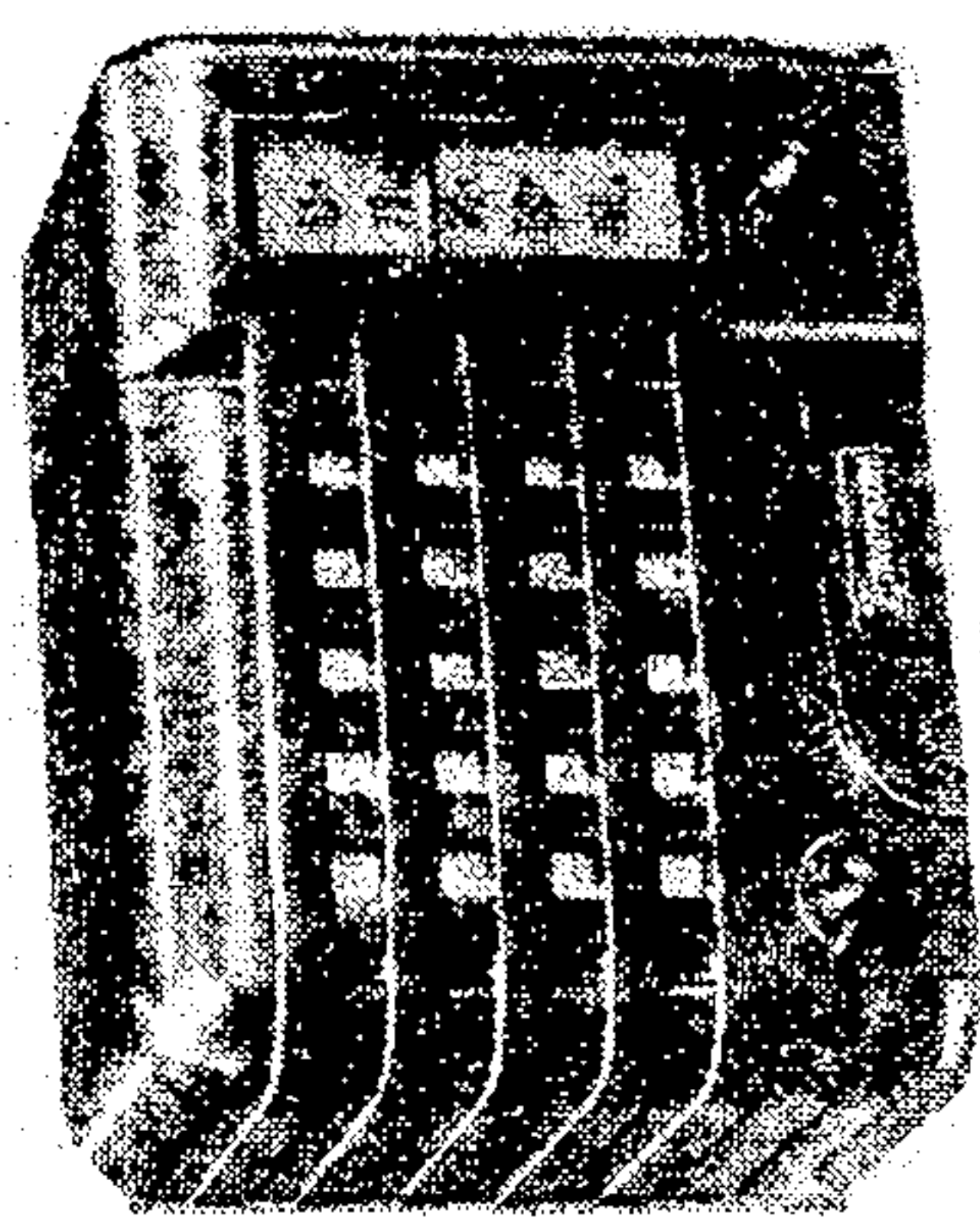
