





Installation Manual



Table of Contents

Parts List	3
Recommended Tools	4
Opening the Cover	
Drop Terminal Configurations	
Port Designations	8
Deploying Patch-Only Configurations	
Pole/Wall Mounting	
Pedestal Mounting	11
Strand Mounting	
Vault Installation	
Site Preparation	
Preparing Terminal Ports	15
Installing FlexPorts in the Field	
Plugs	
Preparing Microduct to Connect to Terminal	
Installation of Fiber	
Field Installable FlexConnector	
Field Installable FlexConnector	21
Closing the YOURx-Terminal	_23
Connector Cleaning Procedure	
Standard Warranty	
Proprietary Notice	
Technical Support	



Installation Manual

Parts List



- 1. Base (FlexPort Sealing Tabs marked with a silver "x" inside the terminal)
- 2. Cover
- 3. Gasket
- 4. Clips (8 installed on base)
- 5. FlexCartridge®
- 6. FlexPort ¹/₂ (half) Cartridge
- 7. Plugs (available 10mm and 14mm)
- 8. Designation Card
- 9. FlexCartridge[®] Cover
- 10. Base Mounting Bracket*
- 11. Cover Mounting Bracket*
- 12. Aerial Strand Bracket*

*Ordered Seperately (not included with terminal)





Recommended Tools

Find No.	Tool	Image
001	Rotary Cutter	
002	Deburring Tool	
003	Pliers	
004	Optical End Face Cleaning kit	



— Installation Manual

DROP CABLE OPTIONS

Product Name	Cable Jacket	UV	Temperature	FieldShield Connector	Jacket Color	Can be stapled	Best Application
FieldShield FLATdrop	Outdoor	Yes	-40° to 176°F	No	Black	Yes	For use when fast installation and low up-front cost is most desired feature. Field Installable FlexConnector Optional
FieldShield (Classic)	Outdoor in Duct	Yes in Duct	-40° to 176°F	Yes	Black	Yes	For use when the distance from the access point to the SFU/MDU is longer than normal and a more rigid solu- tion is required to maintain restorability for drops longer than 300 feet. Field Installable FlexConnector Optional
FieldShield FLEXdrop	Indoor (Plenum)/ Outdoor	Yes	-40° to 176°F	Yes	Black/ White	Yes	For use when a premium product that has maximum workability, flexibility and restorability is desired.
FieldShield StrongFiber	Indoor/ Outdoor in Duct	Yes in Duct	-40° to 176°F	Yes	Black	Yes in Duct	For use when a reusable pathway is needed and maximum slack storage is desirable.



Opening the Cover

To open the FieldShield YOURx-Terminal, release the lid by pulling the 8 tabs down from the cover towards the base. Then pull off the lid.

Note: The lid may be difficult to remove due to gasket sealing.





DO NOT use a sharp item (snips, screwdriver, etc.) to remove. Utilize a stiff flat piece of plastic, like a wedge, to help break the seal. Using the sharp items may damage the gasket.



Drop Terminal Configurations

- "Drop only" where there is a choice of one 14mm or one 10mm port used for feed (MPO input) and designated number of ports for distribution (Figure 1).
- "Drop and Express" configured terminals will utilize both "A and B" ports for feed (MPO input) to terminal with expressing (MPO output) the un-used fibers to the next terminal in line (Figure 2).
- "Branch" configured terminal utilizing 3 MPO's, a single feed MPO to two MPO outputs.

Cable Feed/Express Port Types 14mm: Microduct with pushable MPO 10mm or 14mm: FLATdrop MPO 10mm or 14mm: FLATdrop or microduct pushable single fiber for splitter feed

Note: If terminal is being utilized with splitters, the feed may be fed through 10mm port of choice for termination

When expressing fibers using MPOs, Input (port A) and Output (port B) will be marked with a sticker as shown.





Drop Only Terminal







Branch Terminal

Note: These are "standard" configurations, your terminal may be unique to your environment.

