CJAST	Easy to use tool strips outer jacket of 4-pair UTP and ScTP cable.	1	10
Single 110 Punchdown Tool			
PDT110	Punchdown tool and blade for 110 style IDCs. Terminates and cuts UTP cable in one operation.	1	—
Replacement Blade			
PDTH110	Replacement blade for single pair punchdown tool.	1	—
5-Pair 110 Punchdown Tool			
PDT110M	5-pair 110 punchdown tool, can terminate up to 5 pairs at a time.	1	10
Replacement Head Assembly			
PDH110M	Replacement head assembly for 5-pair punchdown tool.	1	10
Replacement Blade			
PDB110M	Replacement blade for 5-pair punchdown tool.	1	10

Notes

NETKEY™ Snap-On Faceplates and PANDUIT® Surface Mount Outlet Boxes for PAN-WAY® Surface Raceway Systems

The NETKEY System features a wide range of PANDUIT Snap-on Faceplates and Surface Mount Outlet Boxes designed for use with PANDUIT PAN-WAY Surface Raceway Systems. FAST-SNAP™ Surface Mount Outlet Boxes are available for communication and electrical applications. They require no screws for assembly, providing the lowest installed cost. FAST-SNAP Surface Mount Outlet Boxes provide a superior aesthetic appearance when used with Snap-on Faceplates.

- NETKEY Snap-on Communication Faceplates accept NETKEY Modules

- Universal Snap-on Faceplates have a wide spacing to accept all common manufacturers' keystone style module

- Available in vertical and horizontal sloped orientation including two and four port versions

- Electrical Snap-on Faceplates cover standard electrical devices and are UL5A and CSA rated to 600V

Refer to PANDUIT PAN-WAY Non-Metallic Surface Raceway Catalog (SA-SRCB02) for complete surface raceway information.

— Office Furniture Raceway
— Cove Raceway
— PAN-WAY TG-70 Surface Raceway
— PAN-WAY T-70 & Twin-70 Surface Raceway
— PAN-WAY T-45 Surface Raceway
— ULTIMATE ID™ Network Labeling System

— Faceplates, Surface Mount Outlet Boxes & Labeling Administration
— PAN-WAY LD Profile Surface Raceway
— PAN-WAY T130 Surface Raceway
— PAN-POLE™ Outlet Poles

PAN-WAY® Surface Raceway Systems
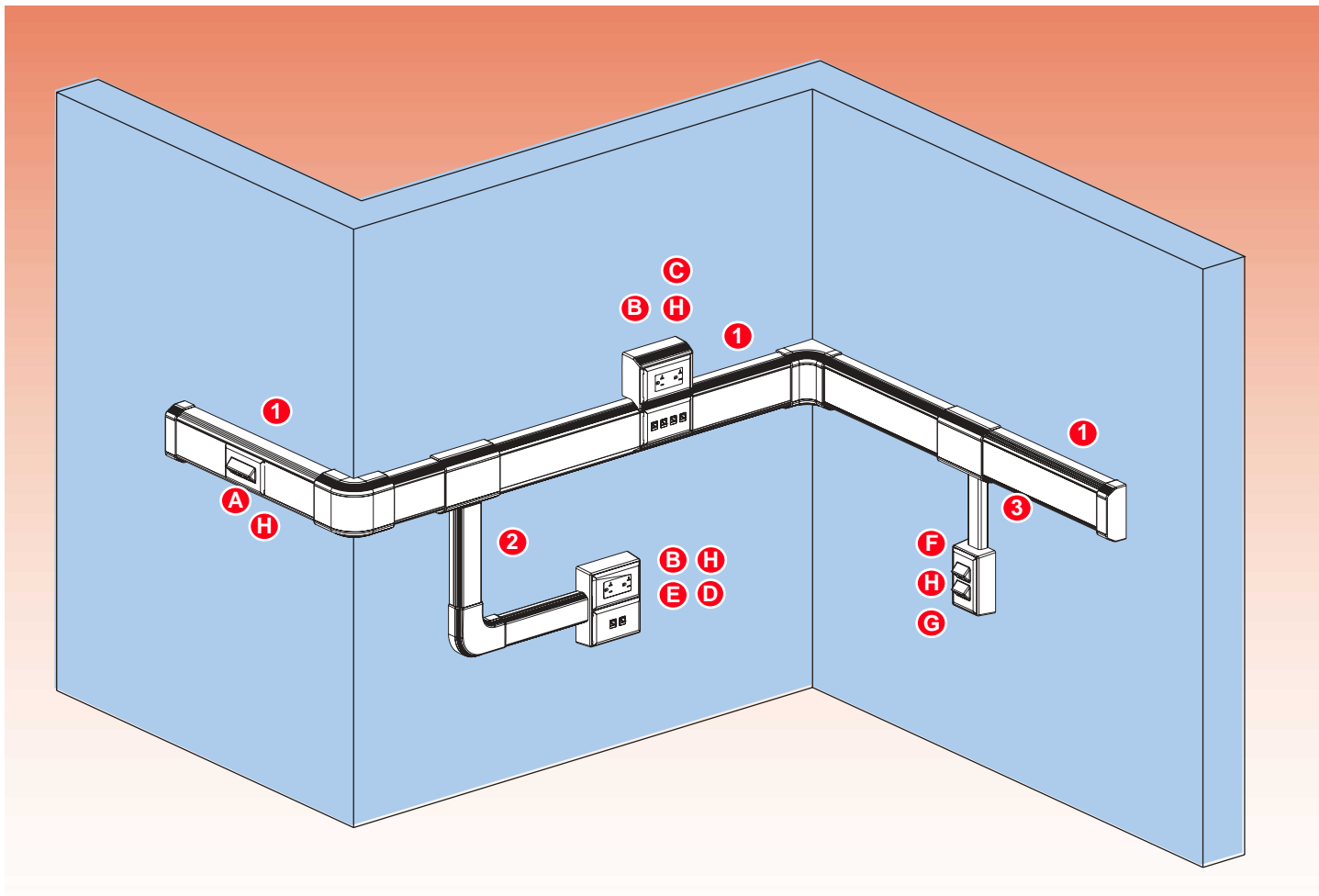
See PANDUIT® PAN-WAY Non-Metallic Surface Raceway Catalog (SA-SRCB02) for additional surface raceway information.

