FieldSmart® Small Count Delivery (SCD) Panel
## *Installation Manual*

CLEARFIELD

Table of Contents

Application

The Small Count Delivery Panel for a rack provides a cost-effective way to deliver fiber management protection in interconnect or cross-connect environments when landing a small number of fibers. It provides interconnect or cross-connect connectivity for Clearview® Blue Cassettes and xPAKs in a 1RU footprint.

Description

The FieldSmart SCD Panel mounts up to two Clearview devices: the 12 port Clearview Cassette or the two port, four port or six port Clearview xPAK in a single rack unit. The product is available as either a 19" or 23" (482.60 mm or 584.20 mm) rack-mount unit. The FieldSmart SCD 1RU is intelligently designed to provide the user with superior fiber access while using craft-friendly radius protected fiber management for routing and deploying fiber jumpers.
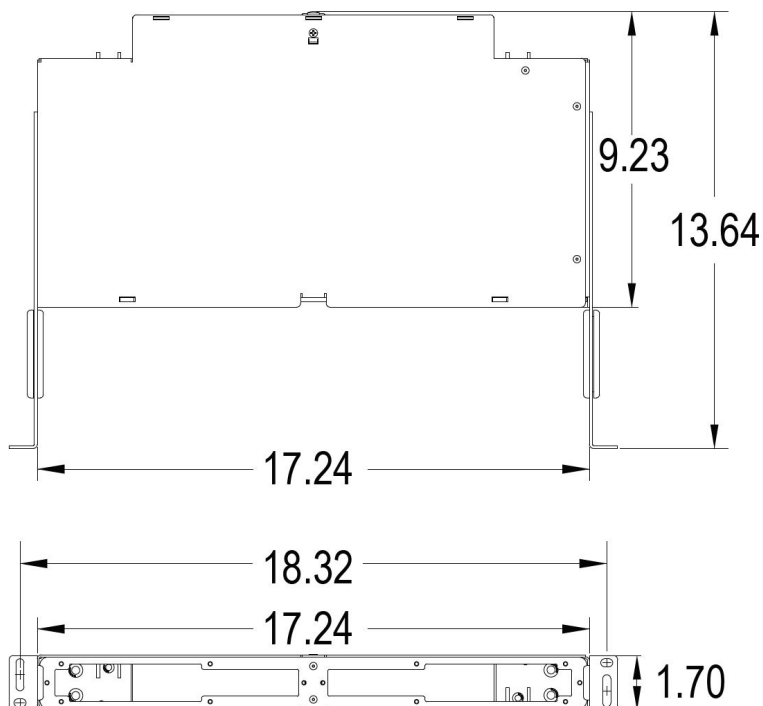
Technical Specifications

| FieldSmart 1RU Small Count Delivery Panel - Rack	
Dimensions	1.70" H x 17.24" W x 9.23" D (43.18 mm x 437.90 mm x 234.44 mm)
Ratings	Compliant to Telcordia GR-449
Port Density	24 SC or 48 LC
Cassette Types Supported	Clearview Blue and Clearview xPAK
Connector Types	SC/UPC, SC/APC, LC/UPC, LC/APC, FC/UPC, FC/APC, ST/UPC, MPO
Cable Types	Indoor Riser, Indoor Plenum, Indoor/Outdoor, Outdoor (Riser/Non-Rated), Outdoor Armored (Riser/Non-Rated), FieldShield®
Splice Capacity	12 splices in each Clearview Cassette
Storage Capacity	One meter of 900 µm fiber
Material	Steel and aluminum with almond powder coating

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Manual 020418 REV A - Dec 2018

