

PHILCO RADIO PHONOGRAPH.....MODEL 12-TP

SPECIFICATIONS

TYPE OF CIRCUIT: Model 39-12 TP is a table model combination semi-automatic phonograph and superheterodyne radio receiver. The phonograph mechanism automatically places the pickup on the record when the lid is closed and will play 10 or 12 inch records.

A.C. operated, superheterodyne with automatic volume control, pentode audio output, and covers the standard broadcast and state police frequencies.

POWER SUPPLY:
 Voltage 115
 Frequency Cycles 50 To 60

INTERMEDIATE FREQUENCY: 470 K.C.

R.F. TUNING RANGE: 540 to 1720 K.C.

AUDIO OUTPUT: 2 watts.

PHILCO TUBES USED: Five: One 6A7, Det. Osc.; One 7B, I.F.; One 75, 2nd Det., 1st Audio; One 41, Output, and one 84, Rectifier.

TUNING MECHANISM: 8 to 1 Ratio using Pulley and Cord.

ALIGNMENT OF COMPENSATORS

EQUIPMENT REQUIRED:

- (1) Signal Generator
- (2) Output Meter
- (3) Philco Fibre Handle Screw Driver, Part No. 45-2610 and Fibre Wrench, Part No. 3164.

OUTPUT METER:

The 027 Output Meter is connected to the plate and cathode terminals of the 41 tube. Adjust the meter to use the (0-30) volt scale and advance the attenuator control of the generator until a readable

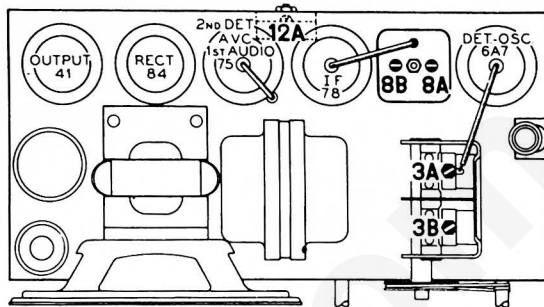


FIG. 2.—Locations of Compensators.

indication is noted on the output meter after signal is applied.

DIAL CALIBRATION:

- 1 Turn the tuning condenser to maximum capacity position (plates fully meshed).
- 2 Holding the tuning condenser in this position, turn the pointer until it is 1/16 of an inch below the three lines of the scale at the 550 K.C. end. This is the correct position of pointer at maximum capacity of tuning condenser.

OPERATIONS IN ORDER	SIGNAL GENERATOR			RECEIVER			NOTES
	Output Connections to Receiver	Dummy Antenna	Dial Setting	Dial Setting	Control Settings	Adjust Compensators	
1	6A7 Grid	.1 mfd	470 KC	580 KC	Vol (Max)	(12A), (8B) (8A)	Adjust for Max.
2	Aerial (White Wire)	100 mmfd	1500 KC	1500 KC	Vol (Max)	(3B), (3A)	Adjust for Max.

