

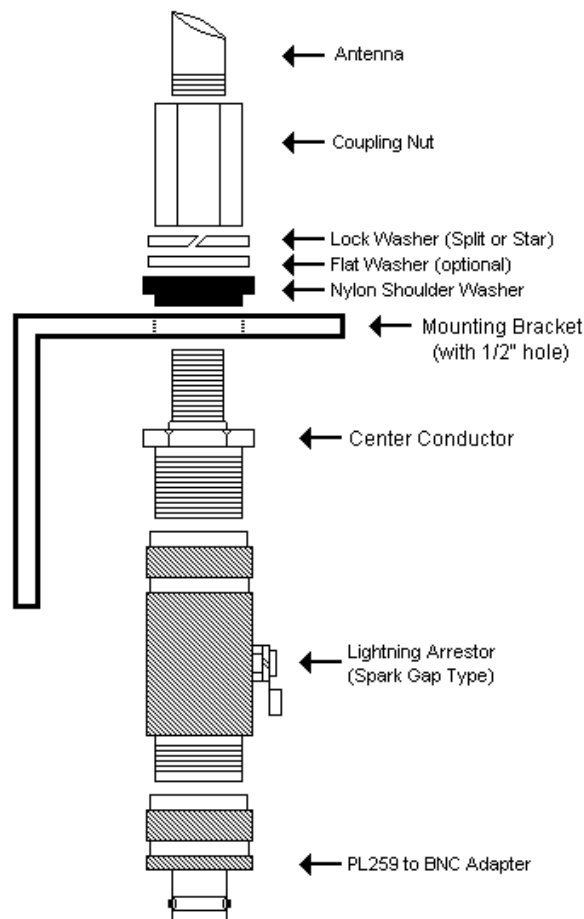
27MHz ANTENNA TROUBLESHOOTING

MOUNTING HARDWARE

NYLON WASHER

Verify that the mounting hardware is correctly assembled (see diagram below).

The nylon shoulder washer must be in the correct position in order for the antenna to work properly. It should be installed between the top of the right angle bracket and the coupling nut. It must isolate the antenna signal [center pin of coax] from the mounting hardware [ground]. Make sure that the lip of the washer sits down inside the hole on the topside of the mounting bracket.



NOTE: Nylon Shoulder Washer lip MUST be seated inside Mounting Bracket hole for proper insulation!

COAX CABLE

Visually inspect all coax cable and antenna mounting hardware connections for signs of rust and/or corrosion.

Using a multi-meter (with the ability to measure continuity), check the following:

NO CONTINUITY (The cable should not have continuity at these points):

- Center pin to shield on coax cable
- Center pin of coax to shield (or ground) on mounting hardware
- Center pin at base of mounting hardware to shield (or ground) on mounting hardware

CONTINUITY (The cable should have continuity at these points):

- Center pin to center pin on coax cable
- Shield to shield on coax cable
- Center pin at base of mounting hardware to base of antenna

Replace coax cables and/or antenna mounting hardware as needed.

Coax cables should be RG-58 (50 Ohm Impedance) with BNC connectors.

WEATHERPROOFING

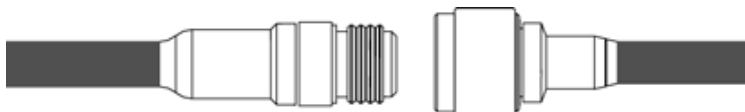
Di-Electric grease or WD-40 may be used to coat hardware connections for rust/corrosion protection.

DO NOT USE ANY OTHER TYPES OR BRANDS OF LUBRICANTS, as they may contain ingredients that will inhibit proper electrical connections.

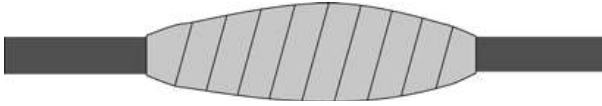
COAX CABLE CONNECTIONS

Prevent water damage to the cable and connections by sealing the connections with rubber splicing tape and electrical tape. To protect the connections, follow these steps:

1. Verify both connections are clean and dry before connecting the antenna cable to the antenna or other cable and hand tightening.



2. Tightly wrap the entire connection with rubber splicing tape. Begin wrapping the rubber splicing tape one inch away from the connection and continue wrapping until you are one inch past the other end of the connection. Each new round of tape should overlap about half the previous round.



3. Protect the rubber splicing tape from UV damage by tightly wrapping electrical tape on top of the rubber splicing tape. The electrical tape should completely cover the rubber splicing tape and overlap the rubber tape by one inch on each side of the connection.



GENERAL ANTENNA MOUNTING TIPS

- Mount the antenna at least 40 feet away from electric motors, large power transformers, power lines, VFDs or any equipment that produces ambient electrical noise.
- Supply the antenna with a good ground plane by either attaching a 10 AWG or larger wire from the lightning arrester to an earth ground or mounting the antenna to a metal pole or conduit connected to an earth ground.
- Do not loop excess coaxial cable into a coil. This will cause a radio frequency choke and reduce your signal range. Lay excess cable in a straight line or loosely route it back and forth in an “S” configuration.
- Mount all antennas outdoors.
- Mount the antenna as high as possible, at least 3 feet away from vertical surfaces and not under roof awnings. If mounting the antenna on a building, mount it at the apex or the highest point of the building.
- When mounting the antenna to a metal pole, mount the antenna at the top of the pole or at least 3 feet away from the pole. Avoid mounting the antenna on the same pole as the power service.
- Avoid mounting the antenna on or near a chain link fence. If necessary, the antenna can be mounted at least 3 feet above the fence.