

Required Attachment Hardware for Titan RTD® Multiport Terminals and Trident® Hardened (HFOC) Drops

AFL Titan RTD Multiport Terminals and Trident HFOC Drops must use compatible hardware that has been specifically designed and tested for aerial installation applications. Non-compatible hardware can fail or slip causing loss of clearance over rights-of-way and roads, and potentially pose a safety hazard. This application note is intended to provide a listing of the recommended mounting hardware for hanging the flat cable Titan RTD and flat Trident HFOC drops. Additionally, the high tension ADSS tails – which have a longer span length – for AFL’s Titan and Trident system use a different specific hardware set for their aerial installations.



Titan RTD Multiport Terminals



Trident HFOC Drop

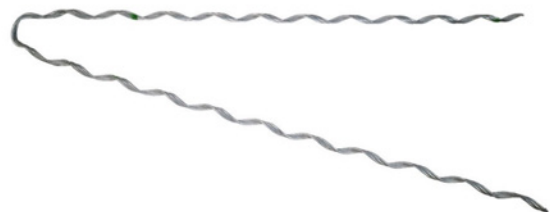
Titan RTD Multiport Terminals and Trident HFOC Drop Hardware Ratings

When selecting mounting hardware, it is critical that the hardware meets the tension load requirements of the cable and is rated accordingly. Only AFL referenced hardware has been tested and qualified to assure proper performance with the appropriate hardware in the worst-case applications. This hardware will match up with the Sag and Tension Charts available on the AFL web site.

Tension Hardware

ADSS Titan and Trident Terminals

Tension hardware used for Titan and Trident **ADSS cables** should be rated to 1,100 lbs. for best performance. For hanging Titan and Trident ADSS cables, the recommended AFL hardware is the **ADSS Drop Formed Wire Dead End (AFL part number ADED326/365)**. This dead end is designed to fit cables with an O.D. in the range of 0.326"-0.365" and is best suited for AFL’s ADSS cable used with the Titan and Trident system.



ADSS Drop Formed Wire Dead End (ADED326/365)

Flat Drop Titan and Trident Terminals

Tension hardware used for Titan and Trident **flat drop cables** should be rated to 350 lbs. For hanging Titan and Trident flat drop cables, the recommended AFL hardware is the **Semi-Limited Tension Formed Wire Dead End (AFL part number ADELD3E309/341)**. This dead end is designed to fit cables with an O.D. in the range of 0.309"-0.341" and is qualified for AFL’s flat drop cable used with the Titan and Trident system.



Semi-Limited Tension Formed Wire Dead End (ADELD3E309/341)

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NOTE: A common alternative for mounting flat drop cables is to use P-clamps, which are small clamps that function as miniature mechanical dead ends. These are not available through AFL and may differ in load ratings – therefore, it is important to always check the maximum loading and crush capability with AFL's Titan RTD and Trident System prior to use. The crush resistance of the **Titan and Trident flat drop cables** meet the Telcordia GR-20 industry standards which specifies a short-term crush rating of 125 lbf/in. and a long-term crush rating of 63 lbf/in.



Flat Drop and MPT Tail Mechanical "P-clamp" Dead End

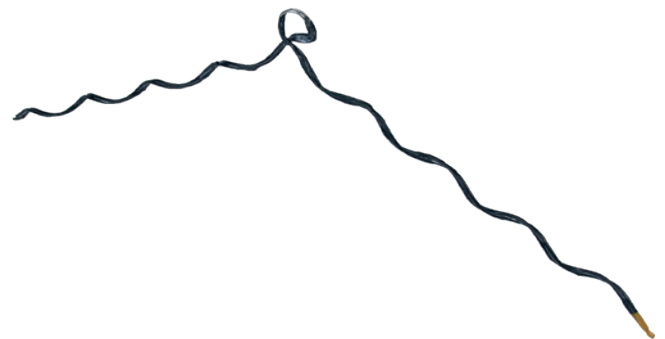
Tangent Hardware

ADSS Titan and Trident Terminals

For hanging Titan and Trident **ADSS cables** in tangent applications, the recommended hardware are the **ADSS Mini-Stringing Bracket (AFL part number AMSB307)** and the **ADSS Mini Formed Wire Tangent Support (AFL part number ATS321/330)**. Both of these are designed to be used as tangent supports for AFL's ADSS cable used with Titan and Trident, and both of these are rated for 50 lbs. of slip. The ADSS Mini-Stringing Bracket is rated to support a maximum line angle of 30 degrees (maximum one side angle of 15 degrees). The ADSS Mini Formed Wire Tangent Support is rated to support a maximum line angle of only 20 degrees (maximum one side angle of 10 degrees) but is designed to connect directly to J-hooks on wood poles for easy and economical installation process.



