

Connectors
for HELIAX® LDF4-50A
Foam-dielectric Coaxial Cable



Description

These connectors are designed for self-flaring of the outer conductor and soldering of the inner conductor to the inner conductor of the coaxial cable. Connector L44T has screw terminals for external cable connections.

Tools and Materials
Required for Assembly

Scale	Garnet cloth
Knife	Wire brush
Pliers	Spacing gauge
Flat file	Two wrenches: 13/16 in
Soft solder	Hacksaw, fine-toothed blade
Rosin flux	Solvent, comothene, vythene, or other
Damp cloth	non-flammable cleaning fluid

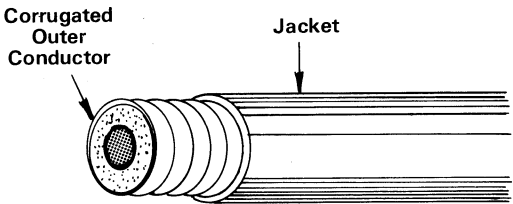
Notice

The installation, maintenance, or removal of antenna systems requires qualified, experienced personnel. Andrew installation instructions have been written for such personnel. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment.

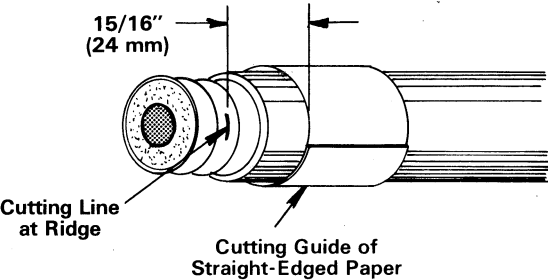
Andrew disclaims any liability or responsibility for the results of improper or unsafe installation practices.

Read Instructions
Thoroughly Before Assembly

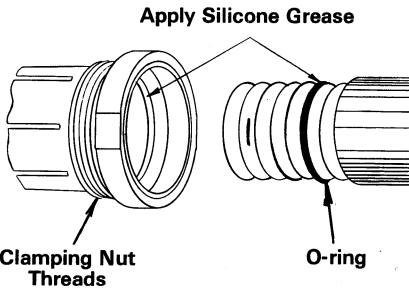
1. **Prepare Cable.** Straighten the end of the cable for at least 10 in (254 mm) and remove some of the jacket with a knife to expose the outer conductor. Also deburr the sharp end of the outer conductor.



2. **Mark Conductor and Remove Jacket.** Scribe a cutting line with a knife on the ridge of the exposed, corrugated outer conductor. Remove the jacket to the dimension shown, using a straight-edged piece of heavy paper wrapped around the cable to guide the cut.



3. **Clean Conductor and Add O-ring.** Clean the outer conductor with solvent. Add the thick O-ring to second, fully exposed conductor groove from the jacket. Apply a thin coating of silicone grease with your finger tip to the outer surface of the O-ring and to the gasket lead chamfer in the clamping nut. **Note:** Clamping nut threads must be kept free of grease.

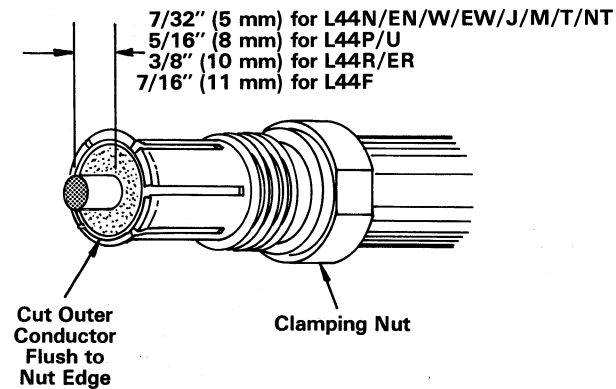


4. **Add Clamping Nut and Cut Cable.** Push the clamping nut fully onto the cable with a smooth twisting motion so that the spring contacts snap into the conductor groove and the O-ring seats properly against the inside surface of the clamping nut. Check that the conductor cut line is aligned with the edge of the clamping nut.

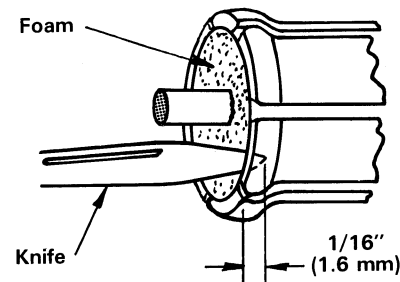
Tightly grip the clamping nut and carefully cut through the outer conductor with a fine-toothed saw. The cut must be shallow so that the inner conductor is not damaged. Then pull off the outer conductor with pliers. Carefully

clean all foam from the inner conductor with a knife.

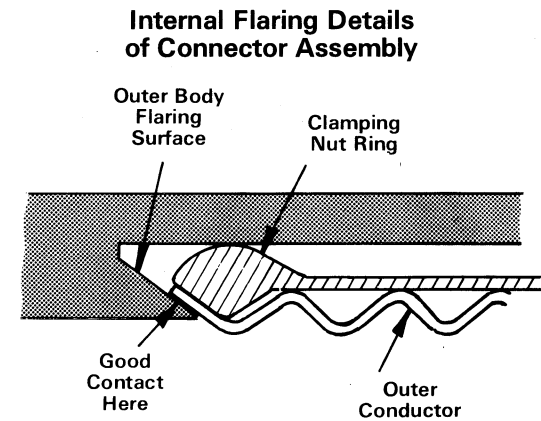
Cut the inner conductor to the length shown and deburr the cut end with a file.