❶　　　　**❷**　　　　**❸**

T70 Raceway (Shown)　　**T45 Raceway (Shown)**　　**LDP Raceway (Shown)**

LD Raceway　　**Office Furniture Raceway**　　**Cove Raceway**

TG-70 Raceway　　　　**Twin-70 Raceway**
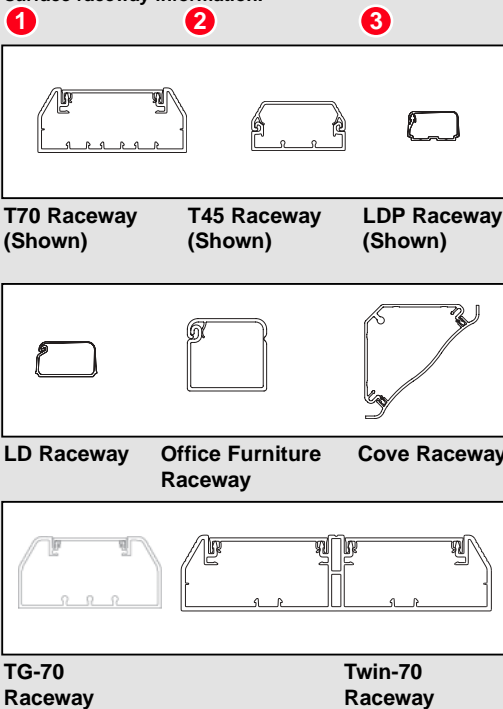
Snap-On Faceplates, Surface Mount Boxes, Surface Raceway Systems (pages 95-98)

Ⓐ　　**Ⓑ**　　**Ⓒ**　　**Ⓓ**

NETKEY Four Position Horizontal Snap-On Faceplates

Single Gang Rectangular Electrical Snap-On Faceplates

Universal Keystone Four Position Horizontal Snap-On Faceplates

FAST-SNAP™ Double Gang Power Rated Surface Mount Outlet Box

Ⓔ　　**Ⓕ**　　**Ⓖ**

Universal Keystone Two Position Horizontal Snap-On Faceplates

FAST-SNAP Single Gang Low Voltage Surface Mount Outlet Box

NETKEY Four Position Vertical Snap-On Faceplates

NETKEY™ Connector Modules

Ⓗ

NETKEY Category 6, 5e, and 5 Keystone Module (see page 8)

NETKEY Fiber Adapter Modules (see page 18)

NETKEY AV Modules (see pages 10-11)
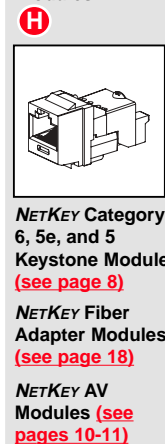
Snap-On Faceplates for *PANDUIT*® Raceway/Boxes

- Accept all *NETKEY™* Modules for UTP (including Category 5e and Category 6), Fiber Optic and Audio/Video, which snap in and out for easy moves, adds and changes‡
- Snap into raceway channel, requires no additional mounting hardware or adapters — greatly reducing installation time
- Tamper resistant
- For use with *PANDUIT* Raceways: LD, T-45, T-70, Twin-70, TG-70, Cove, Office Furniture Raceway** and *FAST-SNAP™* Outlet Boxes
- Available in three colors

NK2HSRF

NK4HSRF

NK4VSRF

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
NETKEY Two Position Horizontal Snap-On Faceplate				
NK2HSRFIW	Snap mount two position sloped horizontal faceplate accepts any *NETKEY* module. Compatible with *PANDUIT FAST-SNAP* Outlet Boxes, Surface Raceway Systems** and *PAN-POLE™* Outlet Poles.	Off White	1	10
NETKEY Four Position Horizontal Snap-On Faceplate				
NK4HSRFIW	Snap mount four position sloped horizontal faceplate accepts any *NETKEY* module. Compatible with *PANDUIT FAST-SNAP* Outlet Boxes, Surface Raceway Systems** and *PAN-POLE* Outlet Poles.	Off White	1	10
NETKEY Four Position Vertical Snap-On Faceplate				
NK4VSRFIW	Snap mount four position sloped vertical faceplate accepts any *NETKEY* module. Compatible with *PANDUIT FAST-SNAP* Outlet Boxes, Surface Raceway Systems** and *PAN-POLE* Outlet Poles.	Off White	1	10

‡*NETKEY* faceplates are NOT compatible with *PANDUIT MINI-COM®* Modules.
Other colors available. See below.
**See *PANDUIT PAN-WAY* Non-Metallic Surface Raceway System Catalog (SA-SRCB02) for these parts.
▲ for *FAST-SNAP* Outlet Boxes for *PANDUIT* Snap-On Faceplates.

