





Are you?

## CLEARFIELD CERTIFIED



#### **Clearfield College Product Training**

Clearfield's Certified Partnership Training Program (CPTP) is open to customers and contractors with the desire to become a Clearfield partner.

SIGN UP TODAY to learn the proper installation techniques for Clearfield products.

A NO-CHARGE Service Offered by Clearfield

www.seeclearfield.com/training/clearfield-college/certified-partnership-training.html

# StreetSmart Ready Connect Terminal Installation Manual



#### **Table of Contents**

Application	3
Description	2
Technical Specifications	
Unpacking the Ready Connect Terminal	
Cable Opening and Slack Storage	
Securing Mid-Spanned Buffer Tubes	
Distributed Split	
Centralized Split	8
Direct Spliced Drops	
Mounting the RCT to the Ped	
Installing Drops	
Connector Cleaning Procedure	13
Standard Warranty	
Proprietary Notice	
Technical Support	19



Installation Manual

#### **Application**

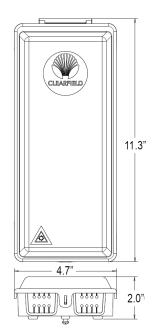
The Ready Connect Terminal (RCT) is a splice terminal designed for pedestal applications. Optimized for above-ground, distributed TAP and distributed split architectures and enabled with multiple FBT and PLC splitter options, this craft-friendly terminal delivers up to eight drops when mid-spanning is required. Drop cables can be pre-terminated or spliced.



#### **Description**

The Ready Connect Terminal is a small, breathable terminal that allows for mid-spanning, splicing, and terminations with optical components. Delivering Clearfield's commitment to craft-friendly solutions, the terminal features a removable splice tray for easy access when technicians are splicing up to 24 loose tube splices, in addition to a modular, removable adapter plate for terminal applications that provides easy access for adapter cleaning.

Meeting the demand for small, economical solutions, the small form factor allows for mounting in Clearfield's extremely compact CraftSmart® FiberFirst 6-inch Pedestal, offering homeowners a discreet, aesthetically pleasing option for FTTH deployments.





#### **Technical Specifications**

StreetSmart Ready Connect Terminal	
Dimensions	11.30"(H) x 4.70"(W) x 2.00"(D) (287.02mm x 119.38mm x 50.8mm)
Terminal Options	Mid-spanning, plug-and-play, splicing, optical components enabled
Number of Splitters	Supports up to (3) FBT splitters and up to (3) PLC splitters
Material	Manufactured with TRISTAR Polycarbonate plastic for impact and flame retardant
Output Connector	SC/APC, SC/UPC
Number of Drops or Distribution Ports	Supports up to 8 drops
Cable Entrance	Lay in grommet with internal strain relief
Labeling	Designation label on door
Mounting Options	Above ground only in a pedestal or on an interior wall

#### Installation Manual





**Caution:** After installation, tipping the splice tray more than is required to remove it from the box risks kinking buffer tubes secured to the splice tray. To remove the splice tray after installation remove the entrance grommets, slightly tip the tray forward, and lift up and away, while taking care to prevent the kinking of buffer tubes or breaking of fibers.



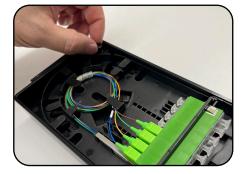
#### **Unpacking the Ready Connect Terminal**

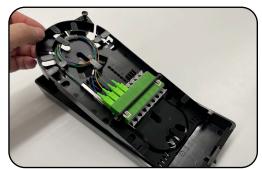
 Remove the Ready Connect Terminal (RCT) from the bag and lift away the lid. Place the bag of mounting screws to the side for later.





2. Lift the plunger of the push-pull grommet to release the splice tray from the box.





The splice tray of the RCT will be pre-loaded with a splitter, pigtails, or empty depending on the configuration ordered.

Front and back views of a distributed 1x4 split are shown here.







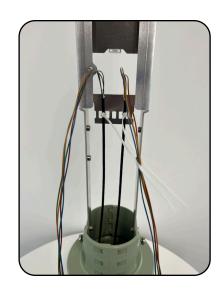
Installation Manual

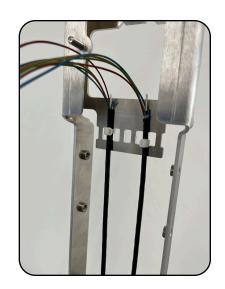
#### **Cable Opening and Slack Storage**

Mid-span your cable. Clearfield recommends mid-spanning 10-12 feet of cable including the 3 feet of buffer tube inside the splice tray of the RCT.

