# **HUBBELL PREMISE WIRING**

Full Line Catalog 2009







DATA CENTER INFRASTRUCTURE



**ENTERPRISE CONNECTIVITY** 



**AUDIO VIDEO SOLUTIONS** 





INTELLIGENT INFRASTRUCTURE SOLUTIONS





### **Hubbell One. One Network Vision.**

Solutions that work together to span your entire enterprise. Simple. Comprehensive. Standardized.



## **Opti**Channel

**High Performance Fiber Solutions** Provide high bandwidth optical fiber systems for data center, campus or enterprise applications.



### **NextFrame**

Telecommunications Room Infrastructure Designed to support and manage cable which maintains reliability and stability.



### **PowerTrac**

**Powered Infrastructure** PoE Patch Panel and Asset Management software designed to support powered IP applications. Remotely track devices.







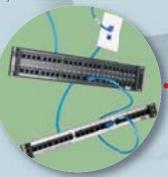
#### HUBBELL **i**Frame

**Data Center Infrastructure** Cabling and Power solutions supporting dense server deployments, multi-pair cable assemblies and 10GbE copper and fiber.



#### HUBBELL NextSpeed

High Performance Copper Connectivity Designed to the latest networking applications (10GbE over UTP) supporting transmission performance beyond 500MHz.



# HUBBELL Delivery+

**Delivery Systems** Provide Voice, Data, and AV connections throughout the enterprise. Crestron, Extron® and FSR compatible.



# Station

**Audio Video Solutions** Providing leading edge AV, Data and Voice connections.





#### **Best in Class Products**

With a commitment to quality that reaches back well over a century, Hubbell continually develops innovative solutions that improve the performance and reliability of





today's enterprise networks while supporting the applications of tomorrow.

Our MISSION CRITICAL® 25 Year Warranty, third-party testing, standards leadership and pioneering patent position all demonstrate our dedication to developing the best-in-class products that the industry has come to expect from Hubbell. This includes our latest

**NEXTSPEED®** Ascent Category 6A System that combines innovation and reliability to exceed both TIA and ISO component specifications. Learn more about the Ascent System on page A4.

#### Installation Ease

At Hubbell, we know that ease of installation means faster turn-around and labor savings on the job. Our modular approach to product design provides



the flexibility to easily configure and upgrade products for future technology needs. Efficient installation is built into every Hubbell product like our **iSTATION**™ Plug-and-Play AV System that takes the difficulty out of AV connections and reduces installation labor. The secret lies with our patent-pending X-END™, a small form factor that is easily pulled through conduit and plugged directly to application end modules. And like all our keystone jacks, **iSTATION**™ modules fit

into countless delivery, faceplate, and housing solutions for fewer parts and reduced complexity. Learn more about **iSTATION**™ on page B23.

#### **Application and Customer Support**

Hubbell understands that our customers need more than the best products to compete - they also need the best application support. Through installation



guidelines, support forums, AutoCAD drawings, VISIO stencils and CSI specifications, Hubbell also provides the tools our customers need to accurately design, specify and install products for the full range of enterprise applications. Partnerships with associations like ARCOM and ARCAT ensure access to specification information while our interactive webinars

explore timely industry issues and solutions to challenging and emerging applications. And as an active participant in standards organizations like TIA and IEEE, Hubbell ensures our customers understand the latest application requirements. Learn more at www.hubbell-premise.com.

#### **Environmentally Friendly**

All around the globe, there is a movement towards "green" thinking and energy conservation. As a leader in the industry, Hubbell is doing our part. We're moving towards more environmentally friendly and energy-efficient operations like





RoHS-compliant products to reduce hazardous substances. Hubbell's eco-friendly iFRAME® Data Center Infrastructure System also saves you green by addressing space utilization, power consumption, and cooling in the data center. Learn more about iFRAME® on page H4.



### ReBox

#### **Zone Cabling Systems**

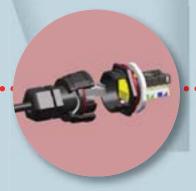
Designed to support flexible office environments and overcome bandwidth bottlenecks - remotely place bandwidth closer to the edge of the network.



## Hilmpact

#### **Harsh Environments**

Rugged components designed to extend the edge of the LAN into harsh environments.



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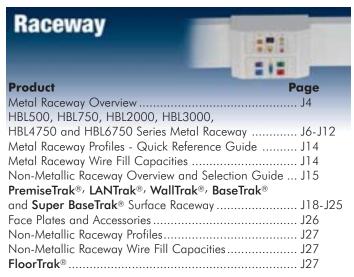
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**Harsh Environments** 

Residential





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# **Channel Systems**

#### **Hubbell System Integration**

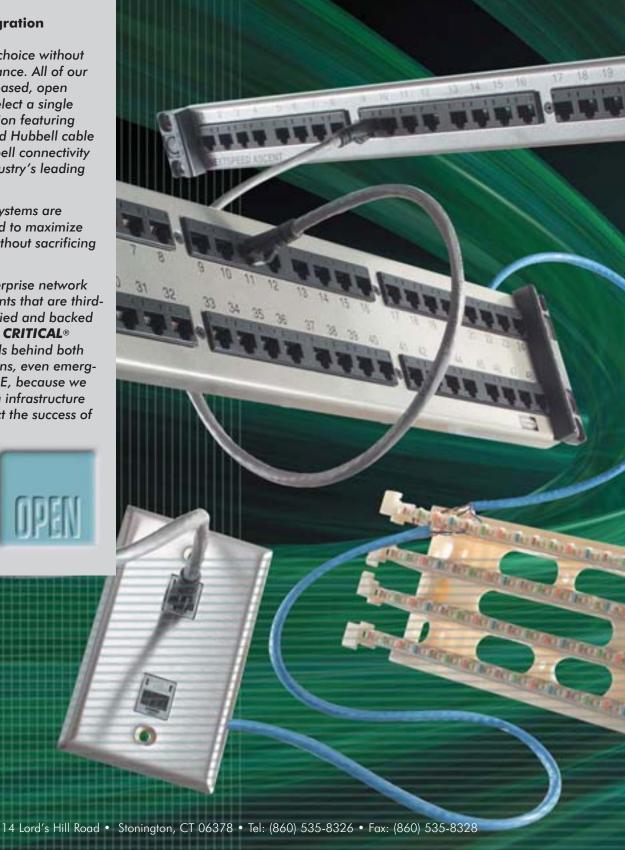
Hubbell gives you true choice without compromising performance. All of our systems are standards based, open architecture. You can select a single brand end-to-end solution featuring Hubbell connectivity and Hubbell cable or mix and match Hubbell connectivity with cable from the industry's leading cable manufacturers.

Hubbell infrastructure systems are designed and developed to maximize system performance, without sacrificing reliability.

With Hubbell, your enterprise network operates with components that are thirdparty performance verified and backed by a 25-year MISSION CRITICAL® warranty. Hubbell stands behind both products and applications, even emerging technologies like PoE, because we understand that cabling infrastructure performance can impact the success of your enterprise.

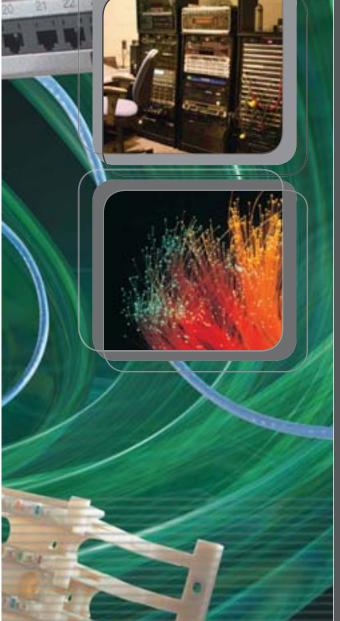








GORY 6 SYSTEMS •SHIELDED JACKS•SPEEDGAIN•1-PUNCH TOOL•JAG PEED PRODUCTS•XCELERATOR JACKS•ASCENT 6E+ SYSTEM CHANNEI PANELS•ISTATION PRODUCTS•FACE PLATES•PATCHCORDS•JACKS•CAG DGAIN•1-PUNCH TOOL•CATEGORY 5E SYSTEM CHANNEL•NEXTSPEED SE+ SYSTEM CHANNEL•CONSOLIDATION POINT BLOCKS•PATCH PAN CKS•**SYSTEM CONTENTS**HIELDED JACKS•SPEEDGAIN•1-PUNCH NNEL•NEXTSPEED PRODUCTS•XCELERATOR JACKS•ASCENT 6E SYSTEM



www.hubbell-premise.com

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# HUBBELL

#### **Ascent Category 6A Channel**

#### Design

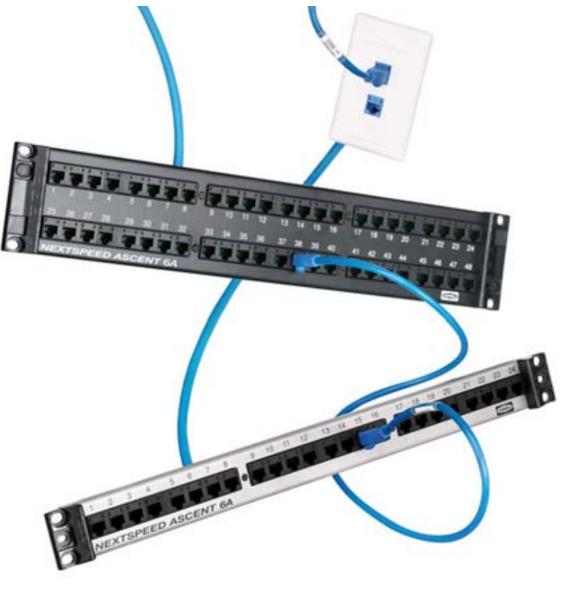
• Enhanced common mode design to eliminate residual and reflected NEXT.

#### **Performance**

• Balanced PCB design delivers 5dB+ headroom over the TIA Category 6A standard @ 500MHz providing true 10GbE application assurance.

#### Reliability

- · Application: Third-Party qualified for 10GbE Transmission IEEE 802.3an.
- Component: Third-Party verified for TIA-568-C Category 6A Component Compliance.
- Channel: Third-Party verified for ISO 11801 Class E<sub>A</sub> Compliant.
- · Current Capacity: Qualified for PoE and PoE+ IEEE 802.3at.
- Manufacturing: 100% factory tested in a controlled environment.



#### **Standards**

- TIA-568-C.2 Category 6 Component Compliant.
- ISO 11801 Class  $E_A$  Compliant (Category 6A).
- IEEE 802.3at Compliant.
- UL Listed 1863.





- True TIA and ISO Category 6A Component Compliance.
- Labor Savings: Exclusive 1-Punch Termination Reduces Termination Time by 75%.
- Designed for Critical, Bandwidth Intensive 10 Gigabit Ethernet Applications.
- New Packaging Reduces Waste.



#### **NEXTSPEED® Ascent Category 6A Jacks**

The **NEXTSPEED**® Ascent Category 6A jack exceeds TIA and ISO Category 6A component specifications, delivering extended bandwidth and reliability for all LAN, multimedia and Power over Ethernet

applications.

Delivery: 1 per l	Bag/Carton of 25.	25 per Bag/Carton of 1			
Catalog No.	HJ6AXX 10G	Catalog No. <b>HJ6AXX25</b>	<b>⊮10G</b>		

**XX** = See Jack Color Options below.



#### XX = Jack Color Options

<b>AL</b> =Almond	<b>BK</b> =Black	<b>B</b> =Blue	<b>EI</b> =Electric Ivory	<b>GL</b> =Gold	<b>GY</b> =Gray	<b>GN</b> =Green	<b>LA</b> =Light Almond	
<b>OW</b> =Office White	<b>OR</b> =Orange	<b>P</b> =Purple	<b>R</b> =Red	TI=Telco Ivory	<b>W</b> =White	<b>Y</b> =Yellow		

#### **NEXTSPEED®** Ascent, Category 6A, Component Patch Panels

Format	Width	Color	Catalog No.		
Standard	19" (483)	Black	HP6AXXU	√10G	
Standard	19" (483)	Silver	HP6AXXUS	√10G	
Angled	19" (483)	Black	HP6AXXAU	√10G	
Danlage IV	VII with most sime.	19/11 0/			

Replace "XX" with port size: "24" = 24 ports; "48" = 48 ports.



HP6A48U

#### **NEXTSPEED®** Ascent Category 6A Patch Cords

Color: Gray
Catalog No. PC6AGYXX 10G

**XX** = Standard Color:

"B" = Blue; "BK" = Black; "GY" = Gray; "Y" = Yellow. For other colors replace color designation with one of the following: OR = Orange, R = Red, GN = Green, P = Purple, W = White

\* = Standard Length:

"03" = 3'; "06" = 6'; "08" = 8'; "10" = 10'; "12" = 12'; "16" = 16'; "20" = 20'. MTO lengths: 25', 30', 35', 40', 45', 50', 55', 60', 75', and 100'.

#### **NEXTSPEED®** Ascent Category 6A Cable

Color	Catalog No. Riser Spool (1000' length)	Catalog No. Plenum Spool (1000' length)
Blue	C6ASRB /10G	C6ASPB /10G
Gray	C6ASRGY 10G	C6ASPGY 10G
White	C6ASRW 10G	C6ASPW 10G
Yellow	C6ASRY 10G	C6ASPY 10G





#### **NEXTSPEED®** Ascent Category 6A Trunk Cable Assemblies

BIDnet™ Pre-Terminated Cable Assemblies are Make-to-Order items. Please call our Inside Sales Team for lead-time and availability.

- 100% tostad
- High performing factory terminations eliminate installation difficulties.
- Balanced, pre-terminated cable assemblies provide improved channel performance.



# NEXTSPEED® Ascent Category 6A Field Termination Kits Description\* Catalog No.

64-Pair Kit with legs and 16 connecting blocks*	6110FTK64WL	<b>√10G</b>
64-Pair Kit w/o legs and 16 connecting blocks*	6110FTK64NL	<b>√10</b> G
192-Pair Kit with leas and 64 connecting blocks*	6110FTK192WL	√10G

\* 6-110, 4-pair connecting blocks.

See page E14 for more information.



# Next Speed

#### Category 6/10GbE Shielded System

#### Design

• IDC formation allows each pair to be segregated pair-to-pair NEXT.

#### **Superior Strain Relief**

• Locking IDC stuffer cap ensures termination retention, securing wires during installation.

#### **Durability**

• Die-cast construction provides superior durability for any shielded installation.

#### **Performance**

 Designed and center-balanced delivering 3dB of headroom @ 417MHz providing true 10GbE application assurance.

#### Reliability

- Application: Third-Party qualified for 10GbE Transmission IEEE 802.3an.
- Component: Third-Party verified for TIA-568-C Category 6 Component - 3P verified for ISO 11801 Class E compliance.
- Current Capacity: Qualified for PoE and PoE+ IEEE 802.3at.
- Manufacturing: 100% factory tested in a controlled environment.

#### **Simplicity**

 The unique tool less termination cap allows the cable to be laced in without disruption of the pairs, maintaining the twist integrity of the cable.



- Quick and Easy Terminal Grounding Connection.
- Tool Less Termination.
- Third Party Tested and Verified.
- Bulk Packaging Reduces Waste.

#### **Specifications**

- ◆ TIA-568-C.2.
- TIA-568-C.2-10 Draft Cat. 6A.
- ◆ IEEE 802.3at compliant.
- ♦ IEEE 802.3an 10GBASE-T Ethernet.
- UL Listed ISO/IEC 11801 (2nd edition) and EN50173.
- IEC 60603-7-5 specifications for Category 6 and Category 5e screened connecting hardware.

#### Standards

- ANSI/TIA-568-C Category 6 Component specifications.
- UL Listed ISO/IEC 11801 and EN50173 second edition requirements for transfer impedance and shield effectiveness.
- IEC 60603-7-5 (draft) specifications for Category 6 and Category 5e screened.
- UL Listed 1863.





# NEXTSPEED® Shielded Jacks, Category 6/10GbECategoryPckg. QuantityB-Wired Catalog No.A-Wired Catalog No.62SJ62B10GSJ62A10G624SJ624B10GSJ624A10G





Ports	Height	Rack Units	Catalog No. Black	Catalog No. Silver
16	1.75" (45)	1	UDX16E	-
24	1.75" (45)	1	PSJ24BK	PSJ24S

<sup>\*</sup>Note: Order jacks separately - see above.





NEXTSPEED® Shielded Patch Cords, Category 6/10GbE

			, ,	
Length	Catalog No.	Length	Catalog No.	
3'	PS603XX /10G	15'	PS615XX 10G	
5'	PS605XX /10G	20'	PS620XX /10G	
7'	PS607XX /10G	25'	PS625XX 10G	
10'	PS610XX /10G			

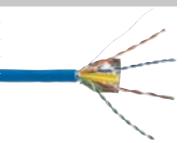
**XX**=Color; **B**=Blue, **GY**=Gray





# NEXTSPEED® Ascent 10GbE FTP Cable, 4-Pair Color Plenum Spool (1000' Length) Riser Spool (1000' Length)

Color	Plenum Spool (1000' Lengt	h) Riser Spool (1000' Length)
Blue	C6FTPSPB 100	C6FTPSRB 10G
Gray	C6FTPSPGY 100	C6FTPSRGY 10G
White	C6FTPSPW V100	C6FTPSRW 10G





#### **NEXTSPEED®** Ascent Shielded Category 6 Trunk Cable Assemblies

BIDnet  $^{\text{\tiny{TM}}}$  Pre-Terminated Cable Assemblies are Make-to-Order items. Please call our Inside Sales Team for lead-time and availability.



- 100% tested.
- High performing factory terminations eliminate installation difficulties.
- Balanced, pre-terminated cable assemblies provide improved channel performance.



# HUBBELL Next Speed

#### **Category 6 System**

#### Design

 Center balanced to Category 6 plug specifications.

#### **Performance**

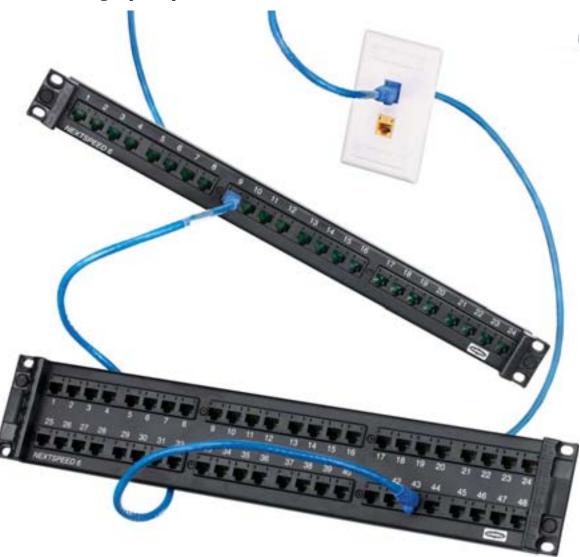
 Balanced PCB design delivers 6dB+ headroom over the TIA Category 6 standard @ 250MHz providing true application assurance.

#### **Administration**

 Accepts Hubbell laser printable label sheets and industry recognized 0.5" hand held printer tape.

#### Reliability

- Application: Third-Party qualified for 10GbE Transmission IEEE 802.3an.
- Component: Third-Party verified for TIA-568-C Category 6 Component Compliance.
- Channel: Third-Party verified for ISO 11801 Class E<sub>A</sub> Compliance.
- Current Capacity: Qualified for PoE and PoE+ IEEE 802.3at.
- Manufacturing: 100% factory tested.



#### **Standards**

- TIA-568-C.2 Category 6 Component.
- ISO 11801 Class E Compliant.
- IEEE 802.3at Compliant.
- UL Listed 1863.



# HUBBELL ACVANTAGE

- TIA Category 6 Component Compliance.
- Labor Savings: Exclusive 1-Punch Termination Reduces Termination Time by 75%.
- Third Party Tested and Verified.
- New Packaging Reduces Waste.

#### **NEXTSPEED® Category 6 Jacks**

Delivery: 1 per Bag/Carton of 25. 25 per Bag/Carton of 1

Catalog No. **HXJ6XX** Catalog No. **HXJ6XX25** 



#### XX = Jack Color Options

<b>AL</b> =Almond	<b>BK</b> =Black	<b>B</b> =Blue	<b>EI</b> =Electric Ivory	<b>GL</b> =Gold	<b>GY</b> =Gray	<b>GN</b> =Green	<b>LA</b> =Light Almond
<b>OW</b> =Office White	<b>OR</b> =Orange	<b>P</b> =Purple	<b>R</b> =Red	TI=Telco Ivory	<b>W</b> =White	<b>Y</b> =Yellow	

#### **NEXTSPEED® Universal Patch Panel, Category 6**

Format	Width	Color	Catalog No.	
Standard	19" (483)	Black	P6EXXU	
Standard	19" (483)	White	P6EXXUW	
Angled	19" (483)	Black	P6XXAU	



Replace "XX" with port size:

"**24**" = 24 ports; "**48**" = 48 ports.

#### **NEXTSPEED® Category 6 Universal Patch Cords**

Delivery: 1 patch cord

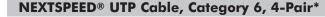
Catalog No. PCX6XX\*

**XX** = Standard Color:

"B" = Blue; "BK" = Black; "GY" = Gray; "Y" = Yellow. For other colors replace color designation with one of the following: OR = Orange, R = Red, GN = Green, P = Purple, W = White.

\* = Standard Length:

MTO lengths: 25', 30', 35', 40', 45', 50', 55', 60', 75', and 100'.



Yellow	C6RPY 10G	C6RRY 10G
White	C6RPW 10G	C6RRW 10G
Gray	C6RPGY 10G	C6RRGY 10G
Blue	C6RPB V10G	C6RRB /10G
Color	Plenum REELEX** (1000' Length)	Riser REELEX** (1000' Length)
Yellow	C6SPY /10G	C6SRY /10G
White	C6SPW 10G	C6SRW 10G
Gray	C6SPGY 10G	C6SRGY /10G
Blue	C6SPB V10G	C6SRB /10G
Color	Plenum Spool (1000' Length)	Riser Spool (1000' Length)



<sup>\*\*</sup> REELEX is licensed and patented by Windings Inc.

#### **NEXTSPEED®** Ascent Category 6 Trunk Cable Assemblies

 $BIDnet^{ ext{ iny Pre-Terminated}}$  Pre-Terminated Cable Assemblies are Make-to-Order items. Please call our Inside Sales Team for lead-time and availability.

- 100% tested.
- High performing factory terminations eliminate installation difficulties.
- Balanced, pre-terminated cable assemblies provide improved channel performance.

#### **NEXTSPEED®** Ascent Category 6 Field Termination Kits

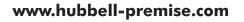
Description*	Catalog No.
64-Pair Kit with legs and 16 connecting blocks*	6110FTK64WL
64-Pair Kit w/o legs and 16 connecting blocks*	6110FTK64NL
192-Pair Kit with legs and 64 connecting blocks*	6110FTK192WL

\* 6-110, 4-pair connecting blocks

See page E14 for more information.









#### **Category 5e System**

#### Design

• Gigabit Ethernet transmission, 100MHz.

#### Capacity

 25-pair cable has much smaller profile than equivalent 6-cable bundle of 4-pair UTP. Frees up valuable space in the cabinet and in the floor for maximum airflow.

#### **Performance**

 Balanced PCB design delivers 9dB+ headroom over the TIA Category 5e standard @ 100MHz providing true application assurance.

#### Reliability

- Application: Third-Party qualified for Gigabit Ethernet Transmission IEEE 802.3ab.
- Component: Third-Party verified for TIA-568-C Category 5e Component Compliance.
- Channel: Third-Party verified for ISO 11801 Class D Component Compliance.
- Current Capacity: Qualified for PoE and PoE+ IEEE 802.3at.
- Manufacturing: 100% factory tested.



#### **Standards**

- TIA-568-C.2 Category 5e Component.
- ISO 11801 Class D Compliant.
- IEEE 802.3at.
- UL Listed 1863.





- One of the Industry's only Gigabit Ethernet Panels (25-Pair).
- IDC and 25-Pair Termination.
- Third Party Tested and Verified.
- New Packaging Reduces Waste.

#### **SPEEDGAIN® Category 5e Jacks**

Delivery: 1 per Bo	ig/Carton of 25.	25 per Bag/Ca	irton of I	
Cataloa No	HXJ5EXX	Catalog No	HXJ5EXX25	



#### XX = Jack Color Options

<b>AL</b> =Almond	<b>BK</b> =Black	<b>B</b> =Blue	<b>EI</b> =Electric Ivory	<b>GL</b> =Gold	<b>GY</b> =Gray	<b>GN</b> =Green	<b>LA</b> =Light Almond
<b>OW</b> =Office White	<b>OR</b> =Orange	<b>P</b> =Purple	<b>R</b> =Red	TI=Telco Ivory	<b>W</b> =White	<b>Y</b> =Yellow	

#### SPEEDGAIN® Universal Patch Panel, Category 5e

Format	Width	Color	Catalog No.	
Standard	19" (483)	Black	P5EXXU	
Standard	19" (483)	White	P5EXXUW	
Angled	19" (483)	Black	P5EXXAU	
Ponlaco "X	(" with nort size:			





Replace "XX" with port size:

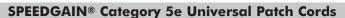
"**24**" = 24 portS; "**48**" = 48 ports.

#### **SPEEDGAIN® Gigabit Ethernet Patch Panels**

Ports	Height	Width	Depth	Connectors	Catalog No.
24	1.75" (45)	19" (483)	1.2" (31)	Female	PG24
48	3.50" (89)	19" (483)	1.2" (31)	Female	PG48







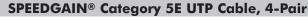
Catalog No. PCX5EXX\*

**XX** = Standard Color: "**B**" = Blue; "**BK**" = Black; "**GY**" = Gray; "**Y**" = Yellow For other colors replace color designation with one of the following: OR = Orange, R = Red, GN = Green, P = Purple, W = White



"01" = 1'; "03" = 3'; "05" = 5'; "07" = 7'; "10" = 10'; "15" = 15'; "20" = 20';

"**25**" = 25'; "**30**" = 30'; "**35**" = 35'; "**40**" = 40'; "**45**" = 45'; "**50**" = 50'; "**55**" = 55'; "**60**" = 60'; "**75**" = 75'; "**100**" = 100'



Color	Plenum Spool (1000' Length)	Riser Spool (1000' Length)
Blue	C5EPSPB	C5EPSRB
Gray	C5EPSPGY	C5EPSRGY
White	C5EPSPW	C5EPSRW
Yellow	C5EPSPY	C5EPSRY
Color	Plenum REELEX* (1000' Length)	Riser REELEX* (1000' Length)
Blue	C5EPRPB	C5EPRRB
Gray	C5EPRPGY	C5EPRRGY
White	C5EPRPW	C5EPRRW
Yellow	C5EPRPY	C5EPRRY

<sup>\*</sup> REELEX is licensed and patented by Windings Inc.

#### **SPEEDGAIN® Category 5e Trunk Cable Assemblies**

BIDnet™ Pre-Terminated Cable Assemblies are Make-to-Order items. Please call our Inside Sales Team for lead-time and availability.

- 100% tested.
- High performing factory terminations eliminate installation difficulties.
- Balanced, pre-terminated cable assemblies provide improved channel performance.





#### **SPEEDGAIN® Category 5e Field Termination Kits**

Description	Catalog No.
50-pair termination kit with 4-pair blocks	110BLK50FTK4
100-pair termination kit with 4-pair blocks	110BLK100FTK4
300-pair termination kit with 4-pair blocks	110BLK300FTK4
C F1/( : ( ::	

See page E16 for more information.





# **Opti**Ghannel

- 50μm, 10GbE compatibility.
- 10GbE 300 meter operation at 850 nm.
- 10GBASE-SR/SW applications.
- Wide variety of connector options.
- Numerous fiber adapter color arrangements.
- Modular product configurations.
- MTP cassettes and cables.





#### **Specifications**

- ANSI/TIA-568-C.3.
- ◆ ISO/IEC 11801, 2nd Edition.
- AF-PHY-0110.0.
- ♦ IEEE 802.3ae.
- ◆ IEEE 802.3z.
- 2,000 MHz-Km effective mode bandwidth 50/125mm fiber in pigtails and patch cords.



# Advantage

- 10GbE Performance for Laser-Optimized 50μm Multimode Fiber Applications.
- Comprehensive Product Set.
- Modular Design for Easy Installation.
- Plug-n-Play Arrangements.
- Product Line Breadth Ensures that Solutions can be Tailored to Meet the Specific Needs of the User.
- Fiber's High Traffic Carrying Capacity per Volume Reduces Cabling and Improves Airflow.



# Plug-n-Play Cassettes Description Catalog No. SC Duplex OCSC50G LC Duplex OCLC50G LC Quad OCLCQ50G

MTP	to MTP Cords,	12 Fiber
50μm F	iber Type	
Length	Catalog No.	
10	FPCMTP50G10	<b>10G</b>
25	FPCMTP50G25	<b>√10G</b>
50	FPCMTP50G50	<b>√10G</b>
100	FPCMTP50G100	<b>√10</b> G
Other I	engths readily available	€.



#### **2CLICK® Pre-Polished Fiber Connectors**

Teriore inc	-i olisiica i ibci	Commedia	
LC Connectors			
Description	Pack of 12		
Multimode, 50μm	FCLC50GM12	√10G	
ST Connectors			
Description	Pack of 12	(-66	
Multimode, 50µm	FCST50GM12	10G	
SC Connectors			
Description	Pack of 12		
Multimode, 50µm	FCSC50GM12	√10G	

#### **Fiber Adapters** Phosphor Bronze Sleeve Zirconia Ceramic Sleeve Catalog No. Catalog No. Description 10G 10G **FASCEMPB6** FASCDSC6 SC Duplex 10G 10 G FASCSSC12 SC Simplex FASCSMPB12 FASTSCEMPB6 **10G** FASTSCDSC6 10G SC to ST-style Duplex SC to ST-style FASCSTSEMPB12 FASTSCSSC12 Simplex 10G **FALCDSC6** LC Duplex **FALCMPB6** √10G LC Quad FALCQMC6BL FALCQSC6

\* All adapters listed have snap mountings and are blue. See pages F12 and F13 for information on other color options and screw mount adapters.

#### **2QUICK® Crimp-style Connectors**

2QUICK® ST-style Connectors					
Description	Pack of 12 Catalog	7 No. ———			
Multimode	FCSTMQ12RA	<b>√10G</b>			
Singlemode	FCSTSQ12R	<b>√10G</b>			

2Q	$UICK^{\mathbb{B}}$	SC	Coni	ne	ctors
				$\overline{}$	( 10

Description	Pack of 12 Catalog I	No. —
Multimode	FCSCMQ12R	10G
Singlemode	FCSCSQ12R	/10G

#### OPTICHANNEL™ Fiber Adapter Panels



#### Fiber Adapter Panels with Phosphor Bronze Sleeves

	Сараспу		
Description	(# Fibers)	Catalog No.	
6 SC Duplex, Aqua	12	FSPSCDM6AQ	<b>10G</b>
6 SC Duplex, Beige	12	FSPSCDBE6	<b>/10G</b>
6 SC Duplex, Blue	12	FSPSCD6	<b>10G</b>
6 LC Quad, Aqua	24	FSPLCQM6AQ	<b>10G</b>
6 LC Quad, Beige	24	FSPLCQM6BE	<b>√10G</b>
6 LC Quad, Blue	24	FSPLCQ6	√10G

#### **OPTICHANNEL™** Adhesive Connectors

OPTICHANNEL™						
ST-style Connectors —						
Description	Pack of 12 Catalog No.					
Multimode	FCSTM12R V10G					
Singlemode	FCSTS12R 10G					

OPTICHANNEL™ SC Connectors							
Description	Pack of 12 Cata	ılog No.					
Multimode	FCSCM12R	<b>√10G</b>					
Singlemode	FCSCS12R	<b>10G</b>					

#### Fiber Adapter Panels with Zirconia Ceramic Adapter

	Capacity			
Description	(# Fibers)	Catalog No.		46
6 SC Duplex, Blue	12	FSPSCDS6	<b>/106</b>	36
6 SC Duplex, Red	12	FSPSCDS6R	<b>106</b>	101
6 SC Duplex, Yellow	12	FSPSCDS6Y	<b>106</b>	
6 LC Quad, Blue	24	FSPLCQS6	<b>106</b>	212
6 LC Quad, Red	24	FSPLCQS6R	<b>106</b>	
6 LC Quad, Yellow	24	FSPLCQS6Y	<b>/106</b>	
*** 0	1 = 2 2 6 1		1 1 1	,

\*\* See pages F10 and F11 for detailed information and additional configurations (panels with other adapter types, colors, and densities.

#### **OPTICHANNEL™ 10GbE Patch Cords**



 Description
 Catalog No.

 SC to SC 50/125
 DFPCSCSCEXMM
 10G

 LC to LC 50/125
 DFPCLCLCEXMM
 10G

 LC to SC 50/125
 DFPCLCSCEXMM
 10G

Replace 'X' with standard lengths of 1, 2, 3, or 5 meters.

#### **OPTICHANNEL™ 10GbE Fiber Pigtails**

3m long	W1 150	
Description	Catalog No.	
SC 50/125, Multimode	FPSCE3MM	<b>10G</b>
LC 50/125, Multimode	FPLCE3MM	/10G

#### **Multifiber Trunk Cables**

Multifiber trunk cable assemblies are ordered using the Hubbell **OPTICHANNEL™**Assemble-to-Order (ATO) program.
Customers select from a wide variety of options, fiber type, cable length, and connector type, to ensure that the multifiber

cable assembly purchased meets the specific needs of the application. More information about the multifiber trunk cable assemblies and the ATO program can be found on pages F16-F17.



# HUBBELL

#### **Data Center**

- Reduce time to prepare for new servers.
- Reduce cable bulk and airflow in plenum space.
- Increase usable rack space per square foot of floor space.
- Factory-terminated and tested cable assemblies increase reliability.
- Modularity provides migration and scalability.
- System spans data distribution, power distribution and equipment racking components.







#### Address Major Data Center Issues:



Airflow



Administration



Response Time



Security



Space Utilization



Appearance





- Defined Pathways Eliminate Airflow Obstructions.
- Factory-Tested Plug-n-Play Components Minimize Installation Time.
- Modular Components Simplify Design and Execution.
- Stylized Look to Enhance the Appearance of the Equipment Room.



#### **Premise Networking Cabinet**

<b>Premise</b>	Networking	Cabinet	with Sides

Rack Units	Height	Width	Depth	Catalog No.
45	84"	30"	32"	H1N84E
43	80"	30"	32"	H1N80E
45	84"	30"	36"	H1N84ED
43	80"	30"	36"	H1N80ED

#### **Premise Networking Cabinet with Sides**

Height	Width	Depth	Catalog No.
84"	23.94"	32"	H1N84X
80"	23.94"	32"	H1N80X
84"	23.94"	36"	H1N84XD
80"	23.94"	36"	H1N80XD
	84" 80" 84"	84" 23.94" 80" 23.94" 84" 23.94"	Height         Width         Depth           84"         23.94"         32"           80"         23.94"         36"           84"         23.94"         36"           80"         23.94"         36"

See page H10 for more information.



#### **Server Cabinet**

#### **Server Cabinet with Sides**

Rack Units	Height	Width	Depth	Catalog No.
43	80"	24"	36"	H1E80ED
43	80"	24"	42"	H1E80E
43	80"	24"	44"	H1E8044E

#### **Server Cabinet with Sides**

Rack Units	Height	Width	Depth	Catalog No.
43	80"	24"	36"	H1E80EDX
43	80"	24"	42"	H1E80EX
43	80"	24"	44"	H1E8044EX

See page H8 for more information.



#### iFRAME® Column System

iFRA	ME® C	olumns			10
Rack	11 - 11	Overall		A le re	
Units	Height	Height	Catalog No.	Application	
19	3'	35.0"	IS3	w/o raised floor	
45	7'	78.8"	IS7	w/o raised floor	
45	8"	78.8"	IS7RF	raised floor up to 12"	
45	7'	78.8"	IS7RF18	raised floor up to 18"	
45	7'	78.8"	IS7RFM6	using M6 cage nuts	
45	7'	78.8"	IS7E	rear columns for 4-post a	pp.

See page H8 for more information.

#### **NEXTFRAME® Rack with Z Channels**

Rack Height		Cover	Finish	Catalog No.
7' (2134)	45	Hinged	Black	CS1976H
7' (2134)	45	Clip on	Black	CS1976
7' (2134)	45	Clip on	Aluminum	CS1976A
See page (	G5 for	more inf	ormation.	

#### **NEXTFRAME®** Horizontal Organizers

	Panel	Front	Rear	
Rack Units	Height	Ring Depth	Ring Depth	Catalog No.
1U	1.75"	3.50"	-	HC119CE3H
2U	3.50"	3.50"	-	HC219CE3N
2U	3.50"	3.50"	4.6"	HC219CC3N
311	5 25"	3 50"	_	HC319CF3N

#### **XXL Series Vertical Organizers**

13"	XS0615	XS1515	XS1515
10"	XS0610	XS1010	XS1510
Width: Depth	6"W Catalog No.	10" W Catalog No.	15"W Catalog No.

See page G7 for more information.



#### **Vertical Organizers with Hinged Covers**

Color	Height	6"W	41/2"W	31/4"W
Black	7' (2134)	VS76H	VS74H	VS73H
See pa	ge G9 for m	ore informa	ation.	



#### Vertical Patch Panel for Hubbell Server Cabinet

#### **Vertical Patch Panel**

Data module locations: 15 Utility module locations: 42

Catalog No. **VPH** 





#### **Power Distribution**

#### **Horizontal Power Strips**

Electrical	Outlets		
Specs.	Front	Rear	Catalog No.
15A/120V	0	10	<b>HPWPWR</b>
15A/120V	0	10	MCCPSS19
20A/120V	0	10	PR1020
60A/250V	0	10	PR0360



vertical P	ower a	irips	
Electrical			
Specs.	Outlets	Circuits	Catalog No.
15A/120V	10	1	PR104
20A/120V	20	1	PR20620
30A/120V	20	1	PR20830
20/16A / circuit 120\	20 /	2	PR20820A
30/24A 250V	24	1	PR24
120V	40	6	PR40Z120



# HUBBELL Station

#### **Integrated Audio Video System**

- Hubbell iSTATION<sup>™</sup> system integration.
- Patent-pending X-END™ Plug-n-Play technology.
- Most extensive AV connection integration solution in the industry.
- Simple and consistent approach makes it very easy to design, specify and assemble.
- Maintains a uniform look.





#### Video Applications

• CATV, CCTV

Composite: 480iS-Video: 480i, 576iComponent: 720p, 1080i and

1080p

• RGBHV: VGA, SVGA, XGA,

XGA+, SXGA, SXGA+,

UXGA, QXGA

• HDMI 1080p

#### Connectors

- Audio
  - 3-pin XLR
  - 3.5mm Stereo Jack
  - 1/4" Stereo Jack
  - Speakon® Connector
  - Binding posts
- Video
  - RCA
  - S-Video
  - F-Connector
  - BNC Connector
  - HD-15
  - HDMI
  - DVI



# HUBBELL Advantage

- Patent-Pending Plug-n-Play **X-END**™ AV System.
- First True Integrated AV System.
- Eliminates Field Termination on the Job Site.
- Supports Multiple Applications and Connector Configurations.
- Cable Assemblies Made-to-Length Eliminate Excess Cable.
- Utilize Same Cabling Infrastructure for Multiple Applications.



#### **RCA Connectors**



#### 110 Punch Down

Housing: Black Insulator: Blue, Green, Red, White, Yellow.

#### SFRC110XX



RCA Solder Housing: Office White Insulator: Black

SFRC

Housing: Office White Insulator: Blue, Green, Orange.

#### **SFRCXXOW**

Housing: Office White Insulator: Red, White, Yellow.

#### **SFRCXX**

Housing: See Chart (except Office White) Insulator: See Chart

#### **SFRCBXXXX**

XX = Insulator Color:BK B GN

**S-Video Connectors** 



Gold Pass-Thru F/F

Housing: Office White Insulator: Black, Red, White, Yellow.

#### **SFRCXXFF**

Housing: Office White Insulator: Blue, Green, Orange.

#### **SFRCXXFFOW**

Housing: See Chart (except Office White) Insulator: See Chart

#### **SFRCXXFFXX**



Gold Pass-Thru F/F, Recessed

Housing: See Chart Insulator: See Chart SFRCXXRXX

#### XLRST10 10-pk 10-pk

XLR, 3-pole, Screw

**Pro-AV Connectors** 

139410



USB. A-to-B

Feed-Thru

Gender Changer 15-pin 10-pk **15ST10** 15-pin 10-pk **15GC10** 



1-pk 10-pk 159010



2-pole Speakon®, Solder

10-pk SC10



XLR 3-pole, Solder 10-pk XLR10



Pro-AV Blank Module, 1.5 Unit Module: See Chart IMAVB15XX

#### 9-/15-pin Connectors



1394 FireWire,

Feed-Thru

10-pk

Term

Screw Terminal 9-pin 10-pk **9ST10** 



9-pin 10-pk **9GC10** 

1/4" Locking Stereo,

14510

USB10

Solder

10-pk



#### **HDMI Couplers**



HDMI Coupler Gold, Female-Female





DVI to HDMI Adapter, Female-to-Female 1-pk **DVIHDMI1** 

HDMI 3" Tail

8" Tail

15T6P1

15T6P10

#### VGA Plug-n-Play 15-pin to 8-pin Connections



S-Video to 110

**USB Connectors** 

Housing: See Chart\*

SFSV110XX

\* All colors available except for Lt. Almond.

# Straight 180° Quantity

1-Pack

10-Pack

S-Video Pass-Thru Housing: See Chart\*

#### **SFSVXX**

#### **DVI Adapters/Couplers**

15S6P1

15S6P10



A to A, 2.0 **SFUSBAAB** Blue Office White

**SFUSBAAOW** White SFUSBAAW



**SFUSBABB** Blue Office White

**SFUSBABOW** White SFUSBABW



DVI-I Coupler DVI1 1-pk 10-pk DVI10



Angled 45°

15A6P1

15A6P10

DVI to VGA Adapter Female-Female 1-pk **DVI151** 



DVI to HDMI Adapter **DVIHDMI1** 1-pk

DVI Blank, Unloaded, 1.5 U 1-pk IMBDVI15XX



**Multimedia Panels** 

Angled 90°

15N6P10

15N6P1



ISTATIO	N''' Panel	ount, Unloaded	
Format	Height	Ports	Catalog No.
Angled	1Ū	16	UDXAM16
Angled	2U	48	UDXAM48
Flat	1U	16	UDXIS1U
Flat	2U	48	UDXIS2U

UDX Jack Panel, Rack Mount, Unloaded				
Format	Height	Ports	Catalog No.	
Angled	1U	24	UDXA24	
Angled	2U	48	UDXA48	
Flat	1U	16	UDX16E	
Flat	1U	24	UDX24E	
Flat	1U	36	UDX36E	
Flat	1U	48	UDX48E1U	
Flat	2U	48	UDX48E	

# UDX Pro-AV Panel, Rack Mount, Unloaded

#### Cat. No. Height Ports 1U 16 PAV16 2U 32 PAV32

## **Stereo Jack Connectors**



3.5mm Solder











1/4" Solder Housing: See Chart SF14SJXX

3.5mm Screw Term

Housing: See Chart

#### XX = Color Options

<b>AL</b> =Almond	<b>BK</b> =Black	<b>EI</b> =Electric Ivory	<b>GY</b> =Gray	<b>LA</b> =Light Almond
<b>OW</b> =Office White	<b>W</b> =White			

# Power Trag

#### **System**

10GbE Performance<sup>1</sup>.

PoE - Up to 20 Watts/Port.

Flexible and Redundant Power Arrangements.

Advanced PoE Power Management.

Intelligent Managing, Tracking, and Securing of Assets.



#### **Specifications**

- ◆ IEEE 802.3af<sup>2</sup>.
- Category 6 Performance (TIA-568-C.2).
- ♦ 10GbE Performance<sup>1</sup>.
- ◆ 19" rack mountable.
- Advanced PoE power management using web based Graphical User Interface (GUI) or SNMP v1/v2c/v3.
- User-friendly software for Asset Management applications.
- ◆ UL 60950.
- ال ای
- FCC Part 15 Class A.
- VCCI.
- EN55022, EN61000-3-2, EN61000-3-3, and EN55024.



- Integrated PoE, 10GbE Performance<sup>1</sup>, and Asset Management Functionality.
- Modular Architecture Allows Easy Installation and Maintenance.
- Local and Remote Management Features.
- Application Flexibility Ensures that the Optimal Configuration can be Deployed.
- Scaleable for Future Expansion.

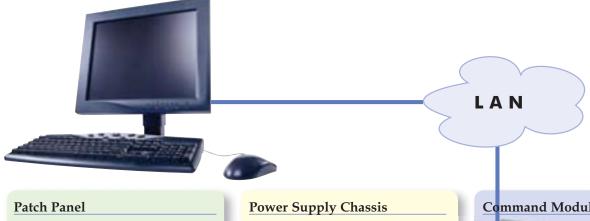
<sup>&</sup>lt;sup>2</sup> The IEEE 802.3-2005 section 33 supersedes and incorporates the contents of 802.3af. References to 802.3af are used solely for convenience and consistency with existing specifications and documentation.



<sup>1 10</sup>GbE performance per TSB-155.



#### **PoE Configuration Overview**



DC power cable

Command Module (Optional)

Co. Proposition

Command Module

Control Cable

Power Supply Chassis and Power Supply Modules

DC power cable

Command Module Control Cable

- 24-port Patch Panel.
- Terminates horizontal cable via standard 110 punch-down connection.
- Standard RJ45 connectors on the front of the panel (for connection to the switch).
- Full PoE power to all ports for applications with compliant IEEE 802.3af <sup>2</sup> and some legacy 48VDC
- Supports application up to 20 watts per port (requires Command Module).
- 10GbE performance<sup>1</sup>.
- LED indicators display connection and power status.
- Universal wiring.
- Front cable management bar (optional).

- Supports the powering of up to 2 patch panels (48 ports).
- Can be front or rear mounted. With the rear mounting arrangement, the chassis is mounted directly in back of the patch panel to conserve space.
- Can be equipped with up to three (3) 350W/48VDC power supplies to provide the required level of redundancy or for additional power.
- AC input allows easy connection to UPS.
- 120/240VAC compatible.
- IEC 320 AC inlet power connection.
- Includes 6' power connection cable, IEC 320 C13 to NEMA 5-15P.

- Capability to set maximum PoE power to 20 watts per port.
- Allows for management of up to 15 panels, 360 enabled PoE ports, as a single IP stack (identity) dramatically reducing IP address consumption and network management traffic.
  - User-defined static IP address or DHCP.
  - Management and communication access via 10/100 LAN and Serial (RS-232) interfaces.
  - Direct links from Command Module to each panel (no daisy-chaining).
- Advanced PoE power management using web based Graphical User Interface (GUI) or SNMP v1/v2c/v3.
  - Set PoE power levels and service priorities on a port by port basis.
  - Police the powering of ports.
  - · Remotely cycle PoE power for a port/ports.
- E-mail notifications for loss of communications and for various power conditions.



#### **Asset Management Configuration Overview**

#### **Asset Management Components**

- One Electronic Asset Tag (EAT) permanently affixed to Asset or PC.
   The asset tag has a unique pre-assigned number (similar to a MAC address). If desired, a tether extension can be connected to this asset tag so that another device, up to 2 devices, can be monitored over one UTP cable.
- EAT Coupler allows asset tag number to be "injected" onto UTP. A proprietary communication channel is used for asset tag monitoring, to ensure that network traffic is not affected. In this example, the end of the coupler is plugged into the PC NIC.
- 3. Standard patch cord connects EAT Coupler to wall jack.
- Work station outlets: NEXTSPEED® jacks tested to 4X required PoE current capacity.
- Asset information read by Asset Management Module in panel and sent to serial bus.
- 6. Asset information relayed to Command Module via Command Module Control Cord.
- Command Module collects information and uses TCP/IP connection to communicate information to POWERTRAC® Sentry software residing on work station or server.
- Power Supply Chassis, each chassis serves up to 2 panels (48 ports), no 48VDC power supply modules are required for asset management only applications.
- 9. Standard RJ45 cord connects Command Module to LAN.
- 10. Up to 15 Patch Panels served by each Command Module. This is up to 360 PoE enabled ports and 720 managed assets.
- 11. POWERTRAC® Sentry Software, interfaces with Command Modules to track and monitor up to 800,000 asset tags on up to 500,000 ports. Sends alerts to cell phones, pagers, and e-mail addresses based on user-defined policy rules.





POWERTRAC® Patch Panels, 24-Port	
<b>Equipped for PoE and Asset Management</b> Delivery: 1 panel equipped with both PoE and Asset Management modules	DTX24AP2
Equipped for PoE, Asset Management Ready Delivery: 1 panel equipped with a PoE module	DTX24P2
PoE Only, Equipped for PoE Delivery: 1 panel equipped with a PoE module <sup>1</sup>	DTX24P
Equipped for Asset Management, PoE Ready Delivery: 1 panel equipped with an Asset Management module	DTX24A2
PoE and Asset Management Ready Delivery: 1 panel (blank), no modules	DTX24B2
Asset Management Module	DTXMA2
PoE Module	DTXMP



DTX24AP2 rear

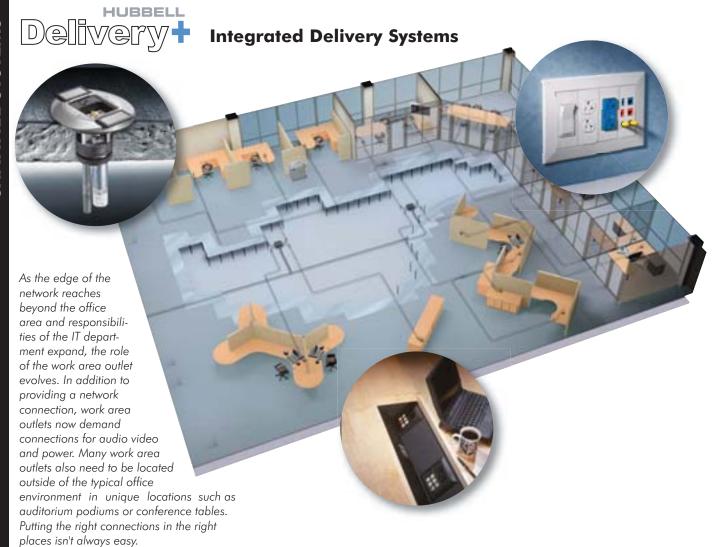
**DTXPS** with 3 x DTXPM350

#### POWEDTDAC® Datab Danal Accessorie

Power Supply Chassis	DTXPS
Includes 5 VDC power supply module (DTXPM60), and a 6' AC power	
connection cable (IEC 320 C13 to NEMA 5-15P).	
Power Supply Modules	
5 VDC (for replacement)	DTXPM60
48 VDC/350 watt (for PoE applications)	DTXPM350
DC Power Cables	
Length: 3'	DTXP03
Length: 7'	DTXP07
Command Module	DTXCM
Includes AC power connection cable (IEC 320 C13 to NEMA 5-15P)	
and SD memory card.	
Command Module Firmware License for Asset Management	DTXCML <sup>2</sup>
One license is required for each Command Module used in an asset	
management application.  Command Module Control Cords	
Length: 3'	DTXCC03
Length: 7'	
Length: 10'	DTXCC07
	DTXCC10
Electronic Asset Tag Coupler Includes 1 EAT coupler and connection cable.	DTXD
Electronic Asset Tag (for replacement in the DTXD)	DTXT
Asset Tag Extension Cable with Tether Assembly	DIXI
Length: 1'	DTXTE01
Length: 3'	DTXTE03
Length: 5'	
	DTXTE05
Electronic ID Key	DTXK
POWERTRAC® Sentry Software Required for Asset Management applications.	DTXSN2ADM
Cable Management Front (Optional)	DTXCMB
Cubie Munagement Profit (Ophonal)	DIXCMD
Optional Power Cables	
18" IEC 320 C14 to IEC 320 C13 cord	ICKXA
18" NEMA 5-15P to IEC 320 C13 cord	ICKXB
30" NEMA 5-30P (TWIST-LOCK®) to IEC 320 C13 cord	ICKXC



 $<sup>^1</sup>$  DTX24P is a PoE only panel and does not support asset management functionality.  $^2$  Only available from authorized Hubbell resellers.



Now Delivery + can do just that in two steps!

**First**: standardize on a system that has the broadest offering of AV, data and voice connectors in a universal form factor.

**Second**: make sure the system offers a wide array of delivery options from poured concrete to furniture tops and raised access flooring.

Delivery+ adapts effortlessly to mount AV connectors in hundreds of different products. The flexibility of the system is so simple, just add an **iSTATION**™ module, **X-END**™ connection, AV keystone connector or jack to the interface. Hubbell's combined systems deliver the right connections in the right places essential for the emerging AV applications.

Delivery+ provides a Simple and Consistent approach and makes it very easy to design, specify and assemble thousands of different AV and data variations into countless mounting options and still maintain a uniform look.

## HUBBELL Advantage

- Patented Hubbell SystemOne Fire-Rated Poke-Through and Floor Box System.
- Simplifies Installation at the Job Site.
- Supports Multiple Applications and Connector Configurations.
- Delivery + Aids in the Implementation of a LEEDS Friendly, Open Office Environment.



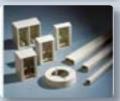
#### **Hubbell Raceway Systems**

Hubbell's innovative Raceway Systems include a choice of Steel, Aluminum and Non-Metallic, single or multi-channel raceways in addition to a quality line of color-matching power and datacom devices. Hubbell's Metal Raceway features innovative technologies like the Hubbell Handi-Screw for easy box mounting and more data capacity with the HBL750 and HBL4750 series raceways.



#### Metal Raceway......J4-J14

Hubbell's Steel Metal Raceway Systems include a choice of single or multi-channel raceways in addition to a quality line of color-matching power and datacom devices.



Hubbell's Non-Metallic Raceway Systems include a choice of single or multi-channel raceways in addition to a quality line of color matching power and datacom devices.



#### Pre-Wired Raceway ...... Section J

Hubbell has taken Raceway Systems to the next level with Pre-Wired Raceway Systems that are manufactured to your specifications. Pre-Wired Raceway Systems include a choice of Metal and Non-Metallic, single or multi-channel raceways.



#### Floor Boxes

Hubbell has expanded its offering of traditional flush and recessed floor boxes to include Hubbell SystemOne, a unique modular in-floor system that accommodates the industry's broadest range of power, data, audio/video and voice applications. The sub-plate and universal cover design provides consistent aesthetics regardless of the application.



#### Raised Access Floor Boxes 117

The Hubbell AFB Series of recessed, stamped Steel boxes are suitable for the majority of raised floor applications providing the flexibility, accessibility, capacity and depth profiles needed.



#### 

This family of furniture connectivity boxes installs into conference tables and individual work stations to bring power, voice, data, and multimedia directly to the point of use.



#### 

Multi-Connect Recessed Wall Boxes provide a versatile "in the wall" solution for single and multi-service applications.



#### Fire-Rated Poke-Throughs ......118-124

Hubbell's offering of flush, pedestal and furniture feed fire-rated poke-throughs has been expanded to include the unique capabilities of Hubbell SystemOne. This unique modular in-floor system accommodates the industry's broadest range of power, data, audio/video and voice applications. The sub-plate and universal cover design provides consistent aesthetics regardless of the application.



#### Aluminum Service Poles

Hubbell's Service Pole offering includes a complete line of gray, ivory, and satin finish extruded Aluminum service poles. These attractive and durable poles effectively distribute power, data, audio/video and voice wiring from above the ceiling to work stations below. They are offered in heights of 10'2", 12'2", and 15'2" and accommodate a wide variety of Hubbell power and datacom device products.

# WORK STATION SOLUTIONS









www.hubbell-premise.com

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# NextSpeed

#### Design

 Enhanced common mode design eliminates residual and reflected NEXT and ANEXT.

#### **Performance**

 Balanced PCB design delivers significant headroom over the TIA Category 6A standard up to 500MHz providing true 10GbE application assurance.

#### **Termination**

 Wide IDC spacing allows for the easiest UTP lacing Category 6A jack in the industry.

#### **Reliability**

- Application: Third-Party qualified for 10 Gigabit Ethernet Transmission IEEE 802.3an.
- Component: Third-Party verified for TIA-568-C.2 Category 6A component.
- Channel: Third-Party tested for ISO 11801 Class EA compliant.
- Current Capacity: Qualified for PoE and PoE+ IEEE 802.3at.
- Mechanical: Third-Party verified to TIA-568-C.2.
- Manufacturing: 100% factory tested.

#### **Specifications**

- Nose contact material: Beryllium Copper with Precious Metal plating with Nickel under-plating.
- Contact performance confirmed over the full range of TIA plug deflection limits.

#### **Standards**

- ANSI/TIA-568-C.2 (Previously 568-B.2-10 Category 6A) component.
- ISO 11801 Class EA Compliant (Category 6A).
- IEEE 802.3at.
- UL Listed 1863.



#### **Ascent Category 6A Jacks**

#### **Flexibility**

• 15 different colors aids identification of multiple applications.

#### **Superior Strain Relief**

 Locking IDC stuffer cap ensures termination retention, securing wires during installation.



#### **Capacity**

 Small form factor allows up to 6 keystone connections in a single gang delivering maximum capacity within standard product.

#### Versatility

 NEXTSPEED® Ascent Jack fits in all Hubbell iSTATION™, Delivery and Cross Connect products.



- TIA and ISO Category 6A Component Compliance.
- Labor Savings: Exclusive 1-Punch Termination Reduces Termination Time by 75%.
- Mating Cycles Exceed Industry Standard by 2 Times.
- Bulk Packaged to Eliminate Excess Packing Waste.

#### **NEXTSPEED® Ascent Category 6A Jacks**



The **NEXTSPEED**® Ascent Category 6A jack exceeds TIA and ISO Category 6A component specifications supporting network protocols delivering maximum 10GbE bandwidth and extended reliability for all LAN, multimedia and Power over Ethernet applications.

Delivery: 1 per Bag/Carton of 25.

Catalog No.

HJ6AXX

10G

Catalog No.

HJ6AXX25

10G

XX = See Jack Color Options below.

#### XX = Jack Color Options

<b>AL</b> =Almond	<b>BK</b> =Black	<b>B</b> =Blue	<b>EI</b> =Electric Ivory	<b>GL</b> =Gold	<b>GY</b> =Gray	<b>GN</b> =Green	<b>LA</b> =Light Almond
<b>OW</b> =Office White	<b>OR</b> =Orange	<b>P</b> =Purple	<b>R</b> =Red	TI=Telco Ivory	<b>W</b> =White	<b>Y</b> =Yellow	



#### Features/Benefits

- PoE tested and verified.
- Universal Hubbell keystone design fits into all Hubbell iSTATION™ and Delivery Plus™ products.
- Exclusive 1-Punch termination tool and QuickLace<sup>™</sup> combination.
- 15 different colors aids identification of multiple applications.

#### **Specifications**

- Construction Material:
  - Housing: High impact Thermoplastic (UL 94V-0).
  - Stuffer cap: Lexan (UL 94V-0).
  - Dust cover: Polypropylene.
- Nose contacts:
  - Material: Beryllium Copper with Precious Metal plating with Nickel under-plating.
- IDC contacts: Phosphor Bronze with 100 micro-inch Tin plating over Nickel under-plating.

# NEXTSPEED® and SPEEDGAIN® Category 6, 5e, 3, and USOC Jacks



#### **Stuffer Cap**

- Secure strain relief.
- Positive "snap" latching.

 Two distinct labels eliminates wiring confusion, T568B or T568A.



- Industry's First Tested Category 6 Component Compliant Jack.
- Labor Savings: Exclusive 1-Punch Termination Reduces Termination Time by 75%.
- Mating Cycles Exceed Industry Standards by 2 Times.
- Bulk Packaged to Eliminate Excess Packing Waste.

#### XCELERATOR™ Jacks, NEXTSPEED® and SPEEDGAIN® Category 6, 5e, 3 and USOC





**XX** = See Jack Color Options below.

\* Color exceptions: "P"=Purple and "GL"=Gold.

#### XX = Jack Color Options

<b>AL</b> =Almond	<b>BK</b> =Black	<b>B</b> =Blue	<b>EI</b> =Electric Ivory	<b>GL</b> =Gold	<b>GY</b> =Gray	<b>GN</b> =Green	<b>LA</b> =Light Almond
<b>OW</b> =Office White	<b>OR</b> =Orange	<b>P</b> =Purple	<b>R</b> =Red	TI=Telco Ivory	<b>W</b> =White	<b>Y</b> =Yellow	

# NextSpeed

#### **Superior Strain Relief**

• Locking IDC stuffer cap ensures termination retention, securing wires during installation.

#### **Performance**

 10GbE channel tested delivering 3Db of headroom @ 417MHz providing true 10GbE application assurance.

#### Reliability

- Application: Qualified for 10 Gigabit Ethernet Transmission IEEE 802.3an.
- Component: Third-Party verified for TIA-568-C Category 6 component -Third-Party verified for ISO 11801, Class E compliant.
- Current Capacity: Qualified for PoE and PoE+ IEEE 802.3at.
- Manufacturing: 100% factory tested.

#### Features/Benefits

- Zero Bit-Error channel performance.
- Controlled crosstalk.
- Quick and easy grounding.
- Backward compatible to Category 5e, 5.
- Hubbell keystone.
- Compatible with all iSTATION™ plates and modules.

#### **Specifications**

- Copper conductor diameter:
  - Solid: 0.40-0.65 mm/AWG 26/1-22/1
  - Stranded: 0.46-0.61 mm/AWG 27/7-24/7.
- ◆ Life (insertions): min. 750 cycles.
- Shielding housing: Zinc die-cast.

#### **Standards**

- ANSI/TIA-568-C.2 Category 6 component.
- UL Listed ISO/IEC 11801 and EN50173 2nd edition requirements for transfer impedance and shield effectiveness.
- IEC 60603-7-5 (draft) specifications for Category 6 and Category 5e screened connecting hardware.
- UL Listed 1863.

#### **Shielded Jacks**

#### **IDC Formation**





#### Quick Grounding

 SJ6 jacks can be directly connected to grounding cables.



- Quick and Easy Terminal Grounding Connection.
- Tool Less Termination.
- Third-Party Tested and Verified.
- Bulk Packaged to Eliminate Excess Packing Waste.

#### **NEXTSPEED® Shielded Jacks, Category 6/10GbE**





The **NEXTSPEED**® SJ6 jack features inversely oriented right-angled IDC contacts. It is designed to deliver a high level of reliability and consistency. This IDC formation allows each pair to be segregated to suppress pair-to-pair NEXT. With its mechanical die cast construction design, the **NEXTSPEED**® SJ6 has the durability and EMI protection needed for any shielded installation.

Category	Pckg. Quantity	B-Wired Catalog No.	A-Wired Catalog No.
6	2	SJ62B /10G	SJ62A 10G
6	24	SJ624B /10G	SJ624A 10G
5e	2	SJ5EB	SJ5EA
5e	24	SJ5EB24	SJ5EA24

#### Shield Colored Dust Covers

Delivery: 100	per package.				
Color	Blue	Black	Green	Orange	Yellow
Catalog No.	IDCSB	IDCSBK	IDCSGN	IDCSOR	IDCSY

#### **Modular Jack Accessories**

#### 1-Punch XJ Termination Tool and Accessories

The "1-Punch" XJ Tool and **XCELERATOR**™ Jacks are made for each other. This tool should be used exclusively with **XCELERATOR**™ jacks. Additionally, it is necessary to use this with the HXTA termination aid.

XCELERATOR™ Jacks	
Description	Catalog No.
1-Punch tool with head, blades and HXTA termination aid	TX4P6A
1-Punch Ascent tool replacement head	TX4P6AH
1-Punch Ascent tool replacement blades	TX4P6ABL
1-Punch XJ tool with head, blades and HXTA termination aid	TX4P
1-Punch XJ replacement head	TX4PH
1-Punch XJ replacement blades	TX4PHBL
1-Pair 110 blade	TBLH
Punch down tool, 1-pair	TPDH
Hand termination aid "Jack Knuckles" <b>XCELERATOR</b> ™/Ascent	HXTA
Snap-X termination puck (Bag of 25)	HXTP25
Ascent termination puck	HXTP2A5



#### **Jack Dust Covers**

#### Features/Benefits

- Use with XCELERATOR™ modular jacks.
- Mounts within the icon slots located above the RJ45 opening.
- An icon can be housed on the dust cover in the center of RJ45 opening to provide port identification.

#### **Specifications**

Material: Polypropylene.

NOTE: Cannot be used with SJ Jack Series.
Catalog. No. **HXJDC25** 





#### **Jack Icons**

#### Features/Benefits

 Color-coded icons snap easily onto the jack nose.

#### **Specifications**

- ANSI/TIA-606-B compatible.
- Flame-retardant material UL 94V-0.

Icons are offered in packs of 100 blank or with a computer or telephone molded in. Customize each blank icon with our preprinted icon booklet. NOTE: Cannot be used with SJ Jack Series.







<b>BK</b> =Black	<b>B</b> =Blue	<b>BN</b> =Brown	<b>EI</b> =Electric Ivory	<b>GY</b> =Grav	<b>GN</b> =Green
OR=Orange	<b>P</b> =Purple		,	<b>Y</b> =Yellow	

#### **Jack Labels, Pre-Printed**

Pre-printed icon booklet containing assorted clear icon labels to be applied on blank icons (shown above - sold in pack of 5 books). Each booklet has 11 pages with numerous labels ranging from A to G, FAX to Data.

Text color	Catalog No.	Text color	Catalog. No.
Black	XPICONS	White	XPICONSW



#### **Audio Video Connectors**





Hubbell's expanded line of high quality Audio Video connectors provide multimedia configurations to the desktop as well as the telecommunications closet. Hubbell's extensive offerings of S-Video, XLR, 15-pin "VGA style", RCA, 9-pin serial port, ½" and 3.5mm stereo jacks, BNC and F connectors are provided in several different versions, delivering flexibility and ease-of-use to customize the work area to the exact configuration needed.

Sold in carton increments only. Carton contains - 25 keystone connectors (individually bagged).

#### **RCA Connectors**





#### **RCA 110 Punch Down**

Black Housing	SFRC110B	SFRC110GN	SFRC110R	SFRC110W	SFRC110Y		
Insulator Color	Blue	Green	Red	White	Yellow		
Recommended cable: Category 3, 5, 5e or 6 UTP.							



#### **RCA Solder Coupler Termination**

Recommended cable:	14-28 AWG Min	i-Coax.			
Insulator	Black	Blue	Green	Orange	Red
Housing: Office White only	SFRC	SFRCBOW	SFRCGNOW	SFRCOROW	SFRCR
Insulator	White	Yellow			
Housing: Office White only	SFRCW	SFRCY			
Insulator	Black	Blue	Green	Orange	Red
All other colors see Color Chart below	SFRCXX	SFRCBXX	SFRCGNXX	SFRCORXX	SFRCRXX
Insulator	White	Yellow			
All other colors see Color Chart below	SFRCWXX	SFRCYXX			



#### RCA Gold Pass-through, F/F Coupler

	ioogii, i / i co	_	_	_	
Insulator Color	Black	Blue	Green	Orange	Red
Housing: Office White only	SFRCBKFF	SFRCBFFOW	SFRCGNFFOW	SFRCORFFOW	SFRCRFF
Insulator Color	White	Yellow			
Housing: Office White	SFRCWFF	SFRCYFF			
Insulator Color	Black	Blue	Green	Orange	Red
All other colors see Color Chart below	SFRCBKFFXX	SFRCBFFXX	SFRCGNFFXX	SFRCORFFXX	SFRCRFFXX
Insulator Color	White	Yellow			
All other colors see	SFRCWFFXX	SFRCYFFXX			



#### RCA Recessed Gold Pass-through, F/F Coupler

Insulator Color	Black	Blue	Green	Orange	Red
Housing see below	SFRCRBKXX	SFRCRBXX	SFRCRGNXX	SFRCRORXX	SFRCRRXX
Insulator Color	White	Yellow			
All other colors see Color Chart below	SFRCRWXX	SFRCRYXX			

#### **XX** = Connector Color Options



#### **F-Type Connectors**

r-Connector, Pass-Inrough, r/r Coupler							
Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray		
Catalog No.	SFFALX	SFFLAX	SFFBX	SFFEX	SFFGX		
Housing Color	Office White	White					
Catalog No.	SFFX	SFFWX					



F-Connector, Gold, Pass-Through, F/F Coupler

Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray
Catalog No.	SFFGAL	SFFGLA	SFFGBK	SFFGEI	SFFGGY
Housing Color	Office White	White			
Catalog No.	SFFGOW	SFFGW			



F-Connector, Gold, Recessed, Pass-Through, F/F Coupler

		,	-,		
Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray
Catalog No.	SFGRFAL	SFGRFLA	SFGRFBK	SFGRFEI	SFGRFGY
Housing Color	Office White	White			
Catalog No.	<b>SFGRFOW</b>	SFGRFW			



RCA to F-Connector, Gold, Pass-Through, F/F Coupler

KCA to 1-conflector, Gold, Fuss-Infoogn, 1/1 Cooplet							
Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray		
Catalog No.	SFRFGAL	SFRFGLA	SFRFGBK	SFRFGEI	SFRFGGY		
Housing Color	Office White	White					
Catalog No.	SFRFGOW	SFRFGW					
-							



RG59 Male to RG6 Female Coupler, 10-pk

Cable Type

Use with Recessed F-Connector RG59A10 Catalog No.

Termination Type



#### F and RCA Plugs and Tools

RG6 and RG59 Compression Tool

Compression	RG6	1	FRG625
Compression	RG59	1	FRG5925
Crimp	RG6	1	FRG6C25
Compression	RG59	1	RG59FC
Push on plug	RG59	1	RG59FPO
Tools			Catalog No.
Crimp Tool Frame (di	UCT		
RG6 and RG59 Crim	CDTSRG659		
COO dila ROS7 Cilii	ib Die-261		-

No. of Pieces



Catalog No.

**COMPTRG659** 

FRG625



COMPTRG659

#### **Audio Video Connectors**

#### **S-Video Connectors**





S-Video F/4-pin DIN Connector to 110 Termination					
Housing Color	Almond	Black	Electric Ivory	Gray	
Catalog No.	SFSV110AL	SFSV110BK	SFSV110EI	SFSV110GY	
Housing Color	Office White	White			
Catalog No	SESV1100W	SESV110W			



S-Video 4-pin DIN, Pass-Through, F/F Coupler

Housing Color	Almond	Black	Electric Ivory	Gray		
Catalog No.	SFSVAL	SFSVBK	SFSVEI	SFSVGY		
Housing Color	Office White	White				
Catalog No.	SFSVOW	SFSVW				

#### Stereo Jacks, 3.5mm





Stereo Jack, 3.5mm, Solder					
Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray
Catalog No.	SF35SJAL	SF35SJLA	SF35SJBK	SF35SJEI	SF35SJGY
Housing Color	Office White	White			
Cataloa No.	SF35SJ	SF35SJW			



Stereo Jack, 3.5mm, Screw Terminal

Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray
Catalog No.	SF35STAL	SF35STLA	SF35STBK	SF35STEI	SF35STGY
Housing Color	Office White	White			
Catalog No.	SF35STOW	SF35STW			



Stereo Jack, Pass-Through, F/F Coupler

Siereo Jack, rass-illioogii, i/i coopiei						
Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray	
Catalog No.	SF35FFAL	SF35FFLA	SF35FFBK	SF35FFEI	SF35FFGY	
Housing Color	Office White	White				
Catalog No.	SF35FFOW	SF35FFW				



Stereo Jack, Pass-Through, Gold, F/F Coupler

Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray
Catalog No.	SF35GFFAL	SF35GFFLA	SF35GFFBK	SF35GFFEI	SF35GFFGY
Housing Color	Office White	White			
Catalog No.	SF35GFFOW	SF35GFFW			



**Bulk 3.5mm Connectors, 10-Pack** 

	Solder	Feed-Through	Screw Termination
Catalog No.	35\$10	35FF10	35ST10



Stereo Jac	k, 1/4",	Solder
------------	----------	--------

Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray
Catalog No.	SF14SJAL	SF14SJLA	SF14SJBK	SF14SJEI	SF14SJGY
1					
Housing Color	Office White	White			
Catalog No.	SF14SJOW	SF14SJW			

## **Gold Speaker Post Connectors and Banana Plugs**



	, , ,		-		
Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray
Catalog No.	SFSPGBKAL	SFSPGBKLA	SFSPGBKBK	SFSPGBKEI	SFSPGBKGY
Housing Color	Office White	White			
Catalog No.	SFSPGBK	SFSPGBKGW			



Speaker Post, Gold, Red, Screw Termination

Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray
Catalog No.	SFSPGRAL	SFSPGRLA	SFSPGRBK	SFSPGREI	SFSPGRGY
	O((; //// ;/	\A/I ::			
Housing Color	Office White	White			
Catalog No.	SFSPGR	SFSPGRGW			



Speaker Banana Plugs, Gold, Screw Termination, 10-Packs

	Black	Red	
Catalog No.	SPPBK10	SPPR10	



## **BNC Connectors**

BNC Connect	or, Pass-Throug	jh, F/F Coupler			
Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray
Catalog No.	SFBAL	SFBLA	SFBBK	SFBEI	SFBGY
Housing Color	Office White	White			
Catalog No.	SFBOW	SFBW			



BNC Connector, Gold, Pass-Through, F/F Coupler

Housing Color	Almond	Light Almond	Black	Electric Ivory	Gray
Catalog No.	SFBGAL	SFBGLA	SFBGBK	SFBGEI	SFBGGY
Housing Color	Office White	White			
Catalog No.	SFBGOW	SFBGW			



## Blank Connectors, 10-Pack

#### **Blank Connector**

Didlik Collife	CIOI				
Housing Color	Black	Electric Ivory	Gray	Office White	White
Cataloa No.	SFBB10	SFBEI10	SFBG10	SFB10	SFBW10



## **Blank Connector, Smooth**

The smooth blank	connectors are used	with the NSP wall pla	tes found on page B2	28.		
Housing Color	Almond	Light Almond	Black	Gray	White	
Catalog No.	SFSBAL10	SFSBLA10	SFSBBK10	SFSBGY10	SFSBW10	



## **Audio Video Connectors**

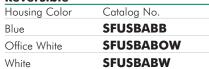
### **USB Connectors**



USB Coupler, A to A, 2.0						
Housing Color	Catalog No.					
Blue	SFUSBAAB					
Office White	SFUSBAAOW					
White	SFUSBAAW					



## USB Coupler, A to B, 2.0 Reversible



### **6-Pin DIN Connectors**



6-Pin, DIN, Keyboard, Pass-Thru, F/F Coupler Catalog No. SF6PK



6-Pin, DIN, Monitor, Pass-Thru, F/F Coupler SF6PM Catalog No.

### **Data Couplers**



Category 6, Pass-Thru, F/F Coupler Catalog No. Housing Color SFC6BK Black SFC6W White



Category 5e, Pass-Thru, F/F Coupler Housing Color Catalog No. Black SFC5EBK White SFC5EW



Category 5e, Cross Over 10/100BASE-T, F/F Coupler Housing Color Catalog No. **SF5ECOGY** Gray

## HUBBELL OptiChannel Keystone Adapters

## LC Duplex, Flush Mount, Keystone Adapter





Color	Almond	Black	Electric Ivory	Gray	Lt. Almond	Office White	White
Catalog No.	SFFLCAL	SFFLCBK	SFFLCEI	SFFLCG	SFFLCLA	SFFLC	SFFLCW
7:: Cl							
Zirconia Slee	ves.						
Zirconia Slee	ves. Almond	Black	Electric Ivory	Gray	Lt. Almond	Office White	White

## **LC Duplex, Keystone Adapter**





Phosphor Bro	nze Sleeves.						
Color	Almond	Black	Electric Ivory	Gray	Lt. Almond	Office White	White
Catalog No.	SFLCAL	SFLCBK	SFLCEI	SFLCG	SFLCLA	SFLC	SFLCW
Zirconia Slee	ves.						
Color	Almond	Black	Electric Ivory	Gray	Lt. Almond	Office White	White
Catalog No.	SFLCSAL	SFLCSBK	SFLCSEI	SFLCSG	SFLCSLA	SFLCS	SFLCSW



Almond

**SFFSCSAL** 

Gray

**SFFSCSG** 

## SC Simplex, Flush Mount, Keystone Adapter

Black

Phosphor Bronze Sleeves. Color Almond Black Lt. Almond Office White White Electric Ivory Gray Catalog No. **SFFSCAL SFFSCBK SFFSCEI SFFSCG SFFSCLA SFFSC SFFSCW** Zirconia Sleeves.

Electric Ivory

SFFSCSBK SFFSCSEI



Office White

**SFFSCS** 

Lt. Almond

**SFFSCSLA** 

White

**SFFSCSW** 

## SC/APC, Simplex, Keystone Adapter

Zirconia sleeves

Color

Catalog No.

Catalog No.	SFSCAAL	SFSCABK	SFSCAEI	SFSCAGY	SFSCALA	SFSCAOW	SFSCAW	
Color	Almond	Black	Electric Ivory			Office White		
-11 coma 5100	, 00.							



## SC Simplex, Keystone Adapter

Phosphor Bronze sleeves. Electric Ivory Gray Lt. Almond Office White White Color Almond Black **SFSCAL SFSCBK SFSCEI SFSCG SFSCLA SFSC SFSCW** Catalog No. Zirconia sleeves. Black Office White White Color Gray Lt. Almond Almond Electric Ivory **SFSCSAL SFSCSBK SFSCSEI SFSCSG SFSCSLA SFSCS SFSCSW** Catalog No.



## MT-RJ, Flush Mount, Keystone Adapter

MM. Color Almond Black Electric Ivory Gray Lt. Almond Catalog No. **FAMTRJKAL FAMTRJKBK FAMTRJKEI FAMTRJKG FAMTRJKLA** Color Office White White **FAMTRJK FAMTRJKW** Catalog No.



## MT-RJ, Keystone Adapter

MM. Delivery: 25-carton. Lt. Almond Color Almond Black Electric Ivory Gray **SFMTRJBK SFMTRJAL SFMTRJEI SFMTRJG SFMTRJLA** Catalog No. White Color Office White **SFMTRJW** Catalog No. **SFMTRJ** 



## ST-style to SC Simplex, Keystone Adapter

Phosphor Bronze sleeves. Office White White Color Almond Black Electric Ivory Gray Lt. Almond **SFSCSTBK SFSCSTAL SFSCSTEI** SFSCSTG SFSCSTLA **SFSCST SFSCSTW** Catalog No. Zirconia sleeves Color Electric Ivory Gray Lt. Almond Office White White SFSCSTSAL SFSCSTSBK SFSCSTSEI SFSCSTSG SFSCSTSLA **SFSCSTS SFSCSTSW** 



## **ST-style Keystone Adapter**

Color	Almond	Black	Electric Ivory	Gray	Lt. Almond	Office White	White
Catalog No.	SFSTAL	SFSTBK	SFSTEI	SFSTG	SFSTLA	SFST	SFSTW
Tirannia alaa							
Zirconia slee	ves. Almond	Black	Electric Ivory	Grav	Lt. Almond	Office White	White



## Station

## **Integrated AV Modular System**

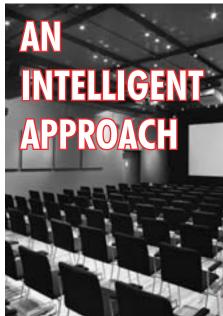
**iSTATION**<sup>™</sup> products provide a consistent and practical solution for delivering all types of connections. The **iSTATION**<sup>™</sup> system tackles convergence by locating AV Solutions where you need them: On the wall, In the wall, On the floor, In the floor, In the table, On a rack, In a cabinet.

The **iSTATION**™ approach makes adding a connection straight forward and effortless all the while maintaining a clean, uniform look.











## Specifications

- ANSI/TIA-606-B station labeling capability.
- UL and cUL listed.
- ♦ Flush mounting with box eliminators.
- Front loading installation.

# Advantage

- Most Extensive Audio Video and Voice/Data Offering in the Industry.
- Simple Field Configuration.
- Provides One Solution for all Delivery System Applications.
- AV Assemblies Made to Length Eliminating Cable Waste.

## **Extensive Voice/Data/Audio Video Applications.**

## iSTATION™ **Modular Frames** See page B22 Voice/Data/Video. • Audio in a single Box. • High-density. Keystone Plate Modular Solutions. iSTATION™ Frame In-Wall **MULTI-CONNECT® Wall Boxes** See page B24 • Multi-Service. • Voice/Data/Video. • Power and Low-Voltage. MULTICONN POLYTRAK® Raceway See Section J • Single, 2-Channel, 3-Channel. On-Wall • Low-Voltage or Power Applications. Metal and Non-metallic. Furniture Plate 3-Service Concrete Floor Box, See Section I In-Floor **Large Capacity** Concrete Floor Box, See Section I Floor Box Floor Box Raised Access Floor Box See Section I Fire-Rated Poke Throughs Through-Floor See Section I • Power and Low-Voltage. • Voice/Data/Video. • Retrofit and Expansions. • Furniture Feed Capability. Poke-Thru **UDX Multimedia Panels** See page E10 In Rack or · Angled Panels. • UDX Multimedia Panels. Cabinet • Jack Panel Kits. Category 6A, 6, 5e, 3 - AV and Fiber Optic applications.

Multimedia Panel



## **Audio Video Modules**

## **Solder Audio Video Modules**



RCA Compon	ent Video with L	eft/Right Audio	or RGBHV, Sold	er, 1.5 Unit	
Housing Color	Almond	Black	Electric Ivory	Gray	
Catalog No.	IMCRS15AL	IMCRS15BK	IMCRS15EI	IMCRS15GY	
Housing Color	Office White	White			
Catalog No.	IMCRS15OW	IMCRS15W			

KCA Compon	ent, viaeo, soia	er, i Unii			
Housing Color	Almond	Black	Electric Ivory	Gray	
Catalog No.	IMCRS1AL	IMCRS1BK	IMCRS1EI	IMCRS1GY	
Housing Color	Office White	White			
Catalog No.	IMCRS1OW	IMCRS1W			



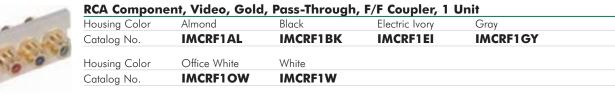
RCA Composit	RCA Composite Video with Left/Right Audio, Solder, 1 Unit						
Housing Color	Almond	Black	Electric Ivory	Gray			
Catalog No.	IM3RS1AL	IM3RS1BK	IM3RS1EI	IM3RS1GY			
Housing Color	Office White	White					
Catalog No.	IM3RS1OW	IM3RS1W					



Housing Color	Almond	Black	Electric Ivory	Gray
Catalog No.	IMRSJ1AL	IMRSJ1BK	IMRSJ1EI	IMRSJ1G1
Housing Color	Office White	White		
Catalog No.	IMRSJ1OW	IMRSJ1W		

## **Gold Feed-Through Audio Video Modules**







RCA Composite	, Video w/ Le	eft/Right Audio, (	Fold, Pass-Throu	ugh, F/F Coupler, 1 Unit	
Housing Color	Almond	Black	Electric Ivory	Gray	
Catalog No.	IM3RF1AL	IM3RF1BK	IM3RF1EI	IM3RF1GY	
Housing Color	Office White	White			
Catalog No.	IM3RF1OW	IM3RF1W			



RCA Left/Right	Audio with 3.5r	nm Stereo Audio	Jack, Gold, F	eed-Through, F/F Coupler, 1 Uni
Housing Color	Almond	Black	Electric Ivory	Gray
Catalog No.	IM35AR1AL	IM35AR1BK	IM35AR1EI	IM35AR1GY
Housing Color	Office White	White		
Catalog No.	IM35AR1OW	IM35AR1W		

## **Gold Speaker Posts Modules and Banana Plugs**



White

**IMSP1W** 





Speaker Ba	Speaker Banana Plugs, Gola, Screw Termination, 10-Packs					
	Black	Red				
Catalog No.	SPPBK10	SPPR10				



## **Audio Video Modules**

## 110 Audio Video Modules





RCA Component Video to 110 Termination, 1	Unit
---	------

KCA Compone	ent video to 110	termination, i	Unit		
75' max. High De	finition, Category 3, 5,	5e, 6 UTP			
Housing Color	Almond	Black	Electric Ivory	Gray	
Catalog No.	IMCR1101AL	IMCR1101BK	IMCR1101EI	IMCR1101GY	
Housing Color	Office White	White			
Catalog No.	IMCR1101OW	IMCR1101W			



S-Video, with Left/Right RCA Audio to 110 Termination, 1 Unit

100' max. Catego	ry 3, 5, 5e, 6 UTP				
Housing Color	Almond	Black	Electric Ivory	Gray	
Catalog No.	IMSR1101AL	IMSR1101BK	IMSR1101EI	IMSR1101GY	
Housing Color	Office White	White			
Catalog No.	IMSR1101OW	IMSR1101W			



S-Video, 3.5mm Stereo Audio Jack to 110 Termination, 1 Unit

3-Video, 0.511	iiii Siereo Addio Jac	k io i io iei iiiiiidiio	ii, i Oiiii	
100' max. Catego	ry 3, 5, 5e, 6 UTP			
Housing Color	Almond	Black	Electric Ivory	Gray
Catalog No.	IMSV351101AL	IMSV351101BK	IMSV351101EI	IMSV351101GY
Housing Color	Office White	White		
Catalog No.	IMSV351101OW	IMSV351101W		



RCA Composite Video with Left/Right Audio to 110 Termination, 1 Unit

		,		<b>,</b>	
100' max. Catego	ory 3, 5, 5e, 6 UTP				
Housing Color	Almond	Black	Electric Ivory	Gray	
Catalog No.	IMR1101AL	IMR1101BK	IMR1101EI	IMR1101GY	
Housing Color	Office White	White			
Catalog No.	IMR1101OW	IMR1101W			



RCA Left/Right Audio 110 Termination, 1 Unit

,					
100' max. Catego	ory 3, 5, 5e, 6 UTP				
Housing Color	Almond	Black	Electric Ivory	Gray	
Catalog No.	IMAR1101AL	IMAR1101BK	IMAR1101EI	IMAR1101GY	
Housing Color	Office White	White			
Catalog No.	IMAR1101OW	IMAR1101W			

## 15-pin VGA, 9-pin Screw Terminal and Gender Changer Connections



HD 9-pin F/F Coupler
----------------------

10-Pack
Catalog No. 9GC10



HD 9-pin Screw Term

10-Pack
Catalog No. 9ST10



HD 15-pin F/F Coupler

10-Pack Catalog No. **15GC10** 



HD 15-pin Screw Term

10-Pack Catalog No. **15ST10** 



## **Audio Video Modules**

## **Pro AV Panel Mount Connectors and Modules**





Blank AV Panel Mount Module, 1.5 Unit, 10-Pack

Housing Color Almond Black Electric Ivory Gray Office White White IMAVB15BK IMAVB15EI IMAVB15GY IMAVB15OW IMAVB15W Catalog No. **IMAVB15AL** 

### **XLR 3-pin, Screw Termination**

Female, 10-Pack



Female, 10-Pack

1/4" Stereo Jack

Solder, Female, 10-Pack Catalog No. 14S10

## **SPEAKON®**



2-pole, Female, 10-Pack Catalog No. SC10

#### **USB** Connection



Coupler, 10-Pack USB10 Catalog No.

Catalog No. XLR10

### IEEE 1394 Fire Wire™



Connection Coupler, 10-Pack Catalog No. 139410

NOTE: See page E10 for AVI and Pro AV Panels. All Pro-AV Connectors and Modules are available in 10-Packs only. FireWire  $^{\text{TM}}$  is a trademark of Apple.

## **Loaded Pro AV Modules**



Mini XLR, Solder, 1 Unit

,							
Housing Colo	r Almond	Black	Electric Ivory	Gray	Office White	White	
Catalog No.	IMXLR1AL	IMXLR1BK	IMXLR1EI	IMXLR1GY	IMXLR1OW	IMXLR1W	



15-pin Screw Term, 3.5mm Stereo Jack Screw Term, XLR Screw Term, 2 Unit

Catalog No.	IM153X2AL	IM153X2BK	IM153X2EI	IM153X2GY	IM153X2OW	IM153X2W	
Housing Color	Almond	Black	Electric Ivory	Gray	Office White	White	

## **DVI Connectors, Converters and Modules**





Blank DVI Module, 1.5 Unit

Housing Color	Almond	Black	Electric Ivory	Gray	Office White	White
Single	IMBDVI15AL	IMBDVI15BK	IMBDVI15EI	IMBDVI15GY	IMBDVI15OW	IMBDVI15W
10-Pack	IMBDVI1015AL	IMBDVI1015BK	IMBDVI1015EI	IMBDVI1015GY	IMBDVI1015OW	IMBDVI1015W



**DVI-I F/F Coupler** 

10-Pack Catalog No. DVI10



**DVI-I F/F Coupler** 

1-Pack DVI1 Catalog No.