- Wider module spacing to accept all common manufacturers' keystone modules or any keystone module .900 inches wide or less

T70KW2

T70KW4

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
Universal Keystone Two Position Horizontal Snap-On Faceplate				
T70KW2IW	Snap-mount two position flush mount faceplate accepts any *NETKEY* module and most other manufacturers' keystone modules. Compatible with *PANDUIT FAST-SNAP* Outlet Boxes, Surface Raceway Systems** and *PAN-POLE* Outlet Poles.	Off White	1	10
Universal Keystone Four Position Horizontal Snap-On Faceplate				
T70KW4IW	Snap-mount four position flush mount faceplate accepts any *NETKEY* module and most other manufacturers' keystone modules. Compatible with *PANDUIT FAST-SNAP* Outlet Boxes, Surface Raceway Systems** and *PAN-POLE* Outlet Poles.	Off White	1	10

*Other colors available. See below.
**See *PANDUIT PAN-WAY* Non-Metallic Surface Raceway System Catalog (SA-SRCB02) for these parts.

*Standard color:	For other colors, substitute IW with:
IW	EI	WH
Off White	Elec. Ivory	White
Color shown is approximate.	Colors shown are approximate.

White Adhesive Labels* for Snap-On Faceplates

Suggested Label Solutions for TIA/EIA-606-A Compliance				
	Desktop Printers	Portable Printers		Label Size Width x Height In. (mm)
	Laser/Inkjet	LS6	LS7	
Label Part Number	C125X030FJJ	—	—	1.25" x 0.30" (31.8 x 76.2)
	—	C125X030FJ6	—	1.25" x 0.30" (31.8 x 76.2)
	—	—	LS7-38-1	314.40" x 0.35" (7985.8 x 9.0)

*For a complete catalog of labeling solutions, request the Identification Solutions Catalog (SA-IDCB16).

Snap-On 106 Duplex and Rectangular Electrical Faceplates for *PANDUIT* ® Raceway

- Snap-on faceplates cover one NEMA standard electrical outlet or one standard communication module frame‡
- For use with *PANDUIT* Raceways: LD, T-45, T-70, Twin-70, TG-70, Cove, Office Furniture Raceway** and *FAST-SNAP* ™ Outlet Boxes
- Available in three colors

T70P

T70PG

T70PS

T70PGS

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
Single Gang 106 Duplex Electrical Snap-On Faceplate				
T70PIW	Snap-on faceplate covers one NEMA standard 106 duplex electrical outlet. In communication application covers one standard 106 duplex communication module frame. No additional mounting hardware required.	Off White	1	10
Single Gang Rectangular Electrical Snap-On Faceplate				
T70PGIW	Snap-on faceplate covers one NEMA standard rectangular electrical outlet. In communication application covers one standard rectangular communication module frame. No additional mounting hardware required.	Off White	1	10
Single Gang 106 Duplex Communication Snap-On Faceplate *(with screw holes to mount a module frame)*				
T70PSIW	Snap-on faceplate covers one NEMA standard 106 duplex module frame. Module frame screw mounts directly to underside of snap-on faceplate. *No mounting device needed. Supplied with one mounting screw.*	Off White	1	10
Single Gang Rectangular Module Frame Snap-On Faceplate *(with screw holes to mount a module frame)*				
T70PGSIW	Snap-on faceplate covers one NEMA standard rectangular communication module frame. Module frame screw mounts directly to underside of snap-on faceplate. *No mounting device needed. Supplied with two mounting screws.*	Off White	1	10

‡ for *NETKEY* ™ "106" Duplex and Rectangular Module Frames.
**See *PANDUIT PAN-WAY* ® Non-Metallic Surface Raceway System Catalog (SA-SRCB02) for these parts. Other colors available. See below.
▲ for *FAST-SNAP* Outlet Boxes for *PANDUIT* Snap-On Faceplates.

Module frame screw mounts directly to underside of **T70PS** and **T70PGS.**

*Standard color:	For other colors, substitute IW with:	
IW	EI	WH
Off White	Elec. Ivory	White
Color shown is approximate.	Colors shown are approximate.	

FAST-SNAP™ Outlet Boxes for PANDUIT® Snap-On Faceplates

- No screws required for box assembly
- Accepts PAN-WAY® Snap-On Faceplates for data and power applications
- Superior aesthetic appearance
- Works with PANDUIT LD3, LD5, LD10, LD2P10 and T-45 Raceway**
- Available in three colors
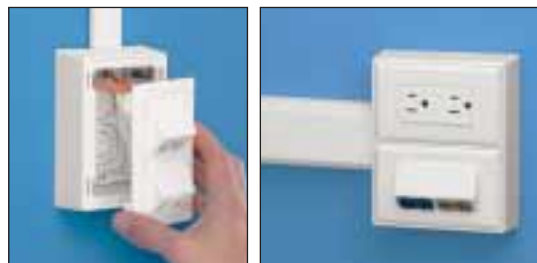
JB1FS-A

JBP2FS

Part Number	Description	Color*	Std. Pkg. Qty.	Std. Ctn. Qty.
FAST-SNAP Single Gang Low Voltage Surface Mount Outlet Box				
JB1FSIW-A	Single gang snap-together cover and base with adhesive backing. Accepts PANDUIT snap-on faceplates for data applications. L = 5.00 (127.1mm) W = 3.26 (82.7mm) H = 1.62 (41.1mm) Conduit breakouts: 1", 1/2", and 3/4". LD3, 5 and 10 breakouts.	Off White	1	10
FAST-SNAP Double Gang Power Rated Surface Mount Outlet Box				
JBP2FSIW	Double gang snap-together cover and base. Accepts PANDUIT snap-on faceplates for power and data applications. L = 5.00 (127.1mm) W = 6.14 (155.9mm) H = 1.62 (41.1mm) Conduit breakouts: 1", 1/2" and 3/4". LD3, 5 and 10 breakouts.	Off White	1	10

**See PANDUIT PAN-WAY® Non-Metallic Surface Raceway System Catalog (SA-SRCB02) for these parts.
Other colors available. See below.

