MODELS 211-220, 41-225

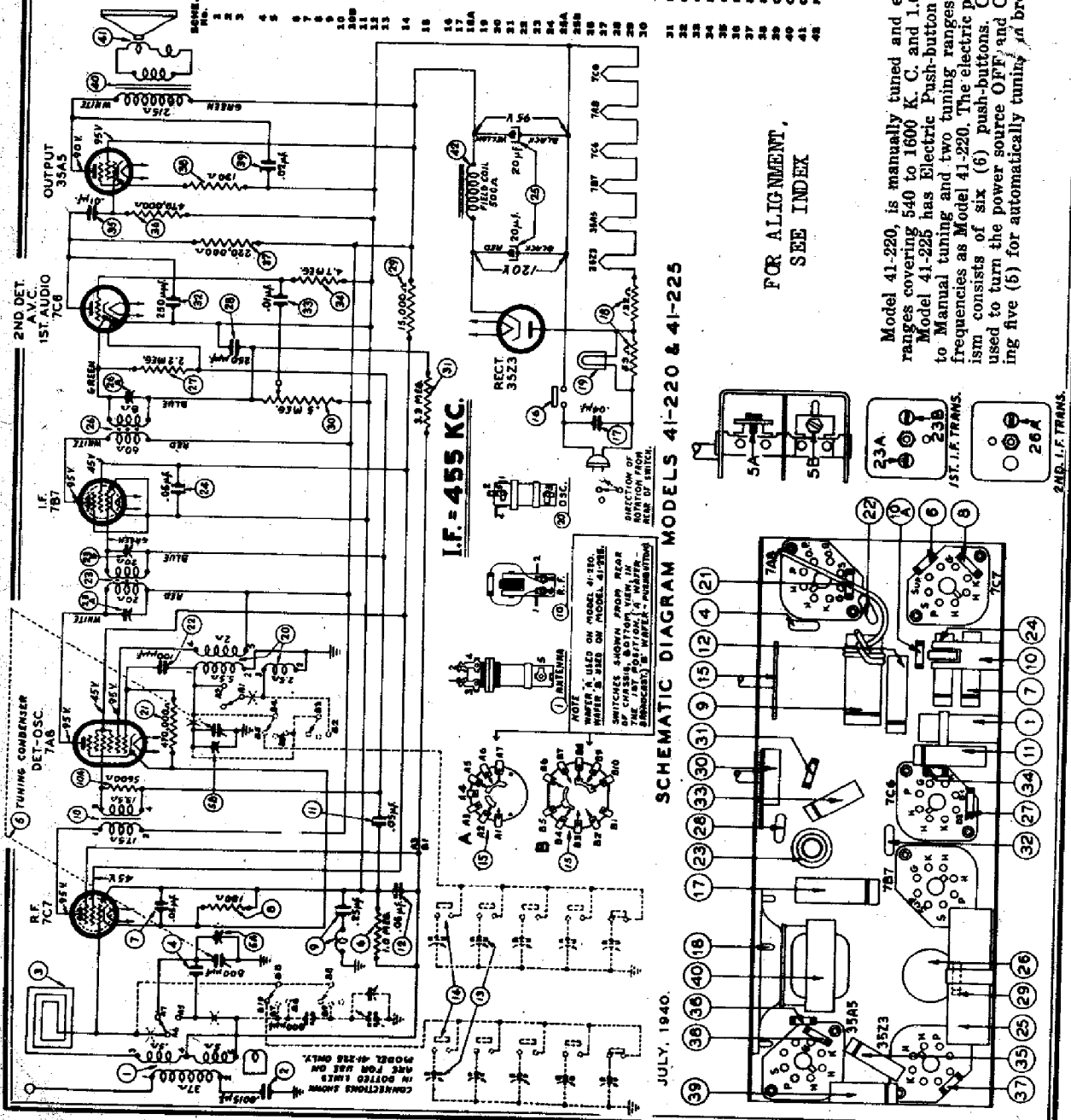
PHILCO RADIO & TELEVISION CORP.