DVI to 15-pin

F/F Coupler, 1-Pack **DVI151** Catalog No.



**DVI to HDMI** 

F/F Coupler, 1-Pack **DVIHDMI1** Catalog No.





## **HDMI Connectors and Patch Cords**

#### Performance

• 24AWG custom 1.3 HDMI cable designed for full 1080p video and flawless audio.

## Versatility

 HDMI connection is supported in all Hubbell iSTATION™ products which include Work Station, Delivery, and Cross Connect.

## **Simplicity**

 The HDMI plug-n-play feature saves valuable installation and testing time in the field.



## **Specifications**

- Connector: 2 micro-inch Gold-plated.
- ♦ Version: 1.3.
- Audio Signal: PCM, DVD-Audio, Super Audio CD, Dolby True HD, DTS-HD Master Audio.
- Video Signal: 480i, 480p, 720p, 1080i, 1080p.
- Pins: 19.



# Advantage

- Locking Connection Interface.
- 3" Application Tail Provides Flexibility and Ease-of-Use for Installations with Capacity Issues.
- Full High Definition 1080p Signal Transmission, HDMI 1.3.
- Assemblies Made to Length Eliminates Cable Waste.

## **HDMI Horizontal Active and Non-Active Horizontal Patch Cords**

Patch Cord	s, 24AWG	Horizontal	Cords, 24AWG	Link Cords	, 24AWG	Coupler	Cords, 24AWG
Description	Catalog No.	(connector-to-connector) (connector-to-device)		(connector-to-device)		(coupler-to	-device)
3', Black	HDPC03BK	Description	Catalog No.	Description	Catalog No.	Black	HDC**BK
6', Black	HDPC06BK	Black	HDH**BK	Black	HDL**BK		

\*\* = Length: "10"=10'; "15"=15'; "20"=20'; "25"=25'; "30"=30'. Black and non-plenum only.



#### XX = Frame Color Options

AL=Almond BK=Black EI=Electric Ivor	<b>GY</b> =Gray	LA=Light Almond	<b>OW</b> =Office White	<b>W</b> =White
-------------------------------------	-----------------	-----------------	-------------------------	-----------------



## Plug-n-Play X-END™ AV System

#### **Performance**

 Custom AV cable is designed for minimal signal loss delivering a transparent video and flawless audio.

## **Flexibility**

Supports multiple applications and connector configurations.

## Simplicity

 The X-END™ plug-n-play feature saves valuable installation and testing time in the field.

#### Versatility

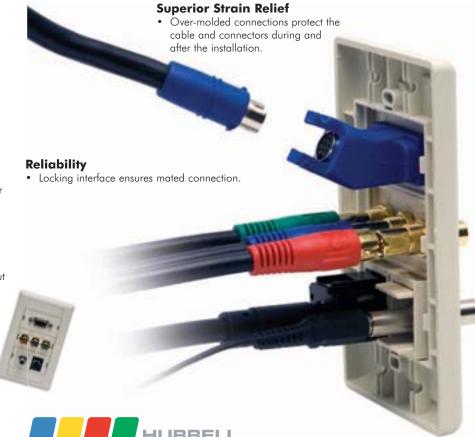
 The uniqueness of X-END™ allows the user to swap out application patch cords and tails utilizing the same connection without changing the horizontal runs.

#### **Small Form Factor**

 The X-END™ horizontal cable runs can easily be pulled through <sup>3</sup>/<sub>4</sub>" conduit without any issue.

## Capacity

Allows up to 6 keystone connections or 3
 1 Unit modules in a single gang delivering the equivalent of up to 30 connectors in a single plate.



## **Specifications**

- Connector contacts
   15-pin: 2 micro-inch Gold-plated.

   8-pin: Brass, Nickel-plated.
- Module material: Flame Retardant Polymer, rated UL 94V-0.
- ◆ Cable type: 28AWG, 75 Ohm.
   5 mini Coax: Plenum
   5 mini Coax: Non-Plenum
   100% factory terminated and tested.



- Locking Connection Interface.
- 3" Application Tail Provides Flexibility and Ease-of-Use for Installations with Capacity Issues.
- Up to 1080i RGB (Component) Transmission.
- Assemblies Made to Length Eliminates Cable Waste.



## **AV Plug-n-Play Horizontal Runs**



Description Catalog No.

Audio Video, 8-pin Non-Plenum, Black

Audio Video, 8-pin Plenum, Black

VGA6XXBK

VGA6PXXBK

**XX** = Length: "05" = 5'; "10" = 10'; "15" = 15'; "20" = 20'; "25" = 25'; "30" = 30'; "35" = 35'; "40" = 40'; "45" = 45'; "50" = 50'; "55" = 55'; "60" = 65'; "70" = 70'; "75" = 75'; "80" = 80'; "85" = 85'; "90" = 90'; "95" = 95'; "100" = 100'.

\* Maximum supported distance varies by application and resolution. Refer to X-END™ brochure for details.

## AV Plug-n-Play 8-Pin Keystone Connectors



**B20** 

•	•						
Housing Color	Black	Blue	Brown	Electric Ivory	Gray	Green	
Catalog No.	SFAVCBK	SFAVCB	SFAVCBN	SFAVCEI	SFAVCGY	SFAVCGN	
Housing Color	Office White	Orange	Red	White	Yellow		
Catalog No.	SFAVCOW	SFAVCOR	SFAVCR	SFAVCW	SFAVCY		

#### **AV Plug-n-Play 8-Pin iSTATION™ Modules** Audio Video 8-pin (F) 3 RCA Component, S-Video with 2 RCAs S-Video, 3.5mm 3 RCA Composite Video Left/Right Audio, 1 Unit with Left/Right Audio, 1 Unit Description Video, 1 Unit 1 Unit



**Audio Video** 8-pin (F)

Catalog No.



IMCR81XX





Description

Catalog No.





3 RCA Component Video 3 RCA Composite 3 RCA Component with w/S/PDIF, 1.5 Unit with Left/Right Audio, 1.5 Unit Video w/S-Video, 1.5 Unit 3.5mm, 1.5 Unit IMCRD815XX IMCAR815XX IMSRC815XX IMC35815XX Catalog No.

**Audio** 8-pin (F)

Catalog No.

XLR 3-pin Male, 3.5mm Description

XLR 3-pin Female, 3.5mm IM3XF815XX

Video 8-pin (F)



XX = Module Color Options

IM3XM815XX

**AL**=Almond **BK**=Black EI=Electric Ivory **GY**=Gray **LA**=Light Almond **OW**=Office White  $\mathbf{W} = \mathsf{White}$ 

AV Plug-n-Play X-END™ Application Patching Runs Catalog No. Audio Video, 8-pin Female, S-Video with 3.5mm AVS35XX **AVSRAXX** Audio Video, 8-pin Female, S-Video with 2 RCA L/R Audio Audio Video, 8-pin Female, 3 RCA Composite Video with L/R Audio **AVRCXX AVCRXX** Video, 8-pin Female, 3 RCA Component Video **AVCRDXX** Audio Video, 8-pin Female, 3 RCA Component Video with S/PDIF Audio Video, 8-pin Female, 5 RCA Component Video with L/R Audio or RGBHV **AVCARXX** Video, 8-pin Female, 3 RCA Component with S-Video **AVSCRXX AVSRCXX** Audio Video, 8-pin Female, S-Video, 3 RCA Composite Video with L/R Audio AVC35XX Audio Video, 8-pin Female, 3 RCA Component with 3.5mm Stereo Jack **AVBXX** Video, 8-pin Female, 5-BNC RGBHV Audio, 8-pin Female, XLR 3-pin Male, 3.5mm Stereo Jack **AV3XMXX** Audio, 8-pin Female, XLR 3-pin Female, 3.5mm Stereo Jack AV3XFXX XX = Length: "05" = 5'; "10" = 10'; Male, 8-pin; "T1" = 1'; Female, 8-pin.

## VGA Plug-n-Play X-end Connections, 15-Pin (F) to 8-Pin (F)

The most innovative approach to VGA termination, saving valuable time on the job site.



AV Cable Latching Boot with Label Field					
Use for application instructions.					
Description	Catalog No. 1-pk	Catalog No. 10-pk			
AV Cable Latching Boot with Label Field	CB1	CB10			





## Front-Loading Frames and Bezels



**iSTATION™** Raceway Bezel

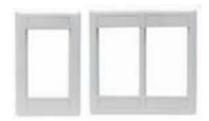
## HUBBELL

- Accommodates industry's most extensive line of AV modules.
- Front-loading access simplifies installation.
- Application customizing at the work station.
- Allows for future upgrades.

## Features/Benefits

- Flush Keystone mounting.
- High density port count.
- Field configurable.
- UL and cUL listed.
- Flush mounting with box eliminators.

## iSTATION™ Modular Face Plate Frames



The IMF series accept any modules in 3 unit combinations for single-gang; and 6 unit combinations for double-gang applications. Start by selecting a frame and then the required mix of modules

Color	Catalog No.	Catalog No.	
Order Qty.	Carton of 20	Carton of 10	
Unit Package	1 per Bag	1 per Bag	
	1-gang	2-gang	
	IMF Plate Frame	IMF Plate Frame	

## iSTATION™ Plates, Stainless Steel





Gang	1-Gang	2-Gang	3-Gang	4-Gang
Catalog No.	IMS1	IMS2	IMS3	IMS4



## **Delivery Bezels and Modules**



KPIMBZOW	HWAPLOW	HBLIMFGY
IN IIVIDE O TT	11117 11 LO 11	TIDENTII OT

		ISTATION Bezel	MULTICONNECT®
	Raceway Bezel	for Third-Party Raceway	and Furniture Boxes
Unit Package	1 per Bag	1 per Bag	1 per Bag
Color	Catalog No.	Catalog No.	Catalog No.
Black	-	-	HBLIMFBK
Electric Ivory	-	-	HBLIMFEI
Gray	<b>KPIMBZGY</b>	HWAPLGY	<b>HBLIMFGY</b>
Office White	<b>KPIMBZOW</b>	HWAPLOW	-
White	KPIMBZW	HWAPLW	HBLIMFW

## Integration Module, 2-port



Delivery: 10 Integration Modules, unloaded.

	7 - 3	
Ports	Color	Catalog No.
2	Ivory (Equivalent to Hubbell Office White)	HWM2KI10
2	Gray	HWM2KGY10
2	White	HWM2KW10

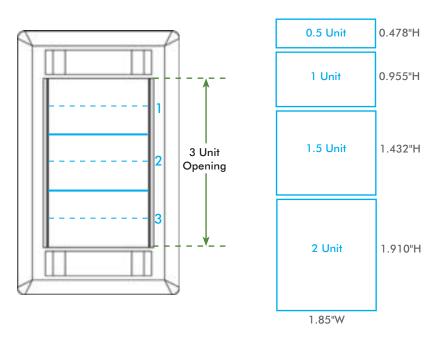
#### XX = Plate Color Options

 $\mathbf{BK} = \mathbf{Black}$ **GY**=Gray **W**=White **AL**=Almond **EI**=Electric Ivory **LA**=Light Almond **OW**=Office White





The iSTATION™ Frames accept 3 iSTATION™ 3 Units of module combinations in a Single-gang opening. See below for details.



#### **Module Color Options**

AL=Almond B	<b>BK</b> =Black	<b>EI</b> =Electric Ivory	<b>GY</b> =Gray	<b>LA</b> =Light Almond	<b>OW</b> =Office White	<b>W</b> =White
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## **MULTI-CONNECT® Recessed Wall Boxes**



Hubbell MULTI-CONNECT® Boxes provide a versatile "in the wall" solution for single and multi-service applications. Available in 1-, 2-, 3-, 4- and 6-gang boxes, barriers for separation and power and low voltage services, along with a wide variety of modular face plates and wall flanges to match office decor.

## Features/Benefits

- Blank face plate allows for expansion in future applications.
- Combination knockouts support various cable fill requirements.
- Barriers available to provide separation between power and low voltage.
- Wall flange snaps onto box and assures clean appearance.

## **Specifications**

- Material
  - Recessed wall box: 16 ga. pre-galvanized steel.
- Device mounting platform: PVC.
- ◆ Adjustable stud mounting bracket for ½", 5%", 1" or 11¼" wall board.

**HBLWSCSBW** 

#### **Multi-Service Recessed Wall Boxes** Width Gang Height Depth Access Type Location Qty. Size Catalog No. 1 4.44" (112.8) 2.56" (65) 2.75" (69.8) Knockout Top & bottom 1 1/2" x 3/4" **HBLWSCS1** 2 **HBLWSCS2** 4.44" (112.8) 4.56" (115.8) 2.75" (69.8) Knockout Top & bottom 2 1/2" x 3/4" 3 6.56" (166.6) 2.75" (69.8) 3 1/2" x 3/4" HBLWSCS3 4.44" (112.8) Knockout Top & bottom 4.44" (112.8) 8.56" (217.4) 2.75" (69.8) Knockout Top & bottom 3 1/2" x 3/4" **HBLWSCS4** Knockout Top & bottom 3/4" x 1" **HBLWSCS6** 4.44" (112.8) 12.56" (319) 2.75" (69.8) Knockout Top & bottom 1/2" x 3/4" 6 Knockout Top & bottom 3/4" x 1"

Low-Voltage Re	cesse	ed Wall Box	æs						RoHS
	Gang	Height	Width	Depth	Access Type	Location	Qty.	Size	Catalog No.
	2	4.88" (123.8)	4.75" (120.7)	3.5" (88.9)	Opening	Top & bottom	1	2"	HBLWSCS2MMO 10G
Profesions.	3	4.88" (123.8)	6.75" (171.4)	3.5" (88.9)	Knockout	Side	1	1 1/4"	HBLWSCS3MMO 10G
EXCHANGE A					Opening	Тор	1	1 1/4"	
NORTHWEST AND ADDRESS OF					Knockout	Тор	4	1/2" x 3/4"	
3-Gang					Opening	Bottom	1	2"	
· ·	4	4.88" (123.8)	9.25" (235)	3.5" (88.9)	Knockout	Side	1	1 1/4"	HBLWSCS4MMO 10G
					Opening	Тор	2	1 1/4"	
THE RESERVE OF THE PARTY OF THE					Knockout	Тор	4	1/2" x 3/4"	
STATE OF THE PARTY OF					Opening	Bottom	1	2"	
ENTERNIA PLANTA					Knockout	Bottom		1/2" x 3/4"	
4.0					Knockout	Bottom		3/4" x 1"	-
4-Gang	6	4.88" (123.8)	13.25" (336.6	3.5" (88.9)	Knockout	Side	1	1 1/4"	HBLWSCS6MMO 10G
					Opening	Тор	3	1 1/4"	
Desired and State of					Knockout	Тор	6	1/2" x 3/4"	
Charles Section					Opening	Bottom	2	2"	
CARLES CONTRACTOR					Knockout	Bottom	1	1/2" x 3/4"	
6-Gang					Knockout	Bottom	1	3/4" x 1"	

2-Gang

Separation barrier

## **Wall Box Flanges, Trim Rings**

## Trim Ring, 1-Gang

Catalog No.
HBLTRIM1WBK
HBLTRIM1WGY
HBLTRIM1WI
HBLTRIM1WW



HBLTRIM 1 WW

**Trim Ring, 4-Gang** 

Color	Catalog No.
Black	HBLTRIM4WBK
Gray	HBLTRIM4WGY
lvory	HBLTRIM4WI
White	HBLTRIM4WW



HBLTRIM4WW

## Trim Ring, 2-Gang

Color	Catalog No.
Black	HBLTRIM2WBK
Gray	HBLTRIM2WGY
Ivory	HBLTRIM2WI
White	HBLTRIM2WW



Trim Ring, 6-Gang

Color	Catalog No.
Black	HBLTRIM6WBK
Gray	HBLTRIM6WGY
lvory	HBLTRIM6WI
White	HBLTRIM6WW



## Trim Ring, 3-Gang

Color	Catalog No.
Black	HBLTRIM3WBK
Gray	<b>HBLTRIM3WGY</b>
lvory	HBLTRIM3WI
White	HBLTRIM3WW



HBLTRIM3WW

## **Modular Face Plates**

Plates available in either a snap in, screw-less version, or with standard screws.



## **iSTATION™**

Color	Catalog No. with Screws	Catalog No. Snap In	100
Black	HBLIMFSBK	HBLIMFBK	
Gray	HBLIMFSGY	HBLIMFGY	
Elec. Ivory	HBLIMFSI	HBLIMFI	
White	HBLIMFSW	HBLIMFW	- 100
			LIDI



## **Keystone**

Color	Catalog No. with Screws	Catalog No. Snap In
Black	HBL317SBK	HBL317BK
Gray	HBL317SGY	HBL317GY
Elec. Ivory	HBL317SI	HBL317I
White	HBL317SW	HBL317W



#### **Decorator**

Color	Catalog No. with Screws	Catalog No. Snap In
Black	HBLDE301SBK	HBLDE301BK
Gray	HBLDE301SGY	HBLDE301GY
Elec. Ivory	HBLDE301SI	HBLDE301I
White	HBLDE301SW	HBLDE301W



## **Duplex**

	Catalog No.	Catalog No.	
Color	with Screws	Snap In	
Black	HBLST302SI	SK HBLST	302BK
Gray	HBLST302S	Y HBLST	302GY
Elec. Ivory	HBLST302S	HBLST	3021
White	HBLST302S	V HBLST	302W



## Toggle

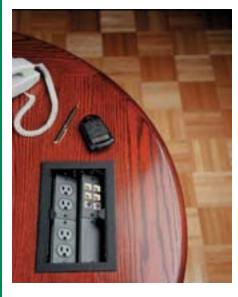
Color	Catalog No. with Screws	Catalog No. Snap In
Black	HBLTO310SBK	HBLTO310BK
Gray	HBLTO310SGY	HBLTO310GY
Elec. Ivory	HBLTO310SI	HBLTO310I
White	HBLTO310SW	HBLTO310W



## **Blank**

Color	Catalog No. with Screws	Catalog No. Snap In	
Black	HBLBL300SBK	HBLBL300BK	
Gray	HBLBL300SGY	HBLBL300GY	
Elec. Ivory	HBLBL300SI	HBLBL300I	
White	HBLBL300SW	HBLBL300W	HBLBL300W

## **Furniture Connectivity Boxes**





This family of furniture connectivity boxes assimilates into conference tables and individual work stations to bring power, voice, data, and Audio Video connectors directly to the point of use, providing a standard Hubbell aesthetic design and a wire-free look.

## Features/Benefits

- Quick and easy installation, access and use.
- Seamless technology and aesthetics.
- Compliments desktop environments.

## **Specifications**

- Durable powder coated 16 ga. Steel construction.
- Optional flip-up doors provide easy access to power and data devices.
- Integrated power and data separation reduces EMI.
- Field configurable voltage separator (included).
- Configurable for any combination of power, data, voice and multimedia connectivity.

## **Furniture Connectivity Box, Square, Flush-Mount**



Square	e, Flush Mount	Boxes
With co	ver.	
Gang	Finish	Catalog No.
2	Crinkle Black	HBLSHA2
2	Stainless steel	HBLSHA2BSS

## Features/Benefits

- Mounts to conference table or work surface.
- Adjustable "hold downs" simplify installation.
- Configurable for power, voice, data and multimedia.
- Flip-up covers conceal box when not in use.

## **Furniture Connectivity Box, Rectangular, Flush-Mount**



HBLPHA2

Recta	ngular, Flush	Mount Boxes
With co	over.	
Gang	Finish	Catalog No.
2	Crinkle Black	HBLPHA2
4	Crinkle Black	HBLPHA4
2	Stainless steel	HBLPHA2BSS
4	Stainless steel	HBLPHA4BSS

### Features/Benefits

- Mounts to conference table or work surface.
- Adjustable "hold downs" simplify installation.
- Configurable for power, voice, data and multimedia.
- Flip-up covers conceal box when not in use.

## **Furniture Connectivity Box, Surface Mount**



Surface Mount Boxes			
(	Gang	Finish	Catalog No.
	2	Crinkle Black	HBLCON2
	4	Crinkle Black	HBLCON4

## Features/Benefits

- Low-profile 2- and 3-gang designs.
- The angled profile compliments desktop environments.
- This enclosure provides durability without sacrificing aesthestics.



## **Furniture Connectivity Box, Recessed Mount**

Recessed	Mount	Boxes
With cover.		

With cover.			
Gang	Finish	Catalog No.	
2	Crinkle Black	HBLMIR2	
4	Crinkle Black	HBLMIR4	

## Features/Benefits

- Mounts to conference table or work
- Secure under table "screw down" installation.
- Configurable for power, voice, data and multimedia.
- 90° recessed design facilitates cable routing.



## **Furniture Connectivity Box, Under Desk Mount**

Under	Desk Mount	Boxes
Gang	Finish	Catalog No.
2	Crinkle Black	HBLMAR2
3	Crinkle Black	HBLMAR3
	Gang 2	2 0 5

## Features/Benefits

- Mounts to conference table or work surface.
- Secure under table "screw down" installation.
- Configurable for power, voice, data and multimedia.
- Low-profile.



Mod	ılar	Face	<b>Plate</b>	S
D 1:	a (			

Delivery: 1 face plate with mounting screws.		
Description	Catalog No. Black	Catalog No. Gray
iSTATION™	HBLIMFSBK	HBLIMFSGY
Keystone	HBL317SBK	HBL317SGY
Blank	HBLBL300SBK	HBLBL300SGY
Duplex	HBLST302SBK	HBLST302SGY
Single Receptacle Opening (1.39" Diameter)	HBLTL319SBK	HBLTL319SGY
Single Receptacle Opening (1.56" Diameter)	HBLTL318SBK	HBLTL318SGY
Decorator	HBLDE301SBK	HBLDE301SGY
Toggle	HBLTO310SBK	HBLTO310SGY



















## Face Plates, Rear-Loading



## Features/Benefits

- Provides a rear loading, snap in, flush mounting of Hubbell jacks and AV keystone connectors.
- Available in single and double-gang.
- Individual port configurations allow specification flexibility.
- All IFP plates are supplied with paper labels, clear screw covers, and colormatched screw covers.

## Advantage Designed to flush mount with

- Designed to flush mount with box eliminator.
- Durable construction.
- Complemented by a broad range of voice/data/video connectors



Compatible with Hubbell Labeling System - see page M8.

## **Specifications**

- UL listed and cUL certified.
- ANSI/TIA-606-B station labeling.
- UL 94V-0 rated flame-retardant material.
- Mounts to standard NEMA openings and boxes.

## IFP Face Plates, Single-Gang







	1-port	2-port	3-port	4-port	6-port
Unit Package	1 per Bag				
Order Qty.	Carton of 25				
Color	Catalog No.				
See Color Code	IFP11XX 10G	IFP12XX 100	IFP13XX 100	IFP14XX 10G	IFP16XX 100

## IFP Face Plates, Double Gang



	6-port	9-port	12-port
Unit Package	1 per Bag	1 per Bag	1 per Bag
Order Qty.	Carton of 10	Carton of 10	Carton of 10
Color	Catalog No.	Catalog No.	Catalog No.
See Color Code	IFP26XX 10	IFP29XX	IFP212XX

## **Multimedia Wall Plates**







Accepts AV and Voice/Data connectors. High impact resistant thermoplastic plate. UL Listed 1863 - Communication Circuit Accessory and CSA Certified. See the Residential Section, page XX for more information. **Standard 1-Gang,** 4.625" x 2.875" • 10G

Ports	1-port	2-port	3-port	4-port	6-port
See Color Code	NSP11XX	NSP12XX	NSP13XX	NSP14XX	NSP16XX
Standard 2-Ga	<b>ng,</b> 4.625" x 2.875	5" <b>10G</b>			
Ports	4-port	6-port			
See Color Code	NSP24XX	NSP26XX			
Midsize 1-Gan	<b>g,</b> 4.875" x 3.125"	√10G			
Ports	1-port	2-port	3-port	4-port	6-port
See Color Code	NSP101XX	NSP102XX	NSP103XX	NSP104XX	NSP106XX

#### **Blank Wall Plates**



Standard, Nylon					
Ports	1-Gang	2-Gang	3-Gang	4-Gang	
See Color Code	NP13XX	NP23XX	NP33XX	NP43XX	
Mid-Size, Nylon					
Ports	1-Gana	2-Gana			

## **Angled Face Plates, 4-port**



Catalog No.	AFP14G 106	AFP14 10G	AFP14I 10G	AFP14W 10G
Color	Gray	Office White	Telco Ivory	White
~ ~				

### XX = Plate Color Options

See Color Code

AL=Almond BK=Black EI=Electric Ivor	<b>GY</b> =Gray	LA=Light Almond	<b>OW</b> =Office White	<b>W</b> =White
-------------------------------------	-----------------	-----------------	-------------------------	-----------------

NPJ23XX

NPJ13XX



## **Stainless Steel Plates**



- Designed to fit iSTATION™ modules and AV connectors.
- Ease of use: front and rear-loading capabilities.
- Easy AV application configuring.



Compatible with Hubbell Labeling System - see page M8.

Stainless Steel Faceplates - SSF, are designed for flush mount applications, accepting Hubbell's extensive line of jacks and AV connectors that snap mount flush into the keystone opening, creating an elegant streamline look.

## Features/Benefits

- Designed to accept UTP, Coax, and Fiber keystone connectors.
- Rear flush-mounting improves tamper resistance.

## **Specifications**

- Type 430 stainless steel.
- Brushed stainless steel finish.





## **SSF Stainless Steel Plates**

## Single-gang

	1-port	2-port	3-port	4-port	6-port
Unit Package	1 per Bag				
Order Qty.	Carton of 25				
Catalog No.	SSF11 110G	SSF12 10G	SSF13 10G	SSF14 10G	SSF16

NOTE: All SSF plates will accept AV keystone connectors and **XCELERATOR**™ jacks.

### **Double-gang**

	4-port	6-port	9-port	12-port	
Unit Package	1 per Bag	1 per Bag	1 per Bag	1 per Bag	
Order Qty.	Carton of 10	Carton of 10	Carton of 10	Carton of 10	
Catalog No.	SSF204 /104	🛢 SSF206 🛂 🗓	₲ SSF209	SSF212	

NOTE: All SSF plates will accept AV keystone connectors and **XCELERATOR**™ jacks.





### **iSTATION™** Plates

Gang	1-Gang	2-Gang	3-Gang	4-Gang	
Catalog No.	IMS1	IMS2	IMS3	IMS4	



### **SSF Stainless Steel Plate with Label Fields**

Single-gang	1-port	2-port	3-port	4-port	6-port
Unit Package	1 per Bag				
Order Qty.	Carton of 25				
Cataloa No.	SSFL11 110	G SSFL12 10G	SSFL13 10G	SSFL14 106	SSFL16

NOTE: All SSF plates will accept AV keystone connectors and **XCELERATOR**™ jacks.

Double-gang	4-port	6-port	9-port	12-port
Unit Package	1 per Bag	1 per Bag	1 per Bag	1 per Bag
Order Qty.	Carton of 25	Carton of 25	Carton of 25	Carton of 25
Catalog No.	SSFL24 106	SSFL26 10G	SSFL29	SSFL212

NOTE: All SSF plates will accept AV keystone connectors and  $XCELERATOR^{TM}$  jacks.



## SSF Stainless Steel AV Face Plates

Gang	1-Gang	2-Gang	2-Gang	2-Gang	
Ports	4-port	6-port	6-port	10-port	
VGA Opening	1	1	2	1	
Cataloa No.	SSF14V	SSF26V	SSF262V	SSF210V	

NOTE: All SSF plates will accept AV keystone connectors and **XCELERATOR**™ jacks.



SSF26V

## **Decorator Plates and Frames**





Compatible with **Hubbell Labeling System** see page M8.

## **Specifications**

- IFP plate material: UL 94V-0 rated flame-retardant, all other plastic plates: high-impact nylon.
- IFP126OW and IFP18OW are UL listed for power and low voltage data applications.
- Metal plate material: brushed stainless steel, or solid, brushed brass.
- ANSI/TIA/EIA-606-A station labeling capability.
- Mounts to standard NEMA openings and boxes.



- IFP126OW is the Only Decorator Plate in the Industry that is UL Listed for Power and Low-Voltage with Label Fields.
- ISF Decorator Frames fit industry Standard Rectangular (GFCI) Style Openings.
- Tamper-Resistant, Rear Keystone Mounting.
- Nylon Plates Virtually Unbreakable.

## **Decorator Wall Plates**



S						HOHO
Standard, Nylon	1					
Ports	1-Gang	2-Gang	3-Gang	4-Gang	5-Gang	6-Gang
See Color Code	NP26XX	NP262XX	NP263XX	NP264XX	NP265XX	NP266XX
Mid-Size, Nylon						
Ports	1-Gang	2-Gang	3-Gang	4-Gang		
See Color Code	NPJ26XX	NPJ262XX	NPJ263XX	NPJ264XX		
Snap On						
Ports	1-Gang	2-Gang	3-Gang	4-Gang	5-Gang	6-Gang
See Color Code	RCW1XX	RCW2XX	RCW3XX	RCW4XX	RCW5XX	RCW6XX

## **Decorator and IFP Cover Plates**



Color/Finish	<b>Decorator</b> Single-Gang	<b>Decorator</b> Double-Gang	IFP <b>Decorator</b> w/Label Fields Single-Gang	
Brass	SB26	SB262	-	
Office White	-	-	IFP126OW	
Stainless Steel	SS26	SS262	-	

## **Decorator Outlet Frames, Unloaded**



	2-port	3-port	4-port	
Unit Package	1 per Bag	1 per Bag	1 per Bag	
Order Quantity	Carton of 10	Carton of 10	Carton of 10	
See Color Code	ISF2XX 10G	ISF3XX 10G	ISF4XX 10G	
	6-port	Blank		
Unit Package	1 per Bag	1 per Bag		
Order Quantity	Carton of 10	Carton of 10		
See Color Code	ISF6XX	NS620XX		

#### XX = Plate/Frame Color Options

**EI**=Electric Ivory **OW**=Office White **AL**=Almond **BK**=Black **GY**=Gray LA=Light Almond



**B30** 

## **Specialty Plates**



- IFP18OW is the only Duplex opening plate in the industry that is UL listed for power and low-voltage with label fields.
- 106 frames fit industry standard duplex style openings.

## Features/Benefits

- Instant communication mounting capabilities within a duplex electrical design.
- Frames deliver 2- to 6-port configurations, lending flexibility and increased capacity to the work area.

## **Specifications**

High-impact polymer construction.





## **Duplex and IFP Cover Plates**

	Duplex	Duplex	IFP Duplex w/Label Fields
Color/Finish	Single-Gang	Double-Gang	Single-Gang
Black	NP8BK	NP82BK	-
Brass	SB8	SB82	-
Electric Ivory	NP8EI	NP82EI	-
Gray	NP8GY	NP82GY	-
Light Almond	NP8LA	NP82LA	-
Office White	-	-	IFP18OW
Stainless Steel	SS8	<b>SS82</b>	-
White	NP8W	NP82W	-
_			





## **Duplex Wall Plates**

#### Standard, Nylon

Sidiladia, Nylon						
Ports	1-Gang	2-Gang	3-Gang	4-Gang		
See Color Code	NP8XX	NP82XX	NP83XX	NP84XX		
on Page 30						



Ports	1-Gang	2-Gang
See Color Code	NPJ8XX	NPJ82XX
on Page 30		





## **Duplex 106 Outlet Frames**

	2-port	4-port
Black	BR106B 710G	Q106B 10G
Electric Ivory	BR106E 10G	Q106E 10G
Gray	BR106G 10G	Q106G 10G
Office White	BR106C 710G	
White	BR106W 10G	Q106W 10G





## **Box Eliminator**

Description	Catalog No.
Single-gang box eliminator used in place of an electrical box, inserts into, and secures to a drywall opening providing a means to mount a single-gang plate.	BRBE1
Double-gang box eliminator used in place of an electrical box, inserts into, and secures to a drywall opening providing a means to mount a double-gang plate.	BRBE2



BRBE2

### **630 Wall Mount Phone Plates**

Designed for use with wall mount telephones. Provides corrosion-resistance, durability and will mount to any standard single-gang box. Available in a flat, flush-mount or recess style.

Stainless Steel,	Single-gang wall phone plate	
Jack Format	Includes	Catalog No.
Flush	6-position USOC gray jack, RJ25	P630S1GJ6
Flush	8-position Category 5e, gray jack, RJ45	P630S1GJ8
Flush	8-position Category 6, gray jack, RJ45	P630S1GC6
Flush	8-position 10GbE, gray jack, RJ45	P630S1GJ10G 100
Recessed	6-position USOC gray jack, RJ25	P630SR1GJ6
Recessed	8-position Category 5e, gray jack, RJ45	P630SR1GJ8
Recessed	8-position Category 6, gray jack, RJ45	P630SR1GC6
Recessed	8-position 10GbE, gray jack, RJ45	P630SR1GJ10G 10G



## Secure-IT™ Plates

Staggered, angled openings provide proper cable exit and bend radius.



Available in tamper resistant and weatherproof versions, Secure-IT™ plates protect mated and unmated connections from physical damage. The weatherproof version is rain-tight, providing NEMA 3R protection in outdoor environments.

The unique sliding cover discourages unauthorized personnel from making impromptu and unrecorded moves, adds, and changes. Additional security is assured by fastening an included combo-head screw or user supplied security screw under the top face plate label field (not available in weatherproof version).



Compatible with Hubbell Labeling System see page M8.



- The sliding cover provides better protection and longer life.
- Multiple labeling options for easy station identification.
- Fiber and multimedia capabilities.

## **Specifications**

- UL 94V-0 rated flame-retardant polymer.
- Mounts to standard NEMA boxes (16in<sup>3</sup> minimum) and common box eliminators.
- Weatherproof plate is NEMA 3R rated.
- UL and cUL listed.



## Secure-IT™ Face Plates





TWPF1GY

#### **Tamper-Resistant Face Plates**

		Face Plate	Replacement Cover	Cable-Thru Plate
Size	Color	Catalog No.	Catalog No.	Catalog No.
1-gang/4-port	Black	TPF1BK	<b>TPFCLBK</b>	TPCP1BK
1-gang/4-port	Gray	TPF1GY	<b>TPFCLGY</b>	TPCP1GY
1-gang/4-port	Office white	TPF1OW	<b>TPFCLOW</b>	TPCP1OW
1-gang/4-port	White	TPF1WH	TPFCLWH	TPCP1WH

## **Weatherproof Face Plates**

1-gang/4-port	Gray	TWPF1GY	ERFCLGY
Size	Color	Catalog No.	Catalog No.
		Face Plate	Replacement Cover

## **Furniture Plates**



Hubbell's furniture plates service the common ANSI/TIA/EIA standard furniture openings. The plates provide keystone flush mounting accommodating HPW's extensive line of multimedia Audio Video connectors.

## **Specifications**

 Material: high-impact, thermoplastic construction (UL 94V-0).



- Work area and individual port identification labeling.
- FP plate positions connectivity outside the furniture channel maximizing internal capacity.

## Furniture Plates (Steelcase, Haworth, HON, Knoll, etc.)





FM5E4A

2.71" x 1.38" 2.71" x 1.38" 2.71" x 1.38" 2.71" x 1.38 2.71" x 1.38" Opening size: Color 4-port Box 4-port T568A 4-port T568B 2-port 4-port FP2BK FP4BK 10G FM5E4A FM5E4B Black FP4BBK FP2GY FP4GY Gray FP4BGY 710G

## Furniture Reducing Adapter (Herman Miller)





The HMRBXX adapter plate may be used with the FP2, FP4, or FM5 series furniture plates only for Herman Miller applications.

	HMRBBK	HMRBGY	
Color	Catalog No. Black	Catalog No. Gray	
Opening size:	2.982" x 1.882"	2.982" x 1.882"	



## **International Plates**

Hubbell's international frames, plates and modules provide angled and flat shuttered configurations compatible with standard international style back boxes and floor boxes. These attractive plates deliver fieldconfigurable mounting for HPW's extensive line of Ascent and **XCELERATOR**™ series jacks.

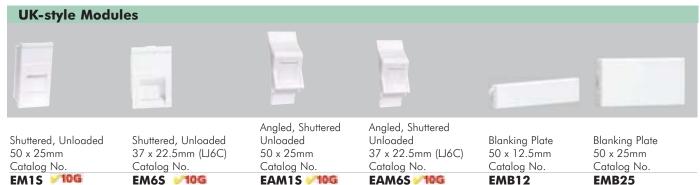


EMBP1 frame with 2 EM1S modules.



EBM1 frame with 2 EAM1S modules.









## **Surface Mount Boxes**



Integrated fiber storage posts facilitate the storage of 1m of fiber cable (4, 6, 12-port).

# Advantage

- Contains fiber storage posts.
- Accepts Hubbell **UTP** jacks and AV keystone connectors.
- The ISM has the ability to mount to multiple surfaces like standard electrical boxes, non-metallic raceway, the **RE-BOX**®, CP enclosure, rack rail, desktops, walls, and modular furniture.

## Features/Benefits

- Low-profile design.
- Available in 5 color options.
- ADA compliant.
- 4-, 6- and 12-port surface box covers feature easy to remove knockouts to accommodate Hubbell raceway.
- 4- and 6-port: all ports are on one side, can be mounted horizontally or vertically so cords may exit sideways or downward.

## Specifications

- Provided with double-sided tape and mounting screws for easy installation.
- UL and cUL listed.
- Constructed with a high impact resistant, flame-retardant polymer.
- ◆ TIA/EIA-606B compliant.
- Bases include tie-wrap anchors at side and rear cable entry points for 4" cable ties (included).



Compatible with Hubbell Labeling System - see page M8.

## POLYTRAK® Raceway Compatibility Chart

Series	PT2	PP	PL	PW	PB	PS
ISM1					*	
ISM2					*	
ISM4		<b>A</b>	<b>A</b>	<b>A</b>	*	
ISM6					*	
ISM12				<b>A</b>	*	

#### \* Use #PB3REDA transition fitting.

## ISM Surface Mount Boxes, 12-port



Ideal for open office MUTOA cabling, large capacity surface mount applications and retrofits to support data, voice, and multimedia installations. Can be mounted with supplied surface mounting screws or double-sided adhesive tape and mounted to NEMA electric boxes or relay racks (see **POLYTRAK**® raceway compatibility chart).

(	
Size	12-port Catalog No.
See chart	ISM12XX

## ISM Surface Mount Boxes, 4- and 6-port





Ideal for open office MUTOA cabling, compact surface mount environments, and retrofits to support data, voice, and multimedia applications. Features adjustable furniture latches to provide an additional mounting option to common ANSI/TIA/EIA standard furniture openings, and solutions requiring fiber. Box bases feature fiber storage posts that can store 1 meter fiber cable after termination.

See chart	ISM4XX 10G	ISM4OWID 100	ISM6XX 10G
Size	Catalog No.	Catalog No.	Catalog No.
	4-port	Office White	6-port
		(ID Port 1,2,3,4)	
		4-port, Stencilled	

## ISM Surface Mount Boxes, 1- and 2-port





Ideal for open office, compact surface mount environments, and retrofits to support data, voice, and multimedia applications. Can be mounted with supplied surface mounting screws or double-sided adhesive tape.

	1-port	2-port
Size	Catalog No.	Catalog No.
See chart	ISM1XX 10G	ISM2XX VIOG

## XX = Surface Mount Box Color Options

<b>BK</b> =Black	<b>EI</b> =Electric Ivory	<b>GY</b> =Gray	<b>OW</b> =Office White	<b>W</b> =White

## **OFPPL Multimedia Plate**

The OFPPL multimedia housing accommodates 3 SC duplex or 6 ST-style or 3 LC Quad adapters. In addition, there are 4 keystone openings for Jacks or A/V connectors.

## Features/Benefits

- Work area label field.
- Fiber drum storage.
- Accommodates 4 Keystone connectors.

#### **Specifications**

 High-impact housing: UL 94V-0 rated.

OFPPL	RoHS
Description	Catalog No.
Office white housing, cover and mounting accessories	OFPPL
OFP Bracket with 2 ST couplers SM/MM	OFPBST2
NOTE: SC duplex and LC Quad connectors mount directly to the	e OFPPL base.



Compatible with **Hubbell Labeling System** - see page M8.



## **AMO - Advanced Multimedia Outlet Housing**

The Advanced Multimedia Outlet (AMO) is a high-capacity, low-profile, multimedia surface housing capable of supporting up to 12 copper/fiber connectors or 24 small form factor LC connectors.

The AMO may be used as a multi-user telecommunications outlet assembly (MUTOA) as specified in TIA-568-C standard

## Features/Benefits

- Excellent as a MUTOA.
- Downward orientation.
- Hidden label field beneath cover.
- Compatible with POLYTRAK® (PT2, PL and PW).

## **Specifications**

- ♦ High-impact housing: UL 94V-0 rated.
- AMO dimensions:
   7.15"W (181) x 7.53"H (191) x
   2.3"D (58).



AMO is our largest capacity surface mount housing accommodating 12 copper or 12/24 fiber connections.

## **AMO Base Unit Housing and Adapter Brackets**









## AMO Housing

Description	Catalog No.
Office white housing with 6 bracket locations	AMO 10G

## **Adapter Brackets**

Description - Color: Office White	Catalog No.
SC Adapter - includes 1 duplex Phosphor Bronze SC adapter	AMOBSCD
ST-style Adapter - includes 2 Phosphor Bronze ST-style adapters	AMOBST2
LC Quad Adapter - includes LC Quad adapter	AMOLCQ
Blank Adapter - Sold in packs of 10	AMOBL10
Single Jack Adapter - Sold in packs of 10	AMOBJ10
Dual Jack Adapter - Sold in packs of 10	AMOB2J10
BNC Adapter - ½" opening - Sold in packs of 10	AMOBBN10
F-style Adapter - 3/8" opening - Sold in packs of 10	AMOBF10
RCA Solder-type Adapter - 1/4" opening - Sold in packs of 10	AMOBRC10

See page B8 to B12 for more Audio Video connector and bulk connector options.

## **Modular Adapters**

## **Modular 851 Y Adapters**



Use to provide solutions for splitting and bridging within modular connectivity channels.

## Features/Benefits

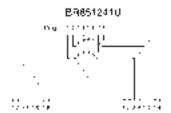
- Narrow profile designed to accommodate side-by-side positioning in high-density panel applications.
- Adapter's PCB design provides superior performance in applications requiring splitting or bridging of conductors.

## **Splitting Y Adapters**

Designed for connecting two pieces of voice, data or ancillary equipment to a USOC, RJ61 8position jack.

Catalog No.

**BR851241U** 



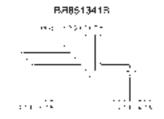
Converts a T568B wired RJ45 Jack into two 2-pair jacks. Designed for connecting two pieces of voice, data or ancillary equipment.

Catalog No. BR851241A



Converts a T568B wired RJ45 jack by splitting pairs 1, 2, and 3 to first 6-positions of jack (1), and pair 4 to positions 4 and 5 of jack (2).

Catalog No. BR851341B



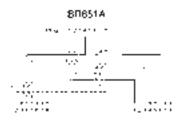
Converts a T568B wired RJ45 jack to 2 10/100BASE-T wired RJ45 jacks. Pairs 2 and 3 are split to jack (1), and pairs 1 and 4 are split to jack (2).

Catalog No. BR851D



Converts a T568B wired RJ45 jack to a voice wired application (pairs 1 and 4) jack (1), and a 10/100BASE-T application (pairs 2 and 3) wired 8-position jack (2).

Catalog No. **BR851A** 



### **Bridging Y Adapters**

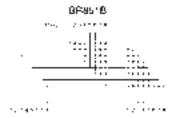
Provides a station solution and an option for a speaker, power failure ringer or an ancillary devise requiring the use of pair 1.

Catalog No. BR851441



Provides 2 RJ45 4-pair jacks in a parallel wiring formation, providing 2 access points to the circuit, adding a common station or in a daisy chain application.

Catalog No. BR851B



## **Modular Adapters**

## **Modular Inline Adapters**

Use to provide the ability to connect two HPW patch cords or plug style devices with a straight through wiring format (pin 1 to pin 1, etc.).

## Features/Benefits

- Furnished with an adhesive mounting pad for securing to multiple surfaces.
- High-impact thermoplastic.

Position	Dimensions	Color	Description	Catalog No.
8	1.24" x 0.63" x 0.53"	Gray	Non-flanged	BRIA4P
6	1.04" x 0.55" x 0.53"	Black	Non-flanged	BRIA3P
4	1.04" x 0.55" x 0.53"	Telco Ivory	Non-flanged	BRIA2P



#### **Narrow 950 Converter**

The 950Al modular adapter converts T568B to T568A wiring format or vice versa, by swapping pairs 2 and 3. This configuration can also be used for crossover communications between two 10BASE-T DTE devices.

Catalog No. **950AI** 

## Features/Benefits

- Side-by-side stacking.
- High-density design.
- Printed circuit board technology ensures reliability and superior performance.
- High-impact thermoplastic.



## Modular 66 Block Adapter

The BR866JC modular 66 adapter provides a modular connection between a 66M block and an RJ45 modular patch cord, by connecting 8 consecutive block positions to a T568B RJ45 jack. See page E20 for additional modular 66 block products.

Catalog No. BR866JC

#### Features/Benefits

- Stackable design allows access to 48 of the 50 positions on the block.
- Printed circuit board assures superior performance and reliability.
- Allows modular patching on a 66 block plug-in and network capabilities, cost and labor savings.



## **CABLE**

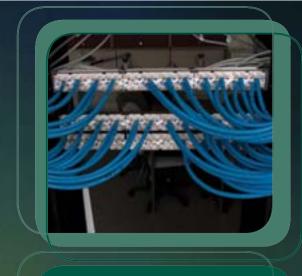
OUR EXTENSIVE LINE OF UTP AND SHIELDED COPPER CABLES ARE SPECIFICALLY DESIGNED TO OPERATE AS A HIGH-PERFORMANCE **BALANCED SYSTEM WHEN COMBINED** WITH OUR STATE-OF-THE-ART CONNECTIVITY.

THESE CABLES PROVIDE THE IT PROFESSIONAL WITH A FULL RANGE OF HIGH-PERFORMANCE CABLING OPTIONS.

From STANDARD CATEGORY 6A TO CATEGORY 5E - ALL SPECIFICALLY **DESIGNED TO MEET YOUR** PERFORMANCE AND BUDGET NEEDS WHILE EXTENDING THE LIFE SPAN OF YOUR NETWORK.



FACE PLATES • PATCH CORDS • CABLE ASSEMBLIES • OUTLET FRAMES • SURFACE BOXES • JACKS • CATEGORY 6 SYSTEM ADAPTERS • Audio Video CONNECTORS • FRONT-LOADING FACE PLATES • FURNITURE PLATES • SHIELDED JACKS • SPE 1 - PUNCH TOOL • USOC • CATEGORY 5E • SURFACE MOUNT BOXES • NEXTSPEED PRODUCTS • MULTIMEDIA CONNE • XCELERATOR JACKS • ASCENT 10GbE • SYSTEM CHANNEL • MODULAR PLUGS • CROSS CONNECT SYSTEMS • PATCI MODULAR 66 BLOCKS • LABELING SOLUTIONS • RACK MOUNT KITS • MULTIMEDIA PANELS • CONSOLIDATION POIN PATCH PANELS • MULTIMEDIA PLATE • WALL PHON CABLE • GONTENTS S • REAR-LOADING FACE PLATES • BULK CO • ISTATION PRODUCTS • 1 1 0 BLOCKS • CATEGORY 3 • TAMPER-RESISTANT FACE PLATES • ISTATION AUDIO VIDEO MO





Product	Pagi
NEXTSPEED® ASCENT UTP CABLE, CATEGORY 6A	C4
NEXTSPEED® ASCENT FTP CABLE, 10GbE	C4
NEXTSPEED® UTP CABLE, CAT 6 ENHANCED	C4
NEXTSPEED® UTP CABLE, CAT 6	C5
NEXTSPEED® UTP CABLE, LINK 6	C5
SPEEDGAIN® UTP CABLE, CAT 5E	<b>C</b> 5
UTP CABLE, CAT 5e	C5



## **UTP Cable**



- Specifically Designed to Operate as a High-Performance Balanced Solution.
- Supports the Latest Ratified Industry Standards for Component Compliance.
- Typical Round Design Allows for Ease of Installation.
- RoHS Compliant.

## **NEXTSPEED®** Ascent, Category 6A, UTP Cable, 4-Pair





Features/Benefits

- 10GbE Application Assurance.
- Category 6A component compliant (including AXT).
- PoE and PoE+ Ready.
- Easy to pull, standard, round jacketed cable.
- Reverse sequential numbering.
- UL Verified Category 6A.
- Backward Compatible to Category 6, 5e, 5, and 3.

## **Specifications**

- Conductor: 23 AWG solid bare copper.
- Insulation: CMP: FEP, CMR: Polyolefin.
- Cabling: Four unshielded twisted pairs cabled around a star filler member.
- Jacket:
  - CMP: Low-Smoke PVC.
  - CMR: PVC.
- NVP: Plenum: 71%; Riser: 68%.

#### Category 6A UTP Cable

Category 6A UTP Cable	Plenum Spool	Riser Spool
Catalog No.	C6ASPXX 10G	C6ASRXX 10G
<b>XX</b> = See color chart below.	(100m)	(100m)

## **NEXTSPEED®** Ascent 10GbE FTP Cable, 4-Pair





## Features/Benefits

- Protection against AXT and EMI.
- 10GbE Application Assurance.
- ANEXT component compliant.
- PoE and PoE+ Ready.
- Category 6 performance to 500MHz with Category 6A AXT.

## **Specifications**

- Conductor: 24 AWG Solid Bare Copper.
- Insulation: CMP: FEP, CMR: Polyolefin.
- Cabling: four twisted pairs around a star filler, wrapped with a polyester foil tape.
- Jacket:
  - CMP: Low smoke PVC
  - CMR: PVC
- NVP: Plenum: 70%; Riser: 68%.

#### 10GbE FTP Cable

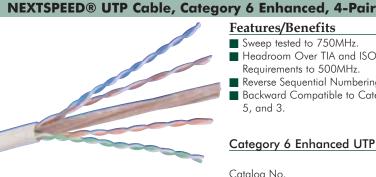
1000' Length	Plenum Spool	Riser Spool
Catalog No.	C6FTPSPXX 10G	C6FTPSRXX 10G
	(100m)	(100m)

**XX** = See color chart below - Exception: Yellow.

## Specifications

- Conductor: 23 AWG solid bare copper.
- Insulation: CMP: FEP, CMR: Polyolefin.
- Cabling: Four unshielded twisted pairs cabled around a star filler member.
- Jacket:
  - CMP: Low-Smoke PVC.
  - CMR: PVC.
- NVP: Plenum: 70%; Riser: 68%.

## Sweep tested to 750MHz.



- Features/Benefits
- Headroom Over TIA and ISO Category 6 Requirements to 500MHz.
- Reverse Sequential Numbering.
- Backward Compatible to Category 5e, 5. and 3.

## Category 6 Enhanced UTP Cable

Plenum Spool 10G **C6ESPXX** 

Riser Spool C6ESRXX

/10G (TSB-155)

Catalog No. **XX** = See color chart below.

(TSB-155)

**Cable Color Options** 







## **NEXTSPEED® UTP Cable, Category 6, 4-Pair**

## Features/Benefits

- Sweep tested to 550MHz.
- Headroom Over TIA and ISO Category 6 Requirements.
- Reverse Sequential Numbering.
- Backward Compatible to Category 5e,

## **Specifications**

- Conductor: 24 AWG solid bare copper.
- Insulation: CMP: FEP, CMR: Polyolefin.
- Cabling: Four unshielded twisted pairs cabled around a star filler member.
- Jacket:
  - CMP: Low-Smoke PVC.
  - CMR: PVC.
- NVP: Plenum: 70%; Riser: 68%.

## Category 6 UTP Cable

Description Plenum Spool Plenum REELEX\* Riser Spool Riser REELEX\* C6SPXX 10G C6RPXX C6SRXX 10G C6RRXX Catalog No. (TSB-155)

(TSB-155)

XX = See color chart on page C4.

\* REELEX is licensed and patented by Windings Inc.



## **NEXTSPEED® Link 6 UTP Cable**

## Features/Benefits

- Sweep tested to 450MHz.
- Category 6 Component Compliant.
- Reverse Sequential Footage Marking.
- Backward Compatible to Category 5e, 5, and 3.

## **Specifications**

- Conductor: 23 AWG solid bare copper.
- Insulation: Plenum: FEP; Riser: HDPE.
- Cabling: Four unshielded twisted pairs (no filler) cabled around a star filler member.
- Jacket: Plenum: FRPVC; Riser: PVC.
- **NVP:** Plenum: 70%; Riser: 68%.

### Link 6 UTP Cable

Catalog No.

Plenum REELEX\* Riser REELEX\* **C6RPEXX C6RREXX** 

XX = See color chart on page C4.

\* REELEX is licensed and patented by Windings Inc.

## **SPEEDGAIN® Category 5E UTP Cable, 4-Pair**

## Features/Benefits

- Sweep tested to 400MHz.
- Headroom over TIA and ISO Category 5e requirements.
- Reverse sequential footage marking.
- Backward compatible to Category 5 and 3.

## **Specifications**

- ◆ Conductor: 24 AWG Solid Bare Copper.
- Insulation: CMP: FEP, CMR: Polyolefin.
- Cabling: Four unshielded twisted pairs.
- Jacket:
  - CMP: Low-Smoke PVC.
  - CMR: PVC.
- NVP: Plenum: 70%; Riser: 68%.

Description	Plenum Spool	Plenum REELEX*	Riser Spool	Riser REELEX*
Catalog No.	C5EPSPXX	C5EPRPXX	C5EPSRXX	C5EPRRXX
VV c		C 4		

XX = See color chart on page C4.

\* REELEX is licensed and patented by Windings Inc.

## **UTP Cable, Category 5e, 4-Pair**

## Features/Benefits

- Sweep tested to 350MHz.
- Headroom over TIA and ISO Category 5e requirements
- Reverse sequential footage marking.
- Backward compatible to Category 5 and 3.

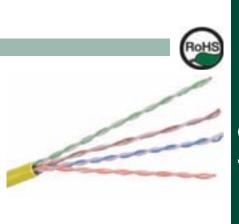
## **Specifications**

- ◆ Conductor: 24 AWG Solid Bare Copper.
- Insulation: CMP: FEP, CMR: Polyolefin.
- Cabling: Four unshielded twisted pairs.
- Jacket:
  - CMP: Low-Smoke PVC.
  - CMR: PVC.
- NVP: Plenum: 70%; Riser: 68%.

Description	Plenum Spool	Plenum REELEX*	Riser Spool	Riser REELEX*	
Catalog No.	C5ESPXX	C5ERPXX	C5ESRXX	C5ERRXX	

XX = See color chart on page C4.

\* REELEX is licensed and patented by Windings Inc.





## **CABLE ASSEMBLIES**

BIDnet™ Pre-Terminated Copper Trunk Assemblies are the ideal solution for data centers, open office and other applications where accuracy, reliability and performance are the most important factors. 100% factory tested and assembled simplifies installation, saving more than 70% on installation time and labor, compared to traditional field terminated permanent links. With the "Go Green" initiative BIDnet™ provides the exact lengths and number of connections needed eliminating unwanted cable waste.

All component rated patch cords are tuned to each Hubbell system delivering maximum headroom. Hubbell patch cords are constructed with specially designed patch cable and are 100% performance tested assuring the highest quality, most reliable patch cord in the industry.





www.hubbell-premise.com

•COAX SPLITTER MODULE, 6-WAY • COAX SPLITTER MODULE, 8-WAY • FIXED VIDEO A ER KIT, SURGE SUPRESSION • POWER KIT, STANDARD • LOCK KIT • NETSELECT® NETWORLEPHONE EXPANSION MODULE, 8-PORT • CATEGORY 5E DATA MODULE, 8-PORT • C., 6-WAY • COAX SPLITTER MODULE, 10DB • WER KIT STANDARA • SEEMBLY CONTENTS OAX SPLITTER MODULE, 10DB • WER KIT STANDARA • SEEMBLY CONTENTS OAX SPLITTER MODULE, 4-WAY • E., 8-PORT • FIXED VIDEO AMPLIFIER MODULE, 10DB • MODULE PLATE, BLANK • POWER IS TSELECT® NETWORKING SYSTEM • PRIMARY TELEPHONE MODULE, 8-PORT • TELEPHONE MODULE, 8-PORT

PAGE

BIDnet™ Pre-Terminated Copper Trunk Assemblies
NEXTSPEED® ASCENT CATEGORY 6A PATCH CORDS
NEXTSPEED® CATEGORY 6 PATCH CORDS
SPEEDGAIN® CATEGORY 5E PATCH CORDS
NEXTSPEED® 10GbE/Category 6 Shielded Patch Cords D8
25-Pair Cable Assemblies
Testers and Tools
ASSEMBLE-TO-ORDER CABLE PROGRAM

**PRODUCT** 

## BIDnet™ Pre-Terminated Copper Trunk Assemblies

## Desigr

 Optimized component matching to maximize performance and eliminate residual and reflected NEXT.

## **Superior Strain Relief**

 Molded strain relief and cassette ensures factory termination, provides maximum strain relief after and during installation.

## Capacity

 Small form factor allows up to 6 keystone connections delivering a maximum capacity.

#### **Performance**

 Balanced design delivers headroom over the TIA and ISO Category 6A standard providing true application assurance.

## **Flexibility**

 BIDnet™ is available in various configurations, categories, colors, and lengths to help identify different LANs, applications and devices.

## **Reliability**

- Application: Qualified for 10 Gigabit Ethernet Transmission IEEE 802.3an.
- Component: Third-Party verified for TIA-568-C.2 Category 6A and 6 component.
- Channel: Tested for ISO 11801 Class E<sub>A</sub> and E compliant.
- Current Capacity: Qualified for PoE and PoE+ IEEE 802.3at.
- Manufacturing: 100% factory tested in a controlled environment.
- MISSION CRITICAL® Warranty.

## Versatility

 BIDnet<sup>™</sup> can be utilized in standard Hubbell iSTATION<sup>™</sup>, Delivery and Cross Connect products for Data Center and Open Office applications.

#### Identification

 Each individual permanent link is labeled at each end making it easy for adds, moves, and changes.

#### Consistency

 100% factory terminated and tested ensuring the most reliable connections.

## **Standards**

- ♦ ANSI/TIA-568-C.2 (Previously 568-B.2-10 Category 6A component.
- ISO 11801 Class D, E, and E<sub>A</sub> Compliant (Category 6A).
- ◆ IEEE 802.3at capable.
- UL Listed 1863.





# Advantage

- MISSION CRITICAL® Warranty\*.
- TIA and ISO Category 6A **NEXTSPEED**® Ascent Channel Compliance.
- Reduces Installation Time by More than 70%.
- 100% Factory Tested, Factory Terminated.
- Assemblies Made to Length Eliminates Cable Waste.

<sup>\*</sup> Required project is registered in accordance with MISSION CRITICAL® Program.

#### **Specifications**

#### Jacks

- Nose contact material: Beryllium Copper with Precious Metal plating over Nickel under-plating.
- Contact performance: confirmed over the full range of TIA plug deflection limits.

## **Plugs**

- Mechanical: Cable to plug tensile strength: 20+ lbs.
   Mating cycles: 2000+.
- Material Plug body: Polycarbonate UL 94V-0. Plug boot: PVC.
- Contact: High strength copper alloy.
   Plating: 50 micro-inch Precious Metal over 100 micro-inch under-plating.

## **Available Options**

Lengths: 10'-295'.
 Legs: 1, 4 and 6.
 Category: 5e, 6 and 6A.
 Connection: RJ45 Jack;

RJ45 Plug; Open End.

Cable: Plenum, Riser and LSZH.

UTP: Category 5e;
Category 6;
Category 6A.

◆ FTP: Category 6 (10GbE).◆ Color: Blue and White.

Copper Trunk Assemblies are the ideal solution for data centers, open office and other applications where accuracy, reliability and performance are the most important factors.

BIDnet™ assemblies provide

BIDnet<sup>™</sup> pre-terminated

BIDnet™ assemblies provide simplicity for permanent links between switches, servers and patch panels. MUTOAs and zone distribution areas, enabling easy MACs to the infrastructure.

100% factory tested and assembled simplifies installation time and labor, compared to traditional field terminated permanent links.

Go Green with BIDnet™. BIDnet™ provides the exact lengths and number of connections needed eliminating unwanted cable waste.







All BIDnet<sup>™</sup> pre-terminated cable assemblies are made-to-order items. Please call our inside sales team for lead-time and availability.



## NextSpeed

## Design

Enhanced design to eliminate alien cross talk.

#### **Performance**

 Balanced design delivers channel headroom over the TIA and ISO Category 6A standard up to 500MHz providing true 10GbE application assurance.

## Reliability

- Application: Qualified for 10 Gigabit Ethernet Transmission IEEE 802.3an.
- Channel: Third-Party tested for TIA-568-C.2 Category 6A Channel and ISO 11801 Class E<sub>A</sub> compliant.
- Heat: Qualified for PoE and PoE+ IEEE 802.3at.
- Manufacturing: 100% factory tested in a controlled environment.

#### Versatility

 NEXTSPEED® Ascent patch cords are stocked in 3, 5, 7, 10, 15, and 20 foot lengths to support all standard patching requirements. 25 to 75 foot lengths (5 foot increments) are available upon request.

## **Ascent Patch Cords, Category 6A**

## **Superior Strain Relief**

 Molded strain relief and cassette ensures factory termination, provides maximum strain relief after and during installation.

## Capacity

 Slim-line design allows patch cords to fit side-by-side in high density switch applications.

## **Flexibility**

 The HJ6A is available in 8 different colors to help in the identification of multiple LANs, applications and devices.

## **Specifications**

### **Plugs**

- Mechanical: Cable to plug tensile strength: 20+ lbs.
   Mating cycles: 2000+.
- Material Plug body: Polycarbonate UL 94V-0. Plug boot: PVC.
- Contact: High strength copper alloy.
- Plating: 50 micro-inch Gold with 100 micro-inch under-plating.

## **Standards**

- ANSI/TIA-568-C.2 (Previously 568-B.2-10 Category 6A channel.
- ISO 11801 Class E<sub>A</sub> compliant (Category 6A).
- IEEE 802.3at capable.
- UL Listed 1863.



- TIA and ISO Category 6A **NEXTSPEED**® Ascent Channel Compliance.
- High-Density Plug Design Makes Patching Easy.
- 100% Factory Tested.
- Cable Construction Extends Patch Cord Life Span, Reducing Waste.

#### **NEXTSPEED® Ascent Category 6A Patch Cords**

#### Patch Cords, Category 6A

Color: Gray

Catalog No.

PC6AGYXX 100

**XX** = Standard Color:

"B" = Blue; "BK" = Black; "GY" = Gray; "Y" = Yellow. For other colors replace color designation with one of the following: OR = Orange, R = Red, GN = Green, P = Purple, W = White

\* = Standard Length:

 $||\mathbf{03}|| = 3'; ||\mathbf{06}|| = 6'; ||\mathbf{08}|| = 8'; ||\mathbf{10}|| = 10'; ||\mathbf{12}|| = 12'; ||\mathbf{16}|| = 16'; ||\mathbf{20}|| = 20'.$ 

MTO lengths: 25', 30', 35', 40', 45', 50', 55', 60', 75', and 100'.



#### **NEXTSPEED® PCX6 Category 6 Universal Patch Cords**



- Patented Design.
- Verified Category 6 Component Performance.
- 100% Factory-Tested to Category 6.
- RoHS Compliant.
- Inner Core Design Extends Patch Cord Life Span Reducing Waste.

#### Features/Benefits

- Snagless boot design.
- High-performance, staggered plug design.

#### Specifications

- Feature a grey-smoked plug for easy identification.
- ◆ Third-Party component tested and verified.
- Category 6 4-pair 24AWG stranded UTP cable.
- ◆ UL flame retardant PVC cable jacket.
- Modular plug contacts 50μ" Gold plated.
- PVC, snagless, slip on boot.



Delivery: 1 patch cord

Catalog No. **PCX6XX\*** 

**XX** = Standard Color:

"B" = Blue; "BK" = Black; "GY" = Gray; "Y" = Yellow. For other colors replace color designation with one of the following: OR = Orange, R = Red, GN = Green, P = Purple, W = White

\* = Standard Length:

 $||\mathbf{03}|| = 3'; ||\mathbf{06}|| = 6'; ||\mathbf{08}|| = 8'; ||\mathbf{10}|| = 10'; ||\mathbf{12}|| = 12'; ||\mathbf{16}|| = 16'; ||\mathbf{20}|| = 20'.$ 

MTO lengths: 25', 30', 35', 40', 45', 50', 55', 60', 75', and 100'.

#### SPEEDGAIN® PCX5E Category 5e Universal Patch Cords

# Advantage

- Patented Design.
- Verified Category 5e Component Performance.
- 100% Factory Tested for Cat 5e.
- RoHS Compliant.
- Inner Core Design Extends Patch Cord Life Span Reducing Waste.

#### Features/Benefits

- Snagless, slimline boot design.
- High-performance, staggered plug design.

#### **Specifications**

- Third-Party component tested and verified.
- Category 5e 4-pair 24AWG stranded UTP cable.
- UL flame retardant PVC cable jacket.
- Modular plug contacts 50μ" Gold plated.
- Modular plug rated for 750 insertions.
- PVC, overmolded slimline boot.



#### Patch Cords, Category 5e

Delivery: 1 patch cord

Catalog No. PCX5EXX\*

**XX** = Standard Color:

"B" = Blue; "BK" = Black; "GY" = Gray; "Y" = Yellow

For other colors replace color designation with one of the following:

OR = Orange, R = Red, GN = Green, P = Purple, W = White

\* = Standard Length:

"01" = 1'; "03" = 3'; "05" = 5'; "07" = 7'; "10" = 10'; "15" = 15'; "20" = 20';

"25" = 25'; "30" = 30'; "35" = 35'; "40" = 40'; "45" = 45'; "50" = 50';

"55" = 55'; "60" = 60'; "75" = 75'; "100" = 100'

# Next<mark>Speed</mark>

# Shielded Patch Cords, 10GbE/Category 6





- ANEXT Component Performance.
- PoE and PoE+ ready.
- 100% Factory Tested.
- RoHS Compliant.
- Inner Core Design Extends Patch Cord Life Span Reducing Waste.

#### Features/Benefits

- Zero Bit-Error channel performance.
- Controlled crosstalk.
- Backward compatible to Cat. 5e, 5.

#### **Specifications**

#### Mechanical

◆ Cable to plug tensile strength: 20+ lbs.

#### Material

- Plug body: Polycarbonate UL 94V-0.
- ♦ Plug boot: PVC.

#### **NEXTSPEED® Shielded Patch Cords, 10GbE/Category 6**



The PS6 patch cords are constructed with specially designed patch cable and a cross pair separator delivering one of the industry's highest performing patch cords. The PS6 plug incorporates a two-piece conductor sled design to optimize performance and control NEXT by separating and staggering pairs. This unique design provides consistent contact-to-conductor alignment. Every PS6 patch cord is 100% performance tested, to assure high quality and reliability before it leaves the factory.

Length	Catalog No.	Length	Catalog No.
3'	PS603XX /10G	15'	PS615XX 10G
5'	PS605XX /10G	20'	PS620XX 10G
7'	PS607XX 10G	25'	PS625XX 10G
10'	PS610XX 10G		

XX=Color; B=Blue, GY=Gray

#### **SPEEDGAIN® Shielded Patch Cords, Category 5e**





The PS5e patch cords are constructed with custom designed patch cable delivering a high performing patch cords. Every PS5e patch cord is 100% performance tested, to assure high quality and reliability before it leaves the factory.

Length	Catalog No.	Length	Catalog No.	
3'	PS5E03XX	15'	PS5E15XX	
5'	PS5E05XX	20'	PS5E20XX	
7'	PS5E07XX	25'	PS5E25XX	
10'	PS5E10XX			

**XX**=Color; **B**=Blue, **GY**=Gray

#### 25-Pair Cable Assemblies

#### Gigabit, 25-pair Cable Assemblies

Delivery: 1 cable assembly supplied with mounting screws, male-to-male connectors and a choice of various connector configurations.

Gender	Connector Angles	Length	Catalog No.
Male to Male	$180^{\circ}$ to $90^{\circ}$	5′	525G2105E
Male to Male	$180^{\circ}$ to $90^{\circ}$	10'	525G2110E
Male to Male	180° to 90°	15′	525G2115E
Male to Male	180° to 180°	5′	525G2205E
Male to Male	180° to 180°	10′	525G2210E
Male to Male	180° to 180°	15′	525G2215E
LIOTE 0	E10 ( 1000B10E E		



NOTE: See page E12 for 1000BASE-T patch panels.

#### Fast Ethernet, 25-pair Cable Assemblies

Delivery: 1 cable assembly supplied with mounting screws, male-to-male connectors and a choice of various connector configurations.

			100BASE-T
Gender	Connector Angles	Length	Catalog No.
Male to Male	$180^{\circ}$ to $90^{\circ}$	5′	525PS2105E
Male to Male	$180^{\circ}$ to $90^{\circ}$	10′	525PS2110E
Male to Male	180° to 90°	15′	525PS2115E
Male to Male	180° to 180°	5′	525PS2205E
Male to Male	180° to 180°	10′	525PS2210E
Male to Male	180° to 180°	15′	525PS2215E
Male to Male	180° to 110°	5′	525PS2305E
Male to Male	180° to 110°	10′	525PS2310E
Male to Male	180° to 110°	15′	525PS2315E



525PS2205E

NOTE: See page E12 for 100BASE-T patch panels.

#### Hydra "Octopus" Cable Assemblies

Delivery: 1 cable assembly. 25-Pair Wiring Format Connector Plug Type # Legs Length Catalog No. T568B 180° RJ45 Cat 5e 525PS2R06-1ME 6 1m T568B 180° RJ45 Cat 5e 6 2m 525PS2R06-2ME 525PS2R06-3ME T568B 180° RJ45 Cat 5e 3m 6 525PS2R12-1ME 12 10/100B-T (1,2,3,6) 180° RJ45 Cat 5e 1 m 10/100B-T (1,2,3,6) 180° RJ45 Cat 5e 12 2m 525PS2R12-2ME 525PS2R12-3ME 10/100B-T (1,2,3,6) 180° RJ45 Cat 5e 12 3m



525PS2R06-1ME

#### **Testers and Tools**

#### **Modular Plugs**





#### **Specifications**

#### Snap On Plugs

- ♦ UL Listed File #E129878
- cUL Certified File #LR80837.
- ◆ All plug contacts 50 micro-inch Gold-plated.
- ◆ IDC wire contacts.
- ♦ Plastic: 94V-0 rated.
- For voice applications.
- ◆ For solid cable.

#### Modular Plugs

- ◆ UL Listed File #E129878.
- All plug contacts 50 micro-inch Gold-plated.
- ♦ UL 94V-0 rated.
- Terminates solid and stranded conductors.

#### Snap On Modular Plug

Description	Catalog No.
Snap on, 8-position modular plug	BRFTP4P

Modular Plugs	Insulated		
Description	Conductor Range	AWG	Catalog No.
8-position/8-contact	.032038	24-26	BRMOD4P25
8-position/8-contact, snagless	.032038	24-26	<b>BRMOD4PSN25</b>
8-position/8-contact, blue	.026030	26	UNICON14P25
6-position/6-contact	.032038	24-26	BRMOD3P25
4-position/4-contact	.032038	24-26	BRMOD2P25

#### **Continuity Tester**



#### Features/Benefits

- Compact size.
- One button test results.
- Automatic shut off.
- 9 volt battery included.

#### Specifications

- Tests up to 320 feet.
- ♦ Built-in BNC connector with F connector.
- Coax cable types tested: 50-750hm RG58, RG59, RG6, RG6 quad, Belden 8281, RG8 AND RG11.

Delivery: Main and remote continuity test units, 2 F-connector adapters, 2 RJ45 shielded patch cables, 2 belt clips

Catalog No. TCT2

#### **Crimp Tool**



#### Features/Benefits

- Universal frame accepts interchangeable dies to crimp different plugs.
- Color-coded die-sets for different plug sizes.
- Complete ratchet cycle release assures no-fault crimps.

#### Specifications

- Parallel compression terminates to FCC specs - no misalignment.
- Integral wire cutter/stripper cuts and strips cable without another tool.

Description	Catalog No.
Complete tool kit in hard, plastic case includes crimp tool, 3 die-sets UTP cable stripper Die-sets include: RJ45, RJ22 and RJ11	UCTKIT
Crimp Tool frame (die-sets sold separately)	UCT
RJ11 Die-Set	CDTSR11
RJ22 Die-Set	CDTSR22
RJ45 Die-Set (snagless or non-snagless)	CDTSR45
RJ45 Die-Set (non-snagless)	CDTSR45S
RG6 and RG59 Hex Crimp die-set	CTDSRG659
Economy Crimp Tool - includes non-replaceable RJ11, RJ22 and RJ45 Die-Sets	ECT
RG6 and RG59 Compression tool	COMPTRG659



#### **Assemble-to-Order Cable Assembly Program**



- High performance, fast lead time.
- Custom-configured assemblies specific to the job.
- 100% factory tested, factory assembled.
- Made-to-length assemblies eliminates cable waste.

Hubbell's Assemble-to-Order cable assembly program can deliver custom copper and fiber assemblies within a short period of time.

Knowing that every job and every application is different, we offer custom lengths, configurations and colors to custom fit any application.

Whether the application is Cat 5e, 6, 6A, 25-pair, pre-terminated blocks or multi-configured fiber trunk cables, Hubbell can satisfy your cable assembly needs. Contact Customer Service for your custom cable assembly needs - minimum quantities apply.









#### **Copper Patch Cords**

- Pre-Terminated Copper Trunk Assemblies.
- Category 3/5e/6/6A.
- ◆ Solid or stranded cable.
- Single or double-ended.
- Custom lengths.
- Custom configurations.
- Booted/non-booted.
- Snagless or regular plug style.
- ◆ 11 different colors.

#### 110 and 25-pair

- Custom lengths.
- Custom wiring.
- Over molded.
- Single or double-ended.

#### Fiber Cords

- ◆ Trunk Cables Multi-fiber Cable
- Simplex
- Duplex
- Pigtails
- Singlemode
- Multimode
- MTP/MTO assemblies
- ◆ LC
- SC
- ST-Style
- ◆ FC
- MT-RJ
- Angle polish
- Custom lengths

#### **Audio Video**

- X-END™ customs.
- ◆ HD-15 SVGA style.
- S-Video.
- BNC.
- RCA.
- 3.5mm.

- Plenum.
- Riser.
- Multi-Coax.
- Multi-Bundle application.

# **CROSS CONNECT**



FACE PLATES • PATCH CORDS • CABLE ASSEMBLIES • OUTLET FRAMES • SURFACE BOXES • JACKS • CATEGORY 6 SYSTEM ADAPTERS • Audio Video CONNECTORS • FRONT-LOADING FACE PLATES • FURNITURE PLATES • SHIELDED JACKS • SPE I - PUNCH TOOL • USOC • CATEGORY 5E • SURFACE MOUNT BOXES • NEXTSPEED PRODUCTS • MULTIMEDIA CONNE • XCELERATOR JACKS • ASCENT 10GbE • SYSTEM CHANNEL • MODULAR PLUGS • CROSS CONNECT SYSTEMS • PATCH MODULAR 66 BLOCKS • LABELING SOLUTIONS • PACK MOUNT KITS • MULTIMEDIA PANELS • CONSOLIDATION POIN PATCH PANELS • MULTIMEDIA PLATES • BULK CO • ISTATION PRODUCTS • 1 10 BLOCKS • CATEGORY 3 • TAMPER-RESISTANT FACE PLATES • ISTATION AUDIO VIDEO MO



Product	Pac
NEXTSPEED® ASCENT PATCH PANELS, CATEGORY 6A	. E4
NEXTSPEED® PATCH PANELS, CATEGORY 6	. E6
SPEEDGAIN® PATCH PANELS, CATEGORY 5E	. E8
ISTATION™ MULTIMEDIA AND KEYSTONE PATCH PANELS	.E10
SPEEDGAIN® GIGABIT ETHERNET PANELS	.E12
SPECIALTY PATCH PANELS	.E13
CONNECTING BLOCK SYSTEM, CAT 6	.E14
CONNECTING BLOCK SYSTEM, CAT 5E	.E16
BLOCK RACK MOUNT KITS, CAT 6/CAT 5E	. E18
BLOCK WALL MOUNT KITS, CAT 6/CAT 5E	. E19
66 BLOCK	F20



#### **Ascent, Category 6A Patch Panels**

#### Design

 Enhanced common mode design to eliminate residual and reflected NEXT and ANEXT.

#### **Performance**

 Balanced PCB design delivers significant headroom over the TIA Category 6A standard up to 500MHz providing true 10GbE application assurance.

#### Reliability

- Application: Third-Party qualified for 10 Gigabit Ethernet Transmission IEEE 802.3an.
- Component: Third-Party verified for TIA-568-C.2 Category 6A component.
- Channel: Third-Party tested for ISO 11801 Class EA compliant.
- Current Capacity: Qualified for PoE and PoE+ IEEE 802.3at.
- Mechanical: Third-Party verified to TIA-568-C.2.
- Manufacturing: 100% factory tested in a controlled environment.

#### Identification

 Centered port identification allows for greater visibility of labels and clean patch cord organization on a 48-port patch panel.

#### **Installation Ease**

 Third hand location pin provides a handsfree installation. Simplifies rack layout.

#### **Durability**

 Rolled edge construction provides rugged strength to eliminate flex during termination.



# NEXTSPEED ASCENT

#### **Superior Strain Relief**

• Locking IDC stuffer cap ensures termination retention, securing wires during installation.

#### **Administration**

 Accepts Hubbell laser printable label sheets and industry recognized 0.5" hand held printer tape.

#### Specifications

- Nose contact material: Beryllium Copper with Precious Metal plating with Nickel under-plating.
- Contact performance confirmed over the full range of TIA plug deflection limits.

#### **Standards**

- TIA-568-C.2 (Previously 568-B.2-10 Category 6A) component.
- ISO 11801 Class EA Compliant (Category 6A).
- IEEE 802.3at.
- UL Listed 1863.



- True TIA and ISO Category 6A Component Compliance.
- Labor Savings: Exclusive 1-Punch Termination Reduces Termination Time by 75%.
- Third-Party Tested and Verified.
- Eco-Friendly Packaging Utilizes Recyclable
   Materials and Eliminates Excess Packing Waste.



#### **NEXTSPEED®** Ascent, Category 6A, Component Patch Panels

The NEXTSPEED® Ascent Category 6A Patch Panel exceeds TIA Category 6A and ISO component specifications supporting network convergence protocols delivering maximum 10GbE bandwidth and extended reliability for all LAN, multimedia, and Power over Ethernet applications.

Ports	Height	Width	Rack Units	Color	Catalog No.	
24	1.75" (45)	19" (483)	1	Black	HP6A24U	<b>√10G</b>
48	3.50" (89)	19" (483)	2	Black	HP6A48U	<b>//10G</b>
96	7.00" (178)	19" (483)	4	Black	HP6A96U	<b>√10G</b>
24	1.75" (45)	19" (483)	1	Silver	HP6A24US	<b>√10G</b>
48	3.50" (89)	19" (483)	2	Silver	HP6A48US	<b>√10G</b>
96	7 00" (178)	19" (483)	4	Silver	HP6A96US	√10G





HP6A48U

#### **NEXTSPEED®** Ascent, Category 6A, Component Angled Patch Panels

Ports	Height	Rack Units	Catalog No.	
24	1.75" (45)	1	HP6A24AU	√10G
48	3.50" (89)	2	HP6A48AU	<b>√10G</b>



#### HP648AU

#### **MUTOA, Category 6A Component**

#### Features/Benefits

Delivers Category 6A performance in a flexible format for open office and extended LAN applications.

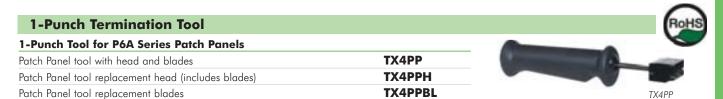
#### **Specifications**

UL and cUL Listed.





P6A12U 10G Consolidation point block,12-port, Category 6A, universal, 89D



Rear Cable Management Bars	
Description	Catalog No.
Screws to rear flange of 19" rack.	CMBR V10G
Holds each wire to minimize ANEXT and maximize performance.	
Clips to rear of panels.	PCBLMGT



# HUBBELL

#### **Category 6 Patch Panels**

#### Design

• Center balanced to Category 6 plug specifications.

#### **Performance**

Balanced PCB design delivers significant headroom over the TIA Category 6 standard up to 250MHz providing true application assurance.

#### **Administration**

• Accepts Hubbell laser printable label sheets and industry recognized 0.5" hand held printer tape.

#### Reliability

- Application: Third-Party qualified for 10 Gigabit Ethernet Transmission IEEE 802.3an (TSB-155).
- Component: Third-Party verified for TIA-568-C.2 Category 6 Component.
- Channel: Third-Party verified for ISO 11801 Class EA compliant.
- Current Capacity: Qualified for PoE and PoE+ IEEE 802.3at.
- Manufacturing: 100% factory tested.

#### **Durability**

• Rolled edge construction provides rugged

#### · Centered port identification allows for greater visibility of labels and clean patch cord organization on a 48-port patch

**Identification** 



#### **Installation Ease**

• Third hand location pin provides a handsfree installation. Simplifies rack layout.

attaches to the rack behind the panel providing excellent strain relief.

#### **Specifications**

- Nose contact material: Beryllium Copper with Precious Metal plating with Nickel under-plating.
- Contact performance confirmed over the full range of (FCC Specification) deflection

#### **Standards**

- TIA-568-C.2 Category 6 Component.
- ISO 11801 Class E Compliant Category 6.
- IEEE 802.3at.
- UL Listed 1863.

## HUBBELL Advantage

- TIA Category 6 Component Compliance.
- Labor Savings: Exclusive 1-Punch Termination Reduces Termination Time by 75%.
- Third-Party Tested and Verified.
- Eco-Friendly Packaging Utilizes Recyclable Materials and Eliminates Excess Packing Waste.

#### **NEXTSPEED® Universal Patch Panel, Category 6**

The NEXTSPEED® Category 6 Patch Panel exceeds TIA Category 6 and ISO component specifications supporting network convergence protocols delivering maximum bandwidth and extended reliability for all LAN, multimedia, and Power over Ethernet applications.

Ports	Height	Rack Units	Black, Protected PCB Catalog No.	White, Protected PCB Catalog No.	
24	1.75" (45)	1	P6E24U	P6E24UW	
48	3.50" (89)	2	P6E48U	P6E48UW	
96	7.00" (178)	4	P6E96U	P6E96UW	



P6E48U

<b>NEXTSPEED®</b>	Angled,	Universal	Patch	Panel,	Category 6

Ports	Height	Rack Units	Catalog No.
24	1.75" (45)	1	P624AU
48	3.50" (89)	2	P648AU



P648AU

#### **MUTOA, Category 6**

#### Features/Benefits

Delivers Category 6 performance in a flexible format for open office and extended LAN applications.

#### **Specifications**

- The Category 6 CPB is designed to exceed TIA-568-C component specs.
- UL and cUL Listed.

Catalog No. Description P612U Consolidation point block, 12-port, Category 6, universal, 89D





#### **1-Punch Termination Tool**

1-Punch Tool for P6E Series Patch Panels	
Patch Panel tool with head and blades	TX4PP
Patch Panel tool replacement head (includes blades)	TX4PPH
Patch Panel tool replacement blades	TX4PPBL



Rear Cable Management Bars		RoHS
Description	Catalog No.	
Screws to rear flange of 19" rack.	CMBR /10G	Hananan Mondon
Holds each wire to maximize performance.		> 11 5 11 5 11 11 11 11 11 11
Clips to rear of panels.	PCBLMGT	CMBR
		1
		PCBLMGT



## **Category 5e Patch Panels**

#### Design

 Center balanced to Category 5e plug specifications.

#### **Performance**

 Balanced PCB design delivers significant headroom over the TIA Category 5e standard up to 100MHz providing true application assurance.

#### Reliability

- Application: Third-Party qualified for Gigabit Ethernet Transmission IEEE 802.3.
- Component: Third-Party verified for TIA-568-C.2 Category 5e Component.
- Channel: Third-Party verified for ISO 11801 Class D Compliant.
- Current Capacity: Qualified for PoE and PoE+ IEEE 802.3at.
- Manufacturing: 100% factory tested.

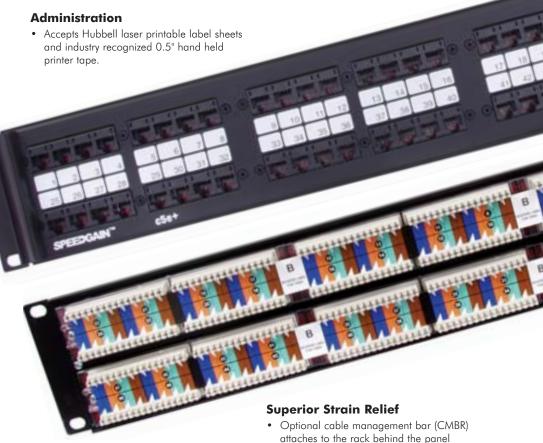
#### Identification

 Centered port identification allows for greater visibility of labels and clean patch cord organization on a 48-port patch panel.

#### Durability

 Rolled edge construction provides rugged strength to eliminate flex during termination.

providing excellent strain relief.



#### **Installation Ease**

 Universal wiring panels can be terminated using T568B or T568A wiring formats.

#### **Specifications**

- Nose contact material: Beryllium Copper with Precious Metal plating with Nickel under-plating.
- Contact performance confirmed over the full range of (FCC Specification) deflection limits

#### **Standards**

- TIA-568-C.2 Category 5e Component.
- ISO 11801 Class D Compliant Category 5e.
- IEEE 802.3at.
- UL Listed 1863.



- Industry's Fastest Terminating Panel.
- Inline IDC Termination.
- 100% Factory Tested.
- Eco-Friendly Packaging Utilizes Recyclable
   Materials and Eliminates Excess Packing Waste.

#### **SPEEDGAIN® Universal Patch Panel, Category 5e**



Ports	Height	Rack Units	Black Catalog No.	White Catalog No.	Black, Angled Catalog No.
16	1.75" (45)	1	P5E16UE	-	-
24	1.75" (45)	1	P5E24UE	P5E24UEW	P5E24AU
48	3.50" (89)	2	P5E48UE	P5E48UEW	P5E48AU
96	7.00" (178)	4	P5E96UE	P5E96UEW	-

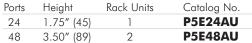






P5E48UE

SPE	<b>EDGAIN</b> ®	Angled,	<b>Universal Patch</b>	Panel,	Category 5e
Ports	Height	Rack Units	Catalog No.		





#### **MUTOA, Category 5e**

#### Features/Benefits

Delivers Category 5e performance in a flexible format for open office and extended LAN applications.

#### Specifications

- The Category 5e CPB meets and exceed TIA-568-C-2 component specifications to 100 MHz.
- UL and cUL Listed.

Description Catalog No. P5E12U Consolidation point block, 12-port, Category 5e, universal, 89D





Rear Cable Management Bars	
Description	Catalog No.
Screws to rear flange of 19" rack.	CMBR
Holds each wire to maximize performance.	
Clips to rear of panels.	PCBLMGT







**Multimedia and Keystone Panels** 

#### **Angled Design**

Eliminates the need for cable management allowing for more patch capabilities. Angle allows cable to flow into cable channels.

#### **Superior Cable Strain Relief**

• Optional cable management bar (CMBR) attaches to the rack behind the panel providing excellent strain relief.

#### Capacity

• Ideal solution where rack space is at an absolute premium, add-as-you-go flexibility, mixed jack performance, and color-coding are desired.

#### **Administration**

Centered port identification allows for greater visibility of labels and clean patch cord organization.

#### **Installation Ease**

• Third hand location pin provides a handsfree installation. Simplifies rack layout.



#### **Durability**

· Rolled edge construction provides rugged strength to eliminate flex during termination.

#### iSTATION™ Design

Front-loading **iSTATION**™ modules allow for X-END™ installation and Audio Video application modules.



#### **Specifications**

- Material: 16 ga. Cold Rolled Steel.
- Compatible with Hubbell Labeling Solution.
- Rear-loading keystone panels compatible with HPW keystone AV connectors.
- **iSTATION**  $^{\text{™}}$  panels compatible with all **iSTATION**  $^{\text{™}}$  modules.
- All panels accept Hubbell jacks.

#### **Standards**

Complies with EIA-310-D rack mount standard.



- Angle Panel Design Eliminates the need for Cable Management, Freeing Up Valuable Real Estate.
- Third Hand Helper Installation Aid.
- Panel Allows for Endless Audio Video and Data Applications.
- Eco-Friendly Packaging Utilizes Recyclable Materials and Eliminates Excess Packing Waste.

