

## Universal Grounding Kit, Tinned Version for Coaxial Cable and Elliptical Waveguide Applications

### SPECIFICATIONS

#### PRODUCT DESCRIPTION

The Universal Tinned Ground Kit is specifically designed to accommodate a broad range of transmission line sizes, thus reducing inventory costs as well as eliminating errors due to incorrectly defined line sizes. The Universal Tinned Ground Kit is designed to comply with all RoHS directives, MIL-STD-188-124A, and has been verified by independent labs to withstand the damaging effects of lightning current in excess of 200kA. The tinned copper strap and associated hardware facilitates a proper attachment to the coaxial cable. The 6-gauge, 7 strand copper wire provides the most practical and effective low-inductance transfer of lightning induced current from your coax to your system ground. Installation of ground kits is recommended at the top and bottom of each vertical run, at 200 ft. increments and just prior to building entry. Sizing of the ground strap is accomplished by selecting the correct transmission line size from the chart, and removing the excess material above the corresponding letter (at scribed line).

#### NOTICE

Installation of this product should only be performed by trained, qualified and experienced personnel. Installation instructions for this product should be read thoroughly before installation is performed. The manufacturer and supplier of this product disclaims any liability or responsibility for the results of improper or unsafe installation practice.

#### MATERIAL LIST

- Tinned Copper Strap Assembly
- 2" X 20' (50.8mm X 6.1m) Roll Electrical Tape
- 2-1/2" X 2' (63.5mm X 0.6m) Roll Butyl Mastic
- Hardware Kit
- Instruction sheet

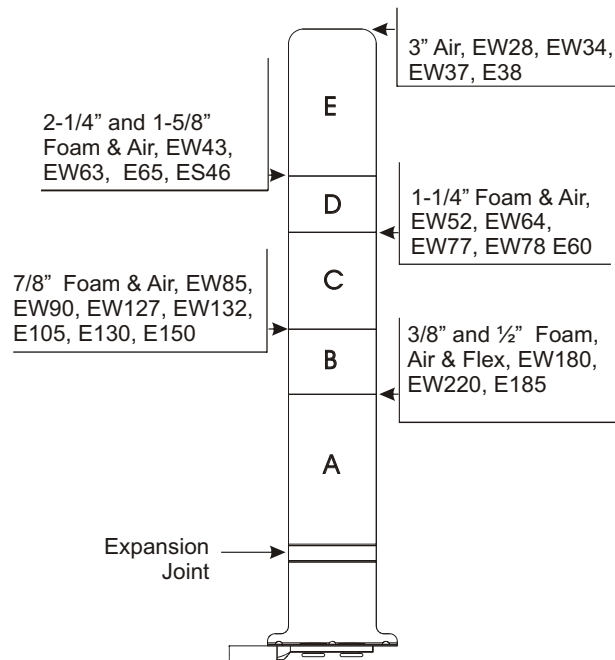
**NOTE:** Universal Ground Kits can be supplied with factory-attached ground lugs.



#### REQUIRED TOOLS

- Knife
- Standard tipped screwdriver or 1/4" nut driver
- #6 Crimp tool
- Heat gun or equivalent
- 7/16" or 9/16" Wrenches for tightening ground lug hardware

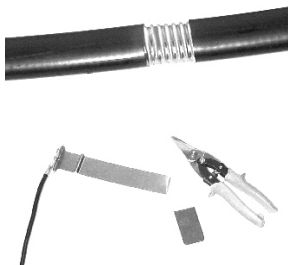
### TYPICAL APPLICATIONS



1) Verify that all parts are present as outlined in the material list.

2) Remove approximately two inches (50.8mm) of the outer jacket from a straight section of cable.

**NOTE:** Take care not to cut or score the cable's outer conductor.



3) Determine from the chart on page 1 the length of ground strap needed, and cut the strap accordingly.



4) Wrap the ground strap around the exposed outer conductor with the ground lead pointing downward. Pull the end of the strap firmly through the slot as shown, and bend the strap slightly to hold it in place (for elliptical waveguide, place the flange at the peak of the ellipse).



5) Slide the end of the strap into the slot in the coiling tool, and rotate the coiling tool to tighten the strap using a standard-tip screwdriver or a 1/4" nut driver. Press down on the coiling tool to keep it in place while starting.

**NOTE:** Do not over-tighten.

The expansion joint spreading and collapsing provides a visual indication to stop tightening and move to step 6. Some movement after tightening is normal and will not affect performance. Leave coiling tool in place after tightening. Do not rotate the strap after tightening.



6) Cut three (3) 2" (50.8mm) pieces of Butyl Mastic.



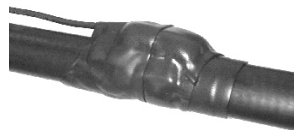
7) Place one of the 2" (50.8mm) pieces under the ground wire cable, as close to the clamp as possible.



8) Roll the two remaining pieces of mastic into tubes and place them on either side of the clamp to act as a filler, working them into place to eliminate air pockets.

9) Apply one layer of Butyl mastic. Overlap each wind by one-half of the width of the mastic. Cut any remaining mastic and dispose of properly.

**NOTE:** Work the Butyl Mastic into place, removing any air gaps under the mastic.



10) Apply three overlapping layers of vinyl electrical tape extending 2" (50.8mm) beyond the mastic. Overlap each wind by one-half the width of the tape. Cut the remaining tape and dispose of properly.



**Note:** Proceed to step 14 if you are using a Ground Kit with factory-attached lugs.

11) Cut the ground lead to the desired length, and remove approximately 3/4" (19.1mm) of insulation from the end.

**NOTE:** Once bonded to the ground point, the ground lead should be as straight as possible and installed in a downward direction.

**NOTE:** All bends in the ground lead should be no smaller than an 8" (203.2mm) radius.



12) Slide the appropriate #6 lug over the end of the ground lead and crimp in two places using a crimping tool as shown.



13) Slide the heat shrink tube over the end of the lug and use a heat gun to shrink it into position.



14) Clean the ground point thoroughly and bolt the lug into position using the appropriate hardware provided.