SCHEM. No.	DESCRIPTION	PART No.
1	Aerial Transformer	32-3404
2	Condenser (.0015 mfd., 200 volts)	30-4888
3	Loop Aerial (Model 41-220)	32-3521
4	Loop Aerial (Model 41-225)	32-3480
5	Mica Condenser (800 mmfd.)	60-110137
6	Tuning Condenser (Model 41-220)	31-2692
7	Tuning Condenser (Model 41-225)	31-2693
8	Resistor (1 megohm)	33-510338
9	Resistor (.05 mfd., 200 volts)	30-4819
10	Resistor (125 ohms)	33-118336
11	Condenser (.25 mfd.) and Choke	32-3651
12	R. F. Transformer	32-3273
13B	Resistor (8500 ohms) Part of 13	30-4819
11	Condenser (.05 mfd., 200 volts)	30-4819
12	Condenser (.05 mfd., 200 volts)	30-4819
13	Compensator Assembly (Push-buttons)	31-3275
14	Push-button Station Assembly Model 41-220 Only	42-1891
15	Range Switch (Model 41-220)	42-1805
16	Off-On Switch (Model 41-225)	42-1890
17	Condenser (.04 mfd., 400 volts)	30-4119
18A	Resistor (33-132 ohms)	33-5375
19	Pilot Lamp	34-3068
20	Oscillator Transformer	32-3284
21	Resistor (47,000 ohms)	33-347339
22	Condenser (100 mmfd.)	60-110187
23	1st I. F. Transformer	32-3485
24	Condenser (.05 mfd.)	30-4819
24A	Electrolytic Cond. (20 mfd., 20 mfd.)	30-2403
24B	Electrolytic Cond. (20 mfd., Part of 24A)	
25	2nd I. F. Transformer	32-3304
27	Resistor (2.2 megohms)	33-522154
28	Mica Condenser (250 mmfd.)	60-125157
29	Resistor (10,000 ohms)	33-510330
30	Volume Control (Model 41-220)	33-2404
	Volume Control (Model 41-225)	33-2411
31	Resistor (3.3 megohm)	33-533339
32	Condenser (100 mfd.)	41-0033
33	Condenser (.01 mfd., 200 volts)	30-4079
34	Resistor (4.7 megohms)	33-547154
35	Condenser (.01 mfd., 400 volts)	30-4078
36	Resistor (470,000 ohms)	33-447339
37	Resistor (220,000 ohms)	33-422339
38	Resistor (130 ohms)	33-113338
39	Condenser (.02 mfd., 400 volts)	30-4815
40	Output Transformer	32-3144
41	Cone Assembly (for Speaker 36-1512-6)	36-4167
42	Field Coil (Replace Speaker 36-1512)	

Model 41-220, is manually tuned and employs two tuning ranges covering 540 to 1600 K. C. and 1.6 to 3.3 M. C.

Model 41-225 has Electric Push-button tuning in addition to Manual tuning and two tuning ranges covering the same frequencies as Model 41-220. The electric push-button mechanism consists of six (6) push-buttons. One push-button is used to turn the power source OFF and ON and the remaining five (5) for automatically tuning broadcasting stations.

FOR ALIGNMENT, SEE INDEX



PHILCO RADIO & TELEVISION CORP.

MODELS 41-220, 41-225
MODEL 41-RP6

Model 41-RP-6 is a remote type record player which can be used in conjunction with any standard broadcast radio to reproduce phonograph records.

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

POWER CONSUMPTION: 30 watts.

This model may be also operated on a 115 volts, 50 cycle power supply by changing the motor as indicated in the parts list.

PHILCO TUBES USED: 6A7, Oscillator; 84, Rectifier.

OPERATION

Place record on turntable and slide "Off-On Switch" (Figure 1) to "On" position; this will be indicated by pilot light in tone arm.

After allowing sufficient time for tubes to warm up, place tone arm on record; this automatically starts motor.

Tune the radio to approximately 540 KC. (54 on most dials) at which setting the phonograph signal will be picked up. Volume can be regulated by the radio receiver's volume control in the normal way.

At the end of the record, return the tone arm to rest position which will automatically turn motor off. It is not necessary to slide "Off-On" Switch to the "OFF" position between records.

OPERATION VERY CLOSE TO THE RECEIVER: A range switch will be found on the lower side of the drawer. (See Figure 2). If the player is installed very close to the receiver, slide this switch to the "near" position for best tone quality. When the player is more than a short distance from the receiver, with the switch in the "near" position, the noise in the receiver will be louder than the music from the record. In this case, leave the range switch in the "distant" position. After the best position for the range switch is determined, it is not necessary to change it as long as the player and receiver are not moved. Note after changing position of switch it is advisable to either retune the record player or the radio.

INTERFERENCE

If interference from broadcasting stations is encountered, the frequency of the unit can be changed to any other frequency between 530 KC. and 570 KC. by removing snap button and adjusting small screw indicated in Diagram "A". This adjustment is best made while the unit is in operation.

If hum is experienced it may be necessary to reverse the power plug of the record player, the radio, or both. In most cases it is preferable to use different receptacles for record player and radio.

No definite rule can be established for the relative location of the record player to your radio; individual trial will establish best location. However, in general, satisfactory operation may be obtained up to a comfortable listening distance, provided local noise conditions are not too severe.