**Note:** The slack storage of the pedestal can hold up to a maximum of 18 feet of 48 fiber cable.

Secure the cable to the tie-off bar on the back plane of the pedestal. Cables should be secured on the side of the slack basket, with the feeder fiber on the left side.





2. Feed the buffer tube(s) intended to be midspanned inside the RCT through the pass through hole of the ped's back plane.





Store the remaining unused buffer tubes in the slack storage area of the back plane.



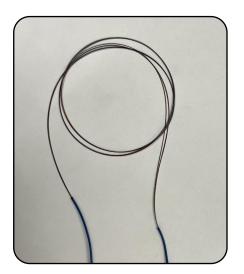


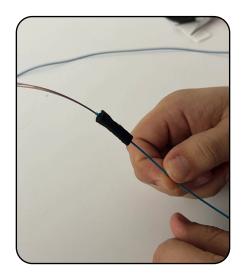
### Installation Manual

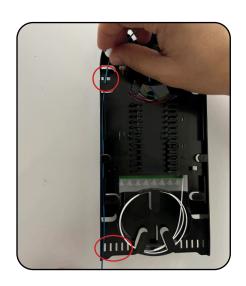


#### **Securing Mid-Spanned Buffer Tubes**

- 1. Mid-span approximately 3 feet of buffer tube, and wrap the end of both sides of the tube with felt or grommet tape.
- 2. There is a secondary tie-off location near the top of the splice tray that can be utilized. This allows for a smaller midspan length of the buffer tube, but should not be used if mid-spanning multiple buffer tubes.

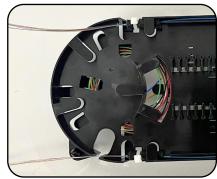






3. Gently secure the buffer tube, feed on the left, into the tray with cable ties. If using the standard tie-off location at the base of the tray, ensure the 250 micron fiber is fully protected inside the channel on both sides of the tray.





4. Cut the fiber(s) to be spliced and store the remaining slack from the unused fibers in the slack storage at the top of the tray.





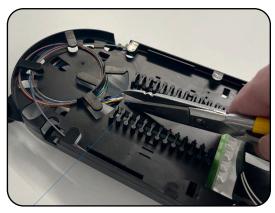


Installation Manual

#### **Distributed Split**

The following procedure shows an example of splicing on a splitter after the mid-spanned cable has been secured to the splice tray of the RCT. Splitters are available in 1x2, 1x4, and 1x8 configurations.

1. Store the extra slack of the fiber to be spliced and bring it into the splice sleeve area. Trim to length at the midpoint.

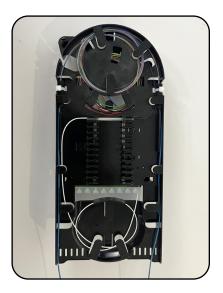


2. Unwind the splitter feed fiber from the bottom slack storage and bring it to the splice sleeve area. Trim to length at the midpoint.



**3.** Perform your splice per local practice and store the remaining slack.

**Note:** The RCT requires the use of 40mm splice sleeves.



### Installation Manual -

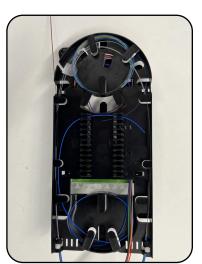


#### **Centralized Split**

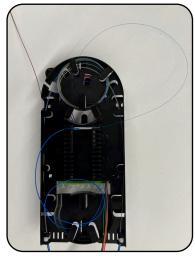
The following procedure shows splicing pre-terminated pigtails to the incoming fibers after the mid-spanned buffer tube has been secured to the splice tray, up to a maximum port count of 8.

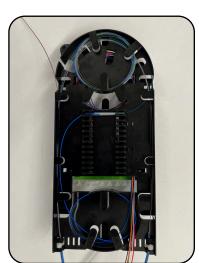
1. Store the extra slack of the fiber to be spliced and bring it into the splice sleeve area. Trim to length at the midpoint.