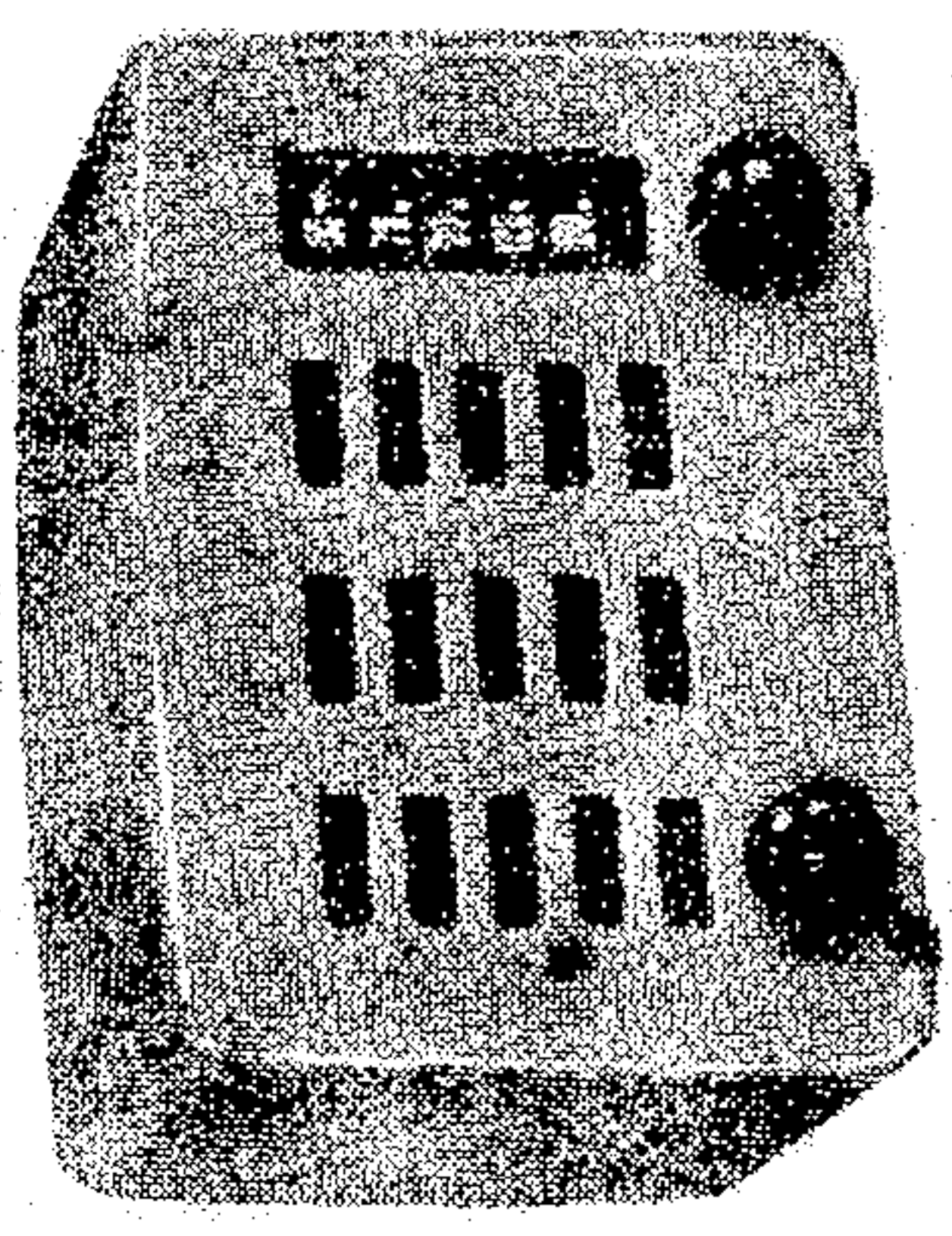


