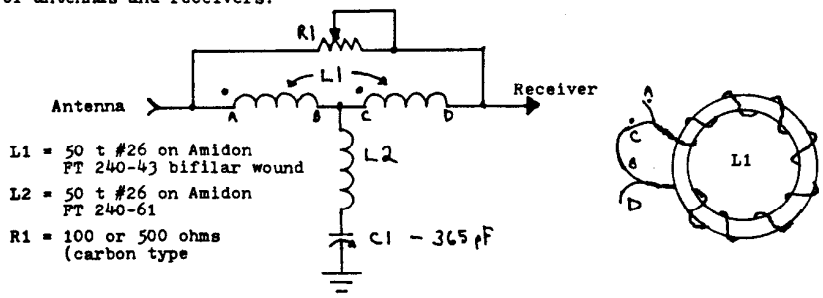
A 63-1-1

An RF Notch Filter

by Don Moman

This information originally appeared in DX Australia's "DX'ers Calling" magazine in the December '83 issue; further info appeared in the June '84 issue of the CIDX "Messenger". Although this was designed for use with a 50 ohm antenna and receiver input, it appears to work well with a variety of antennas and receivers.



For L1, "bifilar" means winding two wires (A-B and C-D in the above diagram) together. I just put two strands of #26 in the drill and twisted them up nice and tight, then wound the core. You need to connect the coils in series to satisfy the polarity requirements.

I didn't have FT 240 cores around, and they're not that cheap. I decided to go with the FT 50B series, the FT 50B-72 for L1 and a FT 50B-61 for L2. With #26 wire I could only manage to squeeze about 25 bifilar turns on the core for L1. 25 turns on the FT 50B-61 core easily covered the MW band using a dual 365 pF cap at C1. Tuning for the null is very sharp and a small trimmer across C1 would be helpful. Making R1 100 ohms helps reduce the delicacy of adjustment for the deepest null. Tests indicated a null depth of over 45 dB, a bandwidth of 1000 cycles, and little insertion loss.