



INSTALLATION INSTRUCTIONS

AFL RTD® Micro Splice Terminal



TABLE OF CONTENTS

PACKAGE CONTENTS	2
REQUIRED TOOLS	2
ADDITIONAL KITS AND ACCESSORIES.....	2
SPECIFICATIONS	2
OPENING TERMINAL	3
GROMMET SIZES AND APPLICATION	4
CABLE GROMMET VERIFICATION	5
FEEDER CABLE INSTALLATION	6
SPLICE TRAY OPTIONS AND ROUTING (FEEDER PORT)	7
TAP/SPLITTER SPLICE TRAY (BRANCH PORT)	8
DROP CABLE INSTALLATION – DIRECT PATCH	8
DROP CABLE INSTALLATION – SPLICING	9
CLOSING TERMINAL	10
MOUNTING OPTIONS.....	11
POLE/WALL MOUNT.....	11
STRAND MOUNTING	12
INSTALLING SPLITTERS	13

PACKAGE CONTENTS

AFL RTD® Micro Splice Terminal Closure
10-16 mm Hose Clamp
4" Cable Ties
120 mm Soft Spiral Tube
3-12 mm Cable Grommet
5-14 mm Cable Grommet

3-12 mm Grommet Cutting Guide
5-14 mm Grommet Cutting Guide
Cable Grip Sheet
Silicone Grease

REQUIRED TOOLS

216 Can Wrench or Slotted
Screwdriver
Tape measure
Cable entry tools
Splicing equipment and tools
UV-resistant black tie wraps

ADDITIONAL KITS AND ACCESSORIES

ORDERING INFORMATION

Description	AFL No.
4-Port Splice Terminal Aerial Mounting Bracket	FC169025
4-Port Grommets for 5-14 mm Cable 6 pcs	FC171273
AFL RTD, Mini/Micro Terminal, Grommets for 3~12 mm Cable 12 pcs	FC171272
PLC Splitter, 1x2, 900 µm, 1260-1650, 1 Meter Leads, SC/APC Connectors	PLC-1X8-9-1M-ASC
PLC Splitter, 1x4, 900 µm, 1260-1650, 1 Meter Leads, SC/APC Connectors	PLC-1X4-9-1M-ASC
PLC Splitter, 1x8, 900 µm, 1260-1650, 1 Meter Leads, SC/APC Connectors	PLC-1X2-9-1M-ASC

NOTE:

Additional configurations are available for the RTD Mini Splice Terminal.
See [AFL RTD Micro Splice Terminal specification sheet](#) for ordering information.

SPECIFICATIONS

Parameter	Value
Cable Entry/Exit Ports	Feeder (x2): 5-14 mm Diameter Branch (x2): 3-12 mm Diameter
Splice Capacity	24 Splices
Drop Ports Capacity	4 Ports
Terminal Outer Dimensions	9.0" x 5.0" x 3.6"
Supported Drop Cables	Round: 3.0 mm and 4.8 mm Standard Flat: 8.1 x 4.6 mm Micro Flat: 5.4 mm x 3.0 mm

QUALIFICATIONS

Governing Body	Standard Code
IEC	IEC 60529 (IP68) 6 FT Waterhead
Telcordia	GR-771

TEMPERATURE SPECIFICATIONS

Temperature Range
Operating -40°C to +65°C

OPENING TERMINAL

1. Pull the four (4) latches outward direction, using hands or tool, to open the enclosure. (Figure1)
****NOTE: Do not bend more than 90° on the latches with red arrows.****
2. Open the Box Lid to access the drop cable location. (Figure 2)
3. Loosen the two (2) captive screws on the Cable Holder Bottom. Flip the TAP Splitter Tray to access the Splice Trays. (Figure 3)
4. Flip the tray over to access the cable entry/exit ports and slack storage area beneath. (Figure 4)

