

MODELS 40-508, 40-509 and 40-515

RADIO-PHONOGRAPH SPECIFICATIONS

Models 40-508 and 40-509 are radio-phonograph combinations consisting of an 8 tube electric push button tuning superheterodyne radio and an automatic record changer. The same radio receiver is used in each model. The automatic record changer and cabinet, however, are different.

Model 40-508 employs an improved type automatic record changer, Philco Part No. 35-1180, which plays twelve 10" records or ten 12" records at one loading. Service information on the mechanical adjustments of this record changer will be found on pages 123 to 126. The electrical connections to the receiver are shown on the schematic diagram on page 89.

Model 40-509 incorporates the Philco Inter-Mix Record Changer Part No. 35-1176. This record changer plays fourteen 10" and 12" records intermixed, or fifteen 10" or thirteen 12" records at one loading. Service information for the mechanical adjustments of this record changer will be found on page 119.

The radio receiver of these models contains 8 electric push buttons; 6 of the electric push buttons are used for reception of stations, one for television sound and one to switch to dial tuning.

The adjustment procedure of the R.F. and I.F. compensating condensers in addition to the procedure for adjusting the electric push buttons to radio stations will be found on pages 9 and 65.

In addition, the Philco Built-In Super Aerial System is included in these models. This system eliminates an outside aerial and reduces local static interference to a minimum. Included in the Built-In Super Aerial System is a statically shielded loop for broadcast band reception and a shortwave

receiving loop. A feature of the built-in broadcast band statically shielded loop is that it may be turned to the position in which it picks up a minimum amount of interference or if interference is not present, the loop may be set in the position where best reception is obtained. Outside aerial connections are also provided for remote localities where signal strength is weak.

POWER SUPPLY: 115 volts, 60 cycle A. C.

POWER CONSUMPTION:

Model 40-508—90 watts. Model 40-509—110 watts.

TUNING RANGES: Three

540 to 1550 K. C. 1.5 to 3.4 M. C. 6 to 18 M. C.

INTERMEDIATE FREQUENCY: 455 K. C.

AUDIO OUTPUT: 2 watts.

PHILCO TUBES USED: 1232, R. F.; 6J8G, converter; 7B7, I. F.; 7C6, second deflector, first audio and A.V.C.; 7A4, phase inverter; two 42, audio output; 80, rectifier.

CABINET DIMENSIONS:	Height	Width	Depth
Model 40-508	35"	32 3/4"	16"
Model 40-509	34 1/2"	33 1/2"	17 1/2"

MODEL 40-515, CODE 121 SERVICE INFORMATION

Model 40-515, Code 121 is a radio phonograph combination similar to Model 40-509, Code 121, with the exception of the cabinets. The service information listed in Radio Service Bulletin No. 323A for Model 40-509, also applies to Model 40-515 P-W, and P-M with the part changes as follows:

Cable Assembly (Power from chassis to changer)	41-3506
Cable and Plug (Speaker)	41-3515
Cable Assembly (Terminal Strip Changer)	41-3510
Cable and Plug Assembly (Motor)	41-3523
Cabinet Walnut (40-515 P-W)	10171A
Cabinet Mahogany (40-515 P-M)	10171B
Pilot Lamp Socket Assembly	38-9922