3

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Ship Along Items

In addition to the FieldSmart SCD Panel body, the following items are shipped along with the panel.
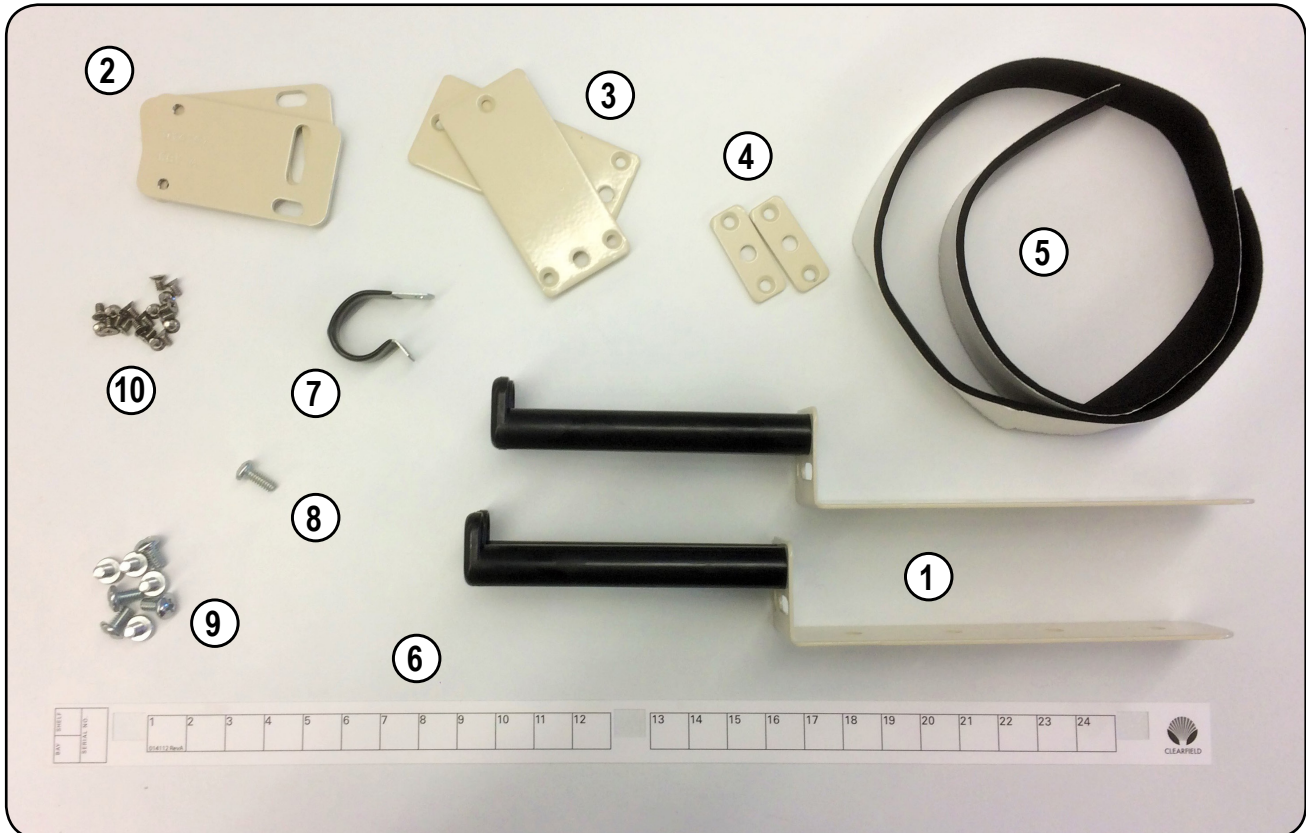
1.   (2) Panel Mounting Brackets with Radius Fingers
2.   (2) 23" Panel Mounting Extension Brackets
3.   (2) Middle LGX xPAK Mounting Brackets
4.   (2) Outside LGX xPAK Mounting Brackets
5.   2.5ft Grommet Tape
6.   Designation Card (Stored Inside Panel)
7.   Cable Mounting P-Clip
8.   10-24 x 1/2in P-Clip Screw
9.   (8) 12-24 x 3/8in Panel Mounting Screws
10. (20) 6-32 x 1/4in Panel Assembly Screws
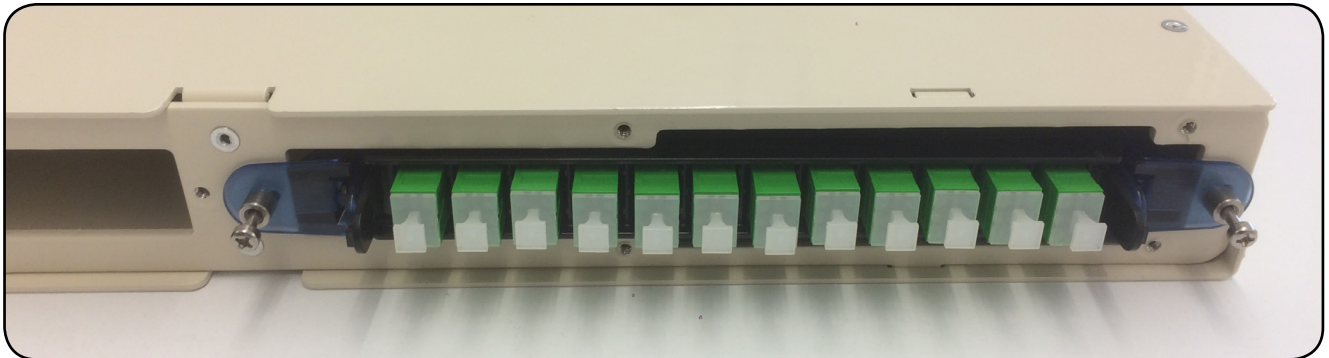
Installing Clearview Blue Cassettes
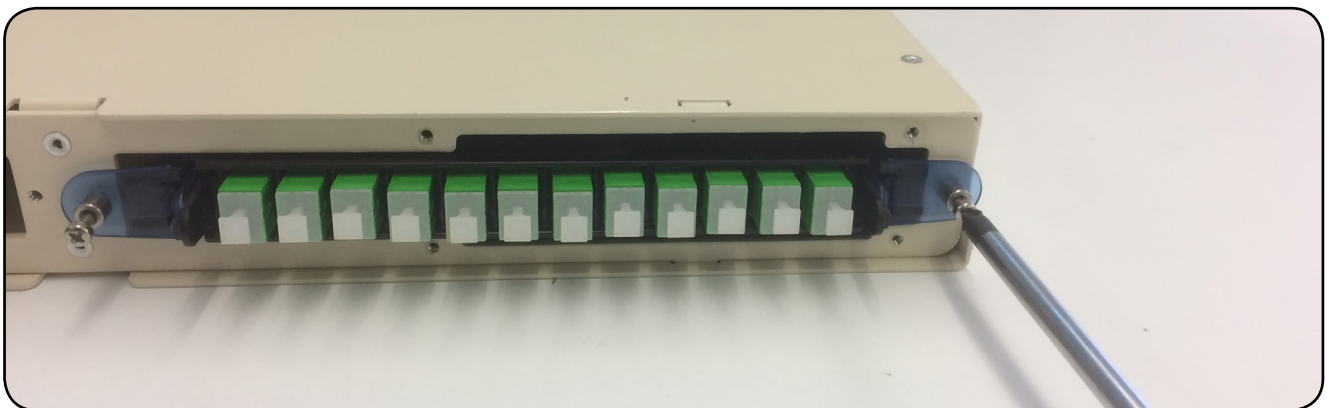
1.   The front of the empty FieldSmart SCD Panel is shown below.