Remember: SC/LC/MPO ports on FlexCartridge are opposite of labeling in base to minimize fiber crossover.

Installation Manual ——

Port Designations







Ports A and B: 14mm microduct Ports 1 thru 16: 10mm microduct *Port C: Branch Terminal only

Note: Pushable MPO's enter through the 14mm ports. When a third MPO is needed, you will utilize a flatdrop cable with a FlexConnector and enter through 10mm feeder port C.



FlexCartridge® Designations



Test record found behind removeable cover

Port counts differ, depending on terminal designation

MPO Ports

- A Fiber "IN" (feed)
- B Fiber "OUT" (express)
- C Fiber "OUT" (Branch only)

Distribution Ports 1-16 SC, LC or MPO connectors



Installation Manual

Deploying Patch-Only Configurations

- 1. Patch-Only configurations of the YOURx-Terminal will arrive packaged in a box as shown. Remove the terminal, and the cable spool it is mounted to, from the box.
- **2.** To deploy the cable, mount the entire spool on an A-frame or similar axle, with the shrink wrap still applied to the terminal end of the spool.
- 3. Proceed to deploying the cable following local practices.

Note: Ensure that the cable is paying off over the top of the spool and that extra twists are not present when deploying.

Note: For aerial applications, when lashing, mount the terminal to the strand first, and lash towards the end of the cable

4. Alternatively, you may mount the spool on a turntable (lazy susan) and deploy the fiber while the spool is in a horizontal orientation. Mount the spool on the turntable with the cable on the bottom and the YOURx-Terminal on top for stability.

5. Once your cable is deployed, you may remove the shrink wrap, discard the cardboard spool, and proceed to mount-ing the YOURx-Terminal.

Note: Do *NOT* remove red locking ring from FlexPort of pre-installed cables.











CLEARFIELD

Pole/Wall Mounting

Utilizing the horseshoe base mount bracket, mount the bracket to the surface (hardware not included), then mount the YOURx-Terminal to the bracket using the provided hardware (4 provided screws) (**Figure 1**). Microduct will be cut to desired length for proper storage, following local practice.







Pedestal Mounting

Note: The YOURx-Terminal is capable of fitting into as small as an 8 X 8 pedestal but due to room restrictions we recommend a minimum of 10 X 10.

YOURx Terminal - Base Mount

Install the base mount bracket onto the YOURx Terminal first, via the 4 screw locations. Then mount the terminal and bracket into the ped.





YOURx Terminal - Cover Mount

Install the first piece of the mounting bracket to the top of the YOURx-Terminal cover using the provided screws.







Install the cover mount bracket into the pedestal. The bolt of the cover mounted bracket can be slid into the gap in the top mounting bracket and the terminal secured in place by tightening the wing nut on the bolt.





Strand Mounting

- 1. Attach lanyard using provided screw, to location identified in (Figure 1).
- 2. Attach opposite end to location in (Figure 2).
- 3. Using provided hardware attach base to bracket like shown (Figure 3).
- 4. Attach to strand using provided bug nuts. Facing FlexPorts toward serving pole.
- 5. Dress duct from pole attachment to terminal, cut duct to length.



Figure 1





Figure 3



Vault Installation

Site Preparation

Ensure that national – local electrical and building codes, OSHA and company safety work rules are observed and provisions made for street flags, barricades and cones. Secure permits as required by city and company.

IMPORTANT

WARNING: Buried Telecommunications Cables. Make sure to call 811 a few days before digging. Calling 811 will route to the local one-call center and ensure that utilities in the area of installation will be located and marked.

Step 1: Excavation

Plan excavation approximately twelve to sixteen inches (12" - 16") longer/ wider and six to eight inches (6" - 8") deeper than the actual dimensions of the vault being installed. **(Figure 1)**



Figure 1

Step 2: Drainage Base

Pour gravel base to a depth of three to five inches at (3" - 5") the base of the excavation. (**Figure 2**)

Note: Base material should be crushed rock 3/4" and smaller, and not "river rock" or "round stone."



