Introduction to CraftSmart®

Physical Fiber Protection



The Clearfield® CraftSmart product line provides physical fiber protection for Clearview® products. It completes and delivers a turn-key passive solution from the central office/headend to the customer premise. The CraftSmart Fiber Protection Pedestals (FPP) and Fiber Protection Vaults (FPV) provide the most cost-effective thermoplastic enclosures in the industry, meeting and exceeding the industry standards for strength, reliability and environmental concerns.

CraftSmart FPPs are designed to Telcordia GR-13, are lightweight, non-corrosive and rugged. An FPP comes with a self locking cover, factory installed brackets and can house the FieldSmart® Small Count Delivery (SCD) Case for last mile drop applications. Domes can be ordered either vented or non-vented. Bases are direct buried and have high-rib construction, providing an earth locking feature. For extra stability, they can be ordered as a stake-mount.

CraftSmart FPVs are designed and qualified to Telcordia GR902 and comply with the applicable elements of ANSI/SCTE 77 2002, for greenbelt placement. Besides their traditional uses of splice cases and outside plant cable storage, the FPVs, along with a swing-up hinge, can mount the FieldSmart SCD Case for easy below grade access and discrete blind storage. The FPV's high-rib design greatly enhances the cover and sidewall load-bearing capabilities. Custom lid options are also available for a variety of environments.



Fiber Protection Vaults (FPV)



Application

CraftSmart Fiber Protection Vaults (FPV) can be used to securely mount a FieldSmart® Fiber Scalability Center (FSC) 288, 432, 576 or 1,152 port PON cabinet, a 432 or 864 port cross-connect cabinet or FieldSmart Fiber Delivery Point (FDP) pedestal for above grade deployment with below grade slack cable storage. It can also be used in conjunction with a mounting bracket to deploy the FieldSmart SCD Case as a below grade drop cable solution with integrated slack storage. FPVs are equally suited for drop cable, splicing, interconnect and mid-span scenarios, which allows for maximum flexibility and customization in the customers' network.

Description

The Clearfield® CraftSmart product line provides physical fiber protection for products. It completes and delivers a turn-key passive solution from the central office/headend to the customer premise. CraftSmart Fiber Protection Vaults (FPV) provide the most cost-effective thermoplastic enclosures in the industry - meeting and exceeding the industry standards for strength, reliability and environmental concerns.

Formed from a High Density Polyethylene (HDPE) Thermoplastic, these vaults provide a solid base and light-weight material alternative to traditional polymer concrete enclosures. Multiple industry standard sizes can be ordered with solid covers or pre-cut covers to accommodate various FieldSmart cabinet solutions.

Features and Benefits

Integrity

- · RUS accepted
- Compliant to Telcordia GR-902
- Compliant to ANSI/SCTE 77 2010 as specified by N.E.C. ANSI C57 Enclosure Integrity
- · Compliant to Western Underground Guide 3.6
- · Stainless steel hardware

Protection

- · Hex head security bolts
- All boxes incorporate a unique "T" style overlapping cover design to reduce soil mitigation into box

Access

- Multiple cover options, including single piece solid thermoplastic, split thermoplastic, solid or split polymer concrete, provide ease of
 access and the ability to be used in multiple applications for the products
- Universal mounting bracket (VA-STUB) is available for SCD Case applications
- · Mounting bolts and templates are available for HDPE split lids for FieldSmart cabinet mounting
- · Custom split lids with cut outs for FieldSmart cabinets

Investment

- · High strength rigid construction ensures long term reliability in the harshest environments
- · Lighter and easier to handle than concrete, which increases the overall safety factor

Cover Options



Polymer Concrete Ring and Cover Application: Sidewalk Static Load: 20,000 lbs



Split Thermoplastic Cover Application: Greenbelt Static Load: 5,000 lbs

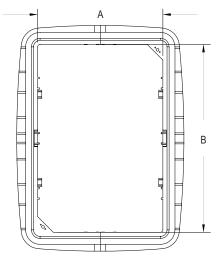


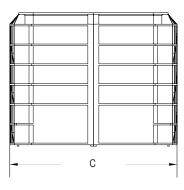
StandardThermoplastic Cover Application: Greenbelt Static Load: 5,000 lbs

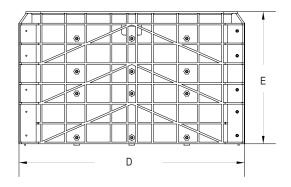
Fiber Protection Vaults (FPV)



