

Trunk & Distribution Connectors

GRS 3-Piece Installation Guide



Applicable Parts

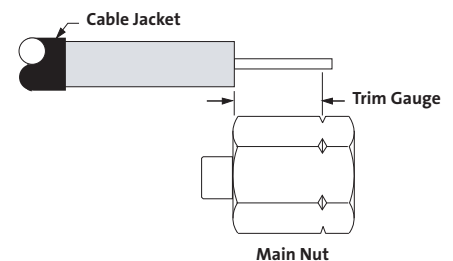
CH, EXT, SP, TR, BAFF, AFM & B

Recommended Tools

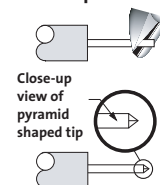
2 — 10" Adjustable Wrenches
1 — Jacket Stripper
1 — Cable Coring Tool
1 — Wire Cutters

Cable Preparation

1. To install Corning Gilbert connectors on cable, the outer jacket/armor, if any, must first be removed so the inner jacket is exposed. The amount of outer jacket/armor/inner jacket removed is dependent upon a combination of the preparation length and the preparation tool. Typically no more than three to four inches of outer conductor needs to be exposed to install Corning Gilbert connectors (some tools have longer guide bushings which make it necessary to remove more of the outer jacket/armor/inner jacket then typical).
2. The removal of the innermost jacket should be completed so there are no score marks on the outer conductor. This is best achieved with a jacket stripper. If a jacket stripper is not available, with care a knife can be used.
NOTE: Do not use tubing cutters in preparation of QR cable. Preparation tools for QR cable are made to core the dielectric and trim the outer conductor in the same operation.
3. After jacket is removed, it is now necessary to remove flooding material (if flooded cable). Commscope recommends the use of mineral spirits on its cable to remove the flooding material.
4. Tools are available that will prepare the cable in one step (Cablematic, Cable Prep, etc.) or equivalent.
5. Expose cable center conductor. If using a tubing cutter be sure to only score the outer conductor and then break loose and remove with pliers.
6. All of Corning Gilbert GRS series connectors have trim gauge on the Main Nut to assist in removal of the proper amount of outer conductor and dielectric to expose the correct length of bare center conductor.
7. Once all dielectric and precoat have been removed from the center conductor, double check the center conductor length and trim accordingly. (A pyramid-shaped tip is recommended allowing easier insertion of the center conductor into the seizing mechanism.)
8. Core the dielectric. **NOTE:** Coring tools are designed to remove dielectric to desired depth. It is important to have a sharp coring tool. A dull coring tool will compress the dielectric, creating seating problems for the connector integral sleeve.



Conductor Tip Trim Guide



After measuring the center conductor, make a cut halfway through. Rotate the cutters 90° and complete the cut.

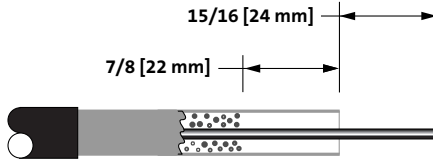
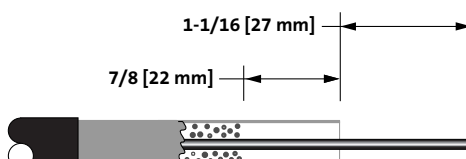
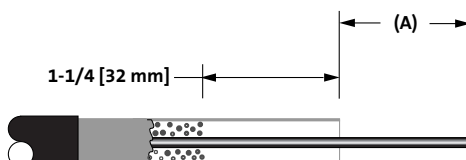
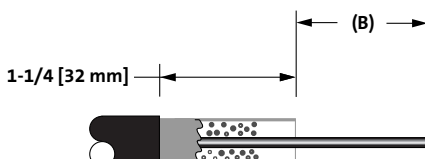
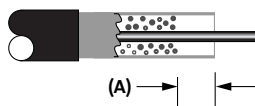
Installation Information

