



Models 10, 12, 14, TP-34-A

SPECIFICATIONS

MODEL 10

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

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

POWER CONSUMPTION: 30 watts

FREQUENCY TUNING RANGE: 540 to 1720 K.C.

INTERMEDIATE FREQUENCY: 460 K.C.

AUDIO OUTPUT: 1 watt

PHILCO TUBES USED: 7A8E Converter; 7B7E, I.F.;
7C6, 2nd Detector and 1st
Audio; 35A5E power output;
35Z3 rectifier.

CABINET DIMENSIONS: 8 $\frac{1}{2}$ " x 4" x 5 $\frac{1}{2}$ " Bakelite.

MODEL 12

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

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

POWER CONSUMPTION: 30 watts

FREQUENCY TUNING RANGES: Two - 540 to 1580 K.C.
1.5 to 2.5 M.C.

INTERMEDIATE FREQUENCY: 460 K.C.

AUDIO OUTPUT: 1 watt

PHILCO TUBES USED: 7A8E Converter; 7B7E, I.F.;
7C6, 2nd Detector and 1st
Audio; 35A5E power output;
35Z3 rectifier.

CABINET DIMENSIONS: 9" x 4-1/8" x 5-3/8"
Bakelite.

MODEL 14

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

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

POWER CONSUMPTION: 30 watts

FREQUENCY TUNING RANGES: Two - 540 to 1720
K.C.
5.5 to 19 M.C.

INTERMEDIATE FREQUENCY: 460 K.C.

AUDIO OUTPUT: 1 watt

PHILCO TUBES USED: 7A8E Converter; 7B7E, I.F.;
7C6, 2nd detector and 1st
audio; 35A5E power output;
35Z3 rectifier.

CABINET DIMENSIONS: 12 $\frac{1}{4}$ " x 6 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ " Wood.

MODEL TP-34-A

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

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

POWER CONSUMPTION: 30 watts.

FREQUENCY TUNING RANGES: Two - 540 to 1720
K.C.
2.3 to 2.5 M.C.

INTERMEDIATE FREQUENCY: 460 K.C.

INTERMEDIATE FREQUENCY: 460 K.C.

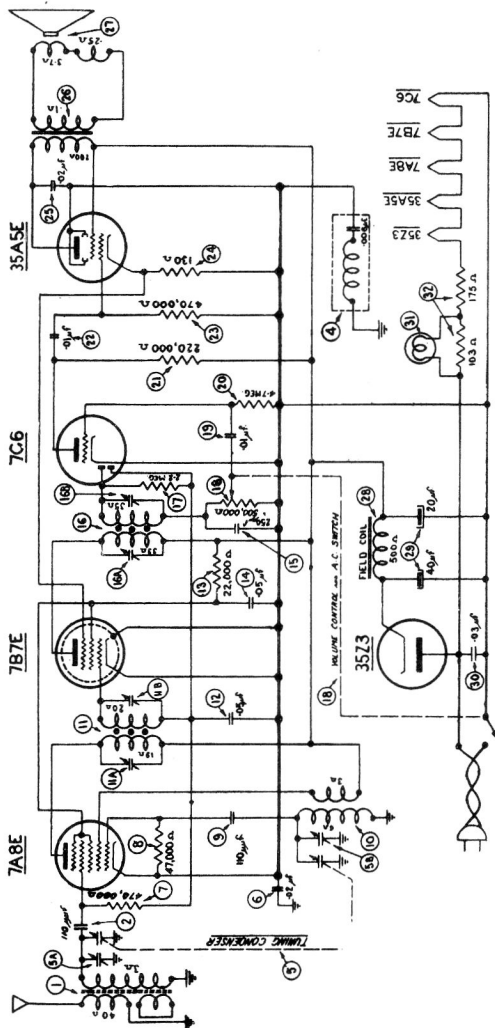
AUDIO OUTPUT: 1 Watt

PHILCO TUBES USED: 7A8E Converter; 7B7E, I.F.;
7C6, 2nd detector and 1st
audio; 35A5E power output;
35Z3 rectifier.

CABINET DIMENSIONS: 8 $\frac{1}{2}$ " x 4" x 5 $\frac{1}{2}$ " Bakelite.

