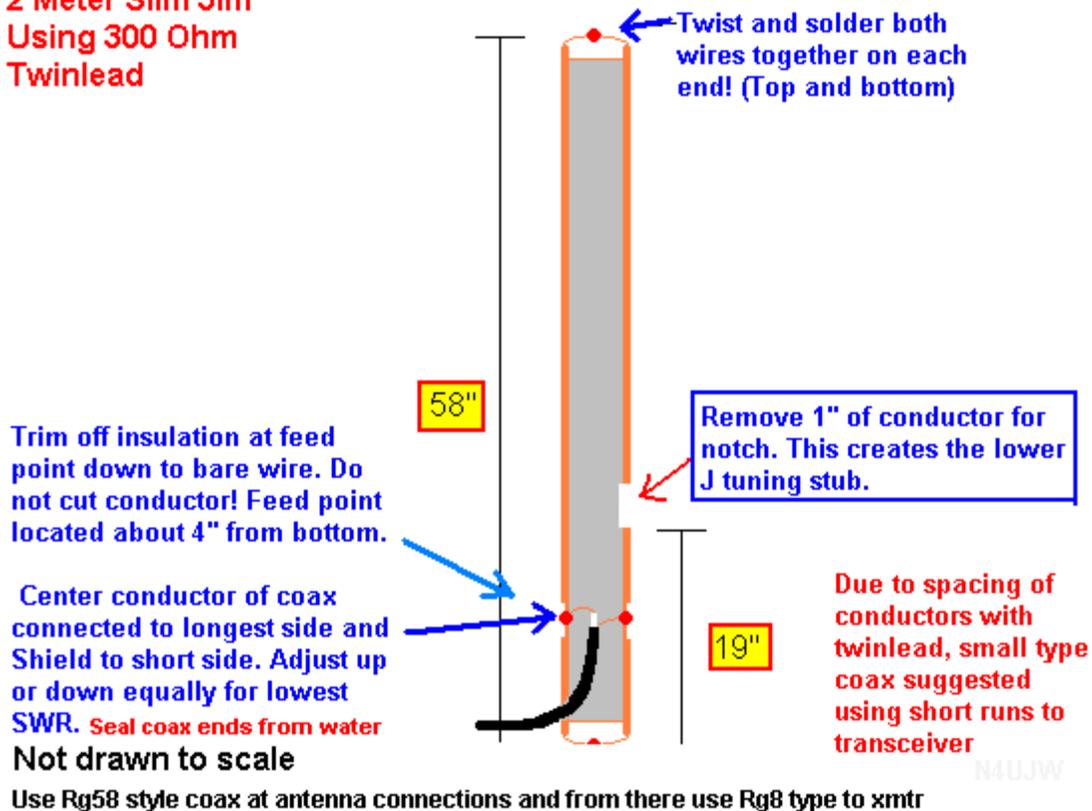


## 2 Meter Slim Jim Antenna Using 300 Ohm Twinlead

This design is based on the standard [Slim Jim antenna](#)

### 2 Meter Slim Jim Using 300 Ohm Twinlead



This 2 Meter 300 Ohm Slim Jim antenna is constructed from regular 300 ohm twinlead.

(The same type used for TV antenna installations.)

It is very easy to build and does not take days to construct.

The measurements above are not extremely critical but may have to be lengthened or shortened for your particular operating frequency.

You simply take a piece of 300 ohm twinlead about one inch longer than in the picture above, trim both of the ends down to bare wires, twist and solder

both ends. Tape to prevent moisture from seeping inside twinlead if used outdoors.

Your final length for the total antenna length will be about 58 inches.

Then on one side of the twinlead, measure up about 19 inches from the bottom of the antenna.

Cut out a complete section of the wire (ONE SIDE ONLY) of about 1 inch at the 19 inch point.

This creates an air gap and also technically creates some capacitance at this point.

Assembly of the antenna is complete except for attachment of coax and final SWR adjustment. Once you get the hang of it, you can make this antenna extremely fast. Makes a great emergency antenna for attic installation out of the weather!

**NOTE:** Some builders use a 1 : 1 air choke made from about 6 coils of coax at the base of the antenna with one end attached to the antenna feed points and the other end is equipped with a PL259/barrel connector. This is your choice. See the "[Ugly Balun](#)" project for ideas. The rule here is to keep the coils of coax touching each other except the outside ones. Using a PVC core to wind the coil on is the basis of the "Ugly Balun" style.

### **SRW ADJUSTMENT and FINAL INSTALLATION**

Now create some sort of temporary support (non-conductive) with the antenna hanging straight down OR lay it out on the ground, table, work bench, etc so you can attach the coax (50 ohm small type like RG58) to the feed points, center conductor to longest side, shield to the other. There is a very good reason to use small coax at the antenna.....your fingers will let you know why if you have large hands! Those tiny wires inside the twinlead are very difficult to work with using large coax like RG8.

The usual connection points will be around 4 inches Plus or Minus from the bottom of the antenna, however due to various construction methods, brand and type of 300 ohm twinlead used, these points may change, so have bare wire on both sides of the 4 inch point as far as needed to allow for adjusting SWR.

Attach the coax in a temporary fashion, center conductor of coax to longest side, shield to the other, by twisting each end tightly onto the bare conductors of the 300 ohm twinlead. One piece of electrical tape wrapped on one side will keep them from shorting.

Now get the antenna up and away from surrounding metal objects at least 20 or more inches and as high as possible for SWR adjustment. Your permanent location is the best.

**Note: Coax should hang straight down from bottom of antenna during tuning and final assembly.**

### **USE LOWEST AMOUNT OF POWER POSSIBLE WHEN ADJUSTING SWR!**

**Move both coax connection points equally up or down for best (lowest) SWR.**

After lowest SWR is obtained, (you may not be able to achieve a 1:1 so just trim for lowest SWR), solder coax to antenna, with **center conductor to longest side** and shield to the other, seal end of coax from weather and let it hang down from bottom of antenna.

This Slim Jim antenna can be used inside by supporting from string, nylon cord, etc from a high point in the room or used outside by hanging or supported from a suitable length of PVC pipe, (see standard [Slim Jim](#) design) wood or other NON-CONDUCTIVE MATERIAL.

Again, keep it away from conductive objects a minimum of 20 inches from the bottom, sides and top. If long runs of coax are needed to connect to your rig, then it is suggested that a short length of RG58 type coax be used AT THE ANTENNA connections, then add a barrel type connector and convert the coax to lower loss type such as Rg 8 going to your rig.

**Trying to use the large type coax at the antenna is very difficult due to sizes of wire and limited space between conductors of twinlead.**

**This is not a high power antenna. Stock 2 meter radio output is recommended.**

**Always use the lowest power needed for each contact. No amps! SEE [SLIM JIM PLANS](#) ELSEWHERE ON THE SITE**