Mini-Stringing Bracket (AMSB307)



Mini Formed Wire Tangent Support (ATS321/330)

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For applications where multiple Titan and Trident **ADSS cables** are used alongside each other, AFL offers the **Multi-Round Drop Bushing Insert (AFL part number MDBI-346)** for tangent applications. This bushing supports up to four of the Titan and Trident ADSS cables and is placed inside AFL's **Tangent Trunnion Assembly (AFL part number ATGN960/1045)**. The AFL part number is **ATGNMD346-4** for the **Full Assembly** which includes the trunnion housing, trunnion bushing and multi-round drop bushing insert. This assembly is rated for 100 lbs of slip. A sub-assembly of the tangent trunnion bushing and the **Multi-Round Drop Bushing Insert** without the metal trunnion housing is also available (**AFL part number ATMDB-346**). To purchase only the **tangent trunnion bushing** (no metal housing or multi-drop insert), order **AFL part number 247022S**.



Multi-Round Drop Bushing Insert (MDBI-346)



Tangent Assembly with MDBI-346 (ATGNMD346-4)

AFL also offers a **Multi-Drop Pigtail (AFL part number MDPT-1045)** to be used in conjunction with the **Multi-Round Drop Bushing Insert (AFL part number MDBI-346)** to act as a mid-span aerial spacer. This keeps the four drop cables grouped together so that they are not hanging freely relative to each other in the middle of the span. For both the Multi-Drop Pigtail and the Multi-Round Drop Bushing Insert, order AFL part number **MDMSC-346**. The [table in Appendix A](#) of this document provides all the part numbers for the multi-drop tangent assemblies offered for Titan and Trident ADSS cables.



Multi-Drop Pigtail (MDPT-1045)



Multi-Drop Pigtail with Bushing Insert and Drop Cables

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Flat Drop Titan and Trident Terminals

For hanging Titan and Trident flat drop cables in tangent application, the recommended AFL tangent hardware is the **ADSS Tangent Trunion Assembly (AFL part number ATGN960/1045)** with the **Flat Drop Bushing Insert (AFL part number MDBI-4F)**. This bushing allows for up to four flat drop cables to be placed into one tangent trunion assembly and is rated for 100 lbs. of slip.



Multi-Flat Drop Bushing Insert (MDBI-4F)



Tangent Assembly with MDBI-4F

For proper mid-span aerial spacing, the same **Multi-Drop Pigtail** above (AFL part number MDPT-1045) can be used with the **Multi-Flat Drop Bushing Insert (AFL part number MDBI-4F)**. The [table in Appendix A](#) of this document includes the part numbers for the multi-drop tangent hardware offered for Titan and Trident Flat Drop cables.

Download Hardware (Down the Pole)

ADSS Titan and Trident Terminals

The recommended AFL download hardware for **guiding Titan and Trident ADSS cables** down a pole is the RDCT Round Drop Cable Tangent accessory. This accessory provides a simple compressive clamping of up to four round drop cables with a max cable diameter of up to 0.336" and can be used to neatly guide the Titan and Trident ADSS cables down the pole to a splice point or the final termination point at the customer's premises. The RDCT accessory can either be banded or bolted to a pole, and ordered with or without the lag screw hardware necessary to bolt to the pole. The AFL part number **without the lag screw hardware is RDCT-4** and the AFL part number **with the lag screw hardware is RDCT-4D**.