5. Separate Foam from Outer Conductor. Insert the tip of a knife to a depth of 1/16 inch (1.6 mm) between the foam and the outer conductor of the cable and separate them so that the outer conductor can be flared. Move the knife around the entire circumference of the outer conductor. Scrape away any foam clinging to the outer conductor and remove any burrs from the inside edge. Remove copper particles from the foam with a wire brush.



6. Flare Outer Conductor. Thread the connector outer body onto the clamping nut and tighten the connection with wrenches. Hold the clamping nut and turn only the outer body. The flaring surface of the outer body will flatten the outer conductor against the clamping nut ring. Disassemble the connection and inspect the flare to ensure good metal-to-metal contact on final assembly.

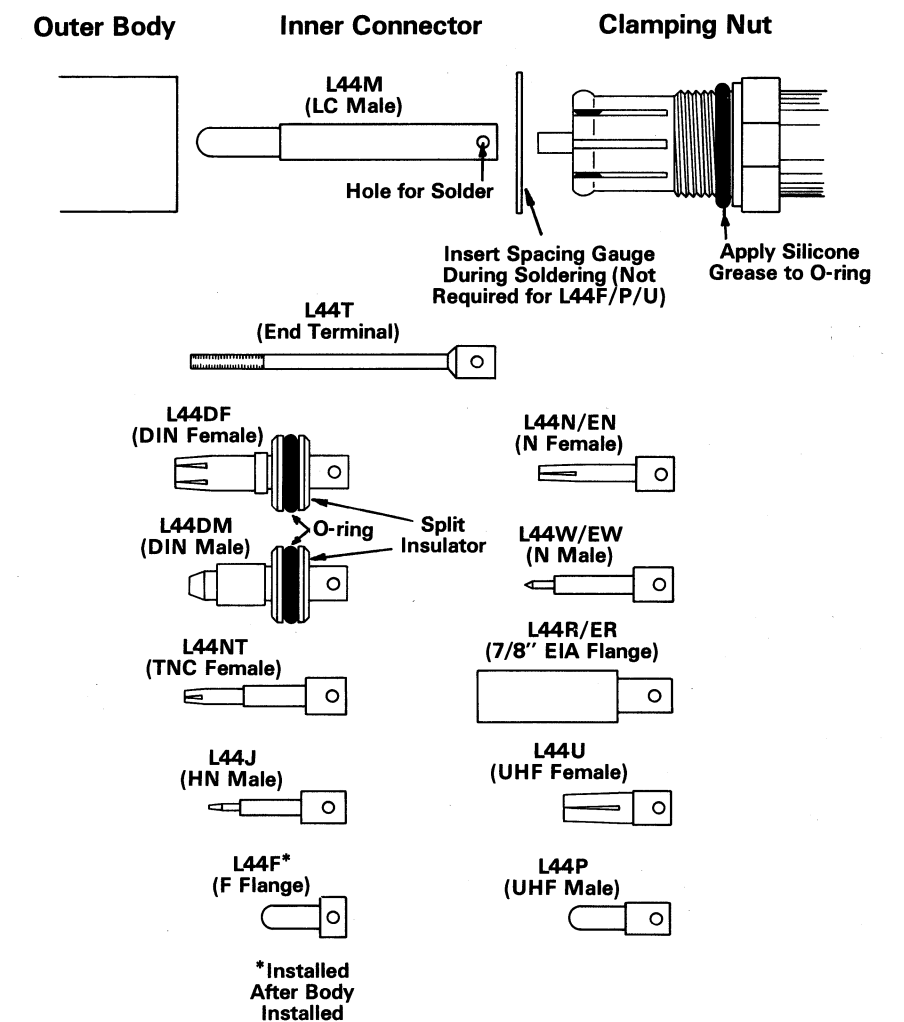


7. Install Inner Connector and Outer Body. Clean the inner conductor with solvent and slide the inner connector onto the conductor. (Note: The inner conductor of L44F is installed after installing the outer body.) Insert the spacing gauge to properly position the inner connector for soldering. (Gauge is not required for L44F/P/U connectors.)

Solder the inner connector in place using the solder hole provided. Cool the connection with a damp cloth and clean the surface with garnet cloth. Make sure the connector is aligned with the axis of the cable.

The inner connector is different for each type of connector assembly as shown in the following illustration. Differences in outer body details have been deleted to simplify the illustration.

Add the large O-ring to the connector clamping nut. Apply a thin coating of silicone grease to the outer surface of the O-ring. Keep all connector threads free of grease. Thread the outer body onto the clamping nut and tighten the connection with wrenches. Hold the clamping nut and turn only the outer body.



Step 8. Install Screw Terminal Parts on L44T. Fasten the ground terminal to the outer body with two nuts. Then add the screw, external wire terminal, shakeproof lock washer, and nut to the ground terminal.

Apply a thin coating of weather-resistant sealant to both small O-rings. Slide one O-ring onto the extension insulator and place the other into the groove of the stud head. Insert the extension insulator into the connector body so that the O-ring seats properly inside. Carefully thread the

stud head onto the inner conductor and tighten it by hand.

Screw the setscrew into the stud head with the wrench supplied and tighten it to lock the head in place. Then add the external wire terminal, shakeproof lock washer, flat washer, and cap nut. Tighten the nut. For protection against corrosive atmosphere, apply weather-resistant sealant over the entire connection.