Technical Specifications







Straight Wall	A Inside Dim. Width	B Inside Dim. Width	C Outside Dim. Width	D Outside Dim. Width	E Height	Approx. Weight with HDPE Cover	Recommended Clearfield [®] Product
17 x 30	16 1/16"	29 1/16"	22 1/16"	35 1/16"	24 ½"	40 lbs	FieldSmart® SCD Case 6
24 x 36	22 ¾"	34 1/8"	30 %"	41"	24"	83 lbs	FieldSmart SCD Case 6, FieldSmart 288 and 432 PON or 432 Cross-Connect Cabinet, Hub Collapse Cabinet
30 x 48	28 ¾"	46 1/8"	37 1/8"	53 ½"	24 %"	195 lbs	FieldSmart SCD Case 6, FieldSmart 576 or 1,152 PON or 864 or 1,727 Cross-Connect Cabinet

Flared Wall	A Inside Dim. Width	B Inside Dim. Width	C Outside Dim. Width	D Outside Dim. Width	E Height	Approx. Weight with HDPE Cover	Recommended Clearfield Product
36 x 36	36 1/8"	36 1/8"	40 %" - 46 ¾"	40 1/8" - 46 3/4"	24"	135 lbs	FieldSmart SCD Case 6, FieldSmart 576 or 1,152 PON or 864 or 1,727 Cross-Connect Cabinet
30 x 60	30 1/8"	60 1/8"	34 1/8" - 40 3/4"	64 %" - 70 ¾"	24"	165 lbs	FieldSmart SCD Case 6, FieldSmart 576 or 1,152 PON or 864 or 1,727 Cross-Connect Cabinet
36 x 48	36 1/8"	40 1/8"	40 1/8" - 46 3/4"	52 1/8" - 58 3/4"	24"	155 lbs	FieldSmart SCD Case 6, FieldSmart 576 or 1,152 PON or 864 or 1,727 Cross-Connect Cabinet
36 x 60	36 1/8"	60 1/8"	40 1/8" - 46 3/4"	64 %" - 70 ¾"	24" 36"	170 lbs 235 lbs	FieldSmart SCD Case 6, FieldSmart 576 or 1,152 PON or 864 or 1,727 Cross-Connect Cabinet

Fiber Protection Vaults (FPV)



Pre-Configured Part Numbers

FieldSmart® Cabinets

FieldSmart® C				Application	/Where Used		
Part Number	Description	Slack Storage	FSC 288 PON, 432 CC or HCC	FSC 432 PON	FSC 576 or 1,152 PON or 864 or 1,728 CC	Makwa: Below Grade In Vault	Makwa: Above Grade On Vault
		Size – 13" x	24"	T			T
VAE-FZP	Vault, below grade Pencell, 13" W x 24" L x 13" D, polymer concrete lid, straight wall	✓					
VAD-FZP	Vault, below grade Pencell, 13" W x 24" L x 18" D, polymer concrete lid, straight wall	✓					
	Vault 9	Size – 17" x	30"				
V5A-AZP	Vault, below grade Pencell,17" W x 30" L x 24" D, solid HDPE lid, hex bolts, green, straight wall	✓					
V5A-BZP	Vault, below grade Pencell,17" W x 30" L x 24" D, split HDPE Lid, hex bolts, green, straight wall	✓					
V5A-DZP	Vault, below grade Pencell,17" W x 30" L x 24" D, Solid polymer concrete lid, hex bolts, gray, straight wall	✓					
VA-1730-3			Optional	3" Spacer			
	Vault S	Size – 24" x	36"				
V6A-AZP	Vault, below grade Pencell, 24" W x 36" L x 24" D, solid HDPE lid, hex bolts, green, straight wall	✓					
V6D-AZP	Vault, below grade Pencell, 24" W x 36" L x 18" D, solid HDPE lid, hex bolts, green, straight wall	✓					
V6A-BZP	Vault, below grade Pencell, 24" W x 36" L x 24" D, split HDPE lid, hex bolts, green, straight wall	✓					
V6A-CZP	Vault, below grade Pencell, 24" W x 36" L x 24" D, split HDPE Lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, w/bolt kit		Bolt Kit Included	Bolt Kit Included			✓
V6A-DZP	Vault, below grade Pencell, 24" W x 36" L x 24" D, solid polymer concrete lid, hex bolts, gray, straight wall	✓					
V6A-DZP-F	Vault, below grade Pencell, 24" W x 36" L x 24" D, solid polymer concrete lid, hex bolts, gray, flared wall	✓					
V6B-AZP	Vault, below grade Pencell, 24" W x 36" L x 36" D, solid HDPE lid, hex bolts, green, straight wall	✓				✓	
V6B-BZP	Vault, below grade Pencell, 24" W x 36" L x 36" D, split HDPE lid, hex bolts, green, straight wall	√				✓	
V6B-CZP	Vault, below grade Pencell, 24" W x 36" L x 36" D, split HDPE Lid, hex bolts, green, w/cut out for FieldSmart cabinets, straight wall, w/ bolt kit		Bolt Kit Included	Bolt Kit			✓
V6B-DZP	Vault, below grade Pencell, 24" W x 36" L x 36" D, solid polymer concrete lid, hex bolts, gray, straight wall	✓				✓	
VA-2436-6	Spacer for below grade Pencell vault, 24" W x 36" L x 6" H			Optional	6" Spacer		

