

## Metric Ground Kit for Coaxial Cable & Elliptical Waveguide Applications

1812 IB M

### PRODUCT DESCRIPTION

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The Standard Ground Kit is designed to comply with all RoHS2 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 pre-formed copper strap and associated hardware facilitates a proper attachment to the coaxial cable, ensuring that the performance of the coax is not being compromised. The .6m long 16mm<sup>2</sup>, 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 60.9m increments and just prior to building entry.

#### 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. This Ground kit has been designed to function around the coaxial cable outer conductor dimensions published by the cable manufacturers. The manufacturer of this Ground Kit disclaims any liability for inadequate performance resulting from dimensionally incorrect coaxial cable.

#### MATERIAL LIST

- (1) Pre-formed copper or tinned copper ground strap assembled with unterminated ground lead.
- (2) 1/4" Brass lock washers
- (3) 1/4" Brass nuts
- (1) Roll 63.5mm x 609.6mm butyl mastic
- (2) Roll 50.8mm x 6.1m electrical tape
- (1) Heat shrink tubing\*
- (2) Field-crimp M10 2-hole lug
  - (2) M10 x 25.4m bolts
  - (2) M10 lock washers
  - (2) M10 nuts
  - (2) M10 flat washers

\*Factory attached Ground Kits are supplied with M10 2-hole lugs and heat-shrink tubes pre-applied.

Note: An additional roll of butyl mastic & electrical tape is included for all coaxial cable sizes (76.2mm) and above.

#### Required Tools

- Knife
- #6 Crimp Tool (For unattached version)
- Heat Gun (For unattached version)
- M10 socket wrench
- M10 open end wrench

## TYPICAL APPLICATIONS

#### Step 1

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

#### Step 2

Remove approximately 50.8mm of the outer jacket from a straight section of coax cable.

**Do not damage the outer conductor!**

*NOTE: The exposed outer conductor should be free from foreign debris, grease or moisture.*



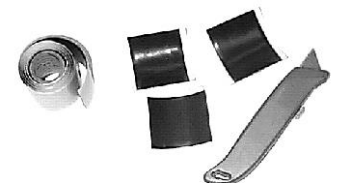
#### STEP 3

Install the preformed copper strap around the exposed outer conductor and tighten using brass lock-washers and nuts provided.



#### STEP 4

Cut three 50.8mm pieces of butyl mastic.



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### STEP 5

Place one of the 50.8mm butyl mastic pieces under the ground wire cable, as close to the clamp as possible.



### STEP 6

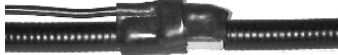
Fold one of the 50.8mm pieces of butyl mastic in half and place over the riveted ground lug and brass hardware to act as a filler.



*NOTE: Mold the mastic to the ground lead to insure a proper seal.*

### STEP 7

Place the remaining 50.8mm piece of butyl mastic over the end of the ground lead as shown.



*NOTE: Mold the mastic to the ground lead to insure a proper seal.*

### STEP 8

Apply one layer of butyl mastic, overlapping the coax jacket by 25.4mm on each end of the exposed outer conductor. Overlap each wind by one-half of the width of the mastic. Cut any remaining mastic and dispose of it properly.



*NOTE: All parts of the ground kit and outer conductor should be sealed by the mastic.*

### STEP 9

Apply three overlapping layers of vinyl electrical tape extending 50.8mm beyond the butyl mastic. Cut the remaining tape and dispose of properly.



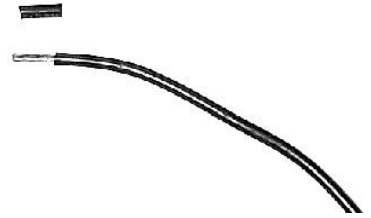
*NOTE: Proceed to step 13 if using Ground Kit with factory attached ground lugs.*

### STEP 10

Cut ground lead to the desired length and remove approximately 19.1mm of insulation from the end.

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

*(Below the ground strap)*  
*NOTE: All bends in the ground lead should be no smaller than a 203.2mm radius.*



### STEP 11

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



### STEP 12

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



### STEP 13

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