#### **PXJ Jack Panel Kits, Loaded**



PX	164	81	RK	F

Height	Port Size	Jack Color	Category 5e Catalog No.	Category 6 Catalog No.
1U (1.75")	24	Black	-	PXJ624BKE
1U (1.75")	24	Gray	-	PXJ624E
1U (1.75")	36	Gray	-	PXJ636E
1U (1.75")	48	Black	PXJ5E48E1U	PXJ648BKE1U
1U (1.75")	48	Gray	-	PXJ648E1U
2U (3.50")	48	Black	-	PXJ648BKE
2U (3.50")	48	Gray	-	PXJ648E
1U (1.75")	24	Black	UDX245EIL*	UDX246IL*

<sup>\*</sup> Loaded inline coupler panels



E10

### **UDX Super, High-Density Panel**

UDX Jack Panel 1U (1.75") 48 Unloaded <b>UDX48E1U</b>	Description	neignt	Port Size	Jacks	Catalog INO.
	UDX Jack Panel	1U (1.75")	48	Unloaded	UDX48E1U

NOTE: UDX48E1U only accepts **XCELERATOR**™ jacks.



Style	Height	Port Size	Jacks Supplied	Color	Catalog No.
Wall Mount	-	12	Unloaded	Black	UDX1289*
Rack Mount	1U (1.75")	24	Unloaded	Black	UDX24E
Rack Mount	1U (1.75")	36	Unloaded	Black	UDX36E
Rack Mount	2U (3.50")	48	Unloaded	Black	UDX48E
Angled	1U (1.75")	24	Unloaded	Black	UDXA24
Angled	2U (3.50")	48	Unloaded	Black	UDXA48

<sup>\*</sup> Pre-mounted on an 89D bracket.

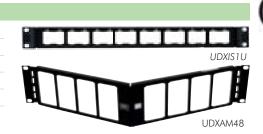
NOTE: See page N27 in the Technical Section for UDX Panel compatibility chart.





,	•			
Flat	1U (1.75")	1 Unit	8-1 Unit Modules	UDXIS1U1
Flat	2U (3.50")	3 Units	24-1 Unit Modules	UDXIS2U
Angled	1U (1.75")	1 Unit	8-1 Unit Modules	UDXAM161
Angled	2U (3.50")	3 Units	24-1 Unit Modules	UDXAM48

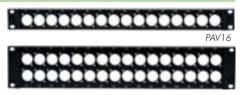
NOTE: See page B23 for a complete listing of **iSTATION**™ modules.





Style	Height	Opening Size	No. of Connectors	Catalog No.
Flat	1U (1.75")	Pro-AV	16	PAV16
Flat	2U (3.50")	Pro-AV	32	PAV32
Angled	1U (1.75")	Pro-AV	16	PAVA16
Angled	2U (3.50")	Pro-AV	32	PAVA32

Note: See page B18 for Pro-AV panel mount (XLR type) connector information.



Angled E	Blank Panel	s and (	Cover	
Description	Height	Ports	Color	Catalog No.
Blank Panel	1U (1.75")	-	Black	ABP175
	2U (3.50")	-	Black	ABP350
				Catalog No.
Angled Panel C	over, Top/Bottom		Black	APC



#### **NEXTSPEED® 6 Shielded Patch Panels, Unloaded**

The **NEXTSPEED**® PSJ24 19" panels are a 1-rack unit 16-port or 24-port high-density unloaded patch panel.

24	1.75" (45)	1	PSJ24BK	PSJ24S
16	1.75" (45)	1	UDX16E	-
Ports	Height	Rack Units	Catalog No. Black	Catalog No. Silver
0	,			

<sup>\*</sup>Note: Order jacks separately - see page B6.



#### Rear Cable Management Bars

3	
Description	Catalog No.
Screws to rear flange of 19" rack.	CMBR
Holds each wire to minimize ANEXT and maximize performance.	
Clips to rear of panels.	<b>PCBLMGT</b>







<sup>&</sup>lt;sup>1</sup> NOTE: Use only **iSTATION**™ 1U modules - see page B23.



#### Design

• Gigabit Ethernet transmission, 100MHz.

#### **Durability**

 Rolled edge construction provides rugged strength to eliminate flex during termination.

#### Capacity

 25-pair cable much smaller profile than equivalent 6-cable bundle of 4-pair UTP.
 Frees up valuable space in the cabinet and in the floor for maximum airflow.

#### Administration

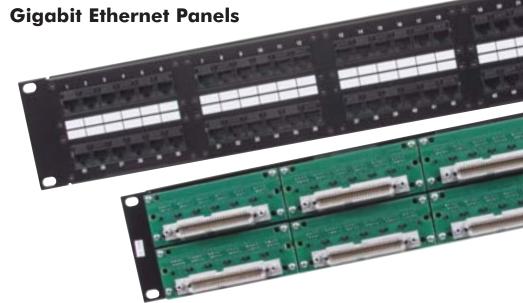
 Much easier to track and manage a single 25-pair cable versus six 4-pair UTP cables.

#### **Reliability**

- Application: Third-Party qualified for Gigabit Ethernet Transmission IEEE 802.3.
- Performance: Third-Party verified for TIA-568-C.2 Category 5e.
- Manufacturing: 100% factory tested.

#### **Superior Cable Strain Relief**

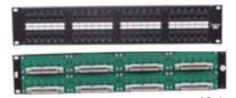
 Optional cable management bar (CMBR) attaches to the rack behind the panel providing excellent strain relief.





- One of the Industry's Only Gigabit Ethernet Panels.
- 6 Port Installation Using 25-Pair Assemblies.
- Third-Party Tested and Verified.
- Eco-Friendly Packaging Utilizes Recyclable Materials and Eliminates Excess Packing Waste.

#### **Gigabit Ethernet 1000BASE-T Patch Panels**



eliver	<b>y</b> : 1 1000E	BASE-T patch	panel, 4 mo	unting screws, 4	cable assembly screws	6
	Height	Width	Depth	Connectors		
24	1.75" (45)	19" (483)	1.2" (31)	Female	PG24	
48	3.50" (89)	19" (483)	1.2" (31)	Female	PG48	
	, ,	, ,	, ,			

#### Fast Ethernet 100BASE-T Patch Panels (Female 50-pin)



MCC481	00BT19	

Delive	ry: 1 100E	BASE-T patch	panel, 4 mou	unting screws, 4	cable assembly screws
Ports	Height	Width	Depth	Connectors	Catalog No.
24	1.75" (45)	19" (483)	1.2" (31)	Female	MCC24100BT19
48	3 50" (89)	19" (483)	1 2" (31)	Female	MCC48100BT19

#### Category 5e, 25-pair Cable Assemblies



Hubbell's 25-Pair cable assemblies are your enhanced interconnect solution for 10/100BASE-T Fast Ethernet or 1000BASE-T Gigabit Ethernet. Our 525PS cable assemblies are provided with 90°, 110° and 180° connectors in various lengths, allowing flexibility and customization at the interconnect.

Connector Angles	Gender	Catalog No.	Catalog No.
$180^{\circ}$ to $90^{\circ}$	Male-to-Male	<b>525PS21XXE</b> *	525G21XXE*
$180^{\circ}$ to $180^{\circ}$	Male-to-Male	<b>525PS22XXE*</b>	525G22XXE*
$180^{\circ}$ to $110^{\circ}$	Male-to-Male	<b>525PS23XXE*</b>	-
$110^{\circ}$ to $110^{\circ}$	Male-to-Male	-	525G33XXE*

<sup>\*</sup> Many lengths available - check with factory about specific length requirements.



#### **Specialty Patch Panels**

#### Design

• Center balanced to Category 5e and 6 plug specifications.

#### **Durability**

• Rolled edge construction provides rugged strength to eliminate flex during termination.

#### Installation

• Specialty panels are an ideal MUTOA solution and consolidation point where space is not available.

#### Reliability

- Application: Third-Party qualified for Gigabit Ethernet Transmission IEEE 802.3.
- Component: Third-Party qualified for Category 5e and 6 Component.
- Channel: Third-Party verified for ISO 11801 Class D/E Compliant.
- Manufacturing: 100% factory tested.

#### **Installation Ease**

· Universal wiring panels can be terminated using T568B or T568A wiring formats.

#### **Superior Cable Strain Relief**

• Optional cable management bar (CMBR) attaches to the rack behind the panel providing excellent strain relief.





- Patented Hinged Design (U.S. Patent No. 5,765,698).
- The Cable Management Panel on the Hinged, Fold Down Patch Panel Acts as a Bench Supporting the Panel During Termination.
- Third-Party Tested and Verified.
- Eco-Friendly Packaging Utilizes Recyclable Materials and Eliminates Excess Packing Waste.

Patcl	h Pand	els, Front A	ccess, Cate	gory 5e	
Wiring	Ports	Height	Width	Depth	Catalog No.
T568B	12	2.5" (64)	10" (254)	1.5" (38)	P5E12BF
T568A	12	2.5" (64)	10" (254)	1.5" (38)	P5E12AF
T568B	24	3.5" (89)	19" (483)	1.5" (38)	P5E24BF
T568A	24	3.5" (89)	19" (483)	1.5" (38)	P5E24AF



Patch	Pane	els, I	Hinged, Fo	ld-Down,	Category	6A, 6, 6	and 5e
Wiring	Style	Ports	Height	Width	Depth	Category	Catalog No.
Universal	Wall	48	7.0" (177)	19" (483)	7.5" (190.5)	6A	P6A48UF
Universal	Rack	48	7.0" (177)	19" (483)	1.5" (38)	6A	P6A48UF19
Universal	Wall	48	7.0" (177)	19" (483)	7.5" (190.5)	6	P648UF
Universal	Rack	48	7.0" (177)	19" (483)	1.5" (38)	6	P648UF19
Universal	Wall	48	7.0" (177)	19" (483)	7.5" (190.5)	5e	P5E48UF
Universal	Rack	48	7.0" (177)	19" (483)	1.5" (38)	5e	P5E48UF19



P5E48BF

#### 6-110 Connecting Block System

Field terminated patch plugs allow custom length patch cords to be assembled in the field.

Complete Hubbell Labeling Solution includes software, laser-printable sheets, and clear covers (order separately).

#### Features/Benefits

- Category 6 field terminated patch plugs allow custom length patch cords to be assembled in the field by utilizing a labor saving snap fit design.
- High-definition color coding and tip and ring identification make conductor placement
- Versatile solution consisting of 64- and 192-pair wiring blocks, 4-pair connecting blocks, field termination kits, and a complete line of accessories.
- Cable access openings allow cables to be routed through the rear of the block directly to the point of termination.

#### **Specifications**

- Verified to exceed TIA-568-C.2 Category 6 component specifications.
- Connecting Blocks Material: Polycarbonate UL 94V-0. Contact material: Phosphor bronze. Contact plating: lead-free tin. Conductor type: Solid or stranded (7). Conductor: Solid or stranded 26-22 AWG.
- Wiring Blocks Material: Polycarbonate UL 94V-0. Conductor: Solid or stranded 26-22 AWG.
- cUL and UL Listed.





- Verified to Exceed TIA-568-C.2 Category 6 Component Specifications.
- Increased Pair Isolation on 6-110 Connecting Blocks Provide for Superior NEXT Performance.
- Cable Access Holes and Increased Channel Width Allows Jacketed Cable to be Close to Termination Helping to Maintain Proper Pair Twist.



Compatible with **Hubbell Labeling System -**

#### Field Termination Kits, 6-110

Field termination kits facilitate easy ordering and include everything needed to assemble and configure a complete 6-110 Category 6 cross connect field. Field Termination kits are available with 64- or 192-pair wiring blocks and appropriate number of 4-pair connecting blocks and port identification labeling.

Description	Catalog No.	
6-110/64-pair field termination kit with standoff legs	6110FTK64WL	√10G
6-110/64-pair field termination kit without standoff legs	6110FTK64NL	<b>/10G</b>
6-110/192-pair field termination kit with standoff legs	6110FTK192WL	√10G



#### Termination Tool, 6-110/4-pair

This termination tool is designed to seat 6-110/4-pair connecting blocks and terminate/cut UTP cable on 6-110 wiring blocks.

#### Features/Benefits

- Cut designation on tool head aids proper orientation before termination.
- Ergonomic rubber handle.
- Head and blades remove easily for fast replacement.

Description	Catalog No.
Termination tool, 4-pair, 6-110 (includes head and blades)	6110MPPDT
Replacement tool head, 6-110 (includes labels)	6110MPPDT1



#### **Field Terminated Patch Plugs**

Delivery:	1 patch plug base, 1 patch plug cover, 1 cab	le tie.
Description		Catalog No.
Category 6,	6-110, 4-pair, yellow	6110FPP4PR



#### **Factory Terminated Patch Cords**

Delivery:	1 yellow patch cord	
Length	Catalog No. 6-110 to 6-110	Catalog No. 6-110 to RJ45 (T568B)
3'	6110PCL3	6119PCL3
5'	6110PCL5	6119PCL5
7′	6110PCL7	6119PCL7
9'	6110PCL9	6119PCL9
12′	6110PCL12	6119PCL12





When making a 6-110 to RJ45 cord, purchase Hubbell NEXTSPEED® PCX6 Patch Cords (see page D7) and cut cords in half. Then terminate the cut ends with 6-110 patch plugs.

#### Connecting Blocks, 6-110/4-pair

Hubbell Category 6, 4-pair connecting blocks are terminated to the wiring blocks utilizing a Hubbell 6-110/4-pair impact tool. Each connecting block features high definition color coding, tip and ring markings, and angled IDC towers to make conductor placement and lacing easy.

Description	Catalog No.
Connecting blocks, 6-110/4-pair	6110CB4PR10 <b>/10G</b>



#### **Hubbell Labeling Solution**

The Hubbell Labeling Solution 110 laser-printable label sheets and covers can be mounted between each wiring channel to identify individual station ports or pair counts. See page M8 for more information

more information.	
Description	Catalog No.
Laser-printable label sheets, 6-110 /110, white	XPL11010W
Laser-printable label sheets, 6-110 /110, yellow	XPL11010Y
Laser-printable label sheets, 6-110 /110, blue	XPL11010B







High definition color coding and tip and ring designation make conductor placement and termination simple.

Field terminated patch plugs allow custom length patch cords to be assembled in the field.

Complete Hubbell Labeling Solution includes software, laser-printable sheets, and clear covers (order separately).

#### Features/Benefits

- Provides a reliable, cost-effective, front terminated solution.
- Total interoperability with existing 110 systems.
- Flexible solution consisting of 50-, 100-, and 300-pair wiring blocks, 4- and 5-pair connecting blocks, and a complete line of accessories.

#### **Specifications**

- Verified to exceed TIA-568-C.2
   Category 5e component specifications.
- Connecting Blocks
   Material: Polycarbonate UL 94V-0.
   Contact material: Phosphor bronze.
   Contact plating: Lead-free tin.
   Conductor type: Solid or stranded (7).
   Conductor: Solid or stranded 26-22
   AWG.
- Wiring Blocks
   Material: Polycarbonate UL 94V-0.
   Conductor: Solid or stranded 26-22

   AWG.
- UL and cUL Listed.





trattark at

- Cable Access Openings Allow Cables to be Routed Through Wiring Blocks Directly to Point of Termination.
- Wiring Blocks Available With or Without Detachable Legs Which can be Removed During or After Termination.



Compatible with
Hubbell Labeling System -

de trate de la trate de la trate

#### Wiring Blocks, 110

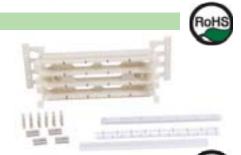
Create a flexible, high density, 110 termination field for voice and data applications by mounting 110 wiring blocks to the wall or plywood backboard. Wiring blocks are available for 50- 100- and 300-pairs.

Description	Catalog No.
Wiring block, 110/50-pair with standoff legs	110BLK50BWL
Wiring block, 110/50-pair without standoff legs	110BLK50BNL
Wiring block, 110/100-pair with standoff legs	110BLK100BWL
Wiring block, 110/100-pair without standoff legs	110BLK100BNL
Wiring block, 110/300-pair with standoff legs	110BLK300BWL
Wiring block, 110/300-pair without standoff legs	110BLK300BNL



#### Field Termination Kits, 110

Kits include everything needed to configure a complete 110	cross connect field.
Description	Catalog No.
Field Term Kit, 110/50-pair with 4-pair blocks	110BLK50FTK4
Field Term Kit, 110/50-pair with 5-pair blocks	110BLK50FTK5
Field Term Kit, 110/100-pair with 4-pair blocks	110BLK100FTK4
Field Term Kit, 110/100-pair with 5-pair blocks	110BLK100FTK5
Field Term Kit, 110/300-pair with 4-pair blocks	110BLK300FTK4
Field Term Kit, 110/300-pair with 5-pair blocks	110BLK300FTK5



#### Termination Tool, 110/5-pair

110/5-pair tool is designed to seat 110 connecting blocks and terminate and cut UTP cable on 110 wiring blocks.

1 TO WITING BIOCKS.	
Description	Catalog No.
Termination tool, 110/5-pair (includes head and blades)	T5PPD110
Replacement tool head, 110/5-pair (includes blades)	T5PPD110H
Replacement tool blades, 110/5-pair	T5PPD110B



#### **Field Terminated Patch Plugs**

<b>Delivery</b> : 1 patch plug base, 1 patch plug cover, 1 cable tie.	
Description	Catalog No.
Category 5e, 110, 4-pair, gray	110FPP4PR



#### **Factory Terminated Patch Cords**

	Catalog No.	Catalog No.
Length	110 to 110	110 to RJ45 (T568B)
3'	PC110C5EL3	PC119C5EL3
5'	PC110C5EL5	PC119C5EL5
7′	PC110C5EL7	PC119C5EL7
9'	PC110C5EL9	PC119C5EL9
12'	PC110C5EL12	PC119C5EL12
* The star	adard color for the plugs of	of 110 natch cards is army however custom solars and langths



<sup>\*</sup> The standard color for the plugs of 110 patch cords is gray, however custom colors and lengths are available. Please consult Customer Service for price and availability at 1-800-626-0005.



When making a 110 to RJ45 cord, purchase Hubbell **SPEEDGAIN**  $^{\text{TM}}$  PCX5E Patch Cords (see page D7) and cut cords in half. Then terminate the cut ends with 110 patch plugs.

#### Connecting Blocks, 110

110 connecting blocks are terminated to the 110 wiring blocks using the 110/5-pair termination tool. Available in 4- and 5-pair sizes.

1001. Wallable III 4 and 5 pair 31203.	
Description	Catalog No.
Connecting Blocks, 110/4-pair (kit of 10)	110CB4PR10
Connecting Blocks, 110/5-pair (kit of 10)	110CB5PR10



# RoHS

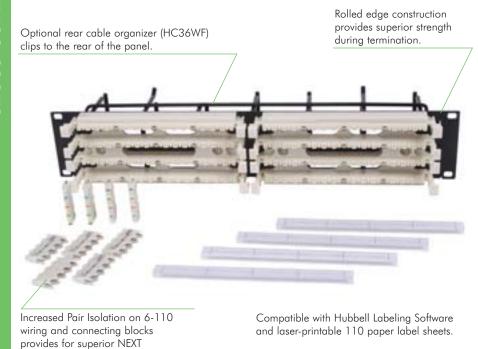
#### **Hubbell Labeling Solutions - Cross Connect, 110/6-110**

The Hubbell Labeling Solution 110 laser-printable label sheets and covers can be mounted between each wiring channel to identify individual station ports or pairs counts. See page M8 for more information.

more information.	
Description	Catalog No.
Laser-printable label sheets, 110/6-110, white	XPL11010W
Laser-printable label sheets, 110/6-110, yellow	XPL11010Y
Laser-printable label sheets, 110/6-110, blue	XPL11010B
Extra label holders (pack of 10)	XPH11010



#### Rack Mount Kits, 6-110 and 110



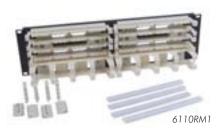


- Provides a cost effective, front terminated, high-density rack mount 110 solution.
- Cable access openings in wiring blocks allows cables to be routed through the block directly to the point of termination.
- Unique third hand locating pins hold panel in place on rack while installing screws.

#### **Specifications**

- 110 wiring bases and blocks are made of fire-retardant plastic rated UL 94V-0.
- ♦ Panel material: 14 ga. Steel.
- Finish: Durable black powder coat.
- Mounts directly to 19" EIA-310-D standard rack and cabinet.

#### Rack Mount Kits, 6-110, Category 6



performance.

Description	Rack Units	Catalog No.	
Rack mount kit with troughs, 6-110, 128-pair	3U	6110RM1	√10G
Rack mount kit w/o troughs, 6-110, 128-pair	2U	6110RM1NT	√10G

#### Rack Mount Kits, 110, with Cable Management, Category 5e



9 , 9 <b>,</b>			
Description	Rack Units	Catalog No.	
Rack mount kit, 100-pair with 4-pair connecting block	s 2U	110RM14	
Rack mount kit, 100-pair with 5-pair connecting block	s 2U	110RM15	
Rack mount kit, 200-pair with 4-pair connecting block	s 3U	110RM24	
Rack mount kit, 200-pair with 5-pair connecting block	s 3U	110RM25	

#### Rack Mount Kits, 110, without Cable Management, Category 5e



Description	Rack Units	Catalog No.	
Rack mount kit, 100-pair with 4-pair connecting block	s 1U	110RM14NT	
Rack mount kit, 100-pair with 5-pair connecting block	s 1U	110RM15NT	
Rack mount kit, 200-pair with 4-pair connecting block	s 2U	110RM24NT	
Rack mount kit, 200-pair with 5-pair connecting block	s 2U	110RM25NT	



For wall mount applications, mount to Hubbell Wall Mount Hinged Brackets (see page G20). These brackets provide up to 8 inches of additional depth for added cable management.

#### Wall Mount Kits, 6-110 and 110



- Wall mount kits are supplied fully assembled with wiring blocks.
- Side access openings and cable tie-off points simplify cable management.
- Bottom cable trough (included) provides a large pathway at the base for routing cables horizontally.

#### **Specifications**

- Material: 110 wiring bases and blocks are made of fire-retardant plastic rated UL 94V-0.
- Tower material: Rugged 16 ga. Steel. Finish: Durable black powder coat.



Cable management troughs organize and protect the cables on the front of the frame.

Wiring blocks feature cable access openings allowing cables to be routed through the rear of the block directly to the point of termination.

Compatible with Hubbell Labeling Software and laser-printable label sheets.

#### **Wall Mount Kits, 6-110/110**

Delivery: 6-1	10	110	Description			
		1	Wall mount tower frame			
		1	Bottom cable trough			
3	3	-	6-110/64-pair wiring blocks withou	ut legs		
		3	100-pair wiring blocks without legs			
4	8	-	6-110/4-pair connecting blocks			
		60	110/4-pair connecting blocks	110/4-pair connecting blocks		
		12	110/5-pair connecting blocks			
3	3	3	Cable management troughs withou	t legs		
(	5	6	Clear label holders			
(	5	6	White paper designation strips			
Description				Catalog No.		
Wall Mount Ki	t, Co	itegory	6, 6-110/192-pair	6110WMK <b>10G</b>		
Wall Mount Ki	t, Co	itegory	5e, 110/300-pair	110WMK		



#### **Cable Management Backboard**

Delivery:	Qty.	Description
	1	Wall mount cable management tower
	1	Bottom cable trough
	3	Cable management rings
Description	n	Catalog No.
Cable mo	ınagen	nent backboard 188BB /10G





#### **Cable Management Troughs**

#### Features/Benefits

- Provide horizontal patch cord management to complete a 110 or 6-110 cross connect solution.
- Install between wiring blocks to provide jumper and patch cord organization.

#### **Specifications**

- Material: Polycarbonate UL 94V-0.
- Prevents installed cables from exceeding the minimum bend radius requirements designated under TIA-568-A.

Description	Catalog No. With Legs	Catalog No. Without Legs
Cable management trough	110TRA <b>10G</b>	110TRB /10G







#### **Modular 66 Cross Connect Blocks**

#### 66M Block



#### Features/Benefits

- Designed to fill the requirements for data distribution using familiar quick-clips for
- Ability to transmit data rates up to 100 MHz.



With 4 slots on each row, there is flexibility for various configurations.

Description	Block Size	Capacity	Catalog No.
66M Block, Category 5 with cover	4 x 50	50-pair	HPW66M150C5
66M Block	4 x 25	25-pair	HPW66M125
66M Block	4 x 50	50-pair	HPW66M150
66M Cover	-	-	HPW66MCVR

#### 66B Block



#### Features/Benefits

- Designed for fast and easy termination incoming telephone cables.
- The smaller connecting blocks satisfy the need for a block smaller than the 25-pair size.

#### **Specifications**

Stackable for increased plant flexibility.

Description	Block Size	Capacity	Catalog No.
66B Block, Split (3x) (includes cover)	6 x 6	6-pair	HPW66B36
66B Block Cover for HPW66B 425 + 350	-	-	HPW66BCVR
66B Block	6 x 12	6-pair	HPW66B16
66B Block 25-pair, Split (4x)	6 x 50	25-pair	
HPW66B425			
66B Block 50-pair, Split (4x)	6 x 50	50-pair	HPW66B350

#### 12- and 16-port Blocks



BR258066A

#### Features/Benefits

- Supports installations not large enough to warrant a patch panel.
- Designed with printed circuit boards for consistent electrical performance.

#### **Specifications**

Category 3 (12-port) performance listed by UL (89D bracket included).

Description	Wiring	Jack Openings	Capacity	Catalog No.
Modular 66 Block	T568B	12-8 pos. jacks	50-pair	BR258066A
Modular 66 Block	USOC-RJ25	16-6 pos. jacks	50-pair	BR256066A

#### **Modular 66 Cross Connect Block Accessories**





HPW66BBRKT

#### Features/Benefits

- Cable routing spools provide control and dressing of distribution cables and jumper wires - available with or without screws.
- Mounting holes are provided for use in a variety of mounting options.

#### **Specifications**

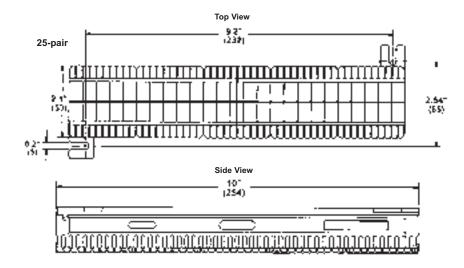
Material: mounting brackets molded of durable self-extinguishing thermoplastic.

Description	Catalog No.
Cable routing spool without screw	HPW66SPLA
Cable routing spool with screw	HPW66SPLB
89B bracket (use to mount 66M series blocks)	HPW89B
89D bracket (use to mount 66M series blocks)	HPW89D
Backboard (blue - for 89D and 89B brackets) Includes 2-89B brackets as shown.	HPW66BB
66B Bracket (use to mount 66B series blocks)	HPW66BBRKT
Bridging Clip (0.5 x 0.25) (Pack of 100)	HPW66BC100

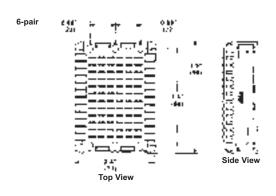


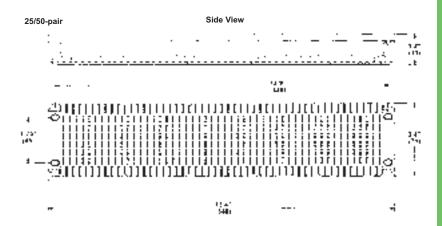
HPW66BC100

#### Modular 66M Block

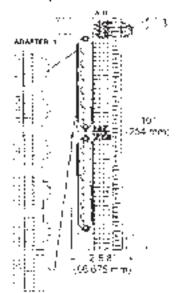


#### Modular 66B Block

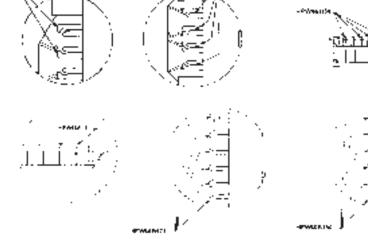




#### **Modular 66 Adapters**



# Modular 66 Contact Configurations



# **FIBER**



2QUICKCON •HINGEDRA HANNELADA C•LCDUPLE) RAYS•FSPAD, NELADHESIV ABINETS•KE





NECTIONTRAYS • FSPADAPTERPANELS • TOOLPOUCHES • BLOWNFIBERPRO PTICHANNELADHESIVECONNECTORS • LC • TERMINATION • TESTTOOLS MOUNTCABINETS • KEYSTONEADAPTERS • FIBERPATCHCORDS • CONNE ISHINGPUCK • SPLICETRAYS • 2QUICKCONNECTORS • FIBERINTERCONN ISS • BLOWNFIBERPRODUCTS • HINGEDRACKMOUNTPANELS • STSTYLE • OI ATIOLF I BERT CONTENTS • ANNELADAPTERS • SPLICING • MTRJ • WALLW IHCORDS • CONNECTORS • SC • LCDUPLEX • BLOWNFIBERADAPTER • POLIS

PRODUCT	PAGI
PLUG-N-PLAY CASSETTES AND CABLES.	F4
RACK MOUNT ENCLOSURES.	F5
HINGED RACK MOUNT PANELS.	F6
FIBER INTERCONNECTION TRAYS	F7
Splicing Products	F8
WALL MOUNT CABINETS	F9
FSP ADAPTER PANELS	F10
Adapters	F12
KEYSTONE ADAPTERS.	F14
PATCH CORDS AND PIGTAILS	F15
PATCH CORD ATO PROGRAM	F16
2CLICK® Pre-polished, Non-adhesive Connectors	F18
2QUICK® CRIMP-STYLE CONNECTORS.	F20
Adhesive Fiber Connectors	F22
TERMINATION TOOLS FOR FIBER CONNECTORS	F23

#### Plug-n-Play Cassettes and Cables

Optical cassettes are adapter panels installed with factory terminated MTP multifiber fanouts. The cassettes can be snapped into most Hubbell fiber patch panels, enclosures or cabinets that accept FSP series adapter panels\*\*.

These cassettes provide significant installation labor savings because connector termination is not required in the field. The fanouts are housed in a durable metal cassette and are terminated at the rear to a 12-fiber MTP ribbon connector (two 12-fiber MTP connectors for the 24-fiber LC cassette). Factory assembled MTP to MTP ribbon cables are also available, with a pulling grip attached at one end, for easy pulls through conduit and innerduct.

\*\* Cassettes will not fit into the FTU2SP, FTU4SP or FCR350SP54R cabinets and enclosures.

#### Features/Benefits

- Factory-terminated multimode and singlemode 12-fiber fanouts.
- SC, ST-style, LC and MT-RJ versions available.
- 12-Fiber MTP building cables with pulling grip attached.
- 100% optically tested for reliable performance.
- Compact housings for space savings in patch panels.

#### Specifications

- Product meets the requirements of TIA/EIA-568-B.3.
- Dimensions: 5.1"H x 1.1"W x 2.75"D.
- Housing: epoxy powder paint 16 ga. CRS.
- MM insertion loss: < 1.5 dB\*.
- SM insertion loss: < 1.1 dB\*.
- SM return loss: < 50dB\*.
- Operating/storage temp: 0°C to 60°C.
- Max. MTP cord pulling tension: 49.5 lbs.

\*Note losses include the combined losses of the MTP and adapter panel connectors.

#### **MTP 12-Fiber Cassette**



Connector Type	Fiber Type	Catalog No.
SC Duplex	$50\mu m$	OCSC50
SC Duplex	50μm, 10GbE	ocsc50G /10G
SC Duplex	62.5μm	OCSC62
SC Duplex	SM	OCSCSM
ST-style	50μm	OCST50
ST-style	62.5μm	OCST62
ST-style	SM	OCSTSM
LC Duplex	$50\mu m$	OCLC50
LC Duplex	50μm, 10GbE	OCLC50G /10G
LC Duplex	62.5μm	OCLC62
LC Duplex	SM	OCLCSM
LC Quad 24F	50μm	OCLCQ50*
LC Quad 24F	50μm, 10GbE	OCLCQ50G* /10G
LC Quad 24F	62.5μm	OCLCQ62*
LC Quad 24F	SM	OCLCQSM*
MT-RJ	50μm	OCRJ50
MT-RJ	62.5μm	OCRJ62
* 21 fibora 2 12 fil	har MTD compostors in roa	

<sup>\* 24</sup> fibers, 2-12 fiber MTP connectors in rear.

#### MTP to MTP 12-Fiber Cords with Pulling Grip - OFNP-rated (Plenum)



Length	Catalog No.
10m	FPCMTP5010
10m	FPCMTP50G10 10G
10m	FPCMTP6210
10m	FPCMTPS10
25m	FPCMTP5025
25m	FPCMTP50G25 V10G
25m	FPCMTP6225
25m	FPCMTPS25
50m	FPCMTP5050
50m	FPCMTP50G50 V10G
50m	FPCMTP6250
50m	FPCMTPS50
100m	FPCMTP50100
100m	FPCMTP50G100
100m	FPCMTP62100
100m	FPCMTPS100
	10m 10m 10m 10m 10m 25m 25m 25m 25m 50m 50m 50m 100m 100m

Custom lengths available. See page F16 for additional Multifiber MTP Cable Assemblies.



## OptiGhannel Rack Mount Enclosures



- \* See page F7 for FSP adapter brackets and splice trays.
- U.S. Patent #6498293.



- Patented "gasket-less" internal routing knock-outs.
- Mounting stud accepts splice trays or FSP adapter brackets.\*
- Fits 19" or 23" racks capable of flush or center mounting in a rack or
- Fiber's higher traffic carrying capacity per volume reduces cabling and improves airflow.

#### Features/Benefits

- Quick release latches on front cover/
- Front pull-out shelf.
- Removable top front cover.
- Patch cord tie-down features.
- Tinted, removable Plexiglas cover.

#### Specifications

- High quality, 16 ga. Cold Rolled Steel construction.
- Durable black powder coat finish.
- Approximate unloaded shipping weight: FCR350: 11 lbs., FCR525: 15 lbs., FCR700: 17 lbs.
- Dimensions: 17"W x 11"D.
- The FCR series enclosure accepts a maximum of two 10" splice trays - for additional splice capacity, use the FSS01 or FCR350SE.

#### **FCR Rack Mount Enclosures**



- The  $\mathsf{OPTICHANNEL}^\mathsf{\scriptscriptstyle TM}$  FCR rack mount enclosures provide patching and fiber slack storage capability. FCR rack mount enclosures accept all FSP adapter panels (see page F10) and MTP cassettes. The "technician's side" has facilities for securing the cable, storing fiber slack and arranging and identifying the terminated fibers. The "user's side" has similar features for the management of fiber optic patch cords. A splice tray stud also accepts FSP adapter brackets (see page F7).
- Delivery:
- 1 Cabinet
- 1 Rear door
- 2 Mounting brackets
- 6 Cable ties
- 5 Cable clips, snap in
- 4 #12-24 rack mount screws
- 1 Grid label, adhesive

- 1 Top front cover
- 1 Front door (Plexiglas)
- 1 Cable management tray
- 4 Cable clips, adhesive
- 2 VELCRO® cable ties
- 3 Label holders Splice tray spacers
- 2 Cable management spools

Accepts	Height	Rack Units	Catalog No.
6 FSP series adapter panels	3.50" (89)	2	FCR350SP36R
9 FSP series adapter panels	3.50" (89)	2	FCR350SP54R*
12 FSP series adapter panels	5.25" (133)	3	FCR525SPR
15 FSP series adapter panels	7.00" (178)	4	FCR700SP

<sup>\*</sup> Does not accept MTP cassettes.

VELCRO® is a trademark of Velcro Industries B.V.

## **Opti**Channel

#### **Hinged Rack Mount Panels**

#### **FPR - Hinged Rack Mount Panels**



FPR3SP loaded with FSPST6, FSPSCD3 and FSPSCD03 adapter panels.

#### Features/Benefits

- Pre-punched or FSP Adapter Panel versions available.
- Hinged swing-out fiber drawer for easy access to cables and connectors.
- Occupies 1 rack unit.
- Adjustable rack mount brackets for 19" or 23" racks.
- Splice tray mounting stud accepts 2 fiber splice trays (7" or 10").

#### Specifications

- High quality, 16 ga. Cold Rolled Steel construction.
- Durable black powder coat finish.
- Shipping weight: 10 lbs. unloaded.
- ♦ Dimensions: 17"W x 11"D x 1.75"H.



FPR012STM



FPR024SCM



#### **FPR - Pre-punched Version**

# Fibers	# Adapters	Format	Catalog No.
12	12	ST-style adapters, Phosphor Bronze, loaded	FPR012STM
24	24	ST-style adapters, Phosphor Bronze, loaded	FPR024STM
12	12	ST-style adapters (not included)	FPR012STX
24	24	ST-style adapters (not included)	FPR024STX
12	6	SC Duplex adapters, Phosphor Bronze, loaded	FPR012SCM
24	12	SC Duplex adapters, Phosphor Bronze, loaded	FPR024SCM
12	6	SC Duplex adapters (not included)	FPR012SCX
24	12	SC Duplex adapters (not included)	FPR024SCX

#### **FPR - FSP Adapter Panel Version**

Capacity	Format	Catalog No.
3	FSP series adapter panels* (not included)	FPR3SP
* For FSP a	dapter panels, see page F10.	

#### Cable Management Bracket (Fits all FPR series panels)

Description	Catalog No.
Protective bracket/cable management bar	FPRBRKT1

#### **FEUR Fiber Interconnection Shelf**



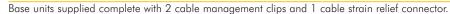
#### Features/Benefits

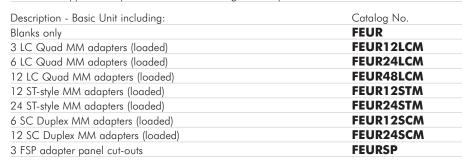
- Cable management components included.
- Slide-out tray.
- Occupies 1 rack unit.
- Flush or extended 19" or 23" rack mounting.

#### Specifications

- 12- or 24-port standard multimode interconnection capacity.
- Material: High quality 1.2mm Cold Rolled Steel
- Durable, black electrostatically applied powder coat finish.
- Weight: 2.75 kg. fully loaded.
- Dimensions: 1.75"H x 17"W x 8.6"D (4.5 x 43 x 22cm).









## **Opti**Ghannel

#### **Fiber Interconnection Trays**

An economical alternative for managing fiber terminations and splice trays in protected areas. Fiber Interconnection Trays provide vertical cable feed-throughs allowing the stacking of multiple panels (available unloaded only). The open tray design reduces cost and facilitates maintenance.

#### Features/Benefits

- Available 1, 2, 3, or 4 rack units.
- Accepts all Hubbell splice trays.
- Optional front and rear "smoked" Plexiglas covers available.
- Accepts Plug & Play cassettes.

#### Specifications

- 16 ga. Cold Rolled Steel construction.
- Durable black powder coat finish.
- Shipping weight: 10 lbs. unloaded.
- Center mounting only in 19" rack or cabinet.



FTR525SP shown loaded with FSP series adapter panels and splice trays.

#### **FTR - Interconnection Tray**

FTR Tray - FSP Adapter Panel Version

Front and rear covers not included.		
Capacity	Rack Units	Catalog No.
3 FSP adapter panels	1	FTR175SP
6 FSP adapter panels	2	FTR350SP36
12 FSP adapter panels	3	FTR525SP
15 FSP adapter panels	4	FTR700SP

**Front Covers for FTR Trays** 

Description	Rack Units	Catalog No.
FTR Front Cover	1	FTR175FCVR
FTR Front Cover	2	FTR350FCVR
FTR Front Cover	3	FTR525FCVR
FTR Front Cover	4	FTR700FCVR

**Rear Covers for FTR Trays** 

Description	Rack Units	Catalog No.
FTR Rear Cover	1	FTR175RCVR
FTR Rear Cover	2	FTR350RCVR
FTR Rear Cover	3	FTR525RCVR
FTR Rear Cover	4	FTR700RCVR



(shown with front and rear cover)



FTR525RCVR

# **Opti**Ghannel

#### **Splicing Products**

# Advantage

- Patented "gasket-less" internal routing knock-outs.
- Slide-out fiber drawer for easy access to cables/connectors.
- Capable of flush or center mounting in a rack or cabinet.
- Fiber's higher traffic carrying capacity per volume reduces cabling and improves airflow.

#### Features/Benefits

- Adjustable rack mount brackets for 19" or 23" racks.
- Cable management hardware included.
- FCR350SE accepts up to 6 splice trays.
- FSS01 splice tray mounting stud accepts up to 2 fiber splice trays.
- FSS01 occupies 1 rack unit.

#### Specifications

- 16 ga. Cold Rolled Steel construction.
- Durable black powder coat finish.
- Splice trays are anodized aluminum per MIL Spec. A-8625-C.
- U.S. Patent #6498293.



FCR350SE splice enclosure shown with splice trays installed on the building cable (front cover removed and tray extended). Splice trays sold separately.

#### **Splicing Products**



FCR350SE

#### FCR Fiber Splice Enclosure - For splice trays and cable storage only.



NOTE: Splice trays not included.







#### **Optical Fiber Hinged Rack Mount Splice Shelf**

Dimensions: 17"W x 11	"D x 1.75"H.			
Accepts	Height	Rack Units	Catalog No.	
Up to 2 splice trays	1.75" (45)	1	FSS01	

NOTE: Splice trays not included.

#### **Splice Trays** - 0.4"H x 5"W. Includes cable ties and built-in splice cradle.

Accepts	Length	Catalog No.
<u>'</u>	9	•
24 Fiber, Fusion	10" (254)	STRAY24F
24 Fiber, Mechanical	10" (254)	STRAY24M
12 Fiber, Fusion	7" (178)	STRAY12F
12 Fiber, Mechanical	7" (178)	STRAY12M

**FSP Adapter Bracket** - Fits in place of the splice trays.

Description	Catalog No.
1U Bracket - holds 2 FSP adapter panels	FBL1
2U Bracket - holds 4 FSP adapter panels	FBL2

# Wall Mount Cabinets

# **Opti**Ghannel

#### **Wall Mount Cabinets**





- Cable entry ports designed for stackable mounting.
- Fiber's higher traffic carrying capacity per volume reduces cabling and improves airflow.

#### Features/Benefits

- FCW capacity: 4 or 12 FSP adapter panels.
- FTU capacity: 2 or 4 FSP adapter panels.

#### Specifications

- ♦ 16 ga. Cold Rolled Steel construction.
- Durable black powder coat finish.
- FCW4SP accepts:
  - Two 7" splice trays if using standard adapter panels.
  - One 7" splice tray if using highdensity adapter panels.
- FCW12SP accepts a maximum of four 10" splice trays.
- FTU4SP accepts a maximum of two
   7" splice trays.
- The FTU2SP does not accept splice trays.

#### FCW Wall Mount Cabinets, Double-Door

FCW cabinets accept our FSP series adapter panels. They will also accept splice trays. This style of cabinet has a separate lockable "technician side" for terminating the building cable. The "user side" of the FCW encloses and protects the patch cord connections and can be secured with an optional lock set.

Accepts	Height	Width	Depth	Catalog No.
4 FSP series adapter panels	12" (305)	14" (356)	3.25" (83)	FCW4SP
12 FSP series adapter panels	16" (406)	14" (356)	6.50" (165)	FCW12SP
Supplied with lock (FLOCK1) only	on technician's	side.		

For user's side, order separately either lock kit catalog numbers FLOCK1 or FLOCK2.



#### **FTU Wall Mount Cabinets, Single-Door**

Single door FTU wall mount cabinets (FTU2SP and FTU4SP) utilize our FSP adapter panels. Extended front covers provide patch cord protection. Security can be added with optional key lock kits.

Accepts	Height	Width	Depth	Catalog No.
2 FSP series adapter panels	8.5" (216)	10.6" (269)	2.5" (64)	FTU2SP
4 FSP series adapter panels	11" (279)	13.6" (345)	2.5" (64)	FTU4SP

NOTE: Can use either Lock Kit Catalog No. FLOCK1 or FLOCK2 - order separately.



Accessories - Optional Lock Ki	ories - Optional Lock Kit
--------------------------------	---------------------------

Fits FCW, FTU and FCR cabinets.	
Description	Catalog No.
Lock kit for cabinets keyed the same as the FCW technician side	FLOCK1
Lock kit for cabinets keyed differently than the FCW technician side	FLOCK2







## **HUBBELL**

#### **FSP Adapter Panels**

For use with FCR, FTR, FCW and FTU enclosures and trays and the FPR3SP panel.

Adapter panels are available as blank plates or with ST-style, SC Duplex and Simplex, FC, MT-RJ, LC and SC to ST-style adapters.

Adapter panels are available in high-density versions.

Zirconia (Ceramic) adapters recommended for singlemode applications.

#### Features/Benefits

- For multimode and singlemode applications.
- Adapters secured with screws.
- Various colors available to differentiate networks and applications.
- Available loaded, unloaded or as blanks.
- Quick snap in installation.
- SC/APC adapter panels available.

#### Specifications

- Cold Rolled Steel panel with a durable black powder coat finish.
- Dimensions: 1.1"W x 5.1"H.
- Weight (loaded) 0.1 lbs.
- FC/PC adapter housings are Nickelplated machined brass.
- ST-style simplex adapters have black oxide Nickel-plated Zinc die-cast housings.
- Available with Phosphor Bronze or Zirconia Ceramic alignment sleeves in SC, ST-style and LC adapters.
- SC/APC and FC adapters have Zirconia Ceramic sleeves.

FSPSCSS6

#### **FSP Adapter Panels, SC Duplex**



7irconia Ceramic	FSPSCDS3	FSPSCDS3XX
Phosphor Bronze	FSPSCD3	FSPSCDM3XX
Sleeves	Blue	See Chart Below
		Additional Colors
rre-ioaaea. Capaci	пу: о. туре: э, эч	_ Duplex

#### SC Duplex, High-Density Version

Pre-loaded.	Capacity:	6.	Type:	3.	SC	Duplex
	oupac,.	· ·	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	$\sim$ ,	~ ~	D 0 p.o.

		Additional Colors
Sleeves	Blue	See Chart Below
Phosphor Bronze	FSPSCD6	FSPSCDM6XX
7irconia Ceramic	FSPSCDS6	FSPSCDS6XX

XX = color: "AQ" = Aqua; "BK" = Black.

XX = color: "OR" = Orange; "R" = Red; "Y" = Yellow.

Other colors for Phosphor Bronze Sleeve arrangements: FSPSCDBE3 and FSPSCDBE6; Beige =

Green = FSPSCDG3 and FSPSCDG6; FSPSCDY6 Orange = **FSPSCDO3** and **FSPSCD06**; Red = FSPSCDR3 and FSPSCR6: Yellow = FSPSCDY3 and FSPSCDY6.

#### **FSP Adapter Panels, SC Simplex**

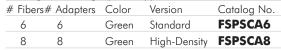




6, SC Simplex, blue Standard

FSPSC6	SC Simpley	A D C	7irconia	Coramic	Sla
Charles .					

#### SC Simplex, APC, Zirconia Ceramic Sleeves, **Pre-Loaded** For singlemode angle polish applications. # Fibers# Adapters Color



FSP Adapter Panels, SC to ST-Style

#### **Phosphor Bronze Sleeves -Pre-Loaded**

Field installable snap in adapters can be inserted in either direction.

#Fibers	#Adapters	Version	Catalog No.
6	3	Standard	FSPSCST3
12	6	High-Density	FSPSCST6
7ircon	ia Coram	is Slagyos - E	Pro-Londod

FSPSCST3 FSPSCST6

#Fibers	#Adapters	Version	Catalog No.
6	3	Standard	FSPSCSTDS3
12	6	High-Density	FSPSCSTDS6

#### **FSP Adapter Panels, FC Simplex**

#### FC Simplex, Zirconia Ceramic Sleeves, **Pre-Loaded**



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FSPSCA6

#### **FSP Adapter Panels, ST-Style Simplex**



F10

#### **Phosphor Bronze Sleeves -**Pre-Loaded

Capacity	Туре	Version	Catalog No.
6	6 ST-style	Standard	FSPST6
8	8 ST-style	High-Density	FSPST8

•	Zirconia	Ceramic S	leeves -	Pre-Loaded
	Capacity	Туре	Version	Catalog No.
	6	6 ST-style	Standard	FSPSTSS6

#### FSP Adapter Panels, ST-Style Duplex **Phosphor Bronze Sleeves - Pre-Loaded** Capacity Type Catalog No. FSPSTD3 3 ST-style Duplex, Blue Standard FSPSTD6 6 ST-style Duplex, Blue High-Density Zirconia Ceramic Sleeves - Pre-Loaded Capacity Type Catalog No. 6 3 ST-style Duplex, Blue Standard FSPSTDS3 12 6 ST-style Duplex, Blue High-Density FSPSTDS6 FSPSTD3



FSPLCQY6

#### **FSP Adapter Panels, LC Duplex**

#### LC Duplex, Standard Version

Zirconia Ceramic	FSPLCDS6	FSPLCDS6XX
Phosphor Bronze	FSPLC6	**
Sleeves	Blue	Additional Colors
Pre-loaded. Capaci	ity: 12. Type: 6,	LC Duplex

\*\* Additional colors for Phosphor Bronze arrangements:

Aqua = FSPLCDM6AQ Beige = FSPLCM6 FSPLCDM6BK Black = Orange = FSPLCO6 Red =FSPLCDM6R Yellow = FSPLCY6

XX = color: "AQ"=Aqua; "BE"=Beige; "BK"=Black;

"OR"=Orange; "R"=Red; "Y"=Yellow.



## FSPLCO6

#### **FSP Adapter Panels, MT-RJ**

#### Pre-Loaded

7	# Fibers	# Adapters	Version	Catalog No.
	12	6	Standard	FSPMTRJ6
	16	8	High-Density	FSPMTRJ8



FSPMTRJ8

#### FSP Adapter Panels, JACK-PACK®

(U.S. Patent No. 6273752). Accepts multimedia connections including Hubbell  $\mathbf{XCELERATOR}^{\scriptscriptstyle\mathsf{TM}}$  jacks and  $\mathbf{OPTICHANNEL}^{\scriptscriptstyle\mathsf{TM}}$  keystone adapters.

Сарасіту	version	Catalog No.		
4	Standard	FSPHD4X		
6	High-Density	FSPHD6X*		

\* Will not fit into FTU2SP, FTU4SP or FCR350SP54R cabinets or enclosures.



#### FSP Adapter Panels, LC Quad

Zirconia Ceramic	FSPLCQS3	FSPLCQS3XX	
Phosphor Bronze	FSPLCQ3	***	
Sleeves	Blue	See Chart Below	
		Additional Colors	
Pre-loaded. Capa	city: 12. Type: 3,	LC Quad.	

#### LC Quad, High-Density Version

Zirconia Ceramic

LC Quad, Standard Version

Pre-loaded. Capacity: 24. Type: 6, LC Quad.

		Additional Colors
Sleeves	Blue	See Chart Below
Phosphor Bronze	FSPLCQ6	***

XX = color: "AQ"=Aqua; "BE"=Beige; "BK"=Black; "GN"=Green; "O"=Orange; "R"=Red; "Y"=Yellow.\*

FSPLCQS6XX

FSPLCQS6

\*\* Other colors for Phosphor Bronze Sleeve arrangements:

Onici	colors for thosphor bronze of	ceve arrangements.
Aqua =	FSPLCQM3AQ and	FSPLCQM6AQ;
Beige =	FSPLCQM3BE and	FSPLCQM6BE;
Black =	FSPLCQM3BK and	FSPLCQM6BK;
Green =	FSPLCQM3GN and	FSPLCQM6GN;
Orange	FSPLCQO3 and	FSPLCQO6;
Red =	FSPLCQM3R and	FSPLCQM6R;
Yellow =	FSPLCQY3 and	FSPLCQY6.

#### **FSP Adapter Panels, MTP**

#### Pre-Loaded

# Fibers	# Adapters	Color	Catalog No.		
72	6	Aqua	FSPMTPAQ6		
72	6	Beige	FSPMTPBE6		
72	6	Black	FSPMTP6		



#### **FSP Adapter Panels, Unloaded**

	Capacity	Туре	Version	Catalog No.
	6	SC Simplex, LC Duplex or MT-RJ	Standard	FSPSC6X**
	8	SC Simplex, LC Duplex or MT-RJ	High-Density	FSPSC8X**
	3	SC Duplex or LC Quad	Standard	FSPSCD3X
	6	SC Duplex or LC Quad	High-Density	FSPSCD6X*
	6	ST-style	Standard	FSPST6X
	8	SC Duplex or LC Quad	High-Density	FSPST8X

<sup>\*</sup> Accepts SC Duplex, SC to ST-style, or LC Quad adapters.

















<sup>\*\*</sup> Accepts SC Simplex, LC Duplex, or MT-RJ adapters.

# HUBBELL

#### **Adapters**

OPTICHANNEL™ fiber optic adapters are an integral part of the cabling infrastructure. Adapters are the interface to the fiber link and are utilized in work station outlets and optical patch panels.

#### Specifications

- MM/SM Mated Pair Insertion Loss: <0.50 dB (0.25 dB typical).
- Operating/Storage Temperature: -40°C to +75°C.
- Mating Durability: 500 matings per FOTP-21.
- Compliant with TIA/EIA-568-C.3 specification.
- Available with Phosphor Bronze or Zirconia Ceramic alignment sleeves in SC, ST-style and LC adapters.

#### **SC Duplex Adapter**

Recommended cut-out: 1.024" x 0.375". Delivery: Package of 6 SC duplex adapters, and mounting screws (no screws for snap mount version).









Screw Mount	Blue	Green	Orange	Red	Yellow		
Catalog No.	FASCMPB6	FASCDMS6GN	FASCMPBO6	FASCDMS6R	FASCMPBY6		
Snap mount	Aqua	Beige	Black	Blue	Orange	Red	Yellow
Catalog No.	FASCDMC6AQ	FASCDMC6	FASCDMC6BK	FASCEMPB6	FASCDMC6OR	FASCDMC6R	FASCDMC6Y
Zirconia Cera	mic Sleeves						
Snap mount	Blue	Orange	Red	Yellow			
Catalog No.	FASCDSC6	FASCDSC6OR	FASCDSC6R	FASCDSC6Y			

#### **SC Simplex Adapter**

Recommended cut-out: 0.525" x 0.390". Delivery: Package of 12 adapters.





FASCSMPB12

Phosphor Bronze Sleeves

i mospinor bro	THOSPHOT BIOTIZO GIOCIOS									
Snap mount	Aqua	Beige	Black	Blue	Orange	Red	Yellow			
Catalog No.	FASCSMC12AQ	FASCSMC12	FASCSMC12BK	FASCSMPB12	FASCSMC12OR	FASCSMC12R	FASCSMC12Y			
7:: C	Virgonia Coremia Slagues									

Zirconia Ceramic Sleeves Snap mount Orange Red Yellow Blue FASCSSC12OR FASCSSC12R FASCSSC12Y Catalog No. FASCSSC12

#### **SC Simplex APC Adapter**

Zirconia Ceramic sleeves. Recommended cut-out: 0.525" x 0.390" Delivery: Package of 6.

Green

**FASCSAC6** 



**FC Adapter** 

Recommended cut-out: Double D cut-out: diameter = 0.38", flat = 0.31". Delivery: Package of 6



Singlemode

Snap mount

Catalog No. **FAFCSSS6** 

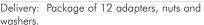
#### **ST-style Adapter**

Singlemode

Snap mount

Catalog No.

Recommended Double D cut-out: diameter = 0.38", flat = 0.31"







Zirconia Ceramic Sleeves Screw mount Black Oxide FASTSS12 Catalog No.

**Phosphor Bronze Sleeves** Snap mount Black Oxide Catalog No. FASTMPB12

**Phosphor Bronze Sleeves** 

Snap mount Black Blue Beige FASTDMS6\* FASTDMS6BK\* **FASTDMPB6\*** Catalog No.

Delivery: Package of 6 Phosphor Bronze Sleeves.

\*These adapters can mount into unloaded FSP adapter panels (see page F10).



#### **SC to ST-style Duplex Adapter**

Recommended SC Duplex cut-out: 1.024" x

0.375".

Delivery: Package of 6 adapters.





Phosphor	Bronze	Sleeves
----------	--------	---------

Screw Mount	Blue						
Catalog No.	FASTSCMPB6						
Snap mount	Aqua	Beige	Black	Blue	Orange	Red	Yellow
Catalog No.	FASTSCDMC6AQ	FASTSCDMC6	FASTSCDMC6BK	FASTSCEMPB6	FASTSCDMC6OR	FASTSCDMC6R	FASTSCDMC6Y

Zirconia Ceramic Sleeves

Snap mount Blue Orange Yellow Catalog No. FASTSCDSC6 **FASTSCDSC6OR FASTSCDSC6R FASTSCDSC6Y** 

#### SC to ST-style Simplex Adapter

Recommended SC Simplex cut-out: 0.525" x 0.390", or Double D cut-out: diameter = 0.39", flat = 0.31".

Delivery: Package of 12 adapters and nuts.



FASCSTSEMPB12

**Phosphor Bronze Sleeves** Zirconia Ceramic Sleeves

Snap mount Beige Snap mount Blue Orange Yellow FASCSTSEMPB12 Catalog No. FASCSTSMC12 Catalog No. FASTSCSSC12 FASTSCSSC12OR FASTSCSSC12R FASTSCSSC12Y

#### **LC Duplex Adapter**

SC Simplex style outer housing. Snap mount. Recommended cut-out: 0.525" x 0.390".

Delivery: Package of 6.

**Phosphor Bronze Sleeves** 



FAI CMPRA

Snap mount	Aqua	Beige	Black	Blue	Orange	Red	Yellow
Catalog No.	FALCDMC6AQ	FALCDMC6	FALCDMC6BK	FALCMPB6	FALCMPBO6	FALCDMC6R	FALCMPBY6
Zirconia Cera	mic Sleeves						
Snap mount	Blue	Orange	Red	Yellow			
Catalog No	FALCDSC6	FALCDSC6OR	FALCDSC6R	FALCDSC6Y			

#### **LC Quad Adapter**

SC Duplex style outer housing.

Recommended cut-out: 1.024" x 0.375".

Delivery: Package of 6.



Phosphor Bronze Sleeves, Snap Mount

	Aqua	beige	DIACK	DIUE	Orange	rea	reliow
Catalog No.	FALCQMC6AQ	FALCQMC6	FALCQMC6BK	FALCQMC6BL	FALCQMC6OR	FALCQMC6R	FALCQMC6Y

Phosphor Bronze Sleeves, Screw Mount

Blue Orange Yellow **FAQLCMPB6 FAQLCMPBO6 FAQLCMPBY6** Catalog No.

Zirconia Ceramic Sleeves, Snap Mount

Yellow Orange Red Blue FALCQSC6 **FALCQSC6OR FALCQSC6Y** FALCQSC6R Catalog No.

#### **MT-RJ Adapter**

SC Simplex style outer housing.

Recommended cut-out: 0.525" x 0.390"

Delivery: Package of 6.



Black Snap mount Beige Aqua Catalog No. **FAMTRJC6AQ FAMTRJMPB6** FAMTRJC6BK



# **Keystone Adapters**

Keystone adapters are factory-loaded with either ST-style, SC simplex, MT-RJ or LC adapters. Keystone adapters are used when fiber connections are needed at the work area.

The MT-RJ and LC and SC keystone adapters are offered in a flush and non-flush mount version.

#### Specifications

- Materials:
  - Housings: flame-retardant polymer.
  - Stainless Steel mounting clips.
- Meets the requirements of TIA/EIA-568-C.3.
- MM/SM mated pair insertion loss: < 0.50dB (0.25dB typical).
- Operating/Storage temp: 0°C to 60°C.
- ♦ Adapter snap-in force : 15 ± 5 lb.
- Mating durability: 500 matings per FOTP-21.
- Available with Phosphor Bronze or Zirconia Ceramic sleeves in SC, ST-style and LC adapters.

#### **SC Simplex Keystone Adapter**



Delivery: 25-carton. Phosphor Bronze Zirconia Ceramic Catalog No. Catalog No. Color Office White **SFSC SFSCS** See Color Code **SFSCX SFSCSX** 

#### MT-RJ Keystone Adapter





Delivery: 25-carton. Colored keystone adapter with beige MT-RJ fiber adapter. Color Catalog No. Office White **SFMTRJ** 

See Color Code SFMTRJX

#### ST-style to SC Simplex Keystone Adapter





Delivery: 25-carton.			
	Phosphor Bronze	Zirconia Ceramic	
Color	Catalog No.	Catalog No.	
Office White	SFSCST	SFSCSTS	
See Color Code	SFSCSTX	SFSCSTSX	

#### **MT-RJ Keystone Flush Mount Adapter**

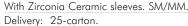




Delivery: 25-carton. Color Catalog No. Office White **FAMTRJK** See Color Code **FAMTRJKX** 

#### **SC/APC Simplex Keystone Adapter**





	Delivery: 25-carton.		
i	Color	Catalog No.	
9	Office White	SFSCAOW	
	See Color Code	SFSCAX	

#### **LC Duplex Keystone Adapter**





Delivery: 25-carton. Phosphor Bronze Zirconia Ceramic Color Catalog No. Catalog No. Office White SFLC **SFLCS SFLCX SFLCSX** See Color Code

# SC Simplex Flush Mount Keystone Adapter



# **LC Duplex Flush Mount Keystone Adapter**





Delivery: 25-carl	on.	
	Phosphor Bronze	Zirconia Ceramic
Color	Catalog No.	Catalog No.
Office White	SFFSC	SFFSCS
See Color Code	SFFSCX	SFFSCSX



Delivery: 25-cart	on.	
	Phosphor Bronze	Zirconia Ceramic
Color	Catalog No.	Catalog No.
Office White	SFFLC	SFFLCS
See Color Code	SFFLCX	SFFLCSX

#### ST-style Keystone Adapter





Delivery: 25-cart	on.	
	Phosphor Bronze	Zirconia Ceramic
Color	Catalog No.	Catalog No.
Office White	SFST	SFSTS
See Color Code	SFSTX	SFSTSX

Replace "X" with the following Color Code:

X = "AL"=Almond; "BK"=Black; "G"=Gray\*; "El"=Electric Ivory; "LA"=Light Almond; "W"=White.

\* For gray keystone adapter with SC/APC Simplex adapter, order Catalog No. SFSCAGY.



Compatible with **Hubbell Labeling System** -

# **Patch Cords and Pigtails**

Fiber patch cords provide connections from the work area to the wall outlet, or from active equipment to the patch panel.

Cords are available as duplex or simplex 62.5/125, 50/125 MM or SM fibers. We offer ST-style, SC, MT-RJ or LC connectors. 1.8mm/2.0mm jacket diameter takes up less space for greater patch cord density. 1.8mm/2.0mm jacket diameter takes up less space for greater patch cord density. All patch cords are factory polished and 100% optically tested for superior performance.

#### Specifications

- Mated pair insertion loss: MM: <0.50 dB (0.35dB typical). SM: <0.35 dB (0.15dB typical).
- Typical SM mated pair return loss: >-55 dB.
- Operating/Storage Temperature:  $0^{\circ}$ C to  $+75^{\circ}$ C.
- Mating Durability: 500 matings per FOTP-21.
- Cable Retention: >10 lbs. per FOTP-6.
- Optical, mechanical and environmental performance: Meets TIA/EIA-568-B.3 specs.
- 10GbE patch cords are OFNP rated for use in plenum spaces.



50/125mm laser optimized fiber cords now available for 10GbE applications.

### **SC to SC Patch Cords**





SC Duplex to SC Duplex MM

Replace 'X' with standard lengths	of 1, 2, 3, 5 or 10 meters
Duplex/Multimode	Catalog No.
SC to SC, 62.5/125	DFPCSCSCCXMM
SC to SC, 50/125	DFPCSCSCDXMM
SC to SC, 50/125, 10GbE	DFPCSCSCEXMM /10G
Duplex/Singlemode	Catalog No.
SC to SC Singlemode	DFPCSCSCSXSM

#### ST-style to ST-style Patch Cords



ST-style to ST-style Duplex MM

Replace 'X' with standard lengths of 1, 2, 3, 5 or 10 meters.			
Duplex/Multimode	Catalog No.		
ST to ST-style, 62.5/125	<b>DFPCSTSTC</b> XMM		
ST to ST-style, 50/125	DFPCSTSTDXMM		
Dunlay/Singlameda	Catalog No		

Duplex/Singlemode Catalog No. **DFPCSTSTSXSM** ST to ST-style Singlemode

#### ST-style to SC Patch Cords





SC Duplex to ST-style Duplex MM

ST-style Duplex MM

Replace 'X' with standard lengths of 1, 2, 3, 5 or 10 meters.

Duplex/Multimode	Catalog No.
ST-style to SC, 62.5/125	DFPCSTSCCXMM
ST-style to SC, 50/125	DFPCSTSCDXMM
Duplex/Singlemode	Catalog No.
ST-style to SC Singlemode	DFPCSTSCSXSM

#### MT-RJ Patch Cords



Replace 🗡 with standard lengths of 🛚	, <b>2</b> , <b>3</b> or <b>5</b> meters.
Duplex/Multimode	Catalog No.
MT-RJ to MT-RJ, 62.5/125	<b>DFPCRJRJC</b> XMM
MT-RJ to ST-style, 62.5/125	<b>DFPCRJSTC</b> XMM
MT-RJ to SC 62.5/125	<b>DFPCRJSCCXMM</b>

#### **LC Patch Cords**





LC Duplex to LC Duplex MM



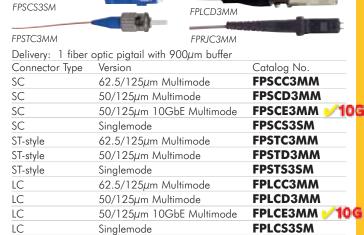
LC Duplex to SC Duplex MM

Replace 'X' with standard lengths of 1 2 3 or 5 meters

Replace A will standard lengths of	1, <b>2</b> , <b>3</b> 01 <b>3</b> 111e1e15.
Duplex/Multimode	Catalog No.
LC to LC, 62.5/125	DFPCLCLCCXMM
LC to ST-style, 62.5/125	DFPCLCSTCXMM
LC to SC, 62.5/125	DFPCLCSCCXMM
LC to LC, 50/125, 10GbE	DFPCLCLCEXMM #100
LC to SC, 50/125, 10GbE	DFPCLCSCEXMM 100
Duplex/Singlemode	Catalog No.
LC to LC, Singlemode	DFPCLCLCCXSM
LC to ST-style, Singlemode	DFPCLCSTCXSM
LC to SC, Singlemode	DFPCLCSCCXSM

#### Fiber Pigtails (3 meters long)

Hubbell's fiber optic pigtails are manufactured with superior quality connectors, factory polished to provide low insertion loss and low back reflection. Pigtails are available in LC, MT-RJ, SC and ST-style versions with both singlemode and multimode  $900\mu m$  buffered fiber types. All pigtails are 100% factory tested for insertion loss after polishing. For special requirements such as custom lengths and buffer colors, contact your Hubbell representative.



Custom pigtails, assemblies and cords available upon request - see page F16.

62.5/125μm Multimode

50/125µm Multimode



Compatible with **Hubbell Labeling System** see page M8.

FPRJC3MM

FPRJD3MM

MT-RJ

MT-RJ



# Patch Cord and Fiber Trunk Cable Assemble to Order Program



Cable Assemblies are available with a variety of cable styles and connectors. Cable configurations include:

- Simplex
- Duplex
- Multifiber Premise Cables
- OFNR Riser-rated
- OFNP Plenum-rated

#### With either:

- 900μm breakouts, or
- 1.8/2.0mm breakouts

#### Choose from:

- 50-micron fiber
- Laser Optimized 50-micron
   (10 GbE) fiber
- 62.5-micron fiber
- Singlemode fiber

#### Connector choices include:

- FC
- ◆ LC
- MT-RJ Male
- MT-RJ Female
- MTP Male
- MTP Female
- SC
- ST-Style

In Angle Polish finish, from 1 to 500 meters long.

Contact Customer Service to configure a factory-tested fiber cable assembly customized for your application.



- High performance, fast lead time.
- Custom-configured assemblies specific to the job.
- 100% factory tested, factory assembled.
- Fiber's higher traffic carrying capacity per volume reduces cabling and improves airflow.

Hubbell's OPTICHANNEL™ Assemble-to-Order cable assembly program can deliver custom factory fiber assemblies with guaranteed performance and timely delivery with all of today's high performance connectors.

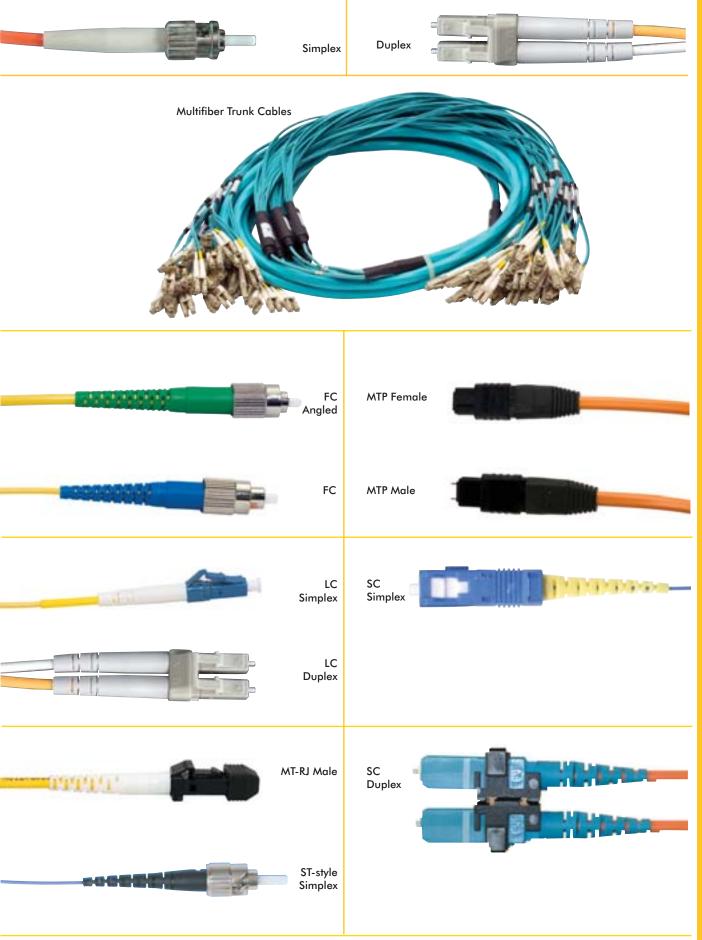
All Hubbell fiber cable assemblies are built to meet to ANSI/TIA-568-C.3.

Hubbell simplex and duplex fiber patch cords are available on an assemble-toorder (ATO) basis. You simply pick the fiber size, the flame-rating designation, the connector(s) on each end and the length.

Contact Customer Service to configure a factory-tested fiber cable assembly customized for your application.



**Fiber Trunk Cable Assembly Options** 





# Pre-polished, Non-adhesive Fiber Optic Connectors

Hubbell's **2CLICK**® pre-polished connectors are field installable fiber optic connectors that eliminate the need for polishing or adhesives in the field. **2CLICK**® connectors provide a simple, quick termination method for either singlemode or multimode fibers. **2CLICK**® connectors feature a factory polished ferrule with an integral fiber stub that splices to building cable fibers. Index matching gel and a precision mechanical alignment system insure a low loss connection.

Each **2CLICK**® connector comes with a factory-installed termination clip that holds the clamping device open while the fiber is inserted. Once the fiber is in place, the termination clip is removed and discarded. Assembly can be completed in just 2 minutes or less. Simply strip the buffer, cleave and insert the fiber into the pre-polished connector and release the termination clip to complete the assembly. In addition, no expensive tools, jigs or messy epoxy needed.

For use with  $250\mu m$  or  $900\mu m$  buffer fibers.





Factory polished for superior optical transmission.

- Meets TIA-568-C.3 performance requirements.
- Singlemode:
  - Operating temperature range: -40°C to +75°C.
  - Insertion Loss: 0.2dB average, 0.5dB max.
  - Return Loss: 56dB average, 45dB max.
- Multimode:
  - Operating temperature range: -40°C to +70°C.
  - Insertion Loss: 0.1dB average, 0.5dB max.
  - Return Loss: 20dB max.
- Material: Engineered polymer housing with Zirconia ferrule.



- Termination in 2 Minutes or Less.
- No Polishing or Adhesives Required.
- No Expensive Tools Needed.
- Factory-Polished, Low-Loss Connector.
- Supports 10GbE Network Connections.
- Fiber's Higher Traffic Carrying Capacity per Volume Reduces Cabling and Improves Airflow.

#### **2CLICK® No Epoxy, No Polish Connectors**

Delivery: One bag of 12 connectors each individually bagged. Each bag includes black boot, connector, dust cap and termination clip.





2CLICK® Pre-Polished	SC Connectors
----------------------	---------------

Multimode, 50μm, 10G, 12-pk, Aqua Housing	FCSC50GM12 10G
Multimode, 50µm, 12-pk, Black Housing	FCSC50M12
Multimode, 62.5μm, 12-pk, Beige Housing	FCSC62M12
Singlemode, 12-pk, Blue Housing	FCSCSM12



#### **2CLICK® Pre-Polished ST-style Connectors**

Multimode, 50μm, 10G, 12-pk, Aqua Housing	FCST50GM12 10G
Multimode, 50μm, 12-pk, Black Housing	FCST50M12
Multimode, 62.5µm, 12-pk, Beige Housing	FCST62M12
Singlemode, 12-pk, Blue Housing	FCSTSM12



#### Fiber Cleaver, Single Fiber Multimode

Delivery: 1 tool.

Catalog No. **OFCLV3** 





Catalog No.

Catalog No.

Tool pouch contains OFCLV3 cleave tool, OFSTRIP2 fiber strip tool, non-hazardous fiber cleaning solution, Kevlar scissors, ruler, wipes and black permanent marker.

Delivery: 1 tool pouch.

Catalog No. **OFTP05** 



#### Fiber Cleaver, Singlemode

Delivery: 1 tool.

Catalog No. **OFCLV4** 



#### Fiber Strip Tool

900 micron buffered fiber.

Delivery: 1 tool

Catalog No. **OFSTRIP** 



#### **Field Installation Tool Kit**

Tool Kit contains:

- OFSTRIP2 fiber strip tool
- OFCMT04 crimp tool
- Universal 2.5mm and 1.25mm polishing pucks
- Polishing plate
- 70 durometer polishing pad
- · Polishing paper
- 200X microscope with 2.5mm and 1.25mm universal adapters
- Kevlar scissors
- Reversible blade carbide scribe
- Permanent marker
- Protective glasses
- Debris bottle for fiber safety

- Alcohol wipes
- Lint free cleaning wipes
- Water bottle
- Alcohol bottle
- 6" ruler
- 10" long x 7" wide x 6.25" high carrying case with the lid functioning as a portable work surface.

Delivery: 1 tool kit.

Catalog No. OFTK05



#### Fiber Buffer and Jacket Strip Tool

Strips: 900 micron buffer, 250 acrylate buffer, loose tube and PVC jackets.

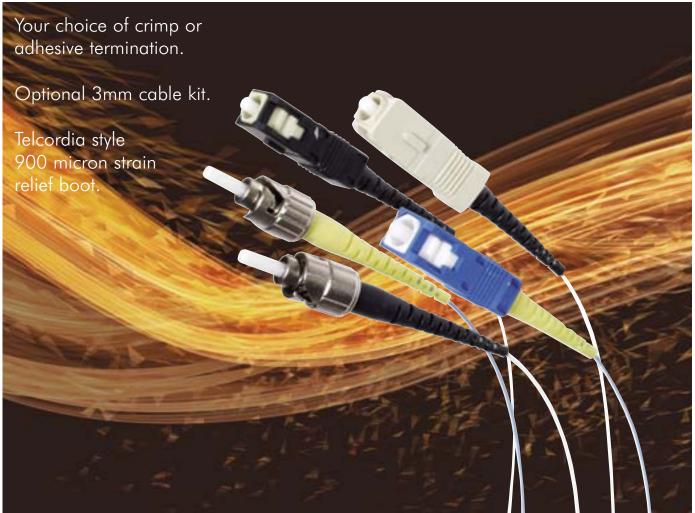
Delivery: 1 tool.

Catalog No. **OFSTRIP2** 





# **Crimp-Style Connectors**



- Operating temperature: 0-60°C.
- Materials
  - Connector ferrule: Zirconia Ceramic.
  - Connector body/nut: Nickel plated brass/zinc or polymer.
  - Crimp insert/crimp tube: Nickel plated brass/thermoplastic elastomer polymer.
  - Dust cap: Nylon or PVC.
  - Strain relief boot: Flame retardant (UL Rated 94-V0) polymer.
- TIA/EIA-568-C.3 compliant for long-term reliability.
- High quality Zirconia PC ferrule.
- 900 micron and 3mm cable applications\*.
- U.S. Patent Nos. 6390688, 6726373 and 6600858.



- Industry's First and Only TIA/EIA-568-B.3 Compliant Fiber Crimp Connector for Long-term Reliability.
- Patented 2QUICK® Flat Fiber Crimp Technology.
- Quick, Easy Installation.
- Fiber's Higher Traffic Carrying Capacity per Volume Reduces Cabling and Improves Airflow.

<sup>\*</sup> For 3mm cables, use OFPCRKM or OFPCRKS crimp ring/boot kits.



#### **2QUICK® ST-style and SC Crimp-style Connectors**

Hubbell's 2QUICK® SC and ST-style connectors install in minutes. The 2QUICK® connectors crimp easily on to 900 micron buffered fiber with a HPW hand tool. The 2QUICK® connector system eliminates the need for adhesives and expensive curing ovens and provides a reliable fiber optic connection.

NOTE: Any ST-style or SC MM 2QUICK® connector can be installed on 50/125 as well as 62.5/125 fiber.

#### **2QUICK® ST-style Connectors**

Singlemode	FCSTSQ12R	FCSTSQ100R
Multimode	FCSTMQ12RA	FCSTMQ100R
Description	Pack of 12 Catalog No.	Pack of 100 Catalog No.
Delivery: 1 connec	ctor, dust cap, black boot (MM) or y	ellow boot (SM) and crimp insert.

#### **2QUICK® SC Connectors**

Delivery: 1 connect	or, dust cap, black boot (MM) or y	rellow boot (SM) and crimp insert.
Description	Pack of 12 Catalog No.	Pack of 100 Catalog No.
Multimode	FCSCMQ12R	FCSCMQ100R
Singlemode	FCSCSQ12R	FCSCSQ100R
For the tools kits as	ad expandables required see below	.,

For the tools, kits, and expendables required, see below.

Crimp Inserts	Pack of 12 Catalog No.	Pack of 100 Catalog No.
MM/SM	FCCI12	FCCI100



#### **Crimp Tool**

For 2QUICK® Crimp and **OPTICHANNEL**™ SC/ST-style epoxy/anaerobic connectors. Crimp die-set (included) pre-set at factory.

Dual hex cavity: .0178"/.0151". Flat crimp 0.052"

Hex crimp 0.136". Hardened die.

OFCMT04 Catalog No.

#### **Cleave Tool**

For **2QUICK**® crimp connectors only.

OFCLV1 Catalog No.



# **Die-Set**

For 2QUICK® crimp tool. Replacement die for OFCMT04.

OFCMD04 Catalog No.



#### **Polishing Film**

Replacement kit.

Delivery: 25 sheets of 5, 1, and 0.3 micron, 1 polishing pad.

**OFLFP** Catalog No.



**FCCIXXX** 

## Fiber Cleaver, Single Fiber Multimode

Delivery: 1 tool. Catalog No. OFCLV3



## **Polishing Puck**

**Fiber Strip Tool** 900 micron buffered fiber.

Delivery: 1 tool Catalog No.

Stainless Steel, polished surface. SC/ST-style or LC compatible. Delivery: 1 puck.

Catalog No. **OFPUCK** SC/ST-style LC **OFPUCKLC** 



#### **Installation Tool, MT-RJ**

Delivery: 1 tool.

Catalog No. OFCTOOL1



#### Fiber Buffer and Jacket Strip Tool

**OFSTRIP** 

Strips: 900 micron buffer, 250 acrylate buffer, loose tube and

PVC jackets.

Delivery: 1 tool. Catalog No. **OFSTRIP2** 



#### **Hand Scribe Tool**

Sapphire blade.

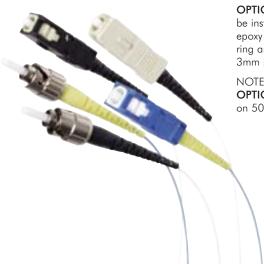
Delivery: 1 tool and scribe guide.





# opti Channel

# Adhesive Fiber Connectors



OPTICHANNEL™ adhesive connectors can be installed with either anaerobic quick-cure or epoxy heat-cure adhesives. A separate crimp ring and boot kit is available to terminate 3mm jacketed cables.

NOTE: Any ST-style, SC or LC MM **OPTICHANNEL**™ connector can be installed on 50/125 as well as 62.5/125 fiber.

#### Features/Benefits

- Zirconia PC ferrule (ST, SC and LC).
- Pre-polished MT-RJ connectors require.
- LC connectors require no crimping.
- 900 micron and 3mm cable applications.
- TIA/EIA-568-C.3 compliant for long-term reliability.
- Telcordia style strain relief boot.

#### Specifications

ST, SC and LC Adhesive Connectors

- MM/SM Mated Pair Insertion Loss: <0.50dB (0.25dB typical).</p>
- Operating temperature: -40 to 75°C (heat-cure epoxy).

MT-RJ Pre-Polished Connectors

- MM Mated Pair Insertion Loss: <0.75dB (0.50dB typical).</p>
- Operating Temperature: -40 to 75°C.

#### OPTICHANNEL™ ST-style, SC, LC Adhesive and MT-RJ Pre-Polished Connectors













**FCSCSXXXR** 

#### **OPTICHANNEL™ ST-style Connectors**

Singlemode	FCSTS12R	FCSTS100R	
Multimode	FCSTM12R	FCSTM100R	
Description	Pack of 12 Catalog No.	Pack of 100 Catalog No.	
Delivery: 1 connec	tor, dust cap, black boot (MM) or y	ellow boot (SM) and dust cap.	

#### **OPTICHANNEL™ SC Connectors**

OFFICIALITEE	. Se confidencia		
Delivery: 1 connec	tor, dust cap, black boot (MM) or y	ellow boot (SM) and dust cap.	
Description	Pack of 12 Catalog No.	Pack of 100 Catalog No.	
Multimode	FCSCM12R	FCSCM100R	
Singlemode	FCSCS12R	FCSCS100R	

#### OPTICHANNEL™ MT-RJ Connectors (900µm only)

Package of 6	FCMTRJ50	FCMTRJ62
	50 μm Catalog No.	62.5 μm Catalog No.
Delivery: Factory pre-	polished/fiber stub connector w	vith alignment pins, black boot and dust cap.
OTHERMAN	MI-KS COMMICCIONS (700)	ani only)

#### OPTICHANNEL™ LC Simplex Adhesive Connectors (900µm only)

Multimode	FCLCMM	FCLCSM
Package of 6	Multimode Catalog No.	Singlemode Catalog No.
Delivery: LC conne	ctor, white boot and dust cap.	

## $\textbf{Crimp Rings/3mm Boot} \text{ (SC/ST-style 2QUICK} \textbf{® or OPTICHANNEL} ^{\text{\tiny{M}}} \text{ connectors)}$

- for 3mm jacketed cables.

Delivery: 25 crimp sleeve	es and boots (MM = black, SM =	= yellow).	
Format	Catalog No.	Format	Catalog No.
Multimode	OFPCRKM	Singlemode	OFPCRKS

#### **Termination Kits for SC/ST-style Connectors**



Delivery: Canned air, 10 oz., tool pouch (OFTP02C) with fiber and cable preparation tools, wipes, heat cure epoxy, anaerobic adhesive and primer, polishing paper, polishing pad, heat-cure epoxy oven, safety glasses, syringes, needles, cure adapters and clips.

Description	Catalog No.
Termination Kit for SC/ST-style connectors, 16-port (110VAC)	OFTK03C
Termination Kit for SC/ST-style connectors, 8-port (220VAC)	OFTK04C*

<sup>\*</sup> Does not contain canned air.

Information on the Field Installation Tool Kit, OFTK05 is provided on page F19.



# ermination and Test Tools

#### **Termination and Tools for Fiber Connectors**

#### **Connector Installation Tool Pouch**

#### For SC/ST-style Connectors

Delivery: Sapphire scribe, scribe guide, black permanent marker, Kevlar scissors, strip template and polishing fixture, ruler, buffer/cable jacket stripper, 200X microscope assembly, crimp tool and die.



OFTP04C

1073515W

OFTP02C Catalog No.

#### For MT-RJ and LC Connectors

Delivery: Black permanent marker, Kevlar scissors, ruler, buffer stripper, stripper/cutter 30-10AWG. MT-RJ tool pouch includes cam tool and fiber cleaver; LC tool pouch includes LC cure adapters, scribe guide, polishing puck, sapphire scribe and 200X microscope.

Description	Catalog No.	Description	Catalog No.
MT-RJ	OFTP03	LC	OFTP04C

#### **Epoxy Replacement Kit**

Easy mix (1g) tubes fit into syringes. Superior bond strength. Cures in 10 minutes at 90°C. Eight month shelf life. 30 minute working time. Delivery: 6 tubes 1g, 6 syringes/needles.



#### **Anaerobic Replacement Kit**

Cures in 6-10 seconds. Superior bond strength. Convenient paint brush in cap. Needle tip fits on adhesive bottle.

Delivery: Primer and adhesive, 10 syringes and 10 needles.

**OFCAP** Catalog No.

Delivery: Replacement bottle of primer only.

Catalog No. **OFPRIME** 

#### **Crimp Tool**

For 2QUICK® Crimp and OPTICHANNEL™ SC/ ST-style epoxy/anaerobic connectors. Crimp die-set (included) pre-set at factory.

Dual hex cavity: .0178"/.0151". Flat crimp 0.052".

Hex crimp 0.136". Hardened die.

OFCMT04 Catalog No.

#### **Hand Scribe Tool**

Sapphire blade. Delivery: 1 tool and scribe guide.

**OFSCRIBE** Cataloa No.

#### **Scribe Guide**

Suitable for SC, ST-style, or LC connectors. Handy loop for key chains.

Delivery: package of 6

Catalog No. **OFSG** 



#### **Polishing Puck**

Stainless Steel, polished surface. SC/ST-style or LC compatible.

Delivery: 1 puck

Catalog No. SC/ST-style **OFPUCK OFPUCKLC** 



#### **Polishing Film**

Replacement kit.

Delivery: 25 sheets of 5, 1, and 0.3 micron,

1 polishing pad.

**OFLFP** Catalog No.



#### **Epoxy Cure Adapters**

For heat cure oven. Delivery: Package of 6. Catalog No.

**OFCA** SC/ST-style **OFCALC** LC



#### **Complete Test Set, Multimode**

Batteries and soft pouch included. Fully calibrated at factory. ST-style adapter ports.

Delivery: 1 power meter, 1 dual wavelength LED source, 1 soft pouch.

Catalog No. Description OFPLK813A Complete kit **OFPM813** Power Meter Dual wavelength LED Light Source **OFLS813** 

Dual wavelength, MM



#### **Fiber Optic Fault Finder**

The fault finder kit is a dual visible laser light source. (OFAULT2 is single wavelength visible laser.) It provides the fiber optic system installer and troubleshooter with a durable test instrument to visibly locate excessive bends, kinks and breaks in duplex fiber optic cables. Also, the fault finder is a useful tool to optimize 2CLICK® and MT-RJ connectors and for indicating polarity.

Delivery: OFAULT1: Waterproof carrying case, battery

Catalog No.	OFAULT1
Accessories	Catalog No.
MT-RJ Assembly clip	<b>FCMTRJCLP</b>
MT-RJ Duplex patch cord 1m 62.5/125µm	DFPCRJRJC1MM
MT-RJ to ST-style duplex patch cord, 1 m, 62.5/125 $\mu$ m	DFPCRJSTC1MM

MT-RJ to SC duplex patch cord **DFPCRJSCC1MM** 1m, 62.5/125µm



Built-in illuminator. Soft pouch. Batteries included. SC/ST-style adapter included.

Description	Catalog No.
SC/ST-style Microscope	OFSCOPE1
IC Adaptor (100V misrosopa only)	EOADDTI C

OFSCOPE1

OPTISOK™		
Bundle Size Range	Catalog No.	
).125-0.562"	CCPS1	-
0.250-0.750"	CCPS2	-
).750-1.750"	CCPS3	6

#### **Support Grips**

#### Single Eye, Single Weave



\* IMPORTANT: Consult Factory Support for Safety and Working Load



Factors for Wire Mesh Grips.





FANEL PERTICAL CABLE MANAGEMENT PEAR WIRE FRAME • TRANSITION SPOOLS • VERTICAL RINGS • FRONT/REAR



CABLE MANAGEMENT PRODUCTS	PAGE
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# NextFrame

# **Equipment Racks**

#### Hinged covers

Optional.

#### Sturdy, Durable

Steel construction.