Fiber Protection Vaults (FPV) -



Pre-Configured Part Numbers

FieldSmart® Cabinets

				Application	Where Used			
Part Number	Description	Slack Storage	FSC 288 PON, 432 CC or HCC	FSC 432 PON	FSC 576 or 1,152 PON or 864 or 1,728 CC	Makwa: Below Grade In Vault	Makwa: Above Grade On Vault	
	Vault S	Size – 30" x	48"					
V7A-AZP	Vault, below grade Pencell, 30" W x 48" L x 24" D , solid HDPE lid, hex bolts, green, straight wall	✓						
V7A-AZP-F	Vault, below grade Pencell, 30" W x 48" L x 24" D, solid HDPE lid, hex bolts, green, Flared Wall	✓						
V7A-BZP	Vault, below grade Pencell, 30" W x 48" L x 24" D , Split HDPE Lid, hex bolts, green, straight wall	√						
V7A-CZP	Vault, below grade Pencell, 30" W x 48" L x 24" D, Split HDPE Lid, hex bolts, green, w/cut out for FieldSmart cabinets, straight wall, w/bolt kit		Bolt Kit Included	Bolt Kit Included	Bolt Kit Included		✓	
V7A-EZP	Vault, below grade Pencell, 30" W x 48" L x 24" D, split polymer concrete lid, hex bolts, gray, straight wall	√						
V7B-AZP	Vault, below grade Pencell, 30" W x 48" L x 36" D, solid HDPE lid, hex bolts, green, straight wall	✓				\checkmark		
V7B-BZP	Vault, below grade Pencell, 30" W x 48" L x 36" D, split HDPE lid, hex bolts, green, straight wall	√				\checkmark		
V7B-CZP	Vault, below grade Pencell, 30" W x 48" L x 36" D, split HDPE lid, hex bolts, green, w/cut out for FieldSmart cabinets, straight wall, w/bolt kit		Bolt Kit Included	Bolt Kit Included	Bolt Kit Included		✓	
V7B-EZP	Vault, below grade Pencell, 30" W x 48" L x 36" D, split polymer concrete lid, hex bolts, gray, straight wall	√				\checkmark		
VA-3048-6	Spacer for below grade Pencell vault, 30" W x 48" L x 6" High	Optional 6" Spacer						
	Vault 9	Size: 36" x 3	36"					
VBA-AZP-F	Vault, below grade Pencell, 36" W x 36" L x 24" D, solid HDPE lid, hex bolts, green, flared wall	✓						
VBA-BZP-F	Vault, below grade Pencell, 36" W x 36" L x 24" D, split HDPE lid, hex bolts, green, flared wall	√						
VBA-CZP-F	Vault, below grade Pencell, 36" W x 36" L x 24" D, split HDPE lid, hex bolts, green, w/cut out for FieldSmart cabinets, flared wall, w/bolt kit		Bolt Kit Included	Bolt Kit	Bolt Kit Included		✓	
VBA-EZP-F	Vault, below grade Pencell, 36" W x 36" L x 24" D, split polymer concrete lid, hex bolts, gray, flared wall	√						
VA-3636-6- GREEN	Spacer for below grade Pencell vault, 36" W x 36" L, 6" High, for HDPE lids		Option	al 6" spacer	for green HDI	PE lids		
VA-3636-6- GRAY	Spacer for below grade Pencell vault, 36" W x 36" L, 6" High, for PC lids		Optional 6"	spacer for g	ray polymer c	oncrete lids		