Replacement Parts — Models 40-508, 40-509

SCHE. No.	PART No.	DESCRIPTION	SCHE. No.	PART No.	DESCRIPTION	SCHE. No.	PART No.	DESCRIPTION	PART No.
1	38-9940	1 Loop Assy. (Broadcast)	38	30-4479	Tubular Cond. (.01 mfd.)	80	56-1663	Tone Arm Switch Contact Spring Blade	W-2100
1A	61-0033	Mica Cond. (250 mmfd.)	39	33-447339	Resistor (470,000 ohms, 1/2 watt)	80	W-2100	Tone Arm Switch Adjusting Screw	W-2100
18	33-310339	Resistor (10,000 ohms, 1/2 watt)	40	33-420339	Resistor (220,000 ohms, 1/2 watt)	81	42-1552	Reject Switch (Part of 79)	42-1552
2	38-9941	Loop Assy. (Short Wave)	40A	30-4453	Tubular Cond. (.001 mfd.)	82	35-1204	Reject Solenoid	35-1204
3	31-4308	Compensator	41	30-4453	Volume Control (2.0 meg.)	83	42-1548	Phono Motor (40-508)	42-1548
3	30-1097	Mica Cond. (.5 mmfd.)	42	30-4479	Resistor (10,000 ohms, 1/2 watt)	84	42-1530	On-Off Switch (Phono Motor)	42-1530
5	5886	Mica Cond. (1250 mmfd.)	43	33-522339	Resistor (2.2 meg., 1/2 watt)	85		Wave Switch (Tuning Ranges)	
6	61-0033	Mica Cond. (250 mmfd.)	44	33-610339	Resistor (10.0 meg., 1/2 watt)				
7	33-139339	Resistor (330 ohms, 1/2 watt)	45	30-1130	Mica Cond. (1.0 mmfd.)				
8	30-4444	Tubular Cond. (.05 mfd.)	46	30-4579	Tubular Cond. (.002 mfd.)				
9	33-510339	Resistor (1.0 meg., 1/2 watt)	47	33-410339	Resistor (100,000 ohms, 1/2 watt)				
11	30-4123	Tubular Cond. (.05 mfd.)	47	33-447339	Resistor (470,000 ohms, 1/2 watt)				
11	33-330339	Resistor (33,000 ohms, 1/2 watt)	49	33-247339	Resistor (47,000 ohms, 1/2 watt)				
12	33-310339	Resistor (10,000 ohms, 1/2 watt)	50	30-4456	Tubular Cond. (.004 mfd.)				
13	32-3191	R. F. Coupling Trans.	51	33-5314	Tone Control and On-Off Switch				
14	30-1128	Mica Cond. (100 mmfd.)	52	33-347339	Resistor (47,000 ohms, 1/2 watt)				
15	33-247339	Resistor (47,000 ohms, 1/2 watt)	53	30-4456	Tubular Cond. (.004 mfd.)				
16	33-247339	Resistor (47,000 ohms, 1/2 watt)	53	33-447339	Resistor (470,000 ohms, 1/2 watt)				
17	30-4123	Tubular Cond. (.05 mfd.)	55	33-447339	Resistor (470,000 ohms, 1/2 watt)				
18	32-3195	Oscillator Trans.	55	33-447339	Resistor (470,000 ohms, 1/2 watt)				
