

## Type MACX350-31 Field Cut MACXLine® Inner Conductors for Marmon Flanged Rigid Coaxial Transmission Lines



### Description

Type MACX350-31 Inner Conductor Kits are used for field trimming inner conductors to a nonstandard length between 5 and 20 feet. Type MACX350-31t Inner Conductors are supplied as an entire 20 ft inner conductor section with bellows, insulators, captivating inner connector and hardware kit. The inner conductor must be field cut to the desired length to mate with the corresponding outer conductor. The inner conductor is marked with black ink to designate specific areas where cutting must not take place. The overall end result is, after cutting, to produce a field trimmed inner conductor that contains the bellows and at least one insulator.

### 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. Refer to Figure 1. Measure length of outer conductor. (Determine length by measuring inside the outer conductor).
2. Subtract 2.00" (for inner cutback) from outer conductor measured length. This is the required length of the inner conductor with bellows compressed.
3. To trim, place bellows end of inner conductor against a wall and run a tape measure to the required inner conductor length. Mark 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 lbs of force. If the mark falls within a "...do not cut..." zone, trim some length off the inner conductor at the bellows end and repeat this step.
4. Cut inner conductor at marked position using a miter box and hacksaw. Remove all burrs from where inner conductor has been cut.
5. Install insulators according to box in Figure 1.
6. Carefully insert the trimmed inner conductor into the outer conductor with the bellows toward the antenna end of

the outer conductor. Extend the inner conductor, at the female flange end, beyond the flange face by a few inches and fully insert the inner connector into the inner conductor with the protective washer and 3/8" bolt head exposed and towards the antenna. The shoulder of the inner connector must "bottom out" on the end of the inner conductor. Use a hand wrench to tighten the 3/8" bolt on the end of the captivated inner connector until it reaches its mechanical stop position. Push the inner conductor back into the outer so the insulator is fully inserted into the flange.

**Note:** After assembly, captivated inner connector should not be removed. Installation of assembled rigid line section **must** be done with the bellows end toward the antenna.

