

ALIGNMENT PROCEDURE

GENERAL DATA. The alignment of this receiver requires the use **I. F. ALIGNMENT.** With the gang condenser set at minimum, ad- of a test oscillator that will cover the frequencies of 456, 600, 1400 just the test oscillator to 456 KC and connect the output to the grid and 1720 KC and an output meter to be connected across the of the first detector tube (12A8GT) through a .05 or .1 mfd. con- primary or secondary of the output transformer. If possible, all denser. The ground on the test oscillator should be connected to alignments should be made with the volume control on maximum the chassis ground. Align all three I.F. trimmers to peak or maxi- and the test oscillator output as low as possible to prevent the mum reading on the output meter. AVC from operating and giving false readings.

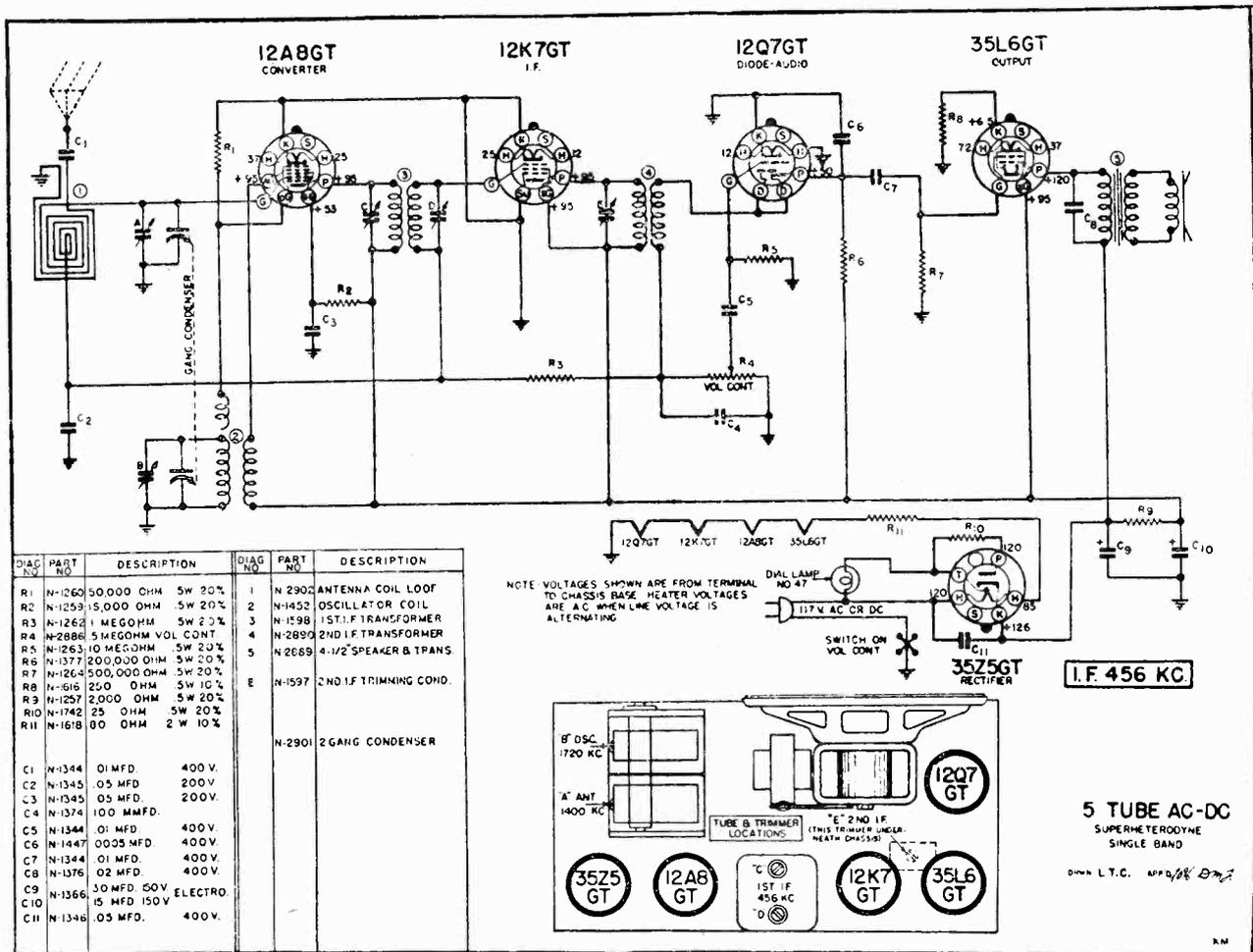
CORRECT ALIGNMENT PROCEDURE. Remove the chassis from the antenna of the set through a 200 mmfd. (.0002) condenser. With the gang condenser set at minimum capacity, set the test oscillator at 1720 K.C. and adjust the oscillator (or 1720 KC trimmer) on gang condenser. Next—set the test oscillator at 1400 KC, and tune in the signal on the gang condenser. Adjust the antenna trimmer (or 1400 KC trimmer) for maximum signal. Next set the test oscillator at 600 KC, and tune in signal on condenser to check alignment of coils.