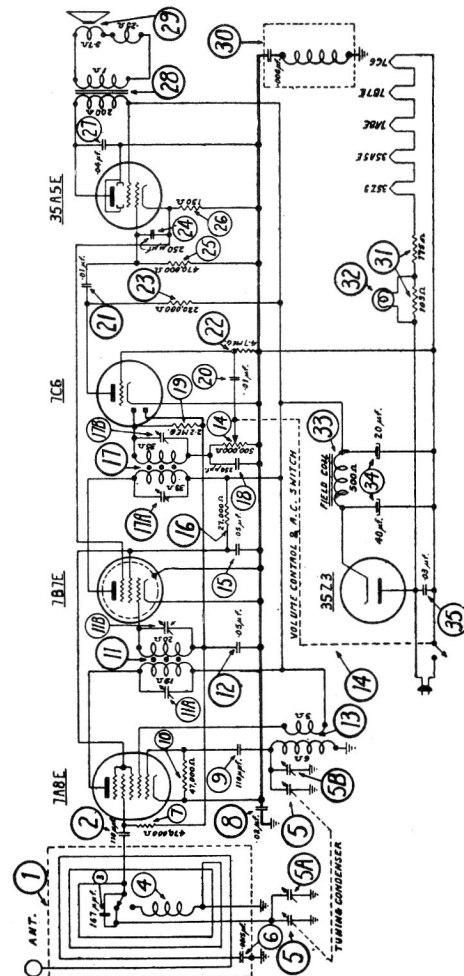
SCHEMATIC DIAGRAMS

Models 10, 12



MODEL 10

I.F.-460KC.



MODEL 12

REPLACEMENT PARTS - MODEL 10

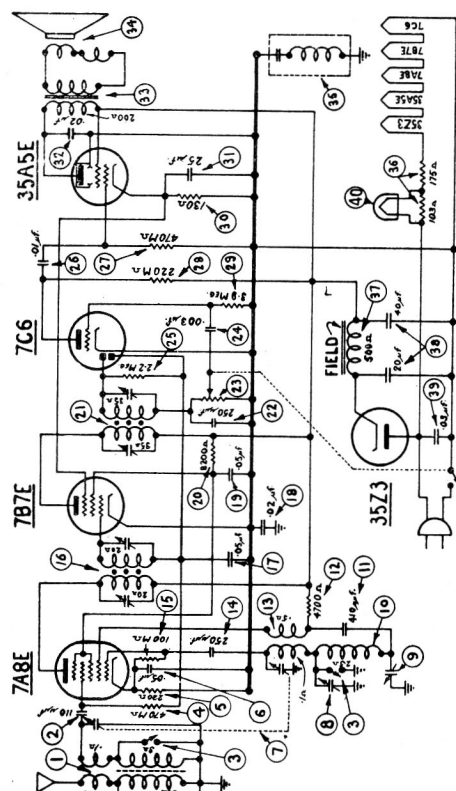
Schem.No.	Description	Philco Part No.	Schem.No.	Description	Philco Part No.
1	Antenna Transformer.....	32-3151	22	Tubular Condenser (.01 mfd.).....	30-4572
2	Mica Condenser (110 Mmfd.).....	30-1130	23	Resistor (470,000 ohms).....	33-447344
4	Choke & Condenser Assembly.....	38-9957	24	Resistor (130 ohms).....	33-113336
5	Tuning Condenser.....	31-2354	25	Tubular Condenser (.02 Mfd.).....	30-4516
6	Tubular Condenser (.02 Mfd.).....	30-4516	26	Output Transf. (replace speaker)	
7	Resistor (470,000 ohms).....	33-447344	27	Cone & Voice Coil Assembly	
8	Resistor (47,000 ohms).....	33-347344	28	Field Coil (replace speaker)	
9	Mica Condenser (110 Mmfd.).....	30-1130	29	Filter Condenser (40-20 Mfd.).....	30-2391
10	Oscillator Coil.....	32-3152	30	Tubular Condenser (.03 Mfd.).....	30-4449
11	1st I.P. Transformer.....	32-3185	31	Pilot Lamp.....	34-2068
12	Tubular Condenser (.05 Mfd.).....	30-4519	32	Filament Resistor.....	33-3372
13	Resistor (22,000 ohms).....	33-322344		Socket (Loktal).....	27-6130
14	Tubular Condenser (.05 Mfd.).....	30-4519		Line Cord.....	L-3199C
15	Mica Condenser (250 Mmfd.).....	61-0033		Drive Cord.....	31-2358
16	2nd I.P. Transformer.....	32-3358		Dial Scale.....	27-5536
17	Resistor (2.2 megohm).....	33-522344		Dial Pointer.....	56-1326
18	Volume Control & Switch.....	33-5306		Cabinet (Brown).....	10364A
19	Tubular Condenser (.01 Mfd.).....	30-4479		Cabinet (Ivory).....	10364B
20	Resistor (4.7 megohms).....	33-547344		Knob (Brown).....	27-4809
21	Resistor (220,000 ohms).....	33-422344		Knob (Ivory).....	27-4810
				Complete Speaker.....	36-1492

