AFL Titan RTD Multiport Terminal Instruction Manual

Contents

AFL Titan RTD Multiport Terminal

GENERAL

The AFL TITAN RTD® Multiport Terminal is a factory terminated OSP fiber terminal designed for quick and easy subscriber connections anywhere in the OSP network when used in conjunction with AFL TRIDENT Hardened Connectors. The sealed and rugged design of both the AFL TITAN RTD Multiport Terminal and AFL TRIDENT Hardened Connectors allow for longterm reliability when installed anywhere in the network – underground, in pedestals, on poles or on aerial strand or ADSS cables. The preterminated AFL TITAN RTD Multiport Terminal is available with dielectric or toneable flat drop cable stubs, allowing for flexibility when engineering the network and consolidation of multiple terminal stubs into one centralized splice point. The terminal is outfitted with four, six, eight or twelve AFL TRIDENT Hardened Connector ports. The AFL TITAN RTD Multiport Terminal and AFL TRIDENT Hardened Connector are designed and tested to Telcordia GR-771 and Telcordia GR-3120, respectively.

Lengths ≤350 feet ship coiled in low-profile boxes.
Lengths >350 feet ship on a 33″ corrugated plastic reel inside a cardboard box.

MULTIPORT TERMINAL SPECIFICATIONS

Parameter	Value
Dimensions – (L x W x H) in. (mm)	4- and 6-port 12.4 x 4.9 x 3.0 (315 x 125 x 76)
	8- and 12-port 15.5 x 6.1 x 3.8 (394 x 195 x 96)
Packaging Dimensions (L x W x H) in. (mm)	≤ 350 feet (box) 25.0 x 25.0 x 7.0 (635 x 635 x 179)
	≥ 350 feet (reel) 33.0 x 25.0 x 9.0 (838 x 635 x 838)
Weight lbs (kg)	4- and 6-port 1.5 (0.7)
	8- and 12-port 2.5 (1.1)
Maximum Span Length at 1% Sag – ft (m) at 60°F Installation per NECS loading conditions	Light Loading – 550 (167)
	Medium Loading – 275 (84)
	Heavy Loading – 150 (45)
Maximum Tensile Loading – lbs (N)	Install – 300 (1,335)
Minimum Dimension Bend Radius – in (mm)	3.19 (81)

AFL TRIDENT® HARDENED CONNECTOR SPECIFICATIONS

Parameter	Value
Insertion Loss, Maximum	0.50 dB
Insertion Loss, Typical	0.15 dB
Reflection	≤ -65 dB
Operating Temperature	-40°C to +75°C
Retention Force	25 lbs (111 N)
Dust Cap Pulling Eye Tension	100 lbs (444 N)

PACKAGE CONTENTS

AFL TITAN RTD® Multiport Terminal

REQUIRED TOOLS

One-Click® SC Cleaner

ADD-ON COMPONENTS

- Strand Mount Bracket Kit
- Adjustable Strand Mount Bracket Kit
- AFL TRIDENT Hardened Connector to SC/APC Adapter AFL TRIDENT Hardened Connector to SC/APC

Jumper AFL TRIDENT Hardened Connector to SC/UPC Jumper AFL TRIDENT

- Hardened Connector OTDR Fiber Ring

INSTALLATION INSTRUCTIONS

MULTIPORT TERMINAL MOUNTING OPTIONS

Caution: Fiber optic cable is susceptible to damage from excessive bending, pulling or crushing forces. At every stage of the installation process ensure that cables are free from unintentional cuts, knicks or bends to avoid potential fiber damage. Flat cable terminal tails cannot be bent other than the preferential bend direction.

MULTIPORT TERMINAL MOUNTING – STRAND

1. Using local engineering practices, determine the installation location for the multiport terminal.
2. Align the pem-nut hole on the strand mount bracket with the terminal mounting hole.
3. Secure the strand mount bracket to the terminal using the bolt and washers provided in the Strand Mount Bracket Kit. (Figures 1a and 1b)
   Note: For best practice, it is recommended that both strand mount brackets be installed onto the terminal before beginning the strand mount procedure.
4. Determine the size of the strand and loosen the strand clamp. Do not remove this bolt from the strand mount bracket.
5. Place both strand mount bracket clamps over the strand and tighten completely. (Figure 2)
   Note: For best practice, it is recommended that the multiport terminal be mounted on the strand with the adapter ports oriented towards the pole.

