

Unflanged Couplings



Types RLA050-39A, RLA150-39A, 1329150-39A, RLA350-39A, 1329350-39A, RLA450-39A, 1329450-39A, RLA650-39, and 1329650-39

The Types RLA050-39A, RLA150-39A, 1329150-39A, RLA350-39A, 1329350-39A, RLA450-39A, 1329450-39A, RLA650-39, and 1329650-39 unpressurized couplings are made for use with 50-Ohm, 7/8", 1-5/8", 3-1/8", 4-1/16", and 6-1/8" copper and aluminum outer conductor transmission lines, respectively, and are designed to connect unflanged line sections. The outer conductors are held in place with a coupling sleeve and clamps, while the inner conductors are joined by an inner connector. The couplings do not hold gas pressure and are recommended for indoor use only.

Notice

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

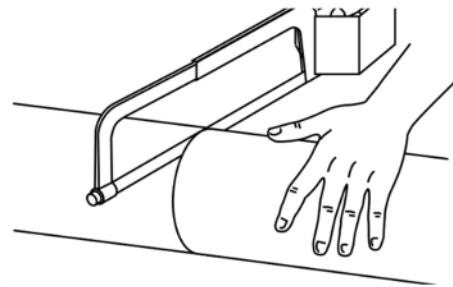
Read These Instructions Thoroughly Before Assembly

If standard length or variable length unflanged rigid transmission line sections have been supplied by ERI, they are supplied with the inner and outer conductors properly cutback for installation with field flanges or unflanged couplings. If the installation requires cutting the transmission line section supplied to a custom length onsite follow the steps 1 through 7:

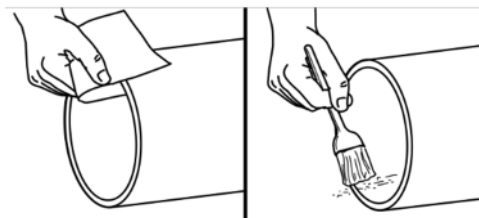
1. Determine the exact length of the transmission line required and
2. deduct Dimension A, from Table 1, to allow for inner conductor insulator. This is the cutting length for the outer conductor of the transmission line section. Remove the inner conductor to protect it from any damage while cutting the outer conductor. Refer to chart and illustration.
3. Scribe a line completely around the outer conductor at the cutting point to help make a square cut. Wrap a sheet of straight-edged paper around the outside of the outer conductor at the cutting point to aid in scribing.



4. Carefully cut the outer conductor with a hacksaw. Do not use tube or pipe cutter, as edge of outer conductor will be forced inward and will result in poor connection mechanically and electrically. Make certain cut is square to permit edge to fit properly against insulator. Plumber's cutting box (square end sawing vise), if available, should be used to guide the hacksaw. If outer conductors of both sections to be coupled are cut, see that A dimension is deducted only once from total required length.