2.   Insert the Clearview Blue Cassette into the desired side of the panel.

3.   Using a phillips screwdriver, secure the cassette into place by tightening the retaining screws on the mounting ears of each side of the cassette

4.   If installing Clearview Blue Cassettes into both sides of the panel, repeat the previous steps on the other side.
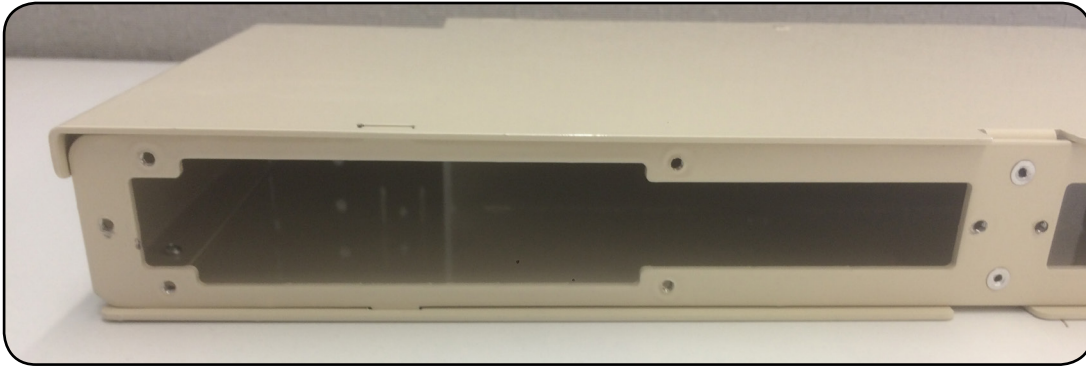
Installing Clearview xPAKs

1. In order to install LGX style Clearview xPAKs into the FieldSmart SCD Panel, the front end of the panel must first be configured to accept the xPAKs.

2. Install the outside LGX xPAK mounting bracket onto the front face of the panel as shown. Use a philips head screwdriver to secure the bracket into place with two of the 6-32 x 1/4in panel assembly screws.

3. Install the middle LGX xPAK mounting bracket onto the front face of the panel as shown. Use a philips head screwdriver to secure the bracket into place with three of the 6-32 x 1/4in panel assembly screws.
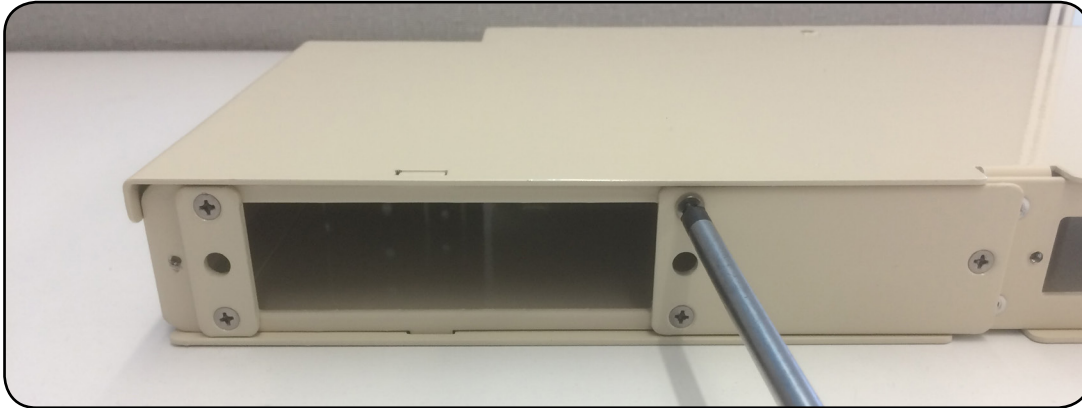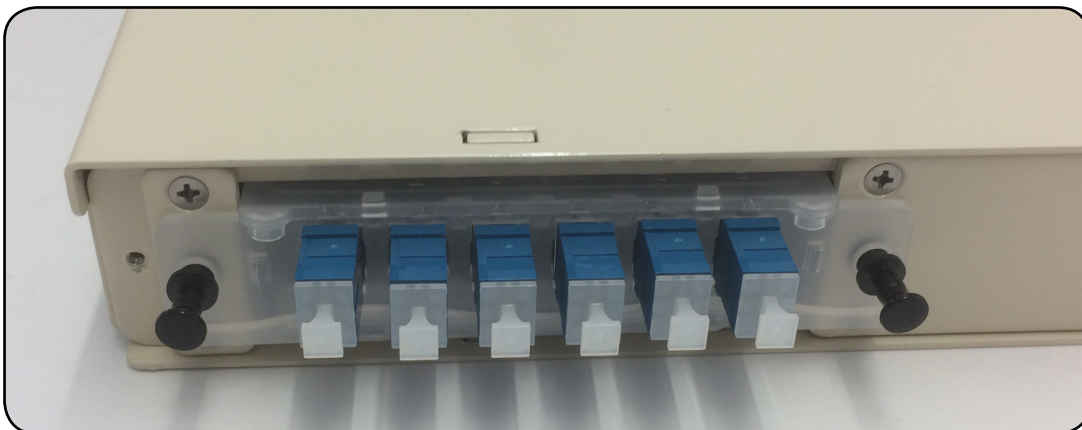

4. Slide the Clearview xPAK into place in the panel.

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Manual 020418 REV A - Dec 2018

7

5. Utilize the push/pull plungers to secure the Clearview xPAK into the panel. Ensure the outer grommets of the push/pull plungers are seated in the holes of the middle and outside LGX xPAK mounting brackets, and push the plunger in to expand the grommet and lock the xPAK in place.