Round Drop Cable Tangent Accessory (RDCT-4D)

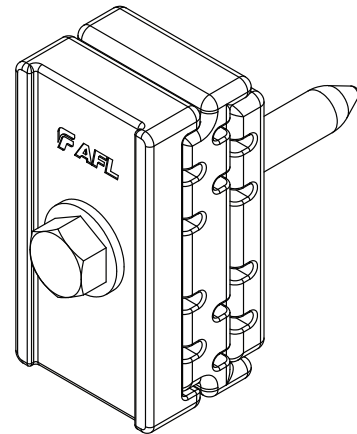
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Flat Drop Titan and Trident Terminals

The recommended AFL download hardware for **guiding Titan and Trident Flat Drop cables** down a pole is the FDCT Flat Drop Cable Tangent accessory. This accessory provides the same function as the RDCT Round Drop Cable Tangent accessory, except it is designed specifically for flat drop cables. The FDCT, however, can be ordered for a max capacity of either four or 12 flat drop cables, and also may be ordered with or without the lag screw hardware necessary for bolting to a pole. The AFL part number for holding up to **four flat drops without the lag screw hardware is FDCT-4** and 12 flat drops without the lag screw hardware is FDCT-12. To order with the lag screw hardware, add a "D" to the end of AFL part number (**FDCT-4D** and **FDCT-12D**) respectively.



4-Slot Flat Drop Cable Tangent Accessory (FDCT-4D)











12-Slot Flat Drop Cable Tangent Accessory (FDCT-12D)

For more information, contact AFL for more information on Titan RTD Multiport Terminals and Trident Drop Cables or for any questions regarding recommended installation practices.







Required Attachment Hardware for Titan RTD® Multiport Terminals and Trident® Hardened (HFOC) Drops

Appendix A — Part Numbers

TYPE	IMAGE	DESCRIPTION	AFL NO.
TENSION HARDWARE			
ADSS		ADSS Drop Formed Wire Dead End	ADED326/365
Flat		Semi-Limited Tension Formed Wire Dead End	ADELD3E309/341
Flat		Flat Drop Mechanical P-Clamp Dead End	—
TANGENT HARDWARE			
ADSS		ADSS Mini-Stringing Bracket	AMSB307
ADSS		Mini Formed Wire Tangent Support	ATS321/330
ADSS		Multi-Round Drop Bushing Insert	MDBI-346
ADSS		Tangent Trunnion Bushing + Multi-Round Drop Bushing Insert (MDBI-346)	ATMDB-346
ADSS		Full Tangent Trunnion Assembly — Trunnion Housing + Trunnion Bushing + Multi-Round Drop Bushing Insert	ATGNMD346-4



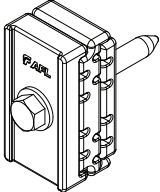
Required Attachment Hardware for Titan RTD® Multiport Terminals and Trident® Hardened (HFOC) Drops

Appendix A — Part Numbers

TYPE	IMAGE	DESCRIPTION	AFL NO.
TANGENT HARDWARE (cont.)			
ADSS		Multi-Drop Pigtail + Multi-Round Drop Bushing Insert	MDMSC-346
ADSS		Tangent Trunnion Assembly without Multi Drop Bushing	ATGN960/1045
ADSS		Tangent Trunnion Bushing for ADSS and Flat Drop Cables	247022S
ADSS		Multi-Drop Pigtail for ADSS and Flat Drop Cables	MDPT-1045
Flat		Multi-Flat Drop Bushing Insert	MDBI-4F
Flat		Tangent Trunnion Assembly without Multi Drop Bushing	ATGN960/1045
Flat		Tangent Trunnion Bushing	247022S
Flat		Multi-Drop Pigtail for ADSS and Flat Drop Cables	MDPT-1045

Required Attachment Hardware for Titan RTD® Multiport Terminals and Trident® Hardened (HFOC) Drops

Appendix A — Part Numbers

TYPE	IMAGE	DESCRIPTION	AFL NO.
DOWNLOAD HARDWARE			
ADSS		Round Drop Cable Tangent Accessory with Lag Screw Hardware	RDCT-4D
Flat		4-Slot Flat Drop Cable Tangent Accessory with Lag Screw Hardware	FDCT-4D
Flat		12-Slot Flat Drop Cable Tangent Accessory with Lag Screw Hardware	FDCT-12D