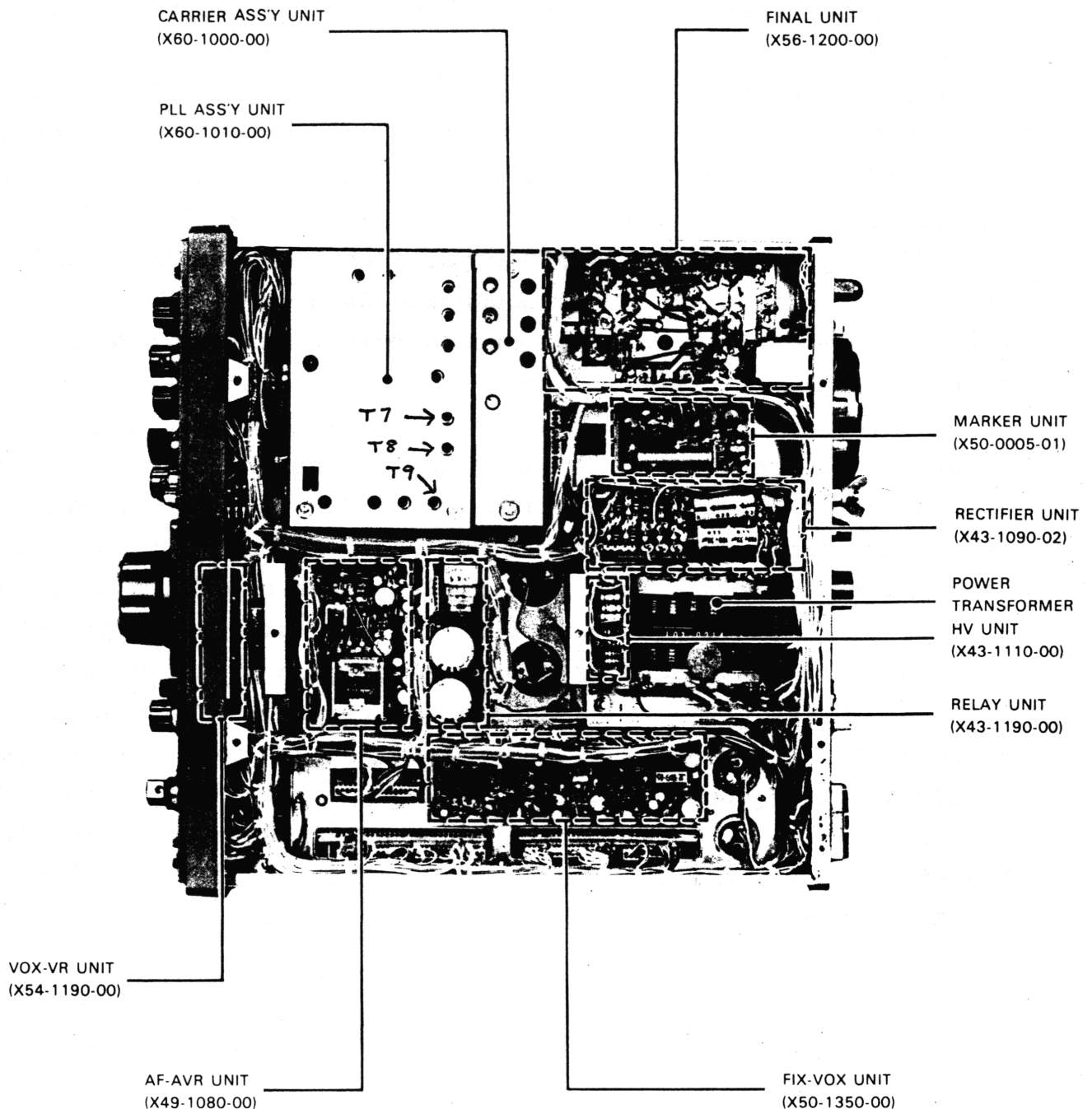


## KENWOOD TS-820S

### 11 Meter Modification

Crystals needed: 33.000,32.500,32.000 (one each)

Remove bottom cover. Set radio up on its side with front of radio to your left. You will see a box in the top left corner. This is the PLL assembly, (X60-1010-00) and must be removed for access.



## KENWOOD TS-820S (CON'T)

To do so, remove two screws at top and bottom. Pull box out and over. Next unplug wires from box. (Watch your work carefully because you will have to put this all back together!) Turn box over and take the bottom off. You will see the PDX 50-1340.00 board and the crystals you will need to replace. Remove the 5 screws that hold down the board to the box. Take a plastic screw driver and pry from the front the board up off the plug. It has 2 plugs in it. Pry a little on each one so it will come up evenly. Now you are ready to replace the crystals. Remove X7 33.500 and install the 33.000 in its place. This will give frequencies 27.5 to 28.0MHz. Next remove X8 34.000 crystal and install the 32.500 in its place. This will give frequencies 27.0-27.5.

Finally, remove X9 34.500 crystal and install the 32.000 in its place. This will give frequencies 26.5 to 27.0MHz. Recheck your work and make sure there are no solder bridges. Do not overheat board or crystal. Now you are ready to re-assembly. Be sure you get all the plugs back in their proper place. You should now be ready to hook it up and do three simple adjustments. First, adjust T7 with band switch on 28.0. It may work without any adjustment. If not turn it CCW 1/16 of a revolution. Put band switch to 28.5. This will activate the new X8 crystal for 27-27.5. It will probably work in the high side and drop out on low side. Adjust T8 CCW 1/16 of a revolution at a time with the VFO on low side until the readout stabilizes on 27.000 MHz. Now go to 29.0. The display will be blank. Thats OK. Just adjust T9 CCW about 1½ turns or until frequency display lights up. Adjust a little at a time until you read 26.500 with VFO on Zero low side. Now you are ready to put the bottom back on. Fire up and E-N-J-O-Y.