

### ALIGNMENT OF RECEIVER

#### Equipment Required

Signal Generator: Capable of supplying modulated frequencies from 450 Kc. to 18.5 Mc.

Output Indicator: A power output meter or a high resistance a-c voltmeter. Line Isolating Transformer: A 117 volt, 1 to 1 ratio transformer. (Preferred but not essential).

## ALIGNMENT PROCEDURE AND EQUIPMENT CONNECTIONS

Signal Generator: Allow a sufficient length of time after the generator has been turned on for it to become thermally stable before making any tests. Always be sure to use the specified capacitor or resistor in series with the signal generator output lead connections as listed on the alignment procedure chart. Connect the return lead of the signal generator to the B—(centre shield of 12BA6) of the receiver through a .05 mf condenser. Do not connect a grounded lead to B—.

Output Indicator: If a power output meter is used, adjust it for 4 ohms impedance and connect it across the secondary of the output transformer in place of the speaker voice coil. Do not exceed 500 milliwatts output during alignment. If an a-c voltmeter is used connect it across the voice coil with the speaker connected and do not exceed 1.4 volts during alignment. As the reading of the test meter increases with alignment, regulate the signal generator attenuator to keep the output below the above limits.

Receiver: Turn both the volume control and the tone control fully clockwise. With the gang tuning condenser fully open, adjust the dial pointer to the alignment mark on high frequency end of the alignment scale.

### ALIGNMENT PROCEDURE

	SIGNAL GENERATOR			RECEIVER		
Oper- ation Steps	Output connections to receiver	Frequency	Range Switch	Tuning Capacitor	1	Adjust in stated order for maximum output
1	To 12BA6 control grid (1) through .05 μF capacitor	455 Kc.	Pos. 2	Min.		2nd I.F. Transformer L17, L16
2	To lug 8 of SWl section 2 through .05 μF capacitor	455 Kc.	Pos. 2	Min.	A	lst. I.F. Transformer L15, L14
	To antenna terminal through 100 μμF capacitor*	1600 Kc.	Pos. 2	1600 Kc.		B.C. Osc. Trimmer C19 B.C. R.F. Trimmer C9 B.C. Ant. Trimmer C1
4	To antenna terminal through 100 μμF capacitor*	600 Kc.	Pos. 2	6 <b>00 K</b> c.	В	B.C. Osc. L12 B.C. R.F. L6
5	To antenna terminal through 100 μμ F capacitor*	5 Mc.	Pos. 3	5 Mc.		Marine Osc. Trimmer C18 Marine Ant. Trimmer C11
6	To antenna terminal through 100 μμF capacitor*	1.9 Mc.	Pos. 3	1.9 Mc.	С	Marine Osc. L10 Marine Ant. L5
7	To antenna terminal through 400Ω resistor *	16 Mc.	Pos. 4	16 Mc.	D	S. W. Osc. Trimmer C17 S. W. Ant. Trimmer C10
8	To antenna terminal through 400 $\Omega$ resistor*	6 <b>Mc</b> .	Pos. 4	6 <b>M</b> c.	E	S. W. Osc. L7 S. W. Ant. L3

<sup>\*</sup> or standard dummy antenna with a 200 μμ F condenser in series.

# ALIGNMENT NOTES

- Note "A". After operation 2 has been completed, do not make any further adjustments to L17, 16.
- Note "B". After operation 4 has been completed, repeat operation 3, then repeat operation 4 and 3.
- Note "C" After operation 6 has been completed, repeat operation 5, then repeat operation 6 and 5.
- Note "D". Unscrew oscillator trimmer approximately 3 turns from tight position. Then turn adjustment clockwise until first output peak is obtained. Make adjustments using this peak. Rock the
  - tuning capacitor slowly back and forth while adjusting antenna trimmers.
- Note "E". After operation 8 has been completed, repeat operation 7, then 8 and 7.