*Standard color:	For other colors, substitute IW with:	
IW	EI	WH
Off White	Elec. Ivory	White
Color shown is approximate.	**Colors shown are approximate.**	

TIA/EIA Standard Guide

The information contained within this section contains portions of the TIA/EIA-568-B, TIA/EIA-569-A *(see page 106)*, TIA/EIA-606-A,TIA/EIA-607 standards published by the Telecommunications Industry Association (TIA).*
"For further information on how to obtain TIA standards please go to http://global.ihs.com or contact Global Engineering Documents at 1-800-854-7179 or 303-397-7956"

TIA/EIA-568-B Commercial Building Telecommunications Cabling Standard

Purpose

This standard specifies a generic telecommunications cabling system for commercial buildings that will support a multi-product, multi-vendor environment. The purpose of this standard is to enable the planning and installation of a structured cabling system for commercial buildings. This standard establishes performance and technical criteria for various cabling system configurations for accessing and connecting their respective elements. When applying specific applications to these cabling systems, the user is cautioned to consult application standards, regulations, equipment vendors, and system and service suppliers for applicability, limitations, and ancillary requirements.

Horizontal Cabling

Shall be star topology:

Each work area telecommunications outlet/ connector shall be connected to a horizontal interconnect or cross-connect in a telecommunications room via the horizontal cable. Horizontal cabling shall contain no more than one transition point or consolidation point between the horizontal cross-connect and telecommunications outlet.
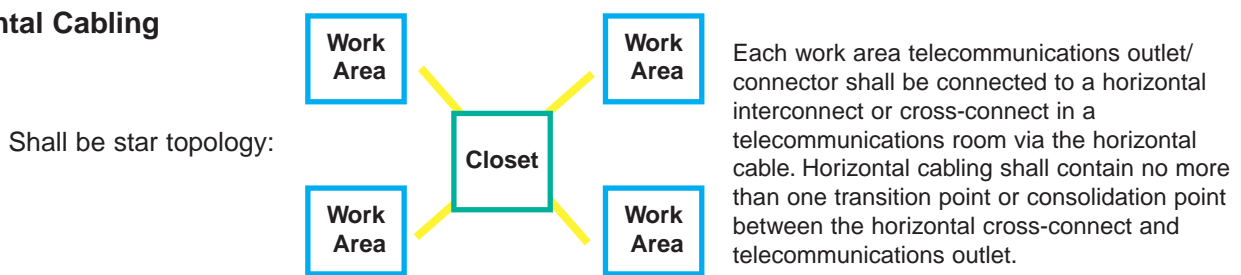
The maximum total length including patch cords and work area cables is 328' (100 meters).

Telecommunications Room
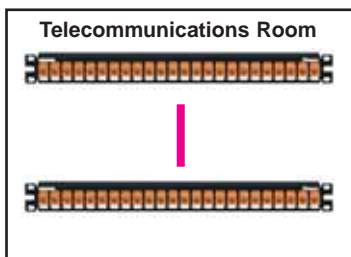
Patch cords in closet are recommended not to exceed 16' (5 meters).

Work Area

Work area cables are recommended not to exceed 16' (5 meters).

A minimum of two outlets are required for each individual work area.

• One outlet/connector shall be a four-pair 100-ohm cable, Category 3 or higher (Category 5e or Category 6 recommended)

• Second outlet/connector(s) shall be a minimum of one of the following:
    1.) four-pair 100-ohm Category 5e or Category 6 cable
    2.) two-fiber multimode optical fiber cable, either 62.5/125mm or 50/125mm

*See bibliography *(page 106)* for complete listing of standard documents referenced.

Backbone Cabling

The function of the backbone cabling is to provide interconnections between telecommunications rooms, equipment rooms, main terminal space and entrance facilities in the telecommunications cabling system structure. Backbone cabling also includes cabling between buildings.

Recognized backbone cables are:
a.) 100-ohm twisted-pair cable (Category 3, 5e and 6)
b.) multimode optical fiber cable, either 62.5/125mm or 50/125mm
c.) singlemode optical fiber cable