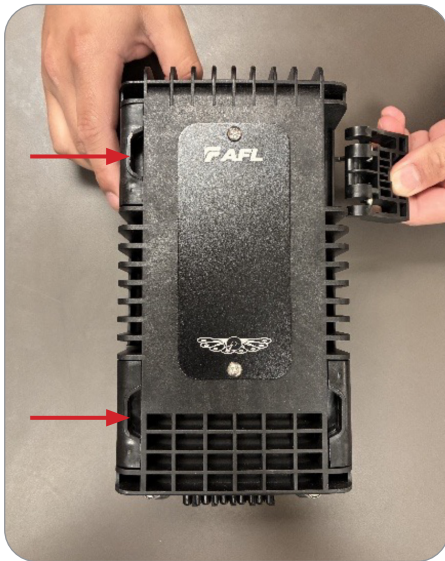


Figure 1

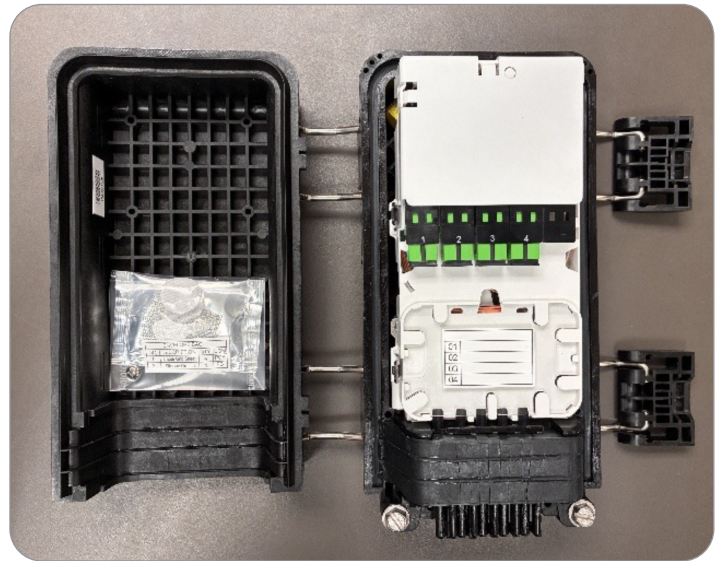


Figure 2



Figure 3

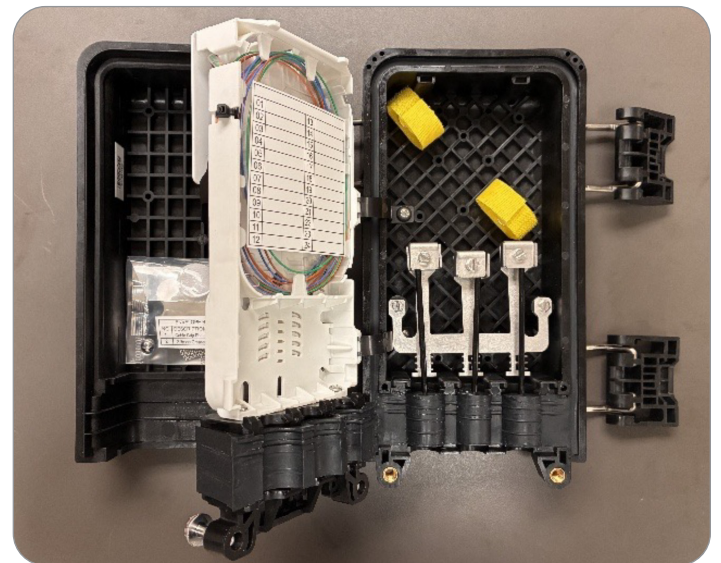


Figure 4

GROMMET SIZES AND APPLICATION

The AFL RTD Micro Splice Terminal comes with two (2) large outer slots designed for feeder cable entry and exit and one (1) small inner slot designed for branch cable entry and exit. (Figure 5)

Three (3) graduated grommets are available for the cable entry/exit ports. These grommets must be cut to length based on the cable diameter. (Figure 6)

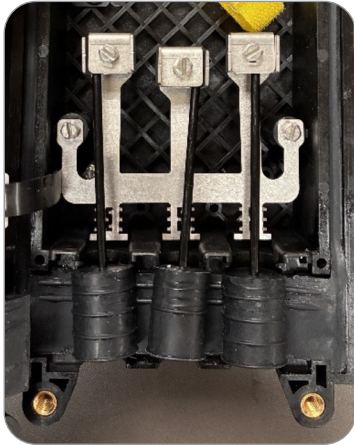


Figure 5



Figure 6

Follow provided grommet cutting guide strip included in packaging for the proper cutting line of the grommet based on required cable sizes. (Figures 7 and 8)