Figure 2

Step 3: Install Vault

Guide microduct through opening and lower vault into excavation on top of base material and adjust height to grade. (Figure 3)



Figure 3

Installation Manual –



Step 4: Backfill

Use soil to backfill between the vault and the excavation wall, tamping down to compact soil. **(Figure 4)**

Step 5: Route Duct

Deterimine desired length of all ducts entering the terminal. (Figure 5)

Note: Multiple ducts should be bound together with vinyl tape for easier manipulation.



Figure 4

Step 7: Prepare Ports

Remove tabs from desired terminal FlexPorts. De-burr FlexPort with snips, knife or de-burring tool to remove rough edges. MUST de-burr entirely for FLATdrop MPO bullet to fit through port. (Figure 7)



Figure 5

Step 8: Seat Duct

Feed pull string from the underside of the terminal through port and seat duct fully into the coupler. (Figure 8)

Step 6: Prepare Duct

Use a rotary cutting tool to all ducts to equal length. Strip back outer sheath and tone wire six inches (6") or amount needed to terminate to bond/ locating bar. Use de-burring tool to chamfer end of duct. **(Figure 6)**



Figure 6

Step 9: Secure Pull String

Tie off pull string to FlexCartridge[®] to prevent it from migrating back into the microduct.



Figure 7

Note: Ports loaded with flexports are marked in silver.



Figure 8

Figure 1



Preparing Terminal Ports

When needed for configurability, FlexPorts can be added in the field to allow the terminal to accept additional fiber drops, microduct or other options, when desired for a change needed.

Step 1: Locate and using pliers, remove tab associated to the 10mm or 14mm port that you will use. (Figure 1)

Note: Ports with factory installed FlexPorts will be marked with a silver X (Figure 2).

Step 2: De-Burr (using a de-burring tool/snips/knife) the port hole for a smooth transition without damaging the fiber as it enters the port (Figure 3). Must be fully de-burred for FLATdrop MPO.

Installing FlexPorts in the Field

BE AWARE! FlexPorts are factory installed on units that come from the factory based on the number of feed and distribution specified at time of order. Following the diagram, place parts as shown below.

- 1. On bottom of terminal, place O-Ring into desired port hole
- If installing a 14mm type A, place "Green Spacer" on top of 2. O-Ring
- Next, place "Press-In" with teeth closest to you, into hole. Tap in 3. so that it sits flush.
- Install the "Clip" into the "Press-In" 4.

Note: Clips should be loose, not springy. If springy, re-adjust the O-Ring.







10/6mm





Figure 3







Installation Manual –

CLEARFIELD

Plugs

If a technician removes the wrong tab and exposes a port WITHOUT a FlexPort, the port CANNOT be sealed with a plug (Figure 1) WITHOUT a FlexPort installed (Figure 2). For a water and air-tight seal, install FlexPort prior to inserting plug.

Note: (1) 10mm included with terminal 10mm: 018432 14mm: 018665



Figure 1



Figure 2



WARNING: Do **NOT** Leave terminal ports open. Always use a 10mm or 14 mm plug.

Preparing Microduct to Connect to Terminal

Step 1: Feed "pull string" through FlexPort. (**Figure 3**) If not pulling fiber immediately, tie off to FlexCartridge.

Step 2: Using a rotary cutter to prevent cutting pull string, make a flush cut at desired length (**Figure 4**) and de-burr microduct (**Figure 5**).

Note: When using toneable microduct, remove outer sheath and tone wire back approximatel 4"-6" (follow local standard as to storing tone wire) (**Figure 6**).



Figure 3





- Installation Manual

Installation of Fiber



When entering the YOURx-Terminal **DO NOT** assemble Connector Outer Housing until fiber has been passed through the FlexPort. Fully connectorized fiber will not pass through FlexPort.

FieldShield FLEXdrop or FieldShield

Step 1: Seat Microduct Once Pull String is

through the FlexPort, seat Microduct into FlexPort.