Fiber Protection Vaults (FPV) -



Pre-Configured Part Numbers

FieldSmart® Cabinets

	abinets	Application/Where Used								
Part Number	Description	Slack Storage	FSC 288 PON, 432 CC or HCC	FSC 432 PON	FSC 576 or 1,152 PON or 864 or 1,728 CC	Makwa: Below Grade In Vault	Makwa: Above Grade On Vault			
	Vault	Size: 36" x 4	18"							
V3A-AZP-F	Vault, below grade Pencell, 36" W x 48" L x 24" D, solid HDPE lid, hex bolts, green, flared wall	✓								
V3A-BZP-F	Vault, below grade Pencell, 36" W x 48" L x 24" D, split HDPE lid, hex bolts, green, flared wall	✓								
V3A-CZP-F	Vault, below grade Pencell, 36" W x 48" L x 24" D, split HDPE lid, hex bolts, green, w/cut out for FieldSmart cabinets, flared wall, w/bolt kit		Bolt Kit Included	Bolt Kit	Bolt Kit Included		✓			
V3G-CZP-F	Vault, below grade Pencell, 36" W x 48" L x 30" D, split HDPE lid, hex bolts, green, w/cut out for FieldSmart cabinets, flared wall, w/bolt kit		Bolt Kit Included	Bolt Kit Included	Bolt Kit Included					
V3B-CFP-F	Vault, below grade Pencell, 36" W x 48" L x 36" D, split HDPE lid, hex bolts, green, w/cut out for FieldSmart cabinets, flared wall, w/bolt kit		Bolt Kit Included	Bolt Kit Included	Bolt Kit Included		✓			
VA-3648-6	Optional 6" Spacer									
	Vault	Size: 36" x 6	60"							
V8A-BZP-F	Vault, below grade Pencell, 36" W x 60" L x 24" D, split HDPE lid, hex bolts, green, flared wall	√								
V8A-CZP-F	Vault, below grade Pencell, 36" W x 60" L x 24" D, split HDPE lid, hex bolts, green, w/cut out for FieldSmart cabinets, flared wall, w/bolt kit		Bolt Kit Included	Bolt Kit Included	Bolt Kit Included		✓			
V8A-EZP-F	Vault, below grade Pencell, 36" W x 60" L x 24" D, split polymer concrete lid, hex bolts, gray, flared wall	✓								
V8B-BZP-F	Vault, below grade Pencell, 36" W x 60" L x 36" D, split HDPE lid, hex bolts, green, flared wall, no floor	✓				✓				
V8B-BZP-F- FLR	Vault, below grade Pencell, 36" W x 60" L x 36" D, split HDPE lid, hex bolts, green, flared wall, w/floor	✓				✓				
V8B-CZP-F	Vault, below grade Pencell, 36" W x 60" L x 36" D, split HDPE lid, hex bolts, green, w/cut out for FieldSmart cabinets, flared wall, w/bolt kit		Bolt Kit Included	Bolt Kit Included	Bolt Kit Included		✓			
V8B-EZP-F	Vault, below grade Pencell, 36" W x 60" L x 36" D, split polymer concrete lid, hex bolts, gray, flared wall	✓				√				
V8C-AZP-F	Vault, below grade Pencell, 36" W x 60" L x 48" D, Solid HDPE Lid, hex bolts, green, flared wall	✓				√				
V8C-BZP-F	Vault, below grade Pencell, 36" W x 60" L x 48" D, split HDPE lid, hex bolts, green, flared wall	✓				\checkmark				

Fiber Protection Vaults (FPV) -



Pre-Configured Part Numbers

FieldSmart® Cabinets

			ı	Application	Where Used		
Part Number	Description	Slack Storage	FSC 288 PON, 432 CC or HCC	FSC 432 PON	FSC 576 or 1,152 PON or 864 or 1,728 CC	Makwa: Below Grade In Vault	Makwa: Above Grade On Vault
	Vault Size:	36" x 48" Co	ntinued				
V8F-CZP-F	Vault, below grade Pencell, 36" W x 60" L x 42" D, split HDPE lid, hex bolts, green, w/cut out for FieldSmart cabinets, flared wall, w/bolt kit		Bolt Kit Included	Bolt Kit	Bolt Kit Included		√
V8C-EZP-F	Vault, below grade Pencell, 36" W x 60" L x 48" D, split polymer concrete lid, hex bolts, gray, flared wall	√				√	
V8G-CZP-F	Vault, below grade Pencell, 36" W x 60" L x 30" D, split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, flared wall, with bolt kit		Bolt Kit Included	Bolt Kit Included	Bolt Kit Included		✓
VA-3660-6	Spacer, for below grade Pencell vault, 36" W x 60" L, 6" High			Optional	6" Spacer		

FieldSmart Electronics Cabinets

Part Number	Description	Application/Where Used Electronics Cabinet
	Vault	Size: 48" x 48"
V9A-GZP-F	Vault, below grade Pencell, 48" W x 48" L x 24" D, solid polymer concrete lid, hex bolts, gray, flared wall	✓
VA-4848-6	Spacer for below grade Pencell vault, 48" W x 48" L x 6" H	Optional 6" Spacer

