

Soft Solder and Clamp Type Field Flange Kits For Rigid Coaxial Transmission Lines

Types RLA000-, RLA100-, RLA300-, RLA400-, RLA600B-, RLA700-, & RLA800B- 37 and 38

Description

The Soft Solder Field Flange kits in this series are designed for use with Standard rigid coaxial transmission line. They may also be used with MACXLine®, but the cutback dimensions must be taken from MACXLine® Bulletins. The kit includes a fixed ring, a sliding ring and rosin core solder or solder with flux.

The Clamp Type Kits in this series are designed for use with Standard rigid coaxial transmission line for unpressurized applications. Since they are unpressurized, they are intended for use inside buildings and they would rarely be used with MACXLine®. Cutback dimensions for use with MACXLine® must be taken from MACXLine® installation instructions. The kit includes a fixed ring, sliding ring and clamp.

Soft Solder Flange Installation Instructions

1. After determining the exact length of transmission line required, deduct the “A” dimension to allow for the flange. This is the cut length. Twice the flange allowance should be deducted if both ends of the transmission line are to be flanged. Remove the inner conductor to protect it from damage. Refer to Figure 1 and Table 1.

2. Scribe a line completely around the outer conductor tubing at the cutting point to help make a square cut. Wrap a sheet of straight-edged paper around the tubing at the cutting point to aid in scribing or use a hose clamp as a guide.

3. Cut the tubing with a hacksaw. Do not use a tube or pipe cutter, as the cut edge of the tubing will be forced inward and become unsatisfactory electrically. Make certain that the cut is square to permit the fixed ring of the flange adapter to seat properly. A plumber’s cutting box, if available, should be used to guide the hacksaw. After cutting, remove all burrs and clean past the B dimension at the end of the tubing with garnet cloth (non-carbon sandpaper). Do not use emery cloth or steel wool. Keep all foreign matter from entering the tubing. **Note:** Fill the inside of tube with rags prior to cutting and remove after cleaning the cut edge.

4. Place the sliding ring on the tubing with the recess toward the end to be flanged, slide it to the far end and secure to flange with one bolt during soldering. Add rosin flux to the cleaned area of tubing and inside the flange adapter. Fit the adapter over the tubing, making certain the flange shoulder is flush against the end of the tubing.

5. Use soft solder and suitable flame-type heat source. Solder the flange adapter to the tubing with even heat the around the adapter to permit even flow of solder. Wipe away any solder that may appear inside the tubing. After soldering and cooling, clean all excess flux from the assembly with hot water. Then clean the assembly with garnet cloth and finish with a solvent wipe.

6. The inner conductor must be “B” dimension shorter than the outer conductor when the inner conductor is fully seated on the inner connector on the far end of the line section and the fixed ring has been installed on the near end. The “B” dimension allows for thermal expansion. See Table 1 and Figure 1. After cutting the inner conductor to the proper length, using the scribing, cutting and cleaning procedure in the previous steps, replace the inner conductor and assemble the transmission line.

Soft Solder Field Flange Kit	Clamp Type Flange Kit	Dimension A, in. (mm)	Dimension B, in. (mm)
RLA000-37 (1560A)	RLA-000-38	11/64 (4.4)	3/4 to 13/16 (18.9 to 20.5)
RLA100-37 (1561A)	RLA100-38	13/64 (5.2)	7/8 to 15/16 (22.0 to 23.6)
RLA300-37 (ACX350-37)	RLA300-38	17/64 (6.7)	1-1/8 to 1-3/16 (28.6 to 30.2)
RLA400-37	RLA400-38	3/8 (9.5)	1-1/2 to 1-9/16 (37.6 to 39.2)
RLA600B-37 (50 & 75 Ohm)	RLA600-38	7/16 (11.1)	1-1/2 to 1-9/16 (38.1 to 39.2)
RLA700-37	N/A	11/32 (8.9)	1-19/32 to 1-21/32 (40.4 to 42.0)
RLA800B-37	N/A	1/2 (12.7)	1-27/32 to 1-29/32 (46.8 to 48.4)

Table 1.