BROADCAST BAND ALIGNMENT. Connect the test oscillator to the antenna of the set through a 200 mmfd. (.0002) condenser. With the gang condenser set at minimum capacity, set the test oscillator at 1720 K.C. and adjust the oscillator (or 1720 KC trimmer) on gang condenser. Next—set the test oscillator at 1400 KC, and tune in the signal on the gang condenser. Adjust the antenna trimmer (or 1400 KC trimmer) for maximum signal. Next set the test oscillator at 600 KC, and tune in signal on condenser to check alignment of coils.

Voltages shown on the circuit diagram are from socket terminals to chassis base. In measuring voltages use a voltmeter having a resistance of at least 1000 ohms per volt. Allowances should be made for variations in line voltage.

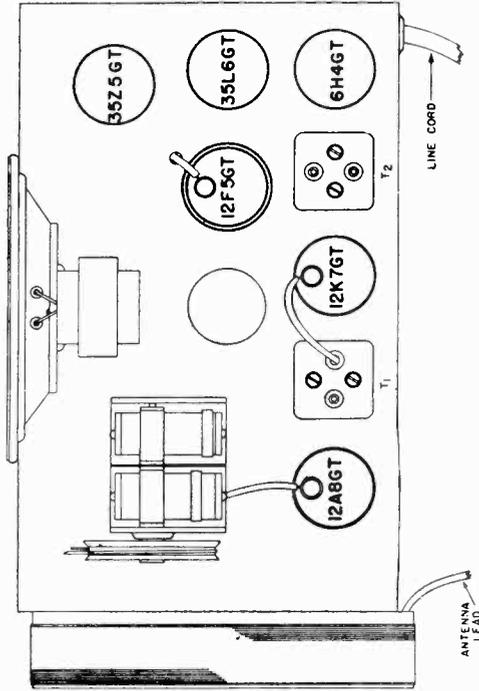
Lack of sensitivity and poor tone quality may be due to any one or a combination of causes such as weak or defective tubes or speaker, open or grounded bias resistor, bypass condenser, etc. Never attempt to realign set until all other possible sources of trouble have been first thoroughly investigated and definitely proved not to be the cause.

NOTE: IT IS ABSOLUTELY NECESSARY THAT AN ACCURATELY CALIBRATED TEST OSCILLATOR WITH SOME TYPE OF OUTPUT MEASURING DEVICE BE USED WHEN ALIGNING THE RECEIVER AND THAT THE PROCEDURE BE CAREFULLY FOLLOWED, OTHERWISE THE RECEIVER WILL BE INSENSITIVE AND THE DIAL CALIBRATION WILL BE INCORRECT. THE TRIMMERS WILL BE REFERRED TO BY THEIR FUNCTION AS INDICATED ON THE PARTS DIAGRAM.