19	31-8298	Compensator (2 Section)	57	30-4456	Tubular Cond. (.004 mfd.)				
20	30-1124	Mica Cond. (500 mmfd.)	58	30-4469	Tubular Cond. (.003 mfd.)				
21	31-2391	Tuning Cond. Assy.	59	32-8070	Output Transformer				
22	61-0033	Mica Cond. (250 mmfd.)	60	36-0089	Cone and Voice Coil Assy.				
23	30-1110	Silver Mica Cond. (370 mmfd.)	61	36-0489	(Spkr. Part No. 38-1450-2)				
24	30-1110	Silver Mica Cond. (370 mmfd.)	61	30-4469	Tubular Cond. (.003 mfd.)				
25	33-333339	Resistor (33,000 ohms, 1/2 watt)	62	33-268339	Resistor (8800 ohms, 1/2 watt)				
26	30-4519	Push Button Switch	63	30-4123	Tubular Cond. (.05 mfd.)				
27	31-6299	Padder Strip (Push Buttons)	64	30-2412	Electrolytic Cond. (16 mfd., 300 V.)				
28	30-4519	Cell No. 1	65	33-018351	Resistor (18 ohms, 1/2 watt)				
28A	32-3042	Cell No. 2	66	33-18431	Cell No. 1				
28B	32-3042	Cell No. 3	67	30-2413	Electrolytic Cond. (12 mfd., 450 V.)				
28C	32-3042	Cell No. 4	68	38-1450	Field Coil (Replace Spkr. Part No. 38-1450)				
28D	32-3042	Cell No. 5	69	32-8069	Power Transformer				
28E	32-3042	Cell No. 6	70	3903-90	Bakelite Cond. (.01-.01 mfd.)				
28F	32-3041	Cell No. 7	71	38-2030	Crystal Cartridge (40-508, 40-509)				
29	33-247339	Resistor (4700 ohms, 1/2 watt)	72	32-2210	Pilot Lamp (Chassis)				
30	33-247339	1st I. F. Trans. Assy.	73A	32-2210	Pilot Lamp (Cabinet)				
31	30-4123	Tubular Cond. (.05 mfd.)	74	30-4581	Tubular Cond. (.01 mfd.)				
32	30-4519	Tubular Cond. (.05 mfd.)	74	33-033339	Resistor (330,000 ohms, 1/2 watt)				
33	30-4536	Tubular Cond. (.2 mfd.)	75	30-4519	Phone Pickup Cable (40-508)				
34	33-115339	Resistor (180 ohms, 1/2 watt)	76	41-3511	Phone Pickup Cable (40-509)				
35	33-333339	Resistor (33,000 ohms, 1/2 watt)	76	33-310339	Resistor (10,000 ohms, 1/2 watt)				
36	33-210339	Resistor (21,000 ohms, 1/2 watt)	77	32-1810	Toggle Switch (Model 40-508)				
36	33-210339	Resistor (21,000 ohms, 1/2 watt)	78	35-1177	Phono Motor (Model 40-509)				
37	32-3246	2nd I. F. Trans. Assy.	79	42-1555	Parallel Switch Assy. (Model 40-509)				