Shall be hierarchical star topology:

```
                    Main
                Cross-Connect

                                Intermediate Cross-
                                Connect (Optional)

Telecommunications  Telecommunications  Telecommunications  Telecommunications
     Room                Room                Room                Room
```
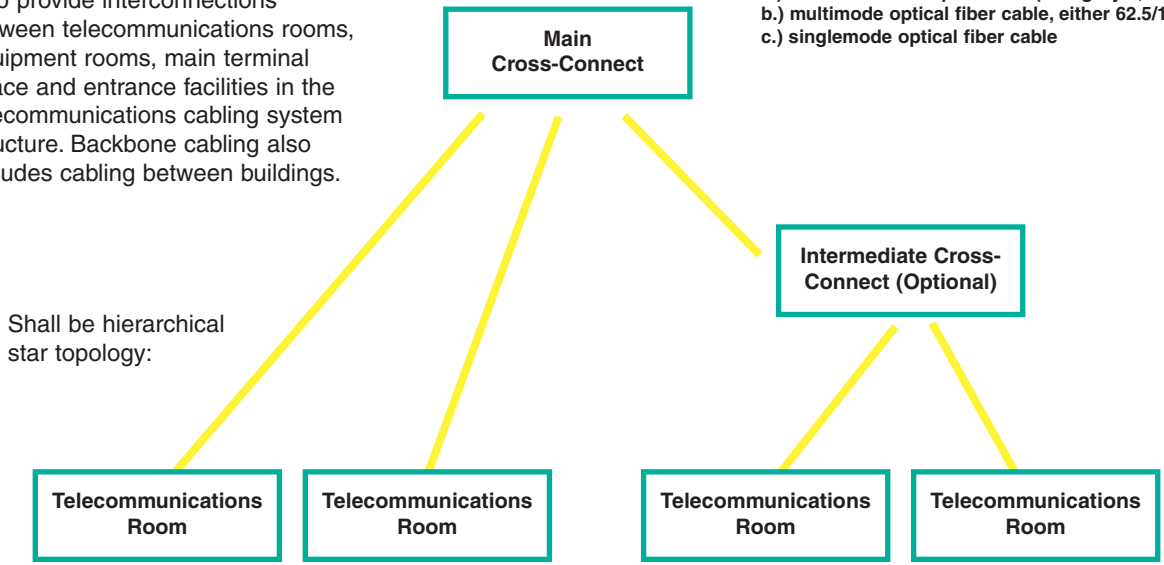
Maximum distance between main cross-connect and telecommunications room:
• **100-ohm twisted-pair (voice only) = 2624' (800 meters)**
• **Category 3 100-ohm twisted-pair (appl. to 16 MHz) = 328' (100 meters)***
• **Category 5e 100-ohm twisted-pair (appl. to 100 MHz) = 328' (100 meters)***
• **Category 6 100-ohm twisted-pair (appl. to 100 MHz) = 328' (100 meters)***
• **Multimode Fiber (62.5/125µm or 50/125µm = 6560' (2000 meters)**
• **Multimode Fiber (850mm laser optimized 50/125µm = 984' (300 meters)**
• **Singlemode Fiber = 9840' (3000 meters)**

*Includes equipment patch cords at both ends.

Work Area

The Work Area is the location where the work station equipment interfaces with the telecommunications outlet/connector in the cabling system. The work station equipment can be any of a number of devices including but not limited to telephones, data terminals and computers

Design for easy moves, adds and changes.

Application specific electrical components shall be placed external to the faceplate.

Open Office Cabling

Provides two additional cabling options for open office environments. A multi-user telecom outlet assembly (MUTOA) and consolidation point (CP).

Multi-User Telecom Outlet Assembly (MUTOA)
- Horizontal cables are terminated in a common location
- The work area cables shall be connected directly to work station equipment without any additional intermediate connections
- Shall serve no more than 12 work areas
- Shall be permanently mounted, not in ceiling spaces
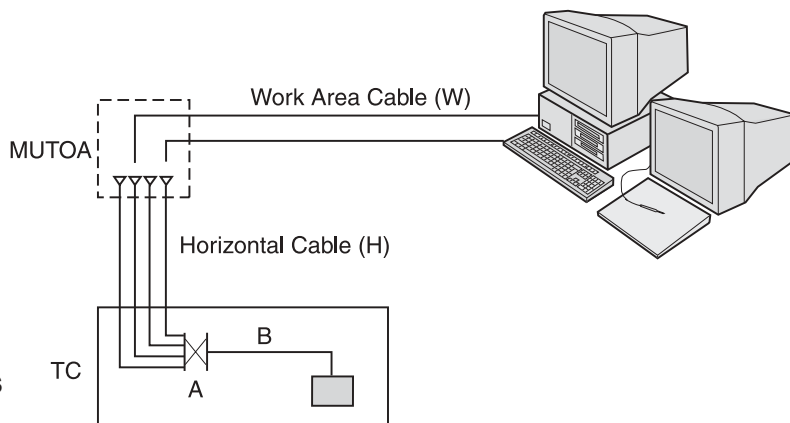
Horizontal Distances for Copper Links
Allows for the Work Area cable to extend up to 72' (22 meters). As compensation for this increased work area cable length, the horizontal cable length must be reduced by the formulas shown below.

$$C = (102 - H)/1.2$$

$$W = C - 5 <= 22 \text{ meters}$$

Where W is the work area cable length, H is the horizontal cable length, and C is the total combined length of work area cable, patch cords, and equipment cable. The table summarizes these formulas.

Maximum Length of Horizontal Cable H ft (meters)	Maximum Length of Work Area Cable W ft (meters)	Maximum Length of Work Area Cable Patch Cords and Equipment Cable C ft (meters)
295 (90)	16 (5)	33 (10)
279 (85)	30 (9)	46 (14)
262 (80)	44 (13)	59 (18)
246 (75)	57 (17)	72 (22)
230 (70)	72 (22)	89 (27)

NOTE: The formulas and table above assume that the total length of the telecommunications room patch cords is 16' (5 meters).

Horizontal Distances for Fiber Optical Links
Any combination of horizontal cables, work area cables, patch cords and equipment cables is acceptable as long as total length does not exceed 100 meters.