6. If you wish to install an xPAK into the other side of the panel, repeat the previous steps for the other side.
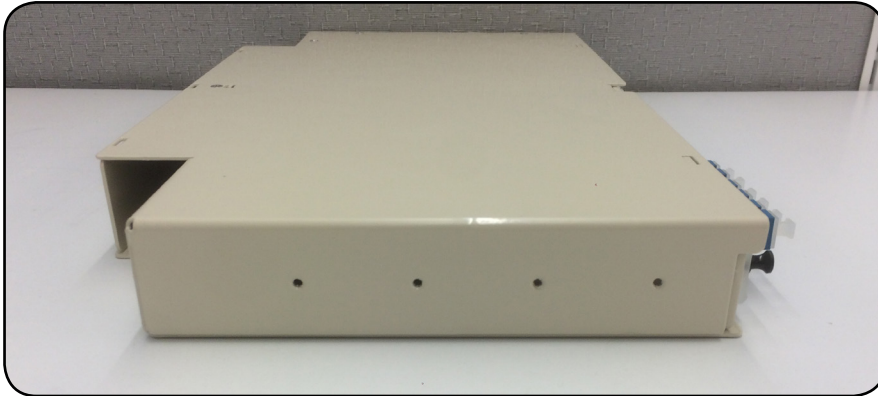
Panel Mounting

1. In order to mount the FieldSmart SCD Panel into a frame, you will first need to install the panel mounting brackets with radius fingers onto each side of the panel. Notice the 4 threaded holes along each side of the panel.

2. The panel mounting brackets can be installed so that when the panel is mounted, it is either flush, 1 inch recessed, or 3 inches recessed. This is achieved by simply shifting the mounting brackets forward.
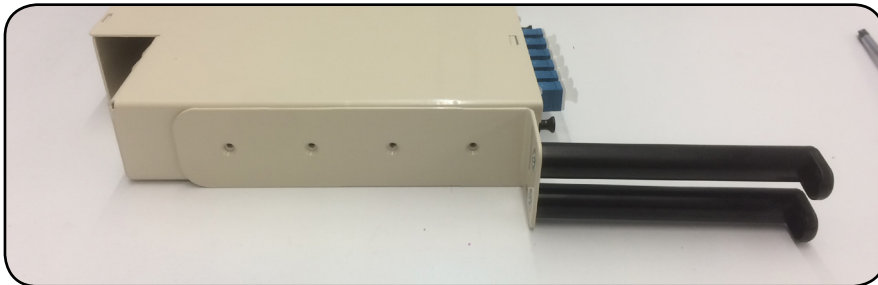
Flush Mount
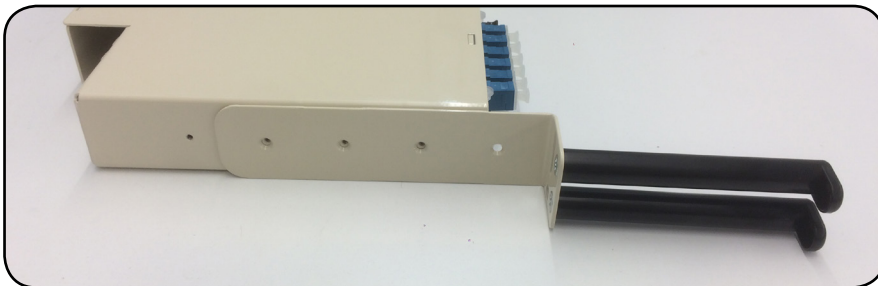
1" Recessed Mount
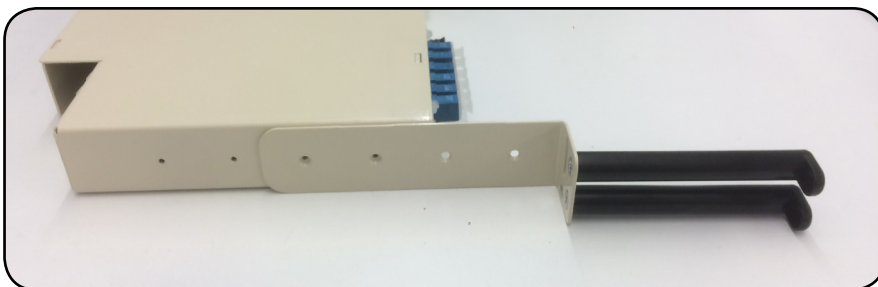
3" Recessed Mount

3.   Utilizing 4, 3 or 2 (depending upon mounting bracket position) of the 6-32 x 1/4in panel assembly screws per side, secure the mounting brackets into place on both sides of the panel.

