

Kinks

Conducted By Stuart Leland,* W1JEC

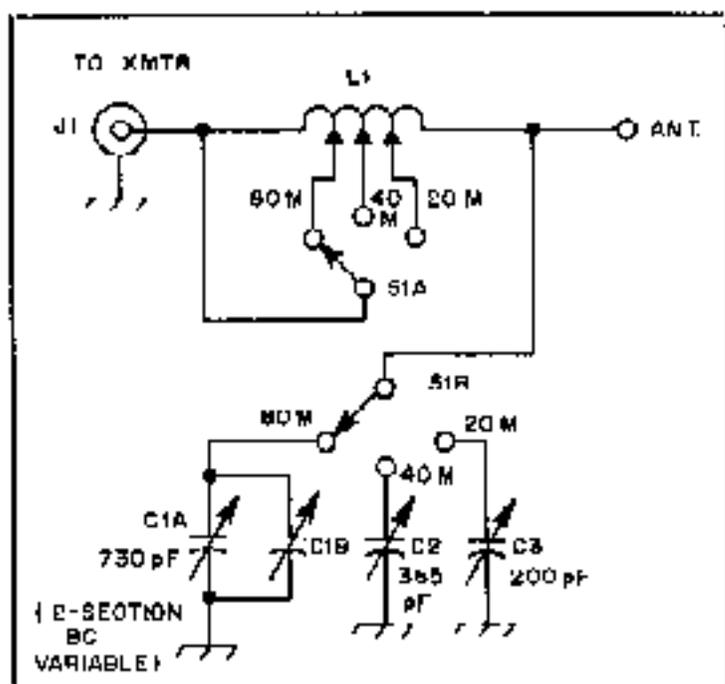


Fig. 1 — The simple band-switching method used by KB8N for his L network. S1 is a two-section, three-position (or more) water switch. L1 is a 5-inch length of R&W 3029 coil stock, 2-1/2 inches in diameter, 8 turns per inch, no. 18 wire. (mm = inches \times 25.4)

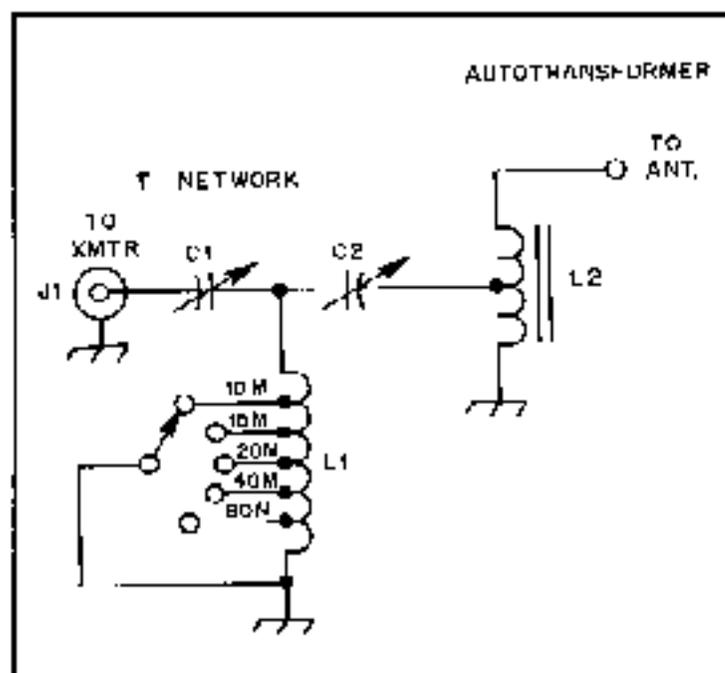


Fig. 2 — Typical "mobile" antenna tuner. Connect the transformer center tap to the tuner, one end to the ground system and the other end to your high-impedance antenna.

