



Models 207 & 210

SPECIFICATIONS

TYPE OF CIRCUIT: PHILCO Models 207 and 210 are four-tube battery operated superheterodyne receivers intended for standard broadcast reception.

TUNING RANGE: 540-1700 K.C.

INTERMEDIATE FREQUENCY: 460 K.C.

PHILCO TUBES USED: 1—1A7EG First detector and oscillator; 1—1N5EG I.F. amplifier; 1—1H5G 2nd detector, audio amplifier, automatic volume control; 1—1A5EG Power output.

BATTERIES REQUIRED: These models require $1\frac{1}{2}$ volts of "A" power and 90 volts of "B" power. The power may be supplied from a separate "A" battery and two "B" batteries, or from an "AB" power pack containing the required batteries in a single unit.

BATTERY CURRENT: Model 210

"A" Battery—200 M.A.

"B" Battery—6.3 M.A.

Model 207

"A" Battery—200 M.A.

"B" Battery—8.8 M.A.

ALIGNMENT OF COMPENSATORS

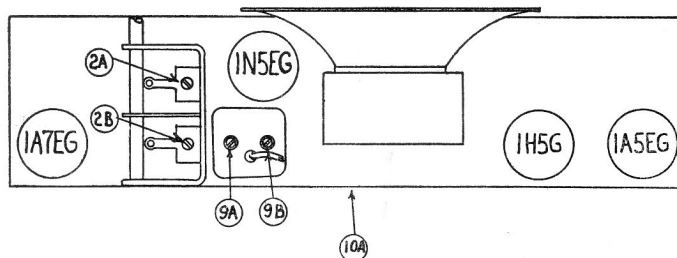
EQUIPMENT REQUIRED:

(1) **Signal Generator**—PHILCO Model 177 signal generator which has a frequency range from 115-32,500 K.C. is the correct instrument for this purpose.

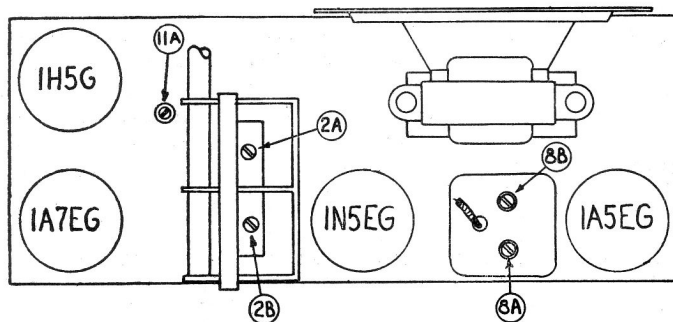
(2) **Output Meter**—PHILCO Model 028 circuit tester incorporates a sensitive Output Meter and is recommended.

(3) **Philco Fibre Handled Screw Driver**—Part No. 45-2610 and Fibre Wrench No. 7696.

OUTPUT METER: The PHILCO 028 Output Meter is connected to the plate and screen terminals of the output tube and is adjusted for the 0-30 scale. After connecting the output meter, adjust the compensators in the order shown in the table on page 4. If the output meter pointer goes off scale, reduce the strength of the signal from the generator.