Consolidation Point Connector
- Interconnection point within horizontal cabling
- Work area outlet is retained
- Serve no more than 12 work areas
- No more than one allowed in each horizontal run
- Should be located at least 15 meters (49') from the telecommunications room.
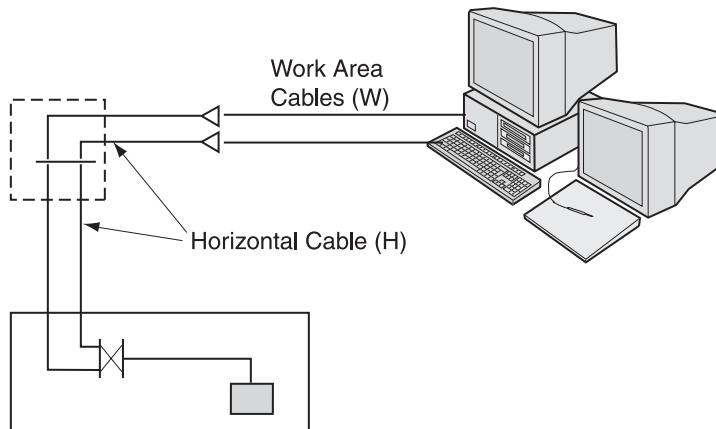
Telecommunications Room

The primary functions of the telecommunications room is the termination of horizontal and backbone cables to compatible connecting hardware.

Cable Management Precautions:

- Avoid cable stress/tension
- Use appropriate cable routing and dressing fixtures
- Cables should not be routed in tightly circled bundles

Installer Tip Use *TAK-TY*® Hook & Loop Ties in the telecommunications room. (See page 79)

- All connections between horizontal and backbone cables shall be cross-connects
- Shall be designed according to TIA/EIA-569-B

Interconnection		Cross-Connection
	Common Equipment	
	Equipment Cord	
	Connecting Hardware	
	Patch Cord	
	Horizontal Cable	
	Work Area Outlet	
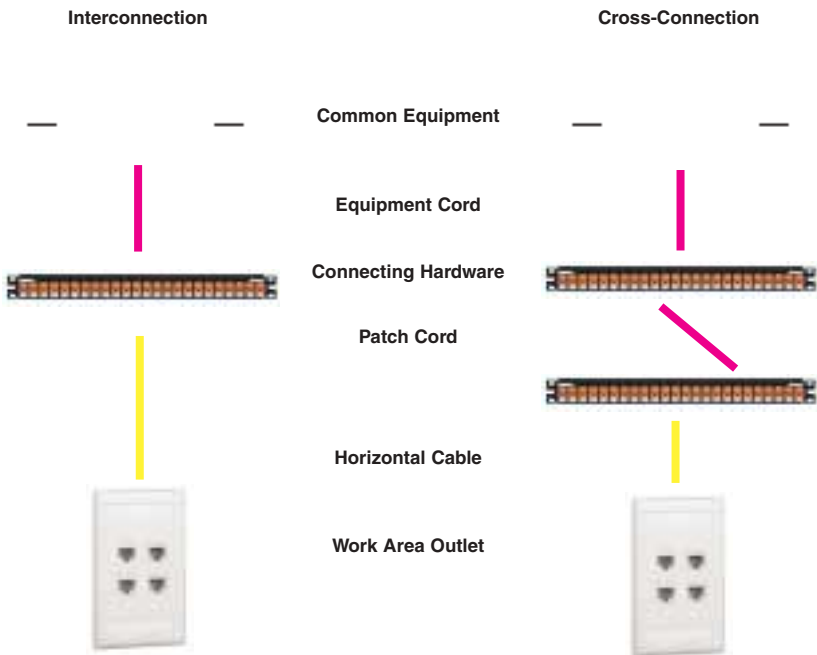
Media: UTP Cabling

Recognized Categories of UTP cabling are as follows:

Category 6: Requirements specified up to 250 MHz
Category 5e: Requirements specified up to 100 MHz
Category 3: Requirements specified up to 16 MHz
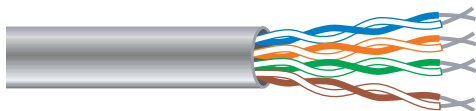
Horizontal Cabling:
- Cable specified is 22 to 24 AWG solid 4-pair unshielded twisted-pair
- Overall shield (referred to as screened twisted-pair cable — ScTP) is also allowed.

Cable shall be terminated to an 8 position modular jack.

Pin/Pair Assignment: T568-A

Pair 2
Pair 3   Pair 1   Pair 4

1	2	3	4	5	6	7	8
W-G	G	W-O	BL	W-BL	O	W-BR	BR
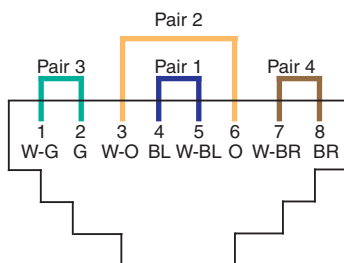
Pin/Pair Assignment: T568-B (Optional)