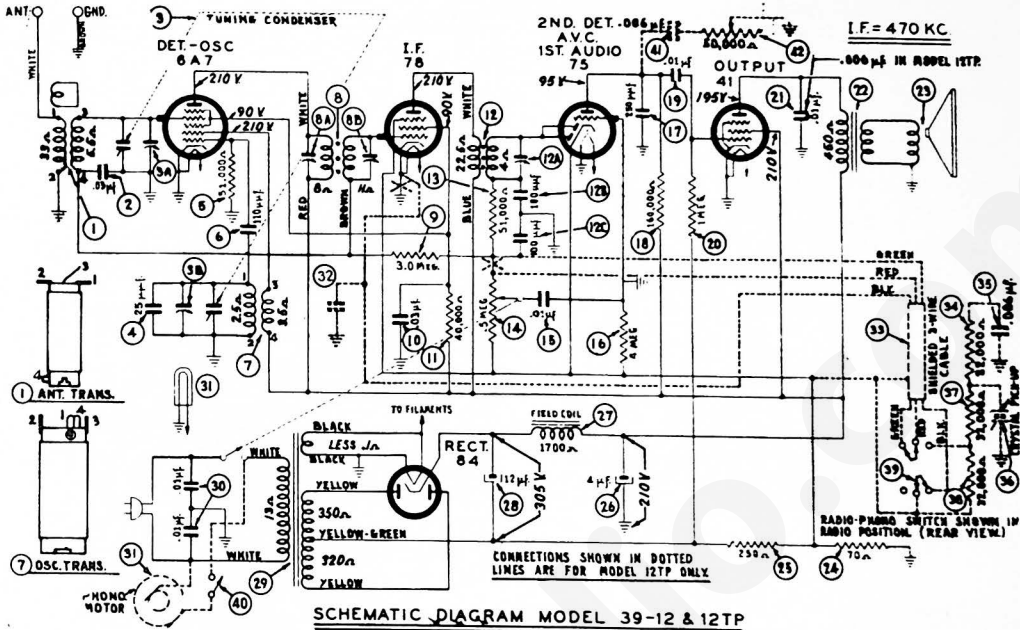
REPLACEMENT PARTS

MODEL 39-12 TP

Schem. No.	Description	Part No.	Schem. No.	Description	Part No.
1	Antenna Transformer.....	32-2583	*27	Field coil assembly (not supplied; see Note)	
2	Condenser (0.05 mfd. tubular).....	30-4444	28	Condenser (Electrolytic 12 mfd.).....	30-2235
3	Tuning Condenser Assembly.....	31-2258	29	Power Transformer (115V, 50 to 60 cycle)	32-7993
4	Compensator (Part of tuning condenser 3)		30	Condenser (0.01 mfd., .01 mfd.).....	3903-DG
5	Resistor (61,000 ohms, 1/2 watt).....	33-351339		Pilot Lamp.....	34-2088
6	110 mmfd. mica.....	30-1031		Bezel and Glass Assembly.....	40-6158
7	Oscillator Transformer.....	32-3019		Bezel Clamp.....	28-5153
8	First I.F. Transformer.....	32-3018		Cable (Power).....	L-2778
9	Resistor (2 megohms).....	33-520339		Clip (R.F. Trans. small).....	28-5002
10	Condenser (0.03 mfd. tubular).....	30-4449		Clip (R.F. Trans. large).....	28-5003
11	Resistor (40,000 ohms, 1/2 watt).....	33-340339		Clip (Tuning Shaft).....	28-8610
12	Second I.F. Transformer.....	32-2944		Dial Assembly.....	31-2097
13	Resistor (61,000 ohms, 1/2 watt).....	33-351339		Dial Pointer.....	28-5185
14	Volume Control.....	33-5230		Dial Drive Cord Assembly.....	31-2082
15	Condenser (0.01 mfd. tubular).....	30-4479		Dial Drive Drum.....	28-6662
16	Resistor (4 megohms, 1/2 watt).....	33-540339		Dial Drive Spring.....	28-8751
17	Condenser (250 mmfd. mica).....	30-1032		Knob (Tuning and Volume).....	27-4604
18	Resistor (180,000 ohms, 1/2 watt).....	33-416339		Shaft Assembly (Tuning).....	31-2179
19	Condenser (0.01 mfd. tubular).....	30-4169		Shield (Tube).....	28-5059
20	Resistor (2 megohms, 1/2 watt).....	33-510339		Socket (6 prong).....	27-6036
21	Condenser (0.01 mfd. tubular).....	30-4169		Socket (7 prong).....	27-6037
22	Output Transformer.....	32-7861		Socket (5 prong).....	27-6035
23	Cone and Voice Coil Assembly.....	36-4084		Stop-Rubber.....	27-4540
24	Resistor (70 ohms, 1/2 watt).....	33-070339		Speaker Model B0-1.....	36-1418
25	Resistor (250 ohms, 1/2 watt).....	33-125431		Pilot Lamp Assembly.....	31-2179
26	Condenser (Electrolytic 4 mfd.).....	30-2236			

* Entire Speaker must be replaced when field coil is open or damaged.

Additional parts on page 84



The wiring of the earlier and later production models 12-TP were different. The complete circuit diagram of the early production receiver is shown above. The later production receivers used a Model 39-6 chassis.

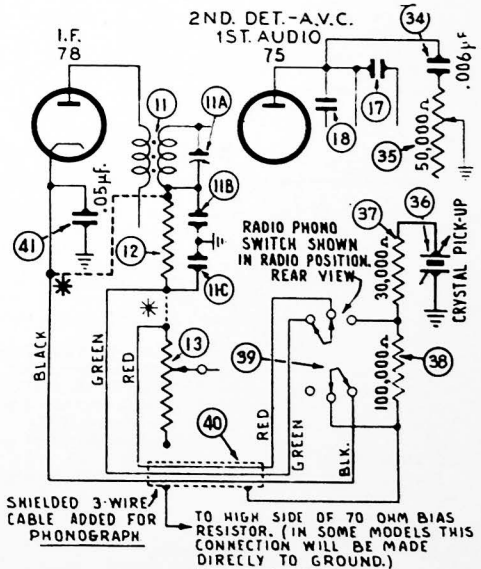
The Phonograph connections as used with Model 39-6 is shown below. Refer to Page 16 for Model 39-6.

**MODEL 39-12TP
"EARLY TYPE"**

Schem. No.	Description	Part No.
31	Motor (115 Volts).....	35-1174
32	Condenser (.05 mfd., 200 V.).....	30-4519
33	Cable.....	30-4591
34	Resistor (32,000 ohms).....	33-332339
35	Condenser (.006 mfd., 400 V.).....	30-4591
36	Crystal Cartridge.....	415-1027
37	Resistor (32,000 ohms).....	33-332339
38	Resistor (32,000 ohms).....	33-332339
39	Switch (Radio-Phono).....	42-1522
40	Motor (Power Switch).....	42-1498
41	Condenser (.006 mfd., 400 V.).....	30-4591
42	Tone Control.....	33-5330
	Pickup Complete.....	35-2027

**MODEL 39-12TP
"LATER PRODUCTION MODELS"**

Schem. No.	Description	Part No.
34	Condenser (.006 mfd., 400 V.).....	30-4591
35	Tone Control.....	33-5330
36	Crystal Cartridge (Pickup).....	415-1027
37	Resistor (30,000 ohms).....	33-330339
38	Resistor (100,000 ohms).....	33-410339
39	Switch (Radio-Phono).....	42-1522
40	Cable.....	30-4591
41	Condenser (.05 mfd., 200 V.).....	30-4519
	Pickup Complete.....	35-2027
	Motor (115 Volt A.C. 60 cycle).....	35-1174
	Power Switch (Motor).....	42-1498



PHONOGRAPH CONNECTIONS FOR LATE MODEL 12TP