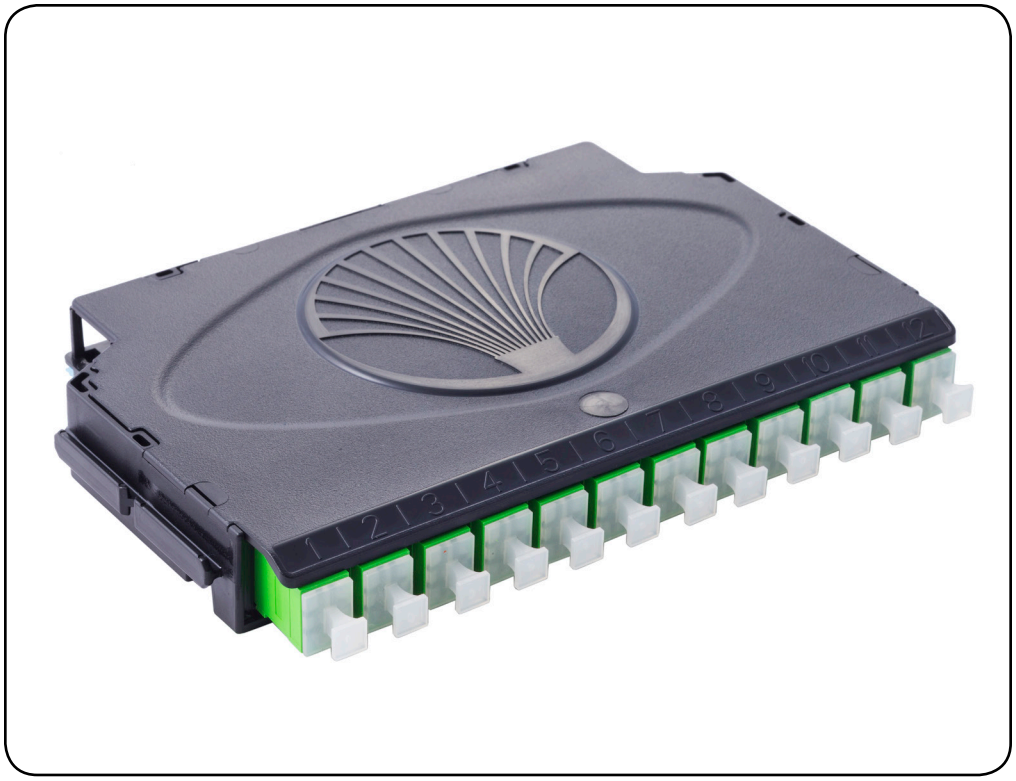
Clearview Black Cassette

Installation Manual

CLEARFIELD



Manual 019390 Rev A - Dec 2017

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Application

Clearview Black provides 12 to 24 ports of connectivity for patch and splice, patch only and plug-and-play (MPO/MTP) configurations in any network environment. It scales and multiplies to meet your specific port density and application needs. Additionally, optical components integrate into the cassette, supporting any input/output combination of splitting or WDM strategy desired.

Description

Clearview Black incorporates the same flexibility and scalability of both the Clearview Classic and Clearview Blue in a 50% smaller footprint than the Clearview Blue. Decreasing the overall footprint of the fiber management element reduces real estate costs and improves density without compromising critical design elements of access, bend-radius protection, physical fiber protection and route-path diversity.

Clearview Black is a three component tool-less system made up of a top cover, base/splice tray and splice tray cover. Parts snap together to support the desired application requirements. All types of fiber cable construction can be integrated within the cassette to support all patch and splice, patch only, plug-and-play, and passive optical component hardware scenarios. Each patch and splice cassette comes prepared for mass fusion splicing, with one meter of ribbonized 250 µm fiber preloaded and prepped to splice. Each ribbonizing jig aligns and secures the loose tube fibers into correct color code order, allowing ribbonizing to be completed quickly and easily.

For patch only configurations, the pre-terminated length of OSP or IFC cable is pre-loaded within the Clearview Black Cassette. The cassettes are then preloaded into the FieldSmart® product when shipped.

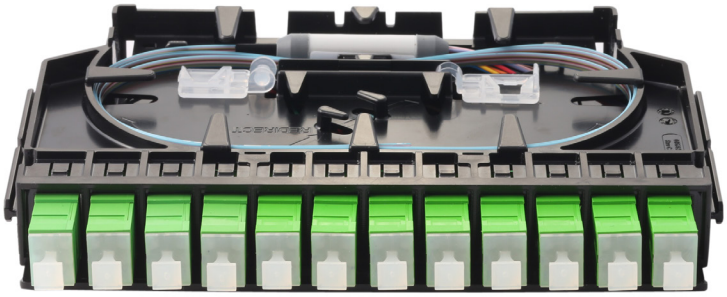
Technical Specifications

Clearview Black Cassette	
Dimension	0.81’ H x 6.13” W x 4.14” D
Ratings	Terminations are designed and tested to Telcordia GR-326; Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
Backwards Compatible	N/A
Material	Polycarbonate
Connector Types	Supports industry standard SC and LC singlemode connectors
Meters/Feet of Slack Storage	1 meter of 250 µm used for internal ribbon splicing only
Mounting Options	Used with FieldSmart® BLG Pivot Bracket

Configurations

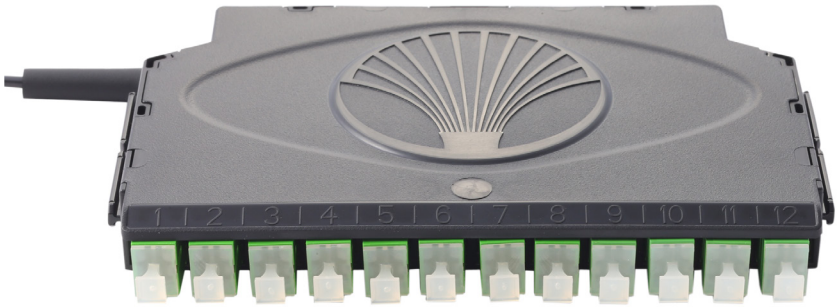
Patch and Splice: Ribbon

The splice tray that is molded into the lower tray is all that is needed to deliver integrated in-cassette splicing applications. Pre-loaded with up to one meter of ribbon, 250 µm assemblies that are preterminated with slack stored inside the cassette for splicing.