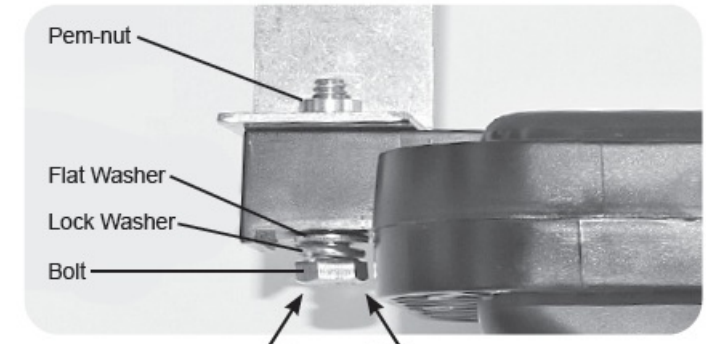

Figure 1a

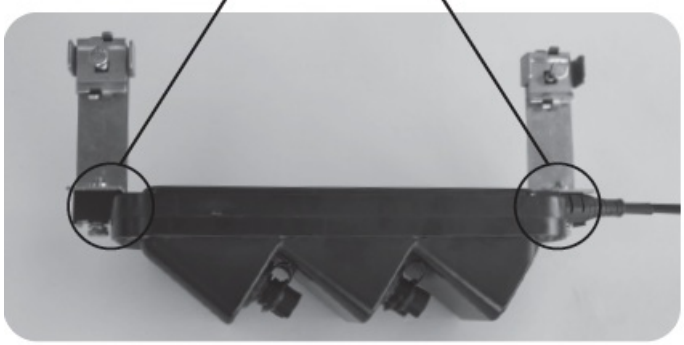

Figure 1b

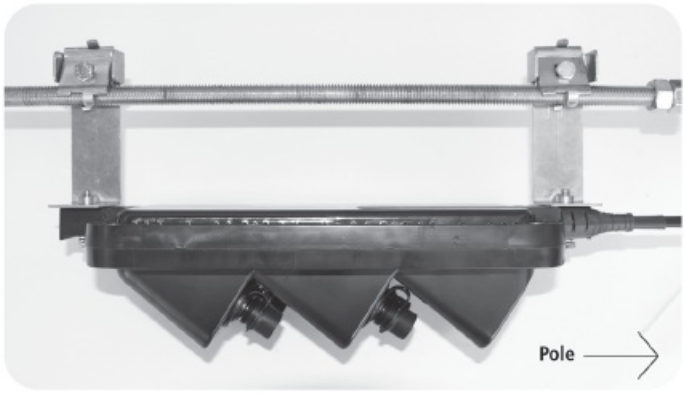

Figure 2

For applications that require the multiport terminal be mounted on large overlash bundles, the Adjustable Strand Mount Bracket Kit will be utilized.

1. Determine the necessary height for the bracket.
2. Using a standard 216 style tool, or similar, to loosen the bolt allowing the bracket to expand to the desired height. (Figure 3a and 3b)
3. Re-tighten the bolt locking the bracket into place.
4. Follow steps 1 – 5 of the MULTIPORT TERMINAL MOUNTING – STRAND section to complete the Adjustable Strand Mount Bracket installation.


Figure 3a


Figure 3b

MULTIPORT TERMINAL MOUNTING – WALL OR POLE

1. Using local engineering practices, determine the installation location for the multiport terminal.
2. Using local accepted practices and approved hardware, secure the bottom of the terminal to the wall or pole.
3. Using the same hardware, secure the top of the terminal to the wall or pole. (Figure 4a and 4b) Note: When mounting to a metal or concrete pole, the top and bottom mounting tabs of the multiport terminal are designed to accept a ¾” band. (Figure 4c)

