

Section 5
MAINTENANCE

(1) Increase the output level of the signal generator to twice the previously noted voltage (6-db increase). Detune signal generator on either side of the initial 500-kc setting until the diode load voltage drops back to the 4-volt reference. The resulting change in input frequency is the measure of selectivity at 6-db down.

(2) Reset the signal generator frequency to the 500-kc reference and adjust the output level of the signal generator 1000 times (60 db increase), and proceed as in step (1) to determine the selectivity at 60 db down.

(3) The over-all selectivity specifications are:

With 1.4 kc filter in circuit

Position	6 db down	60 db down
0	1.2 to 1.6 kc	NMT 4.0 kc
1	1.3 to 1.55 kc	NMT 3.5 kc
2	.8 to 1.2 kc	NMT 3.0 kc
3	.3 to .5 kc	NMT 2.65 kc
4	.1 to .3 kc	NMT 2.5 kc

With 3.1 kc filter in circuit

0	2.80 to 3.40 kc	NMT 8.5 kc
1	2.25 to 2.75 kc	NMT 6.4 kc
2	1.2 to 1.5 kc	NMT 5.5 kc
3	.3 to .5 kc	NMT 5.25 kc
4	.1 to .3 kc	NMT 5.0 kc

With 6.0 kc filter in circuit

0	5.7 to 6.3 kc	NMT 14.4 kc
1	3.0 to 4.0 kc	NMT 11.5 kc
2	1.25 to 1.6 kc	NMT 11.0 kc
3	.5 to .7 kc	NMT 10.0 kc
4	.3 to .5 kc	NMT 9.5 kc

5.3.8. ALIGNMENT OF DIALS WITH VFO.

(a) MEGACYCLE DIAL POINTER. - It is very unlikely that the pointer on the MEGACYCLE dial will become inaccurate through normal use of the receiver. However, if the dial pointer has accidentally been slipped with respect to the cord, reset it as follows: Take off escutcheon plate; then rotate KILOCYCLE knob counterclockwise until it hits the mechanical stop. Then rotate it a fraction of a turn clockwise until the zero-zero mark lines up with the fiducial. From this point rotate KILOCYCLE knob exactly five turns clockwise. Grasp the dial cord and slide the MEGACYCLE pointer along it to the center frequency of the band. For example, if the receiver is set at band 2, set pointer exactly at 2.0 mc. Replace escutcheon plate. Should the position of the drum incorrectly line up the scales with the escutcheon opening, correct by loosening

the two set screws on the drum hub and turning drum on shaft to correct position.

(b) KILOCYCLE DIAL. - If the KILOCYCLE dial reading is incorrect first determine the magnitude and direction of the errors then correct them according to the procedures outlined below. To determine the nature of the errors, set the receiver on band 2 with the BAND CHANGE knob. Set KILOCYCLE fiducial line to center mark on escutcheon opening by turning ZERO ADJ knob. Set receiver at 1.5 mc. Set BFO exactly at 500 kc as in paragraph 5.3.6. Turn on the 100 kc oscillator with CALIBRATE switch. Turn KILOCYCLE knob to zero beat. Note the magnitude and direction of error in the KILOCYCLE dial reading. Tune receiver to 2.5 mc. With BFO still set at exactly 500 kc, turn KILOCYCLE knob to zero beat. Again, note magnitude and direction of error in KILOCYCLE dial reading.