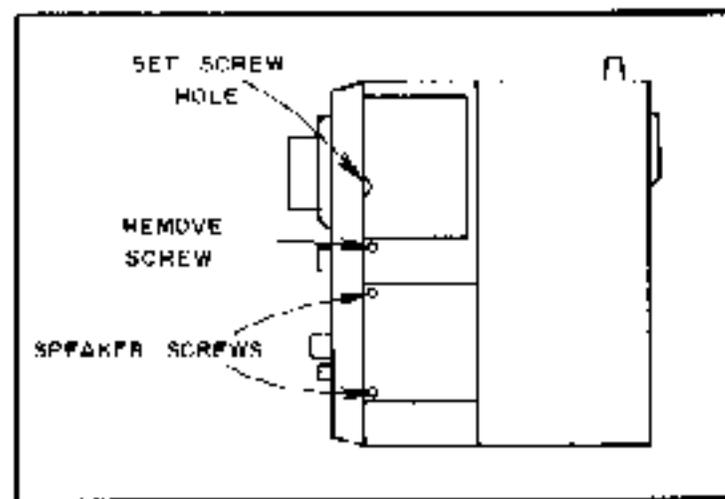


Fig. 3 — Diagram showing location of screws for access to the ICOM 502 VFO.

impedance step-up circuit. See Fig. 2.

The circuit contains a simple broadband autotransformer that is wound on one or more Amidon T-200-2 forms, exactly as you would wind a 4:1 balun. I recommend the Amidon

balun kit, which has winding information, a T-200-2 core and wire with high voltage insulation. I suggest parallel spaced turns rather than twisted ones. Wrap the completed transformer with several layers of 3M glass electrical tape, and varnish the whole thing.

I mounted my transformer externally on the rear of my tuner, but it could be mounted in a box that can be removed quickly when the rig and tuner are pressed back into mobile service. — James Coote, WB6AAM, Los Angeles, California

INCREASED BANDSPREAD FOR THE ICOM 502

Most 6-meter ssb operation occurs between 50.1 and 50.2 MHz. This simple modification will spread out the first 300 kHz of the band over the entire dial to allow smoother, easier tuning. Only one 47-pF silver-mica capacitor needs to be installed in the VFO.

To gain access to the VFO can, remove both side covers. Then remove the screws on top of the transceiver (front strap bracket). Remove the front rubber foot pad, and remove the screws under the pad. Next, remove the screw on each side of the front edge of the pc board, just below the VFO can. Finally, remove the two screws on the speaker frame as shown in Fig. 3. Now gently pull the front of the transceiver away from the case.

Six screws and one nut hold the cover of the VFO can to be removed. It may be necessary to free the tuning capacitor from the vernier control to remove the bottom screw. While facing the battery side, turn the dial until the recessed screw is visible in the oblong hole of the VFO mounting bracket. Loosen the screw, then turn the dial to 50.0 so the stop screw becomes visible, and loosen this screw. The VFO can now be pulled away from the front panel to allow access to the bottom screw.

Remove the cover from the VFO and look for C4 and C5, which are mounted in parallel on one side of the main-tuning capacitor. They are wired from the plates of one section to a stiff ground wire. Solder the 47-pF silver-mica capacitor in parallel with C4 and C5. Reassemble your IC-502.

To calibrate the dial, connect a frequency counter to J5 and J6 (ground side) on the main board. Set the dial to 50.0, and adjust the core of L1 in the VFO to obtain a reading of 36 MHz. Adjust trimmer C3 to obtain the highest possible reading, then readjust L1 to 36 MHz. Now rotate the dial, and make note of the 100 kHz points.

You may use the original dial markings for reference points of the new coverage, or for a more personalized job rotate the dial 180 degrees and use the blank side to make new calibration marks. To do this, remove all knobs and the recessed nut on the volume control. The front plastic will pull off and allow you to rotate the dial.

The nice thing about this is, should you ever want to sell or trade the rig, the "mod" can be undone with no one the wiser, but you. In the meantime, enjoy your increased bandspread. — James Batka, WA9CUII, Nekoosa, Wisconsin