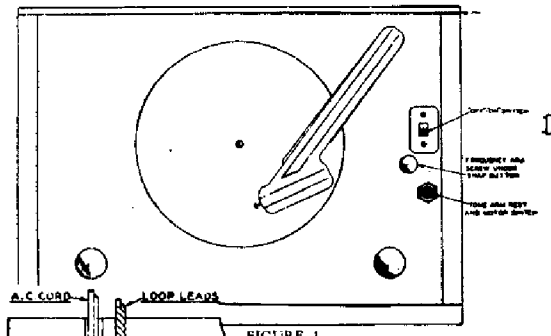
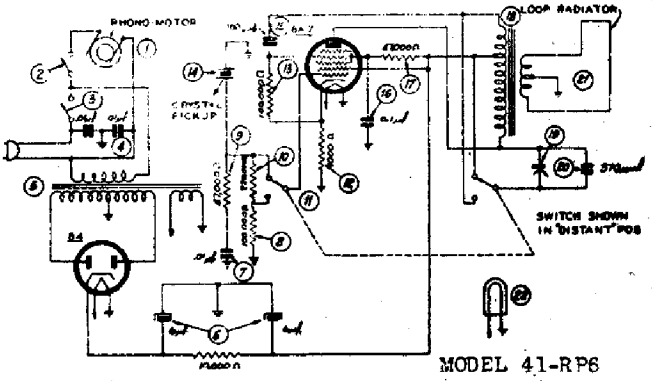


FIGURE 2



MODEL 41-RP6

Schem. No.	Description	Part No.
①	Phono-motor (115 volts, 60 cycles)	35-1240
	Screw (Mtg.)	W-89
	Turntable	35-3017
②	Motor Switch	42-1651
③	Master "On-Off" Power Switch	42-1502-2
④	Line Filter Condenser (.01-.01 mfd.)	3003-DG
⑤	Power Transformer (115 volts, 60 cycle)	32-8043
⑥	Electrolytic Condenser (6-6 mfd.)	30-2388
	Clamp	56-1346
⑦	Condenser (.01 mfd.)	30-4572
⑧	Resistor (100,000 ohms)	33-410339
⑨	Resistor (47,000 ohms)	33-347339
⑩	Resistor (220,000 ohms)	33-422339
⑪	Range Switch	42-1657
⑫	Resistor (1,000 ohms)	33-210339
⑬	Resistor (100,600 ohms)	33-410339
⑭	Crystal Pickup (Complete)	35-2476
	Bumper (Pickup Arm)	54-4070
⑮	Condenser (100 mmfd.)	60-110157
⑯	Condenser (.1 mfd.)	30-1455

Schem. No.	Description	Part No.
⑰	Resistor (47,000 ohms)	33-347339
⑱	Coupling Transformer	32-3046
	Clip Mtg.	29-5002
⑲	Compensator	31-0268
⑳	Silver Mica Condenser (370 mmfd.)	30-1110
㉑	Loop Aerial .....Consists of short piece of wire	
㉒	Pilot Lamp	34-2004
	Cabinet	10534A
	Screw (Chassis Mtg.)	W-218
	Washer (Chassis Mtg.)	W-751
	Bottom Cover	27-9858
	Cable (Power)	L-2778
	Needle Kit	40-6452
	Screw (Chassis Mtg.)	W-218
	Socket (5-prong)	27-0035
	Socket (7-prong)	27-0037

When aligning the R. F. padders a loop is made from a few turns of wire and connected to the signal generator output terminals; the signal generator is then placed close to the loop of the radio.

The receiver can be adjusted in the cabinet or removed from the cabinet.

When adjusting the radio outside the cabinet the loop aerial should be placed in approximately the same position around or near the chassis as when assembled.

MODELS 41-220, 41-225

Operations in Order	SIGNAL GENERATOR		RECEIVER			SPECIAL INSTRUCTIONS
	Output Connections to Receiver	Dial Setting	Dial Setting	Control Setting	Adjust Compensators in Order	
1	Ant. Section of Tuning Cond.	455 K. C.	540 K. C. Tuning Cond. Closed	Vol. Max. Range Switch "Brdcst"	26A, 23B, 23A	
2	Loop—See above Instructions	1600 K. C.	1600 K. C.	Vol. Max. Range Switch "Brdcst"	5B Tuning Condenser	Note A
3	Loop—See above Instructions	1500 K. C.	1500 K. C.	Vol. Max. Range Switch "Brdcst"	5A Tuning Condenser	

NOTE A — DIAL CALIBRATION: In order to adjust the receiver correctly, the dial must be aligned to track properly with the tuning condenser. To do this, proceed as follows: Turn the tuning condenser to the maximum capacity position (plates fully meshed). With the condenser in this position, set the tuning pointer on the extreme left index line at the low frequency end of the broadcast scale.