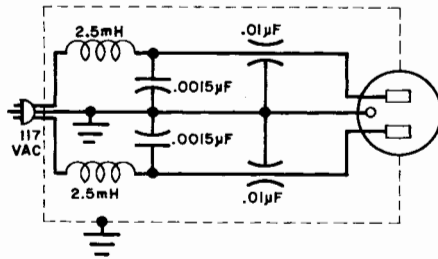


FLUORESCENT LAMP FILTER

Q. Whenever I turn on both my AM radio and my fluorescent desk lamp, "hash" comes out of the speaker. Is there any way to eliminate this interference?

—D. Rigg, Southampton, NY

A. R-f coming from the lamp can get into the radio by direct radiation or through the ac line cord. The filter



shown, when constructed in a metal box connected to a good ground, will take care of r-f on the line cord. For lamps up to 35 W, use two Miller 6304 coils in parallel for the required 2.5-mH inductors. Bypass capacitors should be 500-WVDC disc ceramics,

and the feedthrough capacitors should be Allen-Bradley CL003-HA503P units or equivalent. If the problem persists, it will be necessary to shield the lamp housing with fine-mesh screening. Ground both the screening and lamp base (if metal).

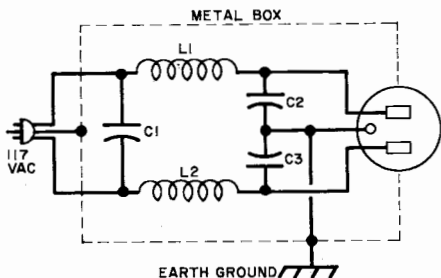
NOVEMBER 1975

SW RECEIVER LINE FILTER

Q. *Is there a filter I can make to clear up the interference on my shortwave receiver? Whenever a vacuum cleaner, shaver, or hair dryer is used, the entire dial is filled with "hash."*

—Mark Papuga, Park Ridge, IL

A. The line filter shown will help. L1 and L2 are 2-inch windings of 16-gauge enameled wire wound on a half-inch diameter form. C1 through C3 can be anywhere between 0.001- and 0.01- μ F, 200-V disc ceramic capacitors (capacitance not critical, but use the same value for all three). Assemble the filter in a metal box and connect it to a good earth ground. Plug the filter into the wall, and connect the receiver line cord to the filter



socket. If this doesn't clear up the interference, try to isolate the appliance generating the noise and install the filter between it and the wall socket. Also, ground the receiver chassis.