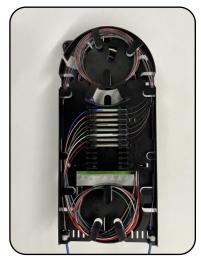
2. Unwind the slack of the pigtails stored in the lower slack storage of the splice tray. Store the extra slack of the pigtail and bring it into the splice sleeve area. Trim to length at the midpoint.





**3.** Perform your splice per local practice and store the remaining slack. Repeat until all pigtails have been spliced.

Note: The RCT requires the use of 40mm splice sleeves.





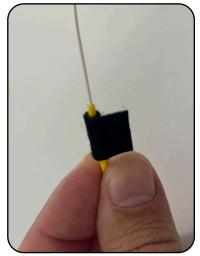
Installation Manual

#### **Direct Spliced Drops**

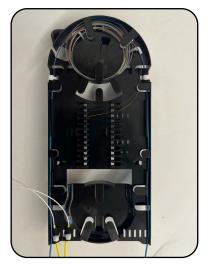
The following procedure shows direct splicing drops to fibers from a mid-spanned buffer tube. The splice tray can hold 24 single fusion splices (12 slots, 2 stacked per slot), however there are only 8 entrance locations per grommet.

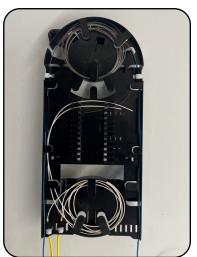
- 1. Store the extra slack of the fiber to be spliced and bring it into the splice sleeve area. Trim to length at the midpoint.
- 2. If applicable for your drop type, wrap in felt tape and secure into the tray at the primary tie-off point at the base of the tray.





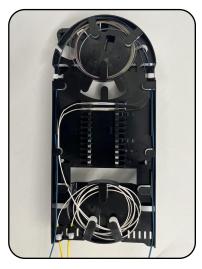
3. Store the desired amout of drop slack in the lower slack storage of the splice tray, then bring the drops into the splice sleeve area. Trim to length at the midpoint.





**4.** Perform your splice per local practice and store the remaining slack. Repeat until all drops have been spliced.

**Note:** The RCT requires the use of 40mm splice sleeves.



### Installation Manual



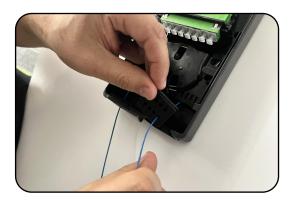
#### Mounting the RCT to the Ped

- 1. Reinstall the splice tray into the box and secure it in place by activating the plunger of the push/pull grommet.
- 2. Cut the entrance grommets as needed with a snips or razor blade. Clearfield recommends utilizing entrance locations starting from the outside towards the inside, and from the bottom of the grommet to the top.





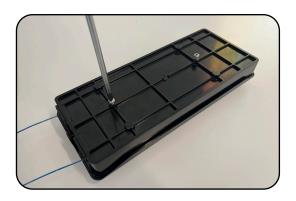
Place the grommets into the RCT at the entrance locations, carefully sliding the grommet over any buffer tubes or drops.





- **4.** Reinstall the lid by engaging the top flange and lowering the lid until the bottom tab engages.
- **5.** Flip the RCT over and install the provided screws into the mounting holes, leaving a quarter inch of thread exposed.



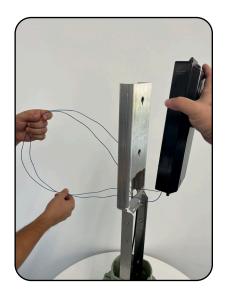




Installation Manual

6. Carefully feed the mid-spanned buffer tube back through the feed-through hole of the ped's back plane as you bring the RCT towards the pedestal.

**Note:** As you store the remaining slack in the slack basket of the pedestal, take care not to kink any buffer tubes exiting the RCT.

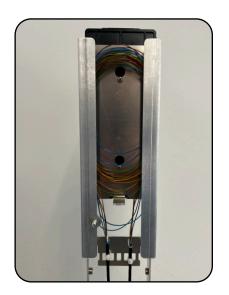


7. Hang the RCT on the mounting holes of the pedestal's back plane, allowing the screws to fall into the slots. Secure in place by tightening the screws by hand.



