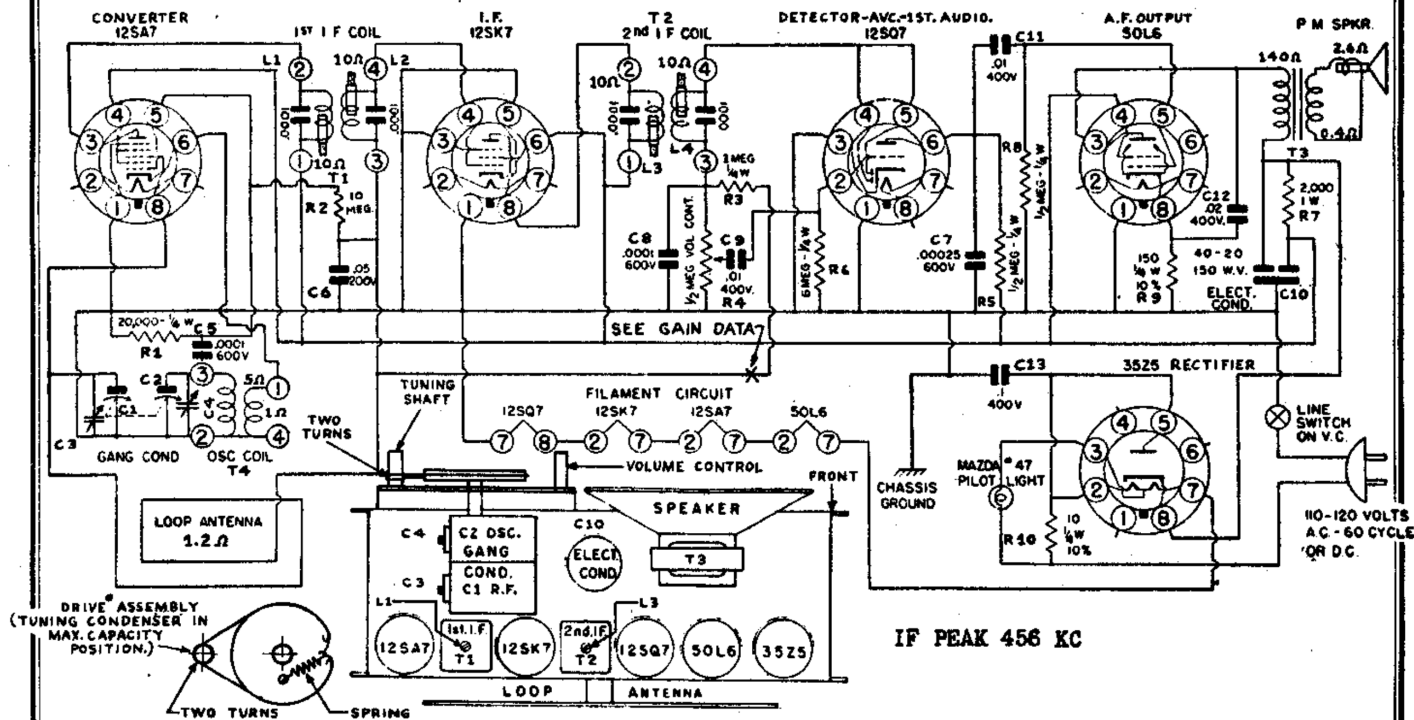


PHILLIPS PETROLEUM CO.

MODEL 3-5A



ALIGNMENT

The chassis must be removed from the cabinet in order to align this receiver. Connect the output meter across the voice coil. Connect the signal generator to the standard Hazeltine Loop Model 1150, and couple loosely to the receiver loop. Set the receiver volume control at maximum. The tuning condenser plates should be fully meshed when the dial pointer is at the index mark at the low frequency end of the dial. The signal generator output should at all times be just sufficient to obtain a minimum deflection on the output meter. Set the signal generator to 456 Kc and adjust the i-f trimmers for maximum meter deflection in the following sequence: L4, L3, L2, L1. Set the generator and receiver to 1600 Kc and adjust the oscillator trimmer C4 for maximum output. Set the generator and receiver to 1400 Kc and adjust the loop trimmer C3 for maximum output.

TUBE	PIN	VTVM	D-C VOLTAGE		RESISTANCE	TUBE	PIN	VTVM	D-C VOLTAGE		RESISTANCE
			20,000 OHMS PER VOLT	1000 OHMS PER VOLT					20,000 OHMS PER VOLT	1000 OHMS PER VOLT	
12SA7	1	0	0	0	0	50L6	4	-0.5	-0.4	-0.2	400,000
	2	0	0	0	24		5	-0.5	-0.4	-0.2	400,000
	3	+80	+80	+78	INFINITE		6	+46	+42	+40	INFINITE
	4	+80	+80	+78	INFINITE		7	0	0	0	14
	5	-9.5	-9.5	-4.8	20,000		8	0	0	0	0
	6	0	0	0	1		1	0	0	0	0
	7	0	0	0	40		2	0	0	0	40
	8	-1.5	-0.8	-0.2	1,200,000		3	+120	+120	+120	INFINITE
12SK7	1	0	0	0	0	35Z5	4	+80	+80	+78	INFINITE
	2	0	0	0	12		5	0	0	0	460,000
	3	0	0	0	0		6	0	0	0	INFINITE
	4	-1.5	-0.6	-0.2	1,200,000		7	0	0	0	90
	5	0	0	0	0		8	+4.5	+4.5	+4.5	150
	6	+80	+80	+78	INFINITE		1	0	0	0	INFINITE
	7	0	0	0	26		2	0	0	0	120
	8	+80	+80	+78	INFINITE		3	0	0	0	120
12SQ7	1	0	0	0	0	35Z5	4	0	0	0	INFINITE
	2	-0.5	-0.4	-0.2	6,000,000		5	0	0	0	120
	3	0	0	0	0		6	0	0	0	120
							7	0	0	0	90
							8	+120	+120	+120	INFINITE