

MODEL 40-516

RADIO-PHONOGRAPH

SPECIFICATIONS

Model 40-516 is a radio-phonograph combination assembled in a console cabinet consisting of a 14 tube, wireless remote control superheterodyne radio receiver and a Deluxe Inter-Mix Record Changer.

The specifications for the radio receiver are the same as those contained on page 70 for Model 40-216 with the exception of the power consumption, record changer, cabinet type. The wireless remote control circuit will automatically tune in seven broadcast stations and operate the automatic phonograph mechanism. The adjustment procedures for the R. F. and I. F. compensating condensers and wireless remote control circuits will be found on page 75. The adjustment procedure for reception of stations by wireless remote control is the same as that also covered on page 70 for Model 40-516 with the exception that No. 8 contact is used for phonograph. This position is already connected and will not need adjustment.

Power Consumption:

Cabinet Dimensions: 38 1/2" High; 40 1/2" Wide; 21" Deep.

The Deluxe Inter-Mix Record Changer plays fourteen 10" and 12" records intermixed, fifteen 10" or thirteen 12" records at one loading. The record changer can be operated manually or from the wireless remote control circuit of the radio receiver. When using the wireless remote control to operate the phonograph, the Inter-Mix Record Changer can be started and stopped, records rejected and volume adjusted, from the remote control unit. The automatic record changer is selected by dialing "PHONO" position. This operates relay (142) which pulls "Radio-Phono" switch (138) to the "PHONO" position. Records are also rejected by dialing the "PHONO" position on the wireless remote control unit. Phono relay (142) is connected to No. 8 contact of the pilot lamp section of rotary switch (81X). The service information for the Inter-Mix Record Changer will be found on page 119. Operating instructions for the phonograph mechanism is covered in the instructions Part No. 39-6474 supplied with each set.

The replacement parts and schematic diagram for this model are listed herein.