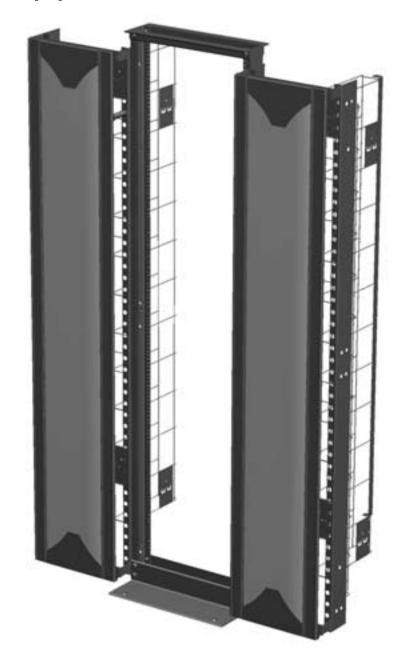
#### **Superior Cable Management**

Multiple tie-off points to organize cable. Snap in spools to route cable where needed.

#### Easy-to-Use

Screws with dog-nose tip lead in and #3 Phillips combo head provided.

Mates with most other models of racks and channels.



- Material:
   Rack: 6063-T2 aluminum.
- Uprights: 1/4" web thickness.

  Finish: Durable black powder coat or mill
- Weight capacity: 500 lbs. (static) when properly secured to floor.
- UL Listed 7N69 Communications Circuit Accessory.
- EIA-310-D universal spacing tapped #12-24 front and rear.





- Attractive Front Covers Enhance Appearance.
- Channels Clip to Rack Greatly Speeding Assembly.
- Spools can be Located as Needed Along Length of Channel.
- Channels Ship Knocked Down to Reduce Freight.



#### 19" Equipment Rack with 10" and 15" Wide XXL Channels

Seven-foot cable management rack with XXL vertical cable management organizers in a single, easy to order catalog number. Use in C6A applications or other applications with 400 cables or better. Rack ships unassembled.

Delivery:	1 Rack, 7	7'H (HPW84RR19)		
	2 XXL Vei	rtical Organizers (se	e page G6)	
Rack Height	Rack Units	Channel Width	Finish	Catalog No.
7' (2134)	45	10" (254)	Black	XSR1010 10G
7' (2134)	45	15" (381)	Black	XSR1510 10G





#### 19" Equipment Rack with 6" wide 'Z' Channels

Seven-foot cable management rack with 6" wide vertical cable management organizers in a single catalog number for ease in ordering. Use in typical applications. Products are available in both black and clear aluminum finishes. Rack ships unassembled.

1 Rack, 7'H (HPW84RR19)

2 Vertical Organizers (ref. VS76/VS76A - see page G9)

_	romean orga		rerer coo page er	1
Rack Height	Rack Units	Finish	Cover Style	Catalog No.
7' (2134)	45	Black	Hinged	CS1976H
7' (2134)	45	Black	Clip on	CS1976
7' (2134)	45	Aluminum	Clip on	CS1976A





#### 19" Equipment Rack with 3.25" wide 'C' Channels

Seven-foot cable management rack with 3.25" wide vertical cable management organizers in a single catalog number for ease in ordering. Use when space is limited. Products are available in both black and aluminum finishes. Rack ships unassembled.

Delivery: 1 Rack, 7'H (HPW84RR19)

- 2 Vertical organizers (VS73/VS73A see page G9)
- 4 Covers (ref. VCC3/VCC3A see page G9)

	CO 1013 (101. 1	000/1000/1	oo pago o/		
Rack Height	Rack Units	Finish	Cover Style	Catalog No.	
7' (2134)	45	Black	Hinged	CS1973H	
7' (2134)	45	Black	Clip on	CS1973	
7' (2134)	45	Aluminum	Clip on	CS1973A	



CS1973A

## **Equipment Rack**

Shipped unassembled.

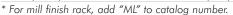
Delivery: 2 Floor angles

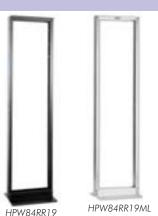
2 Top angles

2 Vertical uprights 20 #12-24 x 5/8" equipment mounting screws

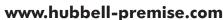
1 Assembly hardware kit

1 / 1000	mony manarrane i	XII		
Rack Height	Rack Units	Mounting Width	Finish*	Catalog No.
48" (1219)	24	19" (483)	Black	HPW48RR19
48" (1219)	24	23" (584)	Black	HPW48RR23
68.5" (1676)	36	19" (483)	Black	HPW66RR19
84" (2134)	45	19" (483)	Black	HPW84RR19
84" (2134)	45	23" (584)	Black	HPW84RR23
89.7" (2286)	48	19" (483)	Black	HPW90RR19
89.7" (2286)	48	23" (584)	Black	HPW90RR23
96" (2438)	51	19" (483)	Black	HPW96RR19
96" (2438)	51	23" (584)	Black	HPW96RR23









# Next**Frame**

# **XXL Vertical Cable Management**

#### **Open Design**

- · Allows side-to-side airflow.
- "Eco-Friendly" design minimizes weight and steel content.
- Maximum cable capacity with unobstructed access to cable.

#### **Power Strip Mounting**

• All the way to the back where it is needed.

#### **Snap in Spools**

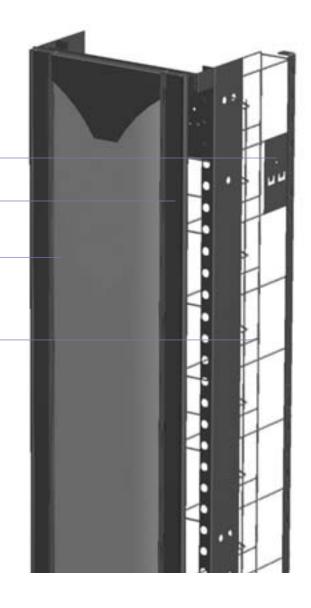
 Place where you need them along the upright for refined cable management.

#### Cover

- Hinges both left and right.
- Panel easily replaced for personalized data center appearance.

#### **Rear Organizer**

- Large area to lace horizontal cable.
- Horizontal Cable on left and right sides



- Cable capacity: See table opposite page.
- Finish: Durable black powder coat.
- Construction:
   Steel wire frame chassis;
   Cold Rolled Steel mounting rails;
   Extruded Aluminum door frame with laminate insert.





- Extra Large Capacity, Open Design Supports Large C6A Bundles.
- Customize Front Door Panel Unmatched Options to Personalize Data Center Appearance.
- Pre-Assembled Ready to Use Out of the Box.
- Open Design Maximizes Airflow, Cable Capacity and Accessibility.
- "Eco-Friendly" Design Minimizes Weight and Steel Content.



#### **XXL Series Vertical Organizers**

Delivery: 1 Dual hinging door

Front organizer Rear organizer

12 Snap in spools

1 Installation hardware kit

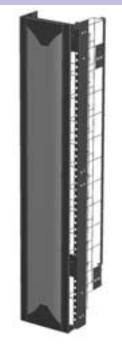
Color: Black powder coat with metallic insert.

Color. Black porte	ioi coai miii illolallic	1113011.	
Mounts to 7" Rack			
Channel Width:	6"W	10" W	
Depth	Cataloa No	Cataloa No	

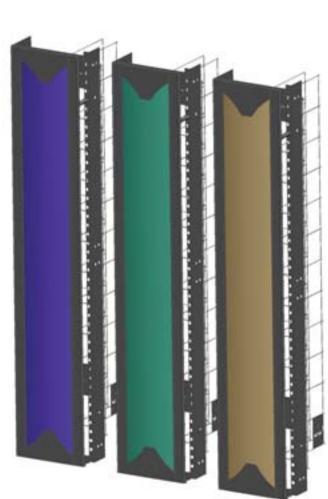
Depth	Catalog No.	Catalog No.	Catalog No.
10"	XS0610	XS1010	X\$1510 /10G
13"	XS0615	X\$1515	XS1515 /10G

15"W

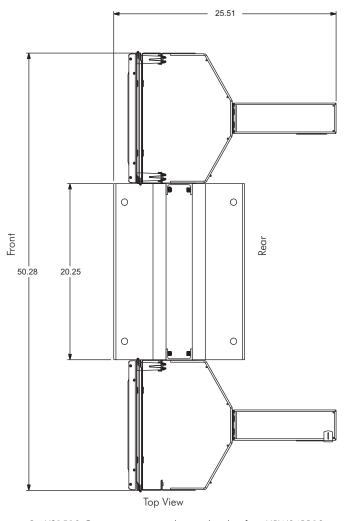
Cable Capacity Chart							
	0.25" Di	ameter	0.29" Di	0.29" Diameter		0.34" Diameter	
Catalog No.	Front	Rear	Front	Rear	Front	Rear	
XS0610	753	538	560	400	407	291	
XS0615	1069	538	794	400	578	291	
XS1010	1303	1398	968	1039	704	756	
XS1015	1881	1398	1398	1039	1017	756	
XS1510	1987	2474	1477	1838	1074	1337	
XS1515	2945	2474	2189	1838	1592	1337	







The XXL design has a unique door construction with a replaceable center panel. Now the look of the equipment in your data center can be easily customized to reflect the unique style of your enterprise.



2 - X\$1510 Organizers mounted to each side of an HPW84RR19 Equipment Rack.

# Next**Frame**

# Vertical Cable Management



"Z" Channel Vertical Organizer.

#### **Rugged Construction**

14 ga. Z-Frame withstands abuse.

#### **Cable Management Spools**

- Ensure proper bend radius.
- Place where needed along channel for refined cable management.

#### **Cable Management**

Organize cable by groups and bundles.

#### Front Covers Conceal Cable

Easily snap in place.

#### **Optional Hinged Covers**

Swings both left and right hand.



"C" Channel Vertical Organizer.

- Channel Material:
  - "Z" Frame: 14 ga. Cold Rolled Steel.
  - "C" Channel: 16 ga. Cold Rolled Steel.
- Cover material: 16 ga. Cold Rolled Steel.
- Finish: Durable black or Aluminum color powder coat finish.
- Packaged to meet Telcordia GR-63-CORE transportation requirements.
- U.S. Patent No. 6,347,714.



- Cable Management Spools can be Located Along the Length of the Channel for Proper Cable Routing.
- Assembles Quickly Channels Clip to Equipment Rack.
- Pass-Thru Holes Permit Cable Routing From the Front to the Rear of the Rack When Required.
- Channel Assembly Shipped Knocked-Down to Conserve Freight Expense.





#### **Vertical Organizers with Hinged Covers**

Delivery: 2 Z channels, 38.5"H x 12.5"D 2 38.5" Covers 24 Spools

4 Hinges 4 1/2"-13x1" Bolt w/nut and lock washer

Catalog No. 41/2"W Color Rack Height Catalog No. 6"W Catalog No. 31/4"W

VS76H VS74H **VS73H** Black 7' (2134)

#### **Vertical Organizers**

4 Bolts, nuts, washers  $\frac{1}{2}$ " - 13 x 1"

#### Z' Channel, 6" with Cover

For 7' or 8' rack. Suitable for approximately 800 4-pair 0.25" Dia. UTP cables when fully utilized.\*

Delivery: VS76(A) Delivery: VS86(A)

Z channels, lower, 45.38"H x 6"W x 10.5"D 2 Z channels, 38.5"H x 6"W x 10.5"D 2 Covers, 38.5"W x 6"W

Z channel, upper, 38.5"H x 6"W

Cover, lower, 45.38"H x 6"W

Cover, upper, 38.5"H x 6"W

Gates

24 Spools

Bolts, nuts, washers ½" - 13 x 1"

Rack Height	Catalog No. Black	Catalog No. Aluminum
7' (2134) or 7.5' (2286)	VS76	VS76A
8' (2438)	V\$86	VS86A

#### 'Z' Channel, 6" (for short racks)

Delivery:

Gates 24 Spools

1 Z channel, 38.5"H x 6"W x 10.5"D 16 Spools

2 Bolts, nut, washer ½" - 13 x 1"

Rack Height	Catalog No. Black	Catalog No. Aluminum	
4' (1219) and 5.5' (1676)	VS46	VS46A	

#### 'Z' Channel, 41/2" wide, 0.25" Dia.

Suitable for approximately 540 4-pair UTP cables when fully utilized.\*

Delivery:

2 Z channels 38.50" x 4.5" x 10.5" 24 Spools

4 Bolts, nuts, washers 1/2" - 13 x 1"

Rack Height Catalog No. Black **VS74** 7' (2134)

#### 'C' Channel, 31/4" wide

Suitable for approximately 300 4-pair UTP cables.

Delivery: VS73(A)

2 C channels, 38.5"H x 3.25"W x 10.5"D\*\*

24 Spools

4 Bolt, nut, washer 1/2" - 13 x 1"

	• •		
Rack Height	Catalog No. Black	Catalog No. Aluminum	
7′ (2134)	VS73	VS73A	

- \* Capacity of front and rear of channel combined.
- \*\* When optional rear gates are used.

## **Cable Management Spools**

Assembles as needed along each column to further route and conceal cable.

# Features/Benefits

- Snap locks into column.
- Use every 1U to achieve duct style
- Locate as needed to route cable to put wherever needed.

- Material: Polycarbonate (ABS).
- Finish: Black.
- Maintains T568-A compliant bend radius as cable transitions from horizontal to vertical.

Description	Catalog No.
Package of 50 black spools - 3"	ICKSS
Package of 50 black spools - 9"	ICKSS9









# **Vertical Cable Management Accessories**

#### **Covers**



VSC

#### Features/Benefits

- Conceal cable to provide clean appearance.
- Snap in place no fasteners to wear or break.

#### **Specifications**

Specifications

◆ Material: ABS, Black.

- Material: 20 ga. Cold Rolled Steel.
- Finish: Durable black or aluminum color powder coat finish.

Delivery: 1 Cover

3"	VSC3	VSC3A	VSC3L	VSC3AL
4"	VSC4	-	VSC4L	VSC4AL
6"	VSC6	VSC6A	VSC6L	VSC6AL
Width	Catalog No.	Catalog No.	Catalog No.	Catalog No.
Cover	Black	Aluminum	Black	Aluminum
	38.5"H	38.5"H	45.38"H	45.38"H

#### **Fiber Spools**



#### Features/Benefits

- Used to take up fiber jumper slack in vertical channels.
- 6" wide "Z" frame only.
- Fastens to channel pass-thru holes.

Delivery: 5 sets of fiber spools

Catalog. No.

**VCF610** 

#### **Hinge Kit**



Use to easily convert VS76 to VS76H.

#### Features/Benefits

Allows cover to be hinged left and right during moves, adds and changes.

Delivery: 2 hinges and fasteners.

Catalog. No.

**VCKH** 

NOTE: Gates not provided, order separately.

#### **Joining Kit**



Use to easily convert VS76 to VS76H.

#### Features/Benefits

- Join top and bottom channel sections when mounting to other than Hubbell racks
- Join racks and cabinets side-to-side.

#### **Specifications**

Specifications

Finish: durable black powder coat.

Material: 14 ga. Cold Rolled Steel

Delivery: 1 joining plate, 4 #12-24 x 5/8" screws, nuts, washers, 4 ½"-13 bolts, nuts, washers

Catalog. No. VCJK

#### **Vertical Rings**



#### Features/Benefits

Attaches to front or rear 19" mounting holes on equipment racks.

#### Specifications

- Width: 6" (152); depth: 10" (254).
- Material: 11 ga. Cold Rolled Steel.
- Finish: Durable, black powder coat.

Delivery: 2 vertical rings and 1 mounting kit

Brackets	One side	Between racks
Catalog No.	MCCVMR2	MCCVMR22





# Wall Mount Swing Frame





- Supports heavy or deep equipment in locations with limited floor space.
- Quick release latches rack frame hinges both left and right.
- Cable tie slots along both sides and inside top and bottom.
- Ships knocked-down to conserve freight expense.

#### **Specifications**

- Material: 16 ga. Braces; 12 ga. equipment frame.
- Finish: durable black powder coat.
- ◆ 70 lbs. load capacity.
- 16" on center mounting for easy attachment to standard wall studs.
- ♦ 3" deep rack uprights.
- ◆ EIA-310-D universal spacing tapped #12-24 front and back.

#### **Wall Mount Swing Frame**



Hubbell's wall mount swing frames are used to conserve floor space when a full-height floor standing rack is not required. Wall mount frames are designed to hold heavy equipment in controlled rooms where open access to equipment is acceptable.

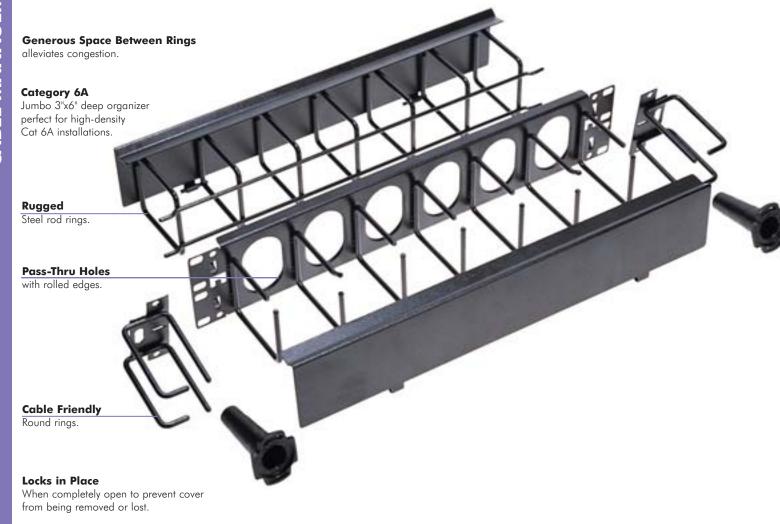
Delivery: 1 rack frame

1 kit mounting hardware (50 - 12/24 screws)

Height	Rack Units	Width	Depth	Finish	Catalog No.
24" (610)	12	20.7" (526)	18" (457)	Black	HPWWMR24
36" (914)	19	20.7" (526)	18" (457)	Black	HPWWMR36
48" (1219)	26	20.7" (526)	18" (457)	Black	HPWWMR48

# Next**Frame**

# Horizontal Cable Management



- Panel material: 16 ga. Cold Rolled Steel.
- Cover material: 16 ga. Cold Rolled Steel.
- Ring: 0.225" diameter Steel rod.
- Durable, black powder coat.
- GR-63-CORE transportation requirements.
- U.S. Patent No. 6,215,069.



- All Steel Construction Rugged, Non-Flammable, no Fasteners to Wear or Break, no Fingers to Fuss with.
- Components Snap Together Quickly Without the Use of Tools.
- Modular Components Easily Configured in Field to Adapt to Demanding Applications.
- "Green" Design Minimizes Weight and Steel Content.

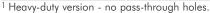
HC219CC3N - front and rear cover shown HC219CE3N - front cover only

#### **Duct Panels**

#### Features/Benefits

- 7-rings.
- 6 pass-through holes.
- Hinged front cover.
- Conceals patch cords and enhances the network appearance.

Rack Width	Rack Units	Panel Height	Front Ring Depth	Rear Ring Depth	Catalog No.
19"	1U	1.75"	1.75"	-	HC119CE1N
19"	1U	1.75"	3.50"	-	HC119CE3H
19"	1U	1.75"	3.50"	6.00"	HC119GC36 <sup>3</sup>
19"	1U	1.75"	6.00"	-	HC119CE6H
19"	2U	3.50"	1.75"	-	HC219CE1N
19"	2U	3.50"	3.50"	-	HC219CE3N
19"	2U	3.50"	3.50"	6.00"	HC219GC36 <sup>3</sup>
19"	2U	3.50"	3.50"	6.00"	HC219GC36P3
19"	2U	3.50"	6.00"	-	HC219CE6N
19"	2U	3.50"	3.50"	4.6"	HC219CR3N <sup>2</sup>
19"	2U	3.50"	3.50"	4.6"	HC219CC3N <sup>4</sup>
19"	3U	5.25"	3.50"	-	HC319CE3N /10
19"	3U	5.25"	6.00"	-	HC319CE6N /10



<sup>&</sup>lt;sup>2</sup> Includes rear wire frame.



C ...

HC219ME3N

#### **Enhanced Panels**

#### Features/Benefits

- 7-rings.
- 6 pass-through holes.
- These panels can be upgraded through the use of accessories.

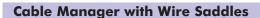
Rack	Rack	Panel	Front	Rear	
Width	Units	Height	Ring Depth	Rings	Catalog No.
19"	1 U	1.75"	3.50"	No	HC119ME3N
19"	1 U	1.75"	6.00"	No	HC119ME6N
19"	2U	3.50"	3.50"	No	HC219ME3N
19"	2U	3.50"	6.00"	No	HC219ME6N
19"	3U	5.25"	3.50"	No	HC319ME3N //10
19"	3U	5.25"	6.00"	No	HC319ME6N /10

#### **Basic Panels**

#### Features/Benefits

- 4-rings.
- Solid panel.
- Use when accessories or pass-thru holes are not required.

Rack Width	Rack Units	Panel Height	Front Ring Depth	Rear Rings	Catalog No.
19"	1U	1.75"	1.75"	No	HC119MS1N
19"	1U	1.75"	3.50"	No	HC119MS3N
19"	2U	3.50"	1.75"	No	HC219MS1N
19"	2U	3.50"	3.50"	No	HC219MS3N
23"	2U	3.50"	1.75"	No	HC223MS1N



Delivery: 1 - Panel assembly with cover(s), 4 - #12-24 x 5/8" dog-nosed screws, 4 - #12 nylon flat washers

Rack Units	Height	Ring Depth		Catalog No.
2U	3.50"	3"		HC219ME3S
1U	1.75"	3"		HC119ME3S
1 11011014500	· 1 1 1	· 1.11	1	

<sup>&</sup>lt;sup>1</sup> HC119ME3S includes only wire saddles and rings for vertical cable management.



www.hubbell-premise.com

<sup>&</sup>lt;sup>3</sup> Includes rear wire frame and rear cover - no pass-through holes.

 $<sup>^{\</sup>rm 4}$  Includes rear wire frame, cover and pass-thru holes.

# **Horizontal Cable Management Accessories**

#### **Front/Rear Cover**



#### Features/Benefits

- Conceals patch cords.
- Locks in place when completely open to prevent cover from being removed or lost.
- Snaps open and closed, no fasteners to lose or break.
- Easily removed and replaced during moves, adds and changes.

#### **Specifications**

- Material: 16 ga. Cold Rolled Steel.
- Durable, black powder coat.

The hinged cover can be used on the front and/or rear of the Enhanced-style **NEXTFRAME**® horizontal cable management system.

De	livery:	1	cover

Catalog No.	HC119C	HC219C	HC319C		
Height	1U/1.75"	2U/3.50"	3U/5.25"		
Donvery. I cov	01				

#### **Vertical Management Rings**



#### Features/Benefits

Mounts to front of 2U and 3U panels or can be mounted directly to rack mounting rails - front or rear.

#### **Specifications**

Material: Steel.

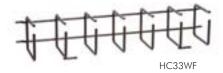
Finish: black powder coat.

The vertical management rings attach to 19" tapped holes on the rack rails or uprights of cabinets to provide vertical cable management.

Delivery: 2 rings, 1 kit mounting hardware

Depth	3.50" (89)	6" (152)
Catalog No.	HC23VR2	HC26VR2 10G

#### **Rear Wire Frame**



#### Features/Benefits

- Rugged, non-flammable, won't wear or break like plastic.
- Easy access, allowing patch cords to connect at rear of hubs.
- Round rod design prevents cable from chafing.

#### **Specifications**

- Material: 0.225" dia. Steel rod, 3½" high rings.
- Finish: durable, black powder coat.

Mounts to 2U and 3U panels only. Our unique design allows the frame to clip on to the rear of Enhanced or Duct Style panels without the use of tools.

Delivery: 1 rear wire frame.

Depth	4.6" (117)	6" (152)
Catalog No.	HC33WF	HC36WF <b>10G</b>

#### **Plastic Cable Management Rings**



#### Features/Benefits

Adhesive or non-adhesive versions.

#### **Specifications**

- Material: Polycarbonate, black.
- Height: 3.95"; Width: 2.95"

Use for patch cord cable management.

Delivery: 4 rings.

Description	Non-adhesive	Adhesive
Catalog No.	MCCPSR4	MCCPSRA4

# **Horizontal Cable Management Accessories**

#### **Plastic Finger Duct Organizer**

#### Features/Benefits

- Lightweight.
- Conceals cable stored in duct.
- Individual patch cord management.

#### **Specifications**

- Material: extruded PVC (organizers and cover).
- Metal panel: 16 ga. Cold Rolled Steel.
- Color: Black.



HC219CE3P

Plastic duct-style horizontal cable organizers are the traditional solution for storing and routing jumpers and patch cords on a 19" equipment rack. The slots in the finger duct accommodate precise routing of patch cords.

Delivery: 1 - Panel assembly with cover(s), 4 - #12-24 x 5/8" dog-nosed screws, 4 - #12 nylon flat washers

Rack Units	Height	Front Duct Depth	Rear Duct Depth	Catalog No.
2U	3.50"	3"	5"	HC219CC3P
2U	3.50"	3"	None	HC219CE3P
1U	1.75"	3"	5"	HC119CC3P
1U	1.75"	3"	None	HC119CE3P

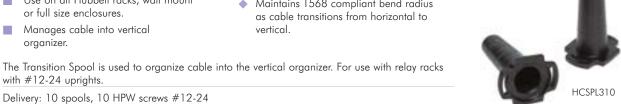
#### **Transition Spool**

#### Features/Benefits

- Rugged, won't wear or break.
- Use on all Hubbell racks, wall mount or full size enclosures.
- Manages cable into vertical organizer.

#### **Specifications**

- Material: ABS, black.
- Maintains T568 compliant bend radius as cable transitions from horizontal to



## Catalog No.

#### 1.75" 6.00" Depth HCSPL110 HCSPL310 HCSPL610

#### Extender Brackets, 23"

#### Features/Benefits

- Brackets occupy 2 rack units.
- For use with patch panels and cable management panels.

#### **Specifications**

- Material: Steel.
- Finish: durable, black powder coat.

The Extender Bracket is used to modify a 19" panel to mount onto a 23" rack.

Delivery: 2 brackets, 1 kit of mounting hardware.

**BREXTB235** Catalog. No.



## **Cable Management Accessories**

#### **VELCRO® Brand ONE-WRAP® Cable Ties**



#### **VELCRO® Brand ONE-WRAP® Cable Ties**

#### Features/Benefits

For use in the Hubbell **NEXTFRAME**® Cable Management system.

#### **Specifications**

Straps per puck: 10.

Maximum bundle diameter: 2.5".

The **VELCRO**® Brand **ONE-WRAP**® cable tie is a unique ½" wide back-to-back fastening system that wraps around cable then back on itself.

Length	Color	Straps per Puck	Max. Bundle Diameter	Catalog No. (10-pk)	
8" (203)	See below	10	2.5"	HPWCVFXX8	
<b>XX</b> = Color: i	nsert 2-letter cod	de: BK=Black, O	R=Orange, YL =	=Yellow, BL=Blue, RD=Red	

#### **Bulk VELCRO® Pucks**

Width	Length		Package	Catalog No.	
1"	10'	Cut to Length	10-Pack	HPWCVFBK120	/10G
0.625"	75'	Cut to Length	Each	HVFBK5875	/10G
0.5"	75'	Cut to Length	Each	HVFBK575	/10G
0.5"	75'	Rip to Length	Each	HVFBK575S	/10G
0.5"	600'	Cut to Length	Each	HVFBK5600	
0.5"	75'	Cut to Length	Each	HVFP575*	/10G

<sup>\*</sup> HVFP575 is UL Plenum Rated.

#### **Basic VELCRO® Brand Fasteners**

HVFBK5600



#### Features/Benefits

- Simplifies moves, adds, and changes.
- Bundle cables for effective administration.
- Wide surface protects cable properties.

The Basic **VELCRO**® Brand Fasteners consists of 1-inch wide hook strap and a loop strap fused together. Use to gather cable bundles up to 7.5" diameter.

Length	Color	Max. Bundle Diameter	Catalog No. (10-pk)
22"	black	7.5"	MCCMV22BK10
9"	see below	2.5"	MCCMV9XX10
5"	see below	1.4"	MCCMV5XX10
XX = Colo	r		

Insert 2-letter code: **BK**=Black, **BL**=Blue, **YL**=Yellow, **RD**=Red, **PK**=Pink, **OR**=Orange.

#### Screw-Mount, Reusable Cable Ties



#### Features/Benefits

- Organize cable along the 19" mounting rails in cabinets and racks.
- Simplifies moves, adds, and changes.

#### **Specifications**

- ◆ Maximum bundle diameter: 2.5".
- The screw mount fasteners consist of  $\frac{3}{4}$ " wide hook strap and loop strap fused together with a buckle at one end. The buckle end of the strap also has a through-hole reinforced with a Steel grommet.

Delivery: One 10-pack of straps.

Length	Color	Max. Bundle Diameter	Catalog No.
9"	black	2.5"	MCCMV9BS10
9"	orange	2.5"	MCCMV9OS10

**VELCRO**® and **ONE-WRAP**® are registered trademarks of Velcro Industries B.V.



# **Cable Management Accessories**

#### **VELCRO®** Brand Vertical Cable Manager

#### Features/Benefits

- Adhesive backed mounts directly to rack or cabinet.
- 4 huge adjustable loops safely and securely contains up to 350 Cat 6 cables.



#### **Specifications**

43" adhesive VELCRO®
 Brand strip with 23"
 adjustable VELCRO® Brand loops.

Inexpensively manage cables on relay racks and cabinets.

Catalog. No. **HVVCM** 

#### **VELCRO® Brand "J" Hook**

#### Features/Benefits

- UL-94 Fire-Retardant fasteners.
- Width of **VELCRO**® Brand J Hook is 1".
- Bundle diameter varies (as the loop formed slides larger or smaller) from 0 to 7.875".
- Sold in packs of 50.

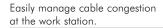
Catalog. No. **HVJH** 



#### **VELCRO® Brand Work Station Manager**

#### **Specifications**

 21" adhesive VELCRO® Brand strip with 4" adjustable VELCRO® Brand loops.



Catalog. No. **HVVWM** 

#### **VELCRO® Brand Pads and Loops**

#### Features/Benefits

■ **VELCRO**® Brand Cable Manager on self-adhesive pad.



Sold in packs of 25.

Catalog. No. **HVPL** 



#### **VELCRO® Brand Saddle Cable Ties**

#### Features/Benefits

Attach cables to wood surfaces, or relay racks and enclosures.



#### **VELCRO**®

1/2"	8"	2.16"/55mm	Wood	HVSCTW
1/2"	8"	2.16"/55mm	Rack	HVSCTR
Width	Length	Max. Loop Diameter	Screw type	Catalog. No.

#### **Rack Label Kit**

#### Features/Benefits

Attaches to Hubbell's Equipment Rack to define rack unit space.

#### **Specifications**

 Meets TIA/EIA-606-A labeling administration standards.

Delivery: 3 self-adhesive strips, black label with white lettering (numbers 01 through 60).

Dimensions: 35"H x 0.25"W.

Catalog. No. RRLABEL

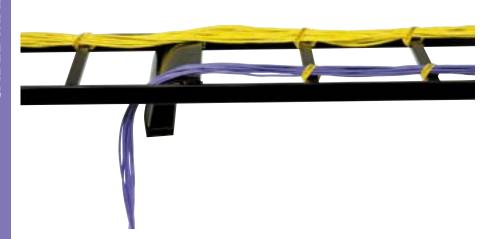


RRLABEL

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# HUBBELL REAL Frame

# **Ladder Rack**





- Modular system easily configured for new and existing cable routing.
- Mounts to floors, walls, ceilings, equipment racks, and cabinets.
- Tip: Secure Ladder to Cabinet tops using J-bolt kit and drilling holes as required.

#### **Specifications**

- ◆ Material: 16 ga. tubular Steel.
- Durable powder coat.
- Stringer dimensions: 0.375"W x 1.5"H.
- Rung spacing: 9.0".
- ♦ Weight capacity: 45 lbs./foot.

#### **Ladder Rack**



Width

#### **Straight Section**

Width	Catalog No. Black 6' (1829) Length	Catalog No. Gray 6' (1829) Length	Catalog No. Black 10' (3048) Length	Catalog No. Gray 10' (3048) Length	
6" (152)	HLS0606B	HLS0606G	HLS1006B	HLS1006G	
12" (305)	HLS0612B //10	G HLS0612G ✓	OG HLS1012B	0G HLS1012G 🏏 10	G
18" (457)	HLS0618B 110	G HLS0618G ✓	0G HLS1018B/1	0G HLS1018G 🏏 10	G
24" (610)	HLS0624B 10	₲ HLS0624G  対	OG HLS1024B	0G HLS1024G 📈	G

Please order straight sections in multiples of 10 pieces.

Width = outside to outside dimensions.



#### 90° Turns

Color: Black	Inside Radius 90°	Flat Turns 90°	Outside Radius 90°	
Width	Catalog No.	Catalog No.	Catalog No.	
6" (152)	HLI0690B	HLF0690B	HLO0690B	
12" (305)	HLI1290B	HLF1290B	HLO1290B	
18" (457)	HLI1890B	HLF1890B	HLO1890B	
24" (610)	HL12490B	HLF2490B	HLO2490B	

Color: Gray Width	Inside Radius 90° Catalog No.	Flat Turns 90° Catalog No.	Outside Radius 90° Catalog No.	
6" (152)	HL10690G	HLF0690G	HLO0690G	
12" (305)	HLI1290G	HLF1290G	HLO1290G	
18" (457)	HLI1890G	HLF1890G	HLO1890G	
24" (610)	HL12490G	HLF2490G	HLO2490G	

#### **Butt Splice Kit**

Use to splice two sections of ladder end to end.

Finish: Black powder coat

**HLBSK** Catalog No.



#### **Cable Radius Drop**

Assembled to stringers or rungs to provide gradual transition for cable.

Finish: Black powder coat

rinisn: black	rinish: black powaer coat				
Ladder width	Actual width	Catalog No.			
6" (152)	4.5"	HLCD06*			
12" (305)	10.75"	HLCD12			
18" (457)	16.75"	HLCD18			
Stringer	7.5"	HLCDS			



<sup>\*</sup> Can also be mounted on stringer.

#### **Cable Retaining Fence Posts**

Use along ladder stringers to maximize cable routing and management.

capie	rouning	and m	anagemeni.
	Nom.	Actual	
Color	Height	Height	Catalog No.
Black	6"	8.3"	HLP06B
Gray	6"	8.3"	HLP06G
Black	8"	10.4"	HLP08B
Gray	8"	10.4"	HLP08G
Black	10"	12.4"	HLP10B
Gray	10"	12.4"	HLP10G



#### **Ceiling Mounting Kit**

Use to hang ladder from ceiling. Recommended spacing between hangers is 5'.

Description Catalog No. Ceiling Mounting **HLCMK** Kit with two 6'x 0.625Ø

threaded rods

**HLCF** Brackets only



#### **Foot Kit**

Use to secure vertical ladder to floor

Finish: Black powder coat

Catalog No. **HLRF** 



#### J-Bolt Kit

Use to secure ladder to brackets. 5/16"Øx18"x3" long.

**HLJB** Catalog No.



#### **Mounting Kit to Relay Rack**

Use to secure ladder rack to top of 19" or 23" equipment rack. Not used for 24"W Ladder Rack.





#### **Protective End Caps**

Use to dress ends of stringers and cable posts. Black, Qty. 2.

Catalog No. **HLECPK2** 



#### **Swivel Splice Kit**

Use to splice 2 sections of ladder at any angle.

Color	Catalog No.
Black	HLSSK



#### **T-Junction Splice Kit**

Use to connect one section of ladder perpendicular to another.

Catalog No. HLTK



#### **Triangle Wall Support**

Use to run ladder rack along

wall. Recommer	iaea spacing: 5 .
Width	Catalog No.
6" (152)	HLTSB06*
12" (305)	HLTSB12*
18" (457)	HLTSB18*
24" (610)	HLTSB24*
* Add to Catalog	g No.: 'B' for
Black, or 'G' for	gray



#### **Vertical Wall Bracket**

Use to secure ladder rack vertically to wall. Finish: Black powder coat **HLVWBK** Catalog No.



#### **Wall Angle Support**

Use to terminate ladder rack to

wuii.	
Color: Black	
Width	Catalog No.*
6-12" (152-305)	HLX0612
18" (457)	HLX1518
24" (610)	HLX24

\* Add "G" to Catalog No. for Gray.



#### **Wall/Rack Mounting Kit**

Use to join the top of an equipment rack to the wall.

Delivery includes: 1 HLMPK19, 1 HLX0612, 1-40" long x 12" wide ladder section

idddel seciloti.	
Color	Catalog No.
Black	HLWRK



# **Wall Mount Hinged Brackets**





- Jumbo openings in sides and rear.
- Bottom hinging uses less space to open.
- Side hinging allows complete access to the rear of components.
- Enhanced cable management multiple tie-off points for both nylon and VELCRO® Brand ties.

#### **Specifications**

- ♦ 16 ga. Steel construction.
- Finish: durable black powder coat.
- ♦ Wall mount holes on 16" centers.
- EIA-310-D universal spacing tapped #12-24.
- ♦ Width: 19".
- Load capacity:

4 and 6 Rack Units: 50 lbs. 1 and 2 Rack Units: 25 lbs.

#### **Wall Mount Bracket, Bottom-Hinged**



Delivery: 1 b	ottom-hinged wal	l bracket, completely	y assembled.
Rack Units	Height	Depth	Catalog No.
1	1.75" (45)	4" (102)	HPWWB1U4
2	3.50" (89)	4" (102)	HPWWB2U4
2	3.50" (89)	8" (203)	HPWWB2U8
4	7.00" (178)	4" (102)	HPWWB4U4
4	7.00" (178)	8" (203)	HPWWB4U8
6	10.50" (267)	4" (102)	HPWWB6U4
6	10.50" (267)	8" (203)	HPWWB6U8
6	10.50" (267)	18" (457)	HPWWB6U18

#### **Wall Mount Bracket, Side-Hinged**



Delivery: 1 side-hinged wall bracket, completely assembled.

Rack Units	Height	Depth	Catalog No.
2	3.50" (89)	4" (102)	BRMCCMB19X35X4
4	7.00" (178)	4" (102)	BRMCCMB19X7X4
2	3.50" (89)	8" (203)	BRMCCMB19X35X8
4	7.00" (178)	8" (203)	BRMCCMB19X7X8

**VELCRO**® is a registered trademark of Velcro Industries B.V.





# **Grounding and Bonding Solutions**

#### **Telecom Grounding Bar**

Delivery: 12" x 4" x .25" solid copper bus bar (1/4"-20 tapped 20 places), Red GFRP isolating standoffs, (2) .063" thick Stainless Steel standoff brackets, (4) 3/8"-16 x.625" hex head bolts and lock washers



Catalog No.

**RKTGB** 

#### 19" Rack Mount Ground Bar

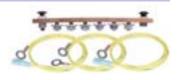
Delivery: 19" x 1" solid copper bar, (2) #12-24 mounting screws and isolating hardware, (2) #10-32 mounting screws and isolating hardware

Catalog No. MCCGBAR

#### **Wall Mount Cabinet Ground Kit**

Delivery: Ground bar with 1/4"-20 male studs, (2) 1/4"-20 carriage bolts and isolating hardware, (2) ground straps

**REKGB** Catalog No.



#### **Economy Ground Strap Kit**

Delivery: 1 Ground strap with connectors attached

**REKEGS** Catalog No.



#### **Telecom Bonding Conductor**

Delivery: 7" x .625" universal ground clamp (18ga copper), 1/4"-20 copper hex nut and brass flat washer, (1) 1/4"-20 copper ground stud, (1) brass bell cap, Solderless ground lug with #12 thru-hole, (1) #12-24 x .625" #3 Philips combo machine screw with dog point, (2) #12 ground washers, 15 ft. piece of solid #6 ground wire **RKG** 

Catalog No.



#### **500A Braided Strap**

Material: Tin-plated braided

Delivery: (10) 15" long straps, (10) kits mounting hardware



#### **Bonding Connector**

Delivery: 100 SHIELDBOND® connectors, 1 Field installation tool kit

Catalog No. BC285SB100



#### **Deluxe Cord Grips**

Aluminum Fittings, Stainless Steel Mesh, Liquidtight, for Insulated Cables.



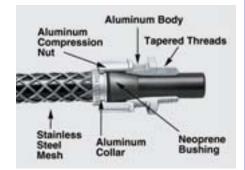
Jii digili Male	IIII Caa				-
Grip Diameter	Range	Thread Size	Form		
Inches	(cm)	N.P.T. (Inches)	Size	Catalog No.	
.375"500"	(.95-1.27)	1/2	F2	07401008	
.500"625"	(1.27-1.59)			07401010	
.625"750"	(1.59-1.90)	1/2	F3	074011247*	
.750"875"	(1.90-2.22)			074011248*	
.375"500"	(.95-1.27)	3/4	F2	07401015	
.500"625"	(1.27-1.59)			07401017	
.625"750"	(1.59-1.90)	3/4	F3	07401018	
.750"875"	(1.90-2.22)			074011249*	
.375"500"	(.95-1.27)			074011195	
.500"625"	(1.27-1.59)			07401019	
.625"750"	(1.59-1.90)	1	F4	07401021	
.750"875"	(1.90-2.22)			07401023	
.875"-1.000"	(2.22-2.54)			07401025	
1.000"-1.125"	(2.54-2.86)			074011250*	
			,	. 1 1	

<sup>\*</sup> Cable jacket may have to be stripped to pass through connector body. Kellems® Deluxe Cord Grips are suitable for use in hazardous locations per Class I Div. 2, Class II Div. 1 and 2, Class III Div. 1 and 2 of the National Electric Code Sections 501-4(b), 502-4(a), 502-4(b), 503-3(a) and 503-3(b).



**Read This Data** 

It is important that you read all breaking strength, safety and technical data relating to the product at: www.hubbell-wiring.com



# HUBBELL Frame

#### **Data Center Solutions**



iFRAME® Network Hardware Management System



iFRAME® Network Cabinet



#### **Address Major Data Center Issues:**



Airflow



Security



Space Utilization



Response Time



Administration



Appearance



 Greater Than 15% Improvement in Floor Space Utilization Over Traditional Alternatives.

iFRAME® Network Hardware Management System shown with ICKC C6A rear

- Components of Infrastructure System Mate Logically and Easily Streamlining Installation.
- Grounding and Bonding Simplified.
- Stylized Look to Enhance the Appearance of the Equipment Room.
- **iFRAME**® System Designed to Optimize Airflow and Minimize Power Consumption.

#### Solutions for Each Area of the Data Center

Product	Type of System	<b>Load Capacity</b>	Recommended Application	Page
Network Hardware Management System	Open	1400 lbs.	Servers, switches, patch panels and other open network applications.	H4
Server Cabinet	Enclosed	1000 lbs.	Servers	Н8
Network Cabinet	Enclosed	1000 lbs.	Switches, panels and other cable intense network equipment.	H10
Vertical Patch Panel			Use with Hubbell's High Bandwidth and Pre-terminated copper and fiber systems.	H9
Power Distribution			Power to servers and network equipment.	H34

#### **iFRAME® Streamlines Cable Management**

Cable management is the single biggest issue installers and users of network gear have with any cabinet, **iFRAME®** Solutions provide a comprehensive solution for routing, organizing and updating cable. By defining cable pathways and entry points, by moving the frame components out of the way of the cable and by providing vastly more vertical cable management options than any other manufacturer, Hubbell **iFRAME®** Solutions eliminate cable management headaches.

#### **Vertical Cable Management Options:**

- 1. Snap in Spools (ICKSS or ICKSS9 see page H6), snap to cabinet frame, vertical organizers and iFRAME® Columns.
- 2. Vertical Cable Management Rings (HC26VR2 see page G14) use on cabinet or rack uprights.
- 3. NEXTFRAME® Vertical Channels (i.e., XS1010, XS1510, VS76H, VS76, VS73 see pages G6 through G9) use on racks or between cabinets without side covers.
- 4. Internal Vertical Organizer (H1KV80, H1KV84 see page H11) fits within cabinet frame to provide a cable path with flush or wide covers.
- 5. Vertical Patch Panel (VPH see page H9) use with Server Cabinet.
- 6. Network Cabinet 3" wide Side Cover conceals cable (see page H13).

#### Three Layers of Protection for iFRAME® Cabinets

Nothing is more frustrating on the job site than receiving a cabinet and discovering it has been damaged in shipment. **iFRAME®** Enclosures offer the industry's best level of protection against shipping damage. No other off-the-shelf cabinet comes with three levels of protection to protect against abrasion, impact, and puncture.



Cabinet bolted to heavy duty skid and wrapped in heavy gauge plastic to protect against abrasion.



Cabinet enclosed in wooden frame to protect against all but the most severe impact.



Double-wall corrugated wrap protects cabinet against puncture.



Instructions for unpacking cabinet clearly visible on every iFRAME® cabinet purchased.



# Network Hardware Management System

# Ultra strong columns mount every 2 feet

- Aligns with floor and ceiling grid.
- Cables run within each column.
- Equipment mounted between columns.
- Each additional column in a row forms a rack bay.

#### Superior appearance

- Eliminates "garbage collector".
- Cable routing spools conceal cable.
- · Streamlined covers.

#### **Ultimate Ease-of-Use**

- Cover hinges to both left and right.
- Spools can be located as needed.
  - Maintains bend radius.
  - Aligned with rack positions does not interfere with horizontal cable organizer.

#### Installation is a snap

- Just bolt the columns to the floor every 2'\*, then screw the top plate in place.
- \* For 5" wide column.



- Material: 14 ga. Cold Rolled Steel.
- Finish: durable black powder coat.
- Suitable for 400 front and 400 rear UTP cables.
- Static load capacity: 1,400 lbs.





- Unique, Patented System Integrates Grounding and Bonding, Power Distribution, Cable Management, and Equipment Racking.
- 80% Fewer Parts than Standard Rack to Order and Assemble Requires Only One Tool.
- Greater Than 15% Improvement in Floor Space Utilization Over Traditional Alternatives.
- **iFRAME**® System Designed to Optimize Airflow and Minimize Power Consumption.



#### **iFRAME®** Column

There is no mixing and matching of parts, hoping that they go together. Just bolt the columns to the floor and screw the top plate in place. To make installation foolproof, each column includes a floor mounting template and locating plates. The top mounting plate suspended between columns doubles as a ladder rack mounting plate. The bottom plate makes columns self-squaring. Delivery:

- 1 **iFRAME**® column weldment
- iFRAME® top plate
- 1 Full height front cover with dual-acting hinges\*
- 4 Gates, 4" (ref. Catalog No. VCG4)
- 2 Dual-acting front cover hinges\*
- Kit assembly hardware
- \* Not included in IS7E.

- 1 Bottom alignment installation aid and floor template
- 4 Heavy-duty floor anchor washers
- 20 #12-24 x 5/8" dog point machine screws and washers
- 12 Snap in place cable routing spools

	1010000 111 107							
Rack	Height			Rail	Overall			
Units	Overall Us	able	Width	Depth	Depth	Color	Catalog No.	
19	3′ 35	5.0"	5"	3"	14.17"	Black	IS3	

#### **Use: Without Raised Floor**

Rack	Hei	ight		Rail	Overall			
Units	Overal	l Usable	Width	Depth	Depth	Color	Catalog No.	
45	7′	78.8"	10"	3″		Black	IS710	<b>√10G</b>
45	7′	78.8"	15"	3"		Black	IS715	<b>₹10</b> G
45	7′	78.8"	5"	3″	14.17"	Black	IS7	

Use: With Raised Floor up to	12"	Hiah
------------------------------	-----	------

Rack Units		ight II Usable	Width	Rail Depth	Overall Depth	Color	Catalog No.	
45	8′	78.8"	5"	3″	14.17"	Black	IS7RF	
45	8′	78.8"	10"	3"		Black	IS7RF10	<b>√10</b> G

Use: With Raised Floor up to 12"-18" High

Rack	Height		Rail	Overall			
Units	Overall Usable	Width	Depth	Depth	Color	Catalog No.	
45	7′ 78.8″	5"	3″	14.17"	Black	IS7RF18	

Use: With Raised Floor up to 12" High - Square Holes with Cage Nuts

Rack Units		ight II Usable	Width	Rail Depth	Overall Depth	Color	Catalog No.
45	7′	78.8"	5"	3"	14.17"	Black	IS7RFM6
45	8′	78.8"	10"	3″		Black	IS7RFM610 10G

#### **Use: Square Holes with Cage Nuts**

Rack Units		ight II Usable	Width	Rail Depth	Overall Depth	Color	Catalog No.	
45	7′	78.8"	5"	3"	14.17"	Black	IS7M6	
45	7′	78.8"	10"	3″		Black	IS7M610	<b>₹10</b> G

Use: As the Rear Columns in 4-post Applications

Rack Units	Height Overall Usable	Width	Rail Depth	Overall Depth	Color	Catalog No.	
45	7′ 78.8″	5"	3″	14.17"	Black	IS7E	

#### NOTES:

- 1. Two columns must be ordered for the first rack in a line. Only one column needs to be ordered for each additional rack.
- 2. See www.hubbell-premise.com for videos demonstrating assembly and use of iFRAME® Network Hardware Management System.

#### Spacer Kit, 23"

Use for 23" rack mount applications. This kit contains the spacer brackets needed when setting columns for 23" spacing.

Delivery: 1 top for 23" column spacing, 1 bottom for 23" column spacing.

Color	Catalog No.
Black	ICK23



door open door closed

Shown. door open door closed



ICK23



#### **Accessories**

#### **Top Ladder Rack**



Use to provide an overhead pathway for cable between columns.

Dimensions

Ladder: 2' long x 12" wide.
Stringer: 1½" x 3/8".

Color	Catalog No.
Black	ICKL

#### Features/Benefits

- 100% compatible with 12"W ladder.
- Integrated cable radius drops.
- No splices required.
- Eliminates field cutting of ladder and overhead assembly.
- Pre-drilled to accept 4" square work box.

#### Category 6A Rear Cable Management Kit



ICKC shown installed.

#### Features/Benefits

- Allows lacing of horizontal cable in bundles to simplify termination and minimize scrap cable.
- Provides high volume of cable capacity.

Provides accessible mounting surface for vertical power strips.

The rear cable management kit simplifies the process of pulling, lacing, and terminating horizontal cable.

Delivery: 2 12"W x 6'L ladder rack sticks (Catalog No. HLS0612B)

1 12"W x 24"L **iFRAME**® top ladder

1 27"W x 24"L **iFRAME**® top ladder

1 Wall mounting kit (Catalog No. HLX0612)

T-splice kit (Catalog No. HLTK)

Kit mounting brackets

Color Catalog No.

Black ICKC 106

#### **Cable Management Spools**



Assembles as needed along each column to further route and conceal cable.

#### Features/Benefits

- Snap locks into column.
- Use every 1U to achieve duct style manager.
- Locate as needed to route cable to put wherever needed.

#### **Specifications**

- ◆ Material: Polycarbonate (ABS)
- Finish: Black.
- Maintains T568-A compliant bend radius as cable transitions from horizontal to vertical.

Description	Catalog No	) <b>.</b>
Package of 50 spools 3", black	ICKSS	<b>10G</b>
Package of 50 spools and screws, 9", black	ICKSS9	<b>/10G</b>

#### **Power Kit**



Mounts to ICKL to provide power to equipment bay.

Delivery: 1 4" square work box

1 20A receptacle L5-20R - TWIST-LOCK®

1 Face plate

Assembly hardware kit

Description	Receptacle Color	Receptacle	Catalog No.
<b>iFRAME</b> ® Power Kit	Black	HBL2310	ICKP20
<b>iFRAME</b> ® Power Kit with Isolated Ground	Orange	IG2310	ICKP20IG





## Accessories

#### **4-Post Rack Kit**

For 4-Post applications. This kit contains a set of adjustable front/rear tool-less spacer brackets for use when setting columns in 4-post configurations.

Delivery: 2 Adjustable brackets for spacing columns front to rear

Assembly hardware kit

Description Catalog No.
For 27" to 39" equipment mounting depth.

ISK4P



#### Power Strip Mounting Brackets for 5" Wide iFRAME® Columns

#### Features/Benefits

- Sets power strip ~12" away from column toward rear to separate from data cabling and conveniently locates receptacles near rear of active equipment.
- Power strip swivels to allow user to face receptacles in desired direction.

This kit provides mounting for Hubbell standard 66" tall vertical power strips.

Delivery: 2 Mounting brackets

1 Assembly hardware kit

Catalog No. ICKPM



#### **Cover Kit**

#### Features/Benefits

- Hinges to both left and right.
- Quick, tool-less assembly.
- Conceals cable for neat appearance.

Use to replace or add a front cover.

Delivery: 1 cover, 2 reversible hinges.

Column	Spooi		
Width	Height	Catalog No.	
5	3	ISKC7	
5	9	ISKC796	10G
10	9	ISKC7910 🖖	10G
15	9	ISKC7915	10G



See page H14-H17 for more accessories.



## **Server Cabinet**

**Designed for Hot Aisle/Cold Aisle Cooling** 

Two layer top cable pathways

Integrated Waterfalls and cable routing spools

#### **Traditional Server Cabling**

- Snap in spools can be located at every rack position.
- Facilitate routing cords to traditional patch panel.

#### **Vertical Patch Panel**

- Places two or three data ports at each rack positions.
- Reduces up to 1000 feet of cable in fully loaded cabinet.
- · Drastically improves airflow.
- Double door opens to reveal large cable channel.

#### **3-phase Power Distribution**

- Improves airflow by reducing wire count below the raised floor.
- Optimizes use of site PDU breaker panel.





#### **Specifications**

- EIA-310-D Compliant.
- Construction
  - Frame: 14 ga. welded Steel.
  - Mounting rails: square holes for M6 cage nuts.
  - Side covers: 16 ga. Steel.
- Static load capacity: 1,000 lbs.
- Finish: Durable black powder coat.
- Rack labels identify U positions on all four rack uprights.





- Recessed Uprights Optimize Airflow, Cable Management and Administration.
- Dedicated Cable Paths, Entry Points for the Industry's Best Cable Management Solution.
- Clean Look Enhances the Appearance of the Equipment Room.
- In-Frame Design Optimizes Airflow and Minimizes Power Consumption.



#### **Server Cabinets**

Delivery:

1 Frame

4 19" Mounting rails (square holes with M6 cage nuts)

2 Perforated doors, center opening

2 Side panels, flush

1 Kit of 20 M6 cage nuts, screws and washers

Finish: Durable powder coat, black.						
	1.1 44 1.1					
Description Rack	k Units H	leight V	Vidth [	Depth	Catalog No.	
Server Cabinet, 80"H	43	80"	24"	42"	H1E80E	√10G
Server Cabinet, 80"H, without sides	43	80"	24"	42"	H1E80EX	<b>/10G</b>
Server Cabinet, 80"H	43	80"	24"	36"	H1E80ED	<b>/10G</b>
Server Cabinet, 80"H, without sides	43	80"	24"	36"	H1E80EDX	<b>√10G</b>
Server Cabinet, 80"H	43	80"	24"	44"	H1E8044E	<b>√10</b> G
Server Cabinet, 80"H, without sides	43	80"	24"	44"	H1E8044EX	<b>/10G</b>





#### **Vertical Patch Panel**

Use Hubbell's **iFRAME**® Vertical Patch Panel in the rear of server cabinets to provide an efficient and structured connection to servers and storage equipment.

Order connection modules separately. Material: 16 ga. Cold Rolled Steel.

Finish: Durable metallic silver powder coat.

#### Delivery:

- 1 70" section
- 2 Rolls of 10 VELCRO® brand ONE-WRAP® cable ties
- 1 Kit installation hardware
- 8 #12 attachment screws

	No. of Data	No. of Utility	
Description	Module Locations	Module Locations	Catalog No.
iFRAME® Vertical Patch Panel for	15	42	VPH
Hubbell iFRAME® Server Cabinet			



#### **Data Modules for Vertical Patch Panel**



	Data Module	# Ports/module	Panel Use	Catalog No.
i	10GbE (55m) Module, 6-port	6	Fits into Vertical Patch Panel data module opening for use with Cat 6 UTP (10GbE - TSB-155)	VPPC6
	Blank Covers (10-pack)	0	Covers unused Data Module Openings	VPMB
	<b>iSTATION</b> ™ Module Bezel	8	Each bezel (VPMI) accepts 4 two-port modules (IM2K1GY), which snap into VPMI for data applications where individual jacks are desired (color coding, 10GbE).	VPMI
	<b>iSTATION</b> ™ Module, 2-port, gray	2	Each module accepts 2 HXJ jacks or AV inserts and snaps into VPMI.	IM2K1GY
PROPERTY.	1GbE Data Module (25-pair)	6 port module	Fits into Vertical Patch Panel Data Module opening to terminate 25 pair 1GbE cable assembly. See page D10 for panels and jumpers.	VPP1G

**VELCRO**® and **ONE-WRAP**® are registered trademarks of Velcro Industries B.V.



## **Premise Networking Cabinet**

#### Mates with 12" wide Ladder

• Holes in top of frame to J-bolt ladder to top of cabinet.

#### **Unimpeded Cable Flow**

- Into the cabinet top and bottom.
- Vertically along the four corners where the cable is most likely to go.
- Front to rear along the sides.
- Double door opens to reveal large cable channel.

#### Can be used with front-rear or side-side airflow

#### **Integrated Waterfalls**

#### Snap in cable routing spools

- Route and guide cable on the top.
- Snaps at every U along the vertical uprights.

#### **Optional Top**

- · Facilitates cable entry and routing.
- Keeps cable clear of fan tray exhaust.
- Provides two layer top cable pathways.

#### **Optional Locks for Side Covers**











#### **Specifications**

- EIA-310-D Compliant.
- Construction
  - Frame: 14 ga. welded Steel.
  - Tapped rails: 11 ga. Steel, tapped #12-24.
  - Side covers: .06 Aluminum.
- Static load capacity: 1,000 lbs.
- Finish: Durable black powder coat.
- Rack labels identify U positions on all four rack uprights.





Compatible with Hubbell Labeling System -



- Recessed Uprights Out of the Way of Cable and Patch Cords.
- Dedicated Cable Paths, Entry Points for the Industry's Best Cable Management Solution.
- Clean Appearance Enhances the Appearance of the Equipment Room.
- In-Frame Design Optimizes Airflow and Minimizes Power Consumption.

#### **Premise Networking Cabinets**

1 Frame 2 Perforated single doors Delivery: 4 19" Mounting rails (#12-24) 2 Side panels, 3" wide 1 Kit of 20 screws, #12-24 x 5/8

Description	Rack Units	Height	Width	Depth	Catalog No.	
Premise Networking Cabinet, 84"H	45	84"	30"	32"	H1N84E	<b>100</b>
Premise Networking Cabinet, 84"H, without sides	45	84"	23.94"	32"	H1N84X	<b>100</b>
Premise Networking Cabinet, 80"H	43	80"	30"	32"	H1N80E	<b>100</b>
Premise Networking Cabinet, 80"H, without sides	43	80"	23.94"	32"	H1N80X	100
Premise Networking Cabinet, 84"H	45	84"	30"	36"	H1N84ED	<b>100</b>
Premise Networking Cabinet, 84"H, without sides	45	84"	23.94"	36"	H1N84XD	<b>100</b>
Premise Networking Cabinet, 80"H	43	80"	30"	36"	H1N80ED	/100
Premise Networking Cabinet, 80"H, without sides	43	80"	23.94"	36"	H1N80XD	<b>100</b>



#### **Cable Management Accessories**

#### **Service Loop Storage**



Includes 1 Mounting Plate, 4 snap in spools, 1 kit mounting hardware.

NOTE: Cannot be used with flush side covers.

Catalog No. **H1KSL** 



#### **Top Plate**



Optional Top:

- Facilitates cable entry and routing.
- Keeps cable clear of fan tray exhaust.
- Provides two layer top cable pathways.

Includes 1 Mounting Plate, 4 snap in spools, 1 kit mounting hardware. Accepts 12" wide ladder.

Catalog No. **H1KT** /10G

#### **Vertical Pathway**



Fits within cabinet frame to provide a vertical pathway for cable. Can be used with either flush or 3" wide side panels. Clips into place, location can be adjusted front to rear. Description Catalog No.

For 80" Cabinet **H1KV80** For 84" Cabinet **H1KV84** 

## **Snap In Spools**



Includes 50 snap in spools.

Snap to cabinet uprights, Top Plate, and Service Loop Storage Plate for infinite cable routing options.

Catalog No. 3" black **ICKSS** ICKSS9\*/10G 9" black

\* For Server Cabinet only.





## **Customer Configured Cabinet**

## Choose from 4 Depths by the Extension Kit You Select:

- 32": For most networking applications.
- 36": To match Legacy server cabinets or for deep network equipment.
- 42": For server applications.
- 44": For server applications.

## Choose from 2 Widths by the Side Cover You Select:

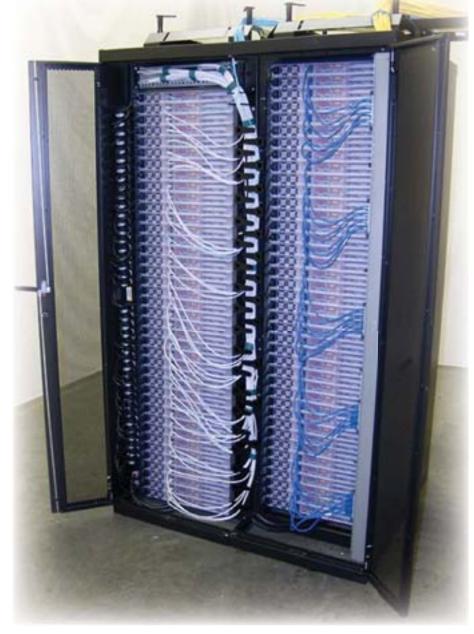
- 24": For most server applications.
- 30": Provides best cable management.

#### **Choose the Best Door for You:**

- Perforated: 68% open area provides excellent ventilation and visibility of network gear.
- Solid: Doors have removable plates allowing mounting of fan trays to actively exhaust warm air behind servers.
- Window: Large viewing area reveals entire front surface of equipment.
- Split/Center Opening: Great for tight aisles.
- Side Hinged: Simple, unobstructed view/ ventilation.

#### **Other Options Include:**

- 19" mounting rails.
- Rack unit identification labels.
- Cable management accessories.
- · Cooling accessories.
- Shelves.



#### **Specifications**

- ◆ EIA-310-D Compliant.
- Construction
  - Frame: 14 ga. welded Steel.
  - Tapped Rails
    - 11 ga. Steel tapped #12-24.
  - 14 ga. Steel with square holes for M6 cage nuts.
  - Side Covers
    - Flush: 16 ga. Steel.
    - 3" wide: .06 Aluminum.
- Static load capacity: 1,000 lbs.
- Finish: Durable black powder coat.
- Rack labels identify U positions on all four rack uprights.
- Components ship separately for field assembly.







- Build a Cabinet Tailored Specifically for Your Application.
- Dedicated Cable Paths, Entry Points for the Industry's Best Cable Management Solution.
- Clean Look Enhances the Appearance of the Equipment Room.
- In-Frame Design Optimizes Airflow and Minimizes Power Consumption.



#### **Customer Configured Cabinets**

#### **iFRAME® Cabinet Frame**

Description	Height	Catalog No.
iFRAME® Cabinet Frame, 84"H	84" (2134)	H1F84
iFRAME® Cabinet Frame, 80"H	80" (2032)	H1F80

19" Equipment Mounting Rails

Choose between #12-24 tapped rails or square holes for M6 cage nuts. Use split rails to optimize use of rack space. Lower set (80'' = 26U / 84'' = 28U) has square holes and can be set for deep servers. Upper set (17U) has tapped #12-24 holes and can be set for patch panels and horizontal organizers.

Delivery: 1 set of 2 rails. Order equipment mounting	g hardware and rack lo	abels separately.
	Catalog No.	Catalog No.
Description	For 80"H Cabinet	For 84"H Cabinet
	43 Rack Units	45 Rack Units
Mounting Rails tapped #12-24	H1KT80	H1KT84
Mounting Rails with square holes for M6 cage nuts	H1KR80	H1KR84
Split Mounting Rails	H1KSR80	H1KSR84



Shown with rails and extensions not included, order separately.

#### **Doors and Side Covers**

#### **Doors**

		80" Cabinet	84" Cabinet
Door Style	Hinge Type	Catalog No.	Catalog No.
Perforated	Single Side Hinged	H1D801P	H1D841P
	Split/Center Opening	H1D802P	H1D842P
Window	Single Side Hinged	H1D801W	H1D841W
	Split/Center Opening	H1D802W	H1D842W
Solid	Single Side Hinged	H1D801X	H1D841X
	Split/Center Opening	H1D802X	H1D842X





H1D802W

#### **Side Covers**

Style	Resulting Cabinet Width	Cabinet Depth	80" Cabinet Catalog No.	84" Cabinet Catalog No.
Flush	24" (610)	32"	H1S8032F	H1S8432F
	24" (610)	36"	H1S8036F	H1S8436F
	24" (610)	42"	H158042F	H1S8442F
	24" (610)	44"	H1S8044F	H1S8444F
3"	30" (762)	32"	H1S8032W	H158432W
	30" (762)	36"	H1S8036W	H158436W
	30" (762)	42"	H158042W	H158442W
	30" (762)	44"	H1S8044W	H1S8444W





#### **Enclosure Accessories**

#### **Waterfall/Extension Kit**





Use to define cabinet depth.	
Includes 2 top extensions, 2 bottom extensions, 1 kit of mounti	ing hardware.
Description	Catalog No.
4" Extension Kit (32" resulting cabinet depth)	H1KX4
6" Extension Kit (36" resulting cabinet depth)	H1KX6
9" Extension Kit (42" resulting cabinet depth)	H1KX9
10" Extension Kit (44" resulting cabinet depth)	H1KX10

H1KX4

#### **Equipment Shelf, Telescopic**





#### Features/Benefits

Provides a slide out surface featuring rear access.

#### **Specifications**

Material: 16 ga. Steel.

• Finish: Durable powder coat.

For use with Server cabinets. Dimensions: 16.5"W x 29.2"D. Load capacity: 200 lbs. Delivery: 1 shelf pre-assembled with telescopic slides and 2 kits mounting hardware. Catalog. No. **CKTSD** Black

#### **Equipment Shelf, Stationary**





#### Features/Benefits

- Ideal for monitors, modems, external drives and manuals.
- Perforated for ventilation.

## **Specifications**

- Material: 16 ga. Steel.
- Finish: Durable powder coat.
- Load capacity: 200 lbs.

For use with Server cabinets. Dimensions: 17.7"W x 29.2"D. Delivery: 1 shelf, 1 kit mounting hardware. Color

Black **CKSSD** 

## Catalog. No.

#### **Equipment Shelf, Stationary, Perforated**

#### Features/Benefits

- Ideal for monitors, modems, external drives and manuals.
- Perforated for ventilation.

#### **Specifications**



Dimensions: 17.9"W x 24.13"D.

Load capacity: 200 lbs.

Delivery: 1 shelf and 1 kit mounting hardware.

Color Catalog. No. Black **MCCPSHLF** 

#### **Equipment Shelf, Telescopic**





#### Features/Benefits

Provides a slide out surface for equipment where rear access is crucial.

#### **Specifications**

Material: 16 ga. Steel.

◆ Dimensions: 16.75"W x 22"D.

Load capacity: 85 lbs.

Delivery: 1 shelf, 1 pair telescopic slides and 1 kit of mounting hardware.

Color Catalog. No. Black **MCCTELSHLF** 



## **Enclosure Accessories**

#### **Mobile Base**

#### Features/Benefits

- Pre-assembled.
- Leveling feet to level cabinet and lock in place.

#### **Specifications**

- Material: 16 ga. Steel.
- Finish: Durable powder coat.
- ◆ Dimensions: 3.89"H x 24"W x 42"D.
- Weight capacity: 1,000 lbs.



Levelling Kit	H1KL
Caster Kit	H1KC
Description	Catalog. No.
Black	H1KMB
Color	Catalog. No.
Delivery: 1 base	e, 4 swivel casters, 4 adjustable feet and 1 kit mounting hardware.
Dolls to the bolic	on of tremise recovering and Server Cabinets.



#### **Fan Kits**

#### Features/Benefits

Increases ventilation.

Delivery:	1 fan tray	assembly, 1	2 fans,	wired,	1 ki	t mounting	hardware.
-----------	------------	-------------	---------	--------	------	------------	-----------

Description	Catalog No.
Fan kit, 114 CFM, 120VAC, 60Hz, 36dBA	HWKF120
Fan kit, 114 CFM, 230VAC, 50Hz, 36dBA	HWKF230

For use with Premise Networking and Server cabinets.	
Delivery: 1 fan, 1 wire guard, 4 lock nuts, screws, washers, 1	cord with plug, 6'.
Description	Catalog. No.
Blank plate with 1-4" fan/PVC conduit cut-out	H1KB
4" Fan, 57 CFM, 120VAC, 60Hz, 36dBA	REKEF







REKEF

## **Enclosure/Rack Accessories**

#### **Equipment Shelf, Cantilevered**



#### Features/Benefits

- For lighter equipment such as hubs or modems.
- Mount upside down to create a work surface.
- Ideal for servers, monitors, or other equipment.

#### **Specifications**

Material: 16 ga. Steel.

Finish: Durable powder coat.

Load capacity: 50 lbs.

For use in	all 19"	cabinets and	d racks.
Delivery:	1 shelf	and 4 HPW	screws

Delivery: I shelt	t and 4 HPW screws.		
Description	Dimensions	Color	Catalog. No.
Solid	3.5"H x 17"W x 14"D	Black	MCCCS19
Perforated	3.5"H x 17"W x 14"D	Black	MCCCS19P

#### **Equipment Shelf, Center-Weighted**



#### Features/Benefits

Ideal for servers, monitors, and other heavy equipment.

#### **Specifications**

- Material: 16 ga. Steel.
- Finish: Durable powder coat.
- ♦ Load capacity: 75 lbs.

For use in Equipment Racks. Dimensions: 3.5"H x 17"W x 19"D.

Black	MCCCWS19
Color	Catalog. No.
Delivery:	1 shelf and 4 HPW screws.

#### **Equipment Shelf, Heavy Duty**



#### Features/Benefits

Heavy duty storage applications.

#### **Specifications**

- 200 lb. load capacity.
- Material: 16 ga. Cold Rolled Steel.
- Finish: Durable powder coat.

For use in 19" equipment racks and iFRAME column system.

Dimensions: 7"H x 19"W x 20"D.

Delivery: 2 shelves and 8 HPW screws.

Color Catalog. No.

Black MCCCWS19HD

Aluminum MCCCWS19HDA

#### 19" Filler Panels



#### Features/Benefits

#### reatures/ Deficition

Rolled top and bottom edges.

#### **Specifications**

Material: Steel.

Finish: durable black powder coat.

Delivery: 1 panel and 4 HPW screws.

Bontory. I panor and I in it	3010113.		
Height	1.75"H (1U)	3.50"H (2U)	7.00" H (4U)
Flat Catalog No.	MCCBP175	MCCBP350	MCCBP700
Angled Catalog No.	ABP	-	-



#### **Enclosure/Rack Accessories**

#### **Thermostat**

Delivery: 1 thermostat, 1 adhesive-backed mounting bracket, 1 wiring harness.

CTK Catalog. No.





#### **Cabinet Light, Motion Detector**

For use with all cabinets.

Delivery: 1 light, 1 14W fluorescent light bulb, 1 drop light hook, 1 holder, 1 power cord, 1 lamp base, 1 assembly kit with mounting bracket.

Description Catalog. No. Motion Detector **CLKM** Switch **CLKS** 





#### **Cabinet/Rack Label Kits**

Use to identify and number rack spaces.

Rack and cabinet label holder (pack of 10)

Catalog. No.	RRLABEL
Laser-printable label sheets and label holders.	
Delivery: Package of 10, 8.5" x 11" paper sheets	s x 10 labels/sheet.
Description	Catalog No.
Rack Labels, 1"x6"	XPLRC10W

**RRLABEL** 

XPHRC10





RRLABEL

#### **Joining Kits**

Use to join Premise Networking or Server cabinets side-by-side.

Delivery: 6 each of the following: 1/4"-20 x 1/2" hex bolts, 1/4" lock washers, 1/4" flat washers, 1/4"-20 hex nuts.

**HPWJKIT** Catalog. No.





#### **Mounting Hardware**

For mounting 19" equipment in Equipment Racks and Wall Mount Cabinets.

Delivery: Bag of 20 each #12-24 x 5/8" pan head Phillips black screws.

Catalog. No. 1224RRSCRW20

For mounting 19" equipment in Server Cabinets.

Delivery: Bag of 100 each M6 cage nuts, M6 screws, M6 washers.

Catalog. No. CKM6





# **ZONE CABINET SOLUTIONS**



#### **Location Options**

- On Wall
- In Wall
- Ceiling
- Raised Access Floors

#### **Protection Options**

- Remote Commercial Environments
- UL Type 3R
- UL Type 4/12/13
- UL Type 4X

#### **Application Options**

- Broad Range of Accessories
- Supports Wide Range of Equipment
- Ceiling
- Raised Floors

# Advantage

- Innovative Designs Deliver Load Capacity, Protection and Aesthetics.
- Modular Designs Simplify Installations in Tough Locations.
- Versatile System Adapts to Many Environments and Applications.
- Zone Cabling Results in Less Abandoned Cable.

Mounting	Environmental	Application	Equipment	Load	Page	Comments	
On- Wall	HARSH e1, e2, e3	Telecommunications Enclosure	Patch Panels Switches Punch-Down Blocks	N/A	H24	Great for deploying network equipment in harsh environments. Low-profile, Type 3R, 4, 12, 13 and 4X versions.	
	Remote Commercial	Telecommunications Enclosure	Patch Panels Switches Punch-down Blocks AV Connections	100 lbs.	H22	Ideal for classroom and office. Sleek appearance. Low profile, tamper- resistant.	
	Commercial	Telecommunications Enclosure	Patch Panels Switches Punch-down Blocks AV Connections 12-port Modules Fiber Adapters	400 lbs.	H20	Suitable for TRs for medium and large offices. Large size and double hinging.	
	Commercial	Telecommunications Enclosure	Wireless Access Points	N/A	H33	Suited to provide security for wireless access points located in uncontrolled locations.	1
In-Wall	Commercial	Consolidation Point	Patch Panels Punch-down Blocks AV Connections 12-port Modules Fiber Adapters	N/A	H31	Great for consolidation points serving small office areas.	
Raised Access Floor	Commercial	Consolidation Point	Patch Panels	N/A	H32	High port count consolidation point in large open offices or computer rooms with raised floors.	
Ceiling	Commercial	Telecommunications Enclosure	Wireless Access Points	N/A	H33	Suited to provide security for wireless access points (including the Cisco® Aeronet 1200) located in uncontrolled locations.	-
	Commercial	Telecommunications Enclosure	Patch Panels Switches 110 Blocks	N/A	H32	Ideal for classroom and office environ- ments where wall space is at a premium.	



## **Wall Mount Cabinets**

#### **Adjustable Rails**

from front to rear - notched for easy location.

## **Dedicated Bonding Points**

speed grounding and installation.

## Specifically Designed with Multiple Options to Mount

to plywood backboards, steel and wood studded walls, cinder block and concrete walls.

**Vented Sides** for active equipment. Optional filters available.

#### Structured Cable Routing

between front and rear sections.

#### **Raceway Knockouts**

simplify conduit connection.





Compatible with **Hubbell Labeling System** - see page M8.

#### **Specifications**

- 400 lb. load capacity.
- Material:

Rear section, center section: 14ga. Cold Rolled Steel.

Top/bottom hinge cover panel: 11 ga. Cold Rolled Steel.

Front door: 18 ga. Cold Rolled Steel. Hinged mounting plates (rear door): 11 ga. Cold Rolled Steel.

- Finish: powder coat black.
- 19" rack-style rails tapped #12-24 per EIA-310-D.
- Grounding provisions per TIA-607.
- Acrylic window tinted smoke gray.
- 16" stud mounting.
- Front door and rear locks both keyed alike with key #CH751.
- Knockouts: 4 @ 2½"-3"; 3 @ ¾"-1";
   1 @ HBL4750 series Raceway.
- UL 1863 Listed.





# HUBBELL Advantage

- Cabinet Closes with One Hand Even When Loaded to 400 lb. Capacity.
- Cabinet Installs in Modular Sections.
- Rear Wall Easily Configured to Accept 19" Panels, 110 Blocks, A/V Splitters, and More.
- Wall Mount Cabinets Help Optimize Floor Space.



#### **QUADCAB® Wall Mount Cabinets**

Delivery: 1 Rear section (arrives disassembled facilitating installation)

1 Front door

2 19" mounting angles

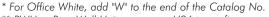
1 Center section with 2 CH751 locks

2 Top/bottom cover plates

2 Hinge pins

2 Security cotter pins

ight	Rack Units	Depth	Door Style	Color*	RWU**	Catalog No.	
4"	12	20"	Window	Black	2	HSQ24	<b>10G</b>
4"	12	26"	Window	Black	2	HSQ2426	<b>√10</b> G
4"	12	36"	Window	Black	2	HSQ2436	<b>10G</b>
4″	12	20"	Solid	Black	2	HSQ24S	<b>√10G</b>
4″	12	26"	Solid	Black	2	HSQ24S26	<b>₽10G</b>
4"	12	36"	Solid	Black	2	HSQ24S36	<b>√10G</b>
ight	Rack Units	Depth	Door Style	Color*	RWU**	Catalog No.	
6″	19	20"	Window	Black	4	HSQ36	<b>√10G</b>
6″	19	26"	Window	Black	4	HSQ3626	<b>√10G</b>
6″	19	36"	Window	Black	4	HSQ3636	√10G
6″	19	20"	Solid	Black	4	HSQ36S	<b>√10</b> G
6″	19	26"	Solid	Black	4	HSQ36S26	<b>10G</b>
6″	19	36"	Solid	Black	4	HSQ36S36	<b>/10G</b>
ight	Rack Units	Depth	Door Style	Color*	RWU**	Catalog No.	
8″	26	20"	Window	Black	6	HSQ48	√10G
8″	26	26"	Window	Black	6	HSQ4826	<b>√10</b> G
8″	26	36"	Window	Black	6	HSQ4836	√10G
8″	26	20"	Solid	Black	6	HSQ48S	√10G
8″	26	26"	Solid	Black	6	HSQ48526	√10G
8″	26	36"	Solid	Black	6	HSQ48536	√10G
	4" 4" 4" 4" 4" 4" 4" 4" 4" 4" 66" 66" 66	4" 12 4" 12 4" 12 4" 12 4" 12 4" 12 4" 12 6" 19	4" 12 20" 4" 12 36" 4" 12 36" 4" 12 36" 4" 12 36" 4" 12 36" 4" 12 36" 4" 12 36" 6" 19 20" 6" 19 36" 6" 19 20" 6" 19 36"	4" 12 20" Window 4" 12 36" Window 4" 12 36" Window 4" 12 20" Solid 4" 12 26" Solid 4" 12 36" Solid 4" 12 36" Solid 4" 12 36" Window 6" 19 20" Window 6" 19 26" Window 6" 19 36" Window 6" 19 36" Solid 6" 19 36" Window 6" 19 36" Window 6" 19 36" Solid	4"         12         20"         Window         Black           4"         12         26"         Window         Black           4"         12         36"         Window         Black           4"         12         20"         Solid         Black           4"         12         26"         Solid         Black           4"         12         36"         Solid         Black           4"         12         36"         Solid         Black           6"         19         20"         Window         Black           6"         19         26"         Window         Black           6"         19         36"         Window         Black           6"         19         26"         Solid         Black           6"         19         26"         Solid         Black           6"         19         36"         Solid         Black           6	4"         12         20"         Window         Black         2           4"         12         26"         Window         Black         2           4"         12         36"         Window         Black         2           4"         12         20"         Solid         Black         2           4"         12         26"         Solid         Black         2           4"         12         36"         Window         Black         4           6"         19         20"         Window         Black         4           6"         19         36"         Window         Black         4           6"         19         20"         Solid         Black         4           6"         19         26"         Solid         Black         4           6"         19         36"         Solid         Black         4	4"         12         20"         Window         Black         2         HSQ2426           4"         12         26"         Window         Black         2         HSQ2436           4"         12         36"         Window         Black         2         HSQ2436           4"         12         20"         Solid         Black         2         HSQ24526           4"         12         26"         Solid         Black         2         HSQ24526           4"         12         36"         Solid         Black         2         HSQ24536           4"         12         36"         Solid         Black         2         HSQ24536           4"         12         36"         Solid         Black         4         HSQ24536           6"         19         20"         Window         Black         4         HSQ365           6"         19         26"         Window         Black         4         HSQ3656           6"         19         26"         Solid         Black         4         HSQ3658           6"         19         26"         Solid         Black         4         HSQ36536



<sup>\*\*</sup> RWU = Rear Wall Unit - see page H26 to configure rear wall.





#### **Patch Panel Mounting Bracket**

Use to mount 19" patch panels to rear wall. Provides front access to rear for easy termination.

Delivery: 2 brackets, 1 left hand, 1 right hand.

Finish: Light gr	ay powder coat
Rack units	Catalog No.
4	REK19
2	REK19L



RWU 1

#### **Equipment Mounting Bracket**

Provides 19" mounting for hubs and other active equipment to rear wall.

Delivery: 2 brackets, 1 left hand, 1 right hand.

Material: 16 gauge steel. Finish: Light gray powder coat. Rack units Catalog No. **REKZ** 5

**REKZL** 



RWU 1

NOTE: Remember to account for depth of equipment.

#### 3/4" Plywood Backboard

Provides universal mounting for wall mounted brackets, blocks, splitters, hubs and other devices. Mounts to rear wall.

Delivery: 0.75" APA grade AC plywood painted fire-retardant white, 2 mounting brackets, 1 assembly hardware kit.

Dimensions	RWU	Catalog No.
20"x19"	2	<b>REKBB20</b>
30"x19"	3	<b>REKBB30</b>
40"x19"	4	<b>REKBB40</b>



#### **20A Power Kit**

Occupies left or right side of 1 rear panel space.

Delivery:

3

- 1 Hubbell surge-protected duplex receptacle with audible alarm (HBL5262IS).
- 1 Single-gang work box.
- 6' Hubbell POLYTUFF® non-metallic conduit.
- 1 Stainless steel face plate. 1 Assembly hardware kit.
- Catalog No.





NOTE: For information on how to configure the rear wall unit, please see page H26.



# Remote Equipment Cabinet for Commercial Environments

**Stylized**, low-profile appearance. Suitable for classrooms and offices.

#### **Inter-Locking Door Design**

and sloped door resist dust and vandalism.

#### **Wide Variety of Accessories**

allow user to tailor to suit.

Pre-Configured and User-Configurable versions.

#### Mounting for 19" Patch Panel

hinges down for front access termination.

#### **Flexible Mounting**

for active equipment including hubs and UPSs.

#### **Easy Expansion**

in the field to support future growth.

#### **Specifications**

- UL 1863.
- 16 ga. Cold Rolled Steel welded construction.
- Designed specifically for hostile environments:
  - Tamper resistant per Telcordia™ GR-487-CORE.
  - Ventilation pattern complies with UL 60950.
  - Designed to meet NEMA 2.
- Durable powder coat finish.
- 2 sets 19" mounting brackets with #12-24 formed threads to universal EIA hole pattern (5/8", 5/8", ½" spacing).
- ◆ Top set bottom hinging for patch panel and mounting (RE2=2U; RE4 = 4U).
- Bottom set fixed for switch gear (RE2 = 2U; RE4 = 5U).
- Load capacity: 100 lbs.
- Accepts maximum hub depth of 14" (RE2 and RE4) or 22" (RE4X).
- Abundant cable entry through sides, bottom and top.
  - Compatible with major raceway and popular conduit sizes.
- Designed to dissipate 160W industry maximum without fan.
- ♦ Weight: RE4 = 50.6 lbs.; RE2 = 45.1 lbs.





- Eccentric Knockouts for Conduit and Rectangular Knockouts for Metal and PVC Raceway.
- Door Lifts Off When Open for Easy Installation, Hinge Easily Reversed in the Field (Requires Catalog No. REKI).
- Flexible Mounting for Active Equipment Including Hubs and UPSs
- Distributing Network Equipment Lessens the Heat Load in the Telecom Room.





#### **RE-BOX® - Commercial Equipment Cabinet**

**Pre-Configured Version** 

Delivery: 1 base/rear section with welded 19" brackets for 2 hubs

1 front door with 2 locks (NSQ tool)

1 set 19" extension brackets for 3 additional hubs (RE4xx only)

1 set 19" bottom hinge brackets for patch panels

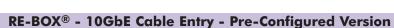
Switch	Max. Switch					
Capacity	Depth	Height	Width	Depth	Color	Catalog No.
2U	14" (356)	32" (813)	24.2" (615)	7" (178)	Light gray	RE2
2U	14" (356)	32" (813)	24.2" (615)	7" (178)	Black	RE2B
5U	14" (356)	32" (813)	24.2" (615)	10" (254)	Light gray	RE4
5U	14" (356)	32" (813)	24.2" (615)	10" (254)	Black	RE4B
5U	22" (559)	42" (1067)	24.2" (615)	10" (254)	Light gray	RE4X
5U	22" (559)	42" (1067)	24.2" (615)	10" (254)	Black	RE4XB

**User-Configurable Version** 

Delivery:	1 base/rear sectio	n and 1 front de	oor with 2 lock	cs (NSQ tool) (IDF2	24 has only 1 lock).
Height	Width	Depth	RWU*	Color	Catalog No.
24" (600)	24.2" (615)	10" (254)	2U	Light Gray	IDF24
32" (813)	24.2" (615)	10" (254)	4U	Light Gray	IDF32
42" (1067)	24.2" (615)	10" (254)	6U	Light Gray	IDF42

NOTE: IDF24L and IDF24 do not use the same base section, knock-out patterns are different.

<sup>\*</sup> RWU = Rear Wall Units, see page H26 to configure rear wall.



Same as standard Preconfigured **RE-BOX**® except top conduit knockouts replaced with adjustable, high cable capacity grommet plate.

Delivery: same as Preconfigured version above.

Switch	Max. Switch					
Capacity	Depth	Height	Width	Depth	Color	Catalog No.
2U	14" (356)	32" (813)	24.2" (615)	7" (178)	Light Gray	RE210G 100
5U	14" (356)	32" (813)	24.2" (615)	10" (254)	Light Gray	RE410G 100



RE4XB

#### **20A Power Kit**

Occupies left or right side of 1 rear panel space.

Delivery:

- 1 Hubbell surge-protected duplex receptacle with audible alarm (HBL5262IS).
- 1 Single-gang work box.
- 6' Hubbell **POLYTUFF**® non-metallic conduit.
- 1 Stainless Steel face plate.
- 1 Assembly hardware kit.

Catalog No. **REKP** 



#### Fan Kit

Enhances ventilation.

Delivery: 57-CFM fan, finger guard, disconnect power cord, 2-prong plug, foam baffle, adhesive-backed baffle, #6-32 mounting screws, assembly bracket.

Material: 16 ga. Steel.
Finish: black powder coat.
NOTE: Order 1 per RE2; Order 2

per RE4, RE4X, IDF.
Catalog No. **REKF** 



NOTE: See pages H27 through H30 for Accessories.



Compatible with Hubbell Labeling System - see page M8.



## **Wall Mount Cabinet for Harsh Environments**

#### **Dust and Watertight**

gasket on door.

#### **Rear Mounting Panel**

with equipment mounting brackets (brackets shipped in pre-configured enclosures only).

**Field-Configurable** to suit multiple applications

#### 1/4 Turn Oil-tight Latches

on front cover for secure closure.

#### **Available in UL Versions**

Type NEMA 3R, 12, 4, 4X and 13.

## Protects Commercial Network Equipment

located in harsh environments.

Print Pocket is provided.

#### **Specifications**

- 14 ga. Steel body and door.
- Continuous plasma-welded seams.
- ♦ Poured-on polyurethane gasket on door.
- ANSI 61 Gray polyester inside and out over phosphatized surfaces.
- Usable depth: 11.59";
   Nominal depth: 12".
- Dust and watertight to NEMA 12.
- UL Listed to UL 508 Type 12 enclosures\*.
- cUL Certified types 4 and 12\*\*.
- NEMA/EEMAC Types 4, 12, and 13.
- ◆ JIC EL-1-7.
- \* UL File #E64791. \*\* cUL File #LL66078.







- Industry's First **RE-BOX**® Wall Mount Cabinet for Harsh Environments.
- Modular Backboard System Eliminates Time Consuming Field Engineering.
- Easily Adapts Commercial Network Equipment to Harsh Environments.
- Distributing Network Equipment Lessens the Heat Load in the Telecom Room.



#### HI-IMPACT RE-BOX® - Remote Equipment Cabinet



#### **User-Configurable Version**

<b>(</b> )1	<b>2</b>	<b>3</b>
Catalog No.	Catalog No.	Catalog No.
Cold Rolled Steel	Cold Rolled Steel	Stainless Steel
Gray Powder Coat	Gray Powder Coat	Brushed, unpainted
3R	4/12/13	4X
IR2U3RG	IR2UG	IR2USS
IR3U3RG	IR3UG	IR3USS
-	IR4UG	-
	Cold Rolled Steel Gray Powder Coat 3R IR2U3RG	Catalog No. Cold Rolled Steel Gray Powder Coat 3R 4/12/13 IR2U3RG IR3U3RG IR3UG

#### Pre-Configured Version

Delivery: 1 enclosure; 1 bottom-hinged patch panel bracket, 4U (REK19); and 1 equipment mounting bracket, 5U (REKZ).