Pair 3
Pair 2   Pair 1   Pair 4

1	2	3	4	5	6	7	8
W-O	O	W-G	BL	W-BL	G	W-BR	BR
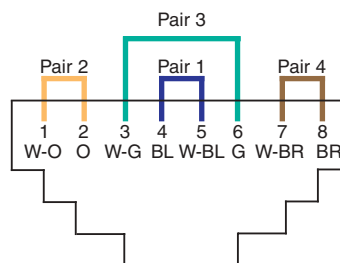
Media: UTP Cabling Practices
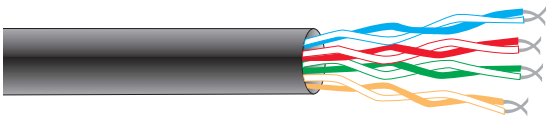
- Maintain pair twists as close as possible to the point of termination
- Untwisting shall not exceed 0.5" (13mm) for Category 5 cables or higher
- Untwisting shall not exceed 3.0" (25mm) for Category 3 cables
- Maximum pulling tension = 25 lbs. (110N)
- Strip back jacket only as far as required for proper termination

Minimum bend radius under no load shall be four times the cable diameter

Maximum cable diameter for Category 5e cable is .25"

.25" x 4 = 1.0"

Patch Cords

- Patch cords should be of stranded construction

- Patch cords require the same transmission requirements as horizontal cable with the exception of attenuation (20% more attenuation is allowed for stranded cable)

- Cross-connect jumpers and cables used for patch cords should be of the same performance category or higher as the horizontal cables to which they connect

Media: Optical Fiber

Optical fiber cabling for horizontal and backbone applications:

- Horizontal:
  Two-fiber multimode optical fiber cable, either 62.5/125µm or 50/125µm
- Backbone:
  Multimode, optical fiber cable, either 62.5/125mm or 50/125mm, or singlemode optical fiber cable

Optical fiber patch cords:
- Must be two-fiber cable of an indoor construction, with the same fiber type as the optical fiber cabling

Inside Plant Cabling Practices:
- 2- and 4-fiber cables intended for horizontal or centralized cabling shall support a bend radius of 1" (25mm) under no-load conditions. Maximum pulling tension = 50 lbf (222N)

Cabling Transmission Performance and Test Requirements

Specifies the electrical characteristics of field test instruments, test methods, and minimum transmission requirements for 100-ohm twisted-pair cabling.

Applicable to:
- 100-ohm four-pair UTP and ScTP cabling only
- Horizontal cable only

Permanent Link
- Used to verify the performance of permanently installed cabling
- Includes cable and connecting hardware only
- Limited to 295' (90 meters)

PERMANENT LINK DEFINITION

Test Instrument — F G — Optional Transition Point Connector

Begin Perm Link

(▷ = Telecommunications Outlet Connector)

H

End Perm Link

Horizontal cross-connect or interconnect

Test Instrument — F

F are test cords
G is optional transition cabling
H is horizontal cabling

Max G+H = 90m
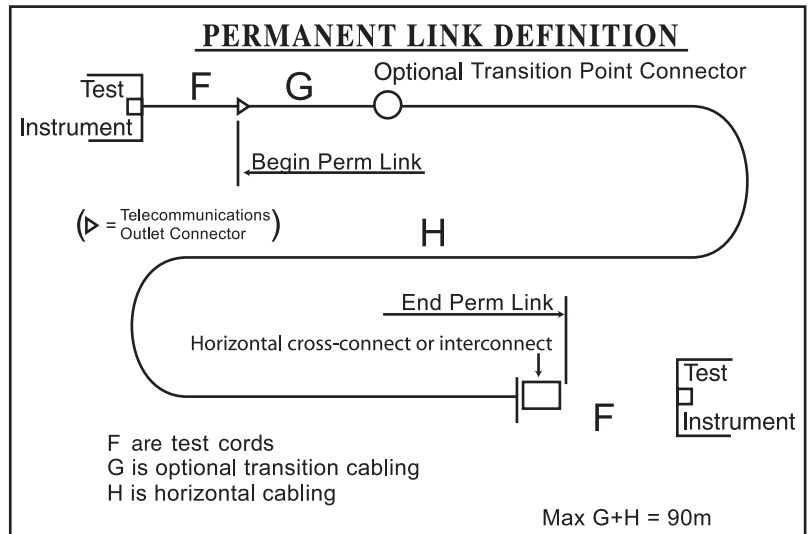
Channel
- Includes cable, connecting hardware and patch cords
- Defines entire channel
- Limited to 328' (100 meters)
- The total length of equipment cords, patch cords or jumpers and work area cords shall not exceed 10 m (33 ft.)

CHANNEL DEFINITION

Test Instrument — A Outlet B — Optional Transition Point Connector

Begin Channel

C

Horizontal cable

End Channel

Horizontal cross-connect or interconnect

X D E — Test Instrument

A=User patch cord
B=Optional Transition Cabling
C=Horizontal Cabling
D=Cross connect   Max B + C = 90m
E=User Equipment cord   Max A + D + E = 10m
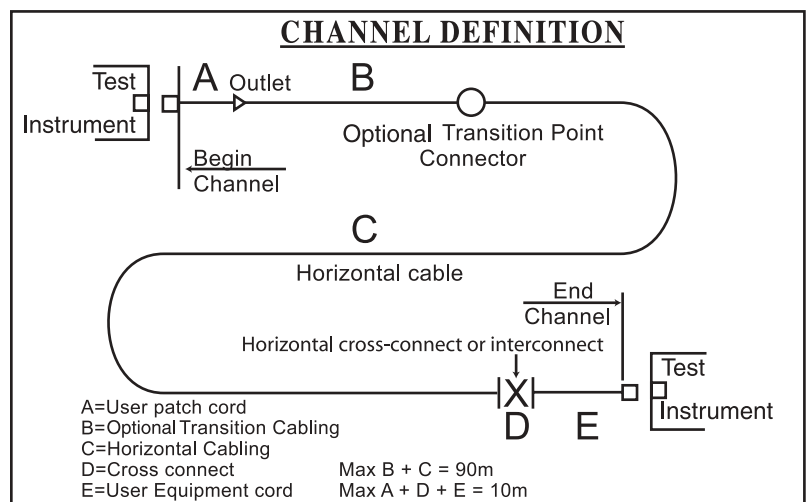
Test Parameters
The primary field test parameters are:
a) Wire map
b) Length
c) Insertion loss
d) Near-end crosstalk (NEXT) loss*
e) Power sum near-end crosstalk (PSNEXT) loss
f) Equal-level far-end crosstalk (ELFEXT)
g) Power sum equal-level far-end crosstalk (PSELFEXT)
h) Return loss
i) Propagation delay
j) Delay skew