Step 2: **Pull Fiber** Pull preconnectorized fiber (unassembled) into open YOURx-Terminal port. Remove pull string and prepare connector for assembly.



Step 3: Assemble Connector

Follow assembly instructions for the selected connector.



INSPECT BEFORE YOU CONNECT!



SEE RECOMMENDED CLEANING PROCEDURES SECTION

Step 4: Connect Fiber into FlexCartridge

Once connector has been inspected/ cleaned, route fiber through fiber management located in the "handle" of the Flex-Cartridge. Make the connection.



Installation Manual ——



FieldShield StrongFiber

Step 1: Seat Microduct

Once Pull String is through the FlexPort, seat Microduct into FlexPort.



Step 2: Pull Fiber Pull preconnectorized fiber (unassembled) into open YOURx-Terminal port. Remove pull string and prepare connector for assembly.



Step 3: Assemble Connector

Follow assembly instructions for the selected connector.



INSPECT BEFORE YOU CONNECT!



SEE RECOMMENDED CLEANING PROCEDURES SECTION

Step 4: Connect Fiber into FlexCartridge

Once connector has been inspected/ cleaned, route fiber through fiber management located in the "handle" of the FlexCartridge. Make the connection.





Installation Manual

FieldShield FLATdrop

Step 1: Push Fiber

Push preconnectorized fiber (unassembled) into open YOURx-Terminal port. Remove pull string and prepare connector for assembly.



Step 2: Insert Flex-Connector Once fiber is through, fully insert the FlexConnector

into the port.



Step 3: Seat FlexConnector

Turn clockwise slowly while pushing until the connector fully seats into the port and a click is felt. Once fully seated, FlexConnector should not twist. For both 10MM and 14MM ports, the scribed marker on the FlexConnector should be at the collar of the FlexPort.





14mm

10mm

Step 4: Assemble Connector

Follow assembly instructions for the selected connector.



Step 5: Connect Fiber into FlexCartridge

Once connector has been inspected/ cleaned, route fiber through fiber management located in the "handle" of the FlexCartridge. Make the connection.

INSPECT BEFORE YOU CONNECT!





SEE RECOMMENDED CLEANING PROCEDURES SECTION



Installation Manual -

Field Installable FlexConnector - FieldShield



Step 1: Prepare Components (Figure 1).



Figure 1

Step 3: Install Split-Seal

Select appropriate size split-seal, slide onto fiber and seat into the FlexConnector (Figure 3).





Step 5: **Seat 2 Piece Retainer** Align the retainer clips with the slots of

the FlexConnector and press into place (Figure 5).



Figure 5

Step 2: Pass Fiber Through FlexConnector (Figure 2).



Figure 2

Step 4: Install 2 Piece Retainer Sandwich both halves of the retainer over the fiber (Figure 4).



Figure 4

Step 6: Install FlexConnector into YOURx-Terminal



Field Installable FlexConnector - FLATdrop

Step 1: Prep cable to YOURx length (12 inches) cutting strength members flush with black, outer cable sheath.

Step 2: For water tight seal on standard FLATdrop, feed the following length of heat shrink onto cable for later use:

^{(1) 3/4&}quot; x 3" long (004719)





Figure 2

Step 3: For water tight seal on SFF, feed the following lengths of heat shrink onto cable for later use:

(1) 3/4" x 3" long (004719) (1) 5/16" x 3" long (004458)



Figure 3

Step 4: Pass breakout 3mm/900 micron cable through FlexConnector.



Figure 4

Step 5: Stop short of cable sheath.



Figure 5

Step 6: Align nose of clips to end of black cable and sandwich together.

Step 7: Attach clips to top and bottom of cable, teeth in, even at cable sheath opening. A groove on the clip allows for proper alignment.



Direct: 763.476.6866 • National: 800.422.2537 • www.SeeClearfield.com • techsupport@seeclearfield.com Manual 018994 REV D - Aug 2024



Step 8: Use pliers (as shown) to pinch teeth to hold jacket.

DO NOT use needle nose pliers.