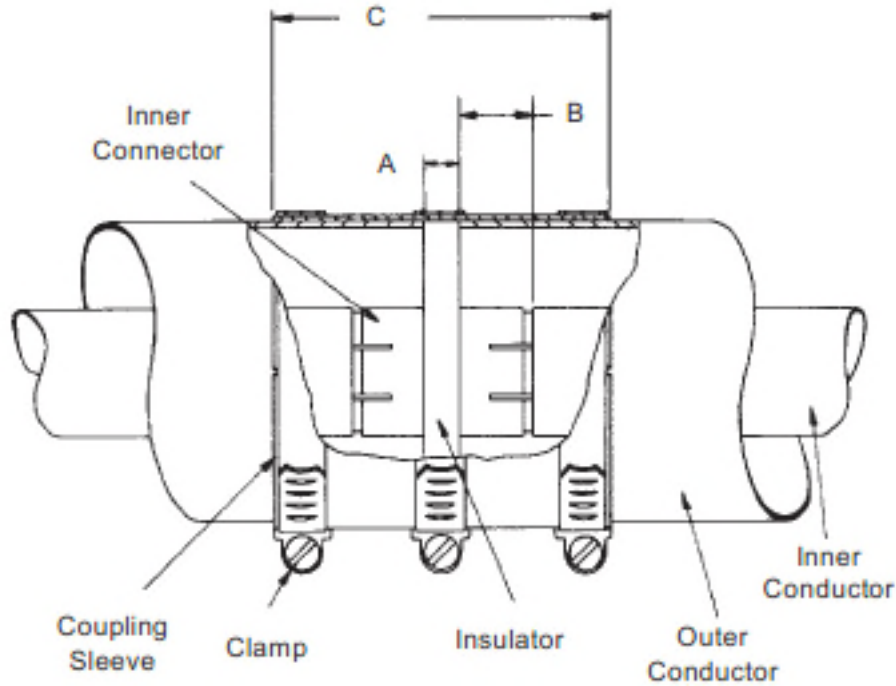
5. Remove all burrs a file or deburring knife and clean at least 2 in (51 mm) on both ends of outer conductors so good electrical contact can be made with coupling sleeve. Use garnet cloth (non-carbon sandpaper). Do not use emery cloth or steel wool. Remove any debris from the interior with a brush or clean cloth. Keep all foreign matter from entering the outer conductor.



6. The inner conductor at each side of inner connector must be B dimension, from Table 1, shorter than outer conductor. Allowance is made for thermal expansion and contraction. Cut inner conductors to proper length using scribing and cutting procedure outlined in previous steps. Insert cut inner conductors into outer conductors.

Note: If cut is less than 2 in (51 mm) from an inner conductor support, trim the opposite end of inner conductor instead. Both ends of the inner conductor should be a minimum of 2 in (51 mm) from an inner conductor support to allow for installation of an inner connector.

7. Slip coupling sleeve and line clamps over end of one section. Insert inner connector fully into both inner conductors. Bring outer conductors flush against insulator and center sleeve directly over connection. Place line clamps over sleeve, as shown in the line drawing, and tighten.



Part Number	Dimension A	Dimension B			Dimension C
		Under 60 inches (1524 mm)	60 to 120 inches (1524 to 3048 mm)	120 to 240 inches (3048 to 6096 mm)	
RLA050-39	0.188 inches (5 millimeters)	0.375 to 0.438 inches (10 to 11 millimeters)	0.438 to 0.500 inches (11 to 13 millimeters)	0.688 to 0.750 inches (17 to 19 millimeters)	1.500 inches (38 millimeters)
RLA150-39A 1329150-39A	0.250 inches (6 millimeters)	0.438 to 0.500 inches (11 to 13 millimeters)	0.500 to 0.563 inches (13 to 14 millimeters)	0.625 to 0.688 inches (16 to 17 millimeters)	2.500 inches (64 millimeters)
RLA350-39A 1329350-39A	3/8 inches (10 millimeters)	0.688 to 0.750 inches (17 to 19 millimeters)	0.750 to 0.813 inches (19 to 21 millimeters)	0.875 to 0.938 inches (22 to 24 millimeters)	3.500 inches (89 millimeters)
RLA450-39A 1329450-39A	3/8 inches (10 millimeters)	0.938 to 1.000 inches (24 to 25 millimeters)	1.000 to 1.063 inches (25 to 27 millimeters)	1.063 to 1.125 inches (27 to 29 millimeters)	4.000 inches (102 millimeters)
RLA650-39 1329650-39	7/16 inches (11 millimeters)	1.063 to 1.125 inches (27 to 29 millimeters)	1.125 to 1.188 inches (29 to 30 millimeters)	1.188 to 1.250 inches (30 to 32 millimeters)	5.000 inches (127 millimeters)

Table 1 Inner and Outer Conductor Cutback Dimensions for Unflanged Couplings