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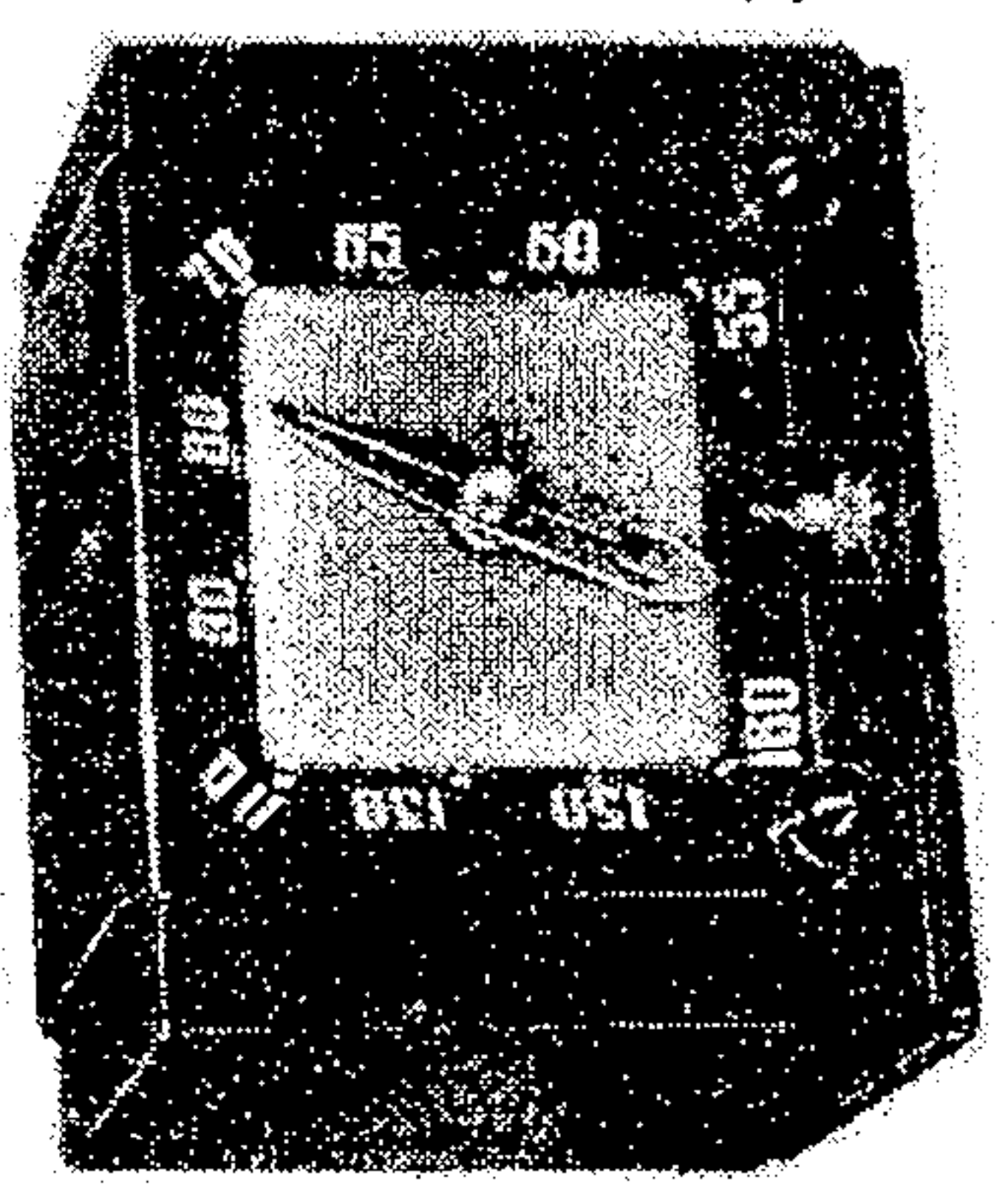
EMERSON RADIO AND PHONO. CORP. MODELS 540, 564, 572 CHASSIS 120042, 120027, 120065