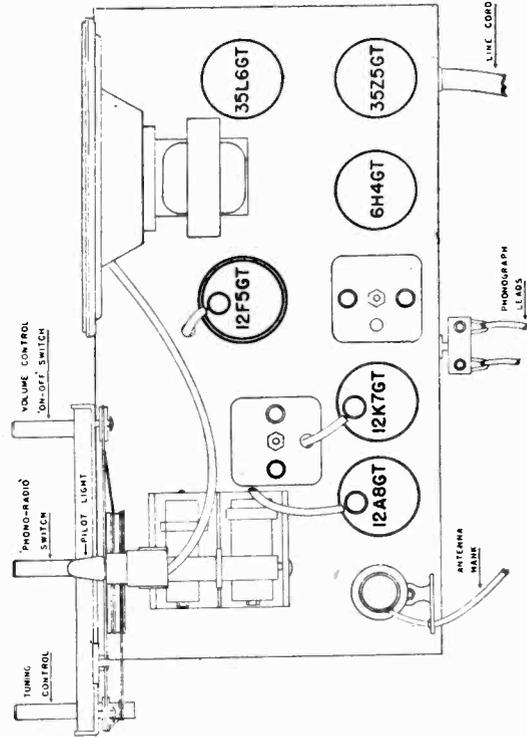


MODEL 440
MODEL 740

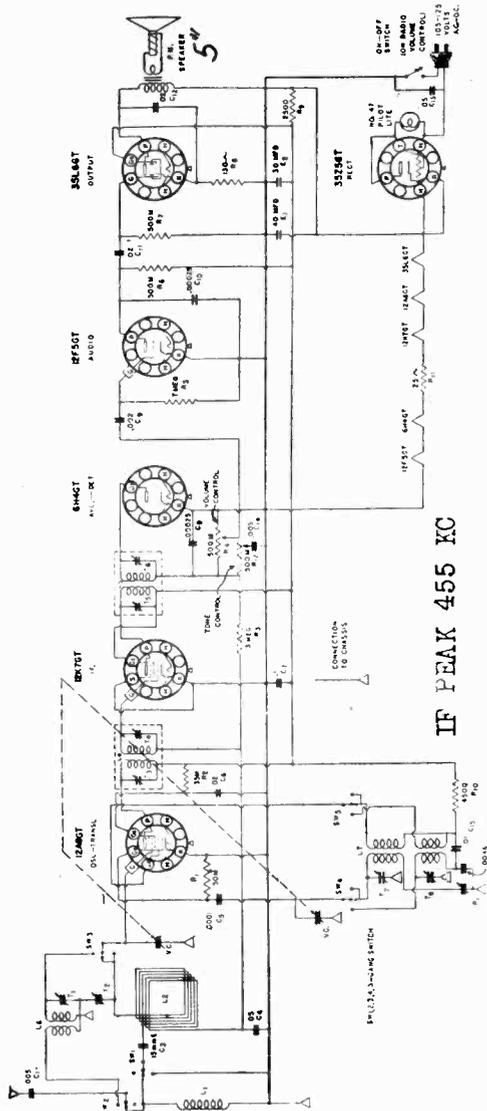
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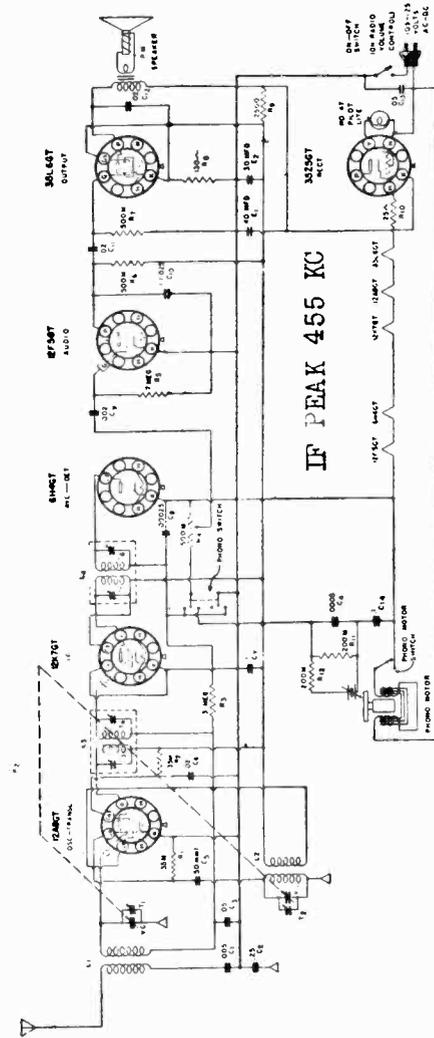
MODEL 440



