

Component Adapter for MFJ-269 Antenna Analyzer

The predecessors of the MFJ-269 antenna analyzer were the MFJ-249B and MFJ-259B. Where both the 249/259 used an SO239 UHF connector for the antenna connection, the 269 uses a female “N” connector for the antenna connection, for better performance at UHF.

However, this female “N” connector makes it even more difficult to reliably connect anything other than a standard connector to the analyzer.
I am talking about those instances where you want to just measure the characteristics of a length of window or “ladder’ line, or even a piece of coax used as a stub, and to connect the bare cable to the MFJ269, without using a connector.

Figure 1 shows a simple to make “component adapter” I made for my MFJ-269, which presents a simple “binding post” clamp for the antenna connector.
(The ground connection I extended using a bent piece of brass shim. with a small alligator clip soldered on.

Here is the parts list for the adapter as I made it:

1 - brass machine screw, 3” long, 8/32” thread
1 - plastic insulator, machined, of delrin material or equiv. *
1 – Male “N” connector for RG8/213 etc, 2-piece
1 - knurled nut, 8/32” thread
1 - # 8 brass washer
1 - 2 part epoxy, small amount
* see dimensional drawing of insulator
(All parts except the knurled nut and washer are shown in Fig 2)

On the top is the 3” brass 8/32” machine screw. The head is cut off with a hack saw and the remainder is shown cut down for the center connector on the left.
One end is ground or filed down so as to fit into the center pin of the N connector insert.
The plastic insulator is shown at the top left; a dimensional drawing is available.
Note that the male “N” connector I used is a 2 piece version, which simplifies assembly.
Fig. 2 in the center shows this “N” connector insert, and to its left, as it is cut shorter.

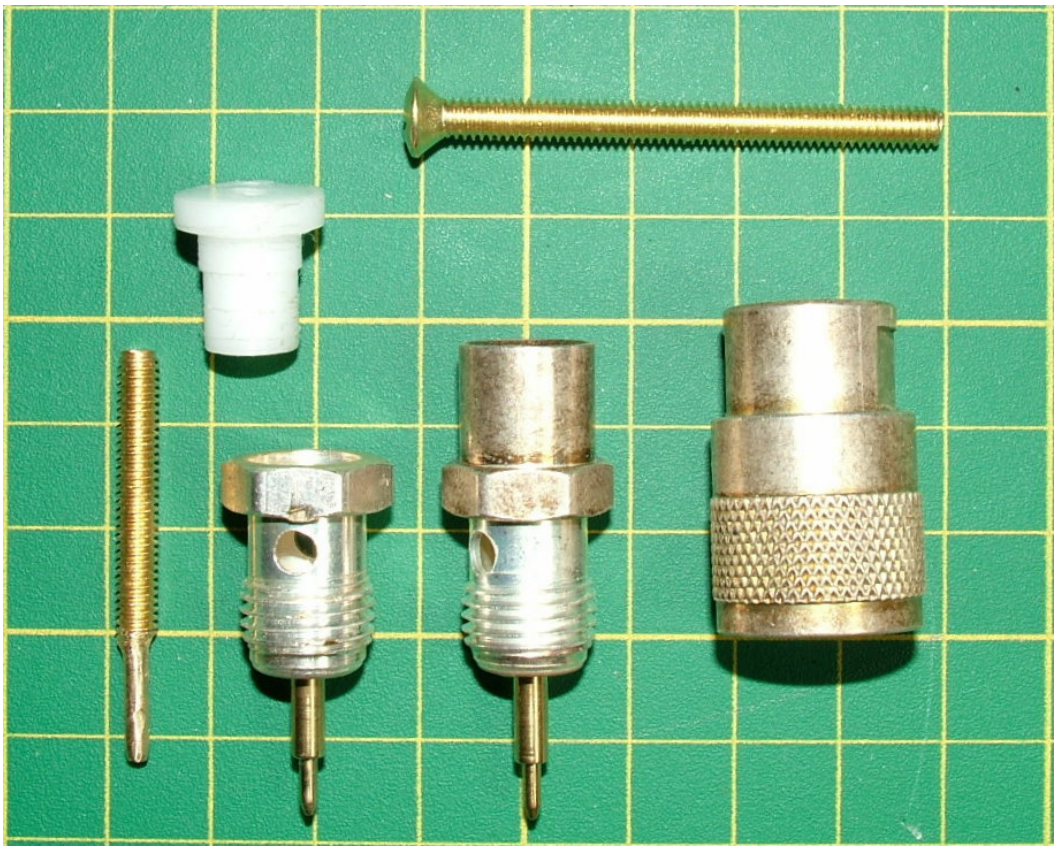
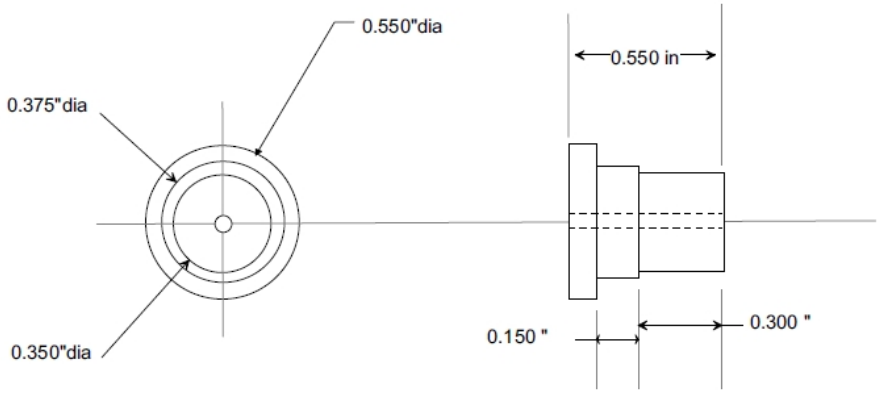


Fig. 3 shows the 8/32” threaded machine screw screwed through the plastic insulator, with the knurled nut and brass washer on one end. Note that the cut down end of the machine screw has been pre-tinned with solder.

Fig 4. shows the finished and assembled adapter. The body of the plastic insulator has been coated with a small amount of 2-part epoxy before insertion into the “N” connector insert shown in Fig. 2.

After the epoxy has hardened, the tip of the brass machine screw is carefully soldered to the center pin of the insert.
Finally, the insert sub-assembly is screwed and tightened into the “N” connector body shell shown far right in Fig. 2.

I am sure there are many variations that can be made to the design. One that comes to mind is that to avoid the need for a machined plastic insulator, a 0.5” piece of RG8/ 213 center insulator could be used together with a 0.55” x 0.1” plastic washer.



NOTE: Drill and tap center hole for 8/32" thread

VA3DDN **Pickering Ontario, Canada**	
SIZE A	N connector Insulator - MFJ-269B Adapter