Feeder Cable Grommet (For cable size of 5.0 mm – 14.0 mm)

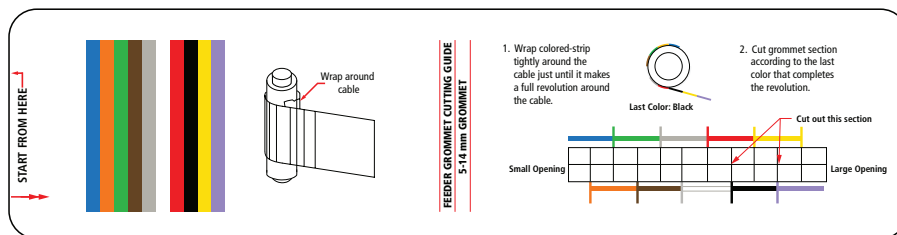


Figure 7

Branch Cable Grommet (For cable size of 3.0 mm – 12.0 mm)

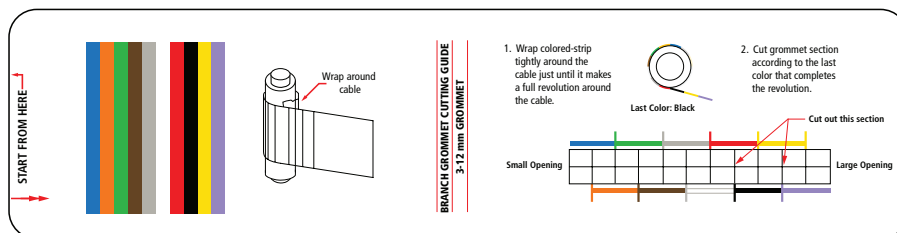


Figure 8

CABLE GROMMET VERIFICATION

1. After identifying the proper cutting lines, mark the two sections on the grommet. (Figure 9)
2. Cut the appropriate section from the graduated tube. (Figure 10)
3. Make a slit in the newly-cut grommet piece so it can be wrapped around the cable. (Figure 10)
4. Apply Silicone grease to the inside and outside the grommet before wrapping around the cable. (Figure 11)

****NOTE: For Below-Grade Installation, application of SILICONE GREASE on all grommets and the surface of the gaskets must be done before closing the unit.****

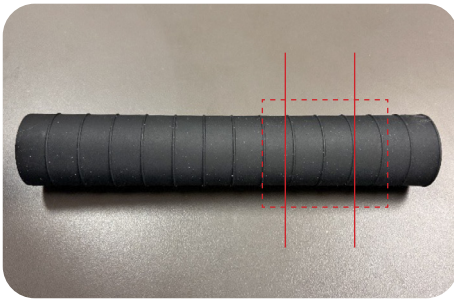


Figure 9

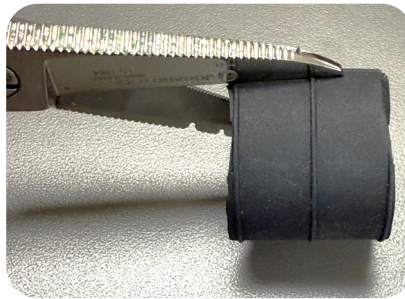


Figure 10

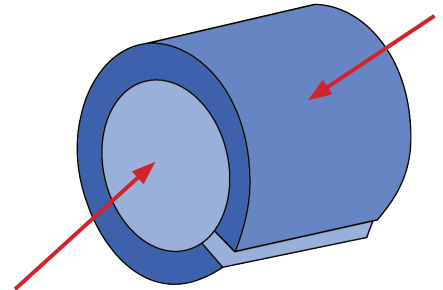


Figure 11

FEEDER CABLE INSTALLATION

1. Strip the jacket of the feeder for about 4-6 ft (1200-1800 mm). Cut the central membrane leaving 1.5 in. (40 mm) from both ends of the jacket. (Figure 12)
2. Loosen the two (2) captive screws on Cable Bracket from the Box Tray. (Figure 13)
3. Completely remove the Cable Bracket Assembly from the enclosure. (Figure 14)
4. Remove the dummy plugs. Retain if slot will not be used. (Figure 15)

