Weather Proofing

Waveteq uses high quality connectors that have been specifically selected to resist the elements. Under some circumstances it can be recommended that additional weather proofing be applied to the connectors once the ShadowMaster has been mounted and connections have been completed.

Two types of products can are recommended; first, silicone rubber self-fusing tape which bonds to itself providing UV, moisture and dielectric resistance. Secondly, for hard to tape areas, most self-fusing tape companies also offer filler compounds that have similar characteristics and can also support addition of self-fusing tape.

For further properties, recommendations, or usage please contact Waveteq or your local wireless installer.

Minimum requirements to follow during preparation of any tape configuration are as follows:

- At least two (2) layers of tape should be applied over any surface onto which the tape is wrapped (i.e. bare connection, or cable/wire insulation or jacket).

- Tape must be overlapped onto the cable/wire insulation/jacket a minimum distance of 1.5″ when an environmental seal is required.

- First layer of tape should be applied with maximum stretch (<75% of original width). Second layer should be applied with minimal/zero stretch.

Consult your tape manufacturer's guidelines for specific recommendations on application. Presented below are general recommendations when applying self fusing tape or fill:

- If "fill" is required, use Self-Fusion compound to fill in and around all irregular surfaces in order to cover sharp surfaces (i.e. bolts, screws, nuts, terminal lug, butt splice, electrical connector, etc.) and also to create a smooth evenly tapered surface, prior to application of self-fusing tape.
  Note: When using tape for this purpose, simply stretch and push tape into cavity using finger or thumb pressure. Cutting small pieces and pushing tape into cavity is another method for filling the irregular surfaces.

- Cut an appropriate length of tape from the roll and remove the liner, taking care not to allow the tape to fold over onto itself.

- Begin wrapping the first layer of tape onto the wire or connection by holding the lead end on the surface and stretching the tape around until it touches itself. The first layer of tape should be stretched continually so that the tape reduces to <3/4 of its original width. The tape should be applied until it extends a minimum of 1 inch past any bare, un-insulated conducting surface.
  Note: Tape should be wrapped in a half-lapped fashion. If an environmental seal is not required, then the tape doesn't need to be stretched on any layer.

- Wrap a second layer of tape over the entire surface of the first layer. Figure 1below shows a properly taped Ethernet connection after the second tape layer.
  Note: It is not necessary to stretch the second layer of tape, as the first layer provides the permanent environmental seal and the tape fuses to itself upon contact.

Figure 1: Properly Taped Ethernet Connection

To ensure a proper weather proof seal, all external ports should be wrapped with tape . These include ports that are not used in the installation such as unused Ethernet or antenna ports (external 'N' connectors). Figure 2 below shows a properly taped external 'N' type connector.

Figure 2: Properly Taped External Antenna Port.