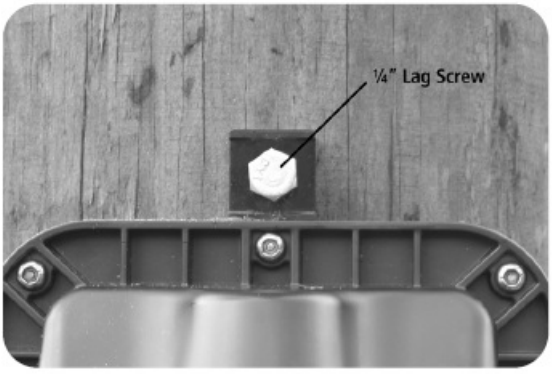

Figure 4a

Figure 4b

Figure 4c

MULTIPORT TERMINAL MOUNTING – HANDHOLE OR PEDESTAL

1. Using local engineering practices, determine the installation location for the multiport terminal.
2. Align the terminal mounting holes with the mounting holes on the pedestal back plate or vertical mounting channel.
3. Using local accepted practices and approved hardware, secure the bottom of the terminal to the back plate or channel.
4. Using the same hardware, secure the top of the terminal back plate or channel. (Figure 5a and 5b) Note: For best practice, it is recommended that the hardware sizes below be used in the following order:
   1/4 – 20 Bolt
   1/4″ Lock Washer
   1/4″ Flat Washer
   1/4″ Locking Nut

Figure 5a

Figure 5b

CONNECT AFL TRIDENT® HARDENED CONNECTOR

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. Or use locally accepted fiber optic saftey practices.

Note: When adding a AFL TRIDENT Hardened Connector cable assembly to a terminal that was previously placed ensure that the multiport terminal is clear from any environmental debris before removing the adapter cap. When cleaning the terminal only clean water is to be used.

Caution: Fiber optic cable is susceptible to damage from excessive bending, pulling or crushing forces. At every stage of the installation process ensure that cables are free from unintentional cuts, knicks or bends to avoid potential fiber damage. Flat cable terminal tails cannot be bent other than the preferential bend direction.

1. Using local engineering practices, determine the terminal port to be used for connecting with the AFL TRIDENT Hardened Connector cable assembly.

   Note: Each port on the terminal is identifiable by an embossed port ID located above each adapter.
2. From the multiport terminal, remove the adapter cap and insert One-Click SC Cleaner into the ceramic cylinder to clean the port. (Figure 6a and 6b)

   Note: The adapter cap should only be removed immediately prior to connection in order to avoid any contamination

   1. .

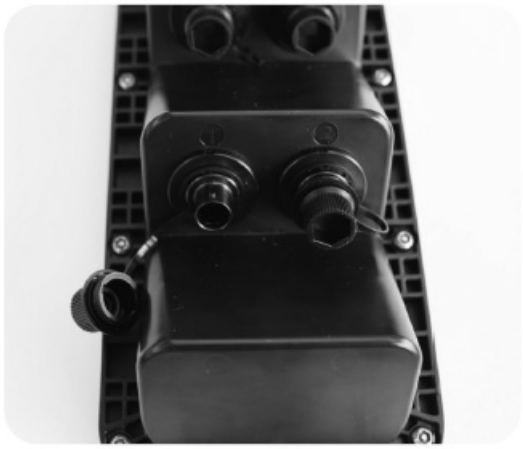

Figure 6a

Figure 6b

3. From the AFL TRIDENT® Hardened Connector, remove the connector cap and use One-Click SC Cleaner to clean the connector end face. (Figure 7a and 7b)

Figure 7a

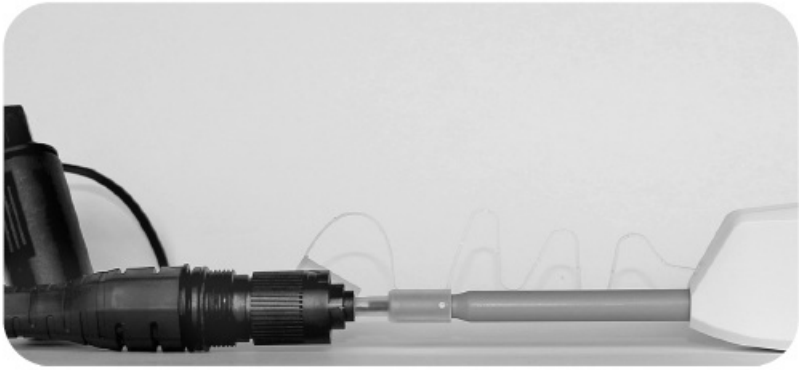

Figure 7b

4. Align the key on the connector with the key on the adapter. The connector and adapter keys are indicated with white markings. (Figures 8a and 8b)