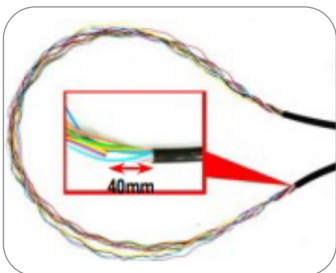


Figure 12

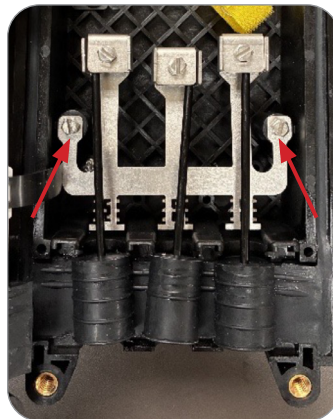


Figure 13

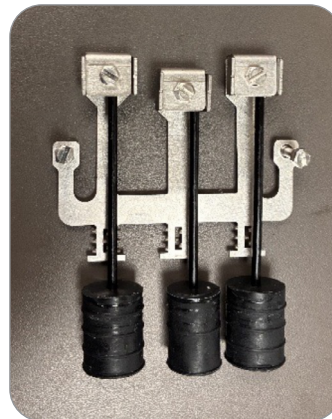


Figure 14



Figure 15

5. Secure the strength member to the strength member clamp and tighten the screw. (Figure 16)

****NOTE: Maximum allowable torque limit for strength member clamps: ≤ 23 in-lbs.**

6. Insert the cable grommet onto the cable.
7. Position the cable where the slit of the grommet is between 45° and horizontal. (Figure 17)
8. Secure the feeder cable to the Cable Anchor using a hose clamp provided and ensure the screw of the hose clamp is tightened. (Figure 18)

****NOTE: Maximum allowable torque limit for strength member clamps: ≤ 23 in-lbs.**

9. Separate the needed buffer tube that will be used for mid-span splicing.
10. Loop the remaining tubes. Ensure that there are no kinked or pinched tubes after looping.
11. Place the cable loop inside the slack storage area, and secure using Velcro. (Figure 19)
12. Expose the bare fires of the separated buffer tube. Cut the fibers that will be spliced.

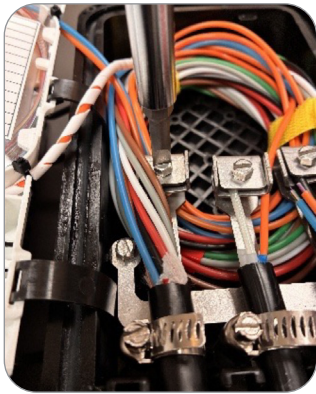


Figure 16

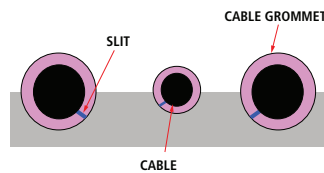


Figure 17



Figure 18



Figure 19

SPLICE TRAY OPTIONS AND ROUTING (FEEDER PORT)

Splice trays for the AFL RTD Mini Splice Terminal come fully loaded, but splice modules are field removable.

1. To remove a splice module, disengage the locking tabs on the sides with a slotted screwdriver, and slide module to release the latches. (Figure 20)
2. To re-install a splice module to the splice tray, align the latch tabs with the module slot on the splice tray and push down to engage. (Figure 21)
3. Unroute the cables from the Splice Tray.
4. Route the tube to be used into the splice tray and mark the tube slightly beyond the wall of the splice tray.
5. Ensure the tube will have the proper amount of slack and will not kink or catch on anything.
6. Secure the tube to the splice tray entrance using a cable tie. (Figure 22)

Once all splicing is complete:

1. Insert the splice tube into the holder.
2. Ensure all slack is dressed neatly in the splice trays. (Figure 23)
3. Close the cover of the terminal and secure all the wire latches.