MODEL 740

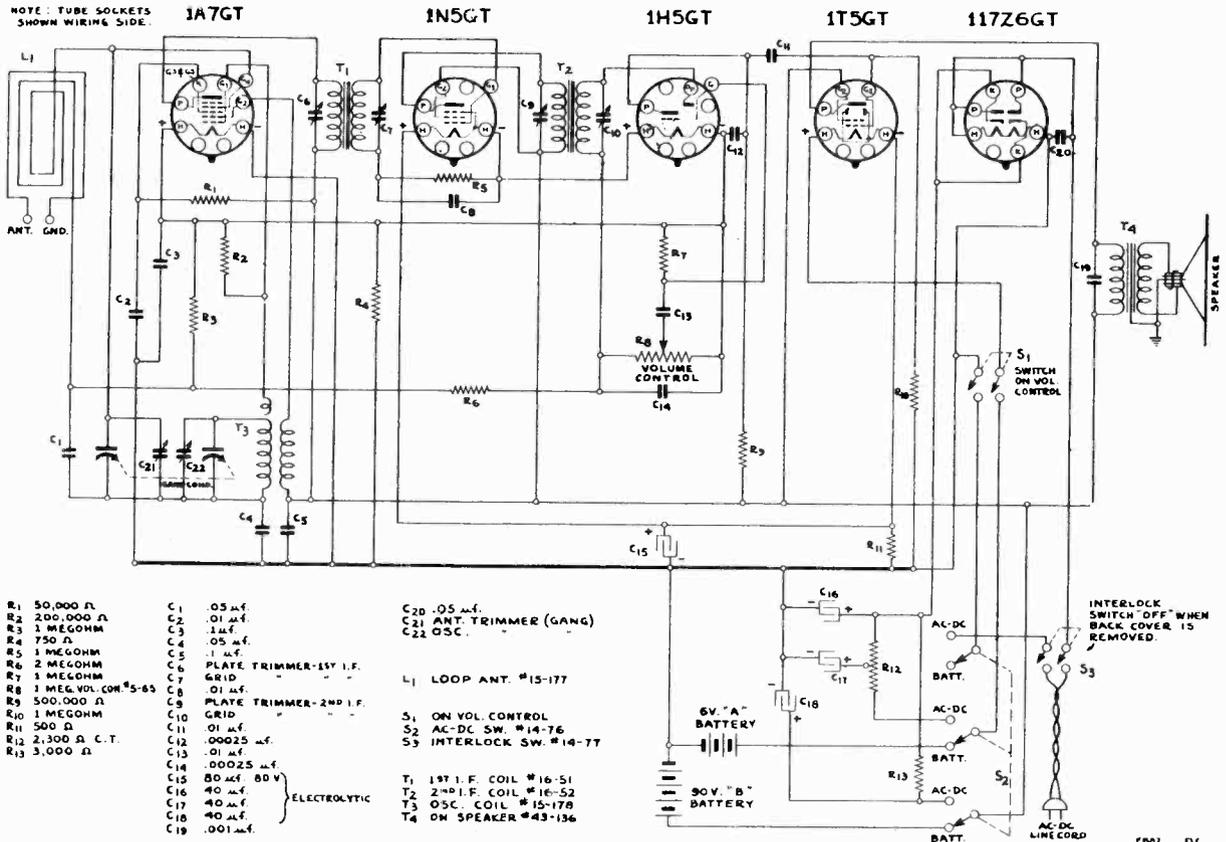


MODEL 440



MODEL 740

TRAV-LER RADIO & TELEV. CORP.