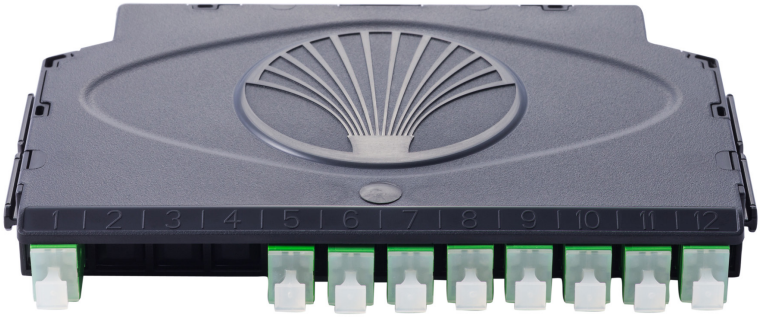
Patch Only

Regardless of the industry standard adapters or cable construction, the Clearview Black handles all patch only applications using the lower tray, top cover and built in radius limiter.



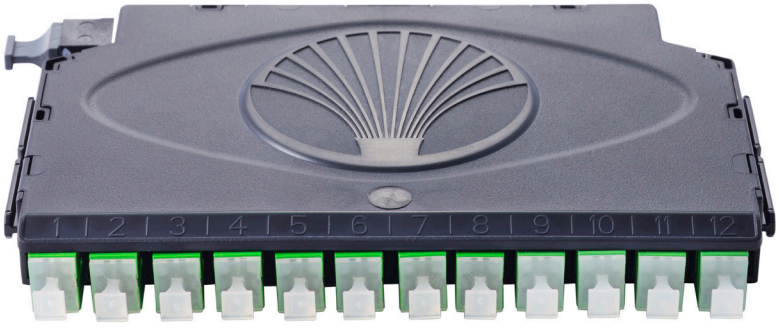
Optical Components

Clearview integrates optical components into the identical cassette, allowing service providers to mix and match fiber modules with optical components in the same chassis. Options include circulators, WDM and splitters up to 1x8 split.

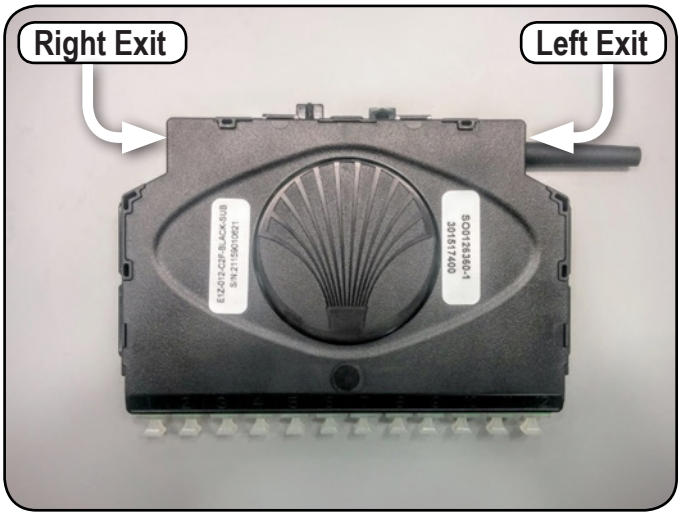


MPO Plug-and-Play

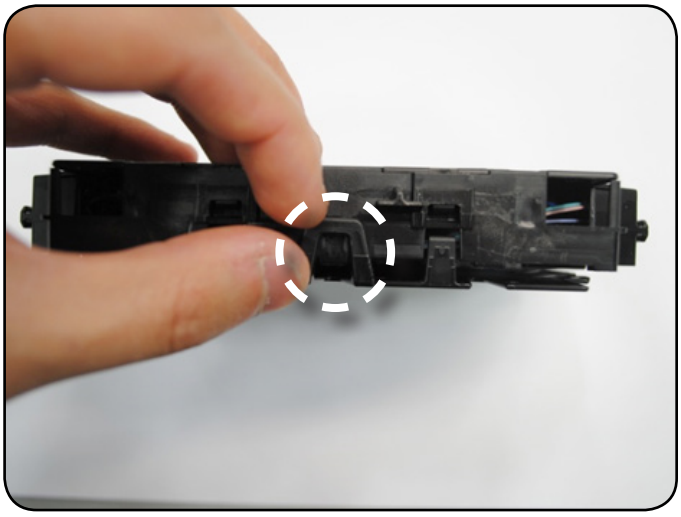
MPO to 12-fiber 900 µm assembly allows for plug-and-play by mating MPO to MPO with pre-terminated multi-fiber OSP or IFC.



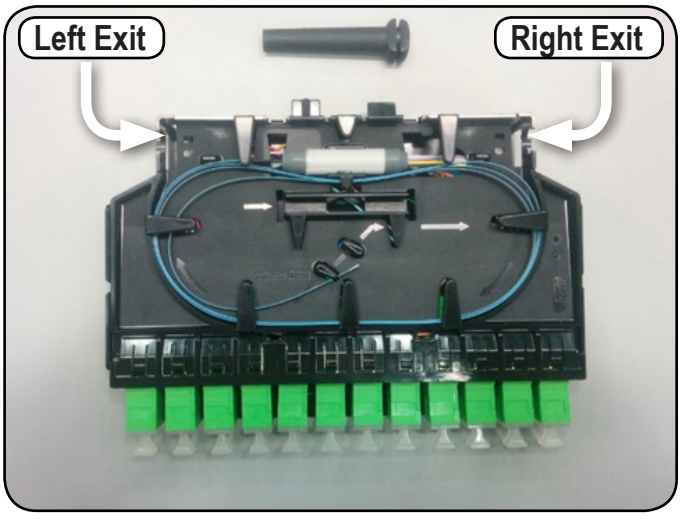
Splicing in the Clearview Black Cassette



Exit positions as seen from the top of the Clearview Black Cassette.