4.   For 19 inch frames, the panel is now ready to install into the frame. However, if the panel is to be installed into a 23 inch frame, the extension brackets must first be installed on both sides of the panel. Using two 12-24 x 3/8in panel mounting screws per side, secure the extension brackets onto the mounting brackets as shown.
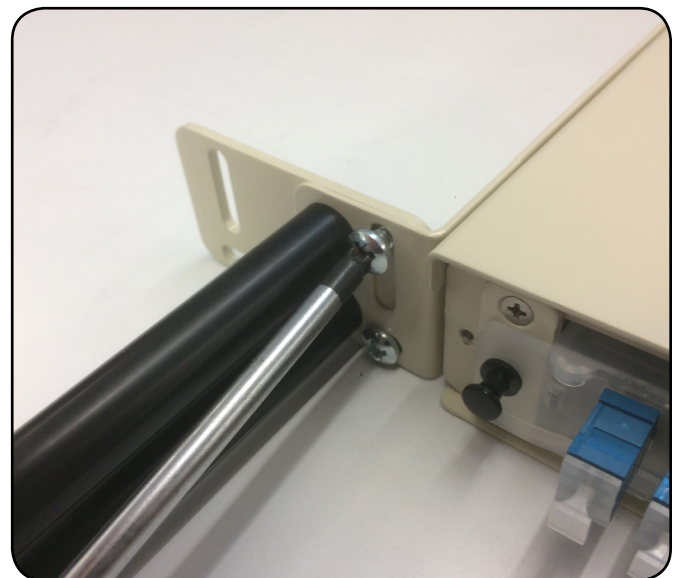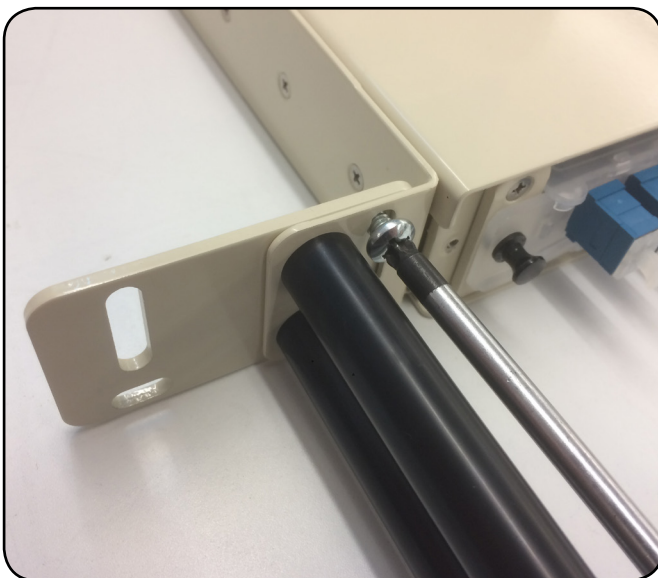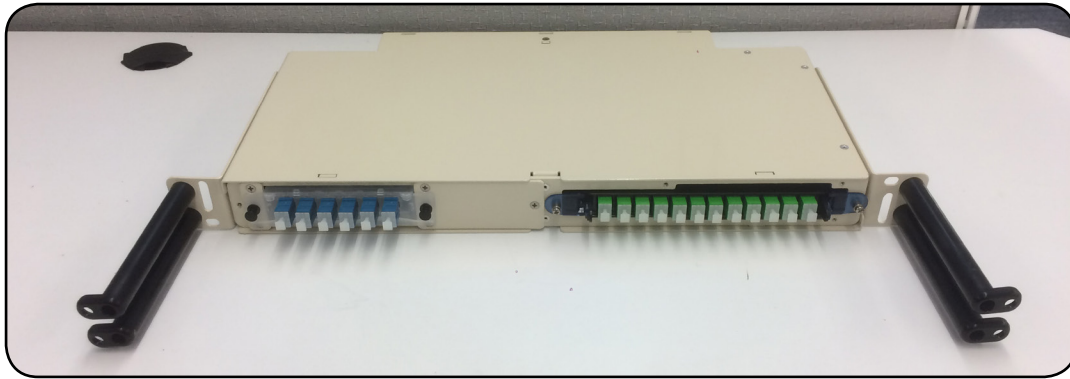
19" Frame Configuration
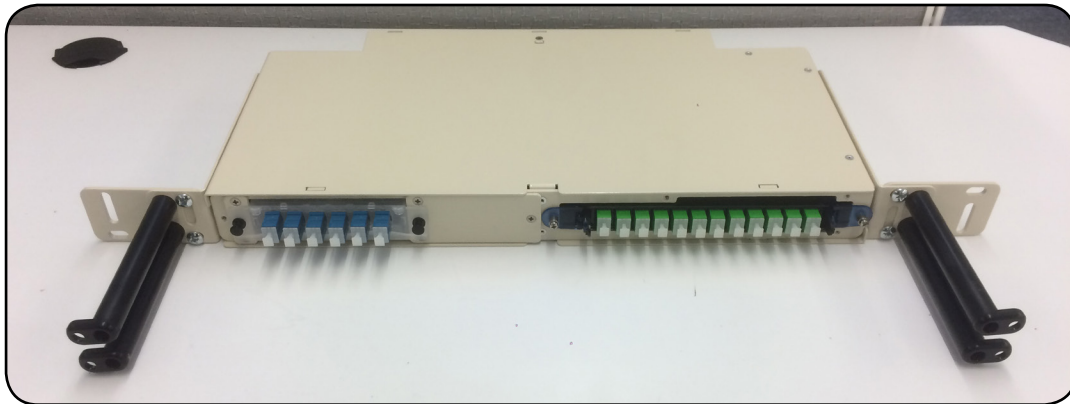
23" Frame Configuration

5. Using two 12-24 x 3/8in panel mounting screws per side, secure the SCD Panel into the frame, in either a 19" or 23" configuration.