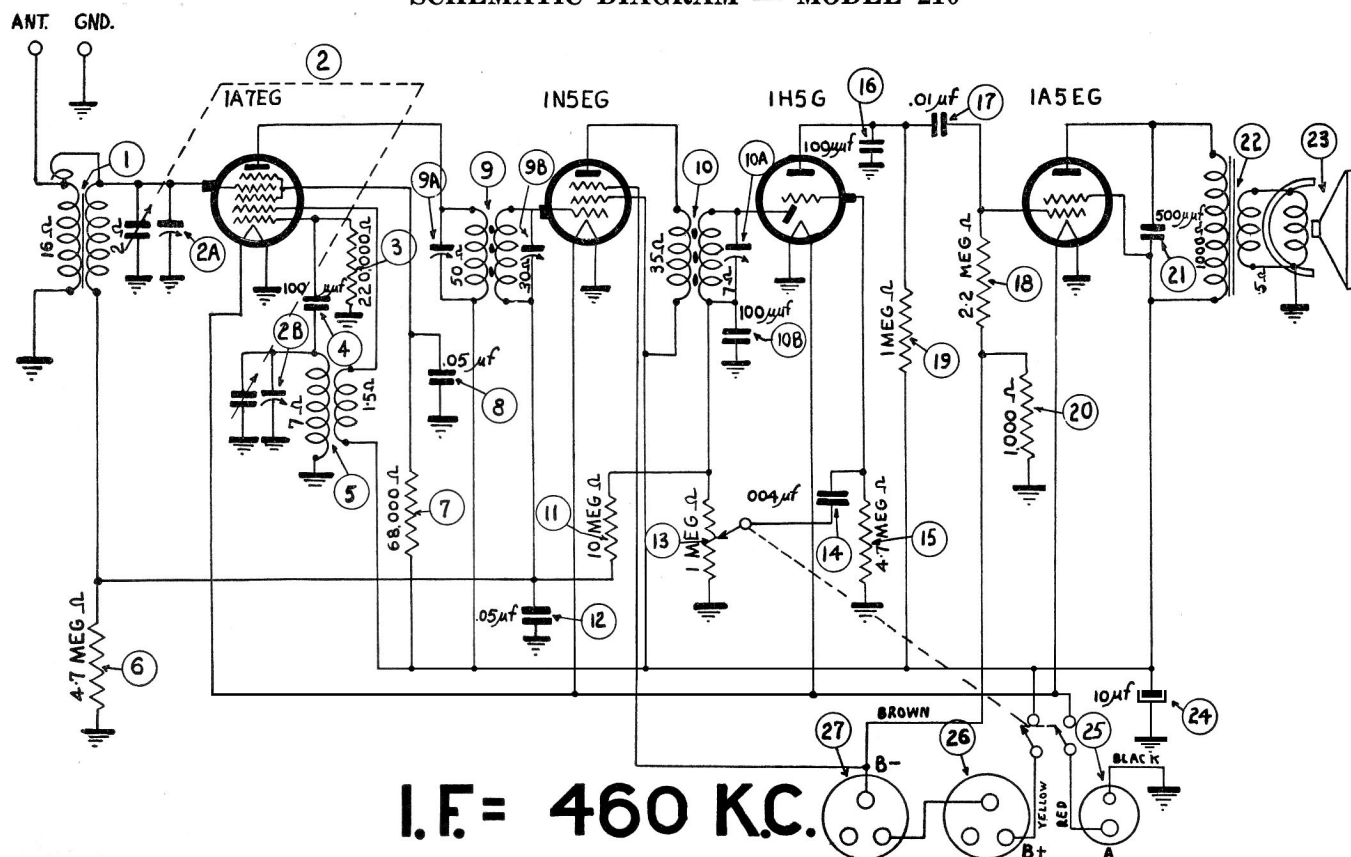


LOCATION OF COMPENSATORS — MODEL 210



LOCATION OF COMPENSATORS — MODEL 207

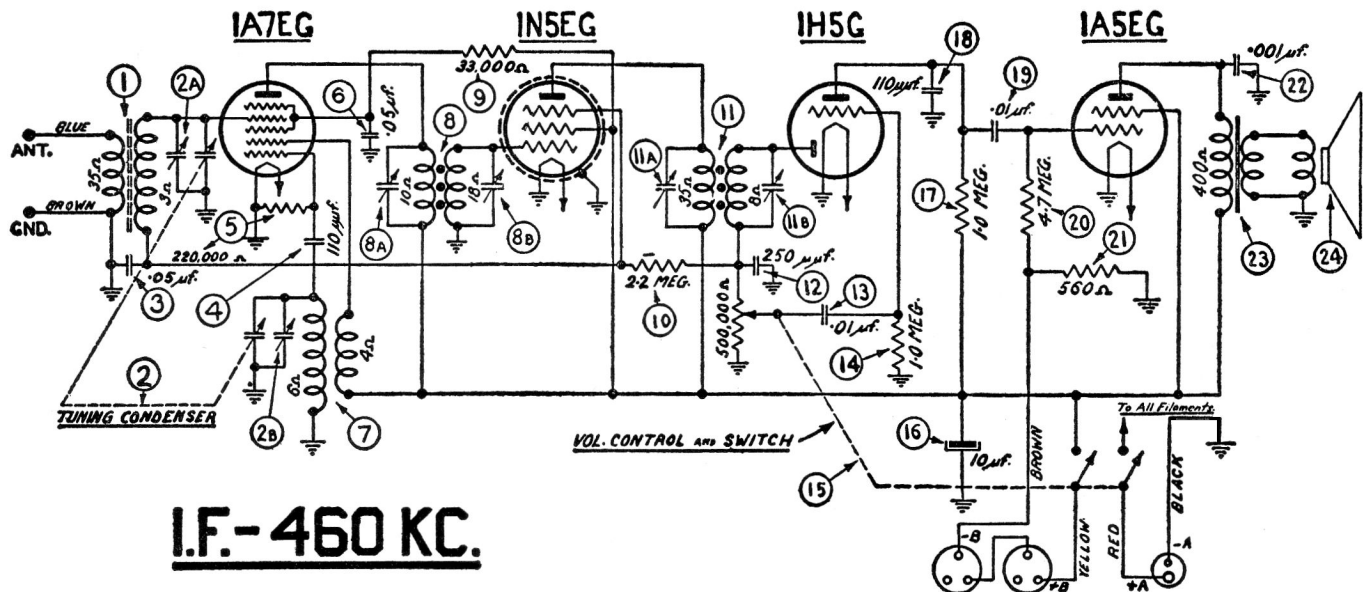
SCHEMATIC DIAGRAM — MODEL 210



REPLACEMENT PARTS — PHILCO MODEL 210

Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.
1	Antenna Coil	32-3490	14	Tubular Cond. (.004 mfd. 400v)	30-4578	26&27	"B" Battery Plug	27-4347
2	Tuning Condenser	31-2485	15	Resistor (4.7 megohm, 1/3 watt)	33-547244		Socket	27-6133
3	Resistor (220,000 ohms, 1/3 watt)	33-422244	16	Molded Mica Cond. (100 mmfd.)	60-110157		Battery Cable	41-3498
4	Molded Mica Condenser (100 mmfd.)	60-110157	17	Tubular Cond. (.01 mfd. 400v)	30-4572		Dial Scale	27-5590
5	Oscillator Coil	32-3491	18	Resistor (2.2 megohm, 1/3 watt)	33-522244		Cabinet	10478B
6	Resistor (4.7 megohm, 1/3 watt)	33-547244	19	Resistor (1 megohm, 1/3 watt)	33-510244		Signal Flag Drive Cord	31-2504
7	Resistor (68,000 ohms, 1/3 watt)	33-368244	20	Resistor (1000 ohm, 1/2 watt)	33-210336		Dial Drive Cord	31-2496
8	Tubular Condenser (.05 mfd., 200v)	30-4519	21	Molded Mica Cond. (500 mmfd.)	60-150157		Pointer	56-1856
9	First I.F. Coil	32-3492	22	Output Transformer	32-8100		Dial Spring	28-8913
10	Second I.F. Coil	32-3199	23	Speaker	36-1507		Signal Flag Spring	28-8945
11	Resistor (10 megohm, 1/3 watt)	33-610244	24	Electrolytic Condenser (10 mfd. 150v)	30-2396		Bezel Glass	27-5610
12	Tubular Cond. (.05 mfd. 200v)	30-4519	25	"A" Battery Plug	27-4786		Baffle and Silk	40-6548
13	Volume Control (1 megohm)	33-510244					Knob	27-4332