1. Remove sufficient jacket to allow correct function of coring tool/cable prep tool. After connector installation exposed aluminum outer conductor should not exceed one (1) inch in length (except QR series per dimensions below). Trim aluminum outer conductor and dielectric exposing center conductor. (Refer to appropriate figure for dimensions) Remove residual dielectric from center conductor and deburr end of center conductor.
2. Core dielectric to required depth (refer to appropriate figure for dimensions) using a coring tool manufactured by Ben Hughes Communications Products, Lemco Tool Corporation, Ripley Company or functional equivalent.
3. Recommended trim dimensions - inches [millimeters]:
Please refer to previous page for Cable Preparation Dimensions
4. A. Install Back Nut onto cable. Install Main Nut onto cable to check cable trim coring dimensions (see page 3). Verify the connector pin length and, if necessary, trim the connector pin to the appropriate length for the equipment being used. Install the connector Body into the housing and tighten to housing manufacturer's specification. Slide the Main Nut onto the prepared end of the cable making certain that the integral sleeve is fully inserted into cable. Bring the Main Nut and cable to the Body. Hand tighten Main Nut to Body continually keeping pressure on cable towards the Body so that the center conductor will be properly seized. Then, using two wrenches, one wrench to hold the Body from rotation, continue tightening Main Nut to Body until a firm stop is reached, re-verify that the integral sleeve is fully inserted into cable. Tighten Back Nut by hand; then, using two wrenches, one on the Main Nut, complete installation by tightening Back Nut firmly to secure the cable (*approximately 35 ft.lbs. [50 Nm] ; approximately 50 ft. lbs. [70 Nm] for .840 and larger cable sizes*). *Secure center conductor in equipment housing with seizing screw provided by equipment manufacturer¹. Slide heat shrink tubing over connector against port housing of equipment. Shrink in accordance with manufacturer's recommendation.*
5. B. Splice connectors employ the same method of cable installation as pin type connectors with the important exception that both cables being joined **MUST** be fully inserted into the connector before tightening. **IMPORTANT**-it is essential that the Body of the splice connector **NOT** be allowed to rotate with respect to the cables being joined. While restraining the Body from rotation, tighten both main nuts evenly by hand. If the correct tightening procedure is not followed, the center conductor may not be correctly seized. Rotation of the Body may cause damage to splice center conductor seizing mechanism and/or to the cable. Then, using two wrenches, one wrench to hold the Body from rotation, continue tightening Main Nuts to Body until a firm stop is reached. Tighten Back Nuts by hand; then, using two wrenches, one on the Main Nut, complete installation by tightening Back Nut firmly to secure the cable and repeat process for second Back Nut (*approximately 35 ft.lbs. [50 Nm] ; approximately 50 ft lbs. [70 Nm] for .840 and larger cable sizes*). *Slide heat shrink tubing over splice connector¹. Shrink in accordance with manufacturer's recommendation.*
6. C. **"F" Male/Female (AFM & BAFF)** connectors are installed on cable before being joined to their respective mating "F" connectors. Use the CH & EXT procedures except omit installation into housing.
7. D. **Cable Terminator (TRM)** use the CH & EXT procedures except omit installation into housing.
8. E. **Feed Thru (B/BS)** connector may be disassembled into major sub-assemblies (optional) or only loosened to facilitate cable installation. Install and tighten connector **BODY** into equipment port. Insert prepared cable into connector (make certain that integral sleeve is fully inserted into cable and that cable center conductor is inserted into housing center conductor seizing detail).

¹ Corning Gilbert strongly recommends usage of heat shrink tubing or equivalent product over the finished connector installation for absolute moisture integrity.

HEAT SHRINK TUBING IS REQUIRED FOR ALL APPLICATIONS USING FLOODED "QR" CABLE.