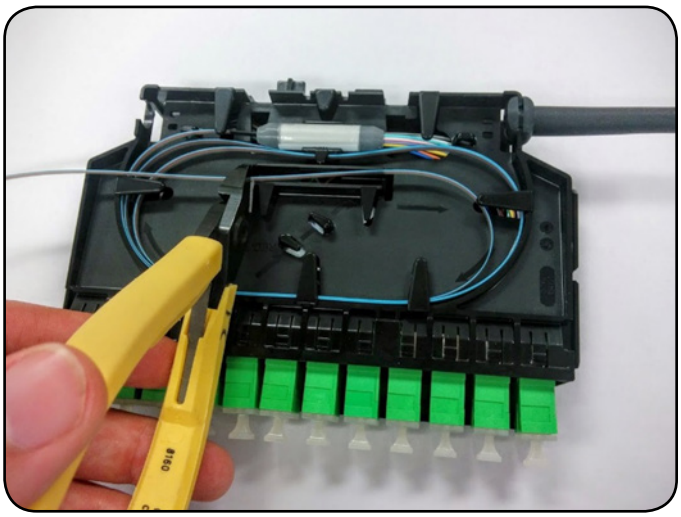


Lift the locking tab to unlatch and remove the bottom cassette cover. Remove the strain-relief boot from the cassette.

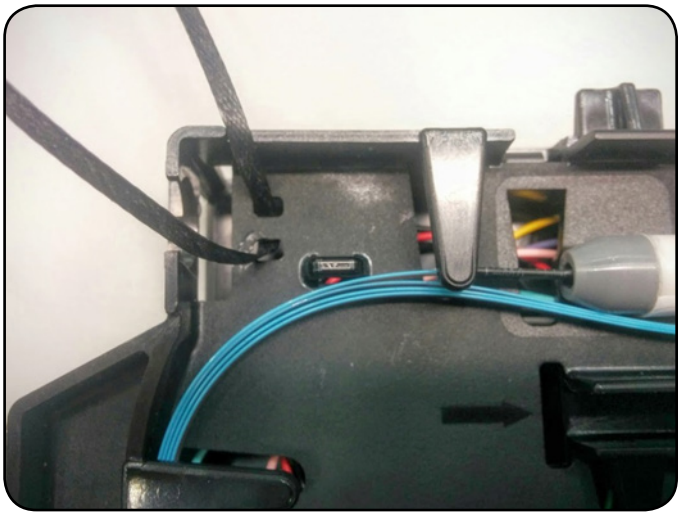


Exit positions as seen from the bottom of the Clearview Black Cassette.

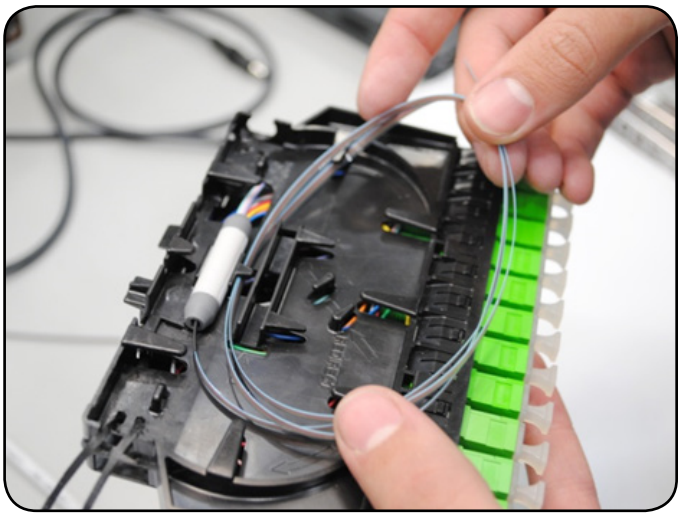
Route the ribbon through the splice sleeve holder and trim any excess to the left. This will ensure that the ribbon lays well when the splice sleeve is inserted into the holder.



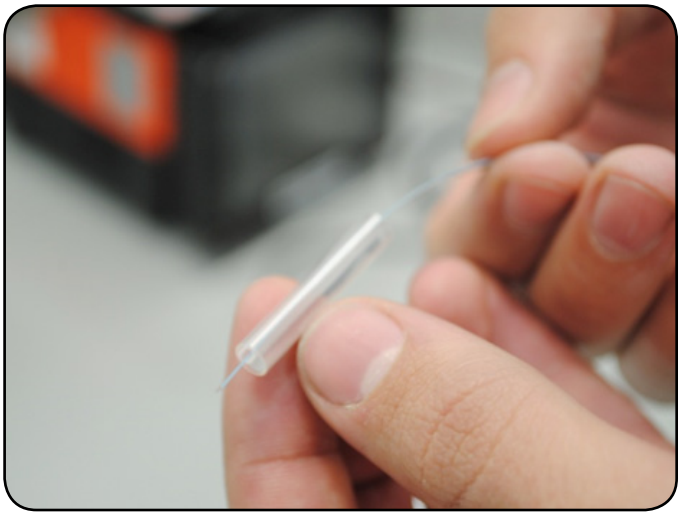
Loop a cable tie or a length of wax string through the cassette on the desired exit side.



Gently remove the ribbon from the splice tray.