MODEL 540

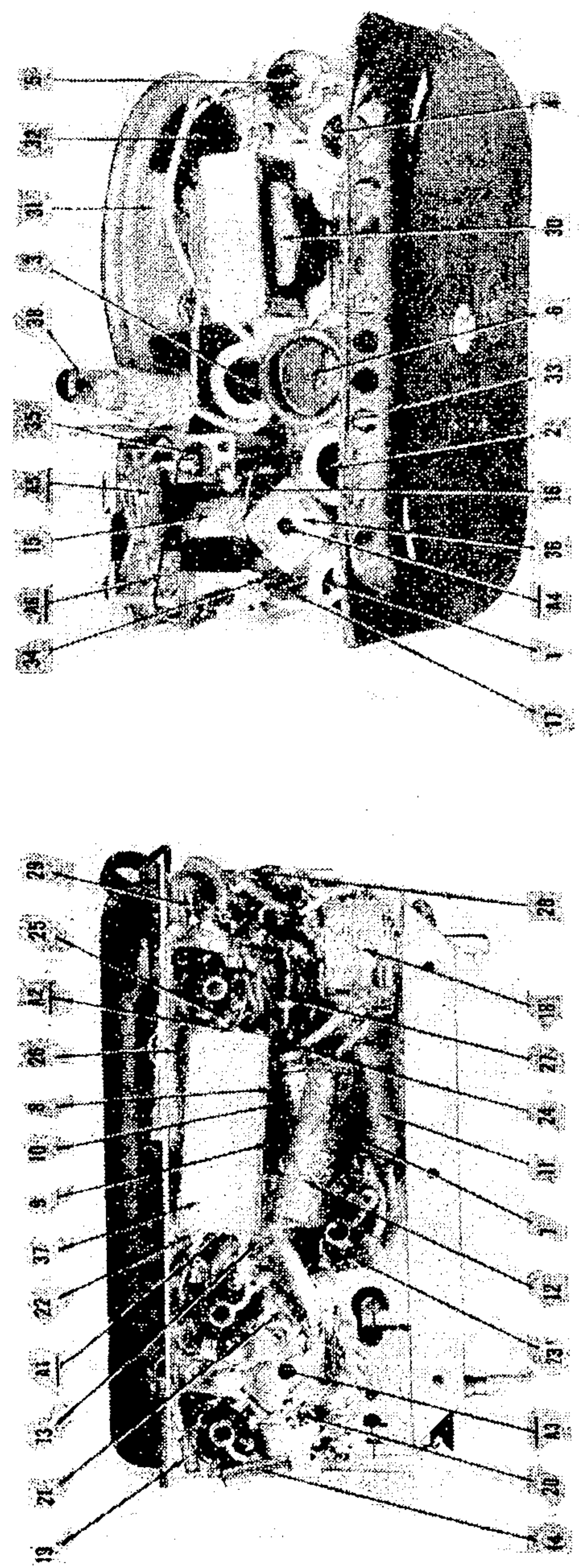
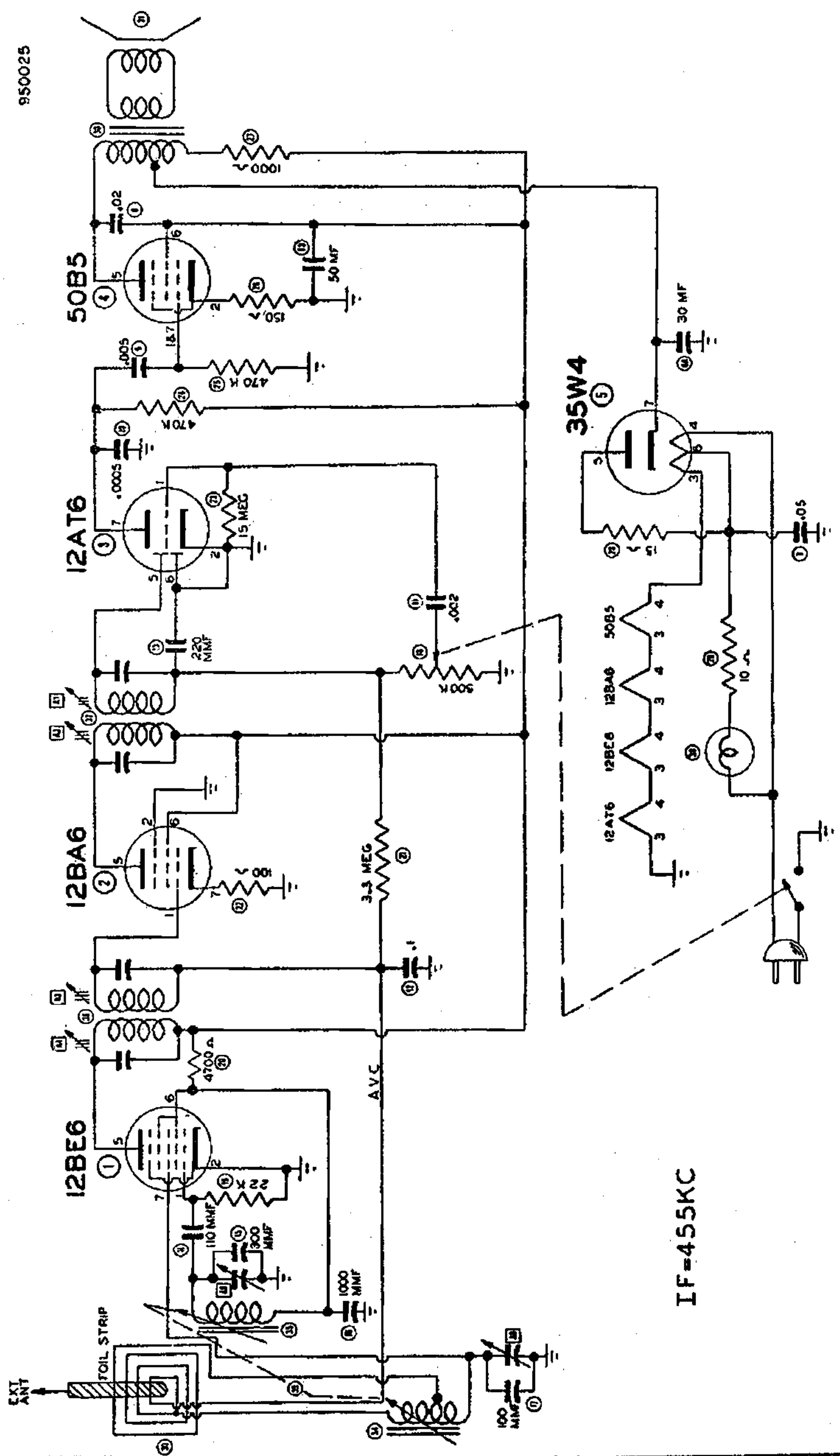