REPLACEMENT PARTS - MODEL 12

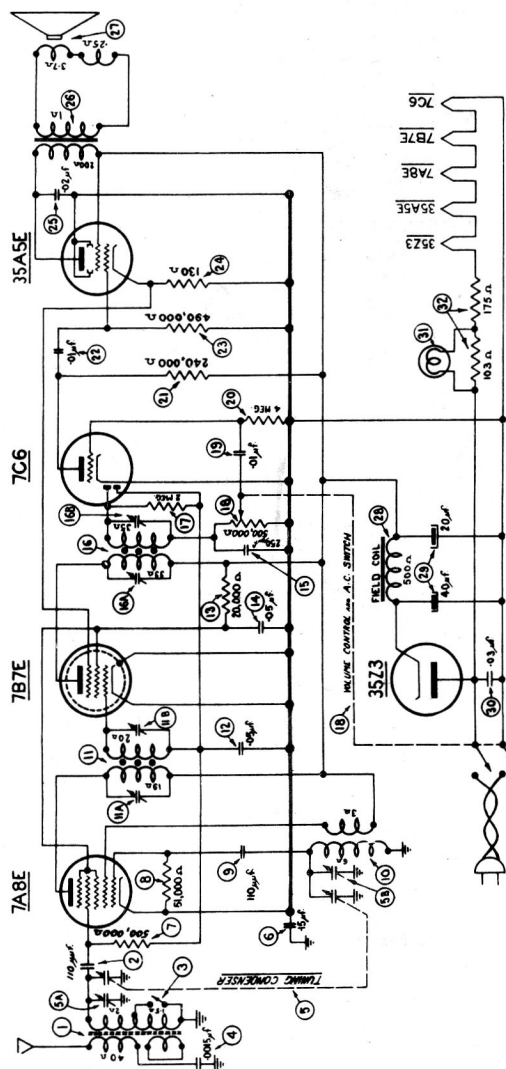
Schem.No.	Description	Philco Part No.	Schem.No.	Description	Philco Part No.
1	Loop Antenna Assembly.....	38-9936	23	Resistor 220,000 ohm, 1/2 watt.....	33-422344
2	Mica Condenser, 110 Mmfd.....	30-1130	24	Mica Condenser, 250 Mmfd.....	61-0033
3	Condenser, 157 Mmfd.....	Part of (1)	25	Resistor, 470,000 ohm, 1/2 watt.....	33-447344
4	Coil.....	Part of (1)	26	Resistor, 130 ohm.....	33-113336
5	Tuning Condenser.....	31-2413	27	Tubular Condenser .04 Mfd.....	30-4119
6	Condenser .0015 Mfd.....	30-4555	28	Output Transformer.....	Part of Spkr.
7	Resistor, 1/2 watt, 470,000 ohm.....	33-447344	29	Cone & Voice Coil Assembly.....	
8	Tubular Condenser .02 Mfd.....	30-4516	30	Choke and Condenser Assembly.....	38-9957
9	Mica Condenser, 110 Mmfd.....	30-1130	31	Filament Resistor.....	33-3372
10	Resistor, 1/2 watt, 47,000 ohm.....	33-347344	32	Pilot Lamp.....	34-2068
11	1st I.P. Transformer.....	32-3365	33	Field Coil.....	Part of Spkr
12	Condenser .05 Mfd.....	30-4519	34	Electrolytic Cond., 40-20 Mfd.....	30-2391
13	Oscillator Transformer.....	32-3182	35	Tubular Cond., .03 Mfd.....	30-4449
14	V.C. & Switch 500,000 ohm.....	33-5306		Socket.....	27-6130
15	Condenser .05 Mfd.....	30-4519		Line Cord.....	L3199C
16	Resistor 1/2 watt, 27,000 ohm.....	33-327344		Drive Cord.....	31-2358
17	2nd I.P. Transformer.....	32-3366		Cabinet.....	10446A
18	Mica Condenser, 250 Mmfd.....	61-0033		Cabinet Back.....	27-4832
19	Resistor 2.2 megohm, 1/2 watt.....	33-522344		Knob.....	27-4815
20	Tubular Condenser .01 Mfd.....	30-4479		Complete Speaker.....	36-1492
21	Tubular Condenser .01 Mfd.....	30-4572			
22	Resistor 4.7 megohm, 1/2 watt.....	33-547344			