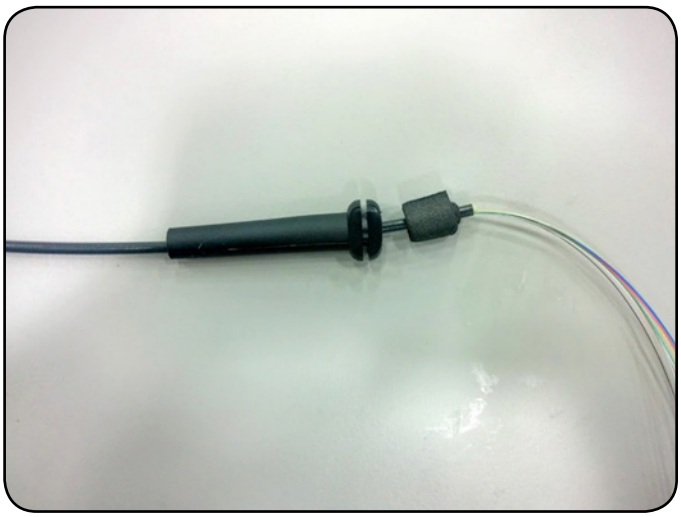
Load the splice sleeve onto the end of the fanout ribbon.



Loose Tube

Load the strain relief boot onto the cable being spliced. Open up the buffer tube 36” back from the end and expose the 250 micron fibers.

Wrap a piece of grommet tape ¼” from the end of the jacket and cut the excess.



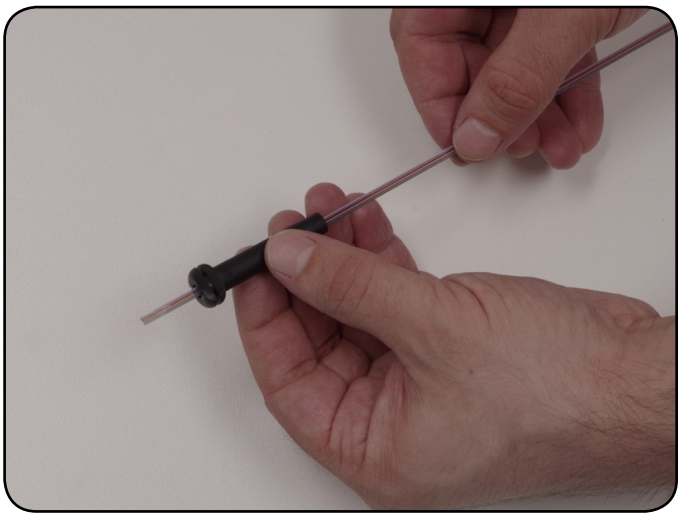
If splicing loose tube, ribbonize the fibers. Proceed to splicing the fanout to the cable.

Note: *If utilizing the Clearview Ribbonizing Tool, reference the Clearview Ribbonizing Tool Demonstration Video at www.seeclearfield.com under the Resources tab.*

Viewable here: https://vimeo.com/212654098

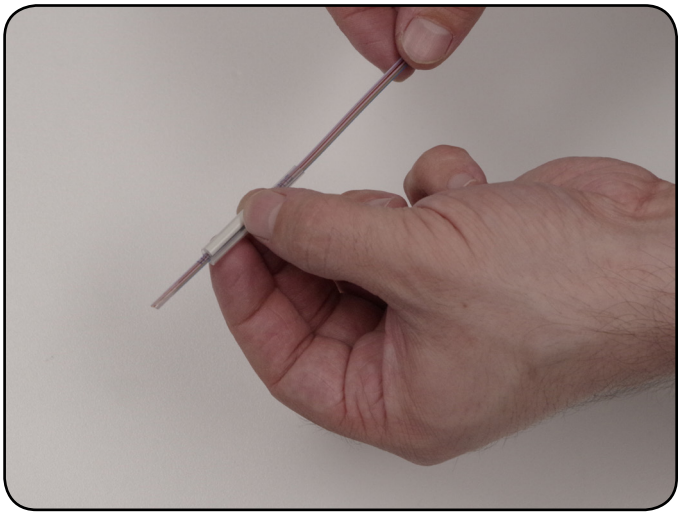
Ribbon

If splicing ribbon into the cassette, slide the strain relief boot over the end of the ribbon and push it back over 36”.

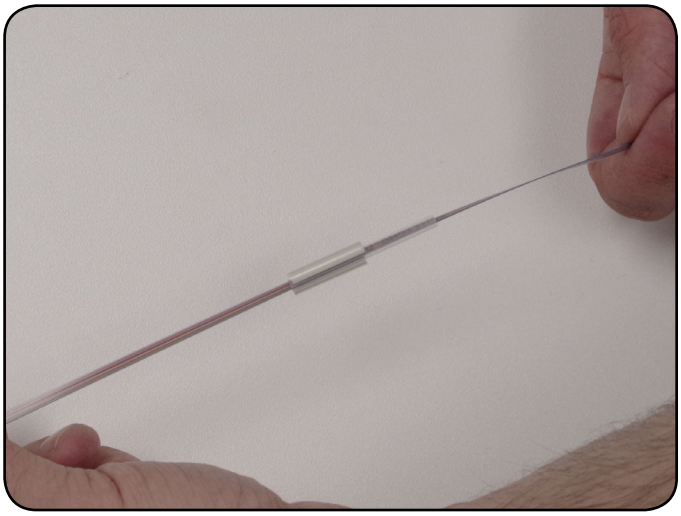


Note: *Clearfield recommends the use of furcation tubing to protect the bare ribbon before it enters the cassette. Furcation tubing is secured in the cassette in the same way as a buffer tube.*

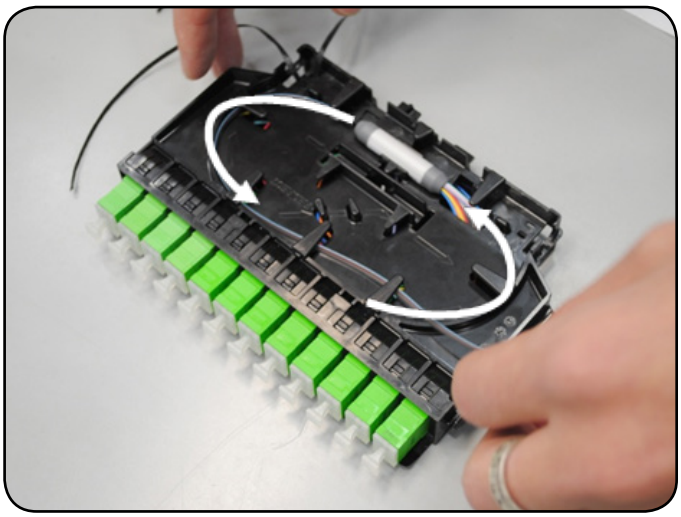
Slide the ribbon tie-down over the end of the ribbon and push it back 36”.