	Catalog No.	Catalog No.	Catalog No.
Material:	Cold Rolled Steel	Cold Rolled Steel	Stainless Steel
Finish:	Gray Powder Coat	Gray Powder Coat	Brushed, unpainted
NEMA Rating:	3R	4/12/13	4X
Height: 36" (914.4)	-	IR3PG	-
Height: 48" (1219.2)	-	IR4PG	-

**2** 

See page H26 to configure rear wall.



# HIBBELL HUBBELL

mpact Consolidation Point Cabinet



#### Specifications

- Body and door fabricated from 14 gauge 304 Stainless Steel (HICPSS); 14 gauge Cold Rolled Steel (HICP412G).
- ◆ Continuous plasma-welded seams.
- ♦ 1/4-turn, oil-tight latches on door.
- ◆ Poured-in polyurethane gasket on door.
- ANSI 61 Gray polyester inside and out over phosphatized surfaces (HICP412G).



- Corrosion-resistant NEMA 4X stainless steel withstands years of abuse.
- Consolidation point cabinets provide an easy solution to house active equipment in harsh environments.
- When tamper-resistance is needed, an optional lock is available to secure your active equipment.

Hubbell's HI-IMPACT NEMA 4X and 4/12 consolidation point cabinets are designed for harsh environments where oil, dirt, dust and moisture are present. The HI-IMPACT consolidation point cabinet is a perfect solution to house and secure small switches, wireless access points and cross connect products in harsh environments such as factory floor, convention centers, correctional facilities, and commercial kitchens.

Туре	Material/finish	Size	Catalog No.
NEMA 4X	Stainless steel	12x12	HICPSS
NEMA 4/12	Powder-coat, Gray	12x12	HICP412G e 2







Please see page K4 for the "Hubbell Application Rating System for Harsh Environments".

## **Rear Wall Clip System**

In this unique system, attachment slots spaced 3" apart are stamped into the rear wall along its entire height. The customer can then clip a wide assortment of accessories to the rear wall of the cabinet to mount patch panels, switches, punch-down blocks, coax splitters and so





Feature	Accessory Catalog Numbers	Benefit
Patch Panel Mounting	REK19 REK19L	Mounting patch panels in rear section of QUADCAB® frees space in the center section for more active equipment resulting in a smaller cabinet profile on the wall or more room for future expansion.      Make cable termination easier.
Active Equipment	REKZ REKZL	<ul> <li>Deep active equipment can be hung vertically.</li> <li>Blank 19" panels can be used to provide shelves along the rear wall for media converters or other desktop equipment.</li> </ul>
Fiber Work Box	REKFP	Fiber six packs can be mounted securely near cable entry points.
Punch-Down Blocks	REK110	• Mounts 110 and 66 blocks into rear using pre-threaded rails - saves labor time on the job.
Factory-Prepared Back- board	REKBB20 REKBB30 REKBB40	<ul> <li>Pre-painted with fire retardant white paint and kitted with clip in hardware to eliminate time on the job site.</li> <li>Makes code compliance a simple task.</li> </ul>

- Determine the equipment you need to mount on the rear wall of the cabinet.
- (2) Locate the appropriate accessories on page H27.
- Determine the amount of space needed for each and map out on the guide to the right.

NOTE: Each RWU = 6"

# **RWU** 6 HSQ48XX, IDF42, IR4XX 4 HSQ36XX, IDF32, IR3XX 3 **2** HSQ24XX, ISF24, IR2XX 1



## **Accessories** to Configure Rear Wall of

## QUADCAB® (HSQ series), Commercial RE-BOX® (IDF series), and the

HI-IMPACT RE-BOX® (IR series) Wall Mount Cabinets.

#### **Patch Panel Mounting Bracket**

Use to mount 19" patch panels to rear wall. Provides front access to rear for easy termination.

Delivery: 2 brackets, 1 left hand, 1 right hand. Finish: Light gray powder coat

Rack units	Catalog No
4	REK19
2	REK19L



RWU 1

#### **Equipment Mounting Bracket**

Provides 19" mounting for hubs and other active equipment to

Delivery: 2 brackets, 1 left hand, 1 right hand.

Material: 16 gauge steel. Finish: Light gray powder coat. Rack units Catalog No.

5	REKZ
3	REKZL



RWU 1

NOTE: Remember to account for depth of equipment.

#### 3/4" Plywood Backboard

Provides universal mounting for wall mounted brackets, blocks, splitters, hubs and other devices. Mounts to rear wall.

Delivery: 0.75" APA grade AC plywood painted fire-retardant white, 2 mounting brackets, 1 assembly hardware kit.

Dimensions	RWU	Catalog No.
20"x19"	2	REKBB20
30"x19"	3	REKBB30
40"x19"	4	<b>REKBB40</b>



#### **20A Power Kit**

Occupies left or right side of 1 rear panel space. Delivery:

- 1 Hubbell surge-protected duplex receptacle with audible alarm (HBL5262IS).
- 1 Single-gang work box.
- 6' Hubbell POLYTUFF® non-metallic conduit.
- 1 Stainless steel face plate.
- 1 Assembly hardware kit.

Catalog No. **REKP** 



#### 110/66 Block Mounting Rails

Provides mounting for 110 and 66 blocks. Mounts to rear wall.

Delivery: 2 110/66 block mounting rails, 20  $\#10-24 \times \frac{1}{2}$ " screws. Material: 18 ga. Cold Rolled

Steel.

Finish: Light gray powder coat.

Catalog No. **REK110** 



RWU 2

#### **Fiber Optic Bracket**

Accepts one fiber FSP adapter panel. Occupies no rear panel spaces.

Delivery: 1 fiber optic bracket. Material: 16 ga. Steel. Finish: Light gray powder coat. Catalog No. **REKFP** 





## **IDF Mounting Bracket**

For use with Residential Structured Cabling Modules shown on page L6 and L7, and with NSOFSB.

Catalog No. **REKHS** 



**RWU 1.5** 

#### Panel Bracket Adapter, FSP

For use with adapter panels (see page F10). Snap mounts into structured cabling enclosures.

Catalog No. **NSOFSB** 



## HUBBELL Quad

## Accessories

#### Fan Kit



Increases ventilation.

50 Hz, 36 dBA

Delivery: 1 Fan tray assembly,

wired, 1 Kit m	ounting hardware.
Description	Catalog No.
114 CFM,	HWKF120
120 VAC,	
60 Hz,	
36 dBA	
114 CFM,	HWKF230
230 VAC,	

#### **Front Door**



Replacement front doors for Super QUADCAB® enclosure.

Delivery: 1 door, 1 window (on Plexiglas doors only), 2 hinge barrels, right and left hinges, 4 lock nuts and 4 carriage bolts.

Catalog No. <b>HQKXDHH*</b>
$\mathbf{X} = \mathbf{S}$ for solid metal door or
" <b>W</b> " for window door.
<b>HH</b> = Height: " <b>24</b> " for 24"H,
" <b>36</b> " for 36"H, or
" <b>48</b> " for 48"H.
* = Finish: Standard finish is
Black, for White add " <b>W</b> ".

#### Fan Plate/Fan



Fan Delivery: 1 fan, 1 wire guard, 4 lock nuts, screws, and washers

and 1 cord with 6' plug. Description Catalog No. Blank plate H1KB with 4" fan/PVC conduit knock-out **REKEF** Fan, 125V/7A

#### **Rear Rail Kit**



Use to support rear of deep, active equipment or to adapt to accept cage nuts.

Delivery: 2 19" Mounting rails, 1 Kit mounting hardware, 20 screws + 20 washers.

Description	Catalog No.
24"xM6	HWK6M6
36"xM6	HWK9M6
48"xM6	HWK12M6
24"x#12-24	HWK241224
36"x#12-24	HWK361224
48"x#12-24	HWK481224

#### **Reusable Dust Filter**



Dust filter for air intake when using fans. Recommended use with

Delivery: 2 filters with pre-assembled adhesive Velcro® fasteners.

**HWKFF\*** Catalog No. \* 2 kits are needed for 3' and 4' cabinets.

#### **Mobile Base**



Use to convert QUADCAB® Wall Mount Cabinet to floor standing cabinet.

Delivery: 1 mobile base, 4 swivel casters, 4 leveling feet, 1 kit mounting hardware.

Mobile Base	Catalog No.
20" depth	<b>HSQKMB20</b>
26" depth	<b>HSQKMB26</b>
36" depth	HSQKMB36

#### **DIN Rail Communications Kit**



gasket kit.

**HIDRUBCKIT** Catalog No. See page B30 for **Decorator** and Duplex frames.

**VELCRO**® is a registered trademark of Velcro Industries B.V.





## **Accessories**

#### Fan Kit

Enhances ventilation. Delivery: 57-CFM fan, finger guard, disconnect power cord, 2-prong plug, foam baffle, adhesive-backed baffle, #6-32 mounting screws, assembly bracket.

Material: 16 ga. Steel. Finish: black powder coat. NOTE: Order 1 per RE2; Order 2

per RE4, RE4X, IDF.

Catalog No. **REKF** 



#### **Conversion Kit**

Use in the field to convert an RE2 to an RE4 for added space. Delivery: 1 RE4 door, 2 RE4 19" x 3U extender brackets, Two 4U bottom hinged patch panel brackets.

Material: 16 ga. Steel Finish: Powder coat.

Catalog No. Color Light Gray **REKU REKUB** Black





#### Fan Plate/Fan

Fan Delivery: 1 fan, 1 wire guard, 4 lock nuts, screws, and washers and 1 cord with 6' plug.

Catalog No. Description Fan, 125V/7A **REKEF** 



#### **Padlock Hasp Kit**

Use to secure the door with the user supplied padlock. Delivery: 2 padlock hasps, Four  $\frac{1}{4}$ -20 Carriage bolts , hex nuts, and washers.

**REKH** Catalog No.



#### **Fan Filter Kit**

Cabinet dust filter for air intake when using fans (for RE4, RE4X, IDF only).

Delivery: 1 mounting bracket, 2 foam filters, 1 assembly hardware kit.

Catalog No. **REKFF** 



#### **Left Hand Hinge Kit**

Delivery: 2 sets left hand RE-BOX® door hinges use to reverse door.

Catalog No. **REKI** 





#### **Sound Dampening Kit**

Use to dampen noise generated from active equipment in cabinet. Delivery: Dow Quash™ foam pieces, pre-cut to line cabinet interior.

Catalog No. **REKS** 



#### **Joining Kits**

Use to join cabinets side-by-side or top-to-bottom.

Delivery:1 shroud, 16 ga. Cold Rolled Steel; 1 mounting hardware kit

Finish: Powder coat, light gray. Description Catalog No. **REKTJ** Top-to-bottom kit

for use with all **RE-BOX**® cabinets

Side-by-side kit REKSJ20

for use with IDF24, IDF24L

Side-by-side kit **REKSJ30** for use with RE2, RE4, IDF32 **REKSJ40** Side-by-side kit

for use with RE4X, IDF42





#### **Recessed Mounting Kit**

For Commercial RE-BOX® cabinets - where recessed mounting is desired. Louvered section at bottom enhances cabinet ventilation. Material: 16 ga. Steel.

Finish: Durable powder coat, light gray.

Delivery: 1 trim ring, Six 1/4x5/8" sheet metal screws, 8 #12-24x11/4" pan head screws.

Height	Catalog No.
24"	REKR24
32"	REKR32
42"	REKR42



## Accessories for QUADCAB® and Commercial RE-BOX®

Wall Mount Cabinets.

#### **Lock Kits**

Use to change lock style to meet specific applications.

Delivery: 2 Assembly locks and keys (except CKL716) CKL716 includes NSQ tool

CKL/ 10). CKL/ 10 IIICIUUE	S 113 Q 1001.
Description	Catalog No.
CH751 keyed lock kit	CKL751
333 keyed lock kit	CKL333
Bellcore 716 bit lock	CKL716
Cat60 keyed lock kit	CKLCAT60
Cat70 keved lock kit	CKLCAT70



Delivery: 1 thermostat, 1 adhesive-backed mounting bracket, 1 wiring harness. **CTK** Catalog No.





#### **MT10 Adapter**

Mates PS3 large capacity, 3-channel, surface raceway to the top of RE-BOX® cabinets. Routes both electrical and communications cables Delivery: 1 base, 1 cover, 1 cover hardware kit. Material: 16 ga. Steel

construction. Finish: Powder coat.

**REKMT10** Catalog No.



#### **Gasket Kit**

Use to enhance protection against dust and water, and performance of fan and filter. Delivery: 1 roll adhesive-backed foam gasket.

Length	Use	Catalog No.
30'	HSQXX	HWKGT
10'	REXX, IDFXX	REKG

Delivery: One 10' adhesive-backed foam gasket.

Catalog No.



#### **Ground Kit**

Use to ground cabinet components to common ground. Used in conjunction with the MCCGBAR and HPWCGPK10.

Delivery: 1 Grounding bar, 1 Ground strap w/ring terminals, 1 Ground strap w/ring Terminal +Female Faston.

Catalog No. REKGB



#### **RE-BOX® Shelf**

Mount to REKZ for use as a shelf. Delivery: 1 panel 2U, 4 #12-24 x 5/8" HPW screws.

Material: 0.09" aluminum. Finish: black anodized.

MCCBP350 Catalog No.



#### **Ground Strap**

Delivery: 1 Ground strap with ring terminations.

**REKEGS** Catalog No.



#### **20A Power Kit**

Occupies left or right side of 1 rear panel space.

Delivery:

- 1 Hubbell surge-protected duplex receptacle with audible alarm (HBL5262IS).
- 1 Single-gang work box.
- 6' Hubbell POLYTUFF® non-metallic conduit.
- 1 Stainless steel face plate.
- 1 Assembly hardware kit.

Catalog No. **REKP** 





#### **Consolidation Point Enclosure**

#### Features/Benefits

- 5 mounting locations each accepts 100-pair block or 89D bracket.
- Optional key lock provides security when used in remote locations.
- Cable entry: top, bottom and sides.

Pre-threaded mounting rails accept: 110 blocks with legs, 89D brackets.

Mounts between studs or can be surface mounted.

#### **Specifications**

♦ Enclosure material: 16 ga. Cold Rolled Steel.

Cover: 20 ga. Cold Rolled Steel.

Finish: Enclosure: Zinc Galvanized; Cover: powder-coated.

Dimensions: 21"H x 14.5"W x 4.5"D.

Mounting for 2 FSP or JACK-PACK® adapter panels provides for multiple fiber and copper connectors.



#### **Consolidation Point Enclosure**

Delivery: 1 Enclosure

2 mounting rails

1 FSP adapter bracket

2 fiber routing spools

4 wall mounting screws (#8-32 x 3/4" wood screws)

20 internal equipment mounting screws (#10-24 x 3/8" pan head Phillips)

Color	Height	Width	Depth	Catalog No.
Electrical Ivory	21" (533)	14.5" (368)	4.5" (114)	CPEI
Black	21" (533)	14.5" (368)	4.5" (114)	СРЕВ



#### **Consolidation Point Enclosure - Accessories**

#### **Louvered Cover**

Delivery: 1 louvered cover. 20 gauge cold rolled steel. Material: Finish: Powder-coated.

Color Color Catalog No. Catalog No. **CPKLDI CPKLDB** Electrical Ivory Black

#### **Trim Ring**

Delivery: 1 trim rin	g.		
Color	Catalog No.	Color	Catalog No.
Electrical Ivory	CPKTRI	Black	CPKTRB



FLOCK1 Catalog No.



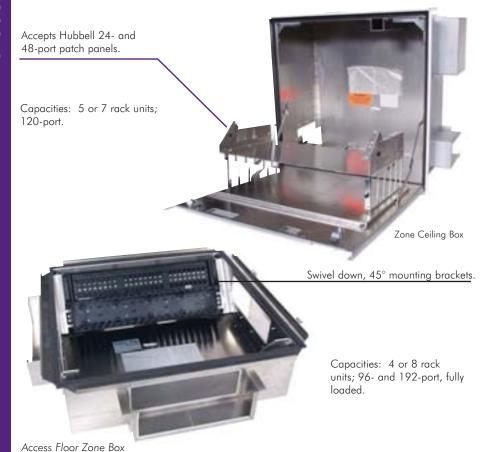








## **ZOBOX®** Zone Boxes - Access Floor and In-Ceiling



#### Features/Benefits

#### Floor Box

- Cover available.
- Cable entry behind the connecting hardware, exits from the face.

#### **Ceiling Box**

- Lock kits available.
- Continuous hinged door.
- Door accepts sized ceiling tile panel.

#### **Specifications**

- ♦ Aluminum enclosure, .060.
- ♦ Plenum rated, UL listed, file no. E129878.
- ◆ Accepts standard 19" rack mount panels.
- ◆ Tapped holes in brackets: #12-24.

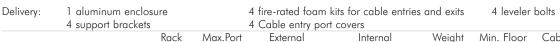
#### Floor Box

 Mounts in standard 24" x 24" raised floor panel spaces.

#### **Ceiling Box**

- Ventilation fan included (9CFM) active unit only.
- Active equipment max. dimensions:
   3.5"H x 15.5"D x 19"W.
- Mounts in standard 24"x24" drop ceiling panel spaces.
- Structural mounting hardware supplied by installer.

## **ZOBOX**<sup>®</sup> - Access Floor Box



Weight Cable Entry Description Units Capacity Dims HxWxD Dims HxWxD Lbs. Depth Dims Catalog No. ZAFB4U6 Zone Access Floor Box 4 96 4.12"x21.9"x21.9" 4"x21"x21" 14 6" 3.5"x11" Zone Access Floor Box 8 7.12"x21.9"x21.9" 7"x21'x21" 15 8" ZAFB8U8 3.5"x11" Zone Access Floor Box Cover 5 **ZAFBC** 22"X22"

NOTE: ZAFBC uses key no. 2233.

#### **ZOBOX® - In-Ceiling Box**

Delivery: 1 Aluminum enclosure 2 knob assemblies 2 fire-rated foam kit for cable entries and exits Support brackets Hinged door plate Equipment mounting assemblies

CEM 12 volt fan and transformer (active unit only)

9 CFM, 12 volt	fan and ti	ransformer (activ	ve unit only)					
	Rack	Max.Port	External	Door Weight	Weight	Total Weight	Cable Entry	
Description	Units	Capacity	Dims HxWxD	Capacity Lbs.	Lbs.	Capacity Lbs.	Dims	Catalog No.
Passive Zone Ceiling Box	5	120	12"x24"x24"	25	38	75	6"x3"	<b>ZCB5UP</b>
Passive Zone Ceiling Box	7	120	12"x24"x24"	25	39	75	6"x3"	<b>ZCB7UP</b>
Active Zone Ceiling Box	7	120 plus	12"x24"x24"	25	39	75	3.5"x11"	ZCB7UA
_		2U Active Equip	0					
Zone Ceiling Box Lock Kit	-	-	-	-	-	-	-	<b>ZCBLKIT</b>
Spare Zone Ceiling Box Lock	Key -	-	-	-	-	-	-	KEY333



## **Security Boxes for Wireless Access Points**

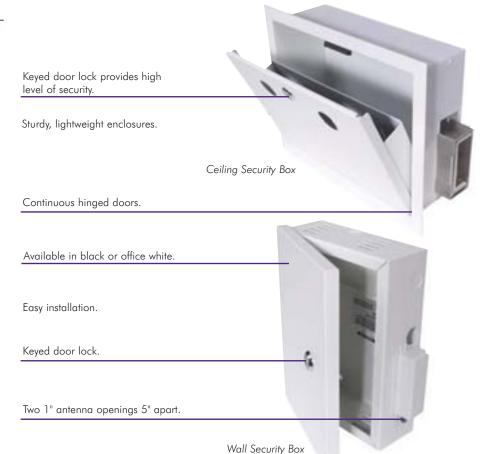
#### **Specifications**

#### **Ceiling Box**

- ♦ Material: aluminum .060.
- Plenum rated.
- ◆ UL listed, file no. E129878.
- Accepts most standard, low voltage wireless access point sizes.
- Fasten wireless access points to mounting plate with VELCRO®, cable ties or self-tapping screws.
- Mounts in standard 24"x24" drop ceiling panel spaces.
- Accommodates sized ceiling tiles on the doors.

#### **Wall Box**

- Vented, steel enclosure.
- Finish: durable powder coat.
- Cable entry/exit: four 7/8" round knock-out openings on sides, top and bottom.
- Cable entry/exit: one 1-3/8" knock-out on back.



#### **Wireless Access Point Ceiling Box**

Delivery: Aluminum enclosure 1 lockable knob assembly Cable entry port and cover (factory installed)

Hinged door equipment mounting plate (factory installed) Mounting Plate External Dimensions Weight Capacity Lbs. Cable Entry Description Dims. H x W  $H \times W \times D$ Catalog No. Door Total Dimensions WBC1 Universal WAP Enclosure 9.7" x 5.25" 4"x10"x12.7" 15 20 6.5"x1.2" WBC12 15 CISCO Aironet 1200 Series N/A 10"x10.5"x13.2" 20 6.5"x1.2"

NOTE: WBC1 uses key no. 2233. WBC12 uses key no. C346A.

#### **Wireless Access Point Wall Box**

1 drill template

Delivery: 1 Aluminum enclosure 4 each #10 x 1 pan head screws 4 each plastic conical screw anchors for #10 screw 4 each flat steel washers, size #10

External Dimensions Weight HxWxD Color Description Lbs. Catalog No. Wall Box 8"x11"x3" 1.5 Office White WBW1OW Wall Box 8"x11"x3" 1.5 Black WBW1BK Spare Wall Box Lock Key **KEY333** 

NOTE: WBW1OW and WBW1BK uses key no. 333.



VELCRO® is a registered trademark of Velcro Industries B.V.





- Made with Premium Hubbell Receptacles.
- Multiple Bracket Options to Suit Every Application.
- "Assemble-to-Order" Available for Customized Power Strips.

#### Features/Benefits

- Wide variety of sizes available.
- NEMA and IEC configurations.
- Cords available with Hubbell TWIST-LOCK® plugs.

#### **Specifications**

- Housing Material: cold-rolled steel.
- Finish: Powder-coated, black.

  AC Voltage: 120V or 250V.
- Current Rating: 15, 20, 30 or 60 Amp.
- Outlets: NEMA 5-15R or 5-20R or IEC C-13 or C-19.
- Input Plug Cord: 10' cable with NEMA plug, IEC 320 C-20 inlet, or 60A IEC 309 plug.
- Surge Protection: Protection Modes: L-N, L-G, N-G.
   Joule Rating: 720.

Can be mounted in all HPW cabinets and racks to distribute power to active equipment. All units include circuit breakers and full length mounting bracket. All units feature 10' cable (except PR20820I).

Delivery: 1 strip, 1 ki	t mounting hardwa	re, universo	I mounting bracket	s.				
Electrical Specification	Receptacle Type	Outlets Front	Plug Type	No. of Circuits	Surge Protected	Switch	Current Monitor	Catalog No.
15A-120V	NEMA 5-15R	10	NEMA 5-15P	1	No	No	No	PR104
20A-120V	NEMA 5-20R	10	NEMA 5-20P	1	No	No	No	PR10420
15A-120V	NEMA 5-15R	20	NEMA 5-15P	1	No	No	No	PR206
20A-120V	NEMA 5-20R	20	NEMA 5-20P	1	No	No	No	PR20620
20A-120V	NEMA 5-20R	20	NEMA 5-20P	1	No	Yes	Yes	PR20820DRTL
30A-120V	NEMA 5-20R	20	NEMA L5-30P	1	No	No	No	PR20830
20/16A /circuit 120V	NEMA 5-20R	20	NEMA 5-20P	2	No	No	No	PR20820A*
20/16A-120/250V	IEC 320C-13	20	IEC 320 C20	1	No	No	No	PR20820I**
30/24A-250V	IEC 320C-13	24	NEMA L6-30P	1	No	No	No	PR24

<sup>\*</sup> PR20820A features (2) 20A circuits each fed by 10ft. cable w/ NEMA 5-20 plug.

<sup>\*\*</sup> PR208201 includes an IEC 320 (C-20) inlet for power input.

Mounting	Brackets	for Vertical	Power Strips

Description	Catalog No.
'L' brackets - turned 'in', these are ideal for rack/rail mounting. Turned 'out' they extend your mounting options an additional 8 inches.	PRSLB4
Provides left, right, front or back rail mounting. May be installed in conjunction with other equipment mounted in the same 'U' space.	PREZB



## **Power Strips, Horizontal**



- Long lasting construction.
- Multiple Bracket Options.
- Fast turn-around time on specials.

#### Features/Benefits

- Rack mount units.
- Surge protection and current monitoring available.
- NEMA and IEC configurations.

#### **Specifications**

- Housing Material: Cold Rolled Steel.
   Finish: Powder-coated, black.
- AC Voltage: 120V or 250V.
- Current Rating: 15, 20, 30 or 60 Amp.
- Outlets: NEMA 5-15R or 5-20R or IEC C-13 or C-19.
- Input Plug Cord: 10' cable with NEMA plug, IEC 320 C-20 inlet, or 60A IEC 309 plug.
- Surge Protection:
  - Protection Modes: L-N, L-G, N-G.

Joule Rating: 720.





**HPWPWR** 









#### **Power Strips, Horizontal**

Can be mounted in all HPW cabinets and racks to distribute power to active equipment. All units utilize 1U of rack space and include circuit breakers (except PR10720). 15A units feature 10' cable with NEMA 5-15P plug; 20A units feature 10' cable with NEMA 5-20P plug.

Delivery: 1 strip, 1 kit mounting hardware.

Electrical	Receptacle	Ou	ıtlets	Mounting	Surge	Transformer		Current	
Specification	Туре	Fron	t Rear	Style	Protected	Spaced	Switch	Monitor	Catalog No.
15A/120V	NEMA5-15R	0	10	Flush	No	No	Yes	No	<b>HPWPWR</b>
15A/120V	NEMA5-15R	0	10	Flush	Yes	No	Yes	No	MCCPSS19
15A/120V	NEMA5-15R	4	4	Recess	Yes	Yes	No	No	MCCPSS19TS
20A/120V	NEMA5-20R	0	10	Flush	No	No	No	No	PR10120
20/16A, 120/250V	IEC320-C13	10	0	Flush	No	No	No	No	PR10720*
15A/120V	NEMA 5-15R	0	6	Flush	No	No	No	No	PR0615
20A/120V	NEMA 5-20R	0	10	Flush	No	No	Yes	Yes	PR1020
60A/250V	IEC 320-C19	0	3	Adjustable	No	N/A	CB/Switch	No	PR0360**

<sup>\*</sup> PR10720 includes an IEC 320 (C-20) inlet for power input. Vertical mount brackets are also included.

#### **Mounting Brackets for Horizontal Power Strips**

Description	Catalog No.
Adjustable mount brackets; allows numerous recess or flush mount options.	PRAMB
Panel mount brackets; ideal for zero 'U' mounting applications by effectively allowing the unit to be hung from a cross beam or flat surface.	PRPMB

	Туре	Catalog No.	Fixed Brackets	Brackets Included	Brackets Available
	Mount	HPWPWR MCCPSS19 PR10120 PR0615 PR1020	Flush Mount	N/A	N/A
	Rack	MCCPSS19TS	N/A	Recess Mount	PRAMB PRPMB
	19"	PR10720	N/A	Flush Mount & PRSLB4	PREZB
		PR0360	N/A	PRAMB	PRPMB

Pro Assambled Optional

<sup>\*\*</sup> PR0360 features 10' cable with IEC 60A 2P/3W plug.

## **Intelligent Power Strips with Monitoring**

#### 60, 80, 120 Amp/250V Solutions

for the most demanding data center applications.

#### **Power**

for those most demanding, multiple blade server applications.

#### **Remote Monitoring**

to maximize uptime and life span of active equipment.

**User-Defined** current thresholds.

Local current meter.

#### **Application Support**

for applications with a mix of power receptacles - NEMA and IEC.

**Numerous** power cord types.

#### **Vertical Mounting Arrangements**

ideally suited for data center and cabinet applications.





- Housing Material: Cold Rolled Steel.
   Finish: Durable, black powder coat.
- ♦ UL and cUL Listed 60950.
- ◆ FCC Part 15, Class A conformance.
- Web based GUI.
- SNMP v1.

**H36** 

- AC voltage: 125, 250, 120/208.
- Current rating: 20, 30, 60, 80, 120 amp.
- ◆ Phase: Single, 3<sup>~</sup> WYE, 3<sup>~</sup> DELTA.
- Frequency: 50/60Hz.
- Input plug type: Various, NEMA, Strait Blade, TWIST-LOCK®, Pin and Sleeve, none - conduit connection access provided.
- Receptacles: various NEMA and IEC.



- Advanced Monitoring and Alert Capabilities to Help Ensure the Maximum Life Span for Active Equipment.
- 3-Phase WYE Configurations Support Multiple Voltage (120/208) Applications and Minimize Input Cabling.
- Support for the Simple to the Most Advanced Data Center Applications.
- Local and Remote Monitoring Optimize Power Consumption.

#### **Intelligent Power Strips with Monitoring**

All power strips provide remote current monitoring over an Ethernet connection. A RJ-45 jack is provided on the front of the power strip. A web based GUI is provided as part of the strip (no additional software or software disc is required). User defined current thresholds are supported for monitoring and alerting. SNMP V1 is supported. A local current monitor is provided on front of each unit. The mounting arrangement is 66" vertical mount, unless otherwise noted. All receptacles are located on the front of the units.

Electrical Specification (AC Input)	Input Plug Type	Cord Length (feet)	Receptacle Information	Maximum Output per Receptacle	Circuit Break- er	Switch	Brackets	Dim. LxWxD inches	Catalog No.
20A/125V	NEMA 5-20P	10	24 NEMA 5-20R	125V, 20A	No	No	66" full length	66.25 x 2 x 2	PRRMLM20125N1P1
20A/125V	NEMA 5-20P	10	24 IEC C-13 (banks of 4 and IEC C-19	125V, 15A per IEC C-13 re- ceptacle bank. 125V, 20A for IEC C-19	No	No	66" full length	66.25 x 2 x2	PRRMLM20125C1C3P1
30A/125V	NEMA L5-30P <sup>3</sup>	10	24 NEMA 5-20R	125V, 20A	Yes	Integral to Breaker	Tool less and 66" full length	66.25 x 2 x 3.5**	PRRMLM30125N1T1B
30A/125V	NEMA L5-30P <sup>3</sup>	10	24 IEC C-13 and 6 IEC C-19	125V, 15A per IEC C-13 re- ceptacle bank. 125V, 20A for IEC C-19	Yes	Integral to Breaker	Tool less and 66" full length	66.25 x 2 x 3.5**	PRRMLM30125C1C3T1B
20A/250V	NEMA L6-20P <sup>3</sup>	10	24 NEMA 6-20R	250V, 20A	No	No	66" full length	66.25 x 2 x 2	PRRMLM20250N2T2
20A/250V	NEMA 6-20P	10	24 IEC C-13 and 6 IEC C-19	250V, 15A per IEC C-13 re- ceptacle bank. 125V, 20A for IEC C-19	No	No	66" full length	66.25 x 2 x 2	PRRMLM20250C1C3P2
30A/250V	NEMA L6-30P <sup>3</sup>	10	24 NEMA 5-20R	250V, 20A	Yes	Integral to Breaker	Tool less and 66" full length	66.25 x 2 x 3.5**	PRRMLM30250N1T3B
30A/250V	NEMA L6-30P <sup>3</sup>	10	24 IEC C-13 and 6 IEC C-19	250V, 15A per IEC C-13 re- ceptacle bank. 125V, 20A for IEC C-19	Yes	Integral to Breaker	Tool less and 66" full length	66.25 x 2 x 3.5**	PRRMLM30250C1C3T3B
20A/120V- 208V <sup>1</sup>	NEMA L21- 20P <sup>3</sup>	10	24 NEMA 5-20R and 6 L6-20R	120V, 20A for 5-20R. 208V, 20A for L6-20R	No	No	66" full length	66.25 x 2 x 2	PRRMLM203PYN1N3T4
20A/120V- 208V <sup>1</sup>	NEMA L21- 20P <sup>3</sup>	10	24 NEMA 6-20R	208V, 20A	No	No	66" full length	66.25 x 2 x 2	PRRMLM203PYN2T4
20A/120V- 208V <sup>1</sup>	NEMA L21- 20P <sup>3</sup>	10	12 IEC C-13 and 6 NEMA 5-20R	208V, 15A for IEC C-13. 120V, 15A for 5-20R	No	No	70" full length	70 x 2 x 2	PRRMLM7203PYC2N5T4*
30A/120V- 208V <sup>1</sup>	NEMA L21- 30P <sup>3</sup>	10	24 IEC C-13 and 6 IEC C-19	208V, 15A per IEC C-13 re- ceptacle bank. 208V, 20A for IEC C-19	Yes	Integral to Breaker	Tool less and 66" full length	66.25 x 2 x 3.5**	PRRMLM303PYC1C3T5B
30A/120V- 208V <sup>1</sup>	NEMA L21- 30P <sup>3</sup>	10	24 IEC C-13 and 3 IEC C-19 and 6 NEMA 5-20R	208V, 15A per IEC C-13 re- ceptacle bank. 208V, 20A for IEC C-19. 120V/20A for NEMA 5-20R	Yes	Integral to Breaker	Tool less and 66" full length	66.25 x 2 x 3.5**	PRRMLM303PYCCNT5B
30A/120V- 208V <sup>1</sup>	NEMA L21- 30P <sup>3</sup>	6	6 NEMA 5-20R and 6 NEMA L6-30R	120V, 20A for 5-20R. 250V, 30A for L6-30R	Yes	Integral to Breaker	Tool less and 66" full length	66.25 x 2 x 3.5**	PR3PWYERPMONLCN66T
60A/250V <sup>2</sup>	IEC 60309 Pin/Sleeve, 60A/250V, 3P/4W, Watertight	5	12 IEC C-19	250V, 12A	Yes	Integral to Breaker	Tool less and 66" full length	66.25 x 2.3 x 3.45	PRRMLM603PDC2PSB
80A/250V <sup>2</sup>	None <sup>4</sup>	N/A	12 IEC C-19	250V, 20A	Yes	Integral to Breaker	Tool less	66.25 x 3.5 x 3.5	PRRMLM803PDC2NOB
120A/250V <sup>2</sup>	None <sup>4</sup>	N/A	12 NEMA L15-30R	30A 3-Phase	Yes	Integral to Breaker	Tool less	66.25 x 3.5 x 3.5	PRRMLM1203PDN4NOB

<sup>\*</sup> This is a 70" vertical mount unit.

 $<sup>^{\</sup>ast\ast}$  1.44" of 3.5" is for the breaker area.

<sup>&</sup>lt;sup>1</sup> 3-Phase WYE.

<sup>&</sup>lt;sup>2</sup> 3-Phase DELTA.

<sup>3</sup> TWIST-LOCK®.

<sup>&</sup>lt;sup>4</sup> Conduit connection access.

## Metal PlugTrak®

(7)		T.	(A)	(5) (5)	11	100	- 10	17	i.
Meta	ıl PlugTr	ak® - 3 Ft	. Base and	d Cover			Boxes and	Fitting	js
		# Single	Receptacle	Catalog No.	Catalog No		Description	Color	Catalog No.
Amp	Circuits	Receptacles	Spacing (in.)	•	Gray	•	One-Gang	lvory	HBL2048IV
15	Single	6	6	HBL20GB306IV	HBL20GB3060	Υ	Device Box	Gray	HBL2048GY
15	IG/Single	6	6	HBL20IG306IV	HBL20IG306G	Y	Two-Gang	lvory	HBL20482IV
20	Single	6	6	HBL24GB306IV	HBL24GB306G	¥Υ	Device Box	Gray	HBL20482GY
Meta	ıl PlugTr	ak® - 5 Fi	. Base and	d Cover			Internal Corner	Galv.	HBL2017TC
Amp	Circuits	# Single Receptacles	Receptacle Spacing (in.	_	Catalog No Gray		Coupling	Steel	
15	Single	10	6	HBL20GB506IV	HBL20GB5060	<b>GY</b>	External Elbow	lvory	HBL2018CIV
15	Single	5	12	HBL20GB512IV	HBL20GB5120	<b>GY</b>	LIDOW	Gray	HBL2018CGY
15	Two	5	12	HBL20GBA512IV	HBL20GBA512	2GY	Flat Elbow	lvory	HBL2011IV
15	IG/Single	5	12	HBL20IG512IV	HBL20IG512G	Υ		Gray	HBL2011GY
20	Single	10	6	HBL24GB506IV	HBL24GB5060	<b>GY</b>			
20	Single	5	12	HBL24GB512IV	HBL24GB5120	<b>GY</b>	Tee	Ivory Gray	HBL2015IV HBL2015GY
20	Two	5	12	HBL24GBA512IV	HBL24GBA512	2GY			
Mote	d DhiaTi	rake 6 E	t. Base and	d Cover			Entrance End Fitting	lvory Gray	HBL2010A2IV HBL2010A2GY
Meic	ii Piogii						Ŭ	,	IIDLZ010AZO1
Amp	Circuits	# Single Receptacles	Receptacle Spacing (in.)	Catalog No. Ivory	Catalog No. Gray		Large Entrance	lvory	HBL2010A3IV
15	Single	12	6 <b>H</b>	BL20GB606IV	HBL20GB606GY	<u> </u>	End Fitting	Gray	HBL2010A3GY
15	Single	8	9 <b>H</b>	BL20GB609IV	HBL20GB609GY	<u> </u>		1	
15	Single	6	12 <b>H</b>	BL20GB612IV	HBL20GB612GY	<u> </u>	Blank End Fitting	Ivory Gray	HBL2010BIV HBL2010BGY
15	Single	4	18 <b>H</b>	BL20GB618IV	HBL20GB618GY	<u> </u>			
15	Two	8	9 <b>H</b>	BL20GBA609IV	HBL20GBA609G	ξY	Cover Clip	lvory	HBL2006IV
15	Two	6	12 <b>H</b>	BL20GBA612IV	HBL20GBA612G	eY Y		Gray	HBL2006GY
15	Two	4	18 <b>H</b>	BL20GBA618IV	HBL20GBA618G	SY Y	Supporting Clip	Galv.	HBL2003SC
15	IG/Single	12	6 <b>H</b>	BL20IG606IV	HBL20IG606GY			Steel	115220030
20	Single	12	6 <b>H</b>	BL24GB606IV	HBL24GB606GY	7			
20	Single	6	12 <b>H</b>	BL24GB612IV	HBL24GB612GY	7	Coupling	Galv. Steel	HBL2001C
20	Single	4	18 <b>H</b>	BL24GB618IV	HBL24GB618GY	7			
20	Two	6	12 <b>H</b>	BL24GBA612IV	HBL24GBA612G	SY Y			
20	Two	4	18 <b>H</b>	BL24GBA618IV	HBL24GBA618G	ξΥ			

#### Portable Metal PlugTrak®

Length	Cord Length	Amp	Circuits	# Single Receptacles	Catalog No. Ivory	Catalog No. Gray
40 ln.	6 Ft.	15	Single	6	HBL20C215IV	HBL20C215GY
64 In.	6 Ft.	15	Single	8	HBL20C315IV	HBL20C315GY

 $Notes: Hubbell \ Metal \ PlugTrak \ is \ supplied \ with \ two \ \textbf{HBL2010B(IV)} \ or \ \textbf{(GY)} \ Blank \ End \ Fittings \ and \ one \ \textbf{HBL2001C}.$ 

Outlets match raceway color. "IG" Isolated receptacles are orange color.



<sup>&</sup>quot;IV" suffix to catalog number for ivory finish. "GY" suffix to catalog number for gray finish.

## **Assemble-to-Order Power Strips**

Hubbell's Assemble-to-Order (ATO)
Power Strip program allows
customization of power strips to ensure
the optimum match of product features
with project requirements.

Whether it's a minor modification to an existing power strip or the creation of a new custom power strip, the ATO Power Strip program provides the best power strip for the application. Examples of the options available for the power strips are provided below.

## Assemble-to-Order Power Strips

- Mountings:
  - Horizontal: 19", 24".
  - Vertical: 38", 48", 66", 70".
- AC Voltage (VAC): 125, 250, 120/208.
- Current rating (Amps): 20, 30, 60, 80, 120.
- Phases: Single, 3~WYE, 3~DELTA.
- Receptacles:
  - NEMA 5-15R, L5-15R, 5-20R, L5-20R, 6-20R, L6-20R, L6-30R, L15-30R.
  - IEC C-13, C-19.
  - Select Quantity.
  - Mix of IEC and NEMA receptacles
- Input Plug Types: NEMA, Straight Blade, TWIST-LOCK®, Pin and Sleeve.
- Cord Length: 10′, 15′ or custom up to 15′.
- Monitoring: None, Local Current Meter, Remote Monitoring over Ethernet and SNMP V1.
- Circuit Breakers.
- Power Switch.
- Surge Protection.

Contact Hubbell Premise Wiring at 1-800-626-0005 to configure your power strip today.





- Numerous Configurations, NEMA and IEC Receptacles, Various Power Cord Types.
- Single, 3-Phase WYE, and 3-Phase Delta Arrangements.
- Customize Configurations for your Specific Application and Project.
- Local and Remote Monitoring Options.
- Support for the Simple, to the Most Advanced Data Center Applications.
- 3-Phase Configurations Reduce Cabling and Improve Airflow.
- Advanced Monitoring and Alert Capabilities to Help Ensure the Maximum Life Span for Active Equipment.



## **DELIVERY SYSTEMS**



HUBBELL SYSTEMONE • NON-METALLIC • SINGLE SERVICE • STAMPED STEEL • RAISED ACCESS • FLOOR BOXES • ADA
COLLAR • MULTI-SERVICE • ENCLOSURE • THROUGH FLOOR FITTING • MULTIMEDIA • DELIVERY + • DECORATOR • VOI
DATA • SUB-PLATES • DUPLEX • FACE PLATES • ADAPTER FRAME • BRASS • ROUND FLOOR BOX • SERVICE POLES • DATAC
RATED POKE-THROUGHS • CARPET • GFCI • EXTRON® • 4" CORE HOLE • ROUND FLOOR BOXES • CAST IRON • STAM
STEEL • FURNITURE FEED • SYSTEMONE SUB-PLATES • CONCRETE • TILE • DUCT PANEL • COVER/FLANGE • REAR WIRE
FRAME • FLUSH DUPLEX • SINGLE RECEPTACLE DELIVERY TO NITE OF THOUGH • MULTI-CHANNEL • CARPET • TILE



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## Hubbell SystemOne Metal and Non-Metallic Concrete Floor Boxes





#### **Hubbell SystemOne Cast-Iron Floor Box (S1CFB)**



Non-metallic riser.

The Cast Iron Floor Box construction provides durability and corrosion resistance for on-grade applications.

Oversized  $1\frac{1}{2}$  in. N.P.T. threaded conduit access holes for low voltage.

1 in. N.P.T. threaded conduit access holes for power.

#### **Hubbell SystemOne Steel Floor Box (S1SFB)**



Non-metallic riser.

The Stamped Steel Floor Box construction provides an economic solution for abovegrade applications.

Concentric knockouts permit various conduit sizes for both power and data services

#### **Hubbell SystemOne Steel AV Floor Box (S1SFBAV)**



Non-metallic riser.

Accommodates high-capacity multimedia applications in a 3½" minimum depth of pour.

Oversized  $1\frac{1}{2}$  in. N.P.T. threaded data hub.

3/4 in., 1 in. trade size concentric knockouts for power services.

#### **Hubbell SystemOne Non-Metallic Floor Box (S1PFB)**



High-strength rigid PVC construction that is non-corrosive.

Oversized  $1\frac{1}{2}$ " data conduit hub for increased cable capacity and bend radius.

Parallel conduit hubs reduce labor and material cost, facilitating easier wire pull.

- Easily installed, aesthetic and configurable floor box solution for open floor plans that require both power and data services.
- The Hubbell SystemOne Universal Cover mounts directly to the floor box riser, eliminating the need for an additional adapter collar.
- The Hubbell SystemOne Universal Cover features ScrubShield™ technology that exceeds UL514A and UL514C scrub water exclusion requirements.
- Convenient cubic inch (cm³) capacity markings on interior of box.
- Leveling feet provide before pour adjustability.
- PVC riser allows a simple saw cut for adjustment after pour.
- Supplied with concrete cover and closure plugs (where applicable).
- Designed to accommodate multi-service applications with the wide offering of Hubbell SystemOne Sub-Plates.
- ■c(UL)us LISTED, Metallic Floor Box.
- Provides an economical, easy to install in-floor delivery system for large, open plan spaces.
- The Hubbell SystemOne Universal Cover mounts directly to the floor box, eliminating the need for additional adapter collar.
- Supplied with concrete cover, conduit reducers and conduit hub plugs.
- c UL us LISTED, Non-Metallic Floor Box.



### **Hubbell SystemOne Metal and Non-Metallic Concrete Floor Boxes**





Dimensions Inches (mm)	<b>Cast Iron</b>	Steel	Steel AV	Non-Metallic
Metal Non-Metallic  D  A  B  B  B  C  B  B  D  D  D  D  D  D  D  D  D  D  D				
	S1CFB*	S1SFB*	S1SFBAV*	S1SPFB
Min. Depth of Pour	3.50" (88.9)	3.50" (88.9)	3.50" (88.9)	3.00" (76.2)
Adjustability	Fully	Fully	Fully	Fully
Cubic Inch (cm³) Capacity	156.0 cu. in. (2556.4 cm <sup>3</sup> )	175.7 cu. in. (2879.2 cm³)	177.5 cu. in. (2909.7 cm <sup>3</sup> )	100 си. in. (1638.7 ст <sup>3</sup> )
Dimensions - A	3.00" (76.2)	3.00" (76.2)	3.00" (76.2)	6.00" (152.4)
Dimensions - B	7.26" (184.4)	7.50" (190.5)	7.50" (190.5)	5.58" (141.7)
Dimensions - C	7.45" (189.2)	7.38" (187.4)	7.38" (187.4)	8.76" (222.5)
Dimensions - D (Inside Diameter)	5.00" (127.0)	5.00" (127.0)	5.00" (127.0)	5.00" (127.0)
Power Entries	1" N.P.T. Access Holes	3/4", 1" Concentric K.O.	3/4", 1" Concentric K.O.	1" Conduit Hub
Data Entries	1½" N.P.T. Access Holes	3/4", 1", 1 1/4" Concentric K.O.	1½" Threaded Hub (included)	1½" Conduit Hub
Concrete Cover Included	1	<b>✓</b>	1	✓
Closure Plugs Included	<b>✓</b>	-	<b>✓</b>	✓
Accepts Hubbell SystemOne Jniversal Cover	✓	<b>✓</b>	<b>✓</b>	<b>√</b>
Cover Mounting Clips Included	1	1	1	✓
Non-Metallic Low Voltage Divider Included (S1DIV1)	/	/	✓ <b>/</b>	✓

Notes: UL File Number E92074. CSA File Number LR18416.

\*S1CFB, S1SFB, S1SFBAV are approved for use in the City of Chicago.

### **Hubbell SystemOne Universal Covers**

### **Universal Carpet Flange and Cover Assembly**

- Cast aluminum construction.
- Durable powder coat finish.



8.0" Diameter

Color	Catalog No.
Aluminum Finish	S1CFCAL
Brass Finish	S1CFCBRS
Black	S1CFCBL
Gray	S1CFCGY
lvory	S1CFCI

### **Universal Tile Flange and Cover Assembly**

- Cast aluminum construction.
- Durable powder coat finish.



5.62" Diameter

Color	Catalog No.
Aluminum Finish	SITFCAL
Brass Finish	S1TFCBRS
Black	S1TFCBL
Gray	SITFCGY
lvory	SITFCI





Brass Finish







# **Hubbell SystemOne Sub-Plates**

### **Hubbell SystemOne Sub-Plates**





### **Hubbell SystemOne Sub-Plates**

### **Decorator/GFCI**

(2) Decorator openings for power and/or datacom applications.









S1SP

### **Duplex/Duplex**

(2) Duplex openings for power and/or datacom applications.





Catalog No.



### **Duplex/Decorator**

(1) Duplex and (1) Decorator opening for power and/or datacom applications.





Catalog No.



### **Hubbell 4x4**

(4) 20A, 125V receptacles. (4) Keystone openings for Hubbell jacks or flush AV connectors.



Catalog No.



S1SP4X4

### **Carpet Furniture Feed** Cover/Flange

(1) 3/4" & (1) 11/2" N.P.T. plugs for power and/or datacom applications. Universal Cover not required. Includes carpet flange.



Brass Finish

Non-Metallic (3.5) Metal



Aluminum Finish	515PFFAL*
Black	S1SPFFBL*
Gray	S1SPFFGY*

### **Tile Furniture Feed** Cover/Flange

(1) 3/4" & (1) 11/2" N.P.T. plugs for power and/or datacom applications. Universal Cover not required. Includes tile flange.





r	Catalog No.
Finish	S1SPFFTBRS*
inum Finish	S1SPFFTAL*

Brass Alumi Black S1SPFFTBL\* Gray S1SPFFTGY\*

### Active Multimedia + Power

Single 20A, 125V receptacle; (2) flush Keystone openings; (1) rectangular Decorator opening to accommodate active multimedia modules.



Catalog No.

S1SPAMM20

### Single Receptacle + Data

20A or 30A Twist-Lock® receptacle (1.56" OD). (2) Keystone openings for Hubbell jacks or flush AV connectors.



Catalog No.



### **Hubbell Datacom + Power**

(1) 20A, 125V receptacle. 3-unit recessed iSTATION™ opening for data, voice, and AV applications.



Catalog No.



S1SP3IM

### **Hubbell Datacom + Duplex**

(1) Duplex opening, (2) flush Keystone openings and 1.5-unit recessed iSTATION™ opening for data, voice and AV applications.



Catalog No.



### **Hubbell Datacom + Decorator**

(1) Decorator opening, (2) flush Keystone openings and 1.5-unit recessed **iSTATION**™ opening for data, voice and AV applications.





Catalog No.

Catalog No.

S1SPSL2IM

### **Hubbell Datacom**

1-unit flush iSTATION™ opening. 3-unit recessed **iSTATION**™ opening for data, voice, and AV applications.



Catalog No.



S1SP4IM

### Extron® or FSR + Power

(1) 20A, 125V receptacle. Recessed opening for (3) single Extron® MAAP series adapter plates or FSR IPS plates.



Catalog No.



S1SPEXT1

### Extron® or FSR + Power

(1) 20A, 125V receptacle. Recessed opening for (1) single Extron® MAAP and (2) single AAP series adapter plates or FSR IPS plates.



S1SPEXT2

Recessed opening for (2) single Extron® MAAP and (2) single AAP series adapter plates or FSR IPS plates.

Extron® or FSR Single Service



Catalog No.



S1SPEXT3

### Extron® AAP + Power

(1) 20A, 125V receptacle. (2) flush Keystone and recessed opening for (2) single Extron® AAP series adapter plates.



Catalog No.



Notes: \*Furnished with two screw-in flexible metal conduit connectors. Extron® is a registered trademark of Extron Electronics.









### **Hubbell SystemOne Features**





### **Hubbell SystemOne Universal Cover Features**



Hinged doors open 180 degrees flush to the carpet flange or tile.

Screws allow each door to be secured independently.

Universal carpet or tile flange can be used for Hubbell SystemOne metal and nonmetallic floor box as well as SystemOne fire-rated poke-throughs.

- Cast aluminum construction available in durable black, gray, brass, aluminum and ivory powder coat finishes.
- Features ScrubShield™ technology that exceeds UL514A and UL514C scrub water exclusion requirements.
- Provides consistent look and maximum functionality throughout the installed life.

### **Hubbell SystemOne Sub-Plate Features**



Can be used in both SystemOne floor boxes and fire-rated poke-throughs.

Accommodates various power and data configurations.

Durable construction.

- Cast aluminum construction.
- Durable powder coat finish.
- Black mat color.
- See the SystemOne Configuration Chart on page 126.

### **Hubbell SystemOne Accessories**

Replacement Side-by-Side Divider

For replacement purposes only. Used to isolate compartments when Catalog No. S1SP, S1SPFFx, S1SPFFTx, S1SPDU, S1SPDUSL, S1SPDU2IM and S1SPSL2IM sub-plates are used. All SystemOne Floor Boxes include this divider.



Catalog No.

S1DIV1

### **Replacement Universal Cover Mounting Clips - 5-pack**

For replacement purposes only. Used to mount SystemOne Universal Cover to SystemOne metal and non-metallic floor boxes (S1CFB, S1SFB, S1SFBAV, S1PFB). Includes clips and ground leads for (5) floor boxes. All SystemOne Floor Boxes include mounting clips.





S1FBCLIP5PK

### 11/2" Threaded Hub

Includes 11/2" threaded hub for use with S1SFBAV ONLY. Permits feed-through applications. S1SFBAV floor box includes one (1) threaded hub.



Catalog No.

S1AVHUB15

### **Decorator Frame, Black**



Catalog No.

### Replacement Threaded Conduit Plugs

For replacement purposes only, to be used with S1SPFFx and S1SPFFTx ONLY. Sub-plate is supplied with plugs.



Description	Catalog No.	Description	Catalog No.
1½" Aluminum	S1FP15AL	³⁄₄" Aluminum	S1FP34AL
1 ½" Brass	S1FP15BRS	3/4" Brass	S1FP34BRS
1½" Black	S1FP15BL	¾" Black	S1FP34BL
1 ½" Gray	S1FP15GY	3/4" Gray	S1FP34GY

### **Abandonment Plate**

Use to cover SystemOne Floor Boxes when cover, flange and sub-plate are removed.



Catalog No. Gray S1AP4GY Catalog No. Black S1AP4BL

### Floor Boxes, Flush Round Single or Multi-Service Non-Metallic, Concrete





Adapter

Catalog No.

Required for all applications.

PFBA1A

Min. Depth of Pour

Dimensions - A

Dimensions - B

Dimensions - C

Dimensions - D

Capacity

Hubs

Dimensions Inches (mm)



100 cubic inches prior to cutting level to floor

(2) 1" plugs close off 1" hubs or reduce 1" to  $\frac{3}{4}$ " (2)

 $\frac{3}{4}$ " plugs close off  $\frac{3}{4}$ " hubs or reduce  $\frac{3}{4}$ " to  $\frac{1}{2}$ "

(19.5 cubic inches per inch of depth).

(2) 1.0" and (2) 3/4" conduit hubs

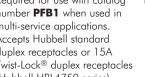




### Low Voltage Divider Catalog No.

PFBT1A

Required for use with catalog number PFB1 when used in multi-service applications. Accepts Hubbell standard duplex receptacles or 15A Twist-Lock® duplex receptacles (Hubbell HBL4750 series).



### "Y" Adapter

Catalog No.

3/4" "Y" adapter to feed parallel runs of 3/4" conduit. PFBYA1

Note: UL File Number E92074. CSA File Number LR18416.

3.00" (76.2)

7.08" (179.8)

6.69" (169.9)

5.38" (136.5)

### Flush Round Covers and Flanges

Duplex

**Multi-Service Cover and Flange Assemblies** 

Concrete Cover Included

Closure/Reducer Plugs

Includes floor box cover with Duplex flaps, (2) ½" dia. low voltage feed through holes and matching carpet flange. 6.25" Diameter.



Brass





Ivory Non-Metallic



Gray Non-Metallic



Black Non-Metallic



SF39253A

**PFBCBRA** 

21/8" x 3/4"

Combination

**PFBCIA** 

**PFBCGYA** 

**PFBCBLA** 

### Single Service Covers

Diameter Flap S3925 Brass



**SA3725** 

Duplex

Screw



SA2525



**SA2725** 

21/8" x 1"

Combination





**SA2925** 

21/8" Single

Receptacle



23/8" Single

Receptacle

21/8" Single Receptacle (Terrazzo Floor)

S3525 S3325

Aluminum **SA3925** 

### **Metal Carpet Flange** Use with single service covers for carpet applications. 6.25" Diameter.



**S3082** 



### **Adapter Ring**

Use with single service covers for tile applications.





**Furniture Feed Plate** 

Unpainted plate with 1" threaded opening.



S5016

**SA5016** 

PFBP1

### Cover and Carpet Flange, One-Piece

6.25" Diameter





SF2525\*

21/8" x 1" Combination



21/8" Single Receptacle



SF2925

SF2725

<sup>\*</sup> Catalog Number S5016 adapter ring is required for mounting SF series covers covers onto PFBA1A.

### Floor Boxes, Flush Round, Single Service, Metal, Concrete





Dimensions Inches (mm) **Cast Iron** Stamped Steel Collar Material B2537 **B2527** B2529 B2536 B253641 **B2503 B2506** B2506415 Brass **BA2537 BA2527 BA2529** Aluminum **BA2536** 3.75" (95.3) 3.75" (95.3) 4.75" (120.7) 3.00" (76.2) 4.00" (101.6) 3.00" (76.2) Min. Depth of Pour Adjustability Fully Fully Fully Fully Fully Fully 33.0 cu. in. 36.0 cu. in. 50.8 cu. in. 33.0 cu. in. 54.0 cu. in. 37.3 cu. in. Cubic Inch (cm<sup>3</sup>) Capacity  $(540.7 \text{ cm}^3)$  $(590.0 \text{ cm}^3)$  $(832.5 \text{ cm}^3)$  $(540.7 \text{ cm}^3)$  $(884.9 \text{ cm}^3)$  $(611.2 \text{ cm}^3)$ Dimensions - A 3.05" (77.5) 3.75" (95.3) 4.75" (120.7) 2.87" (72.9) 3.88" (98.6) 2.91" (73.9) Dimensions - B 4.84" (122.9) 5.00" (127.0) 5.00" (127.0) 4.84" (122.9) 6.00" (152.4) 6.00" (152.4) Dimensions - C 4.84" (122.9) 4.81" (122.2) 4.63" (117.6) 4.66" (118.4) 4.84" (122.9) 4.81" (122.2) 4.19" (106.4) 4.19" (106.4) Dimensions - D 4.19" (106.4) 4.19" (106.4) 4.19" (106.4) 4.19" (106.4) (4) 11/2" Threaded Access Holes (4) 3/4" (4) 3/4" (4) 11/4" (4) 3/4" (4) 1" Knockouts - Sides (1) 1" & (1) 3/4" (2) 1/2" & (1) 3/4" Knockouts - Ends (1) 11/4" & (1) 3/4" (1) 1/2" & (1) 1/2" Knockouts - Bottom (3) 1/2" & (2) 3/4" (3) 1/2" & (2) 3/4" Concrete Cover Included 1 / 1 1 1 1 1 Closure Plugs Included

Notes: UL File Number E31999. CSA File Number LR18416.

Suitable for single service applications only.

### **Single Service Covers**

3.88" Diameter	Duplex Flap	Duplex Screw	21/8" x <sup>3</sup> /4" Combination	21/8" x 1" Combination	21/8" Single Receptacle	2¾" Single Receptacle	21/8" Single Receptacle
	3	0		1		(	(Terrazzo Floor)
D	53925	S3725	S2525	S2725	S2925	S3525	S3325
Brass						33323	33323
Aluminum	SA3925	SA3725	SA2525	SA2725	SA2925	-	-

### **Carpet Flanges**



### **Cover and Carpet Flange, One-Piece**



### Floor Boxes, Flush Rectangular, Non-Metallic Concrete with Non-Metallic Covers





### **Rectangular Floor Boxes, Flush**

Dimensions Inches (mm)







		-	- 01
	PFBRG1*	PFBRG2	PFBRG3
Min. Depth of Pour	3.00" (76.2)	3.00" (76.2)	3.00" (76.2)
Adjustability	Fully	Fully	Fully
Cubic Inch (cm³) Capacity Per Gang	14.3 cu. in. (234.3 cm <sup>3</sup> ) per 1" depth	14.3 cu. in. (234.3 cm <sup>3</sup> ) per 1" depth	14.3 cu. in. (234.3 cm <sup>3</sup> ) per 1" depth
Dimensions - A	6.00" (152.4)	6.00" (152.4)	6.00" (152.4)
Dimensions - B	3.60" (91.4)	6.82" (173.2)	10.04" (255.0)
Dimensions - C	5.42" (137.7)	5.42" (137.7)	5.42" (137.7)
Dimensions - D	6.90" (175.3)	6.90" (175.3)	6.90" (175.3)
Dimensions - E	5.44" (138.2)	8.66" (220.0)	11.87" (301.5)
Hubs	(4) 1"	(6) 1"	(8) 1"
Reducers	(4) 1" to 3/4"	(6) 1" to 3/4"	(8) 1" to 3/4"
Concrete Cover Included	✓	✓	✓
Closure Plugs and Reducers Included	✓	✓	✓
Removable LV Barrier	-	✓	✓

Notes: UL File Number E92074. CSA File Number LR18416.

### Flush Rectangular, Non-Metallic Covers and Flanges

### **Required Components for Carpet Applications**

### **Carpet Flanges**

Number of Gangs Dimensions

1-Gang 6.00" x 4.88" 2-Gang 6.00" x 8.13"

3-Gang 6.00" x 11.35"



### Cover with Duplex and **Decorator Inserts included**

One Required per Gang 4.15" x 2.97" Duplex Decorator Insert Cover Insert







Black	PFBRFBL1	PFBRFBL2	PFBRFBL3	PFBR826BLA
Brown	PFBRFBR1	PFBRFBR2	PFBRFBR3	PFBR826BRA
Gray	PFBRFGY1	PFBRFGY2	PFBRFGY3	PFBR826GYA
Ivory	PFBRFI1	PFBRFI2	PFBRFI3	PFBR826IA

### **Required Components for Tile Applications**

**Mounting Collar** One Required per Gang



**Cover Frame** One Required per Gang Dim. 4.47" x 3.25"



**PFBRFRA** 

### **Cover with Duplex and Decorator**

Inserts included - Gray One Required per Gang Cover Dim. 4.15" x 2.97"

**Duplex** Insert

Cover

Insert

**Decorator** 





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<sup>\*</sup> Suitable for single service applications only.

### Floor Boxes, Flush Rectangular Non-Metallic **Concrete with Metal Covers**





### **Rectangular Floor Boxes, Flush**

Dimensions Inches (mm)



Notes: UL File Number E92074. CSA File Number LR18416.

Removable LV Barrier

Closure Plugs and Reducers Included

### Flush Rectangular, Metal Covers and Flanges

### **Required Components for Carpet and Tile Applications**

1

Adapter Collar - One Required per Gang **PFBRAC** Gray

Adapter Frame with Grounding Lug - One Required per Gang

Dim. 4.36" x 3.20"

S5017G Brass **SA5017G** Aluminum

/



1 /

### **Covers - One Required per Gang**

	Duplex Flap	Duplex Screw	Decorator Opening	21/8" x <sup>3</sup> /4" Combination	21/8" x 1" Combination	21⁄8" Single Receptacle	Blank
	3			0	0	0	
Brass	<b>S3825</b>	<b>S3625</b>	<b>S3826</b>	<b>S2425</b>	<b>S2625</b>	<b>S2825</b>	S3813
Aluminum Dimensions: 4.15" x 2.99"	SA3825	SA3625	SA3826	SA2425	SA2625	-	SA3813

### Carpet Flanges (Not Required for Tile Applications)

Tapered Flang	e			
No. of Gangs	1-Gang	2-Gang	3-Gang	
Dimensions	6" x 4.85"	6" x 8.13"	6" x 11.34"	-
Brass	SB3083	SB3084	SB3085	
Aluminum	SA3083	SA3084	SA3085	

<sup>\*</sup> Suitable for single service applications only.

### Floor Boxes, Flush Rectangular, Cast Iron, Concrete







### Dimensions Inches (mm) **Cast Iron** Style 2-Gang 1-Gang 2-Gang 3-Gana 1-Gang 3-Gang Shallow Shallow Shallow Deep Deep Deep Collar Material B243641\* B4233 B423341 B2436\* B4214 B4314 Brass B4333 B433361 B2414\* BA2436\* BA4233 Aluminum BA4333 Min. Depth of Pour 2.00" (50.8) 2.00" (50.8) 2.00" (50.8) 3.75" (95.3) 3.75" (95.3) 3.75" (95.3) Adjustability Semi Fully Semi Semi Fully Fully Cubic Inch (cm<sup>3</sup>) Capacity 33.0 cu. in. 34.8 cu. in. 16.0 cu. in. 16.0 cu. in. 16.0 cu. in. 36.5 cu. in. (570.3 cm<sup>3</sup>) Per Gang $(540.7 \text{ cm}^3)$ (598.1 cm<sup>3</sup>) $(262.2 \text{ cm}^3)$ $(262.2 \text{ cm}^3)$ $(262.2 \text{ cm}^3)$ Dimensions - A 2.00" (50.8) 2.00" (50.8) 2.00" (50.8) 3.38" (85.9) 3.20" (81.3) 3.38" (85.9) Dimensions - B 4.69" (119.1) 4.84" (122.9) 4.90" (122.5) 5.46" (138.7) 5.46" (138.7) 5.46" (138.7) Dimensions - C 4.19" (106.4) 7.49" (190.2) 10.7" (271.8) 11.41" (289.8) 4.69" (119.1) 8.06" (204.7) Dimensions - D 4.38" (111.3) 4.38" (111.3) 4.38" (111.3) 4.36" (110.7) 4.36" (110.7) 4.36" (110.7) Dimensions - E 3.19" (81.0) 6.38" (162.1) 9.56" (242.8) 3.19" (81.0) 6.42" (163.1) 9.64" (244.9) (6) 3/4" (4) 3/4" (4) 1" (4) 1" & (8) 3/4" (6) 1" & (2) 3/4" (4) 3/4" (6) 3/4" Threaded Access Holes (2) 3/4" (2) 3/4" Concrete Cover Included / / Closure Plugs Included

Notes: UL File Number E92074. CSA File Number LR18416.

Removable LV Barrier

### Floor Box Covers, Flush Rectangular Decorator 2½" x 3/4" $2\frac{1}{8}$ " x 1" 2½" x Single 2월" Single Blank Duplex Flap **Duplex Screw** Receptacle Opening Combination Combination Receptacle Brass **S3825 S3625 S3826 S2425 S2625 S2825 S3425 S3813** Aluminum **SA3825 SA3625 SA3826 SA2425 SA2625 SA3813**

Dimensions: 4.15" x 2.99"

Carpet Flanges			
Tapered Flange	1-Gang	2-Gang	3-Gang
Dimensions	6.00" x 4.85"	6.00" x 8.13"	6.00" x 11.34"
Brass	SB3083	SB3084	SB3085
Aluminum	SA3083	SA3084	SA3085
Clear Polycarbonate	<b>S3083</b>	S3084	S3085



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<sup>\*</sup> Suitable for single service applications only.

### Floor Boxes, Flush Rectangular, **Stamped Steel, Concrete**







Dimensions Inches (mm)				Stamp	ed Steel			
Style	1-Gang	2-Gang	3-Gang	1-Gang	2-Gang	3-Gang	1-Gang	1-Gang
D	Deep	Deep	Deep	Shallow	Shallow	Shallow	Deep	Shallow
A B C C		100	000		ICE I	SER.		
Brass	B2431*	B2432	B2433	B2421*	B2422	B2423	B2427*	B2429*
Aluminum	BA2431*	BA2432	BA2433	BA2421*	BA2422	BA2423	-	-
Min. Depth of Pour	3.75" (95.3)	3.75" (95.3)	3.75" (95.3)	2.75" (69.9)	2.75" (69.9)	2.75" (69.9)	4.00" (101.6)	3.00" (76.2)
Adjustability	Fully							
Cubic Inch (cm <sup>3</sup> )	60.0 cu. in.	52.8 cu. in.	50.8 cu. in.	39.5 cu. in.	35.0 cu. in.	34.0 cu. in.	54.0 cu. in.	37.3 cu. in.
Capacity Per Gang	(983.2 cm <sup>3</sup> )	(865.2 cm <sup>3</sup> )	(832.5 cm <sup>3</sup> )	(647.3 cm <sup>3</sup> )	(573.5 cm <sup>3</sup> )	(557.2 cm <sup>3</sup> )	(884.9 cm <sup>3</sup> )	(611.2 cm <sup>3</sup> )
Dimensions – A	3.72" (94.5)	3.72" (94.5)	3.72" (94.5)	2.74" (69.6)	2.74" (69.6)	2.74" (69.6)	3.90" (99.1)	2.81" (71.4)
Dimensions – B	4.81" (122.2)	4.81" (122.2)	4.81" (122.2)	4.81" (122.2)	4.81" (122.2)	4.81" (122.2)	4.81" (122.2)	4.81" (122.2)
Dimensions – C	6.00" (152.4)	9.25" (235.0)	12.50" (317.5)	6.00" (152.4)	9.25" (235.0)	12.50" (317.5)	6.00" (152.4)	6.00" (152.4)
Dimensions – D	4.38" (111.3)	4.38" (111.3)	4.38" (111.3)	4.38" (111.3)	4.38" (111.3)	4.38" (111.3)	4.38" (111.2)	4.38" (111.2)
Dimensions – E	3.19" (81.0)	6.44" (163.6)	9.67" (245.6)	3.19" (81.0)	6.44" (163.6)	9.67" (245.6)	3.19" (81.0)	3.19" (81.0)
Knockouts – Sides	(1) 3/4",1",11/4"	(2) 3/4",1",11/4"	(3) 3/4",1",11/4"	(2) 1/2",(1) 3/4"	(4) 1/2",(1) 3/4"	(6) 1/2",(1) 3/4"	(1) 1/2",(1) 1 1/4"	(2) 1/2",(1) 3/4"
Knockouts – Ends	(1) 3/4",1",11/4"	(1) 3/4",1",11/4"	(1) 3/4",1",11/4"	(1) 1/2",(1) 3/4"	(2) 1/2",(1) 3/4"	(2) 1/2",(1) 3/4"	(1) 3/4",(1) 1"	(1) 1/2",(1) 3/4"
Knockouts – Bottom	(2) 3/4",1",11/4"	(4) 3/4",1",11/4"	(6) 3/4",1",11/4"	(2) 3/4",1",11/4"	(4) 3/4",1",11/4"	(6) 3/4",1",11/4"	(3) 1/2",(2) 3/4"	(3) 1/2",(2) 3/4"
Concrete Cover Included	1	1	1	1	1	1	/	1
Closure Plugs Included	_	_	_	_	_	_	_	
Removable LV Barrier	_	1	1		1	1		_

Notes: UL File Number E92074. CSA File Number LR18416.

<sup>\*</sup> Suitable for single service applications only.

Floor Box Covers, Flush Rectangular								
	Duplex Flap	Duplex Screw	Decorator Opening	2½" x ¾" Combination	2½" x 1" Combination	2½" x Single Receptacle	2¾ Single Receptacle	Blank
	53	\$	11	(0)	0			
	al-to		المسام				. 3	
Brass	<b>S3825</b>	S3625	<b>S3826</b>	<b>S2425</b>	<b>S2625</b>	<b>S2825</b>	<b>S3425</b>	S3813
Aluminum	SA3825	SA3625	SA3826	SA2425	SA2625	_	_	SA3813

Dimensions: 4.15" x 2.99"

Carpet Flanges			
Tapered Flange	1-Gang	2-Gang	3-Gang
Dimensions	6.00" x 4.85"	6.00" x 8.13"	6.00" x 11.34"
Brass	SB3083	SB3084	SB3085
Aluminum	SA3083	SA3084	SA3085
Clear Polycarbonate	S3083	<b>S3084</b>	<b>S3085</b>

### Floor Boxes, Recessed 4- and 8-Gang Concrete







Dimensions Inches (mm)		Stamped Steel				
Style	4-Gang Deep	4-Gang Shallow	8-Gang Deep	4-Gang Shallow		
A O C C	HBLCFB301BASE	HBLCFB401BASE	HBLCFB501BASE	HBLCFB401CB		
Min. Depth of Pour	4.25" (107.6)	3.00" (76.2)	5.25" (133.4)	3.25" (82.6)		
Adjustability	Fully	Fully	Fully	Fully		
Cubic Inch (cm <sup>3</sup> ) Capacity Per Chamber	29.5 cu. in. (483.4 cm <sup>3</sup> )	25.5 cu. in. (417.9 cm <sup>3</sup> )	49.5 cu. in. (811.2 cm <sup>3</sup> )	25.5 cu. in. (417.9 cm <sup>3</sup> )		
Dimensions – A	4.0" (101.6)	2.63" (66.8)	5.13" (130.3)	3.13" (79.5)		
Dimensions – B	10.0" (254.0)	10.0" (254.0)	10.0" (254.0)	10.0" (254.0)		
Dimensions – C	10.0" (254.0)	10.0" (254.0)	10.0" (254.0)	10.0" (254.0)		
Threaded Access Holes – Per Chamber	_	-	-	(2) 1"		
Knockouts – Per Chamber	(1) Concentric ½", ¾" (1) Concentric ¾", 1" (1) 1¼"	(3) Concentric ½", ¾"	(1) Concentric ½", ¾" (1) Concentric ¾", 1" (1) 1¼"	-		
Concrete Cover Included	✓	✓	<b>✓</b>	✓		
Closure Plugs Included	_	_	_	✓		

Notes: UL File Number E197203. CSA File Number LR702145.

### **Recessed Floor Box Covers**

**Die Cast Zinc Cover and Flange Assembly** 

Dimensions 10.69" x 10.69"



Catalog No. **HBLTCGNTSW** 



**HBLTCGNTBKSW** 

### **Hubbell Screw Type Face Plates\***



Note: \*Catalog No. indicated is gray, replace "GY" with the following to designate color: "BK" for Black, "WA" for White, "I" for Ivory.

### Floor Boxes , Recessed 6-Gang Concrete







**Stamped Steel** Dimensions Inches (mm) **Cast Iron** 

Style	6-Gang	6-Gang
A B O O O O O		ATT
	LCFBSSA	LCFBCA
Min. Depth of Pour	3.50" (88.9)	3.65" (92.7)
Adjustability	Fully	Fully
Cubic Inch (cm <sup>3</sup> ) Capacity Per Chamber	(4) at 38.2 cu. in. (626.0 cm <sup>3</sup> ) (2) at 25.4 cu. in. (416.2 cm <sup>3</sup> )	(4) at 36.8 cu. in. (603.0 cm <sup>3</sup> ) (2) at 25.4 cu. in. (416.2 cm <sup>3</sup> )
Dimensions – A	6.18" (157.0)	6.35" (161.3)
Dimensions – B	12.95" (328.9)	13.11" (333.0)
Dimensions – C	12.95" (328.9)	13.11" (333.0)
Threaded Access Holes – Per Chamber	-	(1) <sup>3</sup> ⁄ <sub>4</sub> " (1) 1 <sup>1</sup> ⁄ <sub>4</sub> "
Knockouts – Per Chamber	(1) Concentric 1", 11/4" (1) 3/4"	_
Concrete Cover Included	✓	✓
Closure Plugs Included	-	✓
Cover Mounting Brackets Included	✓	✓
	<u> </u>	· · · · · · · · · · · · · · · · · · ·

Notes: UL File Number E31999. CSA File Number LR18416.

Smooth Metallic Cover	Cover Dimensions	Aluminum Finish	LCFBCALTC	
Flange and Cable Doors	10.30" x 10.30"	Brass Finish	<b>LCFBCBRSTC</b>	
for Carpet Applications		Black	<b>LCFBCBKTC</b>	100
		Gray	LCFBCGYTC	B. Stand
Metallic Cover	Cover Dimensions	Aluminum Finish	LCFBCALC	
Flange and Cable Doors	10.30" x 10.30"	Brass Finish	LCFBCBRSC	15 月
for Carpet Applications –		Black	LCFBCBKC	family last
Carpet Insert Required		Gray	LCFBCGYC	James Street, and other Parks
Reinforced Non-Metallic Cover	Cover Dimensions	Black	LCFBCBKA	
Flange and Cable Doors	10.30" x 10.30"	Brown	LCFBCBRA	
for Carpet Applications –		Gray	LCFBCGYA	
Carpet Insert Required		lvory	LCFBCIA	
Smooth Metallic Cover and	Cover Dimensions	Aluminum Finish	LCFBCALT	100
Cable Doors for Tile Applications	8.31" x 7.70"	Brass Finish	LCFBCBRST	
• • • • • • • • • • • • • • • • • • • •		Black	LCFBCBKT	The same of
		Gray	LCFBCGYT	9

LCFBP8	LCFBP26	LCFBP720	LCFBIM	LCFBP14
00		1 0		
Duplex	Decorator	Single Receptacle (1.56" Boss Dia.)	3-Unit iSTATION™ (See page B23 for module options)	Blank

### Floor Boxes, Recessed, 3-Service, Concrete

### **3-Service Floor Boxes** Stamped Steel Cast Iron Dimensions Inches (mm) **3SFBSS** 3SFBC Min. Depth of Pour 3.00" (76.2) 3.00" (76.2) Adjustability Fully Fully Cubic Inch (cm<sup>3</sup>) Capacity 22.4 cu. in. (367.1 cm<sup>3</sup>) 21.6 cu. in. (354.0 cm<sup>3</sup>) Per Chamber Dimensions - A2.88" (73.2) 3.00" (76.2) Dimensions - B 12.20" (309.9) 12.88" (327.2) Dimensions - C 5.52" (140.2) 6.00" (152.4) Sides (2) 3/4" Threaded Access Holes Ends (1) 11/4" Center Area (1) 11/4" (each side) Sides (2) 3/4" Ends (1) 1" Knockouts Center Area (1) Concentric 1", 11/4" (each side) Concrete Cover Included Closure Plugs Included

Notes: UL File Number E31999. CSA File Number LR18416.

### **Recessed Floor Box Covers, Carpet Applications**

Reinforced Non-Metallic Cover, Flange and Cable Doors -Carpet Insert Required -Dimensions 11.88" x 5.20"



### **Face Plates** 3-Unit iSTATION™ Voice/Data Single Receptacle Opening (See page B23 for Duplex (2) Jack Knockouts Decorator Opening Knockout (1.39" Base Dia.) Blank $(0.6" \times 0.75")$ Opening module options) **3SFBRP** 3SFBDS 3SFBS 3SFBB **3SFBTP** 3SFBIM

### Raised Access Floor Boxes (Unloaded), and Face Plates

### **Raised Access Floor Boxes Metallic Cover Non-Metallic Cover** Dimensions Inches (mm) Style 4-Gang Deep 4-Gang Deep 4-Gang Shallow 8-Gang Deep Cover Color AFB301BK AFB401BK AFB501BK HBLAFB101BK\* Black AFB301GNT AFB401GNT AFB501GNT **HBLAFB101GNT\*** Gray Max. Floor Thickness 2.75" (69.9) 1.88" (47.8) 3.75" (95.3) 2.00" (50.8) (2) 22.5 cu. in. (368.7 cm<sup>3</sup>) Cubic Inch (cm<sup>3</sup>) Capacity 29.5 cu. in. 49.5 cu. in. 25.5 cu. in. Per Gang $(483.4 \text{ cm}^3)$ $(417.9 \text{ cm}^3)$ (811.2 cm<sup>3</sup>) (2) 20.5 cu. in. (335.9 cm<sup>3</sup>) 4.00" (101.6) 5.12" (130.0) Dimensions - A 2.62" (66.5) 5.18" (131.6) Dimensions - B 10.00" (254.0) 10.00" (254.0) 10.00" (254.0) 9.00" (228.6) Dimensions - C10.00" (254.0) 10.00" (254.0) 10.00" (254.0) 7.00" (177.8) Cover Flange Dimensions 12.00" x 12.00" 12.00" x 12.00" 12.00" x 12.00" 10.62" x 8.62" (1) ½", (2) ½" and ¾", (4) 1/2" & 3/4". (1) $\frac{1}{2}$ ", (6) $\frac{1}{2}$ " and (1) $\frac{1}{2}$ ", (2) $\frac{1}{2}$ " and $\frac{3}{4}$ ", Knockouts - Sides (4) 11/4" trade size 3/4" trade size (4) 11/4" trade size (4) 3/4" and 1" trade size (4) $\frac{3}{4}$ " and 1" trade size Knockouts – Bottom (4) 3/4" and 1" trade size (4) 3/4" and 1" trade size (4) 3/4" and 1" trade size Cover and Flange Included (Carpet or tile application) Floor Tile Cut-Out 10.25" x 10.25" 10.25" x 10.25" 10.25" x 10.25" 9.00" x 7.00"

Notes: UL File Number E197203. CSA File Number LR702145.

Replacement	Metallic	Cover of	and Flange
-------------	----------	----------	------------

Description	Dimensions	Color	Catalog No.	
Cover and Flange	12"W x 12"L	Gray	HBLTCGNT	
Cover and Flange	12"W x 12"L	Black	HBLTCGNTBK	



**HBLTCGNT** 

Replacement Non-Metallic Cover and Flange					
Description	Dimensions	Color	Catalog No.		
Cover and Flange	7"W x 9"L	Gray	HBLAFB101TCGNT*		
Cover and Flange	7"W x 9"L	Black	HBLAFB101TCBK*		



Notes: For City of Chicago approved versions, use following part numbers: HBLAFB301BASEC, HBLAFB401BASEC and HBLAFB501BASEC. Cover must be ordered separately (i.e., HBLTCGNT and HBLTCGNTBK). These versions do not include knockouts and meet construction requirements for CCEA-2000. AFB covers are reversible for both carpet recess and flush tile applications.



HBLAFB101TCGNT\*

\* Insert for flush tile applications included. Remove insert for carpet recess.

### **Hubbell Screw Type Face Plates\***

Duplex	Decorator	Toggle	Single Receptacle (1.56" Boss Dia.)	Single Receptacle (1.39" Boss Dia.)	Blank	Hubbell iSTATION™ (See page B23 for module options)	Hubbell 6-port
HBLST302SGY	HBLDE301SGY	HBLTO310SGY	HBLTL318SGY	HBLTL319SGY	HBLBL300SGY	HBLIMFSGY	HBL317SGY

Note: \*Catalog No. indicated is gray, replace "GY" with the following to designate color: "BK" for Black, "WA" for White, "I" for Ivory.

### Hubbell SystemOne Fire-Rated Poke-Throughs

### 4-Inch Core Hole



### **Hubbell SystemOne Through-Floor Fittings**



Step down installation clips allow the fitting to be installed or removed from the floor above.

Fire barrier expands during fire conditions to maintain the floor's fire rating.

Adjustable lower fire barrier accommodates concrete floor thicknesses from  $2\frac{1}{4}$  to 7 in.

Features E.M.T. conduit tubes for increased cable capacity.

- Accepts all Hubbell SystemOne covers and sub-plates.
- Excellent solution for both retrofit and new construction.
- Brings power, voice, data and multimedia precisely where needed.
- Installs in 4 inch core hole.
- UL listed for use in 1-4 hour fire rated floors.
- UL installation spacing. Minimum 2 ft. on center and not more than one per 65 sq. ft. of floor area.
- Approved for use in the City of Chicago.
- Available with integral power junction box.

### **Hubbell SystemOne Universal Cover**



Hinged doors open 180 degrees flush to the carpet flange or tile.

Screws allow each door to be secured independently.

Universal carpet or tile flange can be used for Hubbell SystemOne Fire-Rated Poke-Through as well as Hubbell SystemOne Floor Boxes.

- Cast aluminum construction available in durable black, gray, brass, aluminum and ivory powder coat finishes.
- Features ScrubShield™ technology that exceeds UL514C scrub water exclusion requirements.
- Provides consistent look and maximum functionality throughout the installed life.
- See the SystemOne Configuration Chart on page 126.

### **Hubbell SystemOne Sub-Plates**

While no one can predict the future, Hubbell's modular sub-plate design allows users to economically upgrade Hubbell SystemOne FRPT and Floor Boxes to accommodate future moves, adds and changes.













- Durable cast aluminum, powder coat construction.
- Hubbell 4x4: four 20A, 125V receptacles, four openings for voice/data jacks and multimedia connectors.
- Hubbell iSTATION<sup>™</sup> front loading modular connectivity.
- Accommodates Extron® Electronics Architectural Series audio/video system integration products.
- Accommodates GFCI, surge and standard Decorator receptacles.
- Twist-Lock® receptacle with flush keystone jack openings.
- Large capacity and multi-service furniture feed applications.



# **Hubbell SystemOne Fire-Rated Poke-Throughs**

### **Hubbell SystemOne Fire-Rated Poke-Throughs** 4-Inch Core Hole One-Piece Units





### **Hubbell SystemOne FRPT - One-Piece Units**

### 4x4 Poke-Through, One-Piece

Description	
Assembled-unit includes Hubbell SystemOne 4X4	
floor fitting (S1PT4X4FIT) with four pre-wired 20A,	
125V receptacles and four keystone opening	
sub-plate (S1SP4X4) to accept Hubbell modular	
jacks and flush multimedia AV connectors.	
Receptacles feature single or two circuit wiring, as	
well as isolated ground capability. Finish flange	
and universal carpet cover (S1CFCxx) assembly are	9
supplied in aluminum, brass, black or gray finishes	

Color	Catalog No.*
Aluminum Finish	S1PT4X4AL
Brass Finish	S1PT4X4BRS
Black	S1PT4X4BL
Gray	S1PT4X4GY





### **Dual Decorator Poke-Through, One-Piece**

Description	
Assembled-unit includes a Hubbell SystemOne	
dual channel floor fitting (S1PTFIT) and two	
Decorator opening sub-plate (S1SP) to accept tw	0
Decorator or one surge or GFCI receptacle and	
one Decorator receptacle. Additionally, outlet	
frames can be used to convert the application	
to a 6-port multi-service or a 12-port all	
communication solution. Finish flange and	
universal carpet cover (S1CFCxx) assembly are	
supplied in aluminum, brass, black or gray finish	es.

Color	Catalog No.*	
Aluminum Finish	S1PTAL	
Brass Finish	S1PTBRS	
Black	S1PTBL	
Gray	S1PTGY	





### Modular AV Poke-Through, One-Piece

Description
Assembled-unit includes a Hubbell SystemOne AV
floor fitting (S1PTAVFIT) and a Hubbell SystemOne
sub-plate (S1SP3IM) to provide a 20A, 125V power
outlet and a recessed 3-unit <b>iSTATION</b> ™ opening.
This comprehensive data/voice/audio/and video
solution can accommodate 15-pin VGA, RCA,
S-Video, 3.5mm stereo, and XLR microphone jacks.
Finish flange and universal carpet cover (S1CFCxx)
assembly are supplied in aluminum, brass, black or
gray finishes.

Color
Aluminum Finish
Brass Finish
Black
Gray



Catalog No.\* S1PT3IMAL S1PT3IMBRS S1PT3IMBL S1PT3IMGY



### Furniture Feed Poke-Through, One-Piece

Description
Assembled-unit includes a Hubbell SystemOne
AV floor fitting (S1PTAVFIT) and a Hubbell
SystemOne Furniture Feed Cover Plate
(S1SPFFxx). This solution provides one 3/4"
conduit opening for power and one 11/2"
conduit opening for low-voltage.
Available in aluminum, brass, black or
gray finishes. Furnished with two screw-in
flexible metal conduit connectors.

Color	
Aluminum	Finish
Brass Finis	sh
Black	
Gray	



Catalog No.\* **S1PTFFAL S1PTFFBRS S1PTFFBL S1PTFFGY** 





\* For integral Power Junction Box, add "J" suffix to catalog number (Example: S1PT4X4ALJ).









Call 1-800-626-0005

### **Hubbell SystemOne FRPT** 4-Inch Core Hole Three-Piece Units





### **Hubbell SystemOne FRPT - Three-Piece Units**



### 4x4 Through-Floor Fitting

Description Through floor fitting with two 3/4" E.M.T. for communications and one 3/4" E.M.T.

for power. For use with Hubbell SystemOne Universal Covers and S1SP4X4 and S1SPTL series sub-plates only. Universal cover and sub-plate ordered separately.

Catalog No.\* S1PT4X4FIT

**Dual Channel Through-Floor Fitting** 

Through floor fitting with two 1" E.M.T. trade size conduit stems to feed power and communication services. For use with Hubbell SystemOne universal covers and all Hubbell sub-plates except S1SP4X4 and S1SPTL series. Universal cover

Catalog No.\* **S1PTFIT** 

and sub-plate ordered separately.

### **AV Through-Floor Fitting**

Description Through floor fitting with one 3/4" E.M.T. trade size conduit stem for power and one 1½" E.M.T. trade size conduit stem for communication services.

Ideal for demanding, large capacity audio/video and data requirements. For use with Hubbell SystemOne universal covers and all Hubbell sub-plates except S1SP4X4 and S1SPTL series. Universal cover and sub-plate ordered separately.

### Catalog No.\* **S1PTAVFIT**

### Hubbell SystemOne Universal Covers Not required for furniture feed applications.

Universal cover assembly installs on the Hubbell SystemOne fire-rated poke-through floor fittings and acommodates all Hubbell SystemOne sub-plates for carpet and tile applications.