- R1 50,000 Ω
- R2 200,000 Ω
- R3 1 MEGOHM
- R4 750 Ω
- R5 1 MEGOHM
- R6 2 MEGOHM
- R7 1 MEGOHM
- R8 1 MEG. VOL. COM. #5-83
- R9 500,000 Ω
- R10 1 MEGOHM
- R11 500 Ω
- R12 2,300 Ω C.T.
- R13 3,000 Ω

- C1 .05 μf
- C2 .01 μf
- C3 .1 μf
- C4 .05 μf
- C5 .1 μf
- C6 PLATE TRIMMER-157 I.F.
- C7 GRID
- C8 .01 μf
- C9 PLATE TRIMMER-2ND I.F.
- C10 GRID
- C11 .01 μf
- C12 .00025 μf
- C13 .01 μf
- C14 .00025 μf
- C15 80 μf 80V
- C16 40 μf
- C17 40 μf
- C18 40 μf
- C19 .001 μf

- C20 .05 μf.
- C21 ANT. TRIMMER (GANG)
- C22 OSC.
- L1 LOOP ANT. #15-177
- S1 ON VOL. CONTROL
- S2 AC-DC SW. #14-76
- S3 INTERLOCK SW. #14-77
- T1 1ST I.F. COIL #16-51
- T2 2ND I.F. COIL #16-52
- T3 OSC. COIL #15-178
- T4 8Ω SPEAKER #43-136

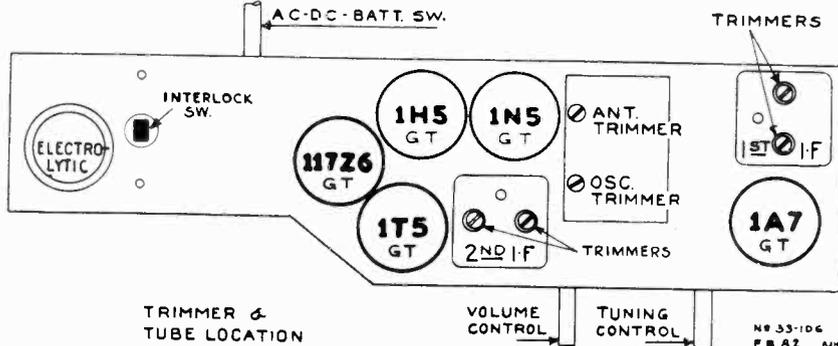
ALIGNMENT PROCEDURE:

Set the pointer to 1500 K. C. Connect the generator leads to the 1A7G grid and to the chassis thru a .1 Mfd. condenser. Adjust the I.F. trimmers for maximum output indication.

Connect the generator leads to the 1A7G grid and to the chassis thru a .1 Mfd. condenser. Set the signal generator at 1400 KC., and set the receiver pointer at 1400 KC. Adjust the BC. oscillator shunt trimmer for resonance.

Couple the generator loosely to the set and adjust the BC. loop antenna trimmer at 1400 KC. for maximum output.

