

Type MACX675B-39 Field Kit for

MACXLine® Rigid Lines



5 to 20 Foot Lengths

Description

Type MACX675B-39 Rigid Field Kits are used for field trimming to a nonstandard length between 5 and 20 feet. Type MACX675B-39 Field Kits are supplied with an outer conductor with one flange attached, fixed field flange (for attachment), 20 ft inner conductor section with bullet and bellows assembly, insulators, and hardware kit. The inner and outer conductors must be field cut to the desired length to fit into the rigid line installation. The outer conductor must be trimmed and the fixed flange soldered to the cut end.

The inner conductor is marked with black ink to designate specific areas where cutting requires a special procedure and an additional part. ERI Tool Kit, part number MACX675A-TK, includes the additional part required. The outer lengths requiring the special procedure are 169–162 inches and 89–83 inches. Outer conductor lengths outside of these two ranges do not require special trimming.

Notice

The installation, maintenance, or removal of antenna systems requires qualified, experienced personnel. ERI 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.

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

Installation Procedure

1. Determine exact flange-to-flange length of transmission line required and deduct 7/16".
2. Wrap piece of straight-edged paper around tubing at cutting point on outer conductor to aid in scribing. Scribe line completely around outer conductor tubing at cutting point to help in making square cut.
3. Cut tubing with hacksaw. Make certain cut is square to permit flange to seat properly.
4. Remove all burrs and clean end of tubing with garnet cloth. Do not use emery cloth or steel wool. Keep all foreign matter from entering tubing.

5. Insert silver solder ring into solder groove of fixed ring or flange. Add silver solder flux to solder groove and to cleaned end of tubing. Seat fixed ring or flange onto tubing and solder assembly with even heat around area permitting even flow of silver solder. Remove excess flux from assembly with hot water, then clean assembly again with garnet cloth.
6. Measure length of flanged outer conductor assembly with new flange attached.

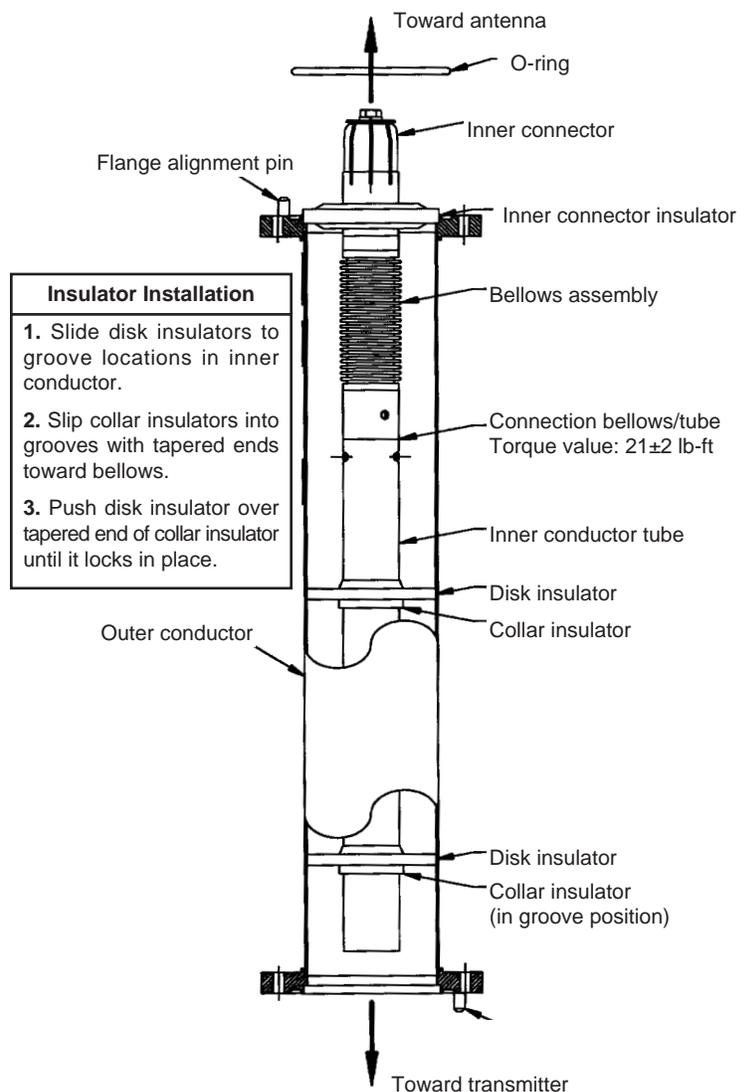


Figure 1

7. Subtract 1.5" (for inner cutback) from outer conductor measured length. This is the required length of the inner conductor with bellows extended. Refer to Figure 2.
8. To trim, place bellows end of inner conductor against a wall and run a tape measure to the required inner conductor length. Mark the inner conductor where it should be cut with the bellows fully compressed to its mechanical stop position. This requires pushing the inner towards the wall with roughly 50 lb of force.

If the mark falls within a "...do not cut..." zone, refer to the Special Cut section below, before proceeding with Step 9.

Special Cut

- a. Remove inner conductor tube from the bellows assembly using spanner wrench at bellows and special pliers, both included in tool kit Type Number MACX675A-TK.
- b. With inner conductor tube removed, measure and mark 57.5" from the brass plug end of inner conductor. Refer to Figure 3.
- c. Cut inner conductor at marked position using a miter box and hacksaw. Remove all burrs from where inner conductor has been cut.
- d. Install copper replacement stub into inner conductor tube and solder all around.
- e. Reinstall modified inner conductor to the bellows and torque connection to 21 ± 2 lb-ft using tools included in the tool kit.
- f. Return to step 8 in the installation procedure and continue.

9. Cut inner conductor at marked position using a miter box and hacksaw. Remove all burrs from where inner conductor has been cut.
10. Install insulators according to box in Figure 1.
11. Carefully insert the trimmed inner conductor into the outer conductor with the bellows toward the antenna end of the outer conductor. Push the inner conductor back into the outer so the insulator is fully inserted into the flange.

Note: Installation of assembled rigid line section must be done with bellows end toward the antenna.

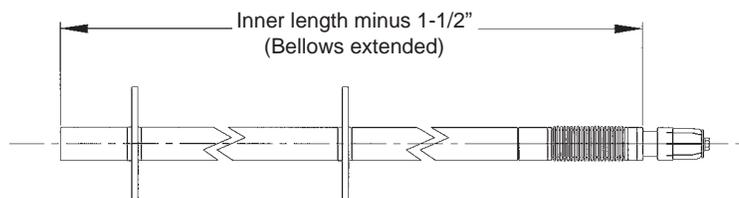


Figure 2

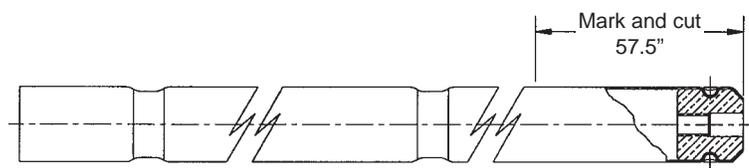


Figure 3



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