### **Carpet Assembly Covers**

Aluminum Finish	Brass Finish	Black	Gray	lvory
The same of the sa	( Corner	100	1000	1000
	B			
31		1	The same of the sa	0
S1CFCAL	S1CFCBRS	S1CFCBL	S1CFCGY	S1CFCI

### **Tile Assembly Covers**

S1TFCAL	<b>S1TFCBRS</b>	S1TFCBL	S1TFCGY	S1 <b>TFCI</b>	
Aluminum Finish	Brass Finish	Black	Gray	lvory	

### **Hubbell SystemOne Fire-Rated Poke-Through Accessories**





S1FRP4BL



### **Abandonment Plate**

Description	Color	Catalog No.
Use with Hubbell SystemOne 4-inch core hole Poke-Throughs to cover the opening when FRPT is abandoned. Cover, Flange and Sub-Plate are removed and through-floor fitting remains.	Gray Black	S1AP4GY S1AP4BL

### **Fire-Rated Closure Plug**

This plug seals 4-inch core hole when FRPT is no longer required and the Gray through-floor fitting is removed. Maintains the floor's 1–4 hour fire rating. Black

### **Power Junction Box**

For use with SystemOne Fire-Rated Poke-Throughs. Provides 27.0 cubic inches. cULus Listed.

**S1FRPTJB** 

S1FRP4GY

S1FRP4BL



<sup>\*</sup> For Integral Power Junction Box, add "J" suffix, (Example: S1PT4X4FITJ).

# **Hubbell SystemOne Sub-Plates**

### **Hubbell SystemOne Sub-Plates**





### **Hubbell SystemOne Sub-Plates**

### **Decorator/GFCI**

(2) Decorator openings for power and/or datacom applications. Use with **S1PTFIT** (recommended) or S1PTAVFIT.



Catalog No.

S1SP

Catalog No.

### **Duplex/Duplex**

(2) Duplex openings for power and/or datacom applications. Use with **S1PTFIT** (recommended) or **S1PTAVFIT**.



### **Duplex/Decorator**

(1) Duplex and (1) Decorator opening for power and/or datacom applications. Use with S1PTFIT (recommended) or S1PTAVFIT.



Catalog No.

### S1SPDUSL

### **Hubbell 4x4**

(4) 20A, 125V receptacles. (4) Keystone openings for Hubbell jacks or flush AV connectors. Use with S1PT4X4FIT only.



Catalog No.

S1SP4X4

### **Carpet Furniture Feed Cover**

(1) 3/4" & (1) 11/2" N.P.T. plugs for power and/or datacom applica Use with S1PT/ (recommended) Universal Cover Includes carpet fl

ations.	
AVFIT ) or S1PTFIT. not required.	
lange.	Catalog No.

Color	Catalog No.
Brass Finish	S1SPFFBRS
Aluminum Finish	S1SPFFAL
Black	S1SPFFBL
Gray	S1SPFFGY

### **Tile Furniture Feed Cover**

(1) 3/4" & (1) 11/2" N.P.T. plugs for power and/or datacom applications. Use with **S1PTAVFIT** (recommended) or S1PTFIT. Universal Cover not required. Includes tile flange.



Color	Catalog No.
Brass Finish	S1SPFFTBRS
Aluminum Finish	S1SPFFTAL
Black	S1SPFFTBL
Gray	S1SPFFTGY

### Single Receptacle + Data

20 or 30A Twist-Lock® receptacle (1.56" OD). (2) Keystone openings for Hubbell jacks or flush AV connectors. Use with S1PT4X4FIT only.

Catalog No.



S1SPTL

### **Hubbell Datacom + Power**

(1) 20A, 125V receptacle. 3-unit recessed iSTATION™ opening for data, voice, and AV applications. Use with **S1PTAVFIT** (recommended) or S1PTFIT.





S1SP3IM

### **Hubbell Datacom + Duplex**

(1) Duplex opening, (2) flush keystone openings and 1.5-unit recessed **iSTATION**<sup>™</sup> opening for data, voice and AV applications. Use with S1PTAVFIT (recommended)



or **S1PTFIT**. Catalog No. S1SPDU2IM

### **Hubbell Datacom + Decorator**

(1) Decorator opening, (2) flush keystone openings and 1.5-unit recessed iSTATION™ opening for data, voice and AV applications. Use with **S1PTAVFIT** (recommended) or S1PTFIT.



Catalog No.

S1SPSL2IM

### **Hubbell Datacom**

1-unit flush iSTATION™ opening. 3-unit recessed **iSTATION**™ opening for data, voice, and AV applications. Use with S1PTAVFIT (recommended) or **S1PTFIT**.



S1SP4IM

### Active Multimedia + Power

Single 20A, 125V receptacle; (2) flush Keystone openings; (1) rectangular Decorator opening to accommodate active multimedia modules.



Catalog No. S1SPAMM20

### Extron® or FSR + Power

(1) 20A, 125V receptacle. Recessed opening for (3) single Extron® MAAP series adapter plates or FSR IPS Plates. Use with S1PTAVFIT (recommended) or S1PTFIT.

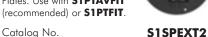


Catalog No.

S1SPEXT1

### Extron® or FSR + Power

(1) 20A, 125V receptacle. Recessed opening for (1) single Extron® MAAP and (2) single AAP series adapter plates or FSR IPS Plates. Use with **S1PTAVFIT** (recommended) or S1PTFIT.



### **Extron® or FSR Single Service**

Recessed opening for (2) single Extron® MAAP and (2) single AAP Series adapter plates or FSR IPS Plates. Use with S1PTAVFIT (recommended) or **S1PTFIT**.



S1SPEXT3 Catalog No.

### Extron® AAP + Power

(1) 20A, 125V receptacle. (2) flush Keystone openings and recessed opening for (2) single Extron® AAP series adapter plates. Use with **S1PTAVFIT** (recommended) or S1PTFIT.



Catalog No. S1SPEXT4

<sup>\*</sup> Furnished with two screw-in flexible metal conduit connectors. Extron® is a registered trademark of Extron Electronics.

### Fire-Rated Poke-Throughs, 2x2 Flush 3-Inch Core Hole Units







### Fire-Rated Poke-Throughs, 2x2 - One-Piece Units

### 2x2 Aluminum Poke-Through

Complete assembled unit includes:

- **PT2X2FIT** through-floor fitting.
- Pre-wired 20A duplex Decorator receptacle & (2) Category 5e data jacks.
- Non-metallic cover.
- Painted aluminum flange.
- UL Listed and CSA Certified.
- Approved for use in the City of Chicago.

Color	Catalog No.
Black	PT2X2BL
Gray	PT2X2GY
Black	PT2X2IGBL*
Gray	PT2X2IGGY*

<sup>\*</sup> Includes pre-wired 20A isolated ground Duplex Decorator receptacle.

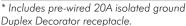


### 2x2 Black/Brass Poke-Through

Complete assembled unit includes:

- PT2X2FIT through-floor fitting.
- Pre-wired 20A duplex Decorator receptacle & (2) Category 5e data jacks.
- Non-metallic cover.
- Solid Brass flange.
- UL Listed and CSA Certified.
- Approved for use in the City of Chicago.

Color	Catalog No.
Black/Brass	PT2X2BRS3
Brass Finish/Brass	PT2X2BRS
Black/Brass	PT2X2IGBRS3*
Brass Finish/Brass	PT2X2IGBRS*





PT2X2BRS3

### Fire-Rated Poke-Throughs, 2x2 Flush - Two-Piece Units

### **Multi-Channel Through-Floor Fitting**

Complete assembled unit includes:

- UL Listed and CSA Certified.
- 1-4 hour fire rating (1-3 hour for steel floor units and concrete topping (D900 Series Design).
- For 21/4" to 7" floor thickness.
- Painted aluminum flange.
- UL installation spacing. Minimum 2 ft. on center and not more than one per 65 sq. ft. of floor area.
- Approved for use in the City of Chicago.

Through-Floor fitting with (1)  $\frac{3}{4}$ " E.M.T. stem with junction box for power and (2)  $\frac{1}{2}$ " E.M.T. stems for low voltage.

Catalog No. PT2X2FIT



PT2X2FIT

### **Service Fittings**

### 2x2 Service Fitting - Aluminum Flange

- Pre-wired 20A Duplex Decorator receptacle & (2) Category 5e data jacks.
- Non-metallic cover.
- Painted aluminum flange.
- UL Listed and CSA Certified.

Color	Catalog No.
Black	PT2X2SFBL
Gray	PT2X2SFGY



PT2X2SFBL

### 2x2 Service Fitting - Brass Flange

- Pre-wired 20A Duplex Decorator receptacle & (2) Category 5e data jacks.
- Non-metallic cover.
- Solid Brass flange.
- UL Listed and CSA Certified.

Color	Catalog No.
Black/Brass	PT2X2SFBRS3
Brass Finish/Brass	PT2X2SFBRS



PT2X2SFBRS3

### **Accessories**

### **Non-Metallic Replacement Covers**

Color	Catalog No.
Black	PT2X2CBL
Gray	PT2X2CGY
Brass Finish	PT2X2CBRS





### Complies with UL514A

### Fire-Rated Poke-Throughs, Flush Duplex - One-Piece Units

Fire-Rated Poke-Throughs, Flush Duplex

### Flush Aluminum Poke-Through

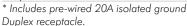
Complete assembled unit includes:

■ **PT7FSD** through-floor fitting.

**3-Inch Core Hole Units** 

- Pre-wired 20A Duplex receptacle.
- Non-metallic flip-lid cover with (2) 1/2" diameter low voltage, feed through holes.
- Painted aluminum flange.
- UL Listed and CSA Certified.

Color	Catalog No.
Black	PT7FSDBLA
Gray	PT7FSDGYA
Ivory	PT7FSDIA
Brown	PT7FSDBRA
Gray	PT7IGFSDGYA*
Ivory	PT7IGFSDIA*
'	





PT7FSDGYA

### Flush Brass Poke-Through

Complete assembled unit includes:

- PT7FSD through-floor fitting.
- Pre-wired 20A Duplex receptacle.
- All brass or black non-metallic cover
- Flip-lid cover with (2) 1/2" diameter low voltage feed through holes.
- Solid Brass flange.
- UL Listed and CSA Certified.

Color	Catalog No.
All Brass	PT7FSDBRS2A
Black/Brass	PT7FSDBRS3A
All Brass	PT7IGFSDBRSA*

\* Includes pre-wired 20A isolated ground Duplex receptacle.



PT7FSDBRS2A

### Fire-Rated Poke-Throughs, Flush - Two-Piece Units

### **Multi-Channel Through-Floor Fitting**

Specifications:

- UL Listed and CSA Certified.
- 1-4 hour fire rating (1-3 hour for Steel floor units and concrete topping, D900 Series Design).
- For 21/4 to 7" floor thickness.
- UL installation spacing. Minimum 2 ft. on center and not more than 1 per 65 sq. ft. of floor area.

Through-Floor fitting with (1) 3/4" E.M.T. stem for power and (2) ½" low voltage feed through holes.

Description	Catalog No.
With Junction Box	PT7FSD
Without Junction Box	PT73SD



### **Service Fittings**

### Flush Aluminum Service Fitting

- Pre-wired 20A Duplex receptacle.
- Non-metallic flip-lid cover with (2) 1/2" diameter low voltage feed-through
- Painted aluminum flange.
- UL Listed and CSA Certified.

Color	Catalog No.
Black	FRFBLA
Gray	FRFGYA
lvory	FRFIA
Brown	FRFBRA



**FRFGYA** 

### Flush Brass Service Fitting

- Pre-wired 20A Duplex receptacle.
- Solid Brass flip-lid cover with (2) 1/2" diameter low voltage feed-through holes.
- Solid Brass flange.
- UL Listed and CSA Certified.

Material	Catalog No.
Solid Brass	FRFBRS2A



FRFBRS2A

### **Accessories**

### **Non-Metallic Replacement Covers**

	<u> </u>
Color	Catalog No.
Black	PFBRCBLA
Gray	PFBRCGYA
lvory	PFBRCIA
Brown	PFBRCBRA



**All Brass Replacement Cover** 

Material	Catalog No.
Solid Brass	BRS2RCA



BRS2RCA

Fire-Rated Poke-Throughs, Flush Duplex

### Fire-Rated Poke-Throughs, Flush Furniture Feed 3-Inch Core Hole Units







### FRPT, Large Capacity, Low Voltage, Flush Furniture Feed - Two-Piece Units

### Large Capacity, Low Voltage Through Floor Fitting

Through-floor fitting with (1) 2" E.M.T. stem. Will accommodate up to 36 Category 5e cables.

Specifications:

- UL Listed and CSA Certified.
- 1-2 hour fire rating.
- For  $2\frac{1}{4}$  to 7" floor thickness.
- UL installation spacing. Minimum 2 ft. on center and not more than 1 per 65 sq. ft. of floor area.
- Approved for use in the City of Chicago.

Catalog No.

PT2FIT

### Large Capacity, Cover/Flange

Specifications:

- UL Listed and CSA Certified.
- Cover/flange with 11/4" and 2" trade size combination knockout.
- Painted aluminum cover and flange.
- Approved for use in the City of Chicago.



FF2BK

Color	Catalog No.
Brass Finish	FF2BRS
Black	FF2BK
Gray	FF2GY

### **FRPT, Flush Furniture Feed - One-Piece Units**

### 3-Service Furniture Feed Poke-Through

Complete assembled unit includes:

- PT73SD floor fitting.
- Aluminum cover with (2) ½" threaded hubs for low voltage and (1) ¾" threaded hub for power.
- Painted aluminum flange.
- UL Listed and CSA Certified.



P-	T73	FFS	DGY

Color	Catalog No.
Black	PT73FFSDBK
Gray	PT73FFSDGY
lvory	PT73FFSDI

### **Single-Service Furniture Feed Poke-Through**

Complete assembled unit includes:

- PT71SD floor fitting.
- Aluminum cover with (1) KO to accept a 3/4" connector.
- Painted aluminum cover and flange.



PT7FFSDGY

Color	Catalog No.
Gray	PT7FFSDGY
lvory	PT7FFSDI

### FRPT, Flush Furniture Feed - Two-Piece Units

### 3-Service Furniture Feed, Through-Floor Fittings

Through-floor fitting with (1) ¾" E.M.T. stem for power and (2) ½" low voltage conduit holes. Specifications:

- UL Listed and CSA Certified.
- 1-4 hour fire rating (1-3 hour for n Steel floor units and concrete topping, D900 Series Design).



PT73SD

### Single-Service Furniture Feed, Through-Floor Fittings

Through-floor fitting with (1) ¾" E.M.T. stem for power or low voltage applications.

Specifications:

- UL Listed and CSA Certified.
- UL installation spacing. Minimum 2 ft. on center and not more than 1 per 65 sq. ft. of floor area.



Catalog No. PT71SD

### **Service Fittings**

Catalog No.

### **Single-Service Furniture Feed Poke-Through**

- Aluminum cover with (2) 1/2" threaded hubs for low voltage and (1) 3/4" threaded hub for power.
- Painted aluminum flange.
- UL Listed and CSA Certified.



FRF3GY

Color	Black	Gray	lvory	
Catalog	FRF3BK	FRF3GY	FRF3I	

### **Single-Service Furniture Feed Poke-Through**

- Aluminum cover with (1) KO to accept a 3/4" connector.
- Painted aluminum flange.
- UL Listed and CSA Certified.



FRF1GY

Color	Black	Gray	Brass Finish
Catalog	FRF1BK	FRF1GY	FRF1BRS



### **Aluminum Service Poles - Specifications and Dimensional Information**

### **Aluminum Service Poles**



HBLPP10AI

Hubbell offers a line of gray, ivory and satin finish extruded aluminum service poles. These attractive and durable poles effectively distribute power and telecommunications wiring from above the ceiling to workstations below. They are offered in lengths of 10' 2", 12' 2", and 15' 2", and with a variety of electrical wiring devices. Poles with three service capability have a divider to separate power and low voltage wiring.

A blank pole is also offered which does not have devices or wiring. In addition to a standard pole, which has two 20 amp Duplex receptacles, an isolated ground version is available, as well as a surge suppression version. All poles, except the blank versions, are factory wired with Hubbell Decorator receptacles. Two Decorator knockouts are also provided on the same side as the power receptacles for communication outlets.

Service Pole Description		Catalog No. Gray	Catalog No. Ivory	Catalog No. Aluminum, Satin Finish
Three-service; two 20A/125V	Height: 10' 2" (3.10m)	HBLPP10A	HBLPP10AI	HBLPP10AAL
Decorator Duplex receptacles; one circuit.	Height: 12' 2" (3.71m)	HBLPP12A	HBLPP12AI	HBLPP12AAL
	Height: 15' 2" (4.62m)	HBLPP15A	HBLPP15AI	HBLPP15AAL
Three-service; one orange isolated ground 20A/125V Decorator Duplex receptacle; one 20A/125V Decorator Duplex receptacle; two circuits.	Height: 10' 2" (3.10m)	HBLPP10IGA	HBLPP10IGAI	-
Three-service; two orange isolated ground 20A/125V Decorator Duplex receptacles; one isolated ground surge supression 20A/125V Duplex receptacle; one circuit.	Height: 10' 2" (3.10m)	HBLPP10SA	HBLPP10SAI	-
Three-service; blank pole; divider;	Height: 10' 2" (3.10m)	HBLPPOA	HBLPPOAI	HBLPPOAAL
four Decorator device knockouts.	Height: 12' 2" (3.71m)	HBLPPO12A	HBLPPO12AI	HBLPPO12AAL
	Height: 15' 2" (4.62m)	HBLPPO15A	HBLPPO15AI	HBLPPO15AAL
Accessories		Catalog No.		
Adjustable T-bar assembly for mounti ceiling tile.	ng poles in middle of	АТВ		
Replacement Service Pole Trim Kit (Ceiling White)		PPTRIM1		
NOTE: Decorator plates/outlets, mod	lular jacks, and data conn	ectors are sold sepa	rately. See Section B	for the complete line.

HBLPP10SAI

HBLPP10IGA





### **Specifications**

Material: Extruded aluminum; .05" thick (1.27mm) Finish: gray, ivory or satin finish

Conductors: #12 AWG stranded copper

Receptacles: (see drawings below) Listing: UL Listed

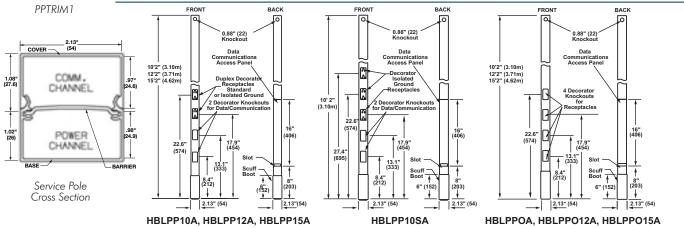
Voice Data Channel\* Power

0.00 2 0.0	0		. 0110.
Cat. 5E	Cat. 6	Cat. 6A	Channel**
16	11	9	41
1	6	3	41
.6	11	9	41
10	at. 5E	6	at. 5E

\* Pole wiring capacity (telephone fill): Cat. 5 UTP (2.30 sq. ft.).

\*\*#12 THHN stranded.

### **Dimensions**



### **Hubbell SystemOne Configuration Chart**

			Non- Metallic Floor Box	Metal Floor Boxes		4" Core Hole Fire-Rated Poke-Throughs			
C. l. Dl.				-	-	-	100 mg	The state of the s	7
Sub-Plates S1SP	Decorator/GFCI	0	\$1PFB	3.5	\$1SFB	S1SFBAV	\$1PTFIT   (Single-Service)	S1PT4X4FIT	(Multi-Service)
S1SPDU	Duplex/Duplex	0	3	3.5	3.5	3.5	(Single-Service)	X	(Multi-Service)
S1SPDUSL	Duplex/Decorator	<b>(1)</b>	3	3.5	3.5	3.5	<b>/+</b> (Single-Service)	X	(Multi-Service)
S1SP4X4	Hubbell 4x4		4	4	4	4	X	<b>/</b> +	X
S1SPTL	Twist-Lock® Receptacle + Data	O	4	4	4	4	X	<b>/</b> +	X
S1SP3IM	Hubbell Datacom + Power	Ŏ	5	5	5	5	1	X	<b>/</b> +
S1SP4IM	Hubbell Datacom	Ŏ	3.5	3.5	3.5	3.5	1	X	<b>/</b> +
S1SPDU2IM	Hubbell Datacom + Duplex	Ø	5	5	5	5	1	X	<b>/</b> +
S1SPSL2IM	Hubbell Datacom + Decorator	Ø	5	5	5	5	1	X	<b>/</b> +
S1SPAMM20	Active Multimedia + Power	O	5	5	5	5	1	X	<b>/</b> +
S1SPFFxx (Carpet) S1SPFFTxx (Tile)	Furniture Feed Cover/ Flange (replace "xx" with BRS (brass), AL (aluminum), BL (black) or GY (gray).	Ŏ	3	3.5	3.5	3.5	1	X	<b>/</b> +
S1SPEXT1	Extron® MAAP or FSR IPS + Power	0	4	4	4	4	1	X	<b>√</b> +
S1SPEXT2	Extron AAP or FSR IPS + Power	O	4	4	4	4	1	X	<b>√</b> +
S1SPEXT3	Extron or FSR IPS Single- Service	O	4.5	4.5	4.5	4.5	1	X	<b>√</b> +
S1SPEXT4	Extron AAP + Flush Keystone + Power	Ō	4	4	4	4	1	X	<b>√</b> +
S1CFCxx SystemOne Carpet Cover	All SystemOne Floor Boxes and FRPTs accept the SystemOne		$\bigcirc$			of concrete II SystemOne	Recommended Floor Fitting	Alternative Floor Fitting	Not Compatible
S1TFCxx SystemOne Tile Cover	Universal Covers (replace "xx" with BRS (brass), AL (aluminum), BL (black), GY (gray) or I (ivory).								

 $\mathsf{Extron}^{\texttt{®}}$  is a registered trademark of Extron Electronics.

### One Solution for so many in-floor applications:







## SystemOne

### from Hubbell



Flush Floor Boxes and Fire-Rated Poke Throughs offer a whole new level of performance and flexibility, thanks to **Hubbell SystemOne**. Now, one system covers so many in-floor installations.

**More Aesthetics** - Both floor boxes and poke-throughs use the same SystemOne Universal Cover, for a clean and consistent look.

**More Configuration Options** - With 18 sub-plates to choose from, SystemOne handles a wide variety of power, data or audio/video device configurations.

**More Flexibility** - If needs change, no problem. The SystemOne modular sub-plate design allows you to easily install a new device combination.

Get the one solution that can satisfy so many in-floor needs: Hubbell SystemOne. Because nobody delivers like Hubbell Commercial Solutions.



WIRING SYSTEMS
Wiring Device-Kellems
Premise Wiring



### **RACEWAY SYSTEMS**

METAL AND NON-METALLIC RACEWAY FROM HUBBELL PREMISE WIRING ARE PACKED WITH FEATURES FOR THE SPECIFIER, INSTALLER AND USER. NEW FEATURES INCLUDE BEND RADIUS CORNERS AND FITTINGS THAT EXCEED THE AUGMENTED CATEGORY 6 CABLING REQUIREMENTS FOR COPPER AND FIBER APPLICATIONS. NEW BOXES ALLOW THE USE OF LONG AND DEEP FIBER, COAX, VOICE, VIDEO AND DATA OUTLET CONNECTORS.



NON-METALL PIECE • 2 CHA ELBOW • SINC STATION BOX BOX • BASETRA TUNNELS • HB PLATES • PREM



ELE CHANNEL • PREMISETRAK • STATION BOXES • CEILING FITTING • TEE CEXTERNAL ELBOW • THREE CHANNEL • FACE PLATES • FLOORTRAK • INTERNATER • CONDUIT ADAPTER • LIGHT FIXTURE BOX • HBL750 • DOUBLE GANG CTANGULAR PLATES • SPLICE COVER • INLINE BOX • FULL CAPACITY STATION CONNECTOR • SECURITY STRAP • WIRE FILL CAPACITIES • PASS-THROUT CARACEWAY IF CONTENTS ISTATION MODULE BEZEL • HBL500 ELIPS • INLINE DEVICE BOXES • TRANSITION FITTING • MULTI-SERVICE





Product Pa	ıge
Metal Raceway Overview	
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BaseTrak® (PB3) Surface Raceway	2
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or well over a century, Hubbell Wiring Systems, including Wiring Device-Kellems and Hubbell Premise Wiring, has continued its tradition of pioneering innovative products and quality solutions for industrial, commercial and institutional applications.

In 1986, Hubbell's commitment to this tradition led to the introduction of **PolyTrak**®, a line of ground-breaking non-metallic surface raceway that was designed and developed to exceed every customer's expectations.

Listening to and understanding the needs of our customers gave rise to several unique <code>PolyTrak®</code> designs that meet virtually every raceway application. With products like <code>BaseTrak®</code>, <code>Super BaseTrak®</code>, <code>LANTrak®</code>, <code>WallTrak®</code>, and <code>PremiseTrak®</code>, customers can easily install the right raceway system to provide the proper capacity, bend radius and aesthetically pleasing design for any power, data and telecommunication cable distribution.

Hubbell's innovative tradition continues today with the introduction of a new line of Metal Raceway. Only Hubbell Wiring Systems could take a familiar, mature product like metal raceway and make it better. How did we do it? We listened to our customers.

Through extensive interviews, in-depth focus groups and state-of-the-art research and development, we have delivered an improved metal raceway product line with all the enhancements and flexibility customers asked for. Consider using features like the Hubbell Handi-Screw® and the Hubbell By-Pass divider along with rounded corners, single-seam box construction and enhanced datacom capabilities are just some of the elements we incorporated to benefit customers. With maximum functionality, vital capacity, unmatched quality and easy installation, never before has there been a metal raceway like this.

Listening to the customer and developing and implementing innovative products to meet their needs are the fundamental principles that make Hubbell Wiring Systems a respected leader in the electrical and data communications industry. These same principles are the driving force behind the expansion and enhancement of our comprehensive surface raceway product line. That's our story.



Best in Class Products

Industry leading datacom capacity and capabilities.

Ease of Installation

Hubbell Handi-Screw speeds installation through easy screw alignment.

Application Solutions

Flexibility to accommodate a wide range of power and datacom applications.

Eco-Friendly Solutions

Available in Pre-Wired versions minimizing packing materials and saving on site assembly time.

For more detailed information, go to:

www.hubbell-premise.com/Raceway.asp

### **Innovative Box Design**

- Hubbell Handi-Screw® eliminates difficult to install long screws for easier installation.
- Rounded corners eliminate sharp edges.
- One seam construction provides "clean" look.
- Box design allows standard wall plates to be mounted flush with virtually no perimeter profile exposed.



### **Enhanced Datacom Capabilities**

- New HBL750 Series exclusive to Hubbell.
- Largest single channel, low-profile raceway available in its class.
- Ideal for datacom and oversized neutral applications.
- Allows up to five Category 5e, or three Category 6 cables.
- Available with 1½" bend radius fittings for high-speed Category 5e, 6 and 6A cables.



### **Application Capacity and Flexibility**

- HBL4750 Series exclusive to Hubbell.
- Flexible channel divider provides industry leading data capacity in the same profile with a 2/3 datacom split.
- 50/50 split available by utilizing standard divider and divider clips.
- Raceway channel can also be used with no divider for maximum cable fill in single service applications.



### **Transition Fittings**

- UL Classified for transition from Wiremold® Metal Surface Raceway to Hubbell Metal Raceway.
- Complete line of transition fittings for HBL500, HBL750, HBL2000, HBL3000, HBL4750, and HBL6750 Series Metal Raceway.



Wiremold® is a registered trademark of The Wiremold Company.

### **HBL500** and **HBL750** Series Single Channel Metal Raceway



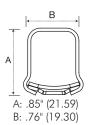
HBL500	Base and Cover 10 ft.	Base and Cover 5 ft.
lvorv	HRI 50010IV	HRI 5005IV



A:	.53"	(13.46)
B:	.76"	(19.30)



HBL750	Base and Cover 10 ft.	Base and Cover 5 ft.		
lvory	HBL75010IV	HBL7505IV		



### **HBL500** and **HBL750** Series Fittings

For more detailed information, go to www.hubbell-premise.com/Raceway.asp



	Internal Elbow	External Elbow	Flat Elbow 90°	Flat Elbow 45°	Mounting	Bushing	Connection
Raceway	lvory	lvory	lvory	lvory	Strap		Cover
HBL500	HBL517IV	HBL518IV	HBL511IV	HBL512IV	HBL504IV	HBL502B	HBL506IV
HBL750	HBL717IV	HBL718IV	HBL711IV	HBL712IV	HBL704IV	HBL702B	HBL706IV



Raceway	Internal Elbow 1 ½" Bend Radius, Ivory	External Elbow 1½" Bend Radius, Ivory	Flat Elbow 1½" Bend Radius, Ivory	Tee Fitting 11/2" Bend Radius, Ivory	Tee Fitting Ivory
HBL500 or HBL750	HBL5717BRIV	HBL5718BRIV	HBL5711BRIV	HBL5715BRIV	HBL5715IV









	<b>Internal Twi</b> For double turns at	sted Elbows right angles, Ivory	ght angles, Ivory For connecting HBL500		Support Clip Ivory	<b>Transition Fitting*</b> Wiremold® to Hubbell
Raceway	Right Elbow	Left Elbow	or HBL750 Raceway from ceiling or corner, Ivory	Steel		lvory
HBL500 or	HDI 5711DHIV	HBL5711LHIV	HBL5719IV	HBL5701C	HBL5703IV	HBL500TFIV
HBL750	HBL5711RHIV	HBL3/IILHIV	HDL3/19IV	HBL5701C	HBL5/USIV	HBL750TFIV











Raceway	Elbow Box Connector Right angles to boxes with ½" KO, Ivory	Elbow Conduit Connector Right angles to ½" conduit, Ivory	Combination 1/2" Connector No offsetting needed to 31/4" or 4" box, Ivory	Adjustable Offset Connector with 2 ½" KOs, Ivory	Entrance Connector ¾" KO and ¾" Chase Nipple, Ivory
<b>HBL500</b> or <b>HBL750</b>	HBL5783IV	HBL5784IV	HBL5785IV	HBL5786IV	HBL5786AIV

<sup>\*</sup> For transitioning from either Wiremold® V500 to Hubbell HBL500 Raceway or Wiremold® V700 to Hubbell HBL750 Raceway. Wiremold® is a registered trademark of The Wiremold Company.



**J6** 

### **HBL500** and **HBL750** Series Fittings











	Flexible Section	Box Co	nnector	Conduit	Connector	Grounding	Special Nipple
Raceway	18" long, lvory	½" Male	³/₄" Male	½" Female	¾" Female	<b>Clamp</b> For ½" Conduit	For ½" Trade Size KOs
<b>HBL500</b> or <b>HBL750</b>	HBL5700FIV	HBL5781	HBL5781A	HBL5782C	HBL5782A	HBL5709GC	HBL5780







Raceway	Armored Cable Connector	Ground Clamp	EMT Connector ½"*
<b>HBL500</b> or <b>HBL750</b>	HBL5790B	HBL5709	HBL5791

### **HBL500** and **HBL750** Series Tools

	HBL500	HBL750		
Cutter	HBL605CUT	HBL607CUT		
Replacement Blade	HBL605K	HBL607K		
Bender	HBL600B			
Touch-Up Pen, Ivory	HBLIWEP			



### **HBL500 and HBL750 Series Device Boxes\***



	Device Box 1.75" Deep					
Color	1-Gang	2-Gang	3-Gang	4-Gang	5-Gang	6-Gang
Ivory	HBL5748IV	HBL57482IV	HBL57483IV	HBL57484IV	HBL57485IV	HBL57486IV



	Shallo	Shallow Device Box 1.38" Deep					
Color	1-Gang	2-Gang	3-Gang				
Ivory	HBL5747IV	HBL57472IV	HBL57473IV				

Deep Device Box 2.25" Deep		
1-Gang	2-Gang	3-Gang
HBL5744SIV	HBL5744S2IV	HBL5744S3IV



	Extra Deep Device Box 2.75" Deep		
Color	1-Gang	2-Gang	3-Gang
Ivory	HBL5744IV	HBL57442IV	HBL57443IV

Extension Box Open Base, 1.38" Deep		
1-Gang 2-Gang 3-Gang		3-Gang
HBL5751IV HBL57512IV HBL57513IV		

### Open Base 1.75" Deep 1-Gang HBL5751AIV

### **HBL500** and **HBL750** Series Round Extension and Fixture Boxes\*



	Round E	Round Extension Box Open Base		
Color	4.75" diameter	5.5" diameter	6.375" diameter	
lvory	HBL5737IV	HBL5737AIV	HBL5739AIV	

Round Fixture Box Solid Base		
4.75" diameter	5.5" diameter	6.375" diameter
HBL5738IV	HBL5738AIV	HBL5739IV

	Center**
-	Blank Cover 1/2" Trade KO in
	51 1 6



Color	Outlet Box 3" diameter	Blank Cover For use with HBL5733IV
lvory	HBL5733IV	HBL5731IV



Color	Fanbox Fans up to 50 lbs.
lvory	HBL5738AFIV



Color	<b>Round Fixture Box</b> for Audible Alarms
lvory	HBL5739AABIV

### **HBL500** and **HBL750** Series Specialty Boxes\*



Color	Device Box Low-Profile 1.13" Deep	Device Box 1/2" side KOs 1.75" Deep
lvory	HBL5748SIV	HBL5745IV



Color	Blank Extension Box Open Base
Ivory	HBL5760IV



Color	Utility Box 1/2" KO
Ivory	HBL57242IV



	Alarm Device Box	Alarm Device Box
Color	1.38" Deep	Extra Deep 2.75"
lvory	HBL5752IV	HBL5753IV
Red	HBL5752R	HBL5753R



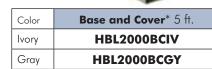
Color	<b>Distribution Box</b> Mounting screw centers of 2.75", 3.5", 4.06"
lvory	HBL5735IV

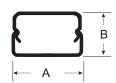
<sup>\*</sup> Use Catalog No. HBL5791 for connecting  $\frac{1}{2}$ " EMT to all HBL5700 Series round and rectangular having a  $\frac{1}{2}$ " trade size KO.

 $<sup>^{**} \</sup> For \ use \ with \ HBL5735IV, \ HBL5737IV, \ HBL5737AIV, \ HBL5739AIV, \ HBL5738IV, \ HBL5738AIV \ and \ HBL5739IV.$ 

### **HBL2000 Series Metal Raceway**







A:	1.31" (33.27)	
B:	.83" (21.08)	



Color	Cover 5 ft.	Base 5 ft.
Ivory	HBL2000CIV	HBL2000B5IV
Gray	HBL2000CGY	HBL2000B5GY

<sup>\*</sup> Cover is .025" thick for up to 300V AC applications.

### **HBL2000 Series Metal Raceway Fittings**





For more detailed information, go to

www.hubbell-premise.com/Raceway.asp











	-				and the same of th	
Color	Blank End Fitting	Entrance End Fitting ½" KOs	Entrance End Fitting Large Capacity ½" and ¾" KOs	Cover Clip to hide seams in cover	Flush Plate Adaptor	<b>Transition Fitting</b> Wiremold® to Hubbell
Ivory	HBL2010BIV	HBL2010A2IV	HBL2010A3IV	HBL2006IV	HBL2051HIV	HBL2000TFIV
Gray	HBL2010BGY	HBL2010A2GY	HBL2010A3GY	HBL2006GY	HBL2051HGY	HBL2000TFGY















						-	
	Side Reducing	End Reducing	Coupling	Internal Corner	Wire Clip	Support Clip	Ground
	Connector	Connector	Galvanized Steel	Coupling	Galvanized	Galvanized Steel	Clamp
Color	to HBL500	to HBL500		Galvanized Steel	Steel		-
lvory	HBL2089IV	HBL2089EIV	HBL2001C	HBL2017TC	HBL2000WC	HBL2003SC	HBL2009GC
Gray	-	-	HBL2001C	HBLZ01/IC	HBLZUUUWC	HBLZ0033C	HBLZ009GC





Color	<b>Device Box</b> 1-Gang, 1.75" Deep	<b>Device Box</b> 2-Gang, 1.75" Deep
Ivory	HBL2048IV	HBL20482IV
Gray	HBL2048GY	HBL20482GY

### HBL2000 Series Metal Raceway Boxes HBL2000 and HBL3000 Series Tools

HBL2000 Tools	Raceway Cutter	Cutter Replacement Blade Set
Catalog No.	HBL620C	HBL620BCK

HBL3000 Tools	Base Cutter	Replacement Base Cutter Blade Set	Cover Cutter	Replacement Cover Cutter Blade Set
Catalog No.	HBL630B	HBL630BDK	HBL630C	HBL630CDK

Color	Touch-Up Paint Pen
lvory	HBLIWEP
Gray	HBLGWEP







Available in PRE-WIRED

### **HBL3000 Series Metal Raceway**





### **HBL3000 Metal Raceway Fittings**



			1	ALC: NO.
	90° Flat Elbow	Tee Fitting	External Corner	Internal Corner
Color			Coupling	Coupling
lvory	HBL3011EIV	HBL3015EIV	HBL3018AEIV	HBL3017TCEIV
Gray	HBL3011EGY	HBL3015EGY	HBL3018AEGY	HBL3017TCEGY





### **HBL3000 Device Bracket and Cover Plates**





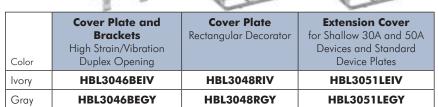






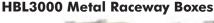


Color	<b>Device Bracket</b> for use with Standard Device Plates	Cover Plate Single Receptacle 1.39"	Cover Plate Single Receptacle 1.58"	Blank Cover Plate ½" KO in center	Switch Cover Plate	<b>Cover Plate</b> Duplex Opening
Ivory	HBL3007CGY	HBL3027AEIV	HBL3033JEIV	HBL3036HEIV	HBL3040CEIV	HBL3043BEIV
Gray	HBL300/CG1	HBL3027AEGY	HBL3033JEGY	HBL3036HEGY	HBL3040CEGY	HBL3043BEGY



NOTE: All Cover Plates except HBL3046BE include HBL3007CGY Device Bracket.

Wiremold® is a registered trademark of The Wiremold Company.







Color	Switch and Receptacle Box 2-Gang, 2.75" Deep	<b>Utility Box</b> Cover has twistouts on all sides
Ivory	HBL30442IV	HBL3028IV
Gray	HBL30442GY	HBL3028GY

NOTE: See page J8 for HBL3000 series Tools.

J10

### **HBL4750 Series Metal Raceway**





A	1		<b>∮</b>   B
		Α	

 Color
 Base 10 ft.
 Cover 5 ft.

 Ivory
 HBL4750B10IV
 HBL4750CIV

 Gray
 HBL4750B10GY
 HBL4750CGY

A:	4.75"	(120.65)
B:	1.75"	(44.45)

	Color	<b>31.5" Precut Cover</b> For mounting devices on 36" centers	19.5" Precut Cover For mounting devices on 24" centers	13.5" Precut Cover For mounting devices on 18" centers	7.5" Precut Cover For mounting devices on 12" centers
-	lvory	HBL4750C315IV	HBL4750C195IV	HBL4750C135IV	HBL4750C075IV
	Gray	HBL4750C315GY	HBL4750C195GY	HBL4750C135GY	HBL4750C075GY

		-			
	Divider 5 ft.	By-Pass Divider	<b>Divider Clip</b> use every 2.5 ft.	Coupling to couple together raceway	Wire Clip to hold conductors in place
Cat. No.	HBL4750DGY	HBL4750BP	HBL4751DA	HBL4751AC	HBL4750WCGY

### **HBL4750 Metal Raceway Fittings**













Color	Internal or External Elbow 45°	Internal Elbow Divided 111/4" Bend Radius	Internal Elbow Undivided	Internal Elbow Inverted Connects vertical run with horizontal run	Internal Corner Coupling	External Elbow Divided 111/4" Bend Radius
Ivory	HBL4712TXIV	HBL4717DFOIV	HBL4717IV	HBL4717NIV	LIDI 4717TCACV	HBL4718DFOIV
Gray	HBL4712TXGY	HBL4717DFOGY	HBL4717GY	HBL4717NGY	HBL4717TCAGY	HBL4718DFOGY



Color	External Elbow Undivided	Flat Elbow Divided 1 1/4" Bend Radius	Flat Elbow Undivided	Tee Fitting Divided 1 1⁄4" Bend Radius	Tee Fitting Undivided	Wall Box Connector for back feeding raceway
lvory	HBL4718IV	HBL4711DFOIV	HBL4711IV	HBL4715DFOIV	HBL4715IV	HBL4714AIV
Gray	HBL4718GY	HBL4711DFOGY	HBL4711GY	HBL4715DFOGY	HBL4715GY	HBL4714AGY



Color	Blank End Fitting (2) ½" KOs	Entrance End Fitting Divided 11/4" Bend Radius, 3/4", 1, 11/4" KOs	Entrance End Fitting Undivided, 3/4", 1, 11/4" KOs	Take-Off Connector for connecting HBL4750 to HBL3000	Connection Cover to hide seams in cover	Panel Connector for connecting to surface type panel boxes
Ivory	HBL4710BIV	HBL4710DFOIV	HBL4710IV	HBL4774AIV	HBL4756AIV	HBL4786AIV
Gray	HBL4710BGY	HBL4710DFOGY	HBL4710GY	HBL4774AGY	HBL4756AGY	HBL4786AGY



### **HBL4750 Series Metal Raceway Device Mounting Brackets**









**HBL4750 Specialty Fittings** 



Color	Device Mounting Bracket* 2-Gang	Vertical Mount Device Plate Use 1-Gang Commercial Plate	Vertical Mount Device Plate Use 2-Gang Commercial Plate
Ivory	HBL4750IV	HBL4747CVMIV	HBL4747CVM2IV
Gray	HBL4750GY	HBL4747CVMGY	HBL4747CVM2GY

Transition Fitting**	<b>Tap-Off Fitting</b> 2-Gang
HBL4750TFIV	HBL4746H2IV
HBL4750TFGY	HBL4746H2GY

### Overlapping Cover Plates (Includes Mounting Bracket)













	2-Gang Device Cover Plates					
Color	Single Round Opening 1 Blank	1 Duplex Opening Opening 1 Blank	2 Duplex Openings	1 Duplex Opening 1 Modular Furniture with 2 keystone twist-outs	Single Round Opening 1 Blank	1 Decorator Opening 1 Blank
lvory	HBL4747AXIV	HBL4747BXIV	HBL4747BBIV	HBL4747BFIV	HBL4747JXIV	HBL4747RXIV
Gray	HBL4747AXGY	HBL4747BXGY	HBL4747BBGY	HBL4747BFGY	HBL4747JXGY	HBL4747RXGY









	2-Gang Device Cover Plates			
Color	1 Decorator Opening 1 Modular Furniture with 2 keystone twist-outs	1 Duplex Opening 1 Decorator Opening		
lvory	HBL4747RFIV	HBL4747BRIV		
Gray	HBL4747RFGY	HBL4747BRGY		

2-Gang Device Cover Plates				
1-Gang Device Plate 1 Blank use 1-Gang commercial plate	2-Gang Device Plate use 2-Gang commercial plate			
HBL4747C1IV	HBL4747C2IV			
HBL4747C1GY	HBL4747C2GY			









	4-Gang Device Cover Plates							
Color	2 Decorator Openings 2 Blanks	2 Duplex Openings 2 Decorator Openings	4 Duplex Opening Openings	2 Duplex Openings 2 Modular Furniture with 2 keystone twist-outs	2 Duplex Openings 2 Blanks			
lvory	HBL47472RRXXIV	HBL47472BBRRIV	HBL47472BBBBIV	HBL47472BBFFIV	HBL47472BBXXIV			
Gray	HBL47472RRXXGY	HBL47472BBRRGY	HBL47472BBBBGY	HBL47472BBFFGY	HBL47472BBXXGY			

### **Cutters**



	CONTRACTOR NO.	
	Base Cutter for cutting base of HBL4750 Raceway	<b>Cover Cutter</b> for cutting cover of HBL4750 Raceway
Cutter	HBL640B	HBL640C
Replacement Blade	HBL640BDK	HBL640CDK



Color	Touch-Up Paint Pen				
lvory	HBLIWEP				
Gray	HBLGWEP				

Wiremold® is a registered trademark of The Wiremold Company.

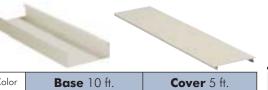


<sup>\*</sup> Use 1-Gang KP plates shown on page J26.

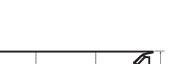
<sup>\*\*</sup> For transitioning Wiremold® 4000 Raceway to Hubbell HBL4750 Raceway.

### **HBL6750 Series Metal Raceway**





Color	Base 10 ft.	Cover 5 ft.
lvory	HBL6750B10IV	HBL6750CIV
Gray	HBL6750B10GY	HBL6750CGY



A: 6.75" (171.45) B: 2.22" (56.39)

Color	31.5" Precut Cover For mounting devices on 36" centers	19.5" Precut Cover For mounting devices on 24" centers	13.5" Precut Cover For mounting devices on 18" centers	7.5" Precut Cover For mounting devices on 12" centers
Ivory	HBL6750C315IV	HBL6750C195IV	HBL6750C135IV	HBL6750C075IV
Gray	HBL6750C315GY	HBL6750C195GY	HBL6750C135GY	HBL6750C075GY







		Divider 5 ft.	<b>Divider Clip</b> Use every 2.5'	Wire Clip to hold conductors in place	Coupling to couple together raceway	
Сс	at. No.	HBL6750DAGY	HBL6751DAGY	HBL6750WCGY	HBL6751A	

### **HBL6750 Series Metal Raceway Fittings**















Color	Flat Elbow Divided 11/4" Bend Radius	Flat Elbow Undivided	Internal Elbow Divided 11/4" Bend Radius	Internal Elbow Undivided	Internal Corner Coupling (Galvanized Steel)	Inverted Internal Elbow Connect vertical run to horizontal run	Internal or External 45° Elbow
lvory	HBL6711DFOIV	HBL6711IV	HBL6717DFOIV	HBL6717IV	UDI 4717TCACV	HBL6717NIV	HBL6712TXIV
Gray	HBL6711DFOGY	HBL6711GY	HBL6717DFOGY	HBL6717GY	HBL6717TCAGY	HBL6717NGY	HBL6712TXGY













Color	External Elbow Divided 11⁄4" Bend Radius	External Elbow Undivided	Tee Fitting, Divided	Tee Fitting Undivided	Connection Cover to hide seams in cover	Entrance End Fitting Divided 11/4" Bend Radius, 3/4", 1" and 11/4" KOs
Ivory	HBL6718DFOIV	HBL6718IV	HBL6715DFOIV	HBL6715IV	HBL6756AIV	HBL6710DFOIV
Gray	HBL6718DFOGY	HBL6718GY	HBL6715DFOGY	HBL6715GY	HBL6756AGY	HBL6710DFOGY















Color	Entrance End Fitting Undivided 3/4", 1" and 11/4" KOs	Blank End Fitting (3) ½" KOs	Wall Box Connector for back feeding raceway	90° Take-Off Connector to connect HBL6750 to HBL4750	Panel Connector for connecting to surface type panel	3-Gang Tap-Off Fitting (6) ½" and ¾" KOs	<b>Transition Fitting*</b> Wiremold® to Hubbell
Ivory	HBL6710IV	HBL6710BIV	HBL6714AIV	HBL6774AIV	HBL6786IV	HBL6746HHHIV	HBL6750TFIV
Gray	HBL6710GY	HBL6710BGY	HBL6714AGY	HBL6774AGY	HBL6786GY	HBL6746HHHGY	HBL6750TFGY

<sup>\*</sup> For transitioning Wiremold® 6000 Raceway to Hubbell HBL6750 Raceway. Wiremold® is a registered trademark of The Wiremold Company.



### **HBL6750 Series Mounting Bracket and Overlapping Cover Plates**



			3-Gang Device Cove	r Plates	
Color	Device Mounting Bracket*	1-Gang Device Opening 2 Blanks**	2-Gang Device Opening 1 Blank**	1 Single Round 1.39" Opening 2 Blanks	1 Duplex Opening 2 Blanks
lvory	HBL6750IV	HBL6747C1IV	HBL6747C2IV	HBL6747AXXIV	HBL6747BXXIV
Gray	HBL6750GY	HBL6747C1GY	HBL6747C2GY	HBL6747AXXGY	HBL6747BXXGY



	3-Gang Device Cover Plates						
Color	3 Duplex Openings	2 Duplex Openings 1 Modular Furniture with 2 keystone twist-outs	1 Single Round 1.58" Opening 2 Blanks	1 Decorator Opening 2 Blanks	2 Decorator Openings, 1 Modular Furniture with 2 keystone twist-outs	1 Duplex Opening, 2 Decorator Openings	
lvory	HBL6747BBBIV	HBL6747BBFIV	HBL6747JXXIV	HBL6747RXXIV	HBL6747RRFIV	HBL6747BRRIV	
Gray	HBL6747BBBGY	HBL6747BBFGY	HBL6747JXXGY	HBL6747RXXGY	HBL6747RRFGY	HBL6747BRRGY	



	6-Gang Device Cover Plates										
Color	4 Decorator Openings 2 Blanks	6 Duplex Openings	4 Duplex Openings 2 Modular Furniture with 2 keystone twist-outs	4 Duplex Openings 2 Blanks	2 Duplex Openings 4 Decorator Openings						
lvory	HBL67473RRRRXXIV	HBL67473BBBBBBBIV	HBL67473BBBBFFIV	HBL67473BBBBXXIV	HBL67473BBRRRRIV						
Gray	HBL67473RRRXXGY	HBL67473BBBBBBBGY	HBL67473BBBBFFGY	HBL67473BBBBXXGY	HBL67473BBRRRRGY						

# Cutters Base Cutter for cutting base of HBL6750 Raceway Cutter HBL660B HBL660C

C TOTAL STATE OF THE PARTY OF T								
Color	Touch-Up Paint Pen							
lvory	HBLIWEP							
Gray	HBLGWEP							

HBL660BDK

Replacement

Blade

HBL660CDK



<sup>\*</sup> Use 1-Gang KP plates shown on page J26.

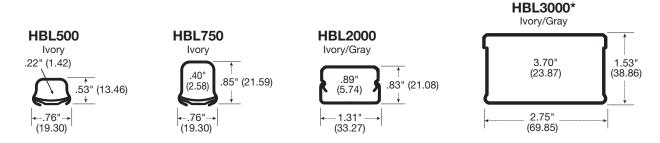
<sup>\*\*</sup> Use with commercially available device plates (not included).

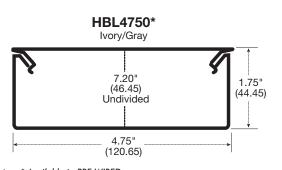
### **Hubbell Metal Raceway**

### Raceway Profiles - Quick Reference Guide



### Metal Raceway - Ivory or Gray in Color





HBL6750\* Ivory/Gray 13.77" 2.22" (56.39) (88.84) Undivided 6.75" (171.45)

Notes: \* Available in PRE-WIRED. Channel Area in Square Inches (square centimeters). Dimensions in Inches (mm).

Metal Raceway Wire Fill Capacities															
			Power (THHN/T90 Nylon)			Voice		Data (Copper Cables)					Data (Multimode Fiber Optic Cables)		
			14 AWG	12 AWG	10 AWG	4-Pair	25-Pair	Type RG59U	Cat. 5e	Cat.	Cat. 6A	Cat. 6 STP	(2) or (4) Fiber Round Cable	Fiber Optic Jumpers	Fiber Optic Zip Cord
		Wire O.D. (in):	0.111	0.13	0.164	0.19	0.41	0.242	0.21	0.25	0.35	0.29	0.19	0.118	.12 x .24
		Wire Area (sq. in.):	0.0097	0.0133	0.0211	0.0283	0.1320	0.0460	0.0346	0.0491	0.0962	0.0660	0.0283	0.0109	0.0288
Series		Channel Area (sq. in.)	Wire Fill Capacity		40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	
HBL500		0.22	7	5	3	3	1	2	3	2	1	1	3	8	3
HBL750		0.40	12	9	5	6	1	3	5	3	2	2	6	15	6
HBL2000		0.89	7	7	0	13	3	8	10	7	4	5	13	33	12
HBL3000		3.70	152	111	70	52	11	32	43	30	15	22	52	136	51
HBL4750	No Barriers	7.20	296	216	136	102	22	63	83	59	30	44	102	264	100
АВ	Barrier Centered Ch. A	3.10	127	93	58	44	9	27	36	25	13	19	44	114	43
	Barrier Centered Ch. B	3.30	127	93	58	47	10	29	38	27	14	20	47	121	46
АВ	Barrier Offset Ch. A	2.10	86	63	39	30	6	18	24	17	9	13	30	77	29
	Barrier Offset Ch. B	4.30	176	129	81	61	13	37	50	35	18	26	61	158	60
HBL6750	No Barriers	13.77	566	412	259	195	42	120	159	112	57	83	195	505	191
AAA	Barrier Offset Ch. A $\frac{1}{3}$	4.59	189	138	86	65	14	40	53	37	19	28	65	168	64
АВ	Barrier Offset ₹ Ch. B	9.18	379	278	173	130	28	80	106	75	38	56	130	337	128

Note: Pathway (Raceway) fill shall be 40% maximum.

Raceway fittings and outlets/receptacles reduce the cross section of the raceway system, thus reducing overall cable fill capacity.

### **Codes/Standards**

**Physical Properties** 

TIA/EIA 569B **UL Standard** UL 5

E253976 /E253830 /E253833 Listings

CSA Standard C22.2 no. 62 LR87514 Certification

Material Steel





# Non-Metallic Raceway Complete Line of Raceway

Features and Benefits

#### One Box, Three Systems

- Boxes have three cut-aways that can be utilized with WallTrak®, LANTrak® and PremiseTrak® (Latching) systems.
- Eliminates need to order three separate boxes and reducing inventory requirements.
- Boxes available in low, standard and deep profiles.
- Two-gang divided box available for power, data, voice, audio and video applications.
- Boxes utilize Hubbell KP plates or **iSTATION**™ Modules and Bezels.

#### Flush or Full Capacity Boxes

- Super BaseTrak® and BaseTrak® Raceway offer multiple solutions for box installation.
- Super BaseTrak® in-line three-gang box allows maximum capacity in a flush design.
- Super BaseTrak® and BaseTrak® available in single, two and three-gang full capacity boxes.
- Two and three channel **BaseTrak**® (PB2 and PB3) available with one and two-gang in-line boxes.
- Full capacity in-line boxes eliminate the need to de-rate the wire fill capacity due to the intrusion of devices into the raceway channel.

#### **Complete Line of Raceway**

- **PolyTrak**® Non-Metallic Surface Raceway is a complete system with raceway, fittings, boxes and devices.
- Sizes range from single channel **PremiseTrak**® to three channel **Super BaseTrak**® for all types of surface raceway requirements.
- Single and two channel latching raceways are dual-rated for both power and data applications, reducing inventory requirements.
- UL Listed and CSA Certified to 600 volts.
- Office white color.







## PremiseTrak® (PT1) Single-Channel, Non-Metallic Raceway (Non-Latching)







Color	Base and Cover 5 ft.	Base and Cover 7 ft.
Office White	PT1BC5	PT1BC7

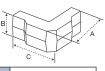
	Base and Cover with	Base and Cover with
Color	Adhesive Back 5 ft.	Adhesive Back 7 ft.
Office White	PT1ABC5	PT1BC7

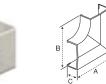
#### PT1 Non-Metallic Raceway Fittings and Device Boxes











Color	Internal Elbow Cover Only	Dimensions
Office White	PT1IE	A: 1.34" (34.04) B: 0.89" (22.61) C: 1.34" (34.04)

		1
Color	External Elbow Cover Only	Dimensions
Office White	PT1EE	A: 1.24" (31.50) B: 0.88" (22.35) C: 1.24" (31.50)

Color	Flat Elbow Cover Only	Dimensions
Office White	PT1FE	A: 1.33" (33.78) B: 1.33" (33.78) C: 0.74" (18.80)





	- 11		
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Color	Tee Cover Only	Dimensions
Office White	PT1TC	A: 1.77" (44.90) B: 1.33" (33.78) C: 0.74" (18.80)

Color	Splice Cover	Dimensions
Office White	PT1SC	A: 1.00" (25.40) B: 0.89" (22.61) C: 0.74" (18.80)

Color	End Cap	Dimensions
Office White	PT1EC	A: 0.88" (22.35) B: 0.74" (18.80) C: 0.89" (22.61)











Color	Conduit Adapter/ Ceiling Fitting	Dimensions
Office White	PT12CA	A: 1.64" (41.66) B: 1.62" (41.15) C: 2.50" (63.50)
		•

Color	Low-Profile Box 1-Gang	Dimensions
Office White	PT12LPB	A: 4.9" (124.46) B: 3.25" (82.55) C: 1.12" (28.45)

Color	Standard Box* 1-Gang	Dimensions
Office White	PT12SBA	A: 4.9" (124.46) B: 3.25" (82.55) C: 1.63" (41.4)



Deep Box

PT12DB

1-Gang









(*	Dimensions	Color	Deep Box* 2-Gang	Dimensions
<b>SA</b>	A: 4.9" (124.46) B: 3.25" (82.55) C: 1.91" (48.51)	Office White	PT12TGB*	A: 4.9" (124.46) B: 5.06" (128.52) C: 1.91" (48.51)

Color **Round Lighting** Dimensions Fixture Box Office PT12LFB A: 5.31" (134.87) White B: 1.04" (26.52)



Color

Office

White

<sup>\*</sup> See page J25 for recommended plate to box compatibility.

## PremiseTrak® (PP1) Single-Channel, Non-Metallic Raceway (Latching)







A: 0.77" (19.56) B: 0.84" (21.34)

Color	Base and Cover 5 ft.	Base and Cover 7 ft.
Office White	PP1BC5	PP1BC7

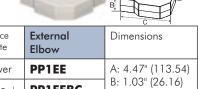
	Base and Cover with	Base and Cover with
Color	Adhesive Back 5 ft.	Adhesive Back 7 ft.
Office White	PP1ABC5	PP1ABC7

#### PP1 Non-Metallic Raceway Fittings and Device Boxes



Office White	Internal Elbow	Dimensions
Cover	PP1IE	A: 2.40" (60.96)
Base + Cover	PP1IEBC	B: 1.03" (26.16) C: 2.40" (60.96)







Flat Elbow

**PP1FEBC** 

PP1FE

Office

White

Cover

Base +

Cover



A: 2.62" (66.55)

B: 2.62" (66.55)

C: 0.85" (21.59)

Office White	External Elbow	Dimensions
Cover	PP1EE	A: 4.47" (113.54)
Base + Cover	PP1EEBC	B: 1.03" (26.16) C: 4.47" (113.54)



	100	- × A
Office White	Conduit Adapter/ Ceiling Fitting	Dimensions
Base + Cover	PLP1CACF	A: 2.29" (58.17) B: 3.31" (84.07) C: 3.90" (99.06)





Color	Splice Cover	Dimensions
Office White	PP1SC	A: 1.09" (27.69) B: 1.02" (25.91) C: 0.85" (21.59)



Office

White Cover

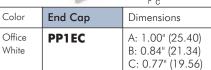
Base +

Cover

Tee

**PP1TC** 

**PP1TCBC** 





Color	Safety Strap	Dimensions
Office White	PP1SS	A: 0.62" (15.75) B: 1.94" (49.28) C: 0.86" (21.84)





Color	Low-Profile Box* 1-Gang	Dimensions
Office White	PDB12LP	A: 4.90" (124.46) B: 3.25" (82.55) C: 1.25" (31.75)





Dimensions

A: 4.22" (107.19) B: 2.62" (66.55)

C: 0.85" (21.59)

Color	Standard Box* 1-Gang	Dimensions
Office White	PDB12S	A: 4.90" (124.46) B: 3.25" (82.55) C: 1.78" (45.21)



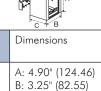
1-Gang

PDB12D

Color

Office

White



C: 2.44" (61.98)





Color	Deep Box* Divided 2-Gang	Dimensions
Office White	PDB12TGD	A: 4.90" (124.46) B: 5.06" (128.52) C: 2.44" (61.98)



S. Carlos and C.	a B
Deep Box*	Dimensions

Color	Deep Box* Undivided 2-Gang	Dimensions
Office White	PDB12TGLV	A: 4.90" (124.46) B: 5.06" (128.52) C: 2.44" (61.98)



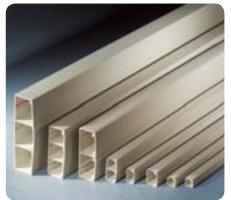


		A
Color	Round Lighting Fixture Box*	Dimensions
Office White	PDB12LF	A: 5.31" (134.87) B: 1.29" (32.77)

For more detailed information, go to www.hubbell-premise.com/Raceway.asp

<sup>\*</sup> See page J25 for recommended plate to box compatibility.

## LANTrak® (PL1) Single-Channel, Non-Metallic Raceway (Latching)







A: 1.04" (26.42) B: 1.38" (35.05)

Color	Base and Cover 5 ft.	Base and Cover 7 ft.
Office White	PL1BC5	PL1BC7

	Base and Cover with	Base and Cover with
Color	Adhesive Back 5 ft.	Adhesive Back 7 ft.
Office White	PL1ABC5	PL1ABC7

#### **PL1 Non-Metallic Raceway Fittings and Device Boxes**





Office White	Internal Elbow	Dimensions
Cover	PL1IE	A: 2.51" (63.75)
Base + Cover	PL1IEBC	B: 1.57" (39.88) C: 2.51" (63.75)





		0 '
Office White	External Elbow	Dimensions
Cover	PL1EE	A: 5.06" (128.52)
Base + Cover	PL1EEBC	B: 1.57" (39.88) C: 5.06" (128.52)





Office White	Flat Elbow	Dimensions
Cover	PL1FE	A: 3.19" (81.03)
Base + Cover	PL1FEBC	B: 3.19" (81.03) C: 1.11" (28.19)





Office White	Tee	Dimensions
Cover	PL1TC	A: 4.75" (120.65)
Base + Cover	PL1TCBC	B: 3.15" (80.01) C: 1.11" (28.19)



Color	End Cap	Dimensions
Office White	PL1EC	A: 1.00" (25.40) B: 1.39" (35.31) C: 1.04" (26.42)



A STATE OF THE PARTY OF THE PAR		. 4 A
Office White	Conduit Adapter/ Ceiling Fitting	Dimensions
Base + Cover	PLP1CACF	A: 2.29" (58.17) B: 3.31" (84.07) C: 3.90" (99.06)

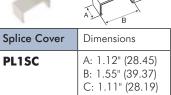


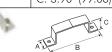
PL1SC

Color

Office

White





Color	Safety Strap	Dimensions
Office White	PL1SS	A: 0.62" (15.75) B: 2.68" (68.07) C: 1.12" (28.45)



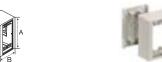


Color	Low-Profile Box* 1-Gang	Dimensions
Office White	PDB12LP	A: 4.90" (124.46) B: 3.25" (82.55) C: 1.25" (31.75)





Color	Standard Box* 1-Gang	Dimensions
Office White	PDB12S	A: 4.90" (124.46) B: 3.25" (82.55) C: 1.78" (45.21)



Color	Deep Box* 1-Gang	Dimensions
Office White	PDB12D	A: 4.90" (124.46) B: 3.25" (82.55) C: 2.44" (61.98)





Color	Deep Box* Divided 2-Gang	Dimensions
Office White	PDB12TGD*	A: 4.90" (124.46) B: 5.06" (128.52) C: 2.44" (61.98)





Color	Deep Box* Undivided 2-Gang	Dimensions
Office White	PDB12TGLV	A: 4.90" (124.46) B: 5.06" (128.52) C: 2.44" (61.98)





Color	Round Lighting Fixture Box	Dimensions
Office White	PDB12LF	A: 5.31" (134.87) B: 1.29" (32.77)

For more detailed information, go to www.hubbell-premise.com/Raceway.asp

\* See page J25 for recommended plate to box compatibility.



# WallTrak® (PW1) Single-Channel, Low-Profile, Non-Metallic Raceway (Latching)







A: .50" (12.70) B: 1.19" (30.23)

Color	Base and Cover 5 ft.	Base and Cover 7 ft.
Office White	PW1BC5	PW1BC7

	Base and Cover with	Base and Cover with
Color	Adhesive Back 5 ft.	Adhesive Back 7 ft.
Office White	PW1ABC5	PW1ABC7

#### **PW1 Non-Metallic Raceway Fittings and Device Boxes**





	Office White
5) 2)	Cover



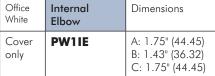
Elbow

PW1EE



A: 1.50" (38.10) B: 1.43" (36.32)

	-	A N
Office White	Flat Elbow	Dimensions
Cover only	PW1FE	A: 2.18" (55.37) B: 2.18" (55.37) C: .60" (15.24)







Office White	Tee	Dimensions
Cover only	PW1TC	A: 2.93" (74.42) B: 2.18" (55.37) C: .60" (15.24)



Office White	Conduit Adapter/ Ceiling Fitting	Dimensions
Base + Cover	PW1CA	A: 1.40" (35.56) B: 2.34" (59.44) C: 3.22" (81.79)





Color	Splice Cover	Dimensions
Office White	PW1SC	A: 1.00" (25.40) B: 1.43" (36.32) C: .60" (15.24)





Color	End Cap	Dimensions
Office White	PW1EC	A: 1.00" (25.40) B: 1.24" (31.50) C: .50" (12.70)





Color	Low-Profile Box* 1-Gang	Dimensions
Office White	PW1LPB	A: 4.90" (124.46) B: 3.25" (82.55) C: 1.13" (28.70)





Color	Standard Box* 1-Gang	Dimensions
Office White	PW1SBA	A: 4.90" (124.46) B: 3.25" (82.55) C: 1.63" (41.40)





9		
Color	Deep Box* 1-Gang	Dimensions
Office White	PW1DBA	A: 4.90" (124.46) B: 3.25" (82.55) C: 1.91" (48.51)



Color	Deep Box* 2-Gang	Dimensions
Office White	PW1TGB*	A: 4.90" (124.46) B: 5.06" (128.52) C: 1.91" (48.51)





Color	Round Lighting Fixture Box	Dimensions
Office White	PW1LFB	A: 5.31" (134.87) B: 1.04" (26.52)

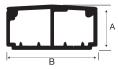


<sup>\*</sup> See page J25 for recommended plate to box compatibility.

## WallTrak® (PW2) Two-Channel, Non-Metallic Raceway (Latching)







A: 1.04" (26.42) B: 2.12" (53.85)

		ь
Color	Base and Cover, 5 ft.	Base and Cover, 7 ft.
Office White	PW2BC5	PW2BC7

	Base and Cover with	Base and Cover with
Color	Adhesive Back, 5 ft.	Adhesive Back, 7 ft.
Office White	PW2ABC5	PW2ABC7

#### PW2 Non-Metallic Raceway Fittings and Device Boxes





Office White	Internal Elbow	Dimensions
Cover	PW2IE	A: 2.83" (71.88)
Base + Cover	PW2IEBC	B: 2.32" (58.93) C: 2.83" (71.88)



External

PW2EE

**PW2EEBC** 

Elbow

Office

White

Cover

Base +

Cover

Color

Office

White



A: 5.00" (127.00)

C: 5.00" (127.00)

B: 2.32" (58.93)

Office White	Flat Elbow
Cover	PW2FE
Base +	PW2FEBC



Office White	Flat Elbow	Dimensions
Cover	PW2FE	A: 3.94" (100.08)
Base + Cover	PW2FEBC	B: 3.94" (100.08 C: 1.11" (28.19)



Office White	Tee	Dimensions
Cover	PW2TC	A: 5.42" (137.67)
Base + Cover	PW2TCBC	B: 3.91" (99.31) C: 1.90" (48.26)



Office White	Conduit Adapter/ Ceiling Fitting	Dimensions
Base + Cover	PW2CACF	A: 4.18" (106.17) B: 3.32" (84.33) C: 4.20" (106.68)





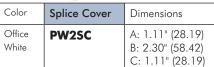
Office White	Reducer (from PW2 to PP1)	Dimensions
Base + Cover	PW2RED	A: 1.62" (41.15) B: 2.40" (60.96) C: 1.15" (29.21)
	10% h	k-A





Color	End Cap	Dimensions
Office White	PW2EC	A: 1.00" (25.40) B: 2.14" (54.36) C: 1.04" (26.42)







Safety Strap

PW2SS

A
В

Dimensions

A: 0.62" (15.75) B: 3.43" (87.12)

C: 1.12" (28.45)

101	Secret.
	40

Color

Office

White

Deep Box\*

PDB12D

1-Gang



Dimensions

A: 4.90" (124.46)

B: 3.25" (82.55)

C: 2.44" (61.98)

**PDB1DIV** 

Color	Low-Profile Box* 1-Gang	Dimensions	Color	Standard Box* 1-Gang	Dimensions
Office White	PDB12LP	A: 4.90" (124.46) B: 3.25" (82.55) C: 1.25" (31.75)	Office White	PDB12S	A: 4.90" (124.46) B: 3.25" (82.55) C: 1.78" (45.21)
	-		Divider**	*, 1-Gang	PDB1DIV





	Control of the last	C B
Color	Deep Box* Undivided 2-Gang	Dimensions
Office White	PDB12TGLV	A: 4.90" (124.46) B: 5.06" (128.52) C: 2.44" (61.98)





		A
Color	Round Lighting Fixture Box	Dimensions
Office White	PDB12LF	A: 5.31" (134.87) B: 1.29" (32.77)

<sup>\*</sup> See page J25 for recommended plate to box compatibility.



Deep Box\*,

PDB12TGD

Divided 2-Gang Dimensions

PDB2DIV

A: 4.90" (124.46)

B: 5.06" (128.52) C: 2.44" (61.98)



Divider\*\*, 2-Gang

Color

Office

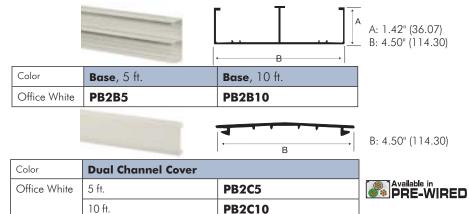
White

<sup>\*\*</sup> Order separately to divide box.

### BaseTrak® (PB2) Two-Channel, Non-Metallic Raceway (Non-Latching)



PB2 Non-Metallic Raceway Fittings and Device Boxes





		ь
Office White	Single Channel Cover	Dimensions
5ft.	PB2SPL5	B: 2.22" (56.39)
10 ft.	PB2SPL10	



B

Office White	Flat Elbow	Dimensions
Base + Cover	PB3FEBCA	A: 7.64" (194.66) B: 7.64" (194.66) C: 1.71" (43.43)





Office White	Reducer (from PB2 to PW2)	Dimensions
Base + Cover	PB3REDA	A: 3.50" (88.90) B: 4.72" (119.89) C: 1.73" (43.94)



Color	Splice Cover	Dimensions
Office White		A: 1.56" (39.62) B: 4.74" (120.40) C: 1.69" (42.93)





Color	Inline Box* 2-Gang	Dimensions
Office White	PB2IND2G	A: 7.66" (194.56) B: 4.74" (120.40) C: 1.84" (46.74)



Office White	Internal Elbow	Dimensions
Base + Cover	PB3IEBCA	A: 4.36" (110.74) B: 4.72" (119.89) C: 4.36" (110.74)



Office White	Tee	Dimensions
Base + Cover	РВ3ТСВСА	A: 7.37" (187.20) B: 7.08" (179.83) C: 2.72" (69.09)



			A
	Office White	Transition Fitting (from PB2 to PW2, PL1, or PP1)	Dimensions
	Base + Cover	PB3TRBC	A: 3.22" (81.79) B: 7.28" (184.91) C: 2.42" (61.47)



		A - 1
Color	Safety Strap	Dimensions
Office White	PB3SS	A: 1.50" (38.10) B: 6.01" (152.65) C: 1.74" (44.20)



Color	Wire Clip
Office White	PB2WC

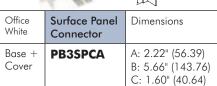


Office White	External Elbow	Dimensions
Base + Cover	РВЗЕЕВСА	A: 6.48 (164.59) B: 4.72 (119.89) C: 6.48 (164.59)



		<u>-</u>
Office White	Conduit Adapter/ Ceiling Fitting	Dimensions
Base + Cover	PB2CACF	A: 4.72" (119.89) B: 5.22" (132.70) C: 6.30" (160.02)







Color	End Cap	Dimensions	
Office White	РВЗЕСА	A: 2.02" (51.31) B: 4.68" (118.97) C: 1.72" (43.69)	



<sup>\*</sup> See page J25 for recommended plate to box compatibility.

Call 1-800-626-0005

## BaseTrak® (PB3) Three-Channel, Non-Metallic Raceway (Non-Latching)





Color	Base and Cover 5 ft.	Base and Cover 10 ft.
Office White	PB3BC5	PB3BC10



	/A	A B		В	-50
Color	Safety Strap	Dimensions	Splice Cover	Dimensions	Wire Clip
Office White	PB3SS	A: 1.50" (38.10) B: 6.01" (152.65) C: 1.74" (44.20)	PB3SC	A: 1.56" (39.62) B: 4.74" (120.40) C: 1.69" (42.93)	PB3WC

#### **PB3 Non-Metallic Raceway Fittings**





	-	A
Office White	Internal Elbow	Dimensions
Cover	PB3IE	A: 4.36" (110.74)
Base + Cover	PB3IEBCA	B: 4.72" (119.89) C: 4.36" (110.74)



		C.d. v
Office White	Tee	Dimensions
Base + Cover	РВЗТСВСА	A: 7.37" (187.20) B: 7.08" (179.83) C: 2.72" (69.09)



Office White	Transition Fitting (from PB3 to PW2, PL1, or PP1)	Dimensions
Base + Cover	PB3TRBC	A: 3.22" (81.79) B: 7.28" (184.91) C: 2.42" (61.47)



C: 1.72" (43.69)

C: 3.17" (80.52)

	8	В
Office White	Full Capacity Box* 1-Gang	Dimensions
Base + Cover	PB3FCIB	A: 4.38" (111.25) B: 4.80" (121.92)



		C
Office White	External Elbow	Dimensions
Cover	PB3EE	A: 6.48" (164.59)
Base + Cover	РВЗЕЕВСА	B: 4.72" (119.89) C: 6.48" (164.59)





Color	Transition Fitting (from BT3 old style to PB3 new style)	Dimensions
Office White	BTPB3TF	A: 2.22" (56.39) B: 5.66" (143.76) C: 1.35" (34.29)



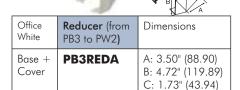
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Office White	Inline Box* 1-Gang	Dimensions
Base + Cover	PB3IND	A: 7.70" (195.58) B: 4.84" (122.94) C: 2.02" (51.31)



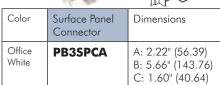
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Office White	Full Capacity Box* 2-Gang	Dimensions
Base + Cover	PB3FCIB2G	A: 7.20" (182.88) B: 4.80" (121.92) C: 3.17" (80.52)



	-00"	C.
Office White	Flat Elbow	Dimensions
Cover	PB3FE	A: 7.64" (194.66)
Base + Cover	PB3FEBCA	B: 7.64" (194.66) C: 1.71" (43.43)











Office White	Inline Box* 2-Gang	Dimensions
Base + Cover	PB3IND2G	A: 7.00" (177.80) B: 4.75" (120.65) C: 3.22" (81.78)





Office White	Full Capacity Box* 3-Gang	Dimensions
Base + Cover	PB3FCIB3G	A: 9.96" (252.98) B: 4.80" (121.92) C: 3.17" (80.52)

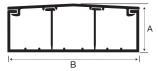
<sup>\*</sup> See page J25 for recommended plate to box compatibility.



## Super BaseTrak® (PS3) Three-Channel, Non-Metallic Raceway (Non-Latching)







A: 1.97" (50.04) B: 6.70" (170.18)

Color	Base and Cover 5 ft.	Base and Cover 10 ft.
Office White	PS3BC5	PS3BC10











Color	Safety Strap	Dimensions	Splice Cover	Dimensions	Wire Clip
Office White	PS3SS	A: 1.50" (38.10) B: 8.24" (209.30) C: 2.08" (52.85)		A: 1.56" (39.62) B: 6.95" (176.53) C: 2.03" (51.62)	PS3WC

#### **PS3 Non-Metallic Raceway Fittings and Device Boxes**



Internal

Elbow

**PS3IE** 

**PS3IEBC** 

Office

White

Cover

Base +

Cover



Office

White

Cover

Base +

Cover



External

Elbow

**PS3EE** 

**PS3EEBC** 



A: 6.81" (172.97) B: 6.93" (176.02)

C: 6.81" (172.97)

	-	ct A			
Office White	Flat Elbow	Dimensions			
Cover <b>PS3FE</b>		A: 9.85" (250.19)			
Base + Cover	PS3FEBC	B: 9.85" (250.19) C: 2.08" (52.83)			





Office White	Tee	Dimensions
Base + Cover	PS3TCBC	A: 10.00" (254) B: 9.68" (245.87) C: 3.30" (83.82)



Office White	Conduit Adapter/ Ceiling Fitting	Dimensions			
Base + Cover	PS3CACF	A: 6.93" (176.02) B: 4.32" (109.73) C: 6.29" (159.77)			



PS3 to PB3)

**PS3RED** 

Office

White

Base +

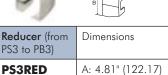
Cover

Office

White

Base +

Cover



B: 6.93" (176.02) C: 2.05" (52.07)





Color	Surface Panel Connector	Dimensions
Office White	PS3SPC	A: 1.00" (25.40) B: 7.87" (199.90) C: 2.54" (64.52)



Color

Office

White

	M
-	
13	1 2
4.	97/-
	- 12

A	
¶ B	



B: 6.88" (174.75)

C: 2.06" (52.32)



Inline Box\*

3-Gang

**PS3IND** 



B: 6.95" (176.53) C: 2.28" (57.91)





Office White	Full Capacity Box* 1-Gang	Dimensions		
Base + Cover	PS3FCIB	A: 4.38" (111.25) B: 6.95" (176.53) C: 3.46" (87.88)		



**End Cap** 

**PS3EC** 

Office White	Full Capacity Box* 2-Gang	Dimensions
Base + Cover	PS3FCIB2G	A: 7.20" (182.88) B: 6.95" (176.53) C: 3.46" (87.88)





Office White	Full Capacity Box* 3-Gang	Dimensions		
Base + Cover	PS3FCIB3G	A: 9.96" (252.98) B: 6.95" (176.53) C: 3.46" (87.88)		

For more detailed information, go to www.hubbell-premise.com/Raceway.asp

<sup>\*</sup> See page J25 for recommended plate to box compatibility.



# Poly Selection Guide - Raceway and Fittings

						[]		<u> </u>
Raceway	Premise	eTrak®	LANTrak®	Wal	Trak®	Base	Trak®	Super BaseTrak®
Raceway Style	Non-Latching	Latching	Latching	Latching	Latching	2-Piece	2-Piece	2-Piece
Profile Dimensions	.75" x .68"	.84" x .77"	1.38" x 1.04"	1.19" x .5"	2.12" x 1.04"	4.5" x 1.63"	4.5" x 1.63"	6.7" x 1.97"
No. of Channels	1	1	1	1	2	2	3	3
5' Base and Cover	PT1BC5	PP1BC5	PL1BC5	PW1BC5	PW2BC5			
5' Base and Cover, Adhesive	PT1ABC5	PP1ABC5	PL1ABC5	PW1ABC5	PW2ABC5			
7' Base and Cover	PT1BC7	PP1BC7	PL1BC7	PW1BC7	PW2BC7			
7' Base and Cover, Adhesive	PT1ABC7	PP1ABC7	PL1ABC7	PW1ABC7	PW2ABC7			
5' Base only						PB2B5		
10' Base only						PB2B10		
5' One-piece Cover						PB2C5		
10' One-piece Cover						PB2C10		
5' Split Cover						PB2SPL5		
10' Split Cover						PB2SPL10		
5' Base and Cover							PB3BC5	PS3BC5
10' Base and Cover							PB3BC10	PS3BC10
Fittings	Premise	eTrak®	LANTrak®	Wal	Trak®	Base	Γrαk®	Super BaseTrak®
Flat Elbow Cover	PT1FE	PP1FE	PL1FE	PW1FE	PW2FE		PB3FE	PS3FE
Flat Elbow*		PP1FEBC	PL1FEBC		PW2FEBC	PB3FEBCA	PB3FEBCA	PS3FEBC
Internal Elbow Cover	PT1IE	PP1IE	PL1IE	PW1IE	PW2IE		PB3IE	PS3IE
Internal Elbow*		PP1IEBC	PL1IEBC		PW2IEBC	PB3IEBCA	PB3IEBCA	PS3IEBC
External Elbow Cover	PT1EE	PP1EE	PL1EE	PW1EE	PW2EE		PB3EE	PS3EE
External Elbow*		PP1EEBC	PL1EEBC		PW2EEBC	РВЗЕЕВСА	РВЗЕЕВСА	PS3EEBC
Tee Cover	PT1TC	PP1TC	PL1TC	PW1TC	PW2TC			
Tee Cover*	PT1SC	PP1TCBC	PL1TCBC		PW2TCBC	РВЗТСВСА	<b>РВЗТСВСА</b>	PS3TCBC
Splice Cover		PP1SC	PL1SC	PW1SC	PW2SC	PB3SC	PB3SC	PS3SC
Security Strap, 2-hole		PP1SS	PL1SS		PW2SS	PB3SS	PB3SS	PS3SS
End Cap	PT1EC	PP1EC	PL1EC	PW1EC	PW2EC	РВЗЕСА	РВЗЕСА	PS3EC
Conduit Adapter/ Ceiling Fitting	PT12CA	PLP1CACF	PLP1CACF	PW1CA	PW2CACF	PB2CACF	PB3CACF	PS3CACF
Wire Clips						PB2WC	PB3WC	PS3WC
Surface Panel Connector						PB3SPCA	PB3SPCA	PS3SPC
Transition Fitting (BaseTrak to Wall/ LAN/PremiseTrak)						PB3TRBC	PB3TRBC	
Reducers					PW2RED	PB3REDA	PB3REDA	PS3RED
Transition Fitting BT3 to PB3							BTPB3TF	

<sup>\*</sup> Indicates 11/4" bend radius base and cover fitting.

**Physical Properties** 

(When tested in accordance with UL 5A)

Impact Resistance Crush Resistance Temperature Range Flame Rating Material

5 ft. lbs. 300 lbs. -25.6° to 158° F UL94V-0 UV Stabilized PVC

#### **Codes/Standards**

EIA/TIA 569A **UL** Standard UL 5A Listings E118895 / E119190 CSA Standard C22.2 no. 62 Certified LR87514







# Poly Selection Guide - Boxes and Accessories

Catalog No.	Prem	iseTrak®	LANTrak®	Wall1	Frak®	Base	eTrak®	Super BaseTrak®
Low-Profile 1-Gang	PT12LPB	PDB12LP	PDB12LP	PW1LPB	PDB12LP			
Standard Profile 1-Gang	PT12SBA	PDB12S	PDB12S	PW1SBA	PDB12S			
Deep Profile 1-Gang	PT12DBA	PDB12D	PDB12D	PW1DBA	PDB12D			
Divided 2-Gang (Multi-service capable)		PDB12TGD	PDB12TGD		PDB12TGD			
Communications only 2-Gang		PDB12TGLV	PDB12TGLV	PDB12TGLV				
2-Gang	PT12TGB			PW1TGB				
Round Lighting Fixture Box	PT12LFB	PDB12LF	PDB12LF	PW1LFB	PDB12LF			
Multi-service Pass- thru Divider Tunnel 1-Gang					PDB1DIV			
Multi-service Pass- thru Divider Tunnel 2-Gang					PDB2DIV			
ISM Surface Housings		ISM 1,2,4,6,&12	ISM 4,6,&12		ISM 4,6,&12			
AMO Multimedia Housing			АМО		AMO			
Inline 1-Gang							PB3IND	
Inline 2-Gang (Multi-service capable)						PB2IND2G	PB3IND2G	
Inline 3-Gang (Multi-service capable)								PS3IND
Full Capacity Raise Inline 1-Gang							PB3FCIB	PS3FCIB
Full Capacity Raise Inline 2-Gang							PB3FCIB2G	PS3FCIB2
Full Capacity Raise Inline 3-Gang (Multi-service capable)							PB3FCIB3G	PS3FCIB3
<b>iSTATION™</b> Module Bezel	KPIMBZOW	KPIMBZOW	KPIMBZOW	KPIMBZOW	KPIMBZOW	KPIMBZOW	KPIMBZOW	KPIMBZOW

		Rec	omm	endec	l Plate	e to	Box C	omp	atibili	ty Sel	ection C	Chart				
Non-Metallic Box Seri		PS3 Boxes				PB3 Boxes				PB2 Boxes	PDB12 Boxes		oxes	PT12 & PW1 Boxes		
Plate Style	Sample Catalog No.	IND	FCIB	FCIB2G	FCIB3G	IND	IND2G	FCIB	FCIB2G	FCIB3G	IND2G	LP, S,	TGD	TGLV	LPB, SBA, DBA	TGB
1-Gang KP Series Plate	KP8	1	1	1	/	1	<b>✓</b>	1	1	1	1	1	1		1	
1-Gang KP Series Bezel	KPIMBZ	1	/	1	/	1	✓	/	1	/	1	1	1		1	
1-Gang IFP Data Plate	IFP12OW		/	/	1	1		1	1	/		1			1	
1-Gang iSTATION™ IMF Plate Frame	IMF1OW		/	/	/	/		1	1	/		1			1	
2-Gang iSTATION™ IMF Plate Frame	IMF2OW													1		1
2-Gang IFP Data Plate	IFP29OW													1		1
2-Gang KP Series Plate	KP82															1

Note: Hubbell Office White plates and devices color match all non-metallic raceway systems.

#### **Face Plates and Frames**

#### Metal and Non-Metallic Raceway Fittings

Ivory Metal Raceway uses Almond (AL) Plates and Frames; Non-Metallic Raceway uses Office White (OW or no suffix) Plates and Frames.

#### 1-Gana "KP" Plates

1-Ourig	Kr Fiu	163									
			÷	Č			5 B B 5	6	· ·		TOPIN .
Color*	Duplex	Decorator	Single Receptacle (1.41" ID)	Single Receptacle (1.60" ID)	Toggle	Blank	Coax (2)	Jack/Coax	Jacks (2)	Jacks (3)	KP Module Bezel*
Office White	KP8	KP26	KP7	KP720	KP1	KP14	KP212	KP2140	KP2162	KP2163	KPIMBZOW
Almond	KP8AL	KP26AL	KP7AL	KP720AL	KP1AL	KP14AL	KP212AL	KP2140AL	KP2162AL	KP2163AL	KPIMBZAL
Grav	KP8GY	KP26GY	KP7GY	KP720GY	KP1GY	KP14GY	KP212GY	KP2140GY	KP2162GY	KP2163GY	KPIMBZGY

<sup>\*</sup> Accepts all **iSTATION**™ Modules located in Section B.

#### 2-Gang "KP" Plates (For use with PT12TGB and PW1TGB only)



Duplex, 2-Gang	Decorator,	Toggle, 2-Gang	Blank,
	2-Gang		2-Gang
KP82	KP262	KP2	KP24
KP82AL	KP262AL	KP2AL	KP24AL
KP82GY	KP262GY	KP2GY	KP24GY
	KP82 KP82AL	2-Gang  KP82 KP262  KP82AL KP262AL	2-Gang  KP82 KP262 KP2  KP82AL KP262AL KP2AL

#### **iSTATION™** Frames

Front loading plate will accept any modules in three unit combinations. Angled fixtures to be used in bottom opening only. See section B for complete iSTATION™ Module offering.



#### **Keystone "IFP Plates"**















Color	1-Gang, 2-Port	1-Gang, 3-Port	1-Gang, 4-Port	1-Gang, 6-Port	2-Gang, 6-Port	2-Gang, 9-Port	2-Gang, 12-Port
Office White	IFP12OW	IFP13OW	IFP14OW	IFP16OW	IFP26OW	IFP29OW	IFP212OW
Almond	IFP12AL	IFP13AL	IFP14AL	IFP16AL	-	-	-
Gray	IFP12GY	IFP13GY	IFP14GY	IFP16GY	-	-	-

#### **Communication Plates and Frames**

















Color	Decorator		Decorato	<sup>r</sup> Keystone	Duplex	Duplex	Keystone	
		2-Port	3-Port	4-Port	6-Port	1	2-Port	4-Port
Office White	IFP126OW	ISF2OW	ISF3OW	ISF4OW	ISF6OW	IFP18OW	BR106C	Q106O
Almond	IFP126AL	ISF2AL	ISF3AL	ISF4AL	ISF6AL	IFP18AL	BR106AL	Q106AL
Gray	-	ISF2GY	ISF3GY	ISF4GY	ISF6GY	IFP18GY	BR106G	Q106G

#### **Audio Video Connectors**

Blank

SFBAL10

AV connectors to be used with any plate with a standard keystone opening. Not recommended for use with KP plates. For KP applications, use KPIMBZOW bezel and appropriate iSTATION™ Modules located in section B. Use appropriate iSTATION™ Module for SC fiber adapters. See section B for complete AV offering.