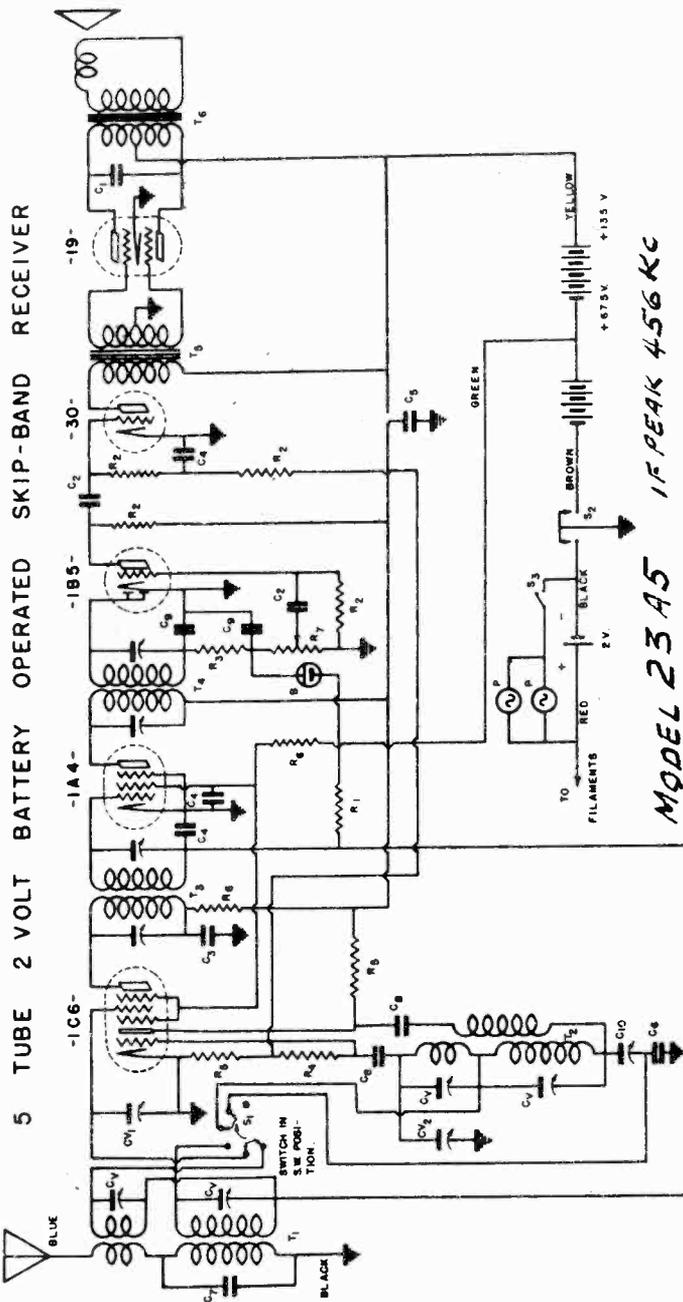
NOTE: POWER AUTOMATICALLY TURNED "OFF" WHEN CABINET BACK PANEL IS REMOVED. (INTERLOCK SWITCH).



TECHNICAL INSTRUCTIONS:

A good output meter should be used in all alignment adjustments. This meter should be of the high resistance A. C. type, and is connected across the voice coil of the speaker, using the low voltage range of the meter. (0 to 1.5 or 2 volts). Use the lowest possible readings in order to minimize the A. V. C. effect.

ZEPHYR RADIO CO.



OUR PART NO.	DESCRIPTION
C1	.002MFD 800V TUBULAR CONDENSER
C2	.01 MFD 400V TUBULAR CONDENSER
C3	.212 DB MFD 800V TUBULAR CONDENSER
C4	.203 1 MFD 200V TUBULAR CONDENSER
C5	21- 25 MFD 2.1 V TUBULAR CONDENSER
C6	.0018 MFD MICA CONDENSER
C7	412 50 MMFD MICA CONDENSER
C8	400 100 MMFD MICA CONDENSER
C9	401 250 MMFD MICA CONDENSER
C10	5 PLATE PADGING CONDENSER

CV-1	2 GANG VARIABLE CONDENSER
CV	800 5-30 MMFD TRIMMER CONDENSER
R1	1 MEG OHM 1/2 WATT CARBON RESISTOR
R2	117 1 MEG OHM 1/2 WATT CARBON RESISTOR
R3	113 50,000 OHM 1/2 WATT CARBON RESISTOR
R4	111 25,000 OHM 1/2 WATT CARBON RESISTOR
R5	109 10,000 OHM 1/2 WATT CARBON RESISTOR
R6	134 2,000 OHM 1/2 WATT CARBON RESISTOR
R7	8000 80,000 VOLUME CONTROL
P	8901 MAZDA #40 PILOT LIGHTS

T1	226 SKIP-BAND ANTENNA COIL
T2	1412 SKIP-BAND OSCILLATOR COIL
T3	1303 INPUT I.F. TRANSFORMER
T4	1307 DIODE I.F. TRANSFORMER
T5	019 INTERSTAGE TRANSFORMER
T6	118 P.M. DYNAMIC SPEAKER TRANSFORMER
S1	220 BAND SELECTOR SWITCH
S2	1 LINE SWITCH ON VOLUME CONTROL
S3	PILOT LIGHT ECONOMIZER SWITCH
S4	3-00 BIAS BUTTON