

# **MGS** MAX-GAIN SYSTEMS, INC.

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## Installation Guide

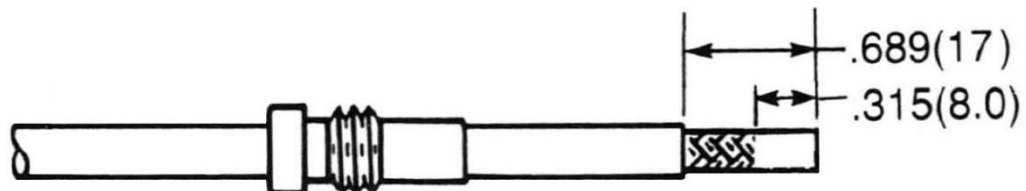
### [PL-259, UHF male, Solder-On, Cable End, Quick Connect Connector + UG-175 Reducer](#)

We will begin by installing the PL-259 connector on a piece of RG-58. This process is the same for all the other types of cable that fit the PL-259 connector with a UG-176 reducer. These connectors fit on a wide range of coax types including: LMR-195, LMR-200, RG-142, RG-142B/U, RG-141, RG-141A/U, RG-142A/U, RG-122/U, RG-400, RG-400/U, RG-58, RG-55, RG-55B/U, RG-55A/U, RG-58C/U, RG-223, RG-223/U, 0.195 Inch OD coaxial cable.

### Coax Stripping:

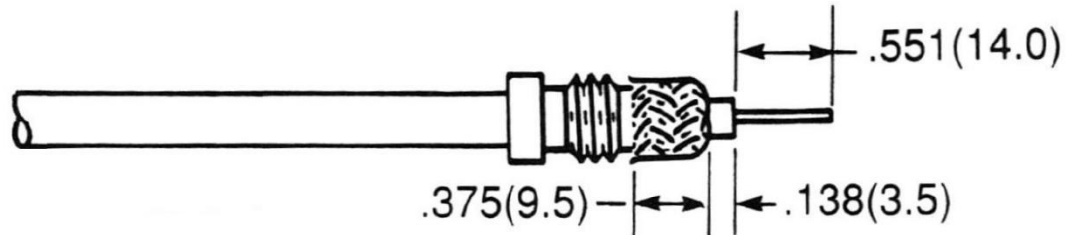
First cut your cable to the desired length and place the reducer onto the coax. Strip the black jacket back approximately .689 inches. When the jacket is stripped cut the braid/foil back 0.315 of an inch from the fresh cut end.

### Step 1



Move the reducer up to the end of the black jacket and fold back the braid onto the reducer. If there are any strands of the braid, that make contact with the threads, trim them with small diagonal cutters. Finally, cut back the dielectric 0.551 of an inch from the fresh end down to the center conductor.

## Step 2



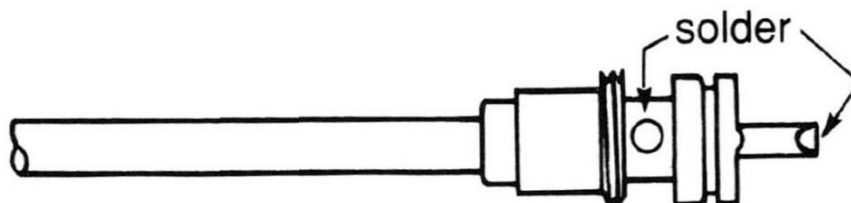
## Main Body Install:

Put the PL-259 main body on the end of the cable and thread it on to the reducer by turning it right (clockwise) till the center conductor is flush with the tip end of the center pin of the PL-259 connector itself. The center conductor may stick out past the center pin which then should be cut flush to be no longer than the center pin.

**FAQ #1:** Why wont the center conductor go into the connector?

**Answer 1:** The center is bent off of center. Ensure the center conductor is perfectly straight before screwing the connector body onto the coax.

## Step 3



## Soldering Guide:

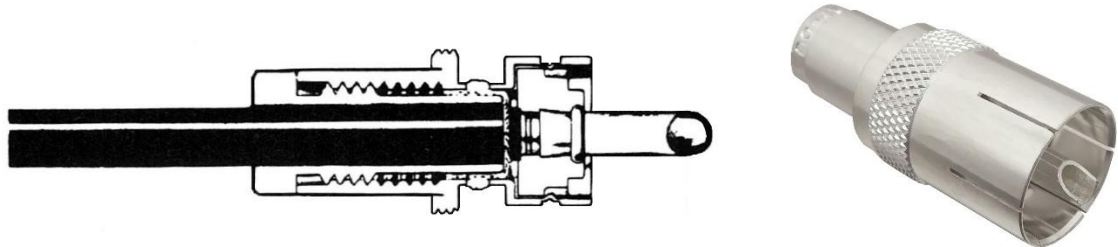
*This soldering guide is for soldering Max-Gain Systems, Inc. PL-259 connectors. These are approximate measurements for our PL-259 connectors, which adhere to industry standards for this type connector. If you choose to use this guide for connectors sold by others who do NOT adhere to these standards, the measurements could be off and result in a poor installation.*

**Now we begin soldering the PL-259 connector to the cable.** Begin by applying heat to the center pin of the PL-259 connector with your soldering iron. Before proceeding, allow sufficient time for the soldering iron tip to reach full operating temperature and clean the tip of the iron by wiping it 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. When the

pin is heated, apply the solder to the tip of the center conductor. Allow sufficient solder to flow to seal the center conductor inside the center pin.

Once the center pin is sealed with solder, move the soldering iron to the holes of the PL-259. Make sure to fill all four of the holes with solder flush with the top of each hole. Once all four holes of the PL-259 are filled with solder let the connector cool down. When the connector is cool take the quick connect sleeve screw it onto the connector body.

#### Step 4



#### Final Testing:

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).

As a final check, inspect the tip of the center pin to be certain that there is no excess solder present. This could interfere with easy insertion of the tip of the PL-259 into the female (SO-239) connector. If there is a tiny bit of excess solder present, it can usually be easily removed. Lightly scrape the soft solder with the edge of a knife blade until smooth. This completes your PL-259 installation, and the connector is ready for use!



Click the following link to obtain additional part information including price, inventory and certifications: <https://mgs4u.com/product/pl-259-uhf-male-quick-connect-solder-connector-ug-175-for-0-195-inch-od-coax-7500-qc-kit-58/>