PON in Pedestal

Part Number	Description	Application/Where Used 96 PON in Pedestal
	Pedestal on Lic	d - Vault Size: 24" x 36"
VXZ-ZZZ- 02-P	Below grade vault only -24 "W x 36"L x 24"D split lid, I-bolt, green, telecommunications, 12 x 12 hole for pedestal mount, straight wall	✓
FPP-121230- DG-PED	12 x 12 x 30 pedestal cover/bracket for vault above	\checkmark
V6A-ZZZ-03-P	Below grade vault and pedestal cover w/brack- et - 24" W x 36" L x 24" D split lid, I-bolt, green, telecom, 12 x 12 pedestal cover w/bracket, straight wall	\checkmark
	Pedestal on Lic	d - Vault Size: 30" x 48"
V7A-ZZZ- 01-P	Below grade vault and pedestal cover w/bracket - 30" W x 48" L x 24" D split lid, I-bolt, green, telecom, 12 x 12 pedestal cover w/bracket, straight wall	✓
V7B-ZZZ-02-P	Below grade vault and pedestal cover w/bracket - 30" W x 48" L x 36" D split lid, I-bolt, green, telecom, 12 x 12 pedestal cover w/bracket, straight wall	

Fiber Protection Boxes (FPB)



Application

The CraftSmart Fiber Protection Boxes (FPB) provide a place for below grade cable slack storage and access in greenbelt and light pedestrian traffic applications.

Description

The CraftSmart Fiber Protection Boxes are part of a full line of above and below grade field enclosures. They provide full optimization of a fiber deployment when used alongside a Clearfield® FieldSmart® platform of inside plant panels, outside plant cabinets and wall boxes.

Boxes are designed to meet a broad range of fiber, coax and copper needs of the broadband, telecommunications and utilities industries. The FPBs provide a place for below grade cable slack storage and are a good fit for access in greenbelt areas, areas that are undeveloped, wild or agricultural areas and similar locations where there is light pedestrian traffic, such as a sidewalk.



The CraftSmart Fiber Protection Box is available in five different sizes. Functioning as a stand-alone, the FPB provides below grade slack storage for fiber or other media. The body is formed with a High Density Polyethylene (HDPE) Thermoplastic and a solid Thermoplastic lid that ensures strength and stability of the product.

Features and Benefits

Integrity

- · High-quality HDPE designed body distributes load evenly across sidewalls
- · Solid Thermoplastic lid ensures strength and stability

Protection

- · Universal bolt security system
- All boxes incorporate a unique "T" style overlapping cover design to reduce soil mitigation into box

Δηρες

- Single piece solid thermoplastic cover provides ease of access into boxes
- All the plastic lids on these boxes are rated at light duty or greenbelt as listed with the SCTE77 specification: 5,000 lbs

Investment

- · High strength rigid construction ensures long term reliability in the harshest environments
- · Lighter and easier to handle than concrete, which increases the overall safety factor

Accessories

- · Grounding option
 - FST-GND-BAR-KIT: Kit, ground bar and mounting hardware for use in flowerpots, vaults and SmarTerminal. Includes ground bar, ground lug and mounting bolts.



FPB609
Bolt on Cover
Top Diameter: 6 %"
Bottom Diameter: 10"
Depth: 9"



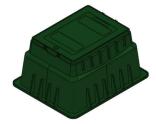
FPB910
Bolt on Cover
Top Diameter: 9"
Bottom Diameter: 11 3/4"
Depth: 10"



FPB910
Bolt on Cover
Top Inside Diameter: 10 1/8"
Depth: 18"



Bolt on Cover
Top Inside Dimensions: 10" W x 14" L
Bottom Outside Dimensions: 19" W x 23 ½" L
Deoth: 12"

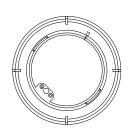


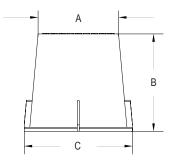
FPB1220
Bolt on Cover
Top Inside Dimensions: 16" W x 20" L
Bottom Outside Dimensions: 24" W x 30" L
Depth: 15 3/4"

Fiber Protection Boxes (FPB)

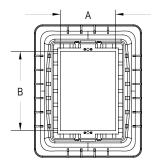


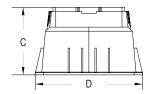
Technical Specifications

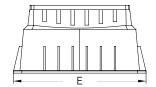




Part Number	A	В	С	Application
FPB609	7 1/16"	9"	10"	Slack cable storage
FPB910	9"	10"	13 ¾"	Slack cable storage
FPB1019	10 1⁄8"	18"	12 ¹³ /16"	SmarTerminal