MISCELLANEOUS PARTS

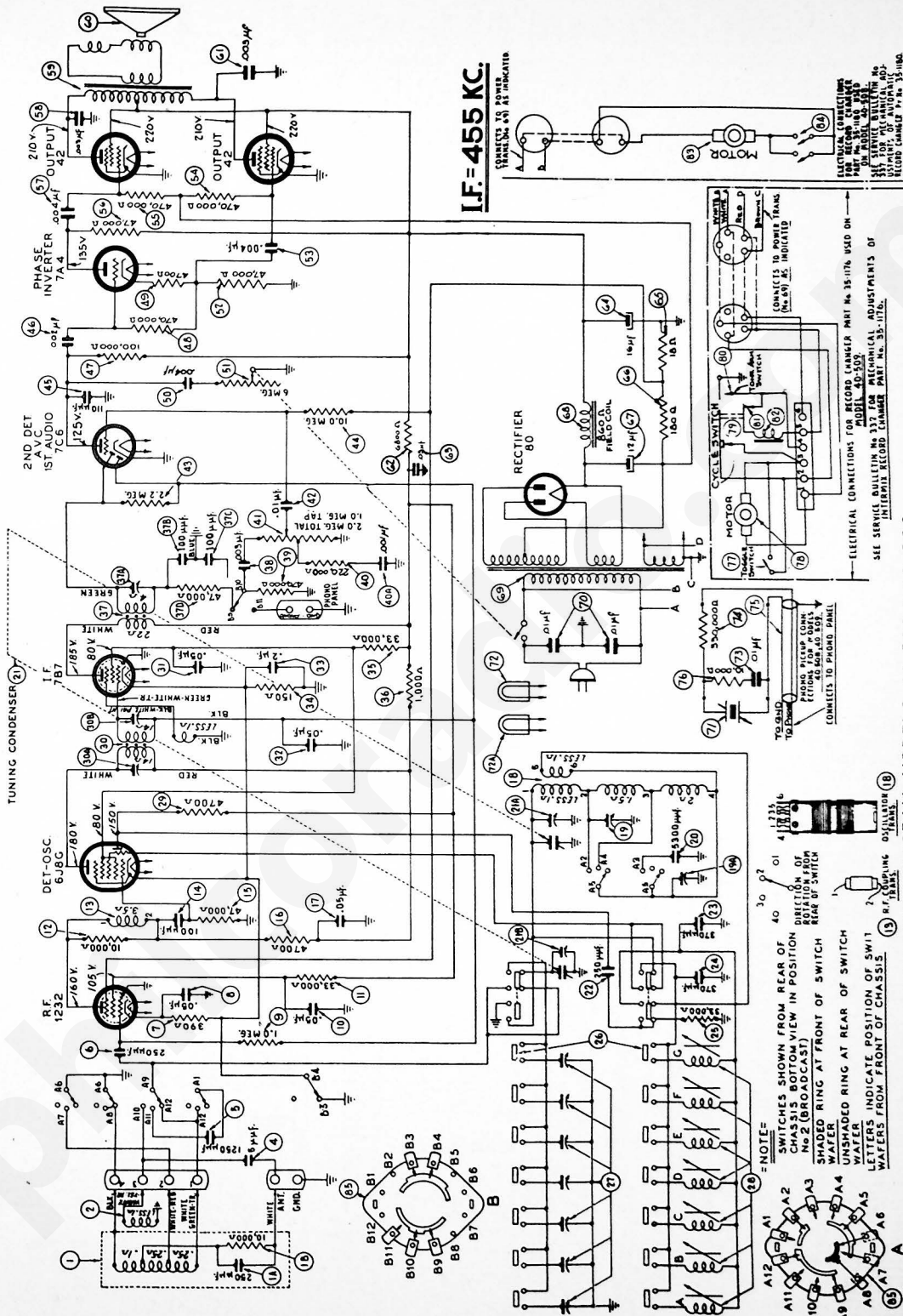
Automatic Record Changer (Model 40-508)	35-1176
Automatic Record Changer (Model 40-509)	35-1180
Additional Parts Bulletin 337	35-1180
Bezel Gasket	29-9175
Bezel Assembly	40-6489
Cable Speaker (Model 40-508)	41-3489
Cable Speaker (Model 40-509)	41-3488
Cable (Chassis to Changer, Model 40-509)	41-3501
Cable (Power)	L-3199
Cable (Chassis to Changer, Model 40-508)	41-3516
Cabinet (Model 40-508)	10410A
Cabinet (Model 40-509)	10410B
Dial Scale	27-5508
Drive Cord	31-2383
Drive Cord Drum Assy.	38-9856
Jewel (Cabinet Pilot Lamp)	27-4777
Knob Assy. (Tuning, Tone, Volume)	27-4332
Knob (Push-Button)	27-4866
Motor (Automatic Record Changer Model 40-508)	35-1177
Motor (Automatic Record Changer Model 40-509)	35-1178
Pointer	56-1516
Pilot Lamp	34-5210
Socket (Tuning)	27-5131
Socket Assembly Cabinet	38-9939
Socket Assy. (Pilot Lamp, Chassis)	38-9607
Socket (Lokalia)	27-6129
Socket (Lokalia)	27-6129
Socket (42 tubes)	36-1450
Socket (80 tubes)	36-1450
Speaker	38-9918
Terminal Panel (Phono)	38-9870
Terminal Panel (Loop)	38-9870
Tab Television	27-9449
Tab Dial	27-5530
Tab Kit	40-6475

PRODUCTION CHANGES

MODELS 40-508, 40-509

Beginning with Run "5" receivers, the converter tube is changed from a type 6J8G octal to a 7J7 loktal. The tube sockets are changed from Part No. 27-6120 to Part No. 27-6129.

The 2nd I. F. transformer (37) beginning with Run "6" receivers was changed from Part No. 32-3246 to Part No. 32-3383.



SCHEMATIC DIAGRAM MODELS 40-508 & 40-509

SEE PAGE 65 FOR INSTRUCTIONS ON THE ALIGNMENT OF COMPENSATORS.

THE VOLTAGES INDICATED ON THE DIAGRAM WERE MEASURED WITH A 1000 OHMS PER VOLTMETER SUCH AS PHILCO MODEL 027. LINE VOLTAGE 115 A. C.