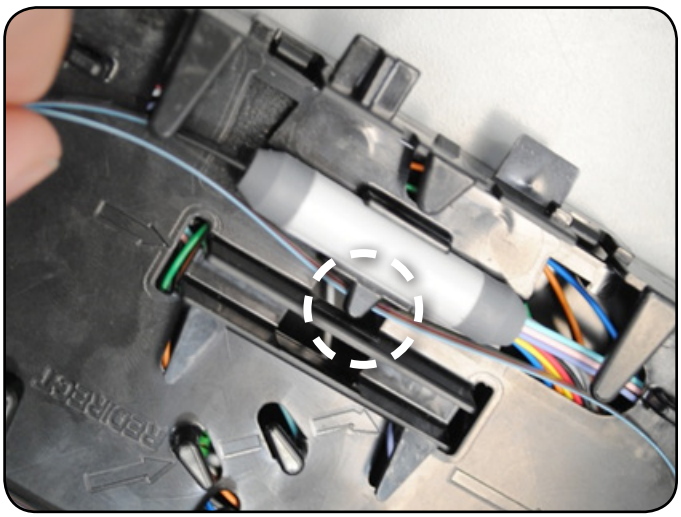
Secure the ribbon tie-down in place by heating it in the splicer oven. Proceed to splicing the fanout to the cable.



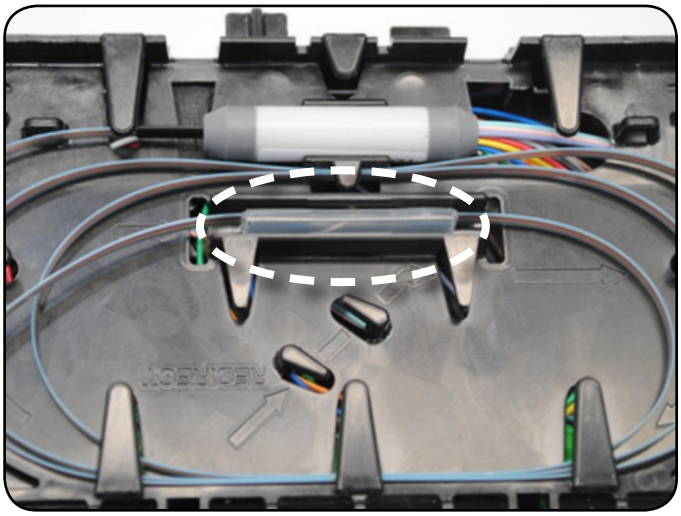
After splicing, begin routing the ribbon counterclockwise into the splice tray. Rotate the cassette as you load the ribbon since the cable will have to remain stationary.



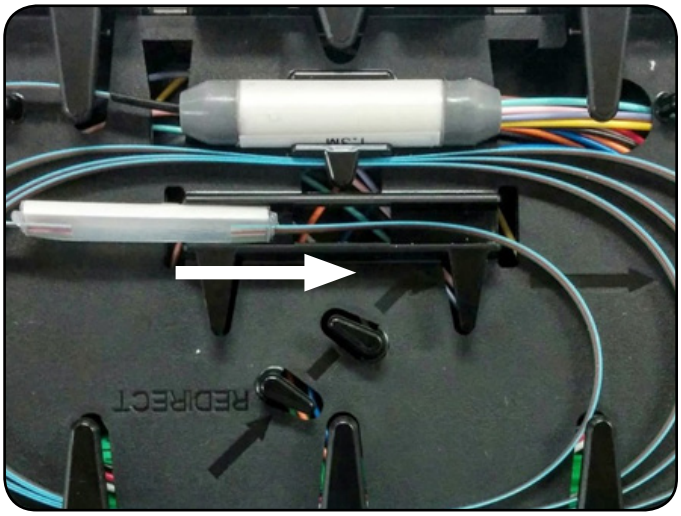
Before you load the spliced portion into the splice tray, route the ribbon under the first tab below the transition as shown.



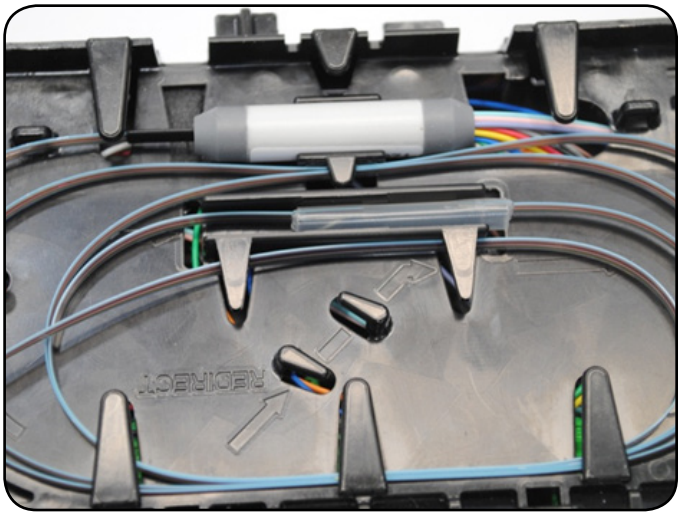
Insert the spliced portion into the splice sleeve holder as shown.



