## KENWOOD Service Bulletin

ASB-1004

**Amateur Radio Division** 

**Subject:** TS-450S TX Frequency Response **Date:** December 21,

1992

We have received several reports concerning the transmit audio quality of this unit. Several reporters noted that the signal sounded "hard" or had a reduced bandwidth, while others noted a difference in the noise quality when switching between USB and LSB. We noticed a significant difference between the output power in LSB and USB on some of these sets.

## Cause:

Improper adjustment of the 8.83 MHz tuning coils (L73, L76) on the RF Unit (X44-3130-00) can cause these symptoms. The coils have two tuning points. One is reached when the tuning slug projects above the surface of the coil form. When tuned in this manner the bandwidth becomes narrower than normal and causes the symptoms noted above.

## **Alignment Procedure:**

- 1. Adjustment should be performed with the YK8-88S1 (2.4kHz) filter in line. If this filter is not present you should select the THRU position for the 8.83 MHz IF.
- 2. Adjust L73 and L76 according to the instructions provided in the service manual (Item 6 of the Receiver adjustment.) Ensure that the slugs are preset well down in the coil form, then adjust for peak. You should reach this point before the top of the slug exits the coil form.
- 3. Next, readjust L74 and L75 (Item 8 of the Receiver adjustment.)
  - a. Select the 6 kHz filter for both the 8.83 MHz IF and the 455 kHz IF.
  - b. Select a dial frequency of 14.100.4 MHz.
  - c. Select the USB mode.
  - d. Adjust L74 and L75 for maximum.
  - e. Select the LSB mode.
  - f. Readjust L74 and L75 for maximum.
  - g. Repeat steps [3c] through [3f] several times until you obtain a difference of 2 dB or less in the AF output when switching between USB and LSB.
- 4. Check Item 14, CAR point adjustment (Transmitter section) Menu items 11 and 12, and confirm that the transmitter power is equal for USB and LSB.

Time required for this modification is 30 minutes or less.