MODEL 564



MODEL 572

950025



MODELS 540,
564, 572

EMERSON RADIO AND PHONO. CORP.

ALIGNMENT

To set pointer on Models 540 and 564, turn tuning slugs completely in and set pointer to top reference dot on right side of dial backplate. On Model 572 set pointer in extreme clockwise position. Use isolation transformer if available. If not, connect a condenser in series with low side of signal generator and chassis. Volume control should be at maximum position; output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	0.1 mfd.	High side to pin 7 (grid) of 12BE6. Low side to B—.	455 kc	Tuning slugs completely out.	Across voice coil.	A1, A2, A3, A4	Adjust for maximum output. If isolation transformer is not used, reduce dummy antenna to 0.001 mfd. to reduce hum modulation.
2	200 mmfd.	High side to external antenna lead. Low side to chassis.	1600 kc for Models 540 and 564. 1620 kc for Model 572	Bottom reference dot at right side of dial backplate for Models 540 and 564. Tuning slugs completely out on Model 572.	Across voice coil.	A5, A6	Adjust for maximum output.
3	200 mmfd.	High side to external antenna lead. Low side to chassis.	1400 kc	Tune for maximum output.	Across voice coil.	Antenna coil (34)	Loosen screws on bracket of antenna coil (34). Adjust position of coil for maximum output. Tighten screws.