****NOTE: Always follow locally accepted practices when splicing.****



Figure 20



Figure 21



Figure 22

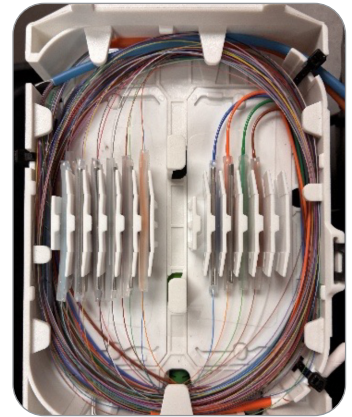


Figure 23

TAP/SPLITTER SPLICE TRAY (BRANCH PORT)

1. Route the tube to be used into the branch side of the splice tray as the feeder/drop splice tray and mark the tube slightly beyond the wall of the splice tray.
2. Ensure the tube will have the proper amount of slack and will not kink or catch on anything. (Figure 24)
3. Wrap the supplied soft spiral tube around the tube being used.
4. Secure the tube to the splice tray entrance using a cable tie. (Figure 25)
5. Insert the splice tube into the holder.
6. Ensure all slack is dressed neatly in the splice trays. (Figure 26)
6. Once all splicing is complete, close the cover of the terminal and secure all the wire latches.

****NOTE: Always follow locally accepted practices when splicing.****

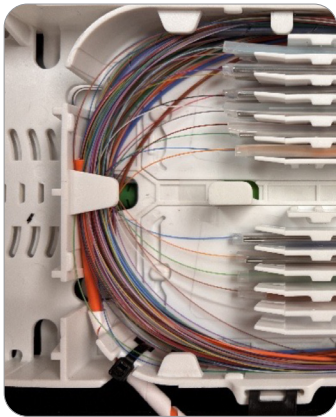


Figure 24



Figure 25

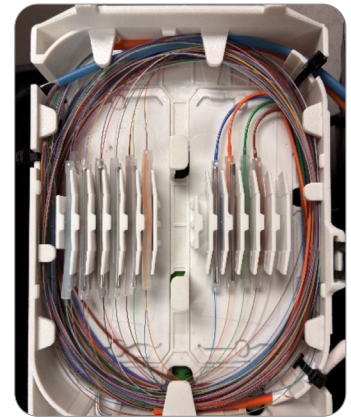


Figure 26

DROP CABLE INSTALLATION – DIRECT PATCH

⚠ Caution: When working with fiber optics, do not look directly into the end of the fiber cable or adapter port. A power meter may be used to determine if the cable or port is dark. Always use locally accepted fiber optic safety practices.

1. Remove the blank port plug from the drop slot using a pair of cutters. (Figures 27 and 28)
2. Wrap the drop cable with cable grip sheet, aligned with the fixing bars. (Figure 29)

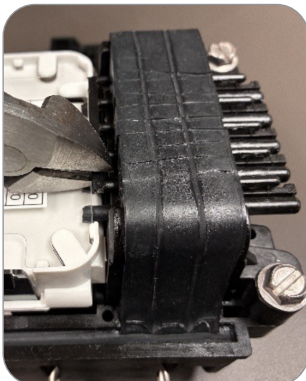


Figure 27



Figure 28

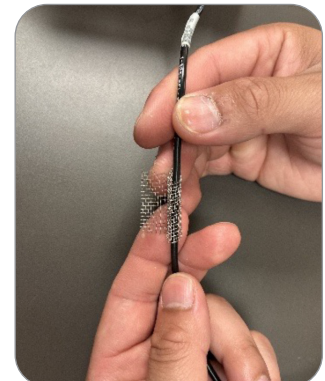


Figure 29

3. Install the drop cable in the drop just past the drop seal.
4. Secure the cable to the drop retention bracket using UV-resistant, black-tie wraps. It is recommended to use 8-inch long tie wraps. (Figure 30)
5. Tighten and then cut the excess ties.

****NOTE: Keep blank port plugs in place if cable slot will not be used.****

6. Remove the dust caps from the connector and the drop and install the drop cable. (Figure 31)
7. Repeat steps 1-6 for all remaining drop cables. (Figure 32)

****NOTE: AFL recommends always cleaning and inspecting connectors and adapters before making a connection. Always follow locally-accepted practices and cleaning procedures.****