Cable Preparation Dimensions

Series	Cable Size	Connector	Cable Group	Coring Depth	Center Conductor Trim						
GRS	412, 440 480, 500 565, 625 650, 700 750	CH SP BAFF AFM EXT TR	A DU MC2 CX TX	01 02 03 04 07							
	840 875	CH SP BAFF AFM EXT TR	DU CX TX	02							
	1000 1160	CH SP BAFF AFM EXT TR	A DU MC2 TX FD	01							
					<table><tr><td>Cable Size</td><td>1000</td><td>1160</td></tr><tr><td>(A)</td><td>1-1/16[27mm]</td><td>1-1/4[32mm]</td></tr></table>	Cable Size	1000	1160	(A)	1-1/16[27mm]	1-1/4[32mm]
	Cable Size	1000	1160								
(A)	1-1/16[27mm]	1-1/4[32mm]									
GRS	320 500 540 715 860 1125	CH SP BAFF AFM EXT TR	QR								
											

* Typical dimension, actual is dependent upon equipment selected. This dimension should be verified for appropriate length.

Product Information

Pin Connector

Chassis mounting connector for 5/8-24 equipment entry.
This GRS Series connector is a three piece auto seizing design featuring independent seizing of the cable center and outer conductors.



Pin Extension

Chassis mounting connector for 5/8-24 equipment entry.
This GRS Series connector incorporates a **one piece continuous pin** on extensions ranging from 3 inches up to 18 inches resulting in excellent performance and reliability.



Splice Connector

Splice connector used to join two like pieces of cable.
This GRS Series connector is a three piece auto seizing design featuring independent seizing of the cable's center and outer conductors.



Female BAFF Connector

"F" series female adapter for standard 3/8-32 interface.
This GRS Series connector is a three piece auto seizing design featuring independent seizing of the cable's center and outer conductors.



Male AFM Connector

"F" series male adapter for standard 3/8-32 interface.
This GRS Series connector is a three piece auto seizing design featuring independent seizing of the cable's center and outer conductors.



Terminator Connector

Terminator used at cable end to block 60 cycle AC and terminate RF signal.
This GRS Series connector is a three piece auto seizing design featuring independent seizing of the cable's center and outer conductors.

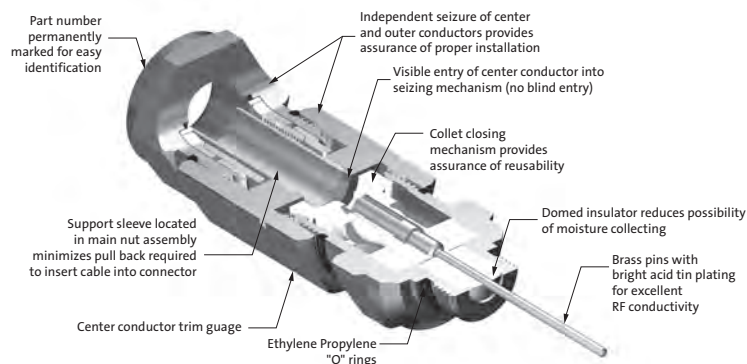


Feed Thru Connector

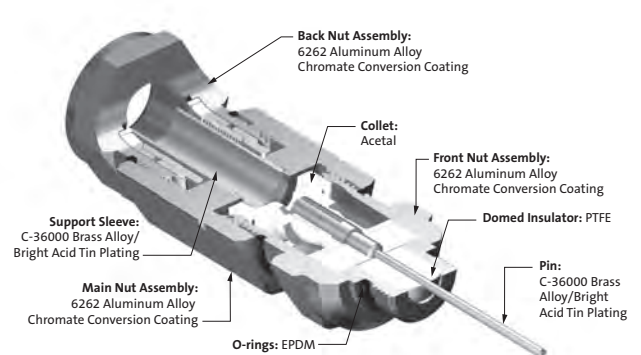
Chassis mounting connector for 5/8-24 equipment entry.
This GRS Series connector seizes only the outer conductor of the cable.



FUNCTIONAL



MATERIALS



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