



Models 46, 46L

SPECIFICATIONS

MODEL 46

TYPE OF CIRCUIT: A five tube superheterodyne radio receiver employing the new LOKTAL type tubes.

POWER SUPPLY: 115 volts, 25 to 60 cy. A.C., 115 volts D.C.

POWER CONSUMPTION: 30 watts.

FREQUENCY RANGE: 540 to 1600 K.C.

INTERMEDIATE FREQUENCY: 460 K.C.

PHILCO TUBES USED: 7A8E Converter; 7B7E I.F.; 7C6 2nd detector, 1st audio, A.V.C.; 50L6EGT power output; 35Z3 rectifier.

MODEL 46L

TYPE OF CIRCUIT: A five tube superheterodyne radio receiver employing the new LOKTAL type tubes, and with a built-in antenna system.

POWER SUPPLY: 115 volts, 25 to 60 cy. A.C., 115 volts D.C.

POWER CONSUMPTION: 30 watts.

FREQUENCY RANGE: 540 to 1600 K.C.

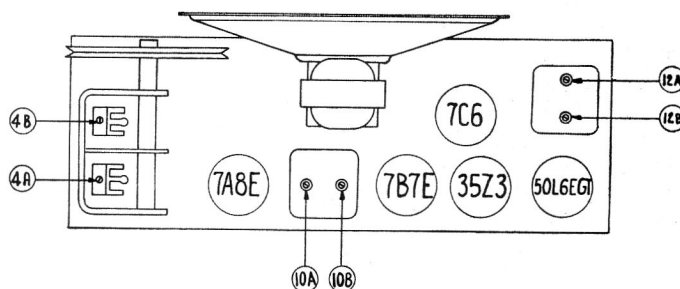
INTERMEDIATE FREQUENCY: 460 K.C.

PHILCO TUBES USED: 7A8E Converter; 7B7E I.F.; 7C6 2nd detector, 1st audio, A.V.C.; 50L6EGT power output; 35Z3 rectifier.

ALIGNING COMPENSATORS MODELS 46, 46L

EQUIPMENT: To accurately adjust these receivers, an accurately calibrated signal generator such as the Philco Model 177 is required. Maximum signal strength is shown by the use of a vacuum tube voltmeter and circuit tester such as the Philco Model 028. The vacuum tube voltmeter is connected in the circuit by using an aligning adapter, Philco Part No. 45-2767. The output indicator is connected as follows: Remove the 7C6 detector tube from the socket, insert the aligning adapter in the tube socket, insert the tube in the top of the adapter, connect the light-coloured wire which protrudes from the side of adapter to negative (—) terminal of vacuum tube voltmeter. Attach positive (+) terminal of voltmeter to the black wire.

A fibre handle screwdriver, Philco Part No. 45-2610 and fibre wrench, Philco Part No. 3164 are the necessary aligning tools.



LOCATION OF COMPENSATORS

Operations in Order	SIGNAL GENERATOR		RECEIVER			REMARKS
	OUTPUT CONNECTIONS	Dial Frequency	Dial Frequency	Control Settings	ADJUST COMPENSATORS FOR MAXIMUM SIGNAL	
1	High Side to Antenna Section of Gang	460 K.C.	580 K.C.	Volume Max.	12B, 12A, 10B, 10A	Note "A"
2	High Side to Antenna Lead	1500 K.C.	1500 K.C.	Volume Max.	4B, 4A	Note "B and C"
3	High Side to Antenna Lead	1000 K.C.	1000 K.C.	Volume Max.		Check Calibration
4	High Side to Antenna Lead	600 K.C.	600 K.C.	Volume Max.		Check Calibration

Note A: A dummy antenna consisting of a .1 mfd. condenser is connected in series with the high side of the signal generator output lead. This dummy is used for I.F. alignment only.

Note B: A dummy antenna for aligning the R.F. circuits consists of a 100 Mmfd. condenser in series with the high side of the signal generator output lead.

Note C: The dial must be aligned to track properly with the tuning condenser. This is accomplished by closing the tuning condenser (maximum capacity) and setting the pointer on the extreme left index dot at the low frequency (550 K.C.) end of the broadcast scale.

REPLACEMENT PARTS

MODELS 46 and 46L

Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.
2	Antenna Transformer		27A	27B Filament Res. (40, 80 ohms)	33-3408
	Model 46	32-3166	28	Tubular Cond. (.03 mfd., 400v)	30-4517
	Model 46L	32-3394	29	Tub. Cond. (.02 mfd., 400v)	30-4516
3	Loop Antenna (Model 46L only)	76-1309	30	Res. (470,000 ohms, 1/3 watt)	33-447254
4	Tuning Condenser	31-2527	31	Mica Cond. (100 mmfd.)	60-110157
5	Choke and Condenser Assembly	38-9957		Tube Socket (octal)	07-0036
6	Tub. Condenser (.1 mfd., 200v)	30-4586		Tube Socket (Loktal)	27-6151
7	Res. (47,000 ohms, 1/3 watt)	33-347254		Drive Cord Spring	28-8954
8	Oscillator Transformer	32-3562		Drive Cord	31-2529
9	Tub. Cond. (.05 mfd., 200v)	30-4519		Pilot Lamp	34-2068
10	1st I.F. Transformer	32-3603		Ant. Coil Clip Bracket	56-2058FA3
11	Resistor (27,000 ohms, 1/2 watt)	33-327854		Pointer	56-2076FCP
12	2nd I.F. Transformer	32-3604		Scale Plate	76-1129
13	Volume Control	35-5434		Dial Scale (for Brown)	27-5679
14	Res. (2.2 meg., 1/3 watt)	33-522254		Knob (Brown)	54-4052
15	Tub. Cond. (.01 mfd., 400v)	30-4572		Scale Strap	56-2059FA3
16	Res. (3.3 meg., 1/3 watt)	33-533254		Line Cord	09-0019
17	Mica Cond. (250 mmfd.)	60-125157		Pilot Light Assembly	18-0041
18	Tub. Cond. (.01 mfd., 400v)	30-4572		Antenna Coil Clip	28-5002FE11
19	Res. (470,000 ohms, 1/3 watt)	33-447254		Cone & Voice Coil Assembly	36-4190
20	Res. (470,000 ohms, 1/3 watt)	33-447254		Screw (Chassis Mounting)	W-2110FA3
21	Resistor (130 ohms, 1/2 watt)	33-113336		Knob (Ivory)	27-4805
22	Tub. Cond. (.02 mfd., 400 v)	30-4516		Cabinet (Brown)	10524D
23	Output Transformer	32-8164		Cabinet (Ivory)	10524E
24	Speaker Assembly	36-1538C		Dial Scale (For Ivory)	27-5695
25	Speaker Field (not replaceable)			Cabinet Back (Ivory)	27-9870
26A	26B Elect. Cond. (40, 60 mfd., 10-0009			Cabinet Back (Brown)	27-9817

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