Replacement Parts — Model 40-516

SCHE. No.	DESCRIPTION	PART No.	SCHE. No.	DESCRIPTION	PART No.	SCHE. No.	DESCRIPTION	PART No.
1A	Loop Assy. (Broadcast)	38-9882	69	Electrolytic Cond. (25 mfd., 300 V.)	30-2360	119	No. 1 Control Amp. Trans.	32-3086
1B	Resistor (10,000 ohms, 1/2 watt)	33-310339	70	Electrolytic Cond. (18 mfd., 475 V.)	30-2200	120	Silver Mica Cond. (130 mfmfd.)	30-1122
2	Mica Cond. (250 mfmfd.)	31-3228	71	Resistor (Wirewound, Bias)	33-3364	121	Compensator (Secondary Inductor)	31-6286
2A	Loop Assy. (Short Wave)	38-9945	72	Power Trans. (115 V., 25-40 cycles)	32-8001	122	Secondary Inductor (Mystery Tuning)	40-6415
2B	Compensator	31-3228	73	Power Trans. (115 V., 25-40 cycles)	32-8017	123	Wave Switch	42-1537
3A	Ant. Series Trans. (Broadcast)	32-9281	74	Bypass Cond. (.05 mfd., 110 V. Plug)	34-2210	124	Tuning Cond.	31-2417
3B	Compensator	31-6212	75	Pilot Lamp (Blue)	33-016331			
4	Ant. Series Trans. (Short Wave)	32-3252	76	Pilot Lamp Resistor (16 ohms)	32-7993			
5	Ant. Trans. (Police Shunt)	32-3046	77	Resistor (115 V., 50-60 cycles)	32-8016			
6	Mica Cond. (250 mfmfd.)	31-3228	78	Resistor (115 V., 50-60 cycles)	32-1281			
7	Resistor (2.0 meg., 1/2 watt)	33-520339	79	Motor Trans. (115 V., 25-40 cycles)	32-8015			
8	Tubular Cond. (.05 mfd.)	30-4519	80	Motor Trans. (115 V., 25-40 cycles)	32-8015			
9	Resistor (150,000 ohms, 1/2 watt)	33-415339	81	Motor Assy. (Volume Control)	38-1151			
10	Resistor (12,000 ohms, 1/2 watt)	33-312339	82	Stepper Unit (Complete)	42-1468			
11	Tubular Cond. (.05 mfd.)	30-4123	83	Rotary Switch (Stepper Unit)	33-1283			
12	R. F. Trans. (Broadcast, Pushbutton and Police)	32-3230	84	Pilot Lamp Assy. (Station Indicator)	34-2084			
12A	Mica Condenser (35 mfmfd.)	30-1141	85	Switch (Volume Control-Motor)	42-1469			
12B	R. F. Trans. (Broadcast Manual)	31-6212	86	Resistor (150 ohms, 1/2 watt)	33-115339			
13	Compensator	31-6212	87	Tubular Cond. (.1 mfd.)	30-4499			
14	R. F. Trans. (Short Wave)	30-1097	88	Electrolytic Cond. (30 mfd., 30 V.)	30-2361			
15	Mica Cond. (250 mfmfd.)	30-4455	89	Padder Strip (Pushbuttons)	31-6264			
16	Tubular Cond. (.05 mfd.)	30-4519	89A	Compensator No. 1				
17	Tubular Cond. (.1 mfd.)	30-4455	89B	Compensator No. 2				
18	Resistor (51,000 ohms, 1/2 watt)	33-513339	89C	540-1030 K. C., Part of 89				
19	Oscillator Trans. (Broadcast)	32-3231	89D	Compensator No. 4				
20	Oscillator Trans. (Police)	32-3051	89E	870-1160 K. C., Part of 89				
21	Oscillator Trans. (Short Wave)	31-6266	89F	Compensator No. 6				
22	Compensator (3 section, oscillator)	31-6220	89G	Compensator No. 7				
23	Compensator (Broadcast, Low Frequency)	31-6220	89H	Compensator No. 8				
24	Tracking Cond. (1230 mfmfd.)	31-6263	90	1100-1600 K. C., Part of 89				
25	Tracking Cond. (2425 mfmfd.)	31-6263	90A	Elec. Pushbutton Trans. Assy. (8 Trans.)	32-3091			
26	Mica Cond. (250 mfmfd.)	61-0033	90B	Osc. Trans. No. 1				
27	Resistor (10,000 ohms, 1/2 watt)	33-310339	90C	Osc. Trans. No. 2				
28	Resistor (18,000 ohms, 1/2 watt)	33-318339	90D	Osc. Trans. No. 3				
29	Resistor (5,000 ohms, 2 watt)	33-205339	90E	Osc. Trans. No. 4				
30	Resistor (150,000 ohms, 1/2 watt)	33-415339	90F	Osc. Trans. No. 6				
31	Electrolytic Cond. (.4 mfd., 250 V.)	30-2334	90G	900-1470 K. C., Part of 89	32-3041			
32	Mica Cond. (250 mfmfd.)	61-0033	90H	Osc. Trans. No. 7				
33	1st I. F. Trans. Assy.	32-3089	90I	Osc. Trans. No. 8				
34	1st I. F. Trans. Assy.	32-3089						
34X	Condenser (.05 mfd., 200 V.)	30-4519	32-3042					
35	Resistor (1.0 meg., 1/2 watt)	33-413339	32-3042					
36	Resistor (330,000 ohms, 1/2 watt)	33-433339	32-3041					
37	2nd I. F. Trans. Assy.	32-644						
38	Mica Cond. (110 mfmfd.)	30-1031						
39X	Tubular Cond. (.004 mfd.)	30-4572						
40	Tubular Cond. (.01 mfd.)	30-4479						
41	Mica Condenser (250 mfmfd.)	33-5300						
42	Volume Control	33-70339						
43	Resistor (70,000 ohms, 1/2 watt)	33-433339						
44	Tubular Cond. (.02 mfd.)	30-4323						
45	Resistor (2.0 meg., 1/2 watt)	33-520339						
46	Tubular Cond. (.02 mfd.)	30-4323						
47	Resistor (1.0 meg., 1/2 watt)	33-510339						
48	Tubular Cond. (.02 mfd.)	30-4323						
49	Resistor (99,000 ohms, 1/2 watt)	33-399339						
50	Tubular Cond. (.02 mfd.)	30-4323						
51	Resistor (49,000 ohms, 1/2 watt)	33-493339						
52	Resistor (8,000 ohms, 1/2 watt)	33-250339						
53	Resistor (49,000 ohms, 1/2 watt)	33-493339						
54	Tubular Cond. (.02 mfd.)	30-4481						
55	Tone Control	30-4572						
56	Tubular Cond. (.01 mfd.)	30-4572						
57	Resistor (150,000 ohms, 1/2 watt)	33-415339						
58	Resistor (180,000 ohms, 1/2 watt)	33-480339						
59	Resistor (49,000 ohms, 1/2 watt)	33-493339						
60	Resistor (240,000 ohms, 1/2 watt)	33-242339						
61	Tubular Cond. (.01 mfd.)	30-4501						
62	Tubular Cond. (.01 mfd.)	30-4501						
63	Tubular Cond. (.01 mfd.)	30-4501						
64	Output Trans.	32-7996						
65	Cond. and Voice Coil Assy. (Sprng. Part No. 38-1480-3)	36-4088						
66	Resistor (150,000 ohms, 1/2 watt)	33-415339						
67	Tubular Cond. (.01 mfd.)	30-4501						
68	Resistor (1.0 meg., 1/2 watt)	33-510339						