Part Number	Α	В	С	D	Е	Application
FPB1014	9 13/16"	14 1/16"	12"	19 1/16"	23 %16"	SmarTerminal, SCD Case
FPB1220	12 1/16"	20 1/8"	15 ¾"	24"	30"	SmarTerminal, SCD Case

Pre-Configured Part Numbers

Part Number	Description						
FPB609	6" round top x 9" deep, green, bolt on cover						
FPB910	9" round top x 10" deep, green, bolt on cover						
FPB1019	10" W x 18" L round top, green, bolt on cover						
FPB1014	10" W x 14" L rectangular top x 12" deep, green, bolt on cover						
FPB1220	12" W x 20" L rectangular top x 15 3/4" deep, green, bolt on cover						
FST-GND-BAR-KIT	Kit, ground bar and mounting hardware for use in flowerpots and vaults SmarTerminal. Includes ground bar, ground lug and mounting bolts.						

Fiber Protection Pedestals (FPP)



Application

The CraftSmart Fiber Protection Pedestals (FPP) provide a secure, above ground access point for drop cable and/or splitter deployment. They are optimized to be used with a Clearfield® PON in a PED, SCD Case and SmarTerminal products.

Description

Clearfield's CraftSmart product line provides physical fiber protection for Clearview® Cassette-based products, completing and delivering a turn-key passive solution from the central office/headend to the customer premise. The CraftSmart Fiber Protection Pedestals (FPP) provide the most cost-effective thermoplastic enclosures in the industry - meeting and exceeding the industry standards for strength, reliability and environmental concerns.

FPPs are a two part system - base and cover, with an internal U-channel for mounting various products inside of the pedestal. Designed and tested to withstand the harshest of environmental conditions, including UV, chemical and impact resistance. It is available with stainless steel hex-bolt locking hardware and is formed from a High Density Polyethylene (HDPE) Thermoplastic. The five different size boxes are designed to meet the broad range of fiber, coax and copper needs of the broadband, telecommunications and utilities industries.



These round pedestals are available in light or dark green. They feature direct-bury bases with a removable self-locating and locking cover.

Features and Benefits

Integrity

- · Constructed of durable, UV resistant material for maximum security and service life
- · Two part system HDPE base and molded impact resistant cover
- · Dark green and light green available

Protection

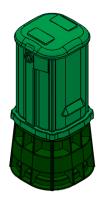
- Self-locating 7/16" hex head lock on cover ensures pedestals lock without special alignment
- Direct bury base provides a uniform and secure installation, while reducing the chances of leaning or tilting

Access

- · Three different sizes for maximum flexibility
- · Internal U-bracket provides multiple mounting options for equipment
- Cover lifts completely off for 360 degree access to equipment inside

Investment

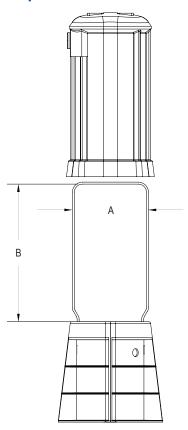
· High strength rigid construction ensures long term reliability in the harshest environments

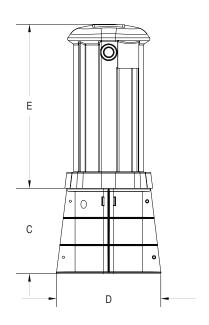


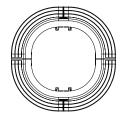
Fiber Protection Pedestals (FPP)



Technical Specifications







Part Number	Α	В	С	D	Е	Application
FPP-8820	9"	17 3/16"	10 11/16"	13 1/16"	20"	SmarTerminal
FPP-101020	10 %"	17 1/16"	11 ¾"	14 %"	20"	SmarTerminal, SCD Case
FPP-121230	12 ¾"	29"	12 %16"	17 1/8"	30"	SmarTerminal, SCD Case, PON in PED Insert

Pre-Configured Part Numbers

Part Number	Description	Application
FPP-8820	Pedestal, 8" x 8" x 20", medium green vented, direct bury, hex head lock	SmarTerminal
FPP-101020-DG	Pedestal, 10" x 10" x 20", dark green vented, direct bury, hex head lock	SmarTerminal, SCD Case
FPP-101020-LG	Pedestal, 10" x 10" x 20", light green vented, direct bury, hex head lock	SmarTerminal, SCD Case
FPP-121230-DG	Pedestal, 12" x 12" x 30", dark green vented, direct bury, hex head lock	SmarTerminal, SCD Case, PON in PED Insert
FPP-121230-LG	Pedestal, 12" x 12" x 30", light green vented, direct bury, hex head lock	SmarTerminal, SCD Case, PON in PED Insert

Test Access Point (TAP) Box



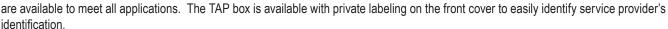
Application

The CraftSmart Test Access Point (TAP) Box gives the service provider an accessible exterior access point to test fiber integrity before it enters the customer premise. This solution allows the service provider the ability to identify potential issues in conductivity from outside of the customer premise location.