SCHEMATIC DIAGRAMS

Models 14, TP-34-A



MODEL 14



MODEL TP-34-A

REPLACEMENT PARTS - MODEL 14

Schem. No.	Description	Philco Part No.	Description	Philco Part No.
1	Antenna Coil.....	32-3233	25 Resistor (2.2 Megohm).....	33-522344
2	Mica Condenser (110 Mmfd.).....	30-1130	26 Tubular Condenser (.01 Mfd.).....	30-4572
3	Wave-Switch.....	42-1497	27 Resistor (470,000 Ohm).....	33-447344
4	Resistor (470,000 Ohms).....	33-447344	28 Resistor (220,000 Ohm).....	33-422344
5	Resistor (220 Ohms).....	33-122331	29 Resistor (3.9 Megohm).....	33-593344
6	Tubular Condenser (.05 Mfd.).....	30-4519	30 Resistor (130 Ohm).....	33-113336
7	Tuning Condenser.....	31-2377	31 Electrolytic Condenser (25 Mfd.) Part of (38)	
8	Padder (1500 K.C. Osc.).....	31-6331	32 Tubular Condenser (.02 Mfd.).....	30-4515
9	Padder (600 K.C. Osc.).....	32-3217	33 Output Transformer.....	Part of Speaker
10	Broadcast Oscillator Coil.....	32-3217	34 Cone and Voice Coil Assembly...	
11	Mica Condenser (410 Mmfd.).....	30-1089	35 Choke and Condenser Assembly...	33-9957
12	Resistor (4700 Ohm).....	33-247344	36 Filament Resistor.....	33-3372
13	Shortwave Oscillator Coil.....	32-3234	37 Field Coil.....	Part of Speaker
14	Mica Condenser (250 Mmfd.).....	61-0033	38 Filter Condenser.....	30-2402
15	Resistor (130,000 Ohm).....	33-410344	39 Tubular Condenser (.03 Mfd.).....	30-4449
16	1st I.F. Transformer.....	32-3185	40 Pilot Lamp.....	34-2068
17	Tubular Condenser (.05 Mfd.).....	30-4519	Tube Socket (Ioktal).....	27-6130
18	Tubular Condenser (.02 Mfd.).....	30-4515	Line Cord.....	L-3199C
19	Tubular Condenser (.05 Mfd.).....	30-4519	Dial Cord.....	31-2393
20	Resistor (8,200 Ohms).....	33-282344	Dial Scale.....	27-5520
21	2nd I.F. Transformer.....	32-3358	Dial Pointer.....	56-1494
22	Mica Condenser (250 Mmfd.).....	61-0033	Knob.....	27-4809
23	Volume Control and Switch.....	33-5306	Complete Speaker.....	36-1492
24	Tubular Condenser (.003 Mfd.).....	30-4520	Cabinet.....	10445A