SCHEMATIC DIAGRAM — MODEL 207



REPLACEMENT PARTS — PHILCO MODEL 207

Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.
1	Antenna Coil	32-3151	12	Mica Condenser (250 mmfd.)	30-1032	23	Output Transformer	
2	Tuning Condenser	81-2447	13	Tubular Condenser (.01 mfd.)	30-4581		(part of complete speaker)	
3	Tubular Condenser (.05 mfd.)	30-4519	14	Resistor (1 megohm)	33-510244	24	Cone and Voice Coil Assembly	36-4131
4	Mica Condenser (110 mmfd.)	30-1031	15	Switch and Volume Control	33-5347		Dial Scale	27-5581
5	Resistor (220,000 ohm)	33-422244	16	Electrolytic Condenser (10 mfd.)	30-2396		Dial Pointer	27-4891
6	Tubular Condenser (.05 mfd.)	30-4519	17	Resistor (1 megohm)	33-510244		Dial Cord	31-2358
7	Oscillator Coil	32-3152	18	Mica Condenser (110 mfd.)	30-1031		Battery Cable	41-3498
8	First I.F. Transformer	32-3347	19	Tubular Condenser (.01 mfd.)	30-4581		Tube Socket	27-6135
9	Resistor (33,000 ohms)	33-332244	20	Resistor (4.7 megohm)	33-547244		Complete Speaker	36-1490-9
10	Resistor (2.2 megohm)	33-522244	21	Resistor (560 ohm)	33-156336		Knob	27-4809
11	Second I.F. Transformer	32-3348	22	Tubular Condenser (.001 mfd.)	30-4592		Spring	28-8954

MODEL 210

Operations in Order	SIGNAL GENERATOR		RECEIVER			SPECIAL INSTRUCTIONS
	Output Connections to Receiver	Dial Setting	Dial Setting	Control Setting	Adjust Compensators	
1	High Side to 1A7EG Grid Cap	460 K.C.	580 K.C.	Volume Maximum	10A, 9B, 9A	Note A
2	High Side to Antennae Lead	1500 K.C.	1500 K.C.	Volume Maximum	2B, 2A	Note B, C.

MODEL 207

Operations in Order	SIGNAL GENERATOR		RECEIVER			SPECIAL INSTRUCTIONS
	Output Connections to Receiver	Dial Setting	Dial Setting	Control Setting	Adjust Compensators	
1	High Side to 1A7EG Grid Cap	460 K.C.	580 K.C.	Volume Maximum	11B, 8B 8A	Note D
2	High Side to Antennae Lead	1500 K.C.	1500 K.C.	Volume Maximum	2B, 2A	Note B, C.

NOTE A—When adjusting the I.F. padders the high side of the signal generator is connected through a .1 mfd. condenser to the cap of the 1A7EG tube. The ground side of the signal generator is connected to the ground lead of the receiver.

NOTE B—DIAL CALIBRATION (Model 210)—Before adjusting the R.F. padders the dial must be aligned to track properly with the tuning condenser. To adjust the dial proceed as follows. With the tuning condenser in closed position (max. capacity), set the dial pointer directly over the index mark just to the left of the 540 K.C.

NOTE C—When aligning the R.F. padders, the high side of the signal generator is connected through a 200 mmfd. condenser to the antennae lead of the receiver. The ground lead of the generator is connected to the ground lead of the receiver.

NOTE D—DIAL CALIBRATION (Model 207)—Before adjusting the R.F. padders the dial must be aligned to track properly with the tuning condenser. To adjust the dial proceed as follows: With the tuning condenser in closed position (max. capacity), set the dial pointer on the small dot just below the 550 K.C.

PHILCO PRODUCTS LIMITED

**PARTS AND SERVICE DIVISION
TORONTO, ONT.**