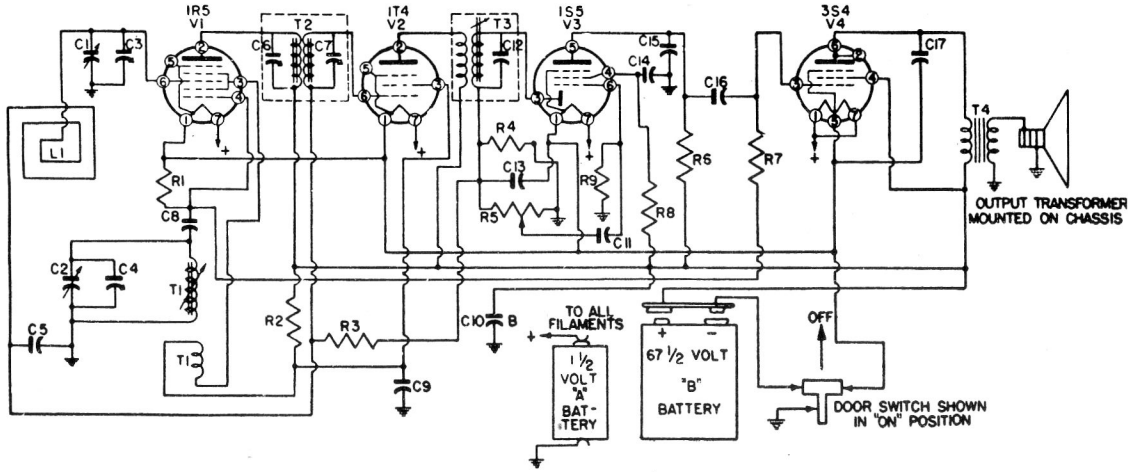

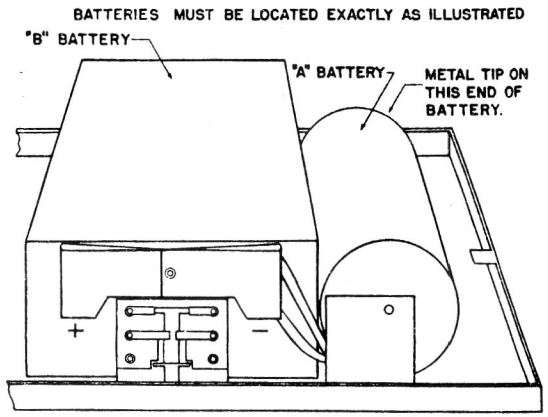

I-F Alignment

1. Rotate the variable condenser to the minimum capacity position.
2. Feed 455 kc to the grid (pin 6) of the 1R5 tube through a 0.01 mfd. condenser.
3. Adjust the three i-f trimmer screws (C6, C7, C12) for maximum response. (Clip the test signal lead to the stator of the larger capacity section of the variable condenser.)

I.F. = 455 KC

C1, C2	Variable condenser, or
C1, C2	Variable condenser
C3, C4	Trimmers, part of C1, C2
C5, C9, C14	0.02 mfd., 100 V. roll-type cond
C6, C7	Trimmers, part of T2
C8	0.0002 mfd. mica condenser, or
C8	0.0002 mfd. ceramic condenser
C10	8 mfd., 100 V. dry electrolytic
C11, C17	0.003 mfd., 150 V. roll-type
C12	Condenser, part of T3
C13, C15	0.0001 mfd., ceramic condenser
C16	0.001 mfd., 100 V. flat roll-type
L1	Loop assembly
R1	100,000 ohms, ¼ watt resistor
†R2	10,000 ohms, ¼ watt resistor
R3	3.3 meg., ¼ watt resistor
R4, R7	1 meg., ¼ watt resistor
R5	Volume control
R6	0.47 meg., ¼ watt resistor
R8	4.7 meg., ¼ watt resistor
R9	10 meg., ¼ watt resistor
T1	Oscillator coil
T2	First i-f transformer
T3	Second i-f transformer
T4	Ou put transformer

†Some units contain R2 resistors varying in value from 8200 to 22,000 ohms.

R-F Alignment

1. Connect the test oscillator to a coil composed of three or four turns of wire wound in a circle approximately 12 inches in diameter. This coil should be placed parallel to and in line with the receiver loop at a distance of approximately 15 to 20 inches.
2. Radiate a signal at 1610 kc, rotate the variable condenser to minimum capacity, and adjust the oscillator trimmer (C4), on the smaller section of the variable condenser, for maximum response.
3. Radiate a signal at 1500 kc, tune in the 1500 kc signal, and adjust the antenna trimmer (C3), on the larger section of the variable condenser, for maximum response.

Radiate a signal at 600 kc, set the dial indicator to 60, and adjust the oscillator coil core trimmer while rocking the variable condenser for maximum response.

Return to 1610 kc and check alignment. If readjustment is necessary, repeat steps (2) to (4) until no further improvement is noted.

Location of Coils and Trimmer Adjustments

The first i-f transformer (T2) is located next to the output transformer (T4). The trimmers (C6, C7) are accessible through holes in the top of the can.

The second i-f transformer (T3) is located between the 1T4 and 1S5 tubes. The single trimming core screw (C12) extends from the end of the can.

The oscillator coil (T1) is located next to the first i-f transformer. The trimmer for the oscillator (C4) is located on the smaller variable condenser section. The 600 kc oscillator core adjustment is the brass screw protruding from the end of the oscillator coil.

The loop antenna acts as the antenna coil. The trimmer for the loop (C3) is located on the larger section of the variable condenser.

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	PIN NUMBER						
TUBE	1	2	3	4	5	6	7
1R5		67.5	40	*-7.0		*-0.3	1.5
1T4		67.5	40			*-0.3	1.5
1S5			*-0.35	*16.5	*39	*-0.3	1.5
3S4	1.5	65	*-7.0	67.5		65	1.5

EMERSON DATA SHEET 3