8. Store the remaining slack from the mid spanned buffer tube within the slack basket of the pedestal's back plane.





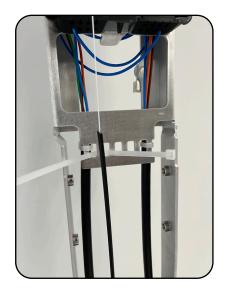
### Installation Manual -



#### **Installing Drops**

1. Secure the drops to the tie-off bar of the pedestal's back plane.

**Note:** If chosing the breakout length is an option, Clearfield recommends roughly 24 inches of slack.

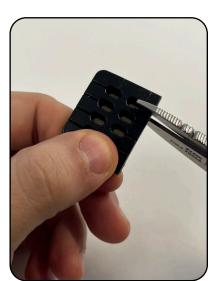




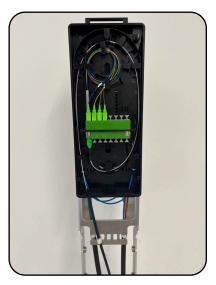
**2.** Cut the entrance grommet(s) to accomodate the desired number of drops.

**Note:** Clearfield recommends drops 1-4 enter through the left grommet and drops 5-8 enter through the right.





- **3.** Route the drop cable up and around the RCT's fiber management to store slack as necessary.
- **4.** Inspect the connector, clean if necessary, and make the connection.





Installation Manual

#### **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 the End Face**

- Place one wiping paper on QbE-2 FiberSafe<sup>™</sup> 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 1



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

 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



Installation Manual

#### **Cleaning an MPO/MTP Connector**

#### **Male Connector**

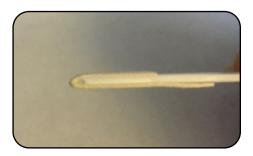
Use of Chemtronics MTP Connector Cleaning Swabs (CC505F) is recommended. Even after cleaning with a probe cleaner, you should always clean the pins with this (or an equivalent) type swab. Cleans ALL MTP/MPO connector end faces. This swab also cleans the "pins" of the male connector



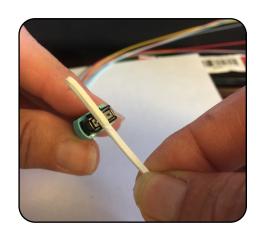
 Lightly "spot" a QbE-2 wipe on the platen with Electro-Wash PX Fiber Optic Cleaner, the FiberWash or MX Pen.



 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).



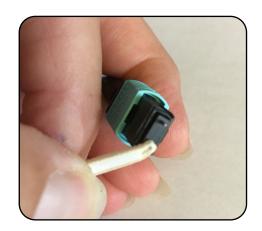
 Wipe connector areas to be cleaned, sliding pad from bottom of pad across and forward to tip of swab, from 1 side to the other, turn over and use long side to dry in same movement.

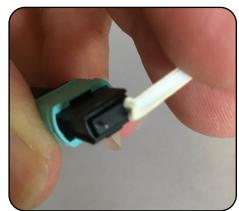


#### Installation Manual



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





#### 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.



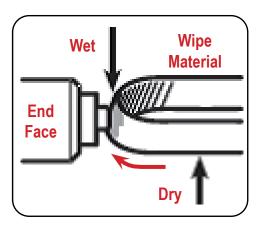


Installation Manual

#### **Cleaning Using a Probe-Style Cleaning Tool**

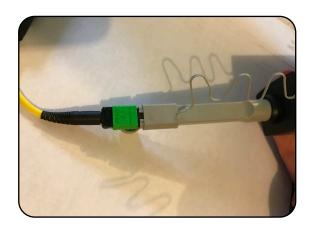
- The probe style cleaning tools are capable of cleaning a connector end face separately or through the adapter.
- Slightly engage probe by pulling back but do not allow to click. Lightly "spot" a QbE-2 wipe on the platen with Electro-Wash PX Fiber Optic Cleaner, this will help alleviate "over saturation"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

View our warranty policy here: <a href="https://www.seeclearfield.com/warranty.html">https://www.seeclearfield.com/warranty.html</a>

#### **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



Installation Manual

#### **Proprietary Notice**

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 Fax: 763.475.8457

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