Figure 30

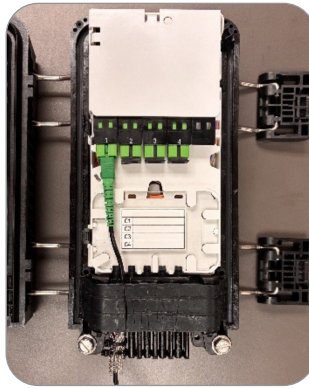


Figure 31

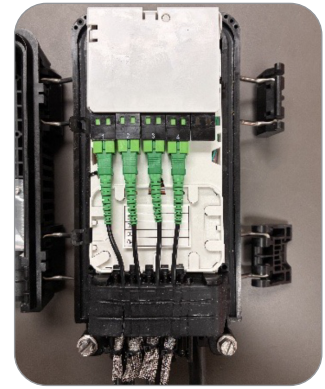


Figure 32

DROP CABLE INSTALLATION – SPLICING

⚠ Caution: When working with fiber optics, do not look directly into the end of the fiber cable or adapter port. A power meter may be used to determine if the cable or port is dark. Always use locally accepted fiber optic safety practices.

1. Remove the blank port plug from the drop slot using a pair of cutters.
2. Wrap the drop cable with cable grip sheet, aligned with the fixing bars.
3. Insert the drop cable with the stripped end into the drop cable grommet.

****NOTE: Keep blank port plugs in place if cable slot will not be used.****

4. Secure the cable sheath to the drop retention bracket using UV-resistant, black-tie wraps. It is recommended to use 8-inch long tie wraps.
5. Tighten and then cut the excess ties afterward.
6. Repeat steps 1-5 for remaining drop cables.
7. Perform fusion splicing for the drop and pigtail cable.

****NOTE: Always follow locally accepted practices when splicing.****

8. Route the cables onto the TAP-Splitter tray ensuring to cover the tray with clear lid when finished.

CLOSING TERMINAL

1. Secure the splice tray covers using the supplied Velcro strap. Ensure the cover is fully seated and retained before closing the terminal. (Figures 33 and 34)
2. Secure the Cable Holder Top on the enclosure by fully tightening the two (2) captive screws.

****NOTE: Maximum allowable torque limit for captive screws: <27 in-lbs.****

2. Gently close the lid making sure it is aligned with the tray.
3. Engage the two (2) latches on the Box Lid and then push the four (4) latches inward. (Figure 35)

****NOTE: Avoid putting your hands near the latches during closing for safety purposes.****

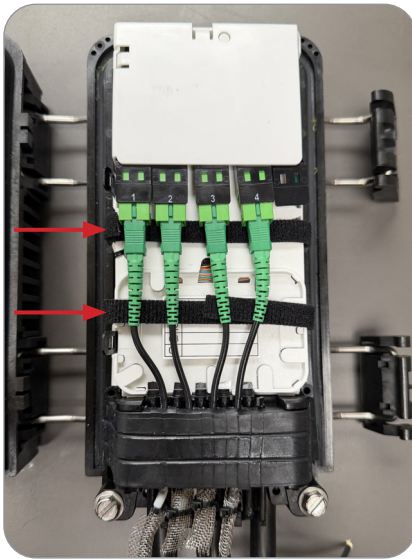


Figure 33

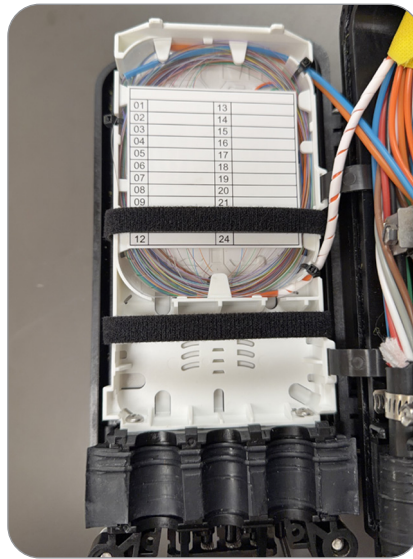


Figure 34

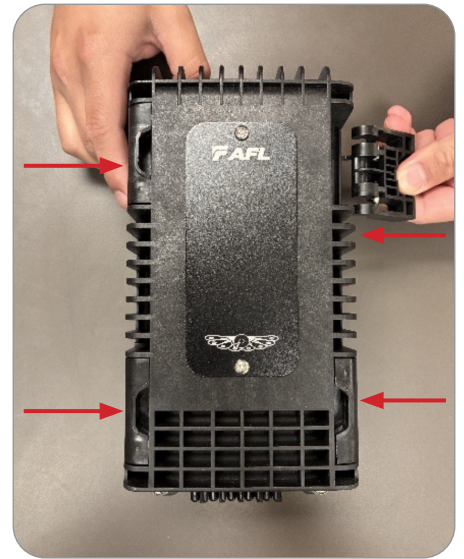


Figure 35

MOUNTING OPTIONS

The AFL RTD Micro Splice Terminal comes with mounting brackets that have three mounting positions to allow for mounting to a pole, wall, and aerially on a messenger wire strand.