	(10 Pack)
	Dr.
	D. 100
Color	



**SFFX** 

**SFFALX** 







BNC



SFRC110R

(Black Housing only)





**FASCMPB6** 

SC Duplex



Office White

Almond







**SFST** 

**SFSTAL** 

**SFSTG** 



**SFBOW** 

**SFBAL** 

**SFBGGY** 









**FASTSCEMPB6** 

Gray	SFBGY10	SFFGX	
XCELER	<b>∆TOR™</b>	Keystone	Jack

Cat. 5e, Office White T568A, T568B, RJ45 **HXJ5EOW** 



Cat. 6, Office White T568A, T568B, RJ45 **HXJ6OW** 



(Black Housing only)

**HXJUOW** 

6 Position USOC

Office White, RJ25

SFSV110BK



Jack Color Options (Replaces OW Suffix)



В	K=	Black
C	R=	=Orange









**GN**=Green **Y**=Yellow

LA=Light Almond

#### **Non-Metallic Raceway Dimensions** PP1 PT1 PW2 PL1 PW<sub>1</sub> .30" (1.94) 1.04" (26.42) 1.04" (26.42) 1.03 .81" (5.23) .68" (17.27) 77" (19.56) (6.65)--.75"--(19.05) €-.84" → (21.34) -- 1.38" -(35.05) -- 1.19" -(30.23) 2.12" (53.85) **PB2\* PB3**\* PS3\* 1.97" (50.04) 3.41" (22.00) 3.76" (24.26) 3.41" (22.00) 1.63" (41.40) 1.63" (41.40) 2.86" (18.45) 2.86" (18.45) 1.80" (11.61) 1.97" (12.71) 1.80" (11.61) 4.50" (114.30) 4.50" (114.30) 6.70" (170.18)

Notes: \* Available in PRE-WIRED.

Channel Area in Square Inches (square centimeters).

Dimensions in Inches (mm).

			(THF	Power IN/T90 N	lylon)	Vo	oice		(Co	Data pper Cak	oles)		(Multimod	Data le Fiber Opti	c Cables)
			14 AWG	12 AWG	10 AWG	4-Pair	25-Pair	Type RG59U	Cat. 5e	Cat.	Cat. 6A	Cat. 6 STP	(2) or (4) Fiber Round Cable	Fiber Optic Jumpers	Fiber Option Zip Cord
		Wire O.D. (in.):	0.111	0.13	0.164	0.19	0.41	0.242	0.21	0.25	0.35	0.29	0.19	0.118	.12 X .24
		Wire Area (sq. in.):	0.0097	0.0133	0.0211	0.0283	0.1320	0.0460	0.0346	0.0491	0.0962	0.0660	0.0283	0.0109	0.0288
Series	Channel	Channel Area (sq. in.)	Wire	Fill Cap	acity	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
PT1	А	0.29	5	8	5	4	1	3	3	2	1	2	4	11	4
PP1	А	0.38	12	11	8	5	1	3	4	3	2	2	5	14	5
PL1	А	1.03	42	34	22	15	3	9	12	8	4	6	15	38	14
PW1	А	0.30	6	10	4	4	0	2	3	2	1	2	4	11	4
PW2	A+B	1.60	41	36	22	23	5	14	18	13	7	10	23	59	22
AB	А	0.81	12	22	12	11	2	7	9	7	3	5	11	30	11
	В	0.79	12	22	10	11	2	7	9	6	3	5	11	29	11
PB2	A+B	5.72	60	36	45	81	17	50	66	47	24	35	81	210	79
AB	A or B	2.86	42	30	28	40	9	25	33	23	12	17	40	105	40
PB3	A+B+C	5.57	60	36	45	79	17	48	64	45	23	34	79	204	77
A B C	A or C	1.80	42	30	28	25	5	16	21	15	7	11	25	66	25
	В	1.97	42	30	28	28	6	17	23	16	8	12	28	72	27
PS3	A+B+C	10.58	72	66	78	150	32	92	122	86	44	64	150	388	147
A B C	A or C	3.41	42	36	42	48	10	30	39	28	14	21	48	125	47
	В	3.76	42	36	42	53	11	33	43	31	16	23	53	138	52

Note: Pathway (Raceway) fill shall be 40% Maximum. Raceway fittings and outlets/receptacles reduce the cross section of the raceway system, thus reducing overall cable fill capacity.

#### **FLOORTRAK®**

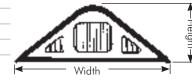
**FLOORTRAK**<sup>®</sup> is a non-metallic, flexible, protective cover for cables that run over the floor.

#### **Specifications**

- Available in 3 sizes, variety of lengths.
- Made from flexible PVC.

#### **Dimensions**

FLOORTRAK®	2	3	4
Width	2.75"	3.0"	3.25"
Height	0.53"	0.75"	1.10"
Center hole	0.6x.31"	0.75x0.5"	1.21x0.75"



Description	Color	Length	Catalog No.
FLOORTRAK® 2	Black	10′	FT2BK10
FLOORTRAK® 3	Black	5′	FT3BK5
	Black	25′	FT3BK25
FLOORTRAK® 4	Black	5′	FT4BK5
	Black	25′	FT4BK25



# HARSH ENVIRONMENTS

# COMPLETE COMMUNICATION SOLUTION FOR HARSH ENVIRONMENTS.

HUBBELL'S HI-IMPACT SYSTEM IS MORE THAN JUST A CONNECTION. IT IS A COMPLETE END-TO-END COMMUNICATIONS SOLUTION DESIGNED TO SOLVE PROBLEMS IN THE MOST PUNISHING ENVIRONMENTS.















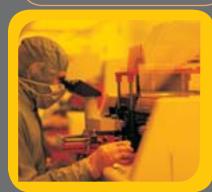
**Cabinets** Delivery

HI-IMPACT •)
COVERS • SU
• PROTECTE
CORROSIO
UV-RESISTAN
DUCTIVE • C
ENVIRONM



NMENTS • MULTIMEDIA CONNECTORS • PATCH CORDS • WEATHERPROOF RD CONNECTORS • STRAIN RELIEF GRIPS • IP67 • HARSH ENVIRONMENTS NON-METALLIC CONDUIT • TRANSMISSION PERFORMANCE • FIELD TERMIND UGH ENVIRONMENTS • THERMOPLASTIC • STAINLESS STEEL • INLINE COUPLUTILITY BOX • REMOTE EQUIPMENT CABINET • CATEGORY 6 • NON-CONE • QUICKHUN DACT - COMMERCIAL RATED • NEMA 4/12/13 • ETHERNET • AUTOMATION • REINFORCED FIBERG

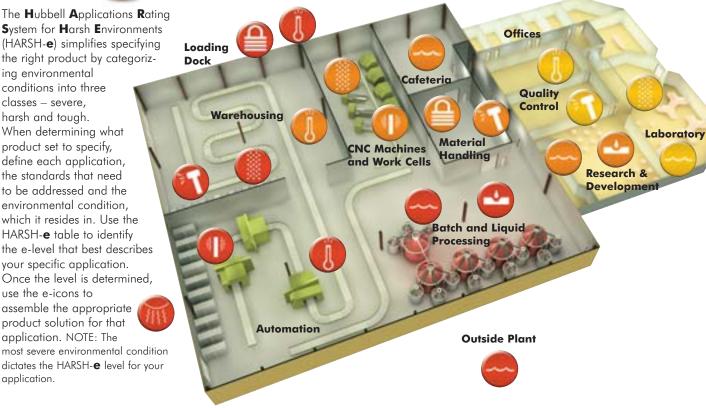




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POLYTUFF® Non-metallic Conduit	.K11
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KELLEMS® STRAIN RELIEF GRIPS	.K12
	1/10

# HARSH-

#### A Comprehensive Rating System.



## HARSH-

#### **Hubbell Application Rating System for Harsh Environments**

	Application Severe	2 Application Harsh	1 Application Tough
Dust	Enclosures: <b>NEMA 4X</b> Connectors: <b>IP67</b> and <b>IP66</b> Totally protected against dust (Dust-tight)	Enclosures: NEMA 4/12/13 Connectors: IP67 and IP66 Protected against dust, Objects greater than 1 mm	Enclosures: <b>NEMA 3R</b> Connectors: <b>IP43</b> Objects greater than 1 mm i.e., tools, wires, small wires
Water	Enclosures: <b>NEMA 4X</b> Connectors: <b>IP67</b> and <b>IP66</b> Immersion and strong pressure jets	Enclosures: NEMA 4/12/13 Connectors: IP67 and IP66 Protected against strong and low pressure jets	Enclosures: <b>NEMA 3R</b> Connectors: <b>IP43</b> Protected against sprays of water to 60° from vertical
Corrosion	Enclosures: <b>NEMA 4X</b> Stainless Steel: Dust, water and corrosive liquids Connectors: PBT Common oils, chemicals and cleaning agents	Enclosures: <b>NEMA 4/12/13</b> Ice, dust, water, non-corrosive liquids Connectors: PBT Common oils	Enclosures: <b>NEMA 3R</b> Falling rain, sleet Connectors: N/A
Impact	Enclosures: 14 ga., 304 SS Connector Housing: PBT	Enclosures: 14 ga., Steel Connector Housing: PBT	Enclosures: 14 ga., Steel Connectors: Thermoplastic
Tamper	Enclosures: Protected, secured and locked	Enclosures: Protected, and optional lock	Enclosures: Protected, but not secured
Temperature	TIA/EIA-568-B.2 TIA/TR 42.9 pending	∏ TIA/EIA-568-B.2	1 TIA/EIA-568-B.2
Vibration	TIA/TR 42.9 10-500Hz 5g Acceleration	TIA/TR 42.9 10-500Hz 2g Acceleration	TIA/TR 42.9 10-500Hz 0.7g Acceleration
Ultra-Violet	Protected	Protected	Not Protected



#### **Severe Environments**

HARSH-e3 applications are punishing environments where extreme temperatures, EMI, vibration and exposure to corrosive materials may be present.

#### **Typical Severe Environment Applications**

- **Food Processing**
- Manufacturing

**Automation** Automotive Finishing and Plating **Foundries** Molding Paper Mills Process & Control Robotics Welding Stamping

- Marinas
- Pharmaceutical
- Utility Electric Utilities

Oil & Mining Refinement & Waste Treatment Facilities





Tool & Die

#### **Harsh Environments**

HARSH-e2 applications are harsh environments where hardware is exposed to regular abuse.

#### **Typical Harsh Environment Applications**

- Automated Tellers Machines
- Billboards and Display
- Food

Commercial Food Fast Food Restaurants

- Laboratories
- Manufacturing Automation Material Handling Warehouses

- Medical
  - Mobile Med Units
- **Pharmaceutical**
- Retail
- Transportation Airports **Bus Stations** Train Stations Subways
- Zoos





#### **Tough Environments**

HARSH-e1 applications are more demanding than typical commercial environments. Hardware is exposed to occassional rough use.

#### **Typical Tough Environment Applications**

 Hospitality and **Entertainment** 

Aquariums

Amusement and Family Entertainment

Casinos

Convention Centers

Hotels

Resorts

Stadiums

Theme Parks

Educational

K-12 University

Grocery/Deli

Laboratories

Medical



# Impact

# **pact** Copper Connectors



#### Specifications

- Environmental
  - Ingress Protection: IP67 and IP66 (dust/water).
  - Corrosion: Resistant to most common chemicals, oils and cleaning agents.
  - HI-IMPACT Housing: UV resistant.
  - HI-IMPACT Housing Temperature Range: TIA/EIA-568-B.2 -25°C to 70°C
- Mechanical
  - Vibration
    - Frequency Range: 10-500Hz.
    - Acceleration: 5g (operational).
  - Mating Cycles: 750 minimum.
  - UL 1863 compliant.
- Material
  - HI-IMPACT Housing: Valox®, UL 94V-0.
  - Nose Contacts: Beryllium Copper with a precious metal plating over Nickel under plating.
  - F-Connector: brass, Gold-plated 2\mu".
- Electrical
  - ANSI/TIA/EIA-568-B.2-1 (Cat 6 and 5e).
  - Supports TIA-1005 Industrial Telecommunications Infrastructure.
  - IEEE 802.3 for DTE power.
  - F-Connector Performance: 1500 MHz Impedance: 75Ω.



- Standard Hubbell Keystone opening provides a migration path to upgrade in the future.
- Standard ¾" conduit knockout simplifies installation.
- Resistant to UV, common chemicals, cleaning agents and petroleum.

#### Features/Benefits

- IP67 and IP66 rated for dust and liquids.
- IEEE 802.3 PoE/PoE+ support.
- Third-Party verified to Category 6 and Category 5e.
- Durable, rugged construction for the most punishing environments.
- Vibration TIA 568-B.2 transmission integrity.
- User-Friendly Quick Connect positive indication when fully engaged.
- Valox® construction: resistant to temperature extremes, common chemicals and impact.

#### **HI-IMPACT Copper Connectors**











Delivery: 1 housing, 1 jack (see below), 1 flat bulkhead gasket, and 1 retaining nut.

#### HI-IMPACT Category 6 Connector (UTP)

The HI6's unmatched transmission performance is the perfect solution for bandwidth intensive applications, convergence and large file transferring.

Catalog No.

HI6

#### **HI-IMPACT Category 5e Connector**

The HI5E is the ideal solution for convergence and PoE applications such as VoIP, video IP, wireless access points, vision systems and automation sensors.

Catalog No. 

HI5E

#### HI-IMPACT Inline Coupler, Category 5e

The HI coupler allows the user a fast and easy way to add a connection to a cabinet, surface housing or panel and connect to a device in a protected environment without punching down. Use a Hubbell category rated 5e/6 patch cord to connect in the protected environment to the HI coupler to the device.

Category 5e
Catalog No. HISEC

#### HI-IMPACT Shielded, Category 5e/6 Connectors

The HIS shielded jacks deliver protection from interference caused by EMI providing high performance data transmission from data points without interruption. The quick connect bayonet style housing provides tactile feedback when fully engaged minimizing user error typically found with screw-type mating mechanisms.

Catalog No. Category 5e

A-Wiring HIS5EA

B-Wiring HIS5EB

#### HI-IMPACT F-Connector

HI-IMPACT F-connector's Gold plating provides the perfect connection solution for distributing high quality video signal over horizontal coaxial cable (RG6 and RG59) to and from a device. Whether it's surveillance cameras, video distribution equipment, CCTV or delivering CATV out to marinas, the HIF provides the IP67 protection needed to make the reliable connection.

#### Protective Cap

Catalog No.

Catalog No. HIC

NOTE: For  $E^3$  environments, please contact Technical Services for specific chemical and environmental applications.

HIF



## HUBBELL npact Patch Cords



- Patch cords deliver unmatched transmission performance.
- Different media styles means full application support for all media types: voice-data-video.
- Field-terminable cords and connectors allow installation and configuration on-site to best suit the application.

#### Features/Benefits

- Vibration TIA 568-B.2 transmission integrity.
- Maximum cable strain relief resists pull-out.
- User-friendly Quick Connect positive feedback when mated.
- Flexible, durable patch cable resistant to UV, chemicals, cleaning agents and oils.
- O-Ring seal: reliable IP67 and IP66.
- Valox® construction: resistant to temperature extremes and impact.

#### Specifications

- Environmental
  - Ingress Protection: IP67 and IP66 (dust/water).
  - Corrosion: Resistant to most common chemicals, oils and cleaning agents.
  - HI-IMPACT Housing: UV resistant.
  - HI-IMPACT Housing Temperature Range: TIA/EIA-568-B -25°C to 70°C.

#### **HI-IMPACT Patch Cords**

HI-IMPACT patch cord assemblies deliver the superior transmission performance your network needs, packaged in a durable HI-IMPACT shell providing the ultimate protection your harsh environment demands. The HI-IMPACT patch cords are available in a large variety of lengths, styles and media types to accommodate the various applications and combinations requested.



#### **HI-IMPACT Patch Cord Assembly Chart**

	AE		AA		EE
A		А		E	
Е		А		E	

Patch Cords Cat 6/5e

	Category 6	Category 5e	Category 5e Shielded	
	Catalog No.	Catalog No.	Catalog No.	
HI-IMPACT RJ-45 to standard RJ-45	HI6XXAE1	HI5EXXAE1	HI5ESXXAE <sup>1</sup>	
HI-IMPACT RJ-45 on both ends	HI6XXEE	HI5EXXEE1	HI5ESXXEE <sup>1</sup>	
Standard RJ-45 on both ends	HI6XXAA <sup>2</sup>	HI5EXXAA <sup>2</sup>	HI5ESXXAA <sup>2</sup>	
Substitute "XX" with 02, 03, 05, 07, 10,	15, 20, 25, 30, 35, 40	, 45, 50 to indicate length	n in feet.	

Patch Cords, F-Connector (RG59) Catalog No. F-connector HI-IMPACT F to standard F (RG59) F-connector HI-IMPACT F to HI-IMPACT F (RG59) HIFXXAE1 Substitute "XX" with 02, 03, 05, 07, 10, 15, 20, 25, 30, 35, 40, 45, 50 to indicate length in feet.

**Field Termination Patch Cord Kits** 

NOTE: HI-IMPACT plugs, cable and connectors are only rated when used together.						
HI-IMPACT Plug Connector	Category 5e	Plug Connector	Catalog No.			
UTP	HI5EP	F-connector (RG59)	HIFP			
Shielded	HI5ESP					
HI-IMPACT Plug, 25-pk	Category 5e	HI-IMPACT RJ45 Plug	Catalog No.			
RJ45 UTP Stranded	HIP5E25	Boot, 25-pk, Black	HICB25BK			
Shielded	HIP5ES25					





**Bulk Patch Cable** 

HI-IMPACT Cable	Category 5e	HI-IMPACT Cable	Catalog No.
100'	HIPC100	RG59 coaxial, 100'	HIF100
Shielded, 100'	HI5ES100		

Coupler Housing (Coming Soon)

www.hubbell-premise.com

HI-IMPACT Coupler Housing - is a perfect solution for temporary and flexible work areas where single port drops are needed. Add any HI-IMPACT connector to support your application. Delivery: 1 coupler housing with cord connector attached and 1 protective cap. NOTE: HI-IMPACT connectors not included, see page K6.

HICH! Catalog No.

NOTE: For E<sup>3</sup> environments, please contact Technical Services for specific chemical and environmental applications.



Compatible with **Hubbell Labeling System** see page M8.

HICH

# mpact Plates, Boxes and Covers

#### **HI-IMPACT Plates and Device Boxes**

#### Features/Benefits

- IP55 rated for dust and liquids (HISFXX).
- Pre-punched, keyed opening for HI connector.
- Single and double gang offerings.
- Gasketed to protect from elements.







HI114PY





#### Specifications

#### **Stainless Steel Plates**

- ◆ Thickness: .04" (.9) nominal.
- Material: smooth metal 302/304; super Stainless Steel 17-19%; chrome, 8% Nickel.
- Gasket Material: UL closed-cell foam.

#### **Thermoplastic Plates**

- Flammability: UL 94-V0, 94-5VA classification.
- Material: Valox®.
- Gasket Material: UL closed-cell foam.

#### **Plates**

		Stainless Steel		Thermoplastic 4-Point FS/FD
Port Size	Gang	Catalog No.	Color	Catalog No.
1	1	HISF11	Gray	HI14GY
1	1	-	Yellow	HI114PY
2	1	HISF12	Gray	HI24GY
2	1	-	Yellow	HI124PY
2	2	HISF22		
4	2	HISF24		

Fiberglass Weatherproof		Cast Al			
Device	Box		Device	Box w/Lugs	
Hub	Color	Catalog No.	Hub	Color	Catalog No.
3/4"	Yellow	HBL60CM83	1/2"	Gray	HIFD1L
			3/4"	Gray	HIFD2L

#### HI-IMPACT Connector Opening Punch Tool

Catalog No. **HIPT** 

NOTE: See page K14 for dimensional drawings.



#### HI-IMPACT Weatherproof Covers, Wall Plates, and Device Boxes

#### Features/Benefits

**HARSH** 

- Authentic Bell® brand products.
- Durable, long-lasting design.
- Impact-resistant construction.
- Gasketed and self-closing wall plates.
- Transparent cover provides visibility to connection.
- Provisions for padlock.

#### Specifications

Moisture resistance: Wet and damp locations Enclosure. NEMA 3R when used with weatherproof box. Dry, indoor locations Enclosure.

Thermoplastic Flip-Cover Plates

- Material, Cover flap: Lexan. Spring screws: Stainless Steel.
- Flammability: UL 94V-0, 94-5VA.

Aluminum Die-Cast Plates

- Alloy 360 (has less than 0.004 Copper). Rayntite® Covers
- Material: Impact-resistant Polycarbonate. - Gaskets: UL recognized closed-cell foam. Neoprene (aging and oil-resistant).
- Flammability: UL 94V-0, 94-5VA.







Cover include	s: 1 plate with 4 Stainles	s Steel mounting	screws (#	₹6-32 x ½")	
Opening	Mounting	Material	Color	Protection Level	Catalog No.
Duplex	Device	Thermoplastic	Gray	IP44 suitable/NEMA3R	HBL5222
Duplex	FS/FD Box (4-point)	Thermoplastic	Gray	IP44 suitable/NEMA3R	HBL5221
Decorator	Device	Die-cast Al.	Gray	IP44 suitable/NEMA3R	WP26HI
Decorator	FS/FD Box (4-point)	Die-cast Al.	Gray	IP44 suitable/NEMA3R	WPFS26HI



RW57500



#### Weatherproof Rayntite® Cover, Maximum Protection, In-Use

Cover includes: 1 cover, 1 each plates for duplex and Decorator devices, 4 Stainless Steel mounting screws (#6-32 x ½")

Orientation	Gang	Protection Level	Catalog No.
Horizontal/Vertical	Single	NEMA 3R	RW57500
Vertical	Double	NEMA 3R	RW57750

See page B30 for Decorator and Duplex frames.

Weatherproof	Device Box
vvedinerbrooi	DEVICE DUX

Wedillelpie	OI DCVICC E			
Knockout	Color	Protection Level	Catalog No.	
1/2"	Gray	NEMA 3R	HIWP05GY	
3/4"	Gray	NEMA 3R	HIWP75GY	



# HUBBELL Equipment Cabinets



- Corrosion-resistant NEMA 4X Stainless Steel withstands years of abuse.
- Consolidation point cabinets provide an easy solution to house active equipment in harsh environments.
- When tamper-resistance is needed, an optional lock is available to secure your active equipment.

#### Specifications

- Body and door fabricated from 14 gauge 304 Stainless Steel and 14 gauge 316 Stainless Steel.
- ♦ Plasma-welded, continuous seams.
- ♦ ¼-turn, oil-tight latches on door.
- ♦ Poured-in Polyurethane gasket on door.

#### **HI-IMPACT RE-BOX® Remote Equipment Cabinet**

**User-Configurable Version** 

Delivery:	1 enclosure	and 1 HI-IMPACT RE-BOX	<sup>B</sup> back panel.	
		<b>(</b>	<b>2</b>	<b>3</b>
Height	Depth	Catalog No.	Catalog No.	Catalog No.
24"	12"	IR2U3RG	IR2UG	IR2USS
36"	12"	IR3U3RG	IR3UG	IR3USS
48"	12"	-	IR4UG	-
Material:		Cold Rolled Steel	Cold Rolled Steel	Stainless Steel
Finish:		Gray, Powder Coat	Gray, Powder Coat	Brushed, Unpainted
NEMA Rat	ing:	3R	4/12/13	4X

#### **Pre-Configured Version**

Delivery: 1 enclosure; 1 bottom-hinged patch panel bracket, 4U (REK19); and 1 equipment mounting bracket, 5U (REKZ), 1 HI-IMPACT **RE-BOX**® back panel.



Height	Depth	Catalog No.		
36"	12"	IR3PG		
48"	12"	IR4PG		
Material:		Cold Rolled Steel		
Finish:		Gray, Powder Coat		
NEMA Rating:		4/12/13		
NOTE DI		1100		

NOTE: Please see page H26 for features and specifications. See page H29

for RE-BOX® accessories.

#### **HI-IMPACT Consolidation Point Cabinet**

Hubbell's HI-IMPACT NEMA 4X and 4/12 consolidation point cabinets are designed for harsh environments where oil, dirt, dust and moisture are present. The HI-IMPACT consolidation point cabinet is a perfect solution to house and secure small switches, wireless access points and cross connect products in harsh environments such as factory floors, convention centers, correctional facilities, and commercial kitchens.

#### **Consolidation Point Cabinet**

Туре	Material/finish	Size	Catalog No.
NEMA 4X	Stainless Steel	12x12x6.91	HICPSS a
NEMA 4/12	Powder-coat, Gray	12x12x6.91	HICP412G P

#### **Lock Kit**

Use to change lock style to meet specific applications.					
Delivery: 2 Assembly locks and keys.					
Description	Catalog No.				
CH751 keyed lock kit	CKL751				





IR4UG

# HUBBELL mpact Surface Mount Boxes



The HI-IMPACT surface mount boxes provide an easy way to mount and protect connectivity in punishing environments, supporting all HI-IMPACT media types. If your application requires Stainless Steel, NEMA 4/12 or NEMA 4X, in different port configurations, the HI-IMPACT surface mount boxes will suit your environmental needs.



- Corrosion-resistant surface mount boxes withstand years of abuse and wash down.
- Locate surface mount boxes easily with many different options to route and protect cable.
- Deploy Ethernet out to remote devices with the proper environmental protection needed.



Catalog No. HI14XGY

HI24XGY

HI44XGY HI64XGY

Thermoplastic

NEMA 4X Box

Gray









HI1 CBSS

Catalog No.	Catalog No.
HI1CBSS	HI1CB2G
HI2CBSS	HI2CB2G
-	-
-	-
Stainless Steel	Steel
	Gray (Powder-coated)
NEMA 4X Box	NEMA 4/12 Box

## HUBBELL npact

**Ports** 

1 2

4

Material:

**NEMA Rating** 

Finish:

## **DIN Rail Utility Box**

Hubbell's HI-IMPACT DIN Rail Utility Boxes offer a labor saving way to provide utility power

as snapping the box vertically onto a 35mm

DIN Rail and connecting the line, neutral and

ground wires to the terminal block for power or

and/or communications to any control cabinet. Installing the DIN Rail Utility Box is as easy



DRUBTVSS15

punching down **XCELERATOR**™ jacks for communications.



- Labor savings.
- DIN rail compatible.
- Easy delivery of power or data.
- Quick and easy installation.
- Surge protected.

#### Specifications

- Material ABS.
- Surge Receptacle (HBL526GYSA).
- Amperage: 15A.
- Voltage: 125V.
- Material
  - Top and base: Nylon.
  - Mounting strap: 0.050" (1.3) Steel, Zinc-coated.
  - Clamping plate: 0.031" (.8) Brass.
  - Terminal screw: Brass #8-32.
  - Grounding screw: Steel (green).
  - · Auto ground clip: Stainless Steel.
  - Mounting screws: Steel, Zinc-plated.
  - Alarm muting screw: Nylon.
- LED color: Red.
- Frequency: 60Hz.
- Voltage range: 120V AC +10%-15%.
- Operating Temperature Range: TIA/EIA-568-B -25°C to 70°C.



Catalog No.

Electrical DIN rail utility box kit with 15A TVSS surge-protected receptacle Communications DIN rail utility box kit (unloaded)

**DRUBTVSS15 HIDRUBCKIT** 

See page B30 for Decorator and Duplex frames.



**HIDRUBCKIT** 



HI-IMPACT **LIQUIDTIGHT**® is the perfect conduit system to deliver all of your communication needs for all 3 levels of Hubbell's HARSH-E environments.

#### **HI-IMPACT POLYTUFF® Non-metallic Conduit**

#### **HI-IMPACT POLYTUFF® Non-Metallic Conduit**

Size	Color	Description	Length	Catalog No.
1/2"	Gray	Non-Metallic Conduit	100'	G1050
3/4"	Gray	Non-Metallic Conduit	100'	G1075





<b>LIQUIDTIGHT® Non-Metallic Fitt</b>
---------------------------------------

1/2"	Gray	Straight Male	P050NGYA
3/4"	Gray	Straight Male	P075NGYA
1/2"	Gray	SWIVELLOK® Male	PS0509NGY
3/4"	Gray	SWIVELLOK® Male	PS0759NGY





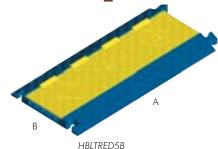




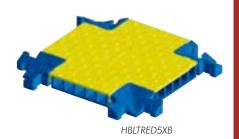




# mpact TREDTRAK® and TRUKTRAK®







#### HI-IMPACT TREDTRAK® and TRUKTRAK®

#### TREDTRAK®

Use for lightweight traffic applications in public, institutional and commercial environments.

		Maximum Load lbs. (N) @				
Description	A (Length)	B (Width)	Weight lbs. (kg)	21°C	48°C	Catalog No.
36" TredTrak®	36" (914.1)	17.5" (445)	18 (18.2)	10,500 (46,700)	6,500 (28,900)	HBLTRED5B
End Caps (pair)	Male 5.5" (120) Female 6.75" (171)	17.5" (445)	2.5 (1.13)	10,500 (46,700)	6,500 (28,900)	HBLTRED5ECB
"X" Fitting	17.5" (445)	19.5" (500)	12 (5.43)	2,900 (12,900)	2,300 (10,230)	HBLTRED5XB
"Y" Fitting	17.5" (445)	19.5" (500)	12 (5.43)	2,900 (12,900)	2,300 (10,230)	HBLTRED5YB

#### TRUKTRAK®

		Maximum Load lbs. (N) @				
Description	A (Length)	B (Width)	Weight lbs. (kg)	21°C	48°C	Catalog No.
36" <b>TrukTrak</b> ®	36" (914.4)	20" (508)	29 (13.2)	20,150 (89,627)	9,200 (40,921)	HBLTT5B
End Caps (pair)	Male 5.25" (183.4) Female 7.5" (114.3)	20" (508)	4.7 (2.1)	20,150 (89,627)	9,200 (40,921)	HBLTT5ECB
45° Left Turn	25" (635)	20" (508)	13 (5.9)	20,150 (89,627)	9,200 (40,921)	HBLTT545LB
45° Right Turn	25" (635)	20" (508)	13 (5.9)	20,150 (89,627)	9,200 (40,921)	HBLTT545RB

# **HI-IMPACT Cord Connectors, Grips**

# HUBBELL Cord Connectors

#### **HI-IMPACT Cord Connectors**

#### Features/Benefits

- IP66 rated.
- UL listed to 4, 4X, 12 and Type 13.
- Resistant to common chemicals, cleaning agents and oils.
- Effective pullout protection.





#### Specifications

- Stainless Steel hub size: 1/2".
- Aluminum hub size: ½", ¾".
- Nylon standard style hub size: ½".
- Flammability: UL 94-V2 rating.
- Cord diameter range: 0.25"- 0.38" (6.3- 9.7).
- Cord connector body style: straight male.
- ◆ Recommended knockout hole size:
  - 1/2"-.86"- .91" (21.8-3.0).
  - <sup>3</sup>/<sub>4</sub>"-1.09"- 1.14" (27.8-29.0).
- ◆ Effective operating temperature: -30°F to +225°F (-34°C to +107°C).

#### **Cord Connectors**

The N.P.T. hub features an attractive knurled finish which makes them easy to handle and maintain a U.L. listing by hand tightening. The E3 Stainless Steel cord connectors provide superior strength and corrosion resistance for industrial and military applications. They are machined from 300 series Stainless Steel. Hubbell's nylon cord connectors resist most common industrial corrosives and provide highly effective pullout protection in a lightweight design. They are ideal for any application where weight, conductivity or corrosion may be an issue.

Size	Material	Color	Cord O.D. Range	Catalog No.
1/2"	Aluminum	-	0.25" - 0.38" (6.7-9.7)	SHC1022
3/4"	Aluminum	-	0.25" - 0.38" (6.7-9.7)	SHC1032
1/2"	Stainless Steel	-	0.25" - 0.38" (6.7-9.7)	SHC1022SS
1/2"	Nylon	Gray	0.25" - 0.38" (6.7-9.7)	SHC1022CR

#### Accessories

Description	Size	Catalog No.
Metal clad sealing O-ring	1/2"	20509001
Metal clad sealing O-ring	3/4"	20509002
Lock nut, non-metallic	1/2"	31622003LPK50
Lock nut, non-metallic	3/4"	31622007LPK50

# HIMPact

## **KELLEMS® Strain Relief Grips**



HI-IMPACT **KELLEMS**® Strain Relief Grips are designed to prevent tension from being transmitted to joints and terminals on electrical cord, cable and conduit. In most applications, a grip for strain relief is stronger than the cable/conduit itself, giving greater security than the use of a standard fitting alone.

#### Features/Benefits

- Minimize down time.
- Safer systems.
- LIQUIDTIGHT® fitting.
- Corrosion resistant.

#### Specifications

- ♦ Aluminum hub size: ½", ¾".
- ♦ Nylon standard style hub size: ½".
- Flammability: UL 94-V2 rating.
- Thread type: N.P.T.
- Grip cord range (diameter):
   0.250" 0.375" (.63- .95) cord.
- Connector body style: straight male.
- Recommended knockout hole size:
  - ½"-0.86"- 0.91" (21.8-3.0).
  - 3/4"-1.09"- 1.14" (27.8-29.0).
- ◆ Operating temperature: -30°F to +225°F (-34°C to +107°C).

#### **HI-IMPACT KELLEMS® Strain Relief Grips**

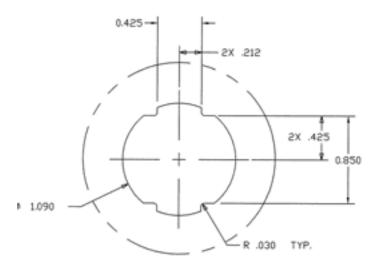


½"         -         Aluminum         0.250"- 0.375" (.6395)         07401006           ¾"         -         Aluminum         0.250"0375" (.6395)         07401013           ½"         Gray         Nylon         0.250"- 0.375" (.6395)         CG406NM           ½"         Black         Nylon         0.250"- 0.375" (.6395)         074011332           ½"         Stainless         Steel         0.187"- 0.250"         074011331           3/8"         Nylon         0.250" 0.375" (.6395)         CG305NM	Size	Color	Material	Cord OD Range	Catalog No.
½"         Gray         Nylon         0.250"- 0.375" (.6395)         CG406NM           ½"         Black         Nylon         0.250"- 0.375" (.6395)         074011332           ½"         Stainless         Steel         0.187"- 0.250"         074011331	1/2"	-	Aluminum	0.250" - 0.375" (.6395)	07401006
½"         Black         Nylon         0.250"- 0.375" (.6395)         074011332           ½"         Stainless         Steel         0.187"- 0.250"         074011331	3/4"	-	Aluminum	0.250"0375" (.6395)	07401013
1/2" Stainless Steel 0.187"- 0.250" <b>074011331</b>	1/2"	Gray	Nylon	0.250"- 0.375" (.6395)	CG406NM
	1/2"	Black	Nylon	0.250"- 0.375" (.6395)	074011332
3/8" Nylon 0.250" 0.275" (42.05) CG305NM	1/2"	Stainless	Steel	0.187"- 0.250"	074011331
3/0 INJIOII 0.250 - 0.373 (.0393) CG30314M	3/8"		Nylon	0.250"- 0.375" (.6395)	CG305NM

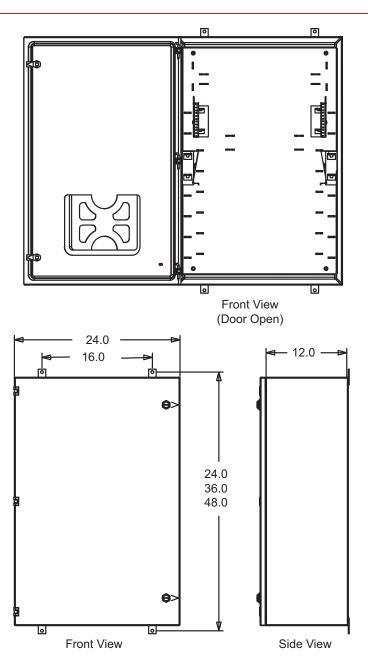


#### **Dimensions**

#### HI-IMPACT Opening (Tool Catalog No. HIPT)



#### **Industrial RE-BOX**®



# **RESIDENTIAL**



NETSELECT® NETWORKING SYSTEM PRIMARY TELEPHONE MODULE, 8-PORT TELEPHONE EXPANSION MODULE, 8-PORT CATEGORY MODULE, 8-PORT OCAX SPLITTER MODULE, 8-PORT CATEGORY MODULE, 8-PORT OCAX SPLITTER MODULE, 8-WAY FIXED VIDEO A FIER MODULE, 10DB MODULE PLATE, BLANK POWER KIT, SURGE SUPRESSION POWER KIT, STANDARD LOCK KIT NETSELECT® NETWORSTEM PRIMARY TELEPHONE MODULE, 8-PORT TELEPHONE EXPANSION MODULE, 8-PORT CATEGORY 5E DATA MODULE, 8-PORT OCAX SPLITTER MODULE, 8-PORT OCAX SPLITTER MODULE, 8-WAY FIXED VIDEO AMPLIFIER MODULE, 10DB PLATE, BLANK POWER KIT, SURGE SUPRESSION POWER KIT RESIDENTIAL KICONTIENTS IETWORKING SYSTEM PRIMARY TELE MODULE, 8-PORT TELEPHONE EXPANSION MODULE, 8-PORT CATEGORY 5E DATA MODULE, 8-PORT COAX SPLITTER MODULE, 4-WAY SPLITTER MODULE, 8-PORT OCAX SPLITTER MODULE, 4-WAY SPLITTER MODULE, 8-PORT OCAX SPLITTER MODULE, 8-POWER SPLITTER MODULE PLATE, BLANK POWER

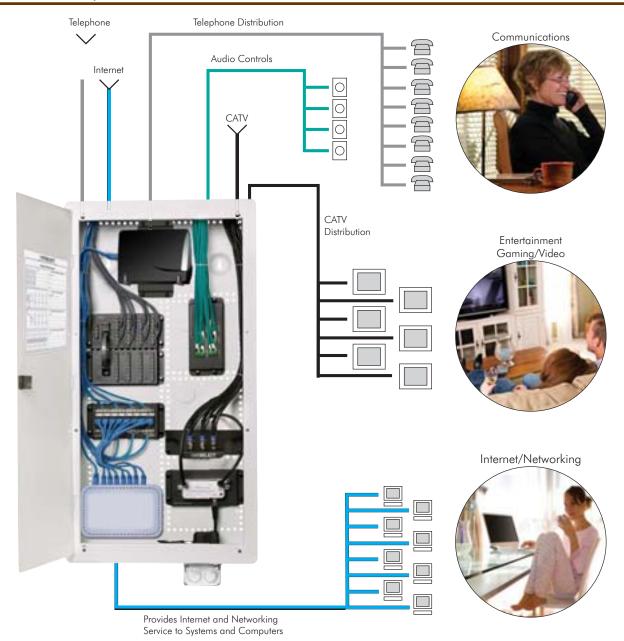


Product	Pag
NETSELECT® Advantages and Wiring Layout	. L4
NETSELECT® NETWORK ENCLOSURES	. L5
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Multimedia Connectors	. L8
Multimedia Plates and Frames	. L9
Multimedia Distribution	. L10
Delivery Products	. L1 <u>1</u>

# netselect®

## **Advantages and Wiring Layout**

Today's Communications Entail A Lot More Than Just Talking NETSELECT® Keeps You Connected—Internet, Voice, Data and Entertainment



# Advantage

- High-Performance Connectivity with Uncompromising Aesthetics.
- Modular System Makes Custom Configurations Effortless.
- Supports Single Family, High Rise MDU, Small Office, and Hospitality Applications.
- Packaging Materials Minimized to Simplify Job Site Clean-Up.



# netselect®

# **Network Enclosures**



#### Features/Benefits

- Flush or surface mount enclosure (hardware provided).
- Hinged cover can be mounted to swing from either side.
- Integral trim ring on hinged cover hides rough-in hole in sheet rock.
- Horizontal and vertical module mounting holes for maximum flexibility.
- Unique 89D bracket mounting holes allow easy mounting of 66 blocks and peripherals (excluding 10" enclosure).
- Provisions to mount optional duplex power in 10"+ enclosure and lock kit available.
- Integral cable management slots and tie-wraps provided to help dress cable runs.
- Additional nylon push pins provided to assist module mounting.
- Material: 20-18 gauge Steel.
- Finish: white, powder coat.
- UL and cULus Listed UL 1863.

#### **NETSELECT® Network Enclosures**

# **10" Network Enclosure** for MDU and Modular Applications



Dimensions: 14.38"W x 10"H x 3.96"D.

Knockouts:

Top: four  $1\frac{1}{2}$ " N.P.T. or completely

open combo;

Bottom: four 1½" N.P.T. or completely open combo;

(10 Side: 1½" N.P.T.

Description	Catalog No.
10" Enclosure with Hinged Cover	NSOBX10
10" Enclosure with Panel Cover	NSOBX10BC
10" Enclosure Box only	NSOBX10B
Hinged Door	NSOBX10D
Panel Cover	NSOBX10C

#### 14" Network Enclosure



Dimensions: 14.38"W x 14"H x 3.96"D.
Knockouts:

Top: two 1" Dia. and three  $1\frac{1}{2}$ "

N.P.T. combo:

Bottom: one 1" Dia. and one  $1\frac{1}{2}$ "

N.P.T. combo; 1 Power kit knockout; Back: two 1" N.P.T.

NI	SO	DC	V	1 4

Description	Catalog No.
14" Enclosure with Hinged Cover	NSOBOX14
14" Enclosure with Panel Cover	NSOBOX14BC
14" Enclosure Box only	NSOBOX14B
Hinged Door	NSOBOX14D
Panel Cover	NSOBOX14C
2"D Extension Bracket with ventilation and	NSOBOX14X2

#### Pre-Configured Network Enclosure

14"H with Hinged Cover



Pre-configured Network System Basic home network kit includes: 1 box with hinged cover (NSOBOX14), 1 primary 8-port telephone

module (NSOPTM8), 1 4-way coaxial splitter module

(NSOVDM4)

Catalog No. **NSOBNK14** 

#### 28" and 48" Network Enclosure



#### 28" Enclosure

Dimensions: 14.38"W x 28"H x 3.96"D.

Knockouts:

Top: five 11/2" N.P.T.;

Bottom: two power kit knockouts; Back: four 1" N.P.T.

#### 48" Enclosure

Dimensions: 14.38"W x 48"H x

3.96"D. Knockouts:

Top: five 11/2" N.P.T.;

Bottom: two power kit knockouts;

Back: none.

Description	Catalog No.
28" Enclosure with Hinged Cover	NSOBOX28
28" Enclosure with Panel Cover	NSOBOX28BC
28" Enclosure Box only	NSOBOX28B
Hinged Door	NSOBOX28D
Panel Cover	NSOBOX28C
2"D Extension Bracket with ventilation and WiFi KOs	NSOBOX28X2
48" Enclosure with Hinged Cover	NSOBOX48

#### **Power Kits**



Standard Power Kit

NSOBOX28

Includes duplex receptacle 15A 125V.

NEMA 5-15R, electrical steel box and wall plate.

Catalog No.

NSOKP\*

Surge Suppression Power Kit

Includes duplex receptacle 15A 125V.
NEMA 5-15R, 240 Joules/15,000A protection per mode, electrical steel box and wall plate.
Catalog No.

NSOKPS\*

#### **Lock Kit, Chromed Steel**



Includes two keys. Eliminates unwanted tampering.

Catalog No. FLOCK1\*

#### WiFi Antenna Kit



Attaches to extension brackets. 7dB gain for better coverage.

Catalog No. **NSOKA\***\*Not UL, not cULus Listed.

Call 1-800-626-0005

# **netselect**® Modules

#### NETSELECT® Network Modules

NETSELECT® modular components enable the designer to select performance requirements specifically for the application. Modules snap horizontally or vertically into the enclosures for maximum flexibility and optimum space usage.

#### Specifications

- Dimensions: 6.47"W x 2.95"H, except NSOMTM24: 6.47"W x 6.0"H.
- Meets FCC Part 68 standard.
- Finish: black, powder coat.
- Material: 18 gauge Steel or high impact plastic.
- UL and cULus Listed UL 1863.
- T-568A wiring.

#### Combo Module, 6-port

6-Port Telephone Panel and 6-Port Coaxial Splitter with Optional 6-Port Cat. 5e Panel Provides voice, video, and data distribution. Perfect for use with NSOBOX10 and NS790xx plates to quickly establish a comprehensive home network.



Description	Catalog No.
Telephone and Video	NSOTVM6
Telephone, Video and Cat 5e	NSOTVDM6
Cat 5e Data Upgrade Kit	NSODK6

#### Data Module, 8-port

Category 5e Data Module, 8-Port Supports up to 8 data lines with front 110 punch-down terminations.

Category 6 Data Module, 8-Port Supports enhanced transmission speeds beyond gigabit ethernet.



Description	Catalog No.
Category 5e Data Module	NSODM8
Category 6 Data Module	NSODM8C6

#### **Primary Telephone Module, 8-port**

Supports 8 phone outlets with up to 4 incoming lines for voice. RJ31X interface jack included for security system connection. RJ45 jack interfaces with optional NSOETM8 Telephone Expansion module for additional extensions.



Description	Catalog No.
Primary Telephone Module, 8-port	NSOPTM8

#### **Multiport Patchable Telecom Module**

Terminates lines via modular plug to accommodate flexibility, by changing plug locations. Reconfigure where phone lines go at the panel level. Includes nine RJ45 jumper cords.



Description	Catalog No.
Multiport Patchable Telecom Module	NSOMTM24

#### **Expansion Telephone Module, 8-port**

Adds an additional 8 phone outlets with up to 4 incoming lines when used with the primary telephone module. Includes RJ45 jumper cord to connect with NSOPTM8 Primary Telephone module.



Description	Catalog No.
Expansion Telephone Module, 8-port	NSOETM8

#### **Combination Module, 6-port Telephone** and 1-port Data

Provides basic telephone and data delivery in a small package. Allows data lines to be converted to voice, with the move of a patch cord.



Description	Catalog No.
Combo Module, 6-port Telephone/	NSO6P1DM
1	

# 1-port Data

#### **Blank Module Plate**

Allows mounting of active components (i.e. switches, routers) or other devices (66 blocks, audio components) onto a modular platform. Can be custom drilled or used with two self-adhesive VELCRO® strips included to mount components onto module.



Description	Catalog No.
Blank Module Plate	NSOBM

**VELCRO**® is a registered trademark of Velcro Industries B.V.



#### NETSELECT® Audio Video Modules

NETSELECT® Audio Video Modules support bidirectional signal by splitting to 4, 6, or 8 separate work areas. Pre-mounted push pins snap the module quickly into place.

#### **4-Way Coaxial Splitter Modules**

One Incoming Line, Four Outgoing.



		NSOVI
alog	No.	

Cate Description NSOVM4 1 Ghz, Basic Unit NSOVM42G 2.3 Ghz, Enhanced Capability

#### **6-Way Coaxial Splitter Modules**

One Incoming Line, Six Outgoing.



Description	Catalog No.
1 Ghz, Basic Unit	NSOVM6
2.3 Ghz, Enhanced Capability	NSOVM62G

#### **8-Way Coaxial Splitter Modules**

One Incoming Line, Eight Outgoing.



Description	Catalog No.
1 Ghz, Basic Unit	NSOVM8
2.3 Ghz, Enhanced Capability	NSOVM82G

#### Specifications

- Dimensions 4- and 6-way: 6.47"W x 2.95"H.
- Dimensions 8-way: 6.47"W x 2.09"H , 3.2"D.
- Finish: black, powder coat.
- UL and cULus Listed UL 1863.

#### Fixed Video Amplifier Module, 10dB

Provides video signal amplification for incoming cable feeds recommended for use when more than four outputs are installed or when signal level is low. Provides 10dB forward path gain and supports current digital cable systems and modems with a passive return. Includes RG-59 cable jumper to connect amplifier to passive video splitter.



Catalog No. Description **NSOVAMP** 120 volt rated

#### 8 Room Audio Module

Distributes audio from an amplifier to matching volume controllers. Supports up to eight rooms of audio. Power handling - 200W RMS@20° C per channel. Requires impedance matching volume controls, see below.



Description Catalog No. 8 Room Audio Module **NSOAM8** 

#### NETSELECT® Accessories

#### **Audio Volume Controllers**

Decorator Styling (NSOSAVC). Power handling - 70W RMS@20° C. Impedance matching for up to 8 pairs of speakers. Includes both ivory and white slides/knobs and frames.









**NSOSAVC NSORAVC** 

#### **Adapter Panels** Description

Catalog No. Panel Bracket Adapter **NSOFSB** 

For use with Adapter Panels shown below, and FSP series modules, see page F8. Snap mounts into structured cabling enclosures.

F-Connector Adapter Panel FSPFP6X Includes 6 populated coaxial connectors.

FSPHD6X **Keystone Adapter Panel** Includes 6 blank openings for modular jacks and AV connectors.







# **Netselect**<sup>®</sup> Multimedia Connectors

#### **Modular Voice/Data Jacks**

netSELECT® Voice/Data Jacks provide for a wide range of applications ranging from high performance data demands of Category 6 and Category 5e, to voice grade jacks.

#### Specifications

- Easy to terminate angled wiring towers.
- Meets FCC part 68.
- Exceeds TIA Category 6 and Category 5e standards.
- UL Listed and CSA Certified.



Color	Category 6 Catalog No.	Category 6 Bag of 25 Catalog No.	Category 5e Catalog No.	Category 5e Bag of 25 Catalog No.	USOC Catalog No.
See below	NSJ6XX	NSJ6XX25	NSJ5EXX	NSJ5EXX25	NSJUXX

#### XX = Jack Color Options

<b>AL</b> =Almond	<b>BK</b> =Black	<b>B</b> =Blue	<b>GY</b> =Gray	<b>GN</b> =Green	<b>I</b> =Ivory
<b>LA</b> =Light Almond	<b>OR</b> =Orange	<b>R</b> =Red	<b>W</b> =White	<b>Y</b> =Yellow	

#### F-Connector, Nickel, F/F Coupler



Housing Color	Almond	Black	Electric Ivory	Gray	
Catalog No.	NSF70AL	NSF70BK	NSF70I	NSF70GY	
Housing Color	Light Almond	White			
Catalog No.	NSF70LA	NSF70W			

#### Universal Patch Cords, Category 6 and Category 5e



netSELECT® Patch Cords allow for quick change of voice/data lines with insertion of modular plugs.

#### Specifications

- Exceeds TIA Category 6 and Category 5e standards.
- UL Listed and cUL Certified.



	Black	Blue	Gray	Green	Red	Yellow
Description	Catalog No.					
Category 6	SC6BK**	SC6B**	SC6GY**	SC6GN**	SC6R**	SC6Y**
Category 5e	SC5EBK**	SC5EB**	SC5EGY**	SC5EGN**	SC5ER**	SC5EY**

\*\*=Length: '01'=1 foot; '03'=3 feet; '05'=5 feet; '07'=7 feet; '10'=10 feet; '15'=15 feet; '20'=20 feet; '25'=25 feet.

NOTE: Additional colors and lengths are available. Please contact Customer Service.

#### Universal Patch Panels, Category 6 and Category 5e



netSELECT® Patch Panels are excellent for designing rack systems for telephone, data and AV systems. Consolidation Blocks are ideal for smaller user count configurations that mount in or on the wall.

#### Specifications

- Exceeds TIA Category 6 and Category 5e standards.
- UL Listed and cUL Certified.

NS612U

Patch Panels, Universal, 89D Bracket Category 5e, 12-port, Wall Mount

Patch Panels, Universal, 89D Bracket Category 6, 12-port, Wall Mount

NS5E12U Catalog No.

**NS612U** 



Size	Universal Patch Panel Category 5e	Universal Patch Panel Category 6
24-port/1.75"H/1 Rack Unit	NS5E24U	NS624U
48-port/3.50"H/2 Rack Units	NS5E48U	NS648U



NS648U



# **Netselect**® Multimedia Plates and Frames

#### **Decorator Wall Plates**

Standard, Nylon

1-Gang 3-Gang 4-Gang 5-Gang 6-Gang 2-Gang See Color Code NP26XX NP262XX NP263XX NP264XX NP265XX NP266XX

Standard color without **XX** = Brown. All other colors add suffix to Catalog No.

**XX**=Color: 'AL'=Almond; 'BK'=Black; 'GY'=Gray; 'I'=Ivory; 'LA'=Light Almond; 'W'=White.

Mid-Size, Nylon

1-Gang 2-Gang 3-Gang 4-Gang See Color Code NPJ26XX NPJ262XX NPJ263XX NPJ264XX

Standard color without **XX** = Brown. All other colors add suffix to Catalog No.

**XX**=Color: 'AL'=Almond; 'BK'=Black; 'GY'=Gray; 'I'=Ivory; 'LA'=Light Almond;

'R'=Red; 'W'=White.



	1-Gang	2-Gang	3-Gang	4-Gang	5-Gang	6-Gang	
See Color Code	RCW1XX	RCW2XX	RCW3XX	RCW4XX	RCW5XX	RCW6XX	

XX=Color: 'AL'=Almond; 'l'=Ivory; 'LA'=Light Almond; 'W'=White.







Decorator Outlet Frames	
Description	Catalog No.
1-Gang Adapter, 0.406" Hole	NS621XX
(For use with rotary dimmers or to pull through AV or telephone cable)	
Decorator Frames with:	
Single F-Type Coupler Bulkhead, F/F	NS780XX
Duplex F-Type Coupler Bulkhead, F/F	NS782XX
1 Cat. 5e 110 Punch-Down, 1 F-type Coupler Bulkhead, F/F	NS785XX
Blank GFCI Frame, 1-Gang	NS620XX
<b>XX</b> =Color: 'AL'=Almond; 'I'=Ivory; 'LA'=Light Almond; 'W'=White.	





#### **Molded-In Plates**

Description Catalog No. **NS750XX** 1-Gang Plate, Single F-Type Coupler Bulkhead, F/F

**XX**=Color: 'AL'=Almond; 'I'=Ivory; 'LA'=Light Almond; 'W'=White.

**NS752XX** 1-Gang Plate, Duplex F-Type Coupler Bulkhead, F/F

XX=Color: 'AL'=Almond; 'I'=Ivory; 'LA'=Light Almond; 'W'=White.

**NS790XX** 1-Gang Plate, 1 Cat 5e 110 Punch-Down, 1 RJ-11 Jack (6-position/ 4-conductor), 1 F-Type Coupler Bulkhead, F/F

**XX**=Color: 'AL'=Almond; 'BK'=Black, 'BN'=Brown; 'GY'=Gray; 'l'=Ivory; 'LA'=Light Almond; 'W'=White.



NS750XX





NS790XX

#### Telephone Wall Jacks, Thermoplastic

Designed for voice applications, these jacks provide an economical alternative to basic wall mount

and performance needs.	
Description	Catalog No.
Wall Phone Jack, 6-position/4-conductor (punch-down termination tool included)	NS721XX
Wall Phone Jack, 6-position/4-conductor, Screw Terminations	NS722XX
Wall Phone Jack, 6-position/6-conductor, Screw Terminations	NS725XX
<b>XX</b> =Color: 'AL'=Almond; 'I'=Ivory; 'LA'=Light Almond; 'W'=White.	





NS721XX

#### Telephone Wall Jacks, Stainless Steel

Designed for voice applications, these jacks provide an economical alternative to basic wall mount and performance needs.

Description	Catalog No.
Wall Phone Jack, Quick Connect, 6-position/4-conductor, Stainless Steel (punch-down termination tool included)	NS723SS
Wall Phone Jack, Quick Connect, 6-position/4-conductor, Screw Terminations, Stainless Steel	NS726SS



NS723SS



# **Netselect**® Multimedia Distribution

JLOAD™ Multimedia Outlet

# HUBBELL

- Exclusive J-LOAD™ Combines High and Low Voltage into a Single Gang.
- Specialty Delivery Products Deliver Connectivity where Previously Impossible.
- Great Rooms, Kitchens, Labs, and Recreation Areas can all Benefit from These Products.
- Do More in a Single Gang.



#### JLOAD™ Multimedia Outlet, Loaded

Specifically designed to provide power, Category 5e and coaxial in a single gang box. Requires JLOAD™ Multimedia Box RJ600. Perfect for HDTV and computer use where a combination of power and data are needed. Includes Decorator frame, one Cat. 5e, one F-connector and one power receptacle 125V with voltage divider.

	15A/125V	15A/125V	20A/125V	20A/125V
	Tamper-Resistant	Standard	Tamper-Resistant	Standard
Color	Catalog No.	Catalog No.	Catalog No.	Catalog No.
Almond	RJ650ALTR	RJ650AL	<b>RJ620ALTR</b>	RJ620AL
Black	RJ650BKTR	RJ650BK	RJ620BKTR	RJ620BK
Gray	RJ650GYTR	RJ650GY	RJ620GYTR	RJ620GY
lvory	RJ650ITR	RJ650I	RJ620ITR	RJ620I
Lt. Almond	RJ650LATR	RJ650LA	RJ620LATR	RJ620LA
White	RJ650WTR	RJ650W	RJ620WTR	RJ620W





RJ62W

#### JLOAD™ Multimedia Outlet, Unloaded

Includes Decorator frame with two open ports for custom configuration and one power receptacle 125V with voltage divider.

	15A/125V	15A/125V	20A/125V	20A/125V
	Tamper-Resistant	Standard	Tamper-Resistant	Standard
Color	Catalog No.	Catalog No.	Catalog No.	Catalog No.
Almond	RJ65ALTR	RJ65AL	RJ62ALTR	RJ62AL
Black	RJ65BKTR	RJ65BK	RJ62BKTR	RJ62BK
Gray	RJ65GYTR	RJ65GY	<b>RJ62GYTR</b>	RJ62GY
lvory	RJ65ITR	RJ65I	RJ62ITR	RJ62I
Lt. Almond	RJ65LATR	RJ65LA	<b>RJ62LATR</b>	RJ62LA
White	RJ65WTR	RJ65W	RJ62WTR	RJ62W





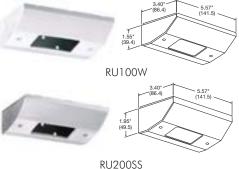
#### JLOAD™ Multimedia Box

3.0 inches deep with seven 1/2-inch knockouts, nonmetallic sheathed cable clamps on each side. Screw in mounting to stud.

Material	Catalog No.
Steel	RJ600



#### Under Cabinet/Counter Multimedia Distribution



Under Cabinet/Counter Boxes provide a convenient, out-of-sight way to distribute power and voice/data. These boxes comply with the NEC® for kitchen receptacles, with placement not more than 20 inches above the counter surface. They can also be placed under counter islands, not lower than 15 inches from the surface.

- · Available with nylon or metal cover.
- · Custom configurable, accepts any decorator style device.
- Mounting hardware included.
- UL Listed E31999 and CSA Certified under cabinet boxes.

#### Slim Fit Box

Offers the slimmest, sleekest, most stylish option for low profile, out-of-sight mounting. Devices sold separately.

Material/Color	Catalog No.
Stainless Finish	RU100SS
White Metal	<b>RU100W</b>
White Nylon	RU170W*



\* Steel box with Nylon cover

#### **GFCI Fit Box**

Designed specifically for GFCI or JLOAD™ accommodation where internal wiring space is needed. Devices sold separately.

		(B
Material/Color	Catalog No.	U
Stainless Finish	<b>RU200SS</b>	
White Metal	<b>RU200W</b>	
White Nylon	RU270W*	

<sup>\*</sup> Steel box with Nylon cover

NEC® is a registered trademark of the National Fire Protection Association (NFPA).



# **Netselect**® Delivery Products

#### Floor Boxes for Wood Floors

netSELECT™ Wood Floor Boxes allow for the placement of electrical power or a combination of power and voice/data devices. Boxes easily mount into the floor and are height adjustable (up to 3/4 inch) for optimal alignment and fit. UL Listed E31999 and CSA Certified.

#### Floor Box

Decorator Duplex Receptacle Floor Box Kit, 15A/125V - NEMA 5-15R. Includes steel box, flange and hinged door cover assembly with duplex receptacle. Available in solid brass or durable powder coat painted finish. Designed for installation in wood floors, mounts to sub floor between joists.

Material/Color	Catalog No.
Solid Brass	RF515BR
Stainless Finish	<b>RF515SS</b>
Almond	RF515AL
Black	RF515BK
Chestnut Brown	RF515BN







RF515BR

RF500

RF507BR



15A/125V - NEMA 5-15R. Includes duplex receptacle, neoprene gaskets, for use with steel box RF500.

Material/Color	Catalog No.
Solid Brass	RF506BR
Stainless Finish	RF506SS
Almond	RF506AL
Black	RF506BK
Chestnut Brown	RF506BN



Adjustable Floor Box, 3" Deep

Three ½-inch knockouts: One on bottom, one on each side, non-metallic sheathed cable clamps on each side.

Material/Color	Catalog No.
Steel	RF500





RF151R

RF407BK

**Hinged Door Cover Only** 

Replacement door for RF515 and RF506 series.

Material/Color	Catalog No.
Solid Brass	RF507BR
Stainless Finish	RF507SS
Almond	RF507AL
Black	RF507BK
Chestnut Brown	RF507BN



15A/125V - NEMA 5-15R. Mounts in 21/2 inch hole opening. Includes solid brass cover, single tamper-resistant receptacle, optional device mounts for two (2) voice/data video ports. Suitable for feed through circuitry. Impact resistant box.

Material/Color	Catalog No.	Roh
Solid Brass	RF151R	6

#### Floor Boxes for Concrete Floors

After the box has been secured in concrete, cut for height, apply PVC glue and push the cover assembly into the box. No fasteners or adjustment screws required.

- 4 inch minimum concrete pour.
- Recessed GFCI/Decorator opening.
- Self height and leveling ring, no adjustments.
- UL Listed E92074 Floor Box.

#### **PVC Floor Box with Concrete Protective Cover**

Accepts 3/4 in. and 1.0 in. schedule 40 and schedule 80 PVC conduit. Includes round box (47/8 in. diameter x 6.0 in. deep), four reducers, closure plugs, and concrete cover with locator

Material/Color	Catalog No.
Gray	RF400





#### Flange and Hinged Door Cover Assembly

Includes duplex receptacle, gasket, floor leveling PVC ring, high impact and chemically resistant nylon. Factory pre-assembled for easy drop-in

Rating	Material/Color	Catalog No.
5A 125V	Solid Brass	RF406BR
VEMA 5-15R	Almond	RF406AL
VEMA 5-15R	Black	RF406BK
	15A 125V NEMA 5-15R	•

#### Hinged Replacement Door Cover, N

Includes neoprene gasket to seal plug openings. Replacement cover for RF406 series.

Nylon		(Dal)
Material/Color	Catalog No.	HOH
Solid Brass	RF407BR	
Almond	RF407AL	
Black	RF407BK	





RF400

#### **Low Voltage Divider**

For use in PVC box RF400 when JLOAD™ Multimedia Outlet is used.

Material/Color	Catalog No.
Gray	RF408





# **Tools**



PRODUCT	Pag
1-Punch Termination Tool	M3
110/6-110 Termination Tools	M4
Punch-Down and Crimp Tools	M5
Tools and Testers	M6
TOOL KITS AND CABLE SUPPORT GRIPS	M7
HUBBELL LABELING SOLUTIONS	M8

# 1-Punch Termination Tool

Comfortable, Ergonomic Tool Handle.

Polarized Tool Head, Eliminates Confusion.

Interchangeable Heads: Provides Ease-of-Use with just 1 Tool (XJ Jack, P6E/ P6A Panel, 110 Block).





- Patented termination tool designed to punch-down all 4-pairs in "1-Punch" and cut off the excess wire.
- Reduces termination time by 75%.
- Consistent, reliable termination every time.

### **Specifications**

- High impact handle with ergonomic grip.
- Common handle for XJ, 5-pair block and Cat 6A/6E panel.
- Replaceable blade, cartridges.

### **Termination Tools and Accessories**

The "1-Punch" XJ Tool and  $\mathbf{XCELERATOR}^{\mathsf{TM}}$  Jacks are made for each other. This tool should be used exclusively with XCELERATOR™ jacks. Additionally, it is necessary to use this with the HXTA termination aid.

### 1-Punch Tool for XCELERATOR™ Jacks

Description	Catalog No.
1-Punch XJ tool with head, blades and HXTA termination aid	TX4P
1-Punch XJ replacement head	TX4PH
1-Punch XJ replacement blades	TX4PHBL
Hand termination aid "Jack Knuckles"	HXTA
Snap-X termination puck (Bag of 25)	HXTP25

### 1-Punch Tool for P6E and P6A Series Patch Panels

Patch Panel tool with head and blades	TX4PP
Patch Panel tool replacement head (includes blades)	TX4PPH
Patch Panel tool replacement blades	TX4PPBL



# **Termination Tools**

### Termination Tool, 6-110/4-pair, Category 6



This termination tool is designed to seat 6-110/4-pair connecting blocks and terminate/cut UTP cable on 6-110 wiring blocks.

### **Features**

- Cut designation on tool head aids proper orientation before termination.
- Ergonomic rubber handle.
- Head and blades remove easily for fast replacement

Description	Catalog No.		
Termination tool, 4-pair, 6-110	6110MPPDT		
Replacement tool head, 6-110	6110MPPDT1		

# 1-Punch Termination Tool, 110/5-pair, Category 5/5e



The 110 5-pair impact tool is designed to seat 110 connecting blocks and terminate and cut UTP cable on 110 wiring blocks. Saving time and money, it makes large termination jobs small by greatly reducing the number of punch cycles.

#### **Features**

- High impact handle with ergonomic grip.
- Replaceable punch-down head and cartridge blades.
- Terminates 26-22 AWG solid and stranded wires with single insulation.
- Common handle for 5-pair/110, jack and panel 1-Punch.
- Twist and lock head.

Description	Catalog No.
Punch-down tool, 5-pair head	T5PPD110
Replacement 110, 5-pair head	T5PPD110H
Replacement 110, 5-pair blades	T5PPD110B



Replacement head can be used with Hubbell 1-Punch or 5-pair tool handle - not compatible with 6-110.

### 1-Pair Punch-Down Tool



### **Features**

Cuts punch time in half by terminating a pair at a time.

Description	Catalog No.
Punch-down Tool with Blade	TPDH
Replacement Blade	TBLH

### **Punch-Down Tool, 110**



### Features/Benefits

- Comfortable ergonomic grip.
- High visibility colors.
- Lanyard holes in the handle end.
- Latching blade storage cover.

# Specifications

- ◆ Terminates 28-22AWG solid/stranded
- Adjustable high and low impact settings.
- Twist and lock blades.
- ♦ Insulated, rubber-embedded handle.

Description	Catalog No.
Punch-down Tool with 110 Blade	TPD110
Replacement 110 Blade	TBL110
Replacement 66 Blade	TBL66



### **Lighted Punch-Down Tool**

### Features/Benefits

- Comfortable ergonomic grip.
- High visibility colors.
- Latching blade storage cover.
- Illuminates termination area.

# Specifications

- Terminates 28-22AWG solid/stranded wire.
- Integral illuminating light.
- Batteries included.
- Built-in, fold-out pick, hook and spludger.
- Adjustable high and low impact settings.
- Twist and lock blades.
- Insulated, rubber-embedded handle.

Description	Catalog No.
Lighted punch-down tool with 110 blade	TPDL110
Replacement 110 blade	TBL110
Replacement 66 blade	TBL66
Replacement light and batteries	TPDLITE



### **Crimp Tools**

### Features/Benefits

- Universal frame (Cat. No. UCT) accepts interchangeable dies to crimp different plugs.
- Complete ratchet cycle release assures no-fault crimps.

### Specifications

- Parallel compression (Cat. No. COMPTRG659) terminates to FCC specs - no misalignment.
- Integral wire cutter/stripper cuts and strips cable without another tool (Cat. No. ECT).

Description	Catalog No.
Complete tool kit in hard, plastic case includes crimp tool, 4 die-sets, UTP cable stripper Die-sets include: RJ45, RJ22 and RJ11	UCTKIT
Crimp Tool frame (die-sets sold separately)	UCT
RJ11 Die-Set	CDTSR11
RJ22 Die-Set	CDTSR22
RJ45 Die-Set	CDTSR45
RJ45 Die-Set (snagless)	CDTSR45S
RG6 and RG59 Hex Crimp die-set	CDTSRG659
Economy Crimp Tool - includes non-replaceable RJ11, RJ22 and RJ45 Die-Sets	ECT
RG6 and RG59 Compression tool	COMPTRG659









# **Communications Cable Stripper/Cutter**

See page D10 for Modular Plugs.

### Features/Benefits

- Strips round Cat 5e and 6 UTP/STP.
- Cuts cable.
- Strips flat cables.
- Compact size.
- High-visibility for quick locating.

### Specifications

- Strips round cables with diameters of 0.145" to 0.275".
- Cuts round UTP/STP cables up to 0.350".
- Non-metallic body.
- Adjusting screw for varied cable diameters to avoid scoring interior conductor insulation.

Description	Catalog No.
Communications Cable Stripper/Cutter	TCS3



# **Strippers and Testers**

### **Coax Cable Stripper**



### Features/Benefits

- Self-regulating tension.
- Pre-set for common strip lengths.
- Adjust cutting depth for varying cable thickness with the included hex key.

# Specifications

- Non-metallic body.
- ♦ Pre-set strip length: .0236" outer jacket.
- RG59, RG6 and RG6 Quad CATV "F".

Description	Catalog No.
Cable Stripper	CSTRPR

### Screwdriver, 4-Bit



# Features/Benefits

- Ergonomic, insulated handle.
- Chrome, nut driving shaft.
- Hard, durable driving bits.
- High-visibility red dots for easy locating.

- 2 slotted bits, #4 and #6.
- 2 Philips bits, #2 and #3.
- 1/4" nut driving shaft.

Specifications

Catalog No. TSD4 Screwdriver, 4-bit

### **Nut Driver/Stripper**



# Features/Benefits

- Non-metallic handle.
- Easy to use strip notches.
- 2 nut drivers.
- Slim profile.

### Specifications

- Nut driver sizes are 3/8" and 7/16".
- Strips outer jacket of AWG 22/4 and 24/4.
- Strips inner insulation of AWG 22 and AWG 24.
- Overall length: 7 7/8".

Description Nut Driver/Stripper Catalog No.

TW38716

### **Cable Continuity Tester**



# Features/Benefits

- Compact size.
- One button test results. Automatic shut off.
- 9 volt battery included.

# Specifications

- Tests up to 320 feet.
- Built-in BNC connector with F connector.
- Coax cable types tested: 50-750hm RG58, RG59, RG6, RG6 quad, Belden 8281, RG8 AND RG11.

Delivery: Main and remote continuity test units, 2 F-connector adapters, 2 RJ45 shielded patch cables, 2 belt clips

Catalog No.

TCT2

### **Tool Kits**

### Tool Kit, 3-Piece

### Features/Benefits

- Punch-down tool with 110 and 66 blades and rubber-embedded handle.
- Durable, black, nylon belt pouch.
- Belt pouch fits up to 3" belt.



Punch-down tool for 28-22 AWG solid or stranded wire; Twist and lock 110 and 66





Delivery: 1 Punch-down tool with 110 and 66 blade, 1 pair snips, and 1 belt pouch. Catalog No.

Description

TK3 Tool Kit, 3-piece

### Tool Kit, 8-Piece

### Features/Benefits

- Punch-down tool with 110 and 66 blades; and rubber-embedded handle.
- Durable, black, nylon belt pouch.
- Belt pouch fits up to 21/2" belt (slide on style).

### Specifications

- Punch-down tool for 28-22 AWG solid or stranded wire; Twist and lock 110 and 66 blades.
- Screwdriver:
  - #4 and #6 slotted;
  - #2 and #3 Philips bits.
- Stripper works on UTP and STP cables.
- Snap-X has removable lanyard.

Delivery: 1 Punch-down tool, 110 blade, 66 blade, Snips, 4-bit screwdriver, UTP/STP cable striper/cutter, Maglite™, Belt pouch, and Snap-X termination aid.

Description Catalog No. TK8 Tool Kit, 8-piece

Maglite is a trademark of Mag Instruments, Inc.

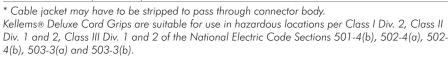
### **Deluxe Cord Grips**

Aluminum Fittings, Stainless Steel Mesh, Liquidtight, for Insulated Cables.





**Straight Male Thread** Grip Diameter Range Thread Size Form Inches N.P.T. (Inches) Size Catalog No. (cm) F2 07401008 .375"-.500" (.95-1.27)1/2 (1.27-1.59)07401010 .500"-.625" 1/2 F3 074011247\* .625"-.750" (1.59-1.90)074011248\* .750"-.875" (1.90-2.22).375"-.500" 07401015 (.95-1.27).500"-.625" (1.27 - 1.59)07401017 .625"-.750" (1.59-1.90)3/4 F3 07401018 074011249\* (1.90-2.22).750"-.875" 074011195 .375"-.500" (.95-1.27).500"-.625" (1.27-1.59)07401019 07401021 .625"-.750" (1.59 - 1.90)F4 (1.90-2.22)07401023 .750"-.875" .875"-1.000" (2.22-2.54)07401025 1.000"-1.125" (2.54-2.86)074011250\*





**Read This Data** It is important that you read all breaking strength, safety and technical data relating to the product at: www.hubbell-wiring.com





# **Hubbell Labeling Solutions**





- Meets TIA/EIA-606-A labeling administration standards.
- Labor savings. Installer can produce and print labels before installation.
- Saving job files reduces potential for error and eliminates the time to re-enter information when changes and additions are required.

# Features/Benefits

- Makes closets and work stations look professional with clearly marked connections and leaves an impression of quality workmanship.
- In ever-changing work environments, clearly marked connections will make moves, adds, and changes easier by eliminating mistakes and wasted time.

### **Hubbell Labeling Solutions Software**

To purchase, visit our website at www.hubbell-premise.com.

Catalog No. XPSOFT

### **Patch Panel and Rack Labels**



Delivery: Package of 10 paper sheets, 8.5" x 11".

### **Laser-Printable Label Sheets and Covers**

offer extensive labeling options for the front of Hubbell patch panels. Delivery: 10  $8.5'' \times 11''$  label sheets.

		Label Sheets	Extra Label Holders
Description	Identifies	Catalog No.	Catalog No.
Adhesive patch panel 8-port front labels	1600 ports	XPLPPA10W	-
Patch panel 8-port adapter paper labels. Use with label holders supplied with panel.	1440 ports	XPLPP10W*	XPHPP50
Patch panel ID paper labels. Use with supplied vertical ID label holders.	180 panels	XPLPPID10W	XPHPPID1U10 (for 1U) XPHPPID2U10 (for 2U)

<sup>\*</sup> Standard color is white, for other colors replace "W" with one of the following: "Y" = yellow or "B" = blue.

1"x6" Rack and cabinet identification labels		XPLRC10W	XPHRC10
Description	Identifies	Catalog No.	
		Label Sheets	Extra Label Holders

### **Port Identification**



Pre-printed numbering strips are made of a durable black polycard material with a pressure sensitive adhesive back. Port numbering strips provide the capability to consecutively number separate patch panels up to 480.

Identifies	Catalog No.
480 ports	XPL1TO480



### **Multimedia Panel Labels**

Delivery: Package of 10, 8.5" x 11" paper sheets.

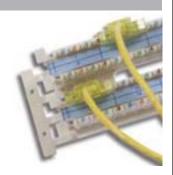
	Labels per	Label Sheets	Extra Label Holders
Description	sheet	Catalog No.	Catalog No.
Paper 8-port front label strips (use with	18	XPLUDX2410W	XPHUDX2410
label holders supplied with panel)			

NOTE: Use XPLFOSEPAW labels for the UDX36 multimedia panel.



# Cross Connect, 110 and 6-110 Labels

Delivery: Package of 10, 8.5	i" x 11" paper sheet	s.	
<u> </u>	Labels per	Label Sheets	Extra Label Holders
Description	sheet	Catalog No.	Catalog No. (10-pk)
Paper index strip, white.	18	XPL11010W	XPH11010
Paper index strip, blue.	18	XPL11010B	XPH11010
Paper index strip, yellow.	18	XPL11010Y	XPH11010



### **Face Plate and Port Labels**

Delivery: Package of 10, 8.5" x 11" pe	aper sheets.		
		Label Sheets	Extra Label Holders
Description	sheet	Catalog No.	Catalog No.
Paper face plate labels, white.	63	XPLFP10W	-
Adhesive face plate labels, white.	120	XPLFPA10W	-
Adhesive face plate labels, clear.	120	XPLFPA10C	-
Adhesive port icon labels, white.	325	XPLIPA10W	-
Adhesive port icon labels, clear.	325	XPLIPA10C	-



### Cable Labels

# Features/Benefits Specifications

Self-laminating, laser-printable cable labels are designed to identify all sizes of wire and cables quickly, clearly and economically. ◆ TIA/EIA-606-A standard compliant.

Label Description	Labels per Sheet	Cable OD	Catalog No.
For 2-4 strand fiber cables	63	0.11 to 0.21	XPLCBLA1
For 4-pair copper UTP and 2-12 strand fiber cables	49	0.15 to 0.27	XPLCBLA2
For 25-pair copper UTP and 24-132 strand fiber cables	21	0.31 to 0.70	XPLCBLA3



### Fiber Adapter Panel Labels

Delivery: Package of 10, 8.5" x 11" paper sheets.

	1 1 1	1 1 1 1 1	F. I.I.IIIII
	Labels per	Label Sheets	Extra Label Holders
Description	sheet	Catalog No.	Catalog No.
White, adhesive labels for fiber six-packs	38	XPLFOSEPAW*	-

<sup>\*</sup> Cannot be used with the high-density versions of the FSP adapter panels.



# **STANDARDS**

# Structured Cabling Standards and Practices

This section explains the key ANSI/TIA standards and practices required for structured cabling installation and testing. Adherence to standards and codes is required to obtain Hubbell's MISSION CRITICAL® Warranty.







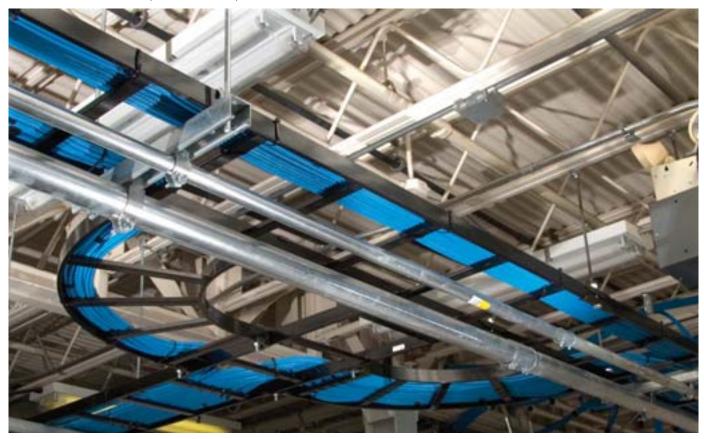
STRUCTURED CABLING STANDARDS AND PRACTICES • RESIDENTIAL CABLING • FIBER CABLING AND COMPONENT COPPER CABLING REQUIREMENTS • PATHWAYS AND SPACES • INTERNATIONAL STANDARDS • PERMANENT LINK AN FIELD TESTING • FIBER INSTALLATION PRACTICES • BUILDING AUTOMATION SYSTEMS • APPLICATION GUIDELINES • FOR COMMERCIAL BUILDINGS • GLOSSARY • UTP CABLING COMPONENTS PERFORMANCE • BACKBONE & HORIZ CABLING STRUCTURE • TELECOMMUNICATIONS PATHWAYS AND SPACES • ADMINISTRATION • RESIDENTIAL CABLING TELECOMMUNICATIONS • FRODUCT TESTING • (AND BONDING • INDUSTRIAL ETHERNET APPLICATIONS • WORK AREA • UTP PERMANENT LINK • CHANNEL FIELD TE

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ANSI/TIA-568-C.1: Backbone Cabling	N8
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# **Introduction: Structured Cabling Standards Evolution**

Industry standards are published design and performance requirements that are approved by industry ballot among cable and component manufacturers. The objective of cabling standards is to promote global inter-connectivity of equipment from diverse manufacturers. Since the release of IEEE 802.3an 10-Gigabit Ethernet (10GbE) standard in 2006, evolution of ANSI/TIA-568 structured cabling standards has achieved a new level of performance, defined as Category 6A, or Augmented Category 6. The Category 6A cabling performance requirements of Addendum ANSI/TIA-EIA-568-B.2-10 were officially ratified in February 2008.

In addition to the release of Category 6A requirements, the ANSI/TIA-568-B series of standards are being superseded by ANSI/TIA-568-C series. The new '568-C series incorporates all previously published addenda, plus a new section of generic cabling guidelines. 568C.0. These new developments are also presented in this section.



As an active contributor to and leader in cabling standards organizations such as TIA and IEEE, Hubbell manufactures products that exceed all applicable standards. Compliance to industry standards is a long-term commitment by Hubbell Premise Wiring.

Global industry standards offer the following advantages:

- Interoperability of connecting hardware.
- Backward compatibility.
- Open systems architecture.
- Ease of migration to new performance levels.
- Multi-vendor choice to the end-user.

Compliance to standards also applies to MISSION CRITICAL® objectives. MISSION CRITICAL® is defined as the delivery of long-term, uninterrupted service at stated performance levels.

This is the philosophy of Hubbell's 25-year MISSION CRITICAL® warranty. For more information about the Hubbell MISSION CRITICAL® training and installer certification, go to:

# www.hubbell-premise.com



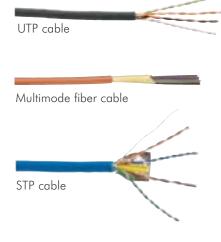
# **Standards**

### ANSI/TIA-568-C

The ANSI/TIA-568-C series of standards is a family of our individual documents. Note: the 568-C series will replace ANSI/TIA-568-B series in 2008.

- ◆ ANSI/TIA-568-C.0: "Generic Telecommunications Cabling for Customer Premises".
- ANSI/TIA-568-C.1: "Commercial Building Telecommunications Cabling Systems Standard".
- ANSI/TIA-568-C.2: "Balanced Twisted Pair Telecommunications Cabling Systems Standard".
- ♦ ANSI/TIA-568-C.3: "Optical Fiber Telecommunications Cabling Systems Standard".

ANSI/TIA-568-C.0 defines the overall premises infrastructure for copper and fiber cabling. Detailed requirements for cabling installation and field-testing are also included. TIA-568-C.1 provides detailed design requirements for horizontal and backbone cabling infrastructure and distribution facilities. TIA-568-C.2 and C.3 establish component level testing and prformance requirements for copper and fiber connecting hardware respectively.



### ANSI/TIA-568-C.0 and C.1: Horizontal Cabling (previously 568-B.1)

The horizontal cabling in a building is a single floor cable distribution from the horizontal cross connect (HC) in the telecommunications room (TR) to the work area (WA) outlet.

### **Recognized Horizontal Cables**

- lack 4-Pair 100 $\Omega$  UTP or Screened Twisted Pair (ScTP), Category 3, 5e, 6, and 6A.
  - Minimum 2-Strand Multimode Fiber Optic Cable.
- 150Ω Shielded Twisted Pair (STP).

# Horizontal Cable Minimum Bend Radius and Pull Force

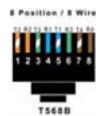
- 4-Pair UTP: 4 times cable diameter.
  - Maximum pull force: 25 lbs.
- Fiber Cable: 10 times cable diameter.
  - See pages N14 and N15 for Pull Forces.

NOTE: See pages N14 and N16 for Installation Practices.

### **Recognized Connectors**

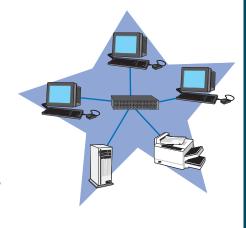
- 8-position modular jack and plug.
  - Pin/pair assignments configured T568A or T568B.
- 568SC and ST-style fiber connectors.
- ◆ SFF fiber connectors: LC and MT-RJ.





### **Horizontal Cabling Topology and Design Notes**

Each outlet connection in the work area has an individual cable run (link) from the TR. This represents a star topology shown in the diagram. This arrangement is most convenient for moves, adds and changes (MAC's). Any horizontal cable link is limited to 90 meters in length. Locate the TR centrally on each floor to equalize cable run lengths. As a rule, use 40% max fill for cable pathways. Allow one work area per 100 sq. ft. of floor space for design purposes.



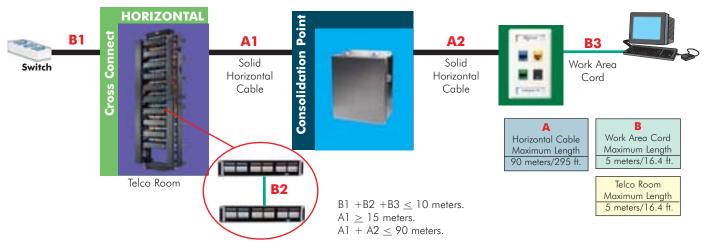
# ANSI/TIA-568-C.0 and C.1: Horizontal Cabling Practices (cont'd)

### **Consolidation Point**

The consolidation point is an optional interconnection node that is allowed in the horizontal cabling between the TR and the work area.

- The consolidation point must be mounted to a permanent building structure in an area free from obstructions or furniture.
- Cross connections are not allowed in the consolidation enclosure.
- Due to the effect of NEXT on multiple connections in close proximity, this standard recommends locating all consolidation points at least 15m (49 ft.) away from the TR.
- Consolidation points and transition points cannot be combined in any single horizontal link.
- Each consolidation point should serve a maximum of 12 work areas, with consideration for future growth.
- ◆ Administration should follow the guidelines of ANSI/TIA-606-B.

### **Consolidation Point Solution**

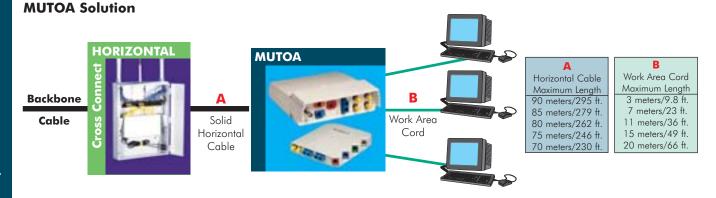


These are maximum channel length configurations - alternate length configuration are allowed, consult the standard.

### The Multi-User Telecommunications Outlet Assembly (MUTOA)

The MUTOA contains multiple telecommunications outlet connectors to service a cluster of individual work areas.

- ◆ A combination of solid conductor 4-pair UTP cables and fiber optic cables may be run from the TR to the MUTOA.
- ◆ The MUTOA is permanently mounted to a building structure that is in close proximity to a cluster of work areas.
- ◆ A MUTOA allows horizontal cabling to remain intact when the open-office layout plan is changed.
- ♦ Work area cables are either fiber patch cords or stranded conductor copper cords with a modular plug on each end.
- Length of all work area cables from the MUTOA must be labeled on both ends. Maximum length is 20 meters for horizontal runs less than 70 meters.
- Each MUTOA should serve a maximum of 12 work areas.
- Administration should follow the guidelines of ANSI/TIA-606-B.



# ANSI/TIA-568-C.0 and C.1: Optical Fiber Supportable Distances

		Maxim	um Suppor	table Distan	ce (m)	Maximum Channel Attenuation (dB)				
	Wave		Multimode				:			
Application	length (nm)	62.5/125	50/125	850 nm Laser Optimized 50/125	Single- mode	62.5/125	50/125	850 mm Laser Optimized 50/125	Single- mode	
10/100BASE-SX	850	300	300	300	NST	4.0	4.0	4.0	NST	
Gigabit Ethernet										
1000BASE-SX	850	220	550	N/A	N/A	3.2	3.9	N/A	N/A	
1000BASE-LX	1300	550	550	N/A	5000	4.0	3.5	N/A	4.7	
10G Ethernet										
10GBASE-S	850	26	82	300	NST	2.6	2.3	2.6	NST	
10GBASE-L	1310	NST	NST	NST	10000	NST	NST	NST	6.0	
10GBASE-E	1550	NST	NST	NST	40000	NST	NST	NST	11.0	
10GBASE-LX4	1300	300	300	300	NST	2.5	2.0	2.0	NST	
10GBASE-LX4	1310	N/A	N/A	N/A	10000	N/A	N/A	N/A	6.6	

#### NOTES:

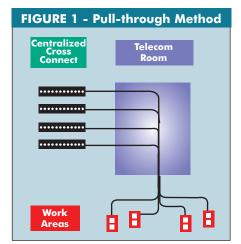
S=Short wavelength; L=Long wavelength; E=Extended wavelength.