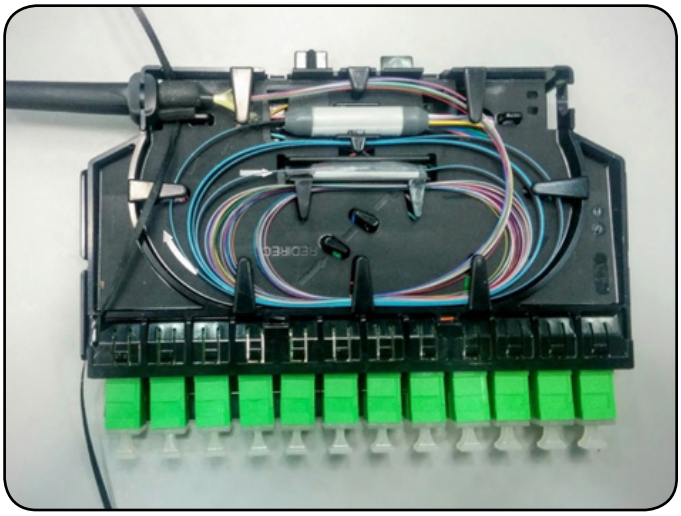
Note: *Do not force the splice sleeve into holder. If necessary, slide the sleeve in from either side as shown.*



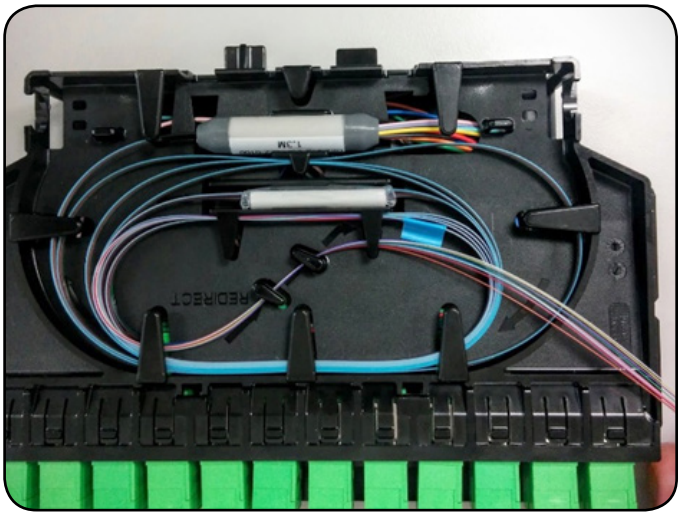
Route the remainder of the fiber under the tabs underneath the splice sleeve as shown.



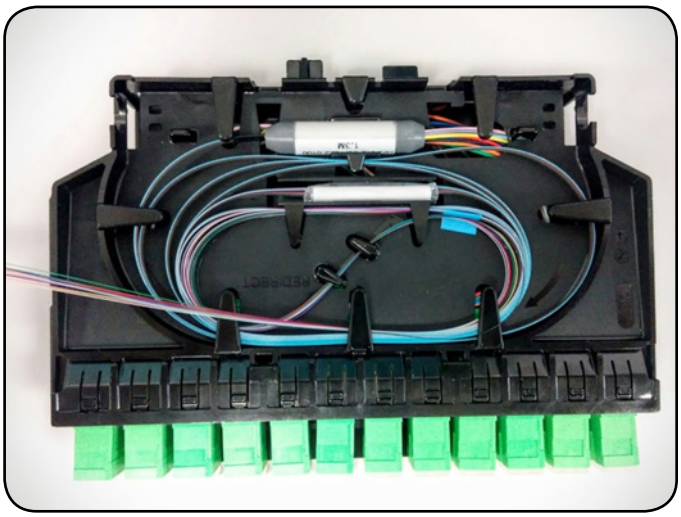
For a left exit, route the fiber as shown. Insert the boot into the cassette and align the grommet tape with the cable tie or wax string.



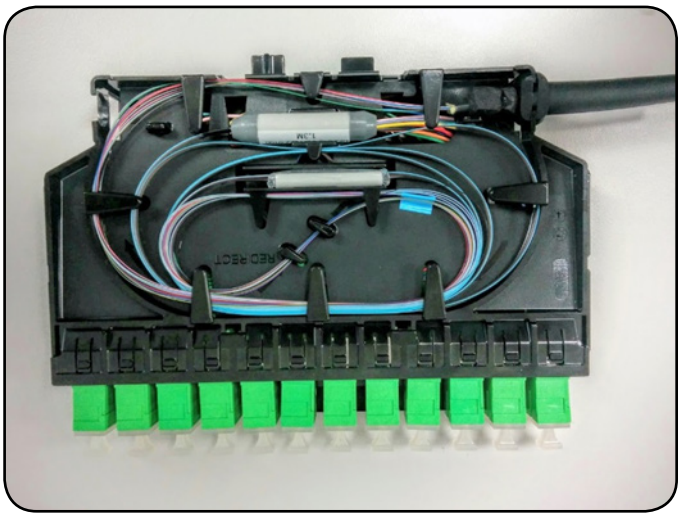
For a right exit, route the fibers through the redirect channel and loop in the opposite direction.



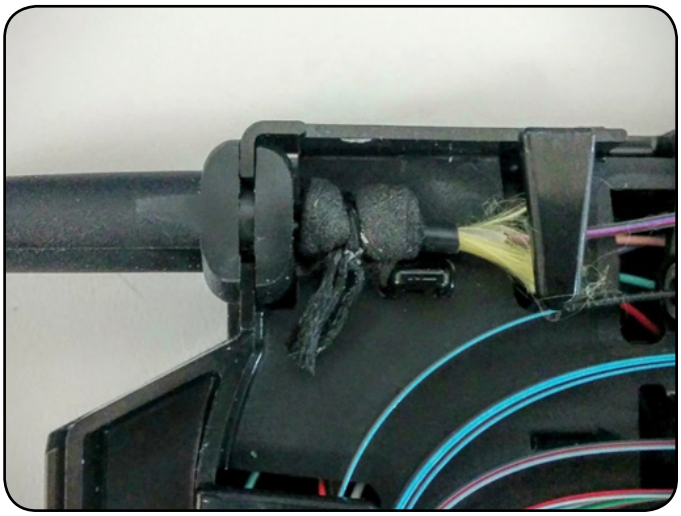
Continue routing the fiber around the the track.