Description

The CraftSmart TAP Box is a two part closure that will accommodate up to four fibers for test and access purposes. The base of the unit will allow up to four splices from the feeder cable to individual drops into the customer premise. Duplex SC adapters allow for installation of pre-terminated or field terminated fiber to be connectorized for test and access of the fiber - to determine feeder and drop issues.

Two grommeted in/out ports on the bottom of the unit provide easy installation of both feeder and drop cables. The unit is lockable to minimize customer tampering. There are grounding options available inside the TAP Box that will allow grounding of the feeder and drop cables. It also has built in access to exterior grounding built into the unit. Multiple mounting options





Features and Benefits

Integrity

- · Fiber terminations are Telcordia and RUS compliant
- · Supports industry standard SC singlemode connectors
- 100% performance tested for insertion loss, return loss and final mechanical inspections

Protection

- · Overlapping cover seals unit from environmental elements
- · Two rubber grommets provide sealing of feeder and drop cables
- · Lock hole provided for reduced tampering
- · Enclosure made of high-impact UV resistant thermal plastic material to resist and withstand corrosive environments
- · Designed to meet NEMA 3 criteria
- Integrated fiber management protects fiber from micro and macro damage
- Special coupler available for use with FieldShield[®] Microduct

Access

- · Slide on cover allows for easy access to closure
- · Rubber grommets allow for easy installation of feeder and drop cables
- · Grounding bar inside of unit allows for grounding of feeder and drop cables, as well as built in accessibility to exterior grounding
- Dual SC adapters (one or two) allows for easy access for testing and troubleshooting
- · Available in SC/APC, SC/UPC, LC/APC or LC/UPC
- · Wall and pole mount applications available
- · Built in splice tray allows for maximum flexibility

Investment

- · Available with pre-terminated feeder and drop cables, which minimizes splicing and connectorization field costs
- · Patch and splice compatible
- Available all hours of the day, without customer needing to be there to identify potential problems

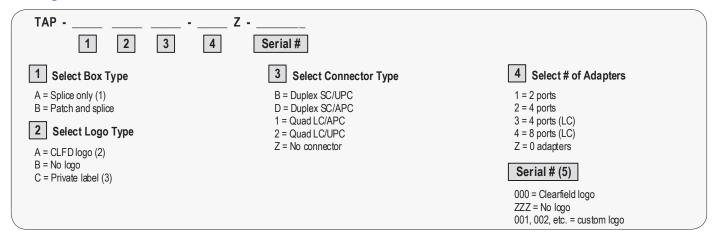
Test Access Point (TAP) Box -



Technical Specifications

CraftSmart Test Access Point (TAP) Boxes		
Dimensions	7.3" H x 8.57" W x 1.67" D	
Connector Availability/ Capacity	Empty: No connector One dual SC/APC or SC/UPC; two dual SC/APC or SC/UPC; quad LC/UPC or LC/APC; two quad LC/UPC or LC/APC	
Grounding Options	Available TAP-GL-KIT (one clamp per kit) for flat drop and dielectric cable TAP-ARM-GL-KIT (one clamp per kit) for armored cable	
Splice Capacity	Four	
Cable Entrance/Exit	One on each port (two total). If using FieldShield® Microduct, order one FS-CPLR-10MM-10MM-TAP per exit	
Private Labeling	Standard: comes with Clearfield® logo. Private labeling available (500 piece minimum). Contact Clearfield sales representative for details	
Pre-terminated Feeder and Drop Cable	Available: Please contact your Clearfield sales representative	
Mounting Options	Wall Mount: Standard Vinyl Siding Mount: TAP-VS-KIT Pole Mount: TAP-PM-KIT	

Configured Part Numbers



Ordering Notes

- 1. Splice only empty box
- 2. Standard product unless noted last three digits will be 000
- 3. 500 piece minimum in effect for custom logo customer must provide artwork to Clearfield®

For pre-terminated feeder and drop cable assemblies, please refer to Clearfield's application guide for ordering information. For custom configurations, please contact your Clearfield sales representative.

