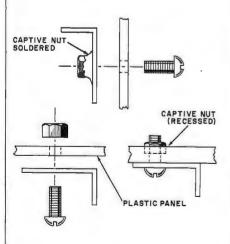


#### **MOUNTING FERRITE BEADS**

Shielded plugs, adapters, and in-line jacks will easily accommodate ferrite beads, resulting in a shielded and r-f decoupled connector. Simply slip a bead with the proper ferrite mix and inner diameter over the inner conductor of the cable before soldering it to the connector. Most ferrite beads are insulators, so they won't create a short circuit between the inner and outer conductors. Some, however, such as Amidon Associates' FB-75B-101, are composed of a semiconductor material and may require an external insulating layer for isolation. Typical applications for bead/connector combinations include keeping r-f out of audio equipment, containing r-f inside transmitters, etc.-Richard Mollentine, WAOKKC, Overland Park, KS.

## CAPTIVE MACHINE NUTS EASE SCREW INSTALLATION AND REMOVAL

Captive machine nuts permit installation and removal of screws from one side of a panel without requiring access to the other side. As shown in the drawings,



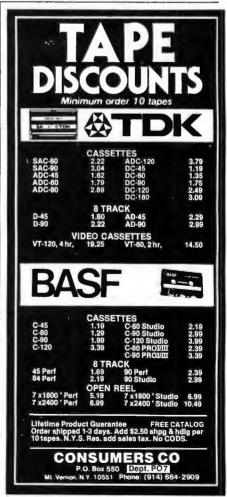
machine nuts can be soldered to steel chassis and the foil pattern on printed circuit boards or they can be imbedded into acrylic plastic panels to be held captive. You start by drilling a hole just large enough to pass the threads of a machine screw, insert the screw, and screw on the nut until it is comfortably tight.

Then, using a soldering gun, flow sufficient solder between nut and panel or pc board to assure a good bond, or heat the nut while slowly tightening the hardware until the nut embeds about half its thickness into the plastic. In either case, allow the joints to completely cool before removing the screw.—J.C. Smolski, Teheran, Iran.

#### **CLEARING METER FACES**

Plastic meter faces, bezels, and dial windows can be restored by removing scratches and "fogginess" as follows. Using a dry cottom cloth, rub the scratched surface with cigarette ash. The ash acts as a very fine abrasive. With a little bit of elbow grease, you can restore the meter face to "like new" condition. This method was used to clear up the S/r-f meter on a Johnson CB transceiver that was "cleaned" with a solvent—the type that attacks plastic!

During the rubbing process, a static charge may build up on some meter faces, causing the needle to drift or remain at one spot. This problem can be avoided by removing the face from the meter before restoration. After you have polished the meter face, set it aside, to allow the static charge to dissipate, or



apply a thin coating of liquid dishwashing detergent to the face. Allow the detergent to dry before re-assembling the meter. Dishwashing detergent can also be applied to VOM or VTVM meter faces when static is a problem.—Alan W. Otto,

### **NONMETALLIC ALIGNMENT TOOL**

Charleston Heights, SC.

Critical adjustments performed as part of a receiver alignment often call for the use of a nonmetallic screwdriver. If you don't have such a screwdriver, cut off the ends of a 1/4-inch (3.2-mm) diameter plastick knitting needle. Then file each end of the needle to form spade tips. The resulting tool can be used whenever a low-torque, nonmetallic screwdriver is

needed.-Harry J. Miller, Sarasota, FL.

# JUNKED LOUDSPEAKER DOUBLES AS ANTENNA-MAST ROOF MOUNT

junked can be put to good use, some not for applications for which they were intended. A good example is the loudspeaker, which can be modified to serve as a made-to-order antenna mast. Remove the cone and magnet, saving the

Many of the items that are ordinarily



latter for use in your shop to mount tools on a wall, keep machine hardware in one place, etc. Now, substitute a ½" (12.7-mm) diameter pipe fitting for the magnet, using a threaded flange, as shown in the photo. Fasten the speaker basket to the roof with pan-head sheetmetal screws. Assemble the antenna, fasten it to the mast, and slip the mast over the pipe fitting. Aim the antenna in the desired direction and clamp and guy the mast.—Glen Stillwell, Manhattan

Beach, CA.