Mounting aerially to a messenger wire strand requires an additional kit (see details below).

POLE/WALL MOUNT

****NOTE: Mounting screws for pole or wall mounting are not included.****

1. Position the Mounting Bracket to the desired area on the pole or wall.
2. Install Mounting Bracket to the pole or wall using standard mounting screws. (Figure 36)
3. Place the micro splice terminal on the slide-mount bracket and position the protruding parts just before the sliding guides. (Figure 37)
4. Slide the splice terminal on the sliding guides until you hear a “clicking” sound. This means the terminal is already locked to the bracket. (Figure 38)

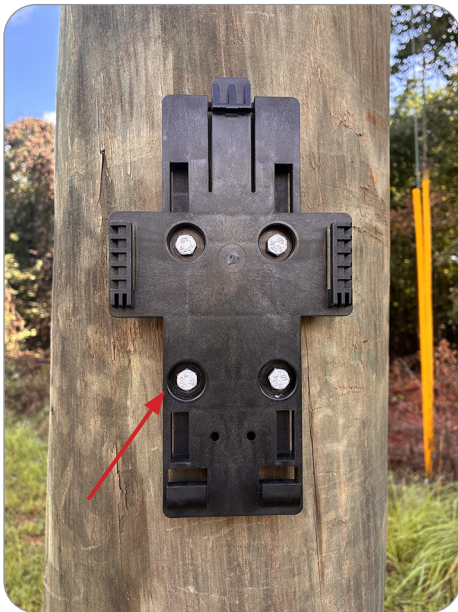


Figure 36



Figure 37



Figure 38

STRAND MOUNTING

Mounting aerially on a messenger wire strand requires using the supplied mounting brackets with the Aerial Strand Mount Bracket Kit. Position the brackets 90° and attach the strand mount bracket to the slide mount bracket using flanged hex head slotted screws.

1. Place the enclosure on the slide mount bracket and position the protruding parts just before the sliding guides. (Figure 37)
2. Slide the microsplice terminal on the sliding guides until you hear a “clicking” sound. This sound means the terminal is locked to the bracket. (Figures 38 and 39)
3. Loosen the Clamp of both strand mounts. Hang the Mount Bracket to the wire strand.
4. Insert the strand wire/cable on the Clamp. Using wrench, hand-tighten the hex nut as tight as possible. (Figure 45)

