Quick and Dirty Line Noise Suppressor

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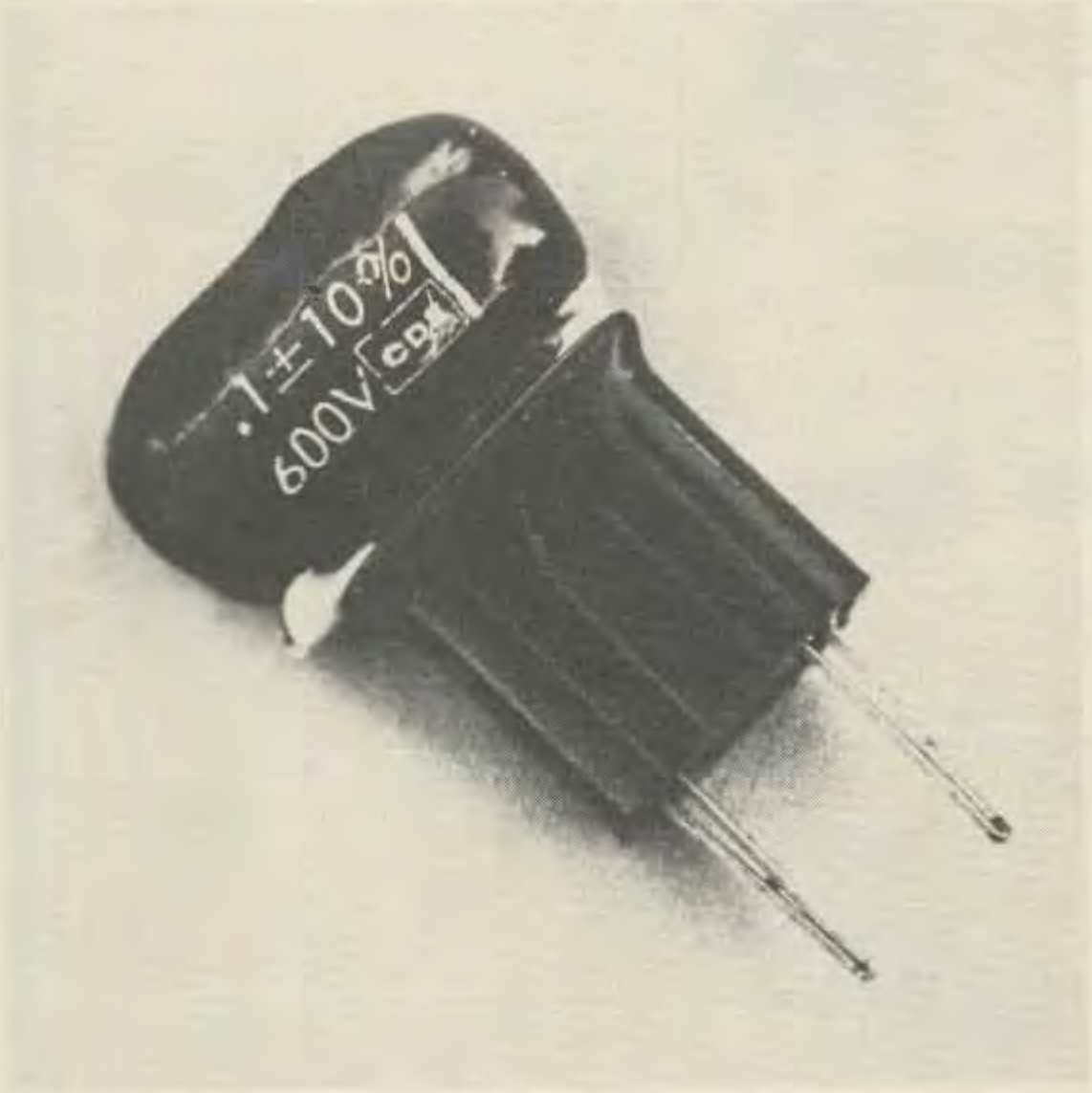

Photo A.

One of the most irritating sources of electrical noise, characterized by sharp clicks heard through the speaker of a receiver, is contact noise. The make/break cycles of appliances, aquarium heaters, flashing Christmas tree lights, and other noisy electrical contacts can wreak havoc with radio reception.

Fortunately, there are several options which may be elected to minimize these ear-splitting distractions. Perhaps the simplest is the installation of a 0.1-uF capacitor across the contacts themselves.

Since it is often difficult to find direct access to the offending contacts, an alternate solution is found by bypassing the plug with the capacitor. Probably the simplest way to do this is by rigging a plug-in interference filter as shown in the photo.

For standard 120 lines, select a mylar™ capacitor with a 600-volt rating. Insulate the exposed capacitor leads and connect them directly to the terminal screws of any convenient plug. Insert the plug-in filter into the same outlet as used to power the offending contact device.

The bypass capacitor acts as a smoothing filter for the sharp voltage-spike transients generated by the sparking contact. While it is true that the capacitor might actually resonate an unusually long line cord to enhance the noise at some frequency, in actual practice this is extremely unlikely to happen within the passband of most receiving installations. ■