*Near End Cross-Talk is defined as the coupling on one pair when another pair is transmitting.

Centralized Optical Fiber Cabling Guidelines

Provides guidelines for implementing a centralized optical fiber cabling system. It offers three alternatives to installing a cross-connect in the telecommunications room. These three alternatives are Pull-Through, Interconnect or Splice.

- Centralized cabling design shall allow for migration (in part or in total) of the pull-through, interconnect, or splice implementation to a cross-connection implementation
- Centralized cabling design shall allow for the addition and removal of horizontal and intrabuilding backbone fibers

Pull-Through

- The layout of both rack-mount and wall-mount termination hardware should accommodate modular growth in an orderly manner
- The specifications of ANSI/TIA/EIA-569-A shall be followed
- Centralized cabling shall support the labeling requirements of ANSI/TIA/EIA-606-A
- Continuous sheath cables pulled from a centralized cross-connect through the telecommunications room to the work area
- Length from the centralized cross-connect to the work area is limited to 295' (90 meters)
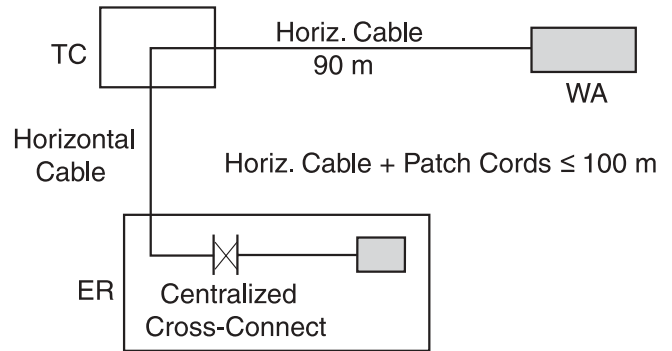
Interconnect or Splice

- Provide interconnection or splice in the telecommunications room
- Length from the centralized cross-connect to the work area is limited to 984' (300 meters)
- The intrabuilding backbone fiber count should be sized to deliver present and future applications to the maximum work area density within the area served by the telecommunications room
- Generally, two fibers are required for each application delivered to a work area

TC — Horiz. Cable 90 m — WA

Horizontal Cable

Horiz. Cable + Patch Cords ≤ 100 m

ER — Centralized Cross-Connect

TC — Horiz. Cable 90 m — WA

Backbone Cable

Backbone Cable + Horiz. Cable + Patch Cords ≤ 300 m

ER — Centralized Cross-Connect
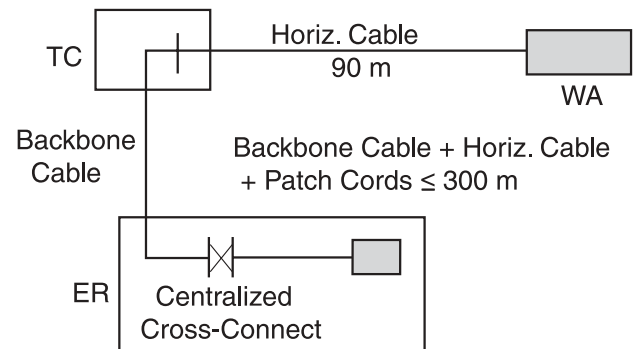
TIA/EIA-569-B Commercial Building Standard for Telecommunications Pathways and Spaces

Purpose

The purpose of this standard is to standardize specific design and construction practices within and between commercial buildings. Standards are given for sizes of telecommunications equipment rooms, closets, conduits, surface raceways and ducts.

TIA/EIA-606-A Administration Standard for Telecommunications Infrastructure of Commercial Buildings

Purpose

A standard for record keeping, component labeling and tracking system additions, moves and changes.

TIA/EIA-607 Commercial Building and Bonding Requirement for Telecommunications

Purpose

Requires a separate network grounding system that joins the power grounding system at the service entrance.

Bibliography of References

ANSI/TIA/EIA-568-B.1, *Commercial Building Telecommunications Cabling Standard — Part 1: General Requirements*

ANSI/TIA/EIA-568-B.2, *Commercial Building Telecommunications Cabling Standard — Part 2: Balanced Twisted-Pair Cabling Components*

ANSI/TIA/EIA-568-B.3, *Optical Fiber Cabling Components Standard*

ANSI/TIA/EIA-569-A, *Commercial Building Standard for Telecommunications Pathways and Spaces*

ANSI/TIA/EIA-606-A, *Administration Standard for the Telecommunications Infrastructure of Commercial Buildings*

ANSI/TIA/EIA-607, *Commercial Building Grounding and Bonding Requirements for Telecommunications*

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