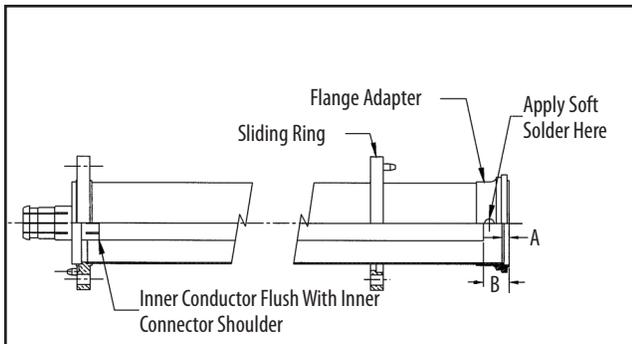


Figure 1.

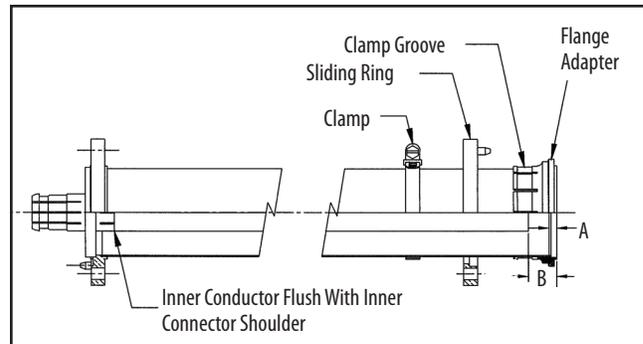


Figure 2.

Clamp Type Flange Installation Instructions

1. After determining the exact length of transmission line required, deduct the “A” dimension to allow for the flange. This is the cutting length. Twice the flange allowance should be deducted if both ends of the transmission line are to be flanged. Remove the inner conductor to protect it from damage. Refer to Figure 2 and Table 1.

2. Scribe a line completely around the outer conductor tubing at the cutting point to help make a square cut. Wrap a sheet of straight-edged paper around the tubing at the cutting point to aid in scribing or use a hose clamp as a guide.

3. Cut the tubing with a hacksaw. Do not use a tube or pipe cutter, as the cut edge of the tubing will be forced inward and become unsatisfactory electrically. Make certain that the cut is square to permit the fixed ring of the flange adapter to seat properly. A plumber’s cutting box, if available, should be used to guide the hacksaw. After cutting, remove all burrs and clean the end of the tubing with garnet cloth (non-carbon sandpaper). Do not use emery cloth or steel wool. Keep all foreign matter from entering the tubing. **Note:** Fill the inside of tube with rags prior to cutting and remove after cleaning the cut edge.

4. Slide the clamp over the outer conductor. Place the sliding ring on the tubing with the recess facing the end to be flanged. Place the flange adapter on the end of the outer conductor and slide it on until it stops against the end of the tube. Position the clamp in the groove on the flange adapter and tighten the screw with a screw driver. Check the flange adapter again to be sure it is flush with the end of the outer conductor and hand tighten the screw.

5. The inner conductor must be “B” dimension shorter than the outer conductor when the inner conductor is fully seated on the inner connector on the far end of the line section and the fixed ring has been installed on the near end. The “B” dimension allows for thermal expansion. See Table 1 and Figure 2. After cutting the inner conductor to the proper length, using the scribing, cutting and cleaning procedure in the previous steps, replace the inner conductor and assemble the transmission line.

NOTICE

The installation, maintenance, or removal of antenna systems requires qualified, experienced personnel. Antenna systems should be inspected once per year by qualified personnel to verify proper installation, maintenance, and condition of equipment. ERI DISCLAIMS LIABILITY OR RESPONSIBILITY FOR THE RESULTS OF IMPROPER OR UNSAFE INSTALLATION PRACTICES.

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