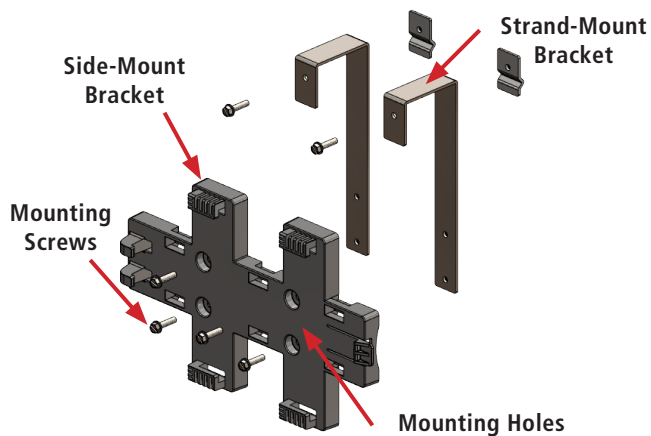


Figure 39

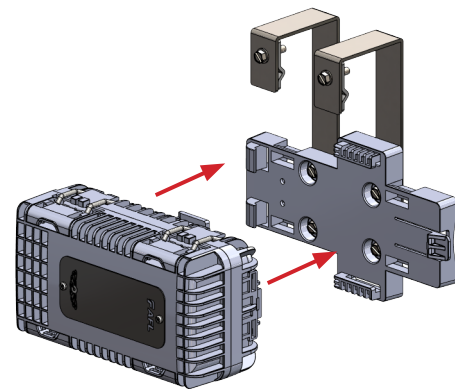


Figure 40

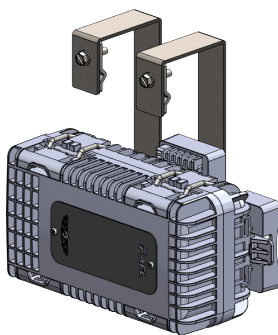


Figure 41

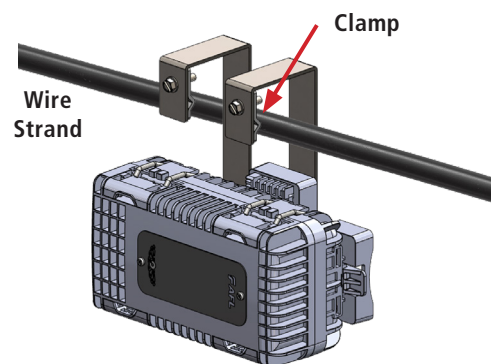


Figure 42

INSTALLING SPLITTERS

The AFL RTD Micro Splice Terminal can be ordered with PLC splitter assemblies for field installation. The terminal is supplied with standard adapters and pigtails, which may be removed and replaced with the PLC splitter assembly as needed.

AFL recommends using 900 μm fiber splitter assemblies with 1-meter length pigtails to properly route the assembly to the splice tray. Refer to the "Additional Kits and Accessories" table on Page 2 of this document for AFL-offered splitter assemblies.

1. Remove the white cover by pulling upward to expose the pigtail connectors attached to the adapters. Disconnect and remove the adapters and pigtails that will be replaced by the PLC splitter assembly. (Figure 43)
2. Plug in the pigtail connectors to the adapters, ensuring they are inserted in the correct numerical order. (Figure 44)

****NOTE: AFL recommends inspecting and cleaning each connector prior to making a connection.****

3. Route the PLC splitter pigtails through the opening in the upper-right corner of the terminal and toward the splice tray.
4. Secure the pigtail bundle at the splice tray entrance using a tie wrap, then place the PLC splitter chip into the splice module slot on the far right side of the splice tray. (Figure 45)

****NOTE: Ensure the fibers still have free movement after securing to prevent attenuation.****

5. Adjust the slack as necessary.

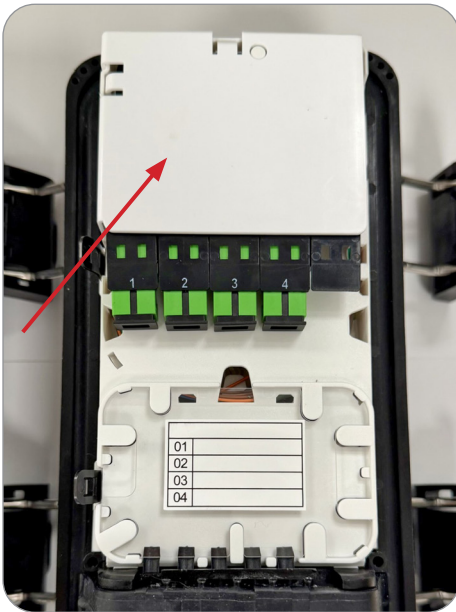


Figure 43



Figure 44

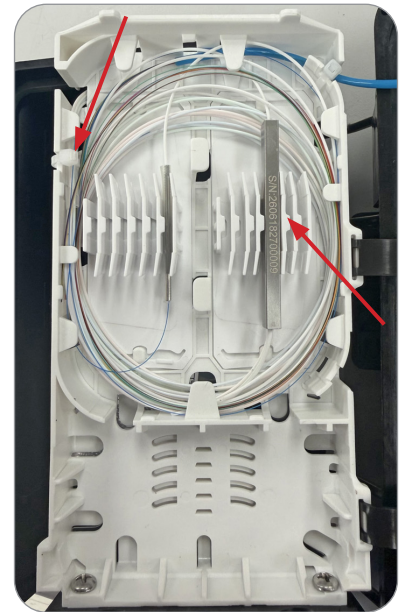


Figure 45