NST=Non-standard; N/A=Not applicable.

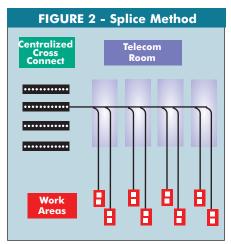
LX4=Multiplex (4) wavelengths.

# ANSI/TIA-568-C.0: Fiber Optic Cabling Guidelines: Centralized Cabling

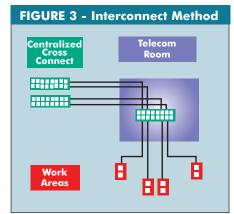
Single tenant users of fiber optic data networks can avoid distributed electronic equipment by using the centralized cabling method. Centralized electronic equipment and cabling reduces cost and complexity, and maximizes transmission performance. Extended distances are permitted using these methods. The interconnect method is most flexible and is the preferred choice.



Max Distance: 90m



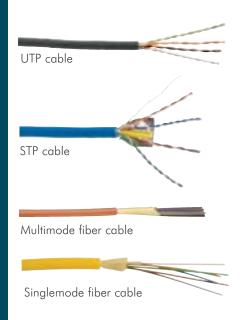
Max Distance: 300m (Includes horizontal + backbone + patch cords)



Max Distance: 300m

# ANSI/TIA-568-C.1: Backbone Cabling

A backbone distribution system is the part of a premises distribution system that provides connection between equipment rooms (ERs), telecommunication rooms (TRs), telecommunication enclosures (TEs), and telecommunication services entrance facilities (EFs).



### **Recognized Backbone Cables**

### **Twisted Pair Copper Cable**

- Data: 100Ω solid conductor 24-AWG UTP or Screened Twisted Pair (ScTP) (Cat 6A, Cat 6 or Cat 5e).
- $lack Voice: 100\Omega$  solid conductor 24-AWG UTP (Cat 3 or Cat 5e).
- Multi-pair cable (25-pair, 50-pair).

### **Multimode Fiber Optic Cable**

- 62.5/125μm fiber.
- 50/125μm fiber.
- 50/125μm fiber (laser optimized).

### Singlemode Fiber Optic Cable

• 9/125μm fiber.

### **Backbone Cable Minimum Bend Radius**

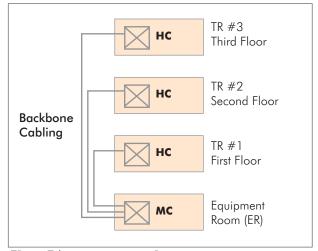
- 4-pair  $100\Omega$  UTP: 4x cable diameter.
- ◆ Multi-pair (25-50 pair): 10X cable diameter.
- ◆ Fiber cable: 15x cable diameter (with load)/10X (no load).
- ◆ OSP fiber cable: 20x cable diameter (with load)/10X (no load).

NOTE: See page N14 through N16 for Pull Forces, Minimum Bend Radius, and Installation Practices.

# **Backbone Cabling Topology and Design Notes**



For the simplest design, the HC on each floor receives a home run backbone cable from the MC in the ER. This represents a star topology. Multiple buildings in a campus form a Hierarchical star topology from the central MC facility. Codes require non-fire rated OSP backbone cable to extend no longer than 50 ft into the building without conduit. Firestopping is required for wall or floor penetrations of backbone sleeves or slots. Properly support vertical cables, and do not exceed manufacturer's vertical rise limits. Consider diverse and redundant cable paths for disaster recovery. If possible, vertically align TR's on multiple floors to simplify the backbone pathways.



TR: Telecommunications Room
HC: Horizontal Cross Connect
MC: Main Cross Connect

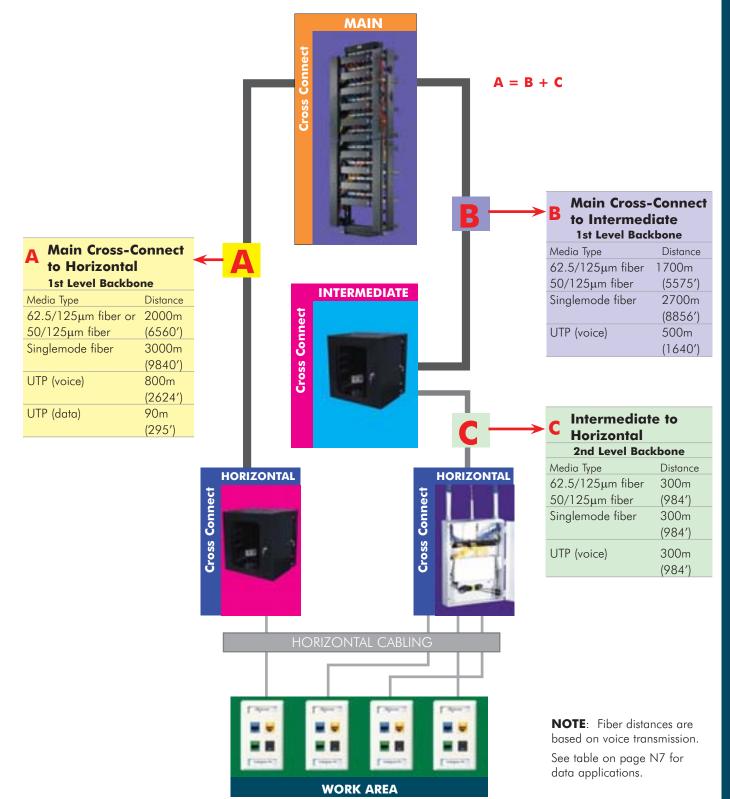


# ANSI/TIA-568-C.1: Backbone and Horizontal Cabling Structure

A backbone cabling structure shall have no more than two levels of cross-connections. A two-level backbone and the relationship with horizontal cabling is shown below.

### **Application Notes**

- Backbone distances are application dependent. Maximum distances for UTP are based on voice transmission. A 90-meter maximum distance applies to UTP data transmission at a bandwidth of 5-16 MHz for Category 3, 20-100 MHz for Category 5e, and 1-250 MHz for Category 6.
- ◆ For UTP voice applications and fiber, the backbone distances of segment "B" may be increased if "C" is less than the maximum, but the total B + C must not exceed "A".
- ◆ Refer to "Optical Fiber Supportable Distances" on page N7.



# ANSI/TIA-568-C.1: Work Area

The work area is the terminal end of the structured cabling network. This is the space for interaction of people with computers, phones, data terminals, and other devices on a local area network (LAN).

- A minimum of two telecommunications outlet connectors are required at each work area:
  - First Outlet (mandatory): 4-pair  $100\Omega$  UTP or ScTP cable and connector (Category 5e min. recommended).
  - Second Outlet:
    - $\blacktriangle$  4-pair 100 $\Omega$  UTP cable and connector (min. Category 5e, Category 6 is recommended).
    - 2-fiber 62.5/125μm or 50/125μm optical fiber cable and connectors: SC, ST-style, or SFF recommended.
- One horizontal transition point or consolidation point is permitted.
- Bridges, taps, or splices are not allowed in copper wiring.
- ◆ Additional outlets are allowed. Double gang box is best for service loop storage.
- Equipment cords must have the same performance rating as the patch cords.
- ♦ Maximum length for work area cords is 5 meters.
- Splitters are not allowed in optical fibers.
- Separation from electrical wiring and pathways shall be according to ANSI/TIA-569-B.
- Work area telecommunications outlet boxes should be located near an electrical outlet (within 3 feet) and installed at the same height, if appropriate.
- For cable count and pathway capacity, use 1 work area per 100 ft.<sup>2</sup> of floor space as a general rule. Always factor in future growth for all pathways.

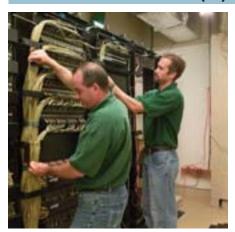








### **Telecommunications Room (TR)**



The Telecommunications Room (TR) is an enclosed space for management and termination of backbone and horizontal cross connections. The TR typically provides the horizontal cabling to all of the work areas on a single floor of a building. The TR is centrally located, and isolated from EMI (electromagnetic interference), with proper grounding and lighting. The TR may also contain other active equipment, power, or security devices. Backbone cabling feeds each TR in a building from the main cross-connect (MC) in the Equipment Room (ER).

### Basic Requirements:

- Minimum (1) TR per floor.
- No carpet or suspended ceilings.
- Minimum (2) walls covered with 3/4" A/C plywood.
- Dedicated, unswitched electrical power.
- (1) TR serves up to 10,000 sq. ft. of floor space.
- Temperature and humidity control.

# **Equipment Room (ER)**



The Equipment Room (ER) is a centralized space for housing the core electronic equipment, such as computer servers, routers, hubs, etc. The backbone cabling originates from the ER, which serves the entire building or campus. The ER may function as a TR, and also may contain an entrance facility. Stringent electrical and environmental requirements apply to the design of an ER to provide a suitable operating environment for active network equipment. ERs should be supplied with non-switched, conditioned power with back-up. ERs should not be located near mechanical rooms, electrical distribution panels, or wet/dirty areas.

### Basic Requirements:

- Minimum (1) ER per building.
- No carpet, suspended ceiling permitted.
- Dedicated, unswitched electrical power back-up and surge protection.
- (1) ER serves up to 20,000 sq. ft. of floor space.
- Temperature and humidity control.
- Double doors for entrance.

### **Entrance Facility (EF)**



The Entrance Facility (EF) is located where the access provider and inter-building network cables enter the building. Outside plant cables, typically from underground, are terminated inside the entrance facility. This location is known as the demarcation point – the transition from access provider to customer-owned cable. A combination of electrical, fire, building, municipal, and FCC codes apply to the EF. The EF may share other functions, including fire and security alarms, CCTV, CATV, PBX, etc.

### Basic Requirements:

- Dry environment.
- Proper backboarding for equipment.
- Secure location.
- Access to building electrical service ground.
- Circuit protection.

# **ANSI/TIA-568-C.2: Balanced Twisted Pair Cabling Components**

This standard specifies electrical performance requirements for installed UTP cable and connecting hardware for each recognized category. Augmented Category 6 with extended frequency and additional parameters (ANEXT) is included. Performance categories, bandwidth, and field test parameters are listed in the table below. Refer to the glossary for explanation of test parameters.

Table 1: Categories of Transmission Performance and Field Test Parameters

	Insertion			Wire	Delay		Return				
Category	Loss	NEXT	Length	Мар	Skew	ELFEXT	Loss	PSACR	<b>PSELFEXT</b>	PSNEXT	ANEXT
Cat 3 (16 MHz)	1	1	✓	✓							
Cat 5e (100 MHz)	1	1	✓	✓	1	✓	1	✓	✓	1	
Cat 6 (250 MHz)	1	1	✓	✓	1	1	1	✓	✓	1	
Cat 6A (500 MHz)	✓	1	✓	1	1	1	1	✓	✓	1	✓

# ANSI/TIA-568-C.2: Balanced Twisted Pair Cabling and Components

The tables below incorporate enhanced performance requirements for UTP cables and connecting hardware: Category 3, 5e, 6, and 6A. All Hubbell products exceed these minimum requirements.

	Insertion	Loss			Return L	oss		NEXT Loss				
Frequency	Cat 5e	Cat 6	Cat 6A	Frequency	Cat 5e	Cat 6	Cat 6A	Frequency	Cat 5e	Cat 6	Cat 6A	
(MHz)	(dB)	(dB)	(dB)	(MHz)	(dB)	(dB)	(dB)	(MHz)	(dB)	(dB)	(dB)	
1.0	2.1	1.9	1.9	1.0	19.0	19.1	19.1	1.0	60.0	65.0	65.0	
4.0	3.9	3.5	3.5	4.0	19.0	21.0	21.0	4.0	54.8	64.1	64.1	
8.0	5.5	5.0	5.0	8.0	19.0	21.0	21.0	8.0	50.0	59.4	59.4	
10.0	6.2	5.5	5.5	10.0	19.0	21.0	21.0	10.0	48.5	57.8	57.8	
16.0	7.9	7.0	7.0	16.0	19.0	20.0	20.0	16.0	45.2	54.6	54.6	
20.0	8.9	7.9	7.8	20.0	19.0	19.5	19.5	20.0	43.7	53.1	53.1	
25.0	10.0	8.9	8.8	25.0	18.0	19.0	19.0	25.0	42.1	51.5	51.5	
31.25	11.2	10.0	9.8	31.25	17.1	18.5	18.5	31.25	40.5	50.0	50.0	
62.5	16.2	14.4	14.1	62.5	14.1	16.0	16.0	62.5	35.7	45.1	45.1	
100.0	21.0	18.6	18.0	100.0	12.0	14.0	14.0	100.0	32.3	41.8	41.8	
200.0	-	27.4	26.1	200.0	-	11.0	11.0	200.0	-	36.9	36.9	
250.0	-	31.1	29.5	250.0	-	10.0	10.0	250.0	-	35.3	35.3	
300.0	-	-	32.7	300.0	-	-	9.2	300.0	-	-	34.0	
400.0	-	-	38.5	400.0	-	-	8.0	400.0	-	-	29.9	
500.0	-	-	43.8	500.0	-	-	8.0	500.0	-	-	26.7	

Channel	Performar	ıce									
	Insertion L	.oss			Return Lo		NEXT Loss				
Frequency	Cat 5e	Cat 6	Cat 6A	Frequency	Cat 5e	Cat 6	Cat 6A	Frequency	Cat 5e	Cat 6	Cat 6A
(MHz)	(dB)	(dB)	(dB)	(MHz)	(dB)	(dB)	(dB)	(MHz)	(dB)	(dB)	(dB)
1.0	2.2	2.1	2.3	1.0	17.0	19.0	19.0	1.0	60.0	65.0	65.0
4.0	4.5	4.0	4.2	4.0	17.0	19.0	19.0	4.0	53.5	63.0	63.0
8.0	6.3	5.7	5.8	8.0	17.0	19.0	19.0	8.0	48.6	58.2	58.2
10.0	7.1	6.3	6.5	10.0	17.0	19.0	19.0	10.0	47.0	56.6	56.6
16.0	9.1	8.0	8.2	16.0	17.0	18.0	18.0	16.0	43.6	53.2	53.2
20.0	10.2	9.0	9.2	20.0	17.0	17.5	17.5	20.0	42.0	51.6	51.6
25.0	11.4	10.1	10.2	25.0	16.0	17.0	17.0	25.0	40.3	50.0	50.0
31.25	12.9	11.4	11.5	31.25	15.1	16.5	16.5	31.25	38.7	48.4	48.4
62.5	18.6	16.5	16.4	62.5	12.1	14.0	14.0	62.5	33.6	43.4	43.4
100.0	24.0	21.3	20.9	100.0	10.0	12.0	12.0	100.0	30.1	39.9	39.9
200.0	-	31.5	30.1	200.0	-	9.0	9.0	200.0	-	34.8	34.8
250.0	-	35.9	33.9	250.0	-	8.0	8.0	250.0	-	33.1	33.1
300.0	-	-	37.4	300.0	-	-	7.2	300.0	-	-	31.7
400.0	-	-	43.7	400.0	-	-	6.0	400.0	-	-	28.7
500.0	-	-	49.3	500.0	-	-	6.0	500.0	-	-	26.1

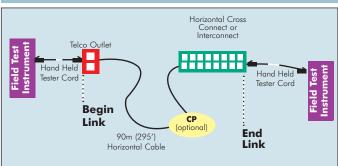
	Return Loss				NEXT Loss - Category 6					NEXT Loss - Category 6A				
Frequency	Cat 5e	Cat 6	Cat 6A	Frequency	(	Cord Limit (d	B)	Frequency	C	ord Limit (	dB)			
(MHz)	(dB)	(dB)	(dB)	(MHz)	2m	5m	10m	(MHz)	1 m	2m	5m	10m		
1.0	25.0	25.0	20.0	1.0	65.0	65.0	65.0	1.0	65.0	65.0	65.0	65.0		
4.0	25.0	25.0	23.0	4.0	65.0	65.0	65.0	4.0	65.0	65.0	65.0	65.0		
8.0	25.0	25.0	24.5	8.0	65.0	65.0	64.8	8.0	65.0	65.0	65.0	64.8		
10.0	25.0	25.0	25.0	10.0	65.0	64.5	62.9	10.0	65.0	65.0	64.5	62.9		
16.0	25.0	25.0	25.0	16.0	62.0	60.5	59.0	16.0	62.6	62.0	60.5	59.1		
20.0	24.0	25.0	25.0	20.0	60.1	58.6	57.2	20.0	60.7	60.1	58.6	57.2		
31.25	23.1	23.1	23.3	25.0	58.1	56.8	55.4	25.0	58.8	58.2	56.8	55.4		
62.5	20.1	20.1	20.7	31.25	56.2	54.9	53.6	31.25	56.9	56.3	54.9	53.6		
100.0	18.0	18.0	19.0	62.5	50.4	49.2	48.1	62.5	51.0	50.4	49.2	48.1		
200.0	-	15.0	16.4	100.0	46.4	45.3 43.5	44.4	100.0	47.0	46.4	45.4	44.5		
250.0	-	14.0	15.6	150	43.0	42.1	41.4	200	41.1	40.7	39.9	39.3		
300.0	-	-	14.9	175	41.8	40.9	40.2	250	39.3	38.9	38.1	37.7		
400.0	-	-	13.8	200	40.6	39.8	39.3	300	36.4	36.2	35.9	35.8		
500.0	-	-	13.0	225	39.7	38.9	38.4	400	31.8	31.9	32.1	32.5		
				250	38.8	38.1	37.6	500	28.2	28.4	29.0	29.8		



**Patch Cord Performance** 

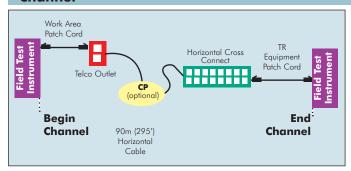
# ANSI/TIA-568-C.2: UTP Permanent Link and Channel Field Testing

### **Permanent Link**



The permanent link test configuration includes a length of horizontal cable and one connector attached to each end (see diagram). One optional consolidation point connection is also permitted. The permanent link runs from the cross-connect panel in the TR to the work station outlet. The permanent link overall length must not exceed 90m (295 ft.).

### **Channel**



The channel test configuration includes a length of horizontal cable up to 90 meters, a work area cord, and two patch cord cross connections (see diagram). One optional consolidation point connection is also permitted in the channel. The channel overall length must not exceed 100m (328 ft.).

# **Hubbell Approved Field Testers for UTP and Optical Fiber Cabling**

The Hubbell MISSION CRITICAL® warranty program recognizes the field testers and associated test adapters below. These testers function in a bidirectional mode, with automatic data acquisition and storage. All MISSION CRITICAL® test parameters are measured and recorded with these testers, for copper or fiber cabling.

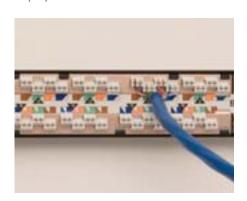
	Field Tester Model		Permanent Link Adapter	Channel Adapter	110 Block T568A Wiring	110 Block T568B Wiring	Cat 6A AXT Test Kit
	Fluke DTX Series 1800 and 1200	Cat 5e/ Cat 6	DTX-PLA001 w/DSP-PM06	DTX-CHA001	DTX-PLA001 w/DSP-PM13A	DTX-PLA001 w/DSP-PM13B	PLA002
		Cat 6A	DTX-PLA0025	DTXCHAOO1AS	N/A	N/A	DTX-10GKIT
	Fluke DSP Series 4000, 4100 and 4300	Cat 5e/ Cat 6A	DSP-LIA101S w/DSP-PM06	DSP-LIA012S	DSP-PM13A	DSP-PM13B	
		Cat 6A	N/A	N/A	N/A	N/A	N/A
	Fluke OMNIScanner and OMNIScanner 2	Cat 5e/ Cat 6	OMNI-LIA101S w/DSP-PM06	8262-42	OMNI-LIA101S w/DSP-PM13A	OMNI-LIA101S w/DSP-PM13B	
		Cat 6A	N/A	N/A	N/A	N/A	N/A
黃	Agilent Wirescope 350 and FrameScope 350		N2604A-101	N2604A-100	N2604A-065	N2604A-066	
	Wirescope Pro	Cat 6A	N2644A-101	N2644A-100	N/A	N/A	N2648A-100
	Ideal Lantek 6 and Lantek 7	Cat 5e/ Cat 6	HPW PCX6Patch Cord	0012-00-0629	1019-00-1112 (Kit)	1019-00-1112 (Kit)	
	Lantek 6A-7G	Cat 6A	HPW PS6 Series atch Cord	Supplied in unit	N/A	N/A	LANTEK 10GBKIT

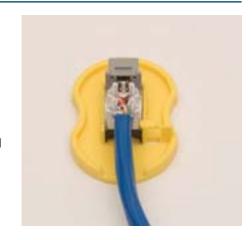
# **Recommended UTP Installation Practices**

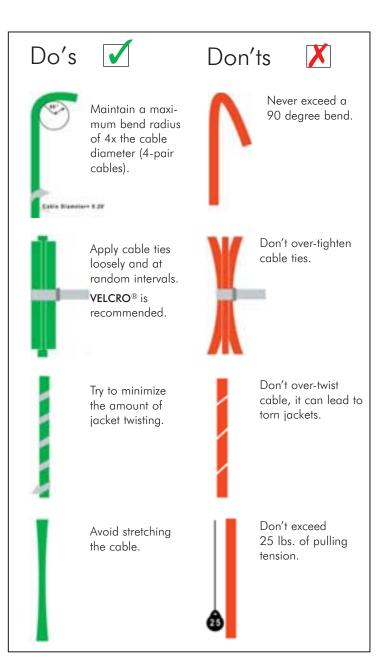
- Use the proper strip tool for the cable jacket. Don't cut into the conductor pairs.
- For best results, use the zip cord and peel away the cable jacket.
- Position the stripped cable jacket as close as possible to the termination point to minimize exposure of the twisted pairs.
- ◆ Maintain the natural twist of all conductor pairs as close as possible to the termination point. For Category 5e and 6 wiring, the maximum length of untwisted pairs is 0.5″. Minimum untwisting optimizes Return Loss performance.
- Never uncoil UTP cable from a stationary spool. Permanent kinks will result from straightening, and NEXT failures may occur. Unwind the cable by rotating the spool with steady speed and tension. Also avoid scraping and kinking when feeding into conduit or raceway.
- Store cable slack for wall outlets above the ceiling for future re-termination.
- Use proper supports and spacing to minimize sag in horizontal runs. Long runs should use cable trays. Do not overload cable supports and trays.
- Don't exceed 40% cable fill ratio in any pathway.
- Avoid EMI by maximizing the separation distance from high voltage circuits, transformers, motors, etc. For shared pathways, use partitioned raceway with 2" minimum separation from power wiring.
- Do not run UTP cables over heater ducts or hot water ducts. High temperatures will degrade performance and deteriorate the cable jacket.
- Centralize TR's to equalize the horizontal cable runs on each floor. Maximum horizontal distance is 90 meters. Very short horizontal runs can increase NEXT.
- Never use staples to position cables.
- Use good cable management practices to maintain proper bend radius.
- For Category 6 cabling, store service loops in a figure "8" pattern to minimize cross-talk and EMI noise pick-up.
- All grounding and bonding shall be according to J-STD-607-A.

### **Category 6A Installation Practices**

- Refer to Hubbell 10GbE Cabling Guidelines.
- NOTE: Larger cable diameters will have an impact on design, pathway fill capacity, and cable deployment.







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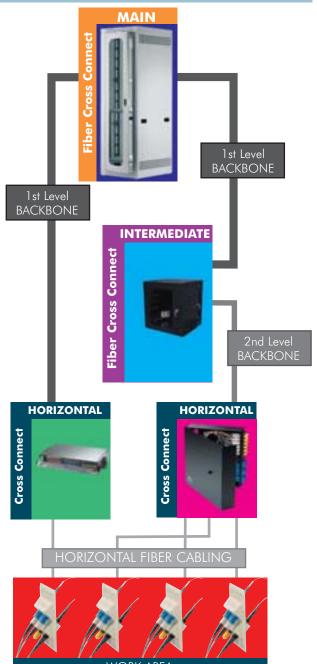


# ANSI/TIA-568-C.0 and C.3: Optical Fiber Cabling and Components

# Optical Fiber Cable Transmission Performance Parameters

Optical fiber	Wavelength	Max. Attenuation	Bandwidth
cable type	(nm)	(dB/km)	(MHz-Km)
50/125μm	850	3.5	500
Multimode	1300	1.5	500
50/125μm	850	3.5	2000
Laser Optimized	1300	1.5	500
62.5/125μm	850	3.5	160
Multimode	1300	1.5	500
Singlemode	1310	1	N/A
Inside Plant	1550	1	N/A
Singlemode	1310	0.5	N/A
Outside Plant	1550	0.5	N/A

# Backbone and Horizontal Fiber Cabling Structure



This standard incorporates optical, mechanical, and environmental performance requirements for installed fiber optic cables and connectors.

- The optical fiber cable construction shall consist of 50/125μm, 62.5/125μm multimode fibers, or 9/125μm singlemode optical fibers.
- Installed optical fiber cabling and connection hardware shall meet the requirements of ANSI/TIA-568-C.3, and applicable sections of ANSI/TIA-568-C.1.

# Performance Specifications for Multimode and Singlemode Fiber Optic Connectors

- Maximum insertion loss is 0.75dB for mated pair connectors of all types. Maximum splice loss is 0.3dB.
- Maximum return loss is 20dB for multimode and 26dB for singlemode fiber.
- All fiber links are tested individually.

# Minimum Bend Radius and Maximum Pulling Tension

- 2 and 4 fiber cables for horizontal cabling shall not exceed a minimum of 25mm (1") bend radius with no applied load.
- 2 and 4 fiber cables for horizontal cabling shall not exceed a minimum of 50mm (2") bend radius with a maximum applied load of 222N (50Lbf).
- ◆ All other indoor fiber cables shall not exceed a minimum bend radius of 10 times the cable outside diameter (O.D.) with no applied load, and 15 times the cable O.D. with the rated load applied.
- Outside plant fiber cables shall not exceed a minimum bend radius of 10 times the cable O.D. with no applied load, and 20 times the cable O.D. with the rated load applied.
- Outside plant cables shall have a minimum pull strength of 2670N (600Lbf).
- Drop cables shall have a minimum pull strength of 1335N (300 Lbf)
- Workstation (patch cord) cables shall have a minimum pull strength of 50N (11Lbf).

### **568SC Standard Fiber Connector**

- Most widely recognized connector for multimode and singlemode applications.
- ♦ Each channel in a duplex SC interconnect are referred to as Position 'A' and Position 'B'.
- A 62.5/125 multimode SC connector housing or adapter shall be beige.
- A 50/125 multimode SC connector housing or adapter shall all be aqua.
- ♦ A singlemode SC connector or adapter shall be blue.

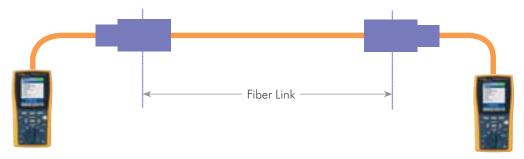
### **Small Form Factor Connectors (SFF)**

- Approved for use in main cross connects, horizontal and backbone cabling, consolidation points, and the work area. Use for high-density applications.
- SFF connector type 'LC' is recommended most.

# ANSI/TIA-568-C.0 and C.3: Optical Fiber Cabling and Components

### **Fiber Link Testing**

An optical fiber link test configuration includes a length of passive horizontal or backbone cable with a connector attached to each end. Consolidation point connections are permitted within the system loss budget. Each individual link segment in a fiber backbone or horizontal run must be tested. The total link insertion loss is the sum of the individual link segment losses.



NOTE: Advanced testers will measure insertion loss in both directions at multiple wavelengths through (2) channels.

# **Recommended Optical Fiber Installation Practices**

#### Cable Runs

- Use inner duct through conduit and sleeves to protect cables from abrasion.
- Conduit fill rules apply: 40% maximum fill and no more than (2) 90° bends in a single run.
   A 50% conduit fill is permitted for a single cable.
- Maintain proper bend radius in all locations. Use a bend radius drum for strain relief and support.
- Vertical cables must be supported by the internal strength member.
- ♦ Do not use clamps or staples to support cables.
- Use the proper pulling method, and do not exceed the cable tensile load rating.
   Consult the cable manufacturer.

### **Stripping and Cable Prep**

- Use the proper cable strip tools to avoid damage to fibers.
- Use the ripcord to remove cable jacket.
- ◆ Never use a utility knife for scoring the cable or sheath.
- Establish all break-out locations before connectorization.

#### **Connectorization**

- Use recognized methods, such as epoxy, anaerobic, crimp, or pre-polish type.
- Terminate and test in small batches.
- Relieve all cable weight from the installed connectors.
- Always clean and inspect connector end face before mating into the adapter.
- Check several channels with an OTDR to verify cable installation is free of micro-bends.

### **Service Loops**

- Leave several large coils of main run cable at each end of the run.
- ◆ Leave approximately 2-3 meters of buffered fiber coiled in fiber enclosures.
- ◆ Leave 1 meter of buffered fiber coiled behind wall outlets.







# ANSI/TIA-568-C.2: Category 6A UTP Cabling

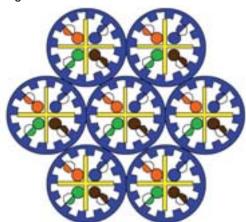
Augmented Category 6, or Category 6A unshielded twisted pair (UTP) cable is designed to support 10GBASE-T (10 Gigabit Ethernet) transmission in accordance with IEEE802.3an requirements. IEEE802.3an was officially ratified in June 2006. The 568B.2-10 standard for Category 6A was officially ratified in February 2008.

- Category 6A permanent link and channel performance are defined to 500 MHz.
- Alien Cross Talk (AXT) parameters are defined to 500 MHz.
- AXT is a measure of signal coupling from energized pairs in a disturber cable or component into disturbed pairs within surrounding cables or components.
- Category 6A AXT parameters are summarized below (see Glossary also):
  - ANEXT (Alien Near End Crosstalk).
  - PSANEXT (Power Sum Alien Near-End Crosstalk).
  - AACRF (Attenuation to Alien Crosstalk Ratio, Far End). NOTE: Previously referred to as AFEXT.
  - PSAACRF (Power Sum Attenuation to Alien Crosstalk ratio, Far-End). NOTE: Previously referred to as PSAFEXT.

To mitigate the effects of AXT, the cable design shall meet the "worst case" 6-around-1 AXT requirements as shown below. Larger wire size, tighter twisting and thicker cable jacket are key design parameters. As a result, the cable diameter is larger, and will have an impact on installation practices. Refer to Hubbell's "10 GbE Cabling Guidelines for more details.

- ♦ Field-testing of AXT in installed links or channels is optional per 568B-2-10.
- ◆ AXT field testing equipment is identified in the table on page N13.
- ◆ Link and channel components must also be designed to mitigate AXT.

### "Worst Case" 6 around 1 AXT Test Configuration.



# TIA/TSB-155: Field AXT Mitigation for Installed Category 6 Cabling

Telecommunications Systems Bulletin TSB-155, released in March 2007, was developed to qualify installed Category 6 cabling for operation at 500 MHz to support 10GbE transmission. Category 6 cabling used for 10GbE applications is restricted to the performance level of the cable and the AXT environment.

- Defines field AXT test parameters for installed Category 6 cabling links.
- Establishes length restrictions for installed Category 6 cabling.
- Standard Category 6 cabling: 37 meters maximum (no testing).
- Standard Category 6 cabling: 37 to 55 meters maximum (AXT testing recommended, mitigation not likely).
- ◆ Enhanced Category 6 cabling: > 55 meters (Mitigation and AXT testing highly recommended, , mitigation expected).
- ◆ NOTE: The primary limitation with 10GbE operation is ANEXT. Individual Cat 6 links with no EMI should be able to support 10GbE up to 100m. Multiple links in parallel become a concern with ANEXT.

The mitigation procedure suggested by TSB-155 is outlined below. Each mitigation step requires field AXT testing to 500 MHz for verification.

- Unbundle cables and patch cords.
- Substitute ScTP patch cords and equipment cords.
- Substitute Category 6A jacks.
- Substitute Category 6A panels.

# ANSI/TIA-569-B: Telecommunications Pathways and Spaces

The applications below are supported by this standard. The 569B standard incorporates all previous addenda to the 569A version.

### 569B: Surface (Perimeter) Raceway Systems

- May contain work area outlets at desired locations.
- Include the base channel, cover, fittings and outlet accessories.
- May be either single channel or multi-channel with dividers.
- Are designed to maintain 25mm (1 in.) minimum cable bend radius.
- Can be installed as baseboard, chair rail, or ceiling runs with vertical feeders.
- Support single or multiple room distribution.
- Should be sized at 40% max cable fill to accommodate future expansion.

NOTE: Metallic raceway systems shall be properly bonded to ground per J-STD-607-A. Never combine power and data cabling within a single raceway channel.

# 569B: Furniture Pathways and Spaces Separation requirements apply for power and data cabling.

◆ Furniture pathways shall have a minimum cross section area of 9.5 cm² (1.5 in²).

 This specification is based on a work area cluster serving four persons with three outlet connections each.

NOTE: The usable cross sectional area may be reduced by bend radius limits of the installed cables.



### 569B: Access Floor Pathways and Spaces

- Standard access floors shall have a minimum of 150mm (6in.) finished floor height.
- ◆ A floor height of 200mm (8in.) is the recommended clearance for cable trays.
- The free space above any cable tray or raceway under an access floor must allow for easy removal of covers.
- Connecting hardware is prohibited below the access floor, however a consolidation point is permitted as an exception.
- ◆ Locate penetration points and floor outlets away from office traffic.
- All standards apply for separation of power and data cables.

### 569B: Poke-Thru Fittings

- ◆ A poke-thru device is used for penetration of building cabling through above-grade structural floors. Typically available in flush or raised configurations.
- ◆ Maintain fire rating of the floor after installation.
- Provide power and/or data service ports in limited capacity.

NOTE: Contact a Structural Engineer before penetrating load-bearing floors



### 569B: In-Floor Systems

- Typically specifies embedded ducting in concrete or cellular floor configurations.
- Design of these systems applies to new building constructions.

### 569B: Multi-Tenant Pathways and Spaces

- Specifies common equipment and telecommunications rooms.
- Also includes provisions for shared access and service provider spaces.

# 569B: Cable Trays and Wireways

Describes various pre-fabricated structures for supporting and routing cables.





# ANSI/TIA-570-B: Residential Telecommunications Cabling Standard

This standard specifies cabling infrastructure for distribution of telecommunications services in single or multi-tenant dwellings. Residential cabling begins at the interface with the Access Provider, known as the Demarcation Point. The in-house cable distribution follows a star topology. Cabling for audio, security, and home controls have been added to this standard in the addenda listed below.

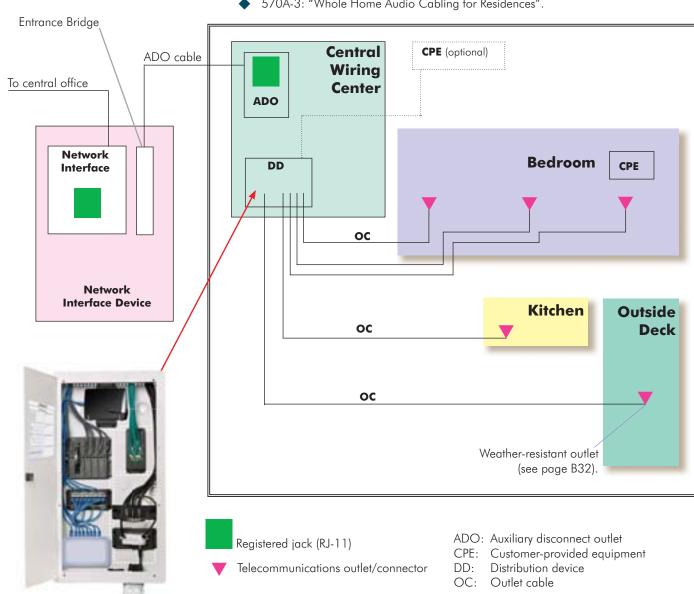


There are two grades of Residential Cabling:

- Grade 1: Minimum Requirement.
  - One 4-pair UTP Category 3 minimum cable and connecting hardware.
  - $\bullet$  One  $75\Omega$  series 6 coaxial cable and connecting hardware.
- Grade 2: Advanced Multimedia (Recommended).
  - Two 4-pair UTP Category 5e minimum cable and connecting hardware.
  - Two  $75\Omega$  coaxial cables and connecting hardware.
  - One pair of cabled multimode optical fibers (optional).

### ANSI/TIA-570-A Addenda

- 570A-1: "Security Cabling for Residences".
- 570A-2: "Control Cabling for Residences".
- 570A-3: "Whole Home Audio Cabling for Residences".



# ANSI/TIA-606-B: Administration Standard for Commercial Telecommunications Infrastructure

This standard establishes basic guidelines for identification, labeling, and record keeping. These practices are essential for continued operation and maintenance of a cabled network. The advantages of identifying and documenting all elements of the cabling infrastructure are:

- Improved traceability of the network connections, paths, and locations.
- Moves, adds and changes (MAC's) are easily implemented.
- Maintenance and troubleshooting is simplified.

# Key Elements of the Network that Require Identifier Labels and Records:

- Connecting hardware and splices.
- Cables.
- Telecommunications pathways (conduit, firestops, etc.).
- ◆ Telecommunications spaces (EF, ER, TR, WA).
- Grounding and bonding locations (TMGB, TGB, TBB).
- Equipment.
- Building.
- Outside plant (OSP) cables and pathways.

# **Four Classes of System Administration:**

- Class 1: Single Building, 1 TR.
- ◆ Class 2: Single Building, multiple TR's.
- Class 3: Campus with OSP.
- Class 4: Multi-Campus/Multi OSP.

# **Requirements for Identifiers**

- ◆ Identifiers should have a logical alphanumeric code.
- The code number should link to detailed permanent records.
- Standard 606-B color codes should be used for all crossconnect fields.

### **Requirements for Records**

- Drawings and documents must be backed-up and secured by the building administration.
- Moves, add's and changes (MAC's) must be documented with a change order.
- MAC's must be updated in the permanent records.
- All identifier information must be cross-referenced in the permanent records.

# **Requirements for Labels**

- ◆ All labels must use a traceable, permanent identifier.
- Each cable and pathway must be labeled on both ends.
- All labels shall meet UL969 legibility, defacement and adhesion requirements.
- Station connections may be labeled on the face plate.
- All jack, connector and block hardware can be labeled on the outlet or panel.

# **606-B Color Coding**

Demarcation point (Pantone 150C) - Central Office

Network connections on customer's side (Pantone 353C)

Common equipment (Pantone 246C) - PVBX, LANs

White 1st level backbone - Main to Intermediate

Gray 2nd level backbone (Pantone 422C) - Intermediate to Telecom

Horizontal cabling (closet end only) (Pantone 291C) - Work Area

Inter-building backbone (Pantone 465C)- Campus Environment

Auxiliary circuits (Pantone 101C) - Alarm, Security, etc.

Key telephone systems (Pantone 184C)



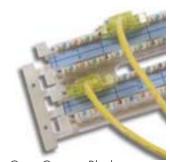
Patch Cords



Patch Panels



Fiber Panels



Cross Connect Blocks

# J-STD-607-A: Commercial Building Grounding and Bonding Requirements for Telecommunications



TGB #3

TGB #2

TGB #1

**TMGB** 

**TBB** 

GEC

**BCT** 

3rd Floor

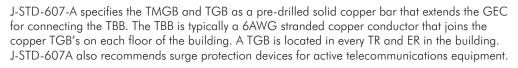
2nd Floor

1st Floor

This standard specifies grounding and bonding design and distribution methods for commercial buildings. Proper earth grounding of the building structure and wiring is a requirement of the National Electric Code (NEC). Bonding all electrical and telecommunications equipment to the primary grounding electrode conductor (GEC) is essential for maximizing performance and safety. \*Bonding to water pipes is now a code violation.

Bonding telecommunications equipment, facilities, and cabling to the primary grounding electrode is accomplished using the following major elements:

- Grounding Electrode Conductor (GEC).
- Bonding Conductor (BC).
- Telecommunications Main Grounding Busbar (TMGB).
- Telecommunications Bonding Backbone (TBB).
- Telecommunications Grounding Busbar (TGB).



- \* The GEC is the largest grounding conductor and extends into the earth to a specified depth.
- ◆ The TBB should be continuous with no splices.
- Connections to the TBB must use listed compression fittings.

# ANSI/TIA-862: Building Automation Systems Cabling Standard for Commercial Buildings

This standard establishes guidelines for structured cabling of low-voltage building automation systems (BAS). BAS wiring and control systems are converging with telecommunications infrastructures. NEC allows power-limited BAS systems to share the pathways and spaces with telecommunications infrastructure. LAN cabling is therefore not limited to voice and data transmission, and BAS applications present a new opportunity. Converging BAS with telecommunications are driving new industry standards. Designers must consider BAS cabling when sizing pathways and spaces in a building.

### The key advantages of converging BAS and Telecom cabling are:

- Project responsibility is reduced to a single team.
- ◆ The building design and system administration is simplified.
- Consolidation of service, equipment, and cabling facilities is achieved.
- Common pathways and bonding points create a centralized infrastructure.
- Cabling installation and practices of ANSI/TIA-568-C can be utilized.

# **Basic Cabling Requirements for BAS:**

- ♦ The horizontal cabling, installation, and BAS outlet connector shall meet ANSI/TIA-568-C.1.
- A distributed or centralized star topology should be used.
- Recognized cables for BAS horizontal and backbone:
  - 100 Ohm balanced UTP cable (ANSI/TIA-568-C.2).
  - Multimode or singlemode optical fiber (ANSI/TIA-568-C.3).
- ◆ The BAS outlet may be connected from an HC or an optional CP.
- ◆ Shared pathways of BAS/Telecom cables must be code and capacity compliant.
- For use with balanced UTP cable, the BAS device operating voltage and current are limited per ANSI/TIA-862, Annex 'A'.
- Separation of services is recommended in ANSI/TIA-862, Annex 'B'.
  - Shared cable sheath of BAS and telecommunications wiring is not recommended.

# ANSI/TIA-942: Telecommunications Infrastructure Standards for Data Centers

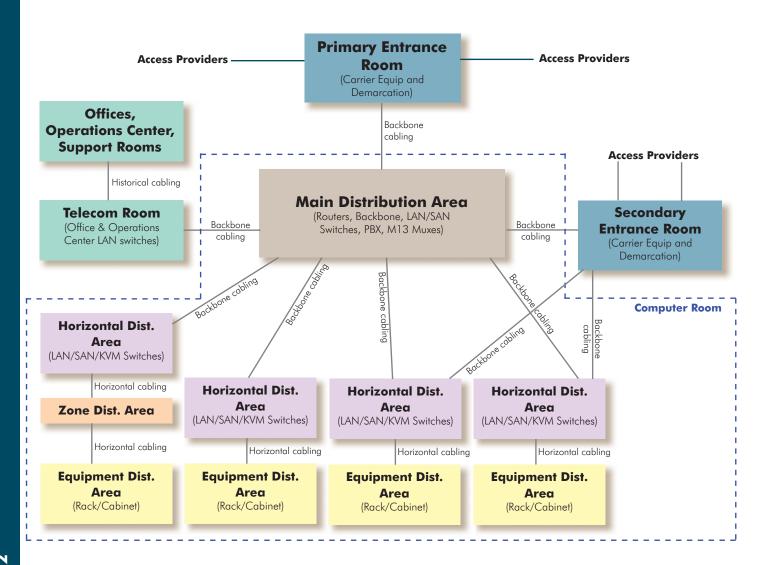
TIA-942 defines a data center as a building or portion of a building dedicated to housing large scale computer rooms and support facilities. Data centers are highly protected facilities that typically serve large private institutions or public service providers. Engineering design considerations for data centers include: architectural layout, space allocation, power, cooling, security, floor loading, telecommunications cabling distribution, and disaster avoidance/recovery.

Data centers have a high level of fault tolerance, with (4) tiers of redundancy for all critical systems and support functions. Higher tiers are inclusive of lower tiers of redundancy, and provide increased levels of protection from service interruptions caused by specific events, such as fire or earthquakes. A Tier 4 facility provides maximum service availability, and is also the most costly construction.

A typical Data Center includes:

- ◆ Entrance Room (ER).
- ◆ Telecommunications Room(s) (TR).
- Main Distribution Area (MDA).
- Horizontal Distribution Areas.
- Equipment Distribution Area (EDA).

A schematic layout of a data center is illustrated below.



# ANSI/TIA-942 Addenda

- ANSI/TIA-942-1: "Data Center Coaxial Cabling Specifications and Application Distances".
- ◆ ANSI/TIA-942-2: "Additional Media and Guidelines for Data Centers".



# ANSI/TIA-1005: Industrial Telecommunication Infrastructure





The official standard is developed by the TIA/TR-4.9 Industrial Telecommunications Infrastructure Subcommittee. This standard defines the requirements for cabling, connectors, pathways, and spaces designed to operate in harsh environments.

For the Industrial Ethernet application, the basic performance and reliability sections of ANSI/TIA-568-C apply. Additional requirements are being defined in TIA-1005 to incorporate

TR-42.9 has established four conditions (MICE) that define the industrial environment:

- Mechanical (shock, vibration, impact, etc.).
- Ingress (contamination influx).
- Climate (temperature, humidity, UV exposure, etc.).
- Electromagnetic (conducted and radiated interference). Industrial Ethernet components are rated to withstand these conditions under specific levels of severity. The level of severity is determined by the application.

Ingress Protection (IP) codes are a two-digit code with the following criteria:

- First Digit: degree of protection from human contact with hazardous elements inside an enclosure, or from influx of foreign matter.
- Second Digit: degree of protection of equipment inside enclosures from the influx of

Example: IP67 (6 = first digit, 7 = second digit)

The higher the number, the higher the degree of protection from human contact and influx of water.

# HARSH-

# **Hubbell Application Rating System for Harsh Environments**

	Application Severe	2 Application Harsh	1 Application Tough
Dust	Enclosures: <b>NEMA 4X</b> Connectors: <b>IP67</b> and <b>IP66</b> Totally protected against dust (Dust-tight)	Enclosures: NEMA 4/12/13 Connectors: IP67 and IP66 Protected against dust, Objects greater than 1 mm	Enclosures: NEMA 3R Connectors: IP43 Objects greater than 1 mm i.e., tools, wires, small wires
Water	Enclosures: <b>NEMA 4X</b> Connectors: <b>IP67</b> and <b>IP66</b> Immersion and strong pressure jets	Enclosures: NEMA 4/12/13 Connectors: IP67 and IP66 Protected against strong and low pressure jets	Enclosures: <b>NEMA 3R</b> Connectors: <b>IP43</b> Protected against sprays of water to 60° from vertical
Corrosion	Enclosures: <b>NEMA 4X</b> Stainless Steel: Dust, water and corrosive liquids Connectors: PBT Common oils, chemicals and cleaning agents	Enclosures: <b>NEMA 4/12/13</b> Ice, dust, water, non-corrosive liquids Connectors: PBT Common oils	Enclosures: <b>NEMA 3R</b> Falling rain, sleet Connectors: N/A
Impact	Enclosures: 14 ga., 304 SS Connector Housing: PBT	Enclosures: 14 ga., steel Connector Housing: PBT	Enclosures: 14 ga., steel Connectors: Thermoplastic
Tamper	Enclosures: Protected, secured and locked	Enclosures: Protected, and optional locked	Enclosures: Protected, but not secured
Temperature	TIA-568-C.2 TIA/TR 42.9 pending	<b>(</b> ) TIA-568-C.2	71A-568-C.2
Vibration	TIA/TR 42.9 10-500Hz 5g Acceleration	TIA/TR 42.9 10-500Hz 2g Acceleration	TIA/TR 42.9 10-500Hz 0.7g Acceleration
Ultra-Violet	Protected	Protected	Not Protected

# **Standard UTP Wiring Conventions**

### **Horizontal UTP Cable and Patch Cords**

- Solid copper 4-pair 24 AWG UTP is specified for distribution cabling. Stranded UTP is specified for patch cords for flexibility. Shielded cable is not commonly used in the U.S. Splices bridge taps are not permitted.
- Cable, connectors and patch cords shall be marked with the performance category.
   Always match performance categories of cables and components throughout the infrastructure.
- All cable, cords and connecting hardware shall meet performance requirements of ANSI/TIA-568-C.2. Hubbell assures this compliance with all products and cable partners.

### **COLOR CODING:**



### **Backbone UTP Cable**

- ◆ Solid copper 4-pair and 25-pair UTP is specified. An overall shield is optional.
- ◆ Performance category markings and compliance to ANSI/TIA-568-C.1 and 568-C.2 is required.
- Circuits with incompatible signals should be partitioned in separate binder groups. Prior to making shared sheath circuit assignments, consult the equipment manufacturer for signal characteristics (i.e., frequency, amplitude, voltage, etc.).
- ♦ Tip conductor insulation colors are matched to the binder group. Ring conductor insulation colors correspond the pair.

# **Recognized Connector and Wiring Configurations**

- ♦ 8-position modular jack/plug.
- 8-position modular panel/plug.
- ◆ T568A wiring or T568B wiring options.
- Cat 5e, Cat 6 or Cat 6A recommended.
- ◆ Type M4 4-pin recognized for industrial automation.







### **RJ-45 ANSI/TIA-568 Wiring Conventions**

Two wiring standards were adopted. Both configurations are based on maximum transmission performance.



### T568A

- 1: Green/White
- 2: Green
- 3: Orange/White
- 4: Blue
- 5: Blue/White
- 6: Orange
- 7: Brown/White
- 8: Brown
- Preferred method.
- Directly compatible with 2-pair voice and Token Ring systems utilizing 6-position connectors.



### T568B

- 1: Orange/White
- 2: Orange
- 3: Green/White
- 4: Blue
- 5: Blue/White
- 6: Green
- 7: Brown/White
- 8: Brown
- Optional method.
- AT&T's standard.
- Directly compatible with AT&T phone systems.



# **Standard UTP Wiring Conventions**

### **USOC Conventions**

Universal Service Ordering Codes (USOC) are a series of Registered Jack (RJ) wiring configurations developed by the Bell System for connection of customer premises equipment to the network. FCC regulations govern these configurations.



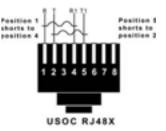














# **Color Coding**

_	
TIP	RING
Pair 1 T1 - White/Blue	Pair 1 R1 - Blue
Pair 2 T2 - White/Orange	Pair 2 R2 - Orange
Pair 3 T3 - White/Green	Pair 3 R3 - Green
Pair 4 T4 - White/Brown	Pair 4 R4 - Brown

### **LAN Wiring Conventions**

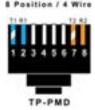
Local Area Network standards designed to operate over UTP specify pin/pair assignments on modular connectors for various signal transmission protocols. While ANSI/TIA-568A and 568B conventions support all these designations, there are some cases where the user chooses to cable only the number of pairs required to support these applications.



- 10 Mbps Ethernet over UTP.
- Uses only two pairs.
- 100 Mbps Ethernet.



- 4/16 Mbps Token Ring over copper.
- Uses only two pairs.



- 100 Mbps FDDI over copper.
- Uses only two pairs.



- 1000 Mbps Ethernet over UTP.
- Uses all four pairs.

# **Standard UTP Wiring Conventions**

# **Block Wiring**

Standard color codes for 25-Pair UTP cable are specified in the chart below.

Wire/Color Code	Tip and Ring	Pair Number	50 Pin Positions	66 or 110 Block Positions
white/blue blue/white	Tip 1 Ring 1	Pair 1	26 1	1 2
white/orange orange/white	Tip 2 Ring 2	Pair 2	27 2	3 4
white/green green/white	Tip 3 Ring 3	Pair 3	28 3	5 6
white/brown brown/white	Tip 4 Ring 4	Pair 4	29 4	7 8
white/slate slate/white	Tip 5 Ring 5	Pair 5	30 5	9 10
red/blue blue/red	Tip 6 Ring 6	Pair 6	31 6	11 12
red/orange orange/red	Tip 7 Ring 7	Pair 7	32 7	13 14
red/green green/red	Tip 8 Ring 8	Pair 8	33 8	15 16
red/brown brown/red	Tip 9 Ring 9	Pair 9	34 9	17 18
red/slate slate/red	Tip 10 Ring 10	Pair 10	35 10	19 20
black/blue blue/black	Tip 11 Ring 11	Pair 11	36 11	21 22
black/orange orange/black	Tip 12 Ring 12	Pair 12	37 12	23 24
black/green green/black	Tip 13 Ring 13	Pair 13	38 13	25 26
black/brown brown/black	Tip 14 Ring 14	Pair 14	39 14	27 28
black/slate slate/black	Tip 15 Ring 15	Pair 15	40 15	29 30
yellow/blue blue/yellow	Tip 16 Ring 16	Pair 16	41 16	31 32
yellow/orange orange/yellow	Tip 17 Ring 17	Pair 17	42 17	33 34
yellow/green green/yellow	Tip 18 Ring 18	Pair 18	43 18	35 36
yellow/brown brown/yellow	Tip 19 Ring 19	Pair 19	44 19	37 38
yellow/slate slate/yellow	Tip 20 Ring 20	Pair 20	45 20	39 40
violet/blue blue/violet	Tip 21 Ring 21	Pair 21	46 21	41 42
violet/orange orange/violet	Tip 22 Ring 22	Pair 22	47 22	43 44
violet/green green/violet	Tip 23 Ring 23	Pair 23	48 23	45 46
violet/brown brown/violet	Tip 24 Ring 24	Pair 24	49 24	47 48
violet/slate slate/violet	Tip 25 Ring 25	Pair 25	50 25	49 50

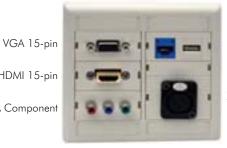
# **Audio Video Cablina**

AV signal-level cabling and connectors are an integral part of structured horizontal cabling. Low voltage AV cabling may share the same pathways and wall outlet boxes with twisted pair or fiber data cabling. However, according to NEC 2005 Article 725.56(F), Class 1 audio power cables are prohibited from sharing the same pathway with any other Class 2 or Class 3 low voltage control wiring or network cables.

### **Common AV Media Interface Connectors**

HDMI 15-pin

RCA Component













# Types of AV Cable Media

- Co-axial: RG6, RG59.
- Fire Wire.
- 15-wire: VGA/HDMI.
- 2-wire audio: 26 to 14 AWG.
- 4-pair balanced UTP or FTP.
- USB.
- ◆ HDMI.



### **Two Basic Forms of Audio Signal**

- Analog Audio: sound waves are modulated into a continuous electrical signal.
- Digital Audio: analog audio signal is encoded into digital bits.

### Two Basic Forms of Video Signal

- Composite Video (low resolution).
  - Three color components delivered by one single cable, no audio content.
  - Max resolution: 480i.
- Component Video (high resolution)
  - Red/Green/Blue (RGB) color components delivered by three separate cables, with audio content.
  - Resolution up to 1080i.

### **AV Cable Distance Limits and Other Considerations**

Total channel distances are limited for specific applications. USB channel lengths should not exceed 5.0 meters. Fire wire channel lengths should not exceed 4.5 meters. Horizontal cabling installations should allow for proper bend radius inside outlet boxes and behind walls.

Shared pathways with other communications or low voltage cabling should be analyzed for any potential signal interference

# **Installation Tips**

- ◆ Don't exceed cable minimum bend radius when installing connectors. Contact cable manufacturer for bend radius specifications.
- Soldering: Use the proper wire and solder temperature. NOTE: A "cold solder" will cause termination failures.
- Screw terminal: Strip wire insulation to proper length. Capture all strands neatly during insertion.

<b>HPW Product Compatibility Chart</b>			Port (	Configuro	itions		
Product	1	2	3	4	6	9	12
<b>ISTATION</b> ™ Module, 1U Flat	1	1	-	-	-	-	-
<b>ISTATION</b> ™ Module, 1.5U Angled	1	1	-	-	-	-	-
<b>ISTATION</b> ™ Module, 1.5U Recessed, Angled	1	1	-	-	-	-	-
IFP Plates, 1-Gang	1	1	1	/	/	-	-
IFP Plates, 2-Gang	-	-	-	-	/	1	/
Tamper-Proof Plates	-	-	-	1	-	-	-
Stainless Steel Plates, 1-Gang	1	1	1	1	✓	-	-
Stainless Steel Plates, 2-Gang	-	-	-	-	✓	1	1
ISM Surface Mount Housings	1	1	-	1	<b>✓</b>	-	1
ISF Outlet Frames	-	1	1	1	/	-	-
Quad 106 Outlet Frames	-	1	-	1	-	-	-
Furniture Plates	-	1	-	1	-	-	-
OFPPL Multimedia Plate	-	-	-	1	-	-	-
AMO Multimedia Housing	1	1	1	1	<b>√</b>	1	1
UDX Jack Panels, 1U, 24-port	1	1	1	1	/	1	1
UDX Jack Panels, 1U, 36-port	/	/	/	/	/	/	/

# **International Standards**

# ISO/IEC 11801 2nd Edition: Information Technology - Generic Cabling for Customer Premises

The Joint Technical Committee (JTC1) of the International Organization for Standardization (ISO) and IEC released the second edition of ISO/IEC 11801 in 2002. This document is closely aligned with the ANSI/TIA-568-C series of U.S. standards. The recognized backbone and horizontal cables are identical to 568-C, with additional allowance for  $120\Omega$  ScTP voice cable, and Category 7 applications. Category 7 cable and components are fully shielded and are used primarily in Europe. Channel lengths and cable performance parameters may vary slightly between ISO/IEC and U.S., standards. Refer to the tables below for comparison.

### **CENELEC EN 50173: Information Technology – Generic Cabling Systems**

The European Committee for Electrotechnical Standardization (CENELEC) produces standards that are also closely aligned with ANSI/TIA and ISO/IEC. British, Canadian and Australian standards also align with CENELEC and ISO/IEC. Refer to the tables below for comparison.

# **Supported Media - International**

Designation	ANSI/TIA-568-C	ISO/IEC 11801 2nd Ed. 2002	CENELEC EN-50173-1: 2002
Category 3 (16 MHz)	Supported	Supported: Class C	Supported: Class C
120Ω Category 3 (16 MHz)	Not Supported	Supported: Class C	Supported: Class C
Category 5e (100 MHz)	Supported	Supported: Class D	Supported: Class D
Category 6 (250 MHz)	Supported	Supported: Class E	Supported: Class E
Category 6A (500 MHz)	Supported	Supported: Class EA*	Supported: Class EA*
Category 7 (600 MHz)	Not Recognized	Supported: Class F	Supported: Class F
50/125 - 62.5/125 Multimode	Supported	Supported	Supported
Singlemode Fiber	Supported	Supported	Supported
Singlemode Fiber to the Work Area	Not Supported	Supported	Supported
Work Area Outlet Configuration	4 Pairs T568A or B	4 Pairs T568A Only	4 Pairs T568A Only
Stranded Patch Cord Attenuation	120% of Horiz. Cable	150% of Horiz. Cable	150% of Horiz. Cable

### **Common International Standards**

Common Standards	ANSI/TIA	ISO/IEC	CENELEC	Australia/New Zealand
Premise Cabling:	568-C	11801	50173	AS/NZS 3080
General Requirements		2nd Edition		
Pathways/Spaces	569-B	18010	50174-2	AS/NZS 3084
Residential	570-B		50173-3	AS/NZS 3086
Administration	606-B	14763-1	50174-2	AS/NZS 3085
Grounding/Bonding	J-STD-607A		50310	

<sup>\*</sup> **NOTE**: Category 6A requirements will be incorporated into ISO/IEC 11801 and CENELEC EN-50173 after the release of the ANSI/TIA-568-C Standards Series.



# **Applications Guide: Cabling Channel Solutions**

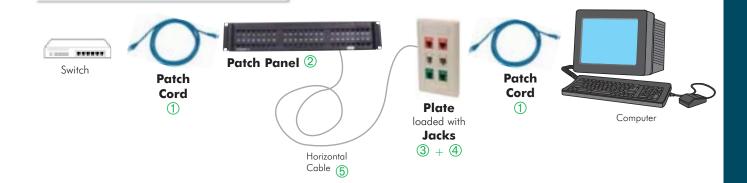
# Category 5e/6/6A Solution (without Consolidation Point)

#### Applications Supported

- **◆ 10BASE-T**
- **♦ 100BASE-T**
- **◆ 1000BASE-T**
- **♦ 10GBASE-T**
- ISDN
- Token Ring
- ◆ ATM 155
- ◆ TP PMD
- ♦ VoIP

### **Hubbell Solutions**

Product	Cat 6A Solution	Cat 6 Solution	Cat 5e Solution
1 Patch Cord	PC6A Series	PCX6 Series	PCX5E Series
2 Patch Panel	HP6A Series	P6E or PXJ Series	P5E Series
3 Plates	IFP or IMF Series	IFP or IMF Series	IFP or IMF Series
4 Jack(s)	HJ6A	HXJ6	HXJ5E
5 Cable	C6A Series	C6 Series	C5E Series



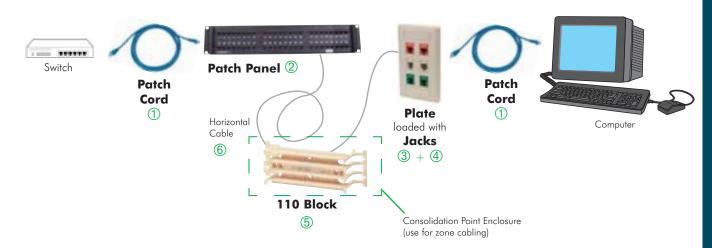
# Category 5e/6 Solution (with Consolidation Point)

### **Applications Supported**

- ♦ 10BASE-T
- **♦ 100BASE-T**
- ♦ 1000BASE-T
- **♦ ISDN**
- Token Ring
- **◆ ATM 155**
- ◆ TP PMD
- VoIP

### **Hubbell Solutions**

TIODSCII SOIGIIOI	13	
Product	Cat 6 Solution	Cat 5e Solution
1 Patch Cord	PCX6 Series	PCX5E Series
2 Patch Panel	P6E or PXJ Series	P5E Series
3 Plates	IFP or IMF Series	IFP or IMF Series
4 Jack(s)	HXJ6	HXJ5E
5 or 110 Block	6110 Series	110BLK Series
6 Cable	C6 Series	C5E Series



# **Applications Guide: Cabling Channel Solutions**

# 25-Pair UTP

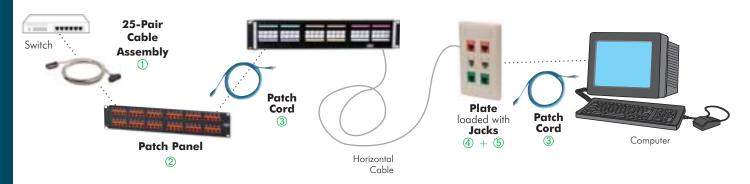
### Applications Supported

- ♦ 10BASE-T
- **◆ 100BASE-T**

### **Hubbell Solutions**

Product	100BASE-T	10BASE-T
1 25-Pair Cable Assembly	525PS Series	Customer Supplied
2 Patch Panel	MCC <b>XX</b> 100BT19*	
3 Patch Cord	PCX6 Series	PCX5E Series
4 Plate	IFP or IMF Series	IFP or IMF Series
⑤ Jack(s)	HXJ6 Series	HXJ5E Series

 $<sup>^{</sup>st}$  XX changes with port capacity, length or style, depending on the product.



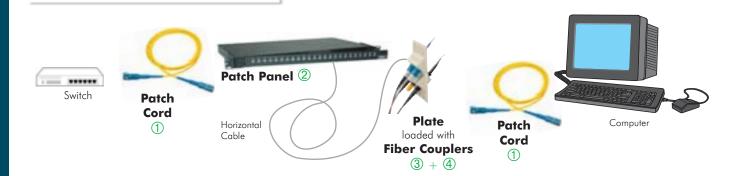
# **Fiber Solutions**

### Applications Supported

- ◆ 1000BASE-SX/LX
- ◆ ATM (Fiber)
- 10GBASE-SX/LX

# **Hubbell Multimode Solutions**

Proc	duct	Fiber Solution	
1	Patch Cord	DFPSC Series	
2	Patch Panel	FPR/FCR Series	
3	Plates	IFP, IMF or AFP Series	
4	Fiber connector	OPTICHANNEL™ OR 2CLICK® Series	



# Fiber Application Notes:

- For 10GBASE-SX, use laser-optimized  $50/125\mu m$  multimode cable, cords and connectors.
- For 10GBASE-LX, use singlemode cabling and components.

### **Fiber Supportable Distances:**

• See table on page N7.



#### Glossary

#### 10GBASE-T

IEEE 10-Gigabit Ethernet data transmission.

IEEE Fast Ethernet standard baseband (single channel) data transmission at 100 Mbps over twisted pair copper wiring.

#### 1000BASE-T

IEEE Gigabit Ethernet standard baseband (single channel) data transmission at 1000 Mbps over twisted pair wiring.

#### 1000BASE-LX

IEEE Gigabit Ethernet standard baseband (single channel) data transmission at 1000 Mbps over fiber optic cable using long wavelength lasers, typically 1300nm.

#### 1000BASE-SX

IEEE Gigabit Ethernet standard baseband (single channel) data transmission at 1000 Mbps over fiber optic cable using short wavelength lasers, typically 850nm.

### AACRF (Attenuation to Alien Crosstalk Ratio, Far End)

The difference in dB between the AFEXT from a disturber pair and the insertion loss of a disturbed pair within a surrounding link or channel.

#### ACR (Attenuation-to-Crosstalk Ratio)

A cable performance parameter computed by subtracting the insertion loss (attenuation) of a pair from the near end crosstalk value. See NEXT.

An interconnect device through joins similar or dissimilar connectors.

#### AFEXT (Alien Far End Crosstalk)

Signal coupling from energized pairs in a disturber cable or components into pairs within surrounding cables or components, measured at the far end.

### Alien Cross-talk (ANEXT)

Unwanted signal induced into pairs within a cable from surrounding cables.

#### Anaerobic Adhesive

An adhesive that cures in the absence of

#### ANEXT (Alien Near End Crosstalk)

Signal coupling from energized pairs in a disturber cable or component into pairs within surrounding cables or components, measured at the near end.

#### Attenuation

The reduction in strength of an electrical or optical signal through a medium or interconnect. Expressed in decibels (dB) relative to a reference signal. Also known as insertion loss.

#### AWG (American Wire Gauge)

A wire sizing convention based on the number of draw steps. The larger the AWG number, the smaller the wire diameter.

#### AXT (Alien Crosstalk)

A measure of signal coupling from energized pairs in a disturber cable or component into disturbed pairs within surrounding cables or components.

#### **Backbone Cabling**

The permanent cabling structure that originates from the main cross connect in the equipment room. The backbone cabling links telecommunications rooms and other buildings in a campus to the main

cross connect. Also referred to as vertical cabling.

A condition where all complex electromagnetic fields are perfectly equal and opposite.

#### Bandwidth

The permissible range of transmission frequencies of a communications system. Expressed in Hertz (cycles per second).

#### BER (Bit Error Rate)

The fraction of total bits transmitted that are erroneous. Caused by EMI or crosstalk.

#### **BNC Connector**

A bayonet (push and turn) style coax cable connector.

#### **Bonding**

The permanent joining of conductors to the building grounding infrastructure.

### **Building Automation System (BAS)**

An intelligent network of devices, cabling, and equipment that provides automated control of building services such as lighting, climate, and fire detection.

### **Building Entrance**

The physical location where outside plant (OSP) cables penetrate the building.

In terms of networking, a campus refers to multiple buildings interconnected together.

#### Category 5e

Balanced twisted-pair cabling specifications characterized from 1 MHz to 100 MHz frequency range. Replaces Cat 5 with new parameters such as PSNEXT, RL, ELFEXT, and more stringent NEXT performance.

Balanced twisted-pair cabling specifications characterized from 1MHz to 250 MHz frequency range.

#### Category 6A

Balanced twisted-pair cabling specifications for Augmented Category 6 performance, characterized from 1MHz to 500MHz frequency range.

#### CATV (Community Antenna Television) A local cable TV network that receives signal from a master antenna.

#### CCTV (Closed Circuit Television)

A private TV system in which signal is transmitted to a limited number of receivers.

### Central Office

A common carrier switching center that serves a region of subscribers in a local

#### Channel

The end-to-end transmission path, which includes the horizontal permanent link, equipment cord and cross connect cord. See Permanent Link.

### Characteristic Impedance

The impedance of a transmission line, which when terminated at the near end, would make the line appear infinitely long. A line terminated at its characteristic impedance would have no standing waves or reflections, and a constant ratio of voltage to current at any frequency along the line.

### Chrominance

The color portion of a video signal. See also Luminance.

### Cladding

The glass layer surrounding the core of an optical fiber, having a different index of refraction than the core. The cladding permits total internal reflection within the

#### Cleave

A flat 90° break separation of an optical fiber, initiated by crack propagation.

#### Collision Detection

The ability of an Ethernet network to detect simultaneous (colliding) signal traf-

#### Component Video

Baseband analog (video) signal comprised of three discrete RGB colors (red, green, blue). Each color is delivered through a separate cable to produce a high resolution RGB signal.

### Composite Video

Baseband analog (video) signal from a single channel containing color but no audio signal.

#### **Consolidation Point**

An interconnection point in the horizontal cabling between the horizontal cross connect and the work station. See Interconnection.

The central region of an optical fiber through which light transmits.

#### **Cross Connection**

A connection point where distribution cables are joined to equipment cables or to other cables using patch cords.

### Crosstalk

Unwanted signal induced between separate conductors or cables. See also Alien Crosstalk.

#### Data Terminal Equipment (DTE)

Office equipment such as phones and modems that are powered by DC voltage.

#### Decibel (dB)

A standard measure of gain or loss of signal power relative to a reference value.

#### **Delay Skew**

The difference in propagation delay between any two pairs within a cable.

#### **Demarcation Point**

The connection interface between the service provider cabling and the customer cabling.

#### Dielectric

A non-metallic, non-conductive material used for wire or coax cable insulation.

#### Digital Signal

An electronic signal that changes rapidly from one state to another in discrete steps.

### **Distribution Frame**

A structure through which backbone interconnections or cross-connections are made. Main and intermediate distribution frames are known as MDF and IDF respectively.

#### **Duplex**

Simultaneous transmission in both direc-

tions

### Glossary

Earth Ground

An electrical connection to earth ground by a grounding electrode system.

EMI (Electromagnetic Interference)

Radiated or conducted electromagnetic energy that has an undesirable affect on equipment or signal transmissions. Also referred to as noise, which increases bit error rate (BER).

**Entrance Facility (EF)** 

A code-compliant room or enclosed space that supports the entry of outside public and private network service cabling.

Equipment Room (ER)

An environmentally controlled room or space dedicated to housing telecommunications equipment and main cross connect hardware.

#### Ethernet

A LAN protocol using a logical bus structure and carrier sense multiple access with collision detection (CSMA/CD). Governed by the IEEE-802.3 series of standards.

#### F Connector

A 75 ohm coax connector typically used for television and video equipment.

#### Ferrule

A cylindrical element of a fiber optic connector that provides central alignment of the fiber.

#### FEXT (Far End Crosstalk)

A measure of unwanted signal coupling from a pair energized by a transmitter at the near end, into surrounding pairs at the far end relative to the transmitter signal

Fiber Optics

The technology of light transmission through glass optical fiber by means of total internal reflection.

Fire-Rated Poke-Through

A cable outlet or distribution device suitable for penetration through fire-rated floors.

Firestopping

The process of installing fire-rated materials into wall or floor penetrations to reestablish the fire rating of the barrier.

**Full Duplex** 

Simultaneous bi-directional signal transmission through a media. See half duplex.

**Fusion Splice** 

The process of joining glass optical fibers together using a controlled electric arc.

GHz (GigaHertz)

A unit of frequency equal to 1 billion hertz, or 1 million megahertz.

Grounding Electrode (GE)

A copper clad steel rod or plate secured underground to provide a common low impedance conductive path to the soil. The GE is the primary grounding point for all electrical and telecommunications equipment.

Grounding Electrode Conductor (GEC)

A conductor that is bonded to the grounding electrode that provides a common ground connection for equipment and distributed grounding backbones. See also TMGB, TBB.

Grounding Equalizer (GE)

A 6AWG conductor that connects multiple telecommunications bonding backbones (TBB's) in a multistory building. The GE reduces potential differences between TBB's.

**Ground Loop** 

Ground current induced by voltage differences between grounding points. A ground loop represents poor grounding practice and can cause interference in a LAN.

A measure in decibels of the amount in which a communications system exceeds the specified performance limits.

A pathway or cable without any splices or intermediate termination points.

Horizontal Cabling

The cabling from the horizontal cross connect in the TR to the work area outlet.

Horizontal Cross Connect (HC)

A connection point in the TR where the horizontal cabling joins to the backbone cabling using patch cords.

Hybrid Cable

A single sheath cable containing any combination of UTP, fiber or coax.

**Impedance** 

The total opposition to flow of alternating current by resistive, capacitive, and inductive elements, expressed in ohms.

Innerduct

A non-metallic flexible round conduit that is installed within larger pathways.

Insertion Loss

The decibel reduction (attenuation) in received signal power through a mated connector pair or cable link.

#### Interconnection

The direct connection between horizontal distribution cables, typically by punch-down, without using patch cords. Interconnections are used mostly in consolidation points.

Intermediate Cross Connect (IC)

A cross connect between the first and second level backbone cabling.

Internet Protocol (IP)

Software in the network layer that tracks device address, routes outgoing messages, and recognizes incoming messages. See TCP/IP and OSI Model.

Interoperability

The ability of equipment from several vendors to function seamlessly together using a common set of protocols.

ISDN (Integrated Services Digital Network)

A digital communications facility that provides end-to-end voice/data and video/ audio over a public switched telephone network (PSTN).

The female connector of a plug/jack mated pair. A jack is used in the work area outlet.

Jumper

A twisted pair cable segment without connectors. Contrast with Patch Cord.

LAN (Local Area Network)

A non-public data communications network confined to a limited geographic area, with customer-owned servers and peripherals.

LC Connector

A single channel fiber small form factor connector (SFF) with a 1.25mm diameter

LED (Light Emitting Diode)

A semiconductor diode that transforms an electronic input signal to an incoherent photonic output. LED's are use for multimode systems.

#### Luminance

The measurable intensity, or brightness information portion of a video signal. See also Chrominance.

Main Cross Connect (MC)

The primary cross connection point between core network equipment cables, first level backbone and entrance cables.

Metropolitan Area Network (MAN)

A data communications network spanning a geographical area the size of a large city. See also Wide Area Network (WAN).

A microscopic bend in an optical fiber that causes optical signal loss and distortion. A microbend can cause fiber breakage over

Micron (mm)

One micron is equal to one millionth of a meter. Optical fiber is measured in microns.

Microwave

Electromagnetic waves in the range of 1 to 30 GHz, used for wireless voice, data and video transmission in a linear path through the atmosphere, or hard-wired through coaxial cable.

Mission Critical

With regard to a data network, Mission Critical is the reliable delivery of long-term uninterrupted service, at stated performance levels, to assure continuous operation of the enterprise critical functions.

MHz (Mega Hertz)

A unit of frequency equal to one million Hertz.

**Modal Dispersion** 

The effect of multimode light pulses traveling in different paths through an optical fiber. High order modes, which travel in the outer core are delayed relative to low order modes that travel faster through the inner core. See Differential Mode Delay.

Mode

A bundle of light rays that travel in one direction. See Multimode and Singlemode.

Multimode Fiber

A large core optical fiber, typically 50 or 62.5 microns, which transmits light in randomly varying internal paths. Contrast with singlemode optical fiber.

Multi-User Telecommunications Outlet Assembly. A multi-port horizontal cabling outlet that serves a group of individual work areas.

Nanometer (nm)

A unit of length equal to one billionth of a meter, typically describing fiber operating wavelengths.



#### Glossary

#### NEXT (Near End Crosstalk)

A measure of unwanted signal coupling from a single pair energized by a transmitter at the near end, into surrounding pairs at the near end relative to transmitter signal

#### Node

A common connection point in a network, such as a Hub.

#### Nominal Velocity of Propagation (NVP) The ratio of actual signal speed to the velocity of light in a vacuum.

A measure of electrical resistance, or impedance such as  $75\Omega$  coax cable.

#### Open Architecture

Computer or network hardware and software that is interoperable across multiple vendors and flexible to permit customization.

#### Open Office

An open-air floor space of multiple offices (cubicles) separated by moveable partitions.

#### Open Systems Interconnection (OSI) Reference Model

A seven-layer gateway architecture developed by ISO. The seven layers are: Physical, Data Link, Network, Transport, Session, Presentation, and Application.

#### **Optical Fiber**

A continuous round glass medium, typically 125 microns outside diameter, having a core and cladding layer of specific indices of refraction that permit transmission of light waves. See Core, Cladding Multimode Fiber and Singlemode Fiber.

#### OTDR (Optical Time Domain Reflectometer)

An instrument that transmits signal and measures back-reflected signal to characterize faults along an optical fiber, such as splices, mated pairs, microbends or fiber breaks.

#### Outlet (Telecommunications)

A connecting device, typically in a wall or partition, that provides a connection point between the work area cord and the horizontal cabling.

#### Outside Plant (OSP)

Telecommunications cabling and equipment from the Local Exchange Carrier (LEC) or interbuilding backbone cabling that is physically located outside, either underground, aerial, or wireless towers.

A bundle of data in binary form, organized for transmission. A packet consists of: 1) a header for control and address information, 2) Text (or payload), and 3) a trailer for error correction and detection.

#### Patch Panel

A multi-port cross connect field of connectors that facilitates administration, and moves, adds, or changes (MAC's).

#### Patch Cord

A length of cable with a plug connector on each end. Contrast with Jumper.

An open or closed channel, such as a conduit or wire tray, which is used for routing, distribution, and protection of telecommunications cables.

#### Permanent Link

An installed segment of horizontal or backbone cable having connecting hardware on A measure of unwanted signal coupling each end.

### Physical Layer

The lowest level in the OSI model, that which includes the mechanical connection of devices to the transmission medium to gain physical access to the LAN.

#### Plenum Cable

A cable with low smoke insulation that is suitable for placement in air handling

### Plug

The male version of a cable connector, typically mounted to a patch cord or fiber backbone behind the patch panel.

A physical connection node to a network, either in the equipment or in the LAN cabling.

#### Poke Through System

See Fire-Rated Poke-Through.

#### Polarity

The designation of positive and negative in electrical terms, or the distinction between transmit (Tx) or receive (Rx) in telecommunications. Polarity is typically color coded or marked on the hardware.

#### **Power Budget**

The difference between optical transmitter power and receiver sensitivity in dB.

#### Private Branch Exchange (PBX)

A customer-owned premises telephone switching console for internal routing of phone calls received from one or more outside lines.

### **Propagation Delay**

The elapsed time it takes for a signal to travel from the transmitter to the receiver. Expressed as a fraction of the speed of light Cable that is rated for vertical applications, in a vacuum. See Delay Skew.

#### PSAACRF (Power Sum Attenuation to Alien Crosstalk ratio, Far-End)

The difference in dB between the PSAFEXT from multiple disturbing pairs and the insertion loss of a disturbed pair within a surrounding link or channel.

#### **PSACR** (Power Sum Attenuation to Crosstalk Ratio)

A computation by subtracting pair insertion loss (attenuation) from the power sum near end crosstalk value. See PSNEXT.

#### PSAFEXT (Power Sum Alien Far-End Crosstalk)

The power sum signal coupling from multiple disturbing pairs to a disturbed pair within a surrounding link or channel, measured at the far end.

#### **PSANEXT** (Power Sum Alien Near-End Crosstalk)

The power sum signal coupling from multiple disturbing pairs to a disturbed pair within a surrounding link or channel, measured at the near end.

#### PSNEXT (Power Sum Near End Crosstalk)

A measure of unwanted signal coupling into a single pair at the near end from all other surrounding pairs energized by transmitters at the near end. See NEXT.

#### PSELFEXT (Power Sum Equal Level Far End Crosstalk)

into a single pair at the far end from all other surrounding pairs energized by transmitters at the near end, normalized by the insertion loss of the pair.

#### Pull Box

An in-line conduit or raceway box with an access cover to facilitate cable feed through corners and bends.

#### Rack Unit (RU)

An increment of vertical rack space. 1 RU is equal to 1.75 inches.

#### Raised Floor

A modular floor constructed over a concrete base having posts, stringers and removable plates for access to the space below. Also referred to as an access floor.

Registered Communications Distribution Designer. A professional certification granted by BICSI that is base on experience, credentials, and passing an exam.

#### Refractive Index

The ratio of velocity of light in a medium to the velocity of light in a vacuum. A property of the core and cladding of an optical fiber. Also referred to as index of refraction.

The measure of back-reflected signal intensity in copper or fiber transmission line.

### RFI (Radio Frequency Interference)

Electromagnetic interference at radio frequencies, typically between 500 kHz and 30 GHz. See EMI.

#### RGB (Red-Green-Blue)

The three primary colors used in component video signal processing.

such as high strength backbone.

An intelligent, multi-protocol, central network switching device that monitors, processes, and directs data traffic among multiple LANs, MANs or WANs. Contrast with Hub, which is a non-intelligent device.

#### SC Connector

A single channel push-pull type fiber connector with a 2.5mm diameter ferrule. Also referred to as 568SC or subscriber channel connector. Duplexing needs a separate

#### Shielded Twisted Pair Cable (STP and ScTP)

A balanced twisted pair cable with an overall metal shield for EMI/RFI immunity. STP uses a foil shield, and ScTP uses a perforated metal screen shield.

#### Server

A high-capacity client-shared computer that functions as the central core of a network. The server holds the network operating system, e-mail, shared files, and programs.

#### Service Entrance

The location where the service provider's cabling enters the building. See Entrance Facility.

## Glossary Service Loop

Excess cable supplied in a channel that is stored in a coil for future needs

#### Signal-to-Noise Ratio (SNR)

The ratio of signal power to noise power level in dB. See Noise.

Transmission in one direction through a single channel.

Singlemode Optical Fiber

A 8-9 micron core optical fiber which transmits light only in a single axial direction, achieving very high bandwidth over 20 GHz.

#### Sleeve/Slot

Large circular or rectangular openings through walls, ceilings, or floors to allow passage of cables, conduit, and innerduct.

A passive device used to divide a signal into two or more output signals.

#### ST Connector

A single channel, "straight tip" fiber connector, developed by AT&T, with a bayonet style coupling nut, having a 2.5mm ferrule diameter.

Star Topology

A network configuration where all workstations are cabled individually from a horizontal cross-connect (HC), and all HC's are cabled individually from the main cross-connect (MC), thus forming a star pattern. This is practice is recommended by BICSI and TIA.

Surface Raceway

A visible enclosed cable pathway that typically runs along exposed walls or ceilings.

Surge Suppression

The isolation and diversion of transient voltage surges, which are harmful to electronic equipment.

### T1 Line

A digital transmission line operating at a rate of 1.544 Mbps (24 voice channels). This is the DS1 level in the TDM digital hierarchy. See also DS0, DS1, and TDM.

An electrical connection into a bus or trunk line, such as a drop cable to a workstation.

#### TBB (Telecommunications Bonding Backbone)

A distributed infrastructure 6AWG or larger copper conductor that interconnects all TGB's to the TMGB in a building. See TGB and TMGB.

Transmission Control Protocol/Internet Protocol. A standard client-server network connectivity protocol that is supported by most LAN/WAN operating systems.

#### TDR (Time Domain Reflectometer)

An instrument that transmits a signal and measures back-reflected signal to characterize faults along a transmission line. See also OTDR.

### Telecommunications Room (TR)

An enclosed building space for housing telecommunications equipment, cable terminations, and cross-connect cabling. A TR serves a single floor in a building.

#### TGB (Telecommunications Grounding Busbar)

A pre-drilled solid copper bar that is bonded to the TBB, and serves as the common grounding point for electronic equipment and cabling hardware within a TR or ER.

#### TIA (Telecommunications Industry Association)

An organization of telecommunications industry professionals that publishes standards jointly with ANSI and EIA, through an industry-wide balloting process.

Tight Buffer Cable

An indoor multi-fiber cable with each individual fiber having a 900 micron jacket applied tightly over the acrylate coating.

Tip and Ring

An old telephony term synonymous to "plus and minus". Derived from switchboard cord plugs, where the tip wire is positive and ring wire is negative.

#### Terminal

An access node through which Date Terminal equipment (DTE) is connected, allowing data to flow into or out of a telecommunications network.

#### TMGB (Telecommunications Main Grounding Busbar)

A pre-drilled solid copper bar that is bonded to the primary grounding electrode conductor in the electrical service entrance facility. The TBB connects to the TMGB.

#### Token

A specific combination of bits to be used in a LAN to grant transmit privileges through a ring network. The token circulates continuously through the ring.

**Token Ring Topology** 

A closed loop daisy chain network configuration where data traffic must flow through adjacent equipment in either direction to reach the server.

#### Topology

The physical or logical arrangement or mapping of a telecommunications network, such as a bus, star, or ring topology.

An active device that emits a pulsed electronic or optical signal into a transmission

#### TSB (Telecommunications System Bulletin)

An interim standards document published by the TIA, which describes new specifications and procedures to be incorporated in the next revision of the affected standard.

#### Twisted Pair Cable

See Balanced UTP Cable.

### **USOC** (Universal Service Ordering Code)

An FCC-governed series of registered jack (RJ) wiring configurations that connect the customer premises equipment to the public network.

#### UTP (Unshielded Twisted Pair) See Balanced UTP cable.

# **VCSEL** (Vertical Cavity Surface Emitting

A small laser that emits a coherent beam of optical power at 850nm in a vertical direction from the active surface. VCSEL's are used for Gigabit Ethernet over multimode fiber.

#### VLAN (Virtual LAN)

The logical grouping of network devices into sub-networks using switching technology, to improve data traffic flow or security.

#### Video Signal

Transmission of moving frames of pictures in a frequency range of 1 to 6 MHz.

#### Video Compression

The conversion of analog video to a digital format, which can be transmitted as a T1 signal at 1.544 Mbps. Higher compression can transmit at lower bit rates down to 128

#### Visual Fault Locator

A fiber optic light source that emits high power red light at 650nm. Used to illuminate fibers in a cable. A broken fiber will emit a red glow through the buffer layer.

#### Voice Over Internet Protocol (VOIP)

The technology of processing and combining voice signals with packet transmission using TCP/IP. Analog voice signals are converted to packets and merged with internet traffic.

#### WAN (Wide Area Network)

A telecommunications network that extends beyond the metropolitan area, and may spån international distances via satellite or undersea cabling.

#### WDM (Wavelength Division Multiplexing)

The combining of multiple optical channels at different wavelengths into a single multiwavelength channel. WDM increases the capacity of a single fiber channel.

#### WiFi (Wireless Fidelity)

Synonymous to HiFi, describing audio equipment. WiFi is another term to describe a wireless LAN, operating under the IEEE 802.11 standard at 2.4 GHz.

### WLAN (Wireless Local Area Network)

A LAN with no wire infrastructure that operates on RF transceivers. Typically used for rapid deployment in temporary situations. WLAN transmission is not as fast as wired networks, and is affected by obstructions and interference.

#### Wire Map Test

A measure of continuity of all pin/pair combinations in a cabled link or channel.

### Work Area (Work station)

The building space where the user interacts with telecommunications terminal equipment, which is connected to the work area outlet.

Zone Cabling

A cable distribution from the horizontal cross connect to an open office area (zone) utilizing a consolidation point or MUTOA.

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SF14SJBK		SFBEI10	B11	SFLCSX	F14	SFRFGLA	B9
SF14SJEI		SFBG10	B11	SFLCW	B12	SFRFGW	B9
SF14SJGW		SFBGAL	B11	SFLCX	F14	SFSBAL10	B11
SF14SJGV		SFBGBK	B11	SFMTRJ	B13,F14	SFSBBK10	
		SFBGEI	B11	SFMTRJAL		SFSBGY10	B11
SF14SJLA		SFBGGY	B11	SFMTRJBK	B13	SFSBLA10	B11
SF14SJOW		SFBGGY		SFMTRJEI	B13	SFSBW10	B11
SF2525		SFBGLA	B11	SFMTRJG	B13	SFSC	
SF2725		SFBGOW		SFMTRJW		SFSCAAL	
SF2925		SFBGW	B11	SFRC	B8	SFSCABK	B13
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SF35FFLA		SFBW10		SFRCBFFOW		SFSCAW	
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SF35SJ		SFFBX		SFRCBKFF	B8	SFSCBK	
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SF35SJEI		SFFGBK		SFRCBXX		SFSCLA	•
SF35SJGW		SFFGEI		SFRCGNFFOW	B8	SFSCST	
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SF35STLA		SFFLCEI		SFRCRBKXX		SFSPGBKAL	
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