VOLTAGE READINGS

SYMBOL	TUBE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7
1	12BE6	-4.3 DC	0	12 AC	24 AC	100 DC	77 DC	-0.1 DC
2	12BA6	-0.1 DC	0	24 AC	35 AC	100 DC	100 DC	1.3 DC
3	12AT6	-0.7 DC	0	0	12 AC	-0.5 DC	0	57 DC
4	50B5	0	6.2 DC	35 AC	85 AC	115 DC	100 DC	0
5	35W4	122 DC	115 AC	85 AC	117 AC	110 DC	110 AC	122 DC

RESISTANCE READINGS

SYMBOL	TUBE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7
1	12BE6	20,000	0	11	22	40,000	45,000	3.5 meg.
2	12BA6	3.5 meg.	0	22	32	40,000	40,000	100
3	12AT6	15 meg.	0	0	11	500,000	0	500,000
4	50B5	450,000	125,000	32	75	40,000	40,000	450,000
5	35W4	40,000	100,000	75	102	110	97	40,000

VOLTAGE AND RESISTANCE READING INSTRUCTIONS

- Voltage readings are in volts and resistance readings in ohms unless otherwise specified.
- D-C voltage measurements are at 20,000 ohms per volt; a-c voltages measured at 1,000 ohms per volt.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative.
- Line voltage maintained at 117 volts for voltage readings.
- Nominal tolerance on component values makes possible a variation of $\pm 10\%$ in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.

GENERAL NOTES

- If replacements are made or the wiring disturbed in the r-f section of the circuit, the receiver should be carefully realigned.
- In operating the receiver on d.c., it may be necessary to reverse the line plug for correct polarity.
- The color coding of the i-f transformer leads is as follows:

Grid—green	Plate—blue
Grid return—black	B+—red

DESCRIPTION

TYPE: Single-band superheterodyne.

FREQUENCY RANGE: 540-1620 kc.

TYPE OF TUBES:

- 1—12BE6, pentagrid oscillator-modulator
- 1—12BA6, first i-f amplifier
- 1—12AT6, diode detector, a-f amplifier, a.v.c.
- 1—50B5, beam power output
- 1—35W4, half-wave rectifier

POWER SUPPLY: A.C. or D.C.

VOLTAGE RATING: 105-125 volts.

POWER CONSUMPTION: 30 watts.

CURRENT DRAIN: 0.24 amp. at 117 volts a.c.

EMERSON RADIO AND PHONO. CORP.