19" Frame Configuration

23" Frame Configuration

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Manual 020418 REV A - Dec 2018

11

Cable Mounting and Routing

1. In order to mount a cable to the back of the FieldSmart SCD Panel, a vinyl coated P-clip is included with the ship alongs.

2. To increase the diameter of the cable so the P-clip will grip the cable properly, wrap grommet tape around the cable 1-2 laps, then secure to the panel using the provided 10-24 x 1/2in P-clip screw.
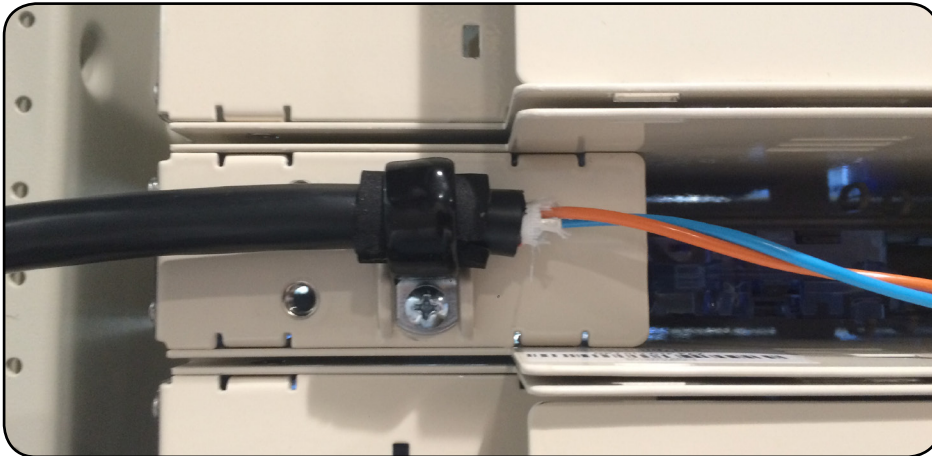
3. Remove any xPAKs or Cassettes that are already installed into the panel. Pull the buffer tubes or ribbons through the back of the panel and out through the front. Proceed to splicing.

See the Clearview Blue Cassette Installation Manual, or the Clearview xPAK Installation Manual, for splicing instructions, located under the Resources tab of the Clearfield website, www.seeclearfield.com.

4. After splicing in the Cassettes/xPAKs, reinstall them into the panel. Pull the cable slack out the rear of the panel.
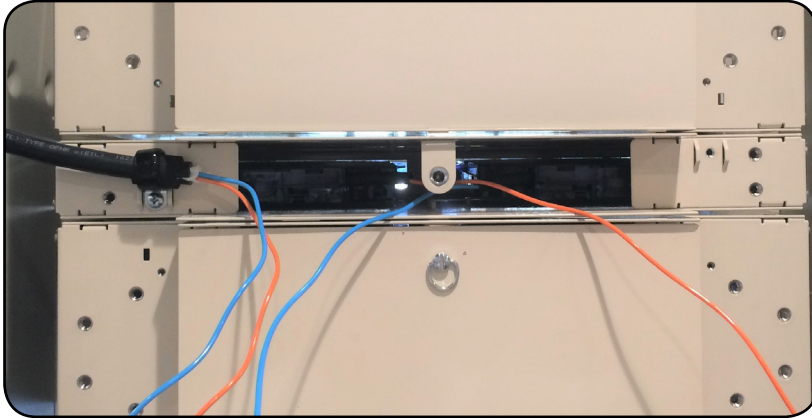
5. Coil up the buffer tubes from each Cassette/xPAK into a coil of roughly 6" diameter. These can be secured with velcro.
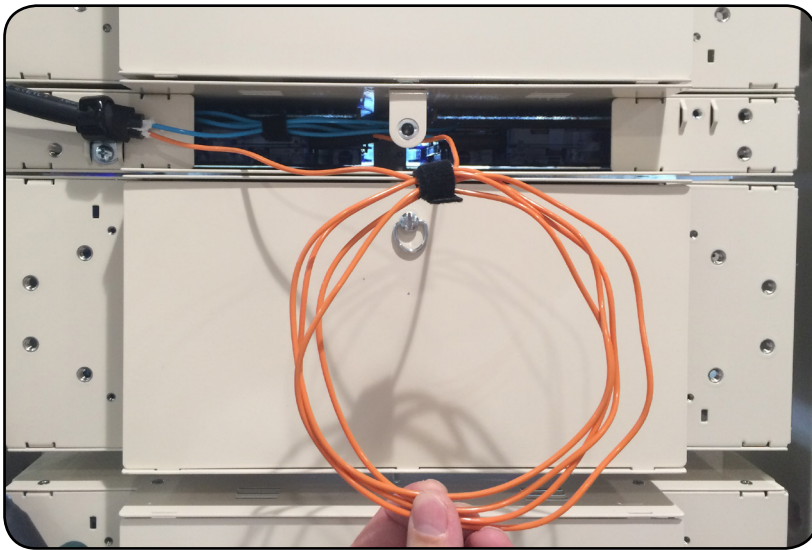
6. The buffer tubes can then be inserted into the panel, either above or below the Cassettes/xPAKs, in order to store the slack.
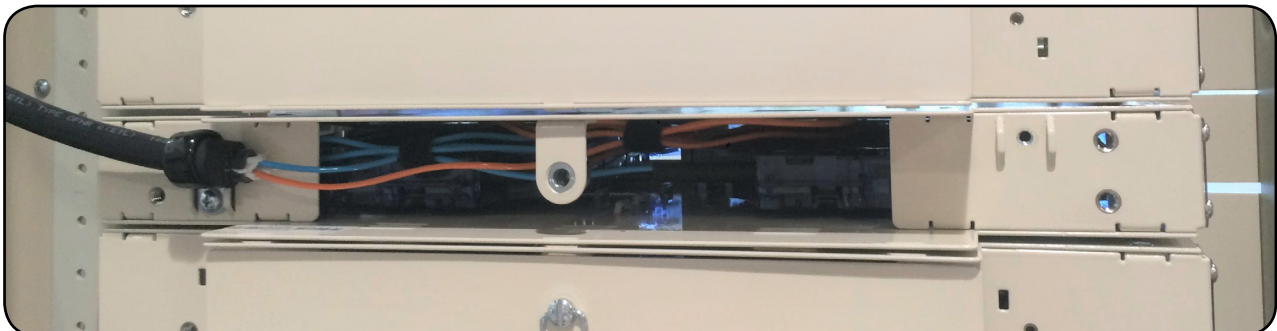
Connector Cleaning Procedure

