PROCEDURE (cont.)

7. Re-check with audio generator set at 1500 cycles and 40 watts. Sweep down to 300 cycles and re-adjust Carrier Oscillator Trimmer capacitors, if necessary, for 10 watts input.

P.A. NEUTRALIZATION

With P.A. COARSE LOAD in position 1, set freq. to 14,150, P.A. PLATE CONTROL at 9 o'clock, insert carrier and peak P.A. GRID control, adjusting CAR. BAL. control for 200 ma. Turn P.A. CONTROL slowly through resonance. Cathode current should dip smoothly and rise to 200 ma on the low capacity side of resonance. If, instead, there is a peak above 200 ma either side of the dip, stop rotation of the P.A. plate control at the peak and adjust C406 to reduce Ip to 200 ma. Repeat above check and re-adjust as necessary to obtain the desired smooth dip. For 10 meters, use above procedure but adjust No. C312.

NOTE: If replacement of the power amplifier tubes is necessary, it is recommended that a matched pair of 8950 be used for neutralizing purposes. A matched pair of tubes will also give longer tube life.

VFO ALIGNMENT

A trimmer condenser is provided for each VFO range. Trimmer adjustment for the five VFO ranges is through top cover of the VFO compartment. An insulated adjusting tool is recommended. Dial tracking has been factory set by pruning the coil, and will not ordinarily require further adjustment.

When dial calibration changes beyond the adjusting range of the front panel dial set control, calibration may be restored by carefully adjusting the trimmer for that range.

EXAMPLE:

The 40 meter band at 4000 KC point is off frequency approximately 8 KC on the high side and cannot be restored by adjusting dial set on front panel.

1. Set dial set to twelve o'clock position.

2. Set VFO at 7008 KC so as to hear 100 KC Calibrator.

3. With an insulated alignment tool in one hand and the VFO dial in the other, rotate the dial a small amount at a time down towards the 7000 KC point, but not enough to lose the 100 KC signal. Now rotate the trimmer so as to zero beat the 100 KC signal. Again rotate the dial a small amount down the band so you still hear the calibrator, stop and with trimmer rezero beat the signal again. Repeat these steps until you have reached 7000 KC point on the dial. Use caution so you do not lose the 100 KC signal. This will prevent you from aligning on the wrong 100 KC note which would put the VFO off frequency by a 100 KC. The following chart lists the actual oscillating frequency of the VFO at band edges.

FREQUENCY CALIBRATION

Frequency calibration of the Model 700-CX is in 5 kc increments on 80-, 40-, 20-, and 15-meters, and 20 kc increments on 10 meters. 80 meters is calibrated directly on the upper dial scale. 40-, 20-, and 15-meters are calibrated from zero to 450 on the green tinted center scale. "EXAMPLE": The dial is set at 200 on the green scale. (On 40 meters this would read 7.2 mc; on 20 meters this would read 14.2 mc, and on 15 meters this would read 21.2 mc). 10 meters is calibrated directly on the lower dial scale. Dial accuracy and tracking are quite good on the 700CX, but caution must always be observed when operating near band edges. Measuring the frequency with the calibrator when working near band edges is recommended.

DIAL SET

A dial-set control has been provided so that dial adjustment can be made at any 100 or 25 KC point of the dial. With calibrator on, set the dial to any 100 or 25 KC point closest to the frequency you wish to work. Now adjust dial-set control to zero-beat the VFO with the calibrator. This provides greater accuracy of dial readout.

CAUTION: Care must be exercised when tuning for the 100 or 25 KC harmonics of the calibrator. Spurious image signals may be heard, although they will be somewhat weaker than the actual harmonics.

VFO Frequency Chart

Dial Frequency (kc)	Oscillator Frequency (kc)
3,500	9,000
3,800	9,300
4,000	9,500
7,000	12,500
7,200	12,700
7,300	12,800
14,000	8,500
14,200	8,700
14,350	8,850
21,000	15,500
21,250	15,750
21,450	15,950
28,000	22,500
28,500	23,000
29,000	23,500
29,700	24,200