Soldering Type N Male, two piece, water proof connector (stock # 7303)

This guide is for the installation of Max-Gain Systems, Inc.'s type N male, two piece, cable-end water proof connectors (stock # 7303). The stock # 7303 makes the installation of type N as easy as installing a PL-259! The N series has many advantages, including a weather-proofing gasket, as well as a much higher usable frequency and being an impedance matched series! Standard type N connectors are a REAL chore to install, and many avoid them for that reason. The stock # 7303 cures the problem of installation difficulty, making type N **easy** to use in your applications. This guide will give approximate measurement to correctly install these connectors. This guide is NOT applicable to standard, "multi-piece" type N male connectors. Max-Gain Systems takes great pride in offering the highest quality in our connector lines, and our (stock # 7303) Type N Male, two piece connector is no exception. Solid machined brass body, all silver plated, genuine Teflon dielectric, and gold plated center pin …. all of these are characteristics of a great connector. Max-Gain systems is also proud to announce that our type N male, two piece connector **WILL** accept LMR-400 coaxial cables, in addition to the more standard RG-8, RG-213, RG-214, RG-9, etc.

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We will install the type N male, two piece, water proof connector on a piece of LMR-400. This process is the same for all the other types of cable that fit the Type N Male, two piece, waterproof connector. First cut your cable to the desired length and then strip the cable back 1/2 of an inch all the way down to the center conductor through the black outer insulation, braid, and the dielectric. Take care not to nick or cut the center conductor. (FIG 3-1)	 **(FIG 3-1)**
Once that is completed strip the black outer insulation back another 3/8 of an inch, down to the braid (FIG 3-2).	 **(FIG 3-2)**

When that is completed cut the braid/foil back 1/16th of an inch (FIG 3-3) to insure that none of the braid or foil is touching the center conductor which could cause a short. (Note: many cables do not have the foil layer. Most have braid only.)

(FIG 3-3)

Once the cable is completely prepped get the type N male, two piece connector and unscrew and separate the two pieces. Grip the center piece below the two holes on the smooth portion and begin to screw it onto the cable (clockwise). A few things to look for when screwing the center piece onto the cable (FIG 3-4): Make sure you see the center conductor in the tiny hole at the base of the center pin of the connector. Make sure you see braid and only braid in the two soldering holes on the body.

Before beginning soldering, you should always check resistance from the center pin to the body with an ohmmeter in a low resistance scale. After verifying that there are no braid - to - center pin shorts on the other end of the coaxial cable, you should see infinite resistance (open). If not, you probably have allowed a stray strand of braid to touch the center conductor or center pin, and this must be corrected before soldering. If your "shorts test" was successful, you are ready to begin soldering.

(FIG 3-4)

Begin by applying heat to the center pin of the type N male connector with your soldering iron. Before beginning soldering, always allow sufficient time for the iron to reach full operating temperature, and clean the tip of the hot iron with a damp sponge. Be sure the soldering iron is on the bottom side of the center pin. The heat rises and heats up the pin faster. Once the pin is heated, apply a small amount of solder to the tiny hole located at the bottom of the center pin (FIG 3-5).	 **(FIG 3-5)**
It should melt quickly and fill the tiny hole. Once the center pin is sealed with solder, move the soldering iron to the holes on the main body of the connector. (FIG 3-6). Make sure to fill both holes with solder flush with the top of each hole. Once both holes of the type N male, two piece connector are filled with solder let the connector cool down.	 **(FIG 3-6)**
When cooled, simply screw on the sleeve portion of the two pieces onto the body (clockwise) and make sure it's on tightly, allowing the sealing gasket to firmly contact the inner body, making it water proof. (FIG 3-7). When this is completed, as a final test, you should always check resistance from the center pin to the body with an ohmmeter in a low resistance scale. After verifying that there are no braid - to - center pin shorts on the other end of the coaxial cable, you should see infinite resistance (open). If the "shorts" test is passed, this completes the installation!	 **(FIG 3-7)**