CraftSmart® Splice-On Connector (SOC)



Application

Fiber assemblies are used in a variety of carrier networks and private network environments. In some applications, the fiber assembly cannot be deployed with factory terminated connectors. In other instances, there may be a need for quick fiber restoration in the field. CraftSmart Splice-On Connectors are designed for these applications.

Description

In situations where a factory terminated fiber assembly isn't possible, the CraftSmart Spice-On Connector provides the solution for consistent performance. Common applications include field restoration of a broken fiber or when the customer is using media that is expensive and/or difficult to store. In these cases, the customer prefers to cut the media to exact length for his purposes and then use the CraftSmart Splice-On Connector. The Clearfield® advantage is that the protection splice sleeve is directly under the boot, making the routing of the terminated end easier.



The CraftSmart Spice-On Connector is available in all industry standard connectors, including SC/UPC, SC/APC and LC/UPC. The Spice-On Connector meets, and even exceeds industry standard insertion and return loss. Pre-polished and pre-cleaved, the CraftSmart Spice-On Connector is packaged with all required connector components needed to splice a connector onto a 900 µm fiber in the field. CraftSmart Splice-on Connectors require the use of a fusion splicer with removable splice holders.

Features and Benefits

Integrity

- CraftSmart Splice-On Connector is available in all industry standard connectors
- Utilizes a fusion splice for minimal loss and long lasting dependability in any environment
- · Meets or exceeds industry standard insertion loss and return loss

Protection

- · Individually packaged to protect pre-stripped and cleaved fiber during storage
- Fusion splice is protected by a fusion splice sleeve under a color coded boot
- · Ferrules are made of durable Zirconia

Access

- Compact 900 µm fusion splice design that reduces the overall footprint
- Pre-polished fiber end face and pre-stripped, pre-cleaved fiber ready to splice

Investment

- Singlemode, multimode (62.5 μm and 50 $\mu m)$ and laser optimized available
- · Universal holder works with common industry fusion splice machines

CraftSmart® Splice-On Connector (SOC) -



Technical Specifications

CraftSmart Splice-On Connector (SOC)					
Mode Type	Singlemode/APC	Singlemode/UPC	Multimode/62.5 µm	Multimode/50 μm	Multimode/LO
Insertion Loss (maximum)	0.3 dB	0.3 dB	0.4 dB	0.4 dB	0.4 dB
Optical Return Loss	> 65 dB	> 55 dB	35 dB (typical)	35 dB (typical)	35 dB (typical)
Ferrule Type	Zirconica Pre-Polished Ferrules				
Color Code	Green	Blue	Beige	Black	Aqua
Operating Temperature	-40°C to 80°C	-40°C to 80°C	-40°C to 80°C	-40°C to 80°C	-40°C to 80°C
Industry Standards	RoHS Compliant, Compliant to Telcordia GR-326				

Compatible Splice Machines

Manufacturer	Splicer Model	Metal Holder Compatibility	Metal Holder Part Number	Universal Holder Compatibility
FIS	Super Cougar	All Versions	CSM-SOC-FIBER HOLDER-01	All Versions
AFL/Fujikura	FSM-11(S/M)	All Versions	SM-SOC-FIBER HOLDER-02	All Versions
	FSM-12S FSM-19S FSM-70S	All Versions	CSM-SOC-FIBER	All Versions
	FSM-17S/R	SC and LC Only	HOLDER-03	N/A
	FSM-18S FSM-60 (S/R)	SC, LC and ST Only		
Furukawa/Fitel	S122 (A/C/M) S121 (A/M) S123 (C/M) S153 S178A	All Versions	CSM-SOC-FIBER HOLDER-04	All Versions
Sumitomo	Type-25e (U/S/M)		CSM-SOC-FIBER HOLDER-05	All Versions
	Type-39FH Type-46 Type-65 Type-66 Quantum (Q101-CA)	All Versions		N/A
INNO	IFS 10 IFS 15	All Versions	SM-SOC-FIBER HOLDER-06	N/A
Greenlee	910FS	All Versions	CSM-SOC-FIBER HOLDER-07	N/A

Pre-Configured Part Numbers

Part Number	Description
CSM-FCU-SM-6PAK	CraftSmart® Splice-On Connectors, FC/UPC, singlemode, 6 PAK
CSM-LCU-SM-6PAK	CraftSmart Splice-On Connectors, LC/UPC, singlemode, 6 PAK
CSM-SCA-SM-6PAK	CraftSmart Splice-On Connectors, SC/APC, singlemode, 6 PAK
CSM-SCU-SM-6PAK	CraftSmart Splice-On Connectors, SC/UPC, singlemode, 6 PAK
CSM-STU-SM-6PAK	CraftSmart Splice-On Connectors, ST/UPC, singlemode, 6 PAK