KEY-CLICK FILTER

WHEN you key your transmitter you may be throwing a ragged picket fence of RF spikes across the RF spectrum. Key-clicks they're called, and they may show up all over an amateur band hundreds of miles away. Such spikes also can cause TV pictures to jump and roll.

The remedy is a simple key-click filter, built in a 35mm film can and mounted right at the key. All you need is a .001 mf, 1,000 V disc capacitor and a 2.5 mh RF choke. The capacitor goes across the key leads and the choke is connected in series with the hot keying lead. RG58/U or RG59/U coaxial cable must be used from the key to the filter and the filter to the transmitter.

First, drill a ⅛-inch hole in one side of the film can and a ¼-inch hole directly opposite. Scrape the paint from both sides of the can around the ⅛-inch hole. Drill ¼-inch holes in the can's top and bottom.

Put a wood screw through the ¼-inch hole in the side of the can, the ⅛-inch hole, and through a lug to which is attached a short length of wire. Tighten the screw into the wood base.

In stubborn interference cases, add a second capacitor of the same value from the center conductor of the coax to ground at the *transmitter* side of the choke. If your main trouble is TVI, use a 7-microhenry choke (Ohmite Z-50) instead of a 2.5 mh choke.

Slip the filter in the can and connect it to the key. The lead from under the can goes to the key's ground terminal. Scrape the paint from the can threads and screw the cap in place.

Even if your transmitter draws more than 100 ma through the keying circuit, L1 won't overheat because it handles the current only intermittently. When operating phone, pull the key plug unless there is a phone-CW switch on the transmitter which can be set to CW.

—*Nicholas Rosa, W1NOA*
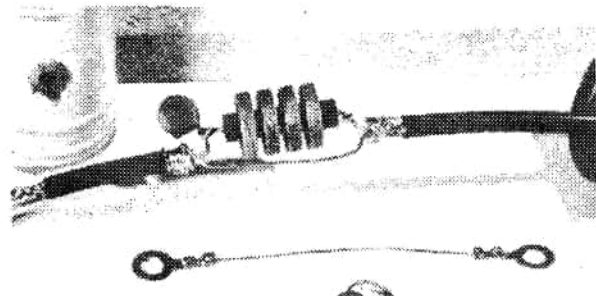
One end of coax goes to key terminals. Solder capacitor between the coax braid and the inner conductor. Solder choke between two inner conductors. A jumper of copper wire runs between the two coax braids.