Whether factory terminated or field spliced, clean connectors are essential for proper system operation. Even the smallest dust particle can cause transmission problems, so for optimal network performance inspect, and if necessary, clean connectors and adapters prior to mating.

Inspect Then Connect

These are Clearfield recommended products/applications. Use the product you feel will complete your cleaning procedures. Create a "best practice" for your company and follow those procedures.

The use of Chemtronics end face and bulkhead cleaning products and techniques ensures a clean end face, no matter the type of contamination.

Before cleaning any connector, be sure you know what type of contaminate you are cleaning (dry, fluidic, or combination). All the available products are good, it's the process that you need to be aware of. Using a dry cleaning method to clean "dirt" can lead to scratching of the end face. Learn the process of cleaning properly.

*Note: It is **NOT** recommended to use isopropyl alcohol to clean the end face.*

Figure 1

Cleaning an SC/LC Connector

Cleaning the End Face

- Place one wiping paper on QbE-2 FiberSafe™ Cleaning Platen. (**Figure 1**)

- Apply small amount of precision cleaner (about 1" in diameter) with Electro-Wash MX pen on to one end of the wipe. (**Figure 2**)

- Hold end face at a 90 degree angle. For APC connection, adjust by slightly tilting the container or end face. Angle is correct when no drag is felt on the end face. (**Figure 3**)

- Draw end face from wet to dry part of the wipe 3 times. Use just enough pressure to ensure complete contact between end face and the wipe.

*Note: **DO NOT** retrace previous step.*

Figure 2

Figure 3

Cleaning the Ferrule

- Lightly moisten the fiber optic swab (2.5mm/38542F or 1.25mm/38040) by spotting a small amount (about 1") of Electro-Wash PX or Electro-Wash MX pen onto the QbE. Hold the swab, 1 side down to the wetted area and hold for a count of 1-2-3-4-5. (**Figure 4)**
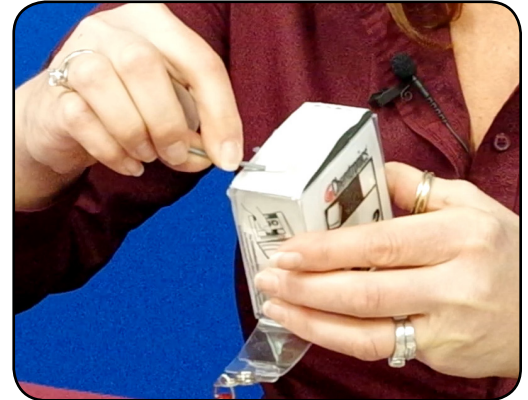
Figure 4

- Insert swab into side of ferrule, wet side to the ceramic ferrule and circle around 2-3 times and remove. Turn swab to dry side and repeat. (**Figure 5)**

Figure 5

Cleaning the Mate Through an Adapter AND the Adapter Itself

- Lightly moisten the fiber optic swab (2.5mm/38542F or 1.25mm/38040) by spotting a small amount (about 1") of Electro-Wash PX or Electro-Wash MX pen onto the QbE. Hold the tip of the swab onto the wetted area and hold for a count of 1-2-3-4-5.

- Insert the swab into the adapter to the connector, press lightly against the connector, twist 2-3 times, remove and discard.

- Dry with a second dry swab.

- Inspect, repeat cleaning if necessary, and test for signal strength.