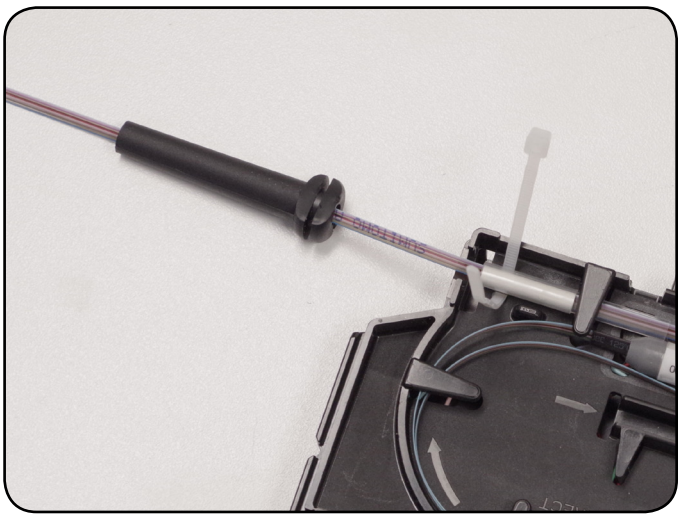
Insert the boot into the boot retainer and align the grommet tape with the cable tie or wax string.



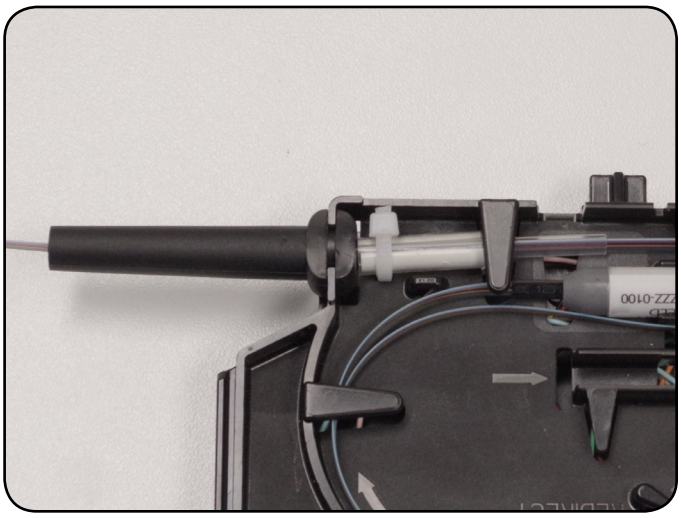
Secure the fiber by tightening the cable tie or tying the wax string in a double knot.



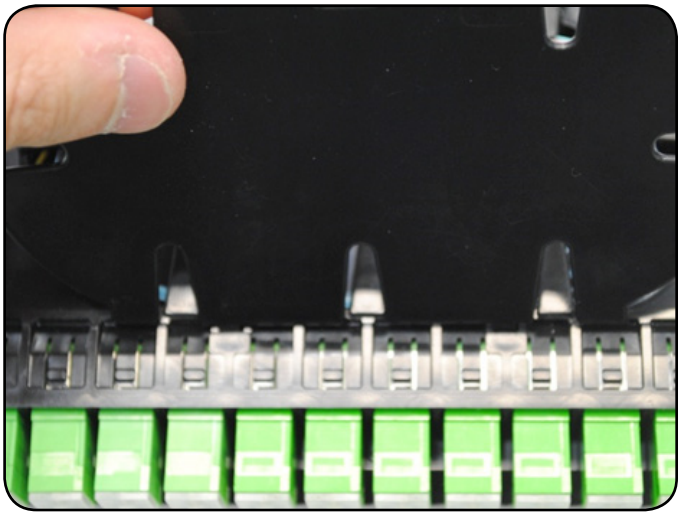
If you are splicing with a ribbon fiber, slide the boot up the ribbon and align the ribbon tie-down with the cable tie or wax string.



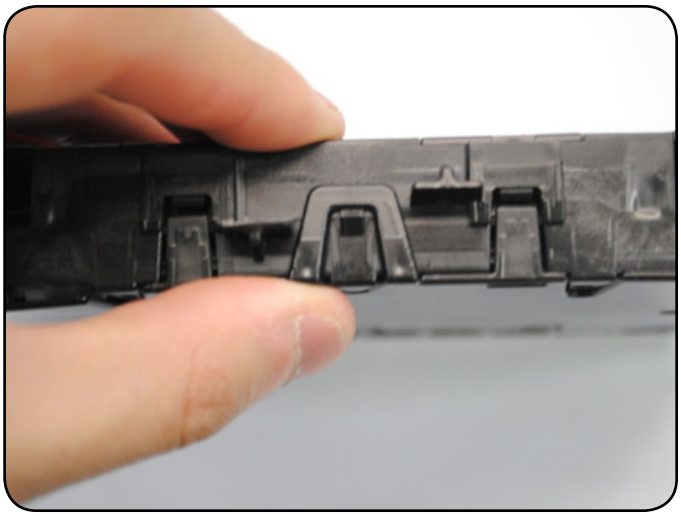
Insert the strain relief boot into the boot retainer and use the cable tie or wax string to secure the ribbon tie-down into place.



Insert the tabs of the cassette cover into the holes in the bottom of the splice tray.