Step 9: Pull FlexConnector (added in Step 4) back over clips to snap into FlexConnector holes, as shown. Push until you hear a snap.

Step 10: For SFF cable only, slide the
smallest heatshrink, placing one end
just inside the back end of the Flex-
Connector. Shrink using a heat gun.



Figure 8



Figure 9



Figure 10

Step 11: Slide the 3" piece (004719) heat shrink tubing, covering the holes on the FlexConnector (no further than 1/4" past holes and not past the indented ring) and heat to shrink.

Step 12: This will create a water tight seal.

Step 13: Terminate fiber to connector per instructions (if applicable).



Figure 11



Figure 12



Figure 13



Closing the YOURx-Terminal

Step 1: Ensure gasket is free of damage/debris (Figure 1).

Step 2: Similar to closing a splice case or tightening lug nuts on a tire, work your way around in a "star-like pattern", snapping tabs to assure an air-tight, water-tight terminal.



Figure 1



Figure 2

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.

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







Installation Manual

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



Figure 5

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)

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

Installation Manual ———

Cleaning an MPO/MTP Connector

Male Connector

 Use of Chemtronics MTP Connector Cleaning Swabs (CC505F) is recommended. Even after cleaning with a probe cleaner, you should always clean the pins with this (or an equivalent) type swab. Cleans ALL MTP/ MPO connector end faces. This swab also cleans the "pins" of the male connector

• Lightly "spot" a QbE-2 wipe on the platen with Electro-Wash PX Fiber Optic Cleaner, the FiberWash or MX Pen.

Lightly touch short side of the MTP/MPO Connector Swab to the wetted area (3-5 secs) to absorb some cleaning solution (DO NOT over saturate the swab).

Wipe connector areas to be cleaned, sliding pad from bottom of pad across and forward to tip of swab, from 1 side to the other, turn over and use long side to dry in same movement.











•

• Use the hole on end of pad to clean one alignment pin, then press the end of the swab into the other pin to clean.

CLEARFIELD

 Check your work with a fiber scope. This can take several attempts to get the endface clean.





- Installation Manual

Female Connector (without pins)

- Cleaned like a single fiber connector, using a cleaning platform. The receptacles will be cleaned as long as you are using a combination cleaning process as recommended.
- Again, using a platen, moisten the platen with cleaning solvent on one end to accommodate 3 swipes of the MPO female endface.
- Holding the connector (If APC, slightly at an angle to accommodate for 8° angle) swiping with medium pressure, from the wet area into the dry area 3 times, without wiping over previous area.
- Inspect, and if clean, make the connection. If NOT, repeat above steps until clean or if determined that the end face is damaged (based on standards of 5 cleanings per connection), replace.







Cleaning Using a Probe-Style Cleaning Tool

- The probe style cleaning tools are capable of cleaning a connector end face separately or through the adapter.
- Slightly engage probe by pulling back but do not allow to click. Lightly "spot" a QbE-2 wipe on the platen with Electro-Wash PX Fiber Optic Cleaner, this will help alleviate "over saturation" of the material.
- Lightly touch the tip of probe and release.





Insert connector or insert probe though adapter and click 2-3 times to move past the wet area and allow material to dry wipe.





- Inspect connector, repeat if necessary (following standards)
- If cleaning a male connector, clean the pins (see above)



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.

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

- 1. Clearfield assumes no warranty liability regarding defects caused by:
- 2. Customer's modification of Product, excepting installation activities described in Clearfield documentation
- 3. 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
- 4. Customer's installation or maintenance, excepting activities described in and performed in accordance with Clearfield documentation
- 5. Customer's improper or negligent use or application of Product
- 6. 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

Installation Manual -



Proprietary Notice

About FieldShield Product Line Application

Information contained in this document is copyrighted by Clearfield, Inc. and may not be duplicated in full or part by any person without prior written approval of Clearfield, Inc.

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 763.475.8457 Fax:

Customer Support: sales@seeclearfield.com Technical Support: techsupport@seeclearfield.com