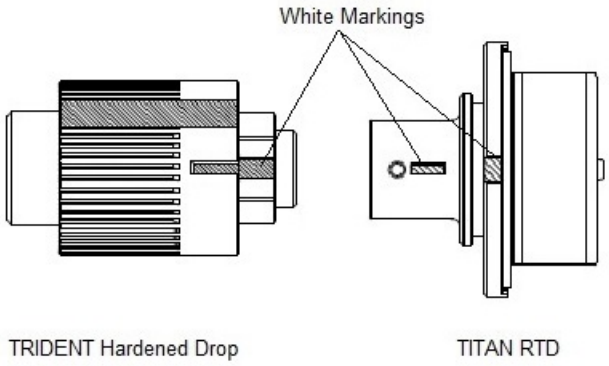

Figure 8a

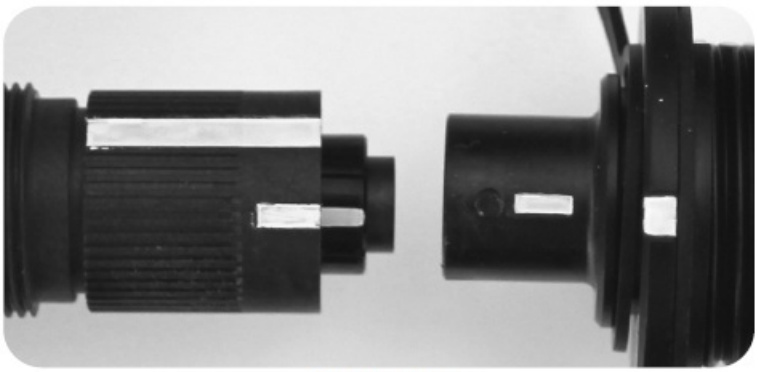

Figure 8b

5. Insert the connector, press down and give a quarter turn to the right to engage. The connector will be fully engaged when the longer white marking is aligned with the white mark on the TITAN adapter. (Figure 9) Note: The connector should be installed hand-tight. DO NOT use pliers of other tools to engage the connector which may damage the connector and/or adapter if overtightened.

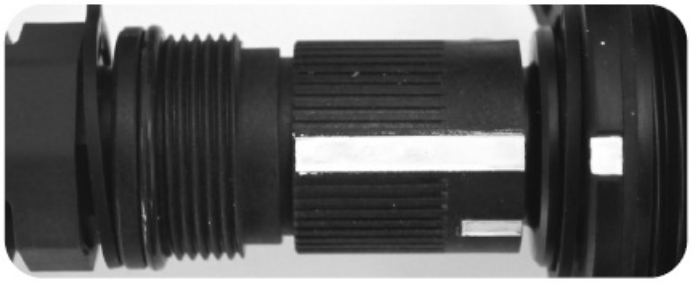

Figure 9

6. Screw the multiport terminal adapter cap into the AFL TRIDENT Hardened Connector dust cap to prevent contamination on either the connector or adapter dust cap should the drop ever be removed and the dust caps reused. (Figures 10a and 10b)

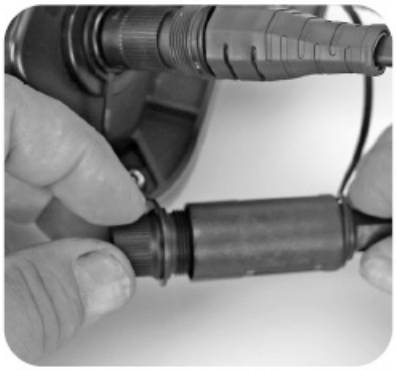

Figure 10a

Figure 10b

7. Repeat steps 1-6 for each AFL TRIDENT Hardened Connector cable assembly to be installed into the terminal

Documents / Resources

	AFL Titan RTD Multiport Terminal [pdf] Instruction Manual Titan RTD Multiport Terminal