- Use additional swabs to clean inside the actual adapter. Moisten swab, like above, and insert through hole and remove while twisting. (**Figure 6)**

Figure 6

FieldSmart® Small Count Delivery (SCD) Panel
Installation Manual
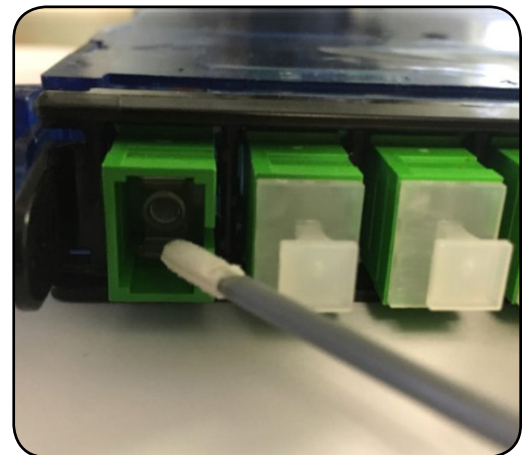
Cleaning an MPO/MTP Connector

Female Connector

- Place one wiping paper on QbE-2 FiberSafe™ Cleaning Platen and apply small amount of precision cleaner (about 1" in diameter) with Electro-Wash MX pen on to one end of the wipe. (**Figure 1**)

Figure 1

- Hold end face at a 90 degree angle. For APC connection, adjust by slightly tilting the container or end face. Angle is correct when no drag is felt on the end face. (**Figure 2**)
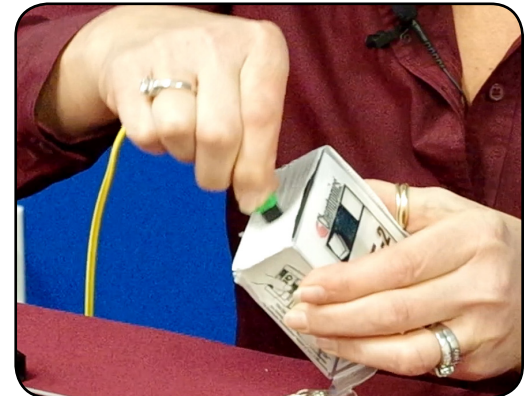
Figure 2

Male Connector

- Lightly moisten one side of the fiber optic swab (CC505F) by spotting a small amount (about 1") of Electro-Wash PX or Electro-Wash MX pen onto the QbE. Hold the swab, 1 side down to the wetted area and hold for a count of 1-2-3-4-5.

- Place swab, wet side down, at one end of connector end face and draw across in a diagonal sweep; i.e., from fiber 1 up and across to fiber 12. Turn swab over to dry and draw back from fiber 12 to fiber 1. (**Figure 3**)

Figure 3

Standard Warranty

Clearfield warrants to the original purchaser of the Product sold hereunder is free from defects in material and workmanship under normal use and service, subject to exceptions stated herein. Product purchased is warranted as follows: Clearfield designed and branded Products are warranted for three (3) years: Products manufactured by Clearfield to customer prints and/or specifications are warranted for one (1) year; and any Product Clearfield acquires from or through a third-party manufacturer or distributor and resells to Customer as the original customer will carry the manufacturer's pass-through warranty, if any. In all cases, the warranty period commences on the date of shipment to the original purchaser.

Warranty Claim Procedure

If any Product purchased from Clearfield is found defective under the above warranty, the following basic procedure must be followed:

1. Customer must contact Clearfield and obtain a Return Materials Authorization
2. Following authorization, the Customer ships the product-freight collect-to Clearfield's manufacturing facility
3. Clearfield shall repair or replace the defective Product at its sole option and discretion, and return the repaired or replacement Product to Customer's site, freight prepaid

Note: If the Product is not found to be defective by Clearfield, the product will be returned to the Customer and the customer billed for freight in both directions.

View our warranty policy here: https://www.seeclearfield.com/warranty.html

Limitations of Warranty

Correction of defects by repair or replacement, at the option of Clearfield Inc, shall constitute the exclusive sole remedy for a breach of this limited warranty. Clearfield shall not be liable under any circumstances for any special, consequential, incidental, punitive, or exemplary damages arising out of or in any way connected with the product or with agreement to sell product to buyer, including, but not limited to damages for lost profits, loss of use, or for any damages or sums paid by buyer to third parties. The foregoing limitation of liability shall apply whether the claim is based upon principles of contract, warranty, negligence or other tort, breach of statutory duty, principles of indemnity or contribution, the failure of any limited or exclusive remedy to achieve its essential purpose, or otherwise.

Clearfield will not be responsible for any labor or materials costs associated with installation or incorporation of Clearfield products at customer sites, including any costs of alteration, replacement or defective product, or any field repairs.

Other Limitations

Clearfield assumes no warranty liability regarding defects caused by:

1. Customer's modification of Product, excepting installation activities described in Clearfield documentation
2. Customer re-packaging of Product for shipment to third parties or destinations other than those originally shipped to by Clearfield, or any defects suffered during shipping where the Product has been re-packaged
3. Customer's installation or maintenance, excepting activities described in and performed in accordance with Clearfield documentation
4. Customer's improper or negligent use or application of Product
5. Other causes external to the Product, including but not limited to accidents, catastrophe, acts of God, government action, war, riot, strikes, civil commotion, sovereign conduct, or the acts or conduct of any person or persons not party to or associated with Clearfield
6. Environmental factors and weathering resulting in aging and damage not necessary or applicable to the function of the product

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Its purpose is to provide the user with adequately detailed documentation to efficiently install the equipment supplied. Every effort has been made to keep the information contained in this document current and accurate as of the date of publication or revision.

However, no guarantee is given or implied that the document is error free or that it is accurate with regard to any specification.

Technical Support

Clearfield, Inc. can be contacted for any issues that arise with the supplied product.

If you need to return the supplied product, you must contact the Clearfield, Inc. Customer Service Department to request a Returned Materials Authorization (RMA) number.

Clearfield, Inc.
7050 Winnetka Ave N
Minneapolis, MN 55428

Toll Free: 800.422.2537
Phone: 763.476.6866
Fax: 763.475.8457

Customer Support: sales@clfd.net
Technical Support: techsupport@clfd.net