

COAXIAL CONNECTOR CARE



General

Coaxial connector performance has improved over the years from low frequency, poor VSWR, to microwave and millimeter frequencies with very good VSWR. This improved performance is a result of advanced technology in design and manufacturing. A near perfect coaxial interface is now available with some connectors. These high performance connectors are often called "precision" or "high precision" connectors.

Connector care is extremely important when using high performance connectors. A tiny particle of any substance can destroy the near perfect performance of a high precision coaxial connector. Likewise, tiny scratches and nicks can permanently damage a high precision connector. The following steps are recommended to assure high performance when using precision and high precision connectors.

1. All connectors should be visually inspected prior to use. The interface (mating surfaces) should be inspected under magnification and cleaned on a regular basis.
2. When cleaning, use dry compressed air at a low velocity first; then a solvent such as isopropyl alcohol. Clean the contacting surfaces, alignment parts and threads using a lint free swab. Then re-inspect the connector to ensure that no fibers are left inside.

3. Use a connector gage to inspect the connector interface. Precision and high precision connectors must conform to manufacturer's specifications to achieve the design performance.

CAUTION: *Set aside for repair any damaged or defective connector. It could damage other mating connectors, it could also render your test equipment useless.*

4. Take care when mating connectors. Avoid rocking and bending. Tighten coupling nuts finger tight, then use the proper torque wrench to complete the connection.

CAUTION: *Do not allow the interface to rotate. This can be done by holding the opposite connector body with an open end wrench, while tightening the mating connector nut with a torque wrench. This applies for both connecting and disconnecting.*

5. Avoid undue stress to mated connectors by supporting the DUTs as needed.
6. When not in use, use protective caps for connectors and store in an instrument case if possible.

These six steps will help to maintain the high performance of your precision connectors. Also the life of your connectors will be optimized.