WIRELESS REMOTE CONTROL UNIT

125	Primary Inductor	32-3087
126	Silver Mica Cond. (200 mfmfd.)	30-1125
127	Tubular Cond. (.05 mfd.)	30-4519
128	Air Padder	31-6286
129	Resistor (500 ohms, 1/2 watt)	33-150339
130	Mystery Pack (Battery)	41-8023
131	Dial Unit (Pulsar)	38-9704
132	Spark Filter Assy.	38-9898
132A	Spark Filter Choke	32-3276
132B	Resistor (300 ohms, 1/2 watt)	33-110339
132C	Tubular Cond. (.05 mfd.)	30-4444
133	Tubular Cond. (.05 mfd.)	30-4442
134	Crystal Pickup Bakelite Case	35-2030
135	Condenser (.01 mfd., 200 V.)	30-4581
136	Resistor (330,000 ohms)	33-433339
137	Resistor (10,000 ohms)	33-310339
138	Pickup Cable	41-1504
139	Remote Phone Relay and Switch	42-1526
140	Cable Radio-Phono Switch	41-3517
141	Motor (Record Changer Mech.)	35-1177
142	Cancel Magnet	42-1552
143	Relay (Part of 138) Operates Remote Radio-Phono Switch (138)	
144	Auxiliary Switch (Mounted on Range Switch Cam)	42-1531
	Maxial Radio-Phono Switch (Mounted on Changer) Removes power from record changer when range switch is in Brdctst., Police, or S. W.	42-1533

MISCELLANEOUS PARTS

Bezel	Bezel Gasket and Staple Assy.	38-9932
38-9734		
1-3176	Cable (Power Supply)	
27-5535	Cable and Plug (Pilot Lamp Assy.)	
31-2335	Drive Cord (Tuning Cond.)	
38-0822	Disc (Control Pointers)	
27-4766	Disc (Tuning)	
27-4765	Disc (Volume)	
27-4767	Disc (Wave Switch)	
47-4764	Disc (Tone Control)	
35-1176	Inter-Mix Record Changer (See Bulletin 332 for Service Information and Additions)	
38-9932	Knob Phono-Switch	
38-9898	Loop Assembly (Broadcast)	
38-9945	Loop Assembly (Shortwave)	
38-1403	Radio-Phono	
38-9932	Pilot Lamp Assy.	
38-9939	Pilot Lamp Assy. (R. H. Bracket)	
38-9938	Pilot Lamp Assy. (L. H. Bracket)	
38-9709	Pilot Lamp Assy. (Station Lights)	
38-9712	Pilot Lamp Assy. (Cabinet Bulbkeye)	
27-4777	Pilot Light Jewel (Bulbkeye)	
27-4040	Speaker	
27-4044	Socket (4 prong, type 80 tube)	
27-4036	Socket (5 prong type 37 tube)	
27-8086	Socket (6 prong, type 42 and 78 tubes)	
27-8036	Socket (Octal, type 6J5G, 6Q7G tubes)	
27-8087	Socket (Octal, type 6Z7G tube)	
27-8098	Socket (Octal, type 6AB8 tube)	
28-9131	Spring (Drive Gears)	
28-9131	Tab (Television)	
88-1209	Washer (Keyed Washer Tuning Disc)	
8717		

PRODUCTION CHANGES

To eliminate microphonics (tracking rumble), resistor (135) 330000 ohms is removed. Resistor (136) 10000 ohms is changed to 33000 ohms, Part No. 33-333339. Condenser (134) .01 mfd. Part No. 30-4581 is changed to .015 mfd. Part No. 30-4629.