Press the cassette cover down until the locking tab latches in the rear of the cassette. Ensure that no fibers get pinched in the lid. Verify the cassette cover closes flat and evenly onto the cassette.



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 all connectors and adapters prior to mating.

I.B.Y.C…Inspect Before You Connect!

ALWAYS inspect the connector first thing with a clean fiber scope inspect the pair. Three types of contamination require different cleaning techniques. The use of Chemtronics end face and bulkhead cleaning products and techniques ensures a clean end face, no matter the type of contamination.

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

***NOTE: It is NOT recommended to use IPA to clean the end-face.**

Cleaning the end-face…but not just 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 90 degree. Adjust for APC connection by slightly tilting the container or end face. Angle is correct when no drag is left 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.

DO NOT retrace previous step.

Figure 1

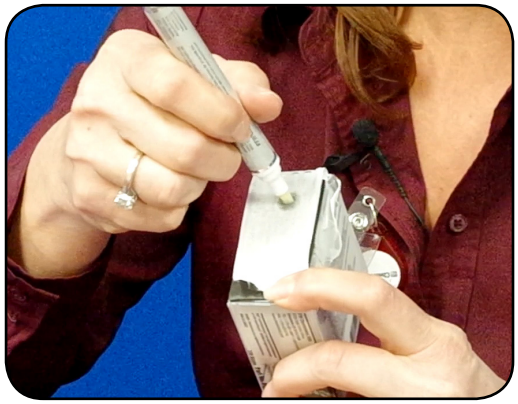


Figure 2

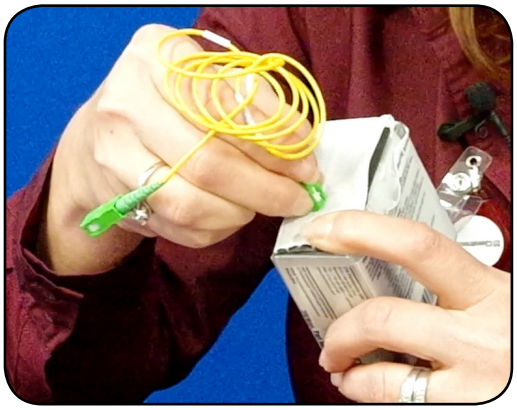


Figure 3

• **CLEAN 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-2. Hold the swab, 1 side down to the wetted area and hold for a count of 1-2-3-4-5. **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**

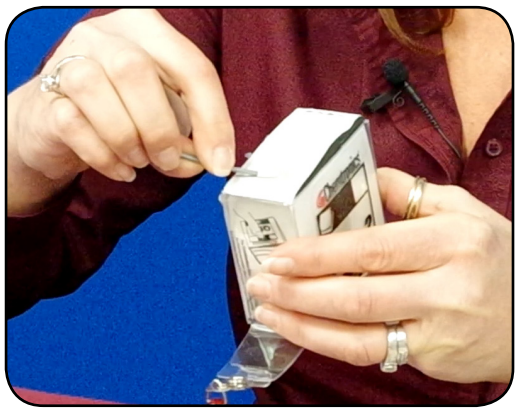


Figure 4

Cleaning the mate through a bulkhead 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-2. 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 (re-clean if necessary) and test for signal strength.

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

Figure 5

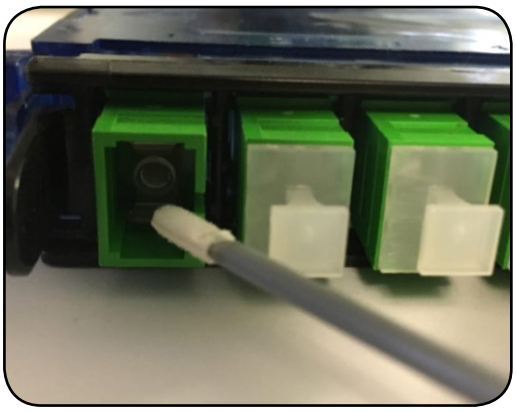


Figure 6

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**

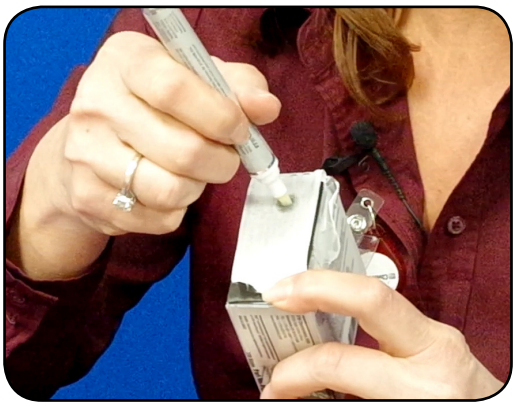


Figure 1

• Hold end face 90 degree. Adjust for APC connection by slightly tilting the container or end face. Angle is correct when no drag is left on the end face. **Figure 2**

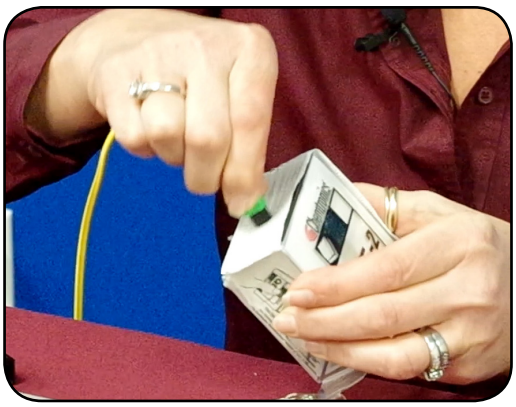


Figure 2

Male Connector

• Lightly moisten the fiber optic swab (CC505F) like above, moistening 1 side.

• Place swab, wet side down at one end of connector end-face and draw across in a diagonal sweep (ie: 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

BEFORE cleaning any connector…be sure you know what type of contaminate you are cleaning…dry? Fluidic?...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!

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 at 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

Proprietary Notice

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.

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