MODELS 540,
564, 572

REPLACEMENT PARTS LIST

Symbol	Part No.	DESCRIPTION	Symbol	Part No.	DESCRIPTION
1	12BE6	Tube, converter	23	397000	15 meg., 1/2 watt resistor (a-f grid load)
2	12BA6	Tube, i-f amplifier	24	351130	470,000 ohms, 1/2 watt resistor (a-f plate load)
3	12AT6	Tube, detector, a-f amplifier, a.v.c.	25	351130	470,000 ohms, 1/2 watt resistor (output grid load)
4	50B5	Tube, power output	26	340290	150 ohms, 1/2 watt resistor (output cathode bias)
5	35W4	Tube, rectifier	27	370490	1000 ohms, 1 watt resistor (filter)
6A, 6B	925068	30-50 mfd., 150 volt electrolytic condenser (filter)	28	340050	15 ohms, 1/2 watt resistor (rectifier ballast)
7	920030	0.05 mfd., 400 volt condenser (line bypass) (alternate part 920539)	29	340010	10 ohms, 1/2 watt resistor (series pilot light)
8	920020	0.02 mfd., 400 volt condenser (output plate bypass) (alternate part 920540)	30	734006	Output transformer
9	920180	0.005 mfd., 400 volt condenser audio coupling) (alternate part 920536)	31	180018	Speaker, 4" P.M. (alternate part 180036)
10	920240	0.0005 mfd., 600 volt condenser (audio plate bypass)	*32		Speaker cone, part of speaker
11	920010	0.002 mfd., 600 volt condenser (audio coupling) (alternate part 920537)	33	700235	Loop antenna and rear cover (Model 540)
12	920040	0.1 mfd., 200 volt condenser (a.v.c. filter) (alternate part 920538)	33	700013	Loop antenna and rear cover (Model 564)
13	910000	220 mmfd., 500 volt mica condenser (diode filter)	33	700022	Loop antenna and rear cover (Model 572)
14	910010	110 mmfd., 500 volt mica condenser (oscillator grid coupling)	*34		Antenna coil, part of tuner assembly
15	910007	300 mmfd., 500 volt mica condenser fixed trimmer) (alternate part 910015)	*35		Oscillator coil, part of tuner assembly
16	910180	1000 mmfd., 300 volt mica condenser (oscillator feedback)	36	720527	First i-f transformer (455 kc) (Model 540), or
17	910008	80 mmfd., 500 volt mica condenser (fixed trimmer) (alternate ceramic condenser 928005)	36	720033	First i-f transformer (Models 564, 572), or
18	390381	Volume control and line switch, 0.5 meg. (Model 540)	36	720053	First i-f transformer (Models 540, 564, 572)
18	390029	Volume control and line switch, 0.5 meg. (Models 564, 572)	37	720527	Second i-f transformer (455 kc) (Model 540), or
19	340810	22,000 ohms, 1/2 watt resistor (oscillator grid)	37	720033	Second i-f transformer (Models 564, 572), or
20	340650	4,700 ohms, 1/2 watt resistor (converter screen dropping)	37	720053	Second i-f transformer (Models 540, 564, 572)
21	351330	3.3 meg., 1/2 watt resistor (a.v.c. network)	38	807000	Dial light, type 47
22	340250	100 ohms, 1/2 watt resistor (i-f cathode bias)	39	708147	Complete tuner assembly, includes items 34 and 35
				507214	Pilot light socket (Models 540, 564)
				507007	Pilot light socket (Model 572)
				583090	Line cord

CABINET AND DIAL PARTS

140078	Cabinet, walnut (Model 540)	525207	Dial pointer (Models 540, 564)
140075	Cabinet, ivory (Model 540)	525026	Dial Pointer (Model 572)
140076	Cabinet, red (Model 540)	470319	Pointer shaft and pulley assembly (Model 572)
140077	Cabinet, green (Model 540)	520053	Dial backplate (Model 564 green onyx)
140115	Cabinet, black (Model 540)	520511	Dial backplate (Model 540 and Model 564 red and ebony)
140121	Cabinet, green onyx (Model 564)	280509	Drive shaft
140139	Cabinet, red mottled (Model 564)	460001	Knob, black (Models 540, 572)
140140	Cabinet, ebony (Model 564)	450015	Knob, brown (Model 564)
140123	Cabinet, ivory (Model 572)	450016	Knob, red (Model 564)
140158	Cabinet, ebony (Model 572)	450017	Knob, black (Model 564)
140169	Cabinet, black and white mottled (Model 572)	410268	Metal grille, gold (Model 572)
520004	Dial crystal (Model 540)	635001	Jewel indicator (Model 572)
520051	Dial crystal (Model 564 green onyx)		
520055	Dial crystal (Model 564 red and ebony)		

† Specify part numbers when ordering.

* Not supplied separately.