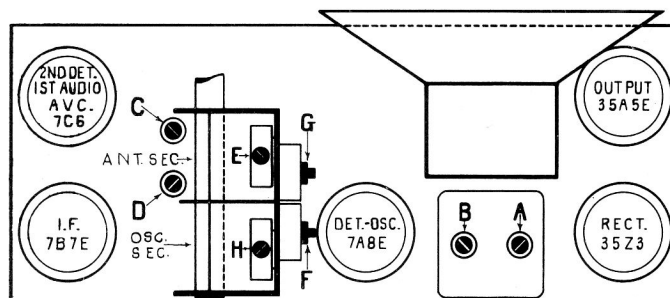
REPLACEMENT PARTS - MODEL TP-34-A

Schem. No.	Description	Philco Part No.	Description	Philco Part No.
1	Antenna Transformer.....	32-3154	22 Tubular Cond. (.01 Mfd.).....	30-4572
2	Mica Condenser (110 mmfd.).....	30-1031	23 Resistor (490,000 Ohms).....	33-449344
3	Band-Switch.....	42-1406	24 Resistor (130 Ohms).....	33-113336
4	Tub. Cond. (.0015 Mfd.).....	30-4555	25 Tubular Cond. (.02 Mfd.).....	30-4515
5	Tuning Condenser.....	31-2354	26 Output Transformer (Replace Speaker).....	
6	Tubular Cond. (.15 Mfd.).....	30-4505	27 Cone & Voice Coil Assy.....	36-4115
7	Resistor (500,000 ohms).....	33-450344	28 Field Coil (Replace Speaker)...	
8	Resistor (51,000 ohms).....	33-351344	29 Filter Cond. (40-20 Mfd.).....	30-2391
9	Mica Cond. (110 Mmfd.).....	30-1130	30 Tubular Cond. (.03 Mfd.).....	30-4449
10	Oscillator Coil.....	32-3152	31 Pilot Lamp.....	34-2068
11	1st I.F. Transformer.....	32-3185	32 Filament Resistor.....	33-3372
12	Tubular Cond. (.05 Mfd.).....	30-4519	Socket (Ioktal).....	27-6130
13	Resistor (20,000 ohms).....	33-320344	Line Cord.....	L-3199C
14	Tubular Cond. (.05 Mfd.).....	30-4519	Drive Cord.....	31-2358
15	Mica Cond. (250 Mmfd.).....	61-0033	Dial Scale.....	27-5505
16	2nd I.F. Transformer.....	32-3150	Dial Pointer.....	56-1326
17	Resistor (2 Megohms).....	33-520344	Cabinet (Brown).....	10364A
18	Volume Control and Switch.....	33-5313	Cabinet (Ivory).....	10364B
19	Tubular Condenser (.01 Mfd.).....	30-4479	Knobs (Brown).....	27-4809
20	Resistor (4 Megohms).....	33-540344	Knobs (Ivory).....	27-4810
21	Resistor (240,000 ohms).....	33-424344	Complete Speaker.....	36-1459

ALIGNING COMPENSATORS MODELS 10, 12, 14, TP-34-A

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 35A5E output 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. 7696, are the necessary aligning tools.



LOCATION OF COMPENSATORS

10, 12, TP-34-A

Operations In Order	SIGNAL GENERATOR		RECEIVER			Remarks
	Output Connections	Dial Frequency	Dial Frequency	Control Settings	Adjust Compensators for Max. Signal	
1	High Side to Ant. Section of Gang	460 K.C.	580 K.C.	Range SW. "BRDCST" Volume "Max."	A,B,C,D	See Note A
2A	High Side to Ant. Lead	1500 K.C.	1500 K.C.	Range SW. "BRDCST" Volume "Max."	HE	Models 10, TP-34A Note B C
2B	High Side to Ant. Lead	1580 K.C.	Place .005 Shim in Heel of Gang	Range SW. "BRDCST" Volume "Max."	H	Model 12
3	High Side to Ant. Lead	1400 K.C.	1400 K.C.	Range SW. "BRDCST" Volume "Max."	E on Model 12	Check Calibration Models 10, TP-34A
4	High Side to Ant. Lead	1000 K.C.	1000 K.C.	Range SW. "BRDCST" Volume "Max."		Check Calibration
5	High Side to Ant. Lead	600 K.C.	600 K.C.	Range SW. "BRDCST" Volume "Max."		Check Calibration

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Operations In Order	SIGNAL GENERATOR		RECEIVER			Remarks
	Output Connections	Dial Frequency	Dial Frequency	Control Settings	Adjust Compensators for Max. Signal	
1	High Side to Ant. Section of Gang	460 K.C.	580 K.C.	Range SW. "BRDCST" Volume "Max."	A,B,C,D	See Note A
2	High Side to Ant. Lead	18 M.C.	18 M.C.	Range SW. "SW" Volume "Max."	H,E	Note B,C
3	High Side to Ant. Lead	1500 K.C.	1500 K.C.	Range SW. "BRDCST" Volume "Max."	G	
4	High Side to Ant. Lead	600 K.C.	600 K.C.	Range SW. "BRDCST" Volume "Max."	F	
5	High Side to Ant. Lead	1400 K.C.	1400 K.C.	Range SW. "BRDCST" Volume "Max."		Check Calibration
6	High Side to Ant. Lead	1000 K.C.	1000 K.C.	Range SW. "BRDCST" 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