

HOW TO OPERATE RECORD PLAYER

If your record player has an automatic record changer, be sure to read the instructions packed with the changer before attempting to operate the unit.

If your record player is manually operated be sure that you select the proper speed for the record you are playing i.e., 33, 45, or 78 RPM. Also be certain that the cartridge in the phono pickup arm is in the proper position for the record you are playing. This is accomplished by rotating the small lever on the end of the arm in the direction of the arrow so that the proper speed appears on the lever.

When using 45 RPM records, it will be necessary to use a center hole adapter to make certain that the record is centered on the spindle. When using 45 RPM records on the record changer the center hole adapters should be of the type which locks into the center hole of the record.

INSTALLATION & OPERATION

LOCATION:

To place the unit in operation it should be resting firmly on a level surface. Do not place it near a heater or radiator since this may damage the cabinet.

POWER SUPPLY:

This phonograph is designed for operation on 105 - 125 volts 60 cycle alternating current (AC) only. Never connect to a supply having a frequency or voltage different than that specified. If in doubt check with your local electric power company.

OPERATION:

Connect supply cord to outlet and rotate "on-off tone" knob clockwise. Allow approximately one minute for unit to warm up. Place records on changer or turntable according to instructions above. Rotate "motor-volume" knob clockwise to turn on turntable motor. Adjust tone and volume as desired.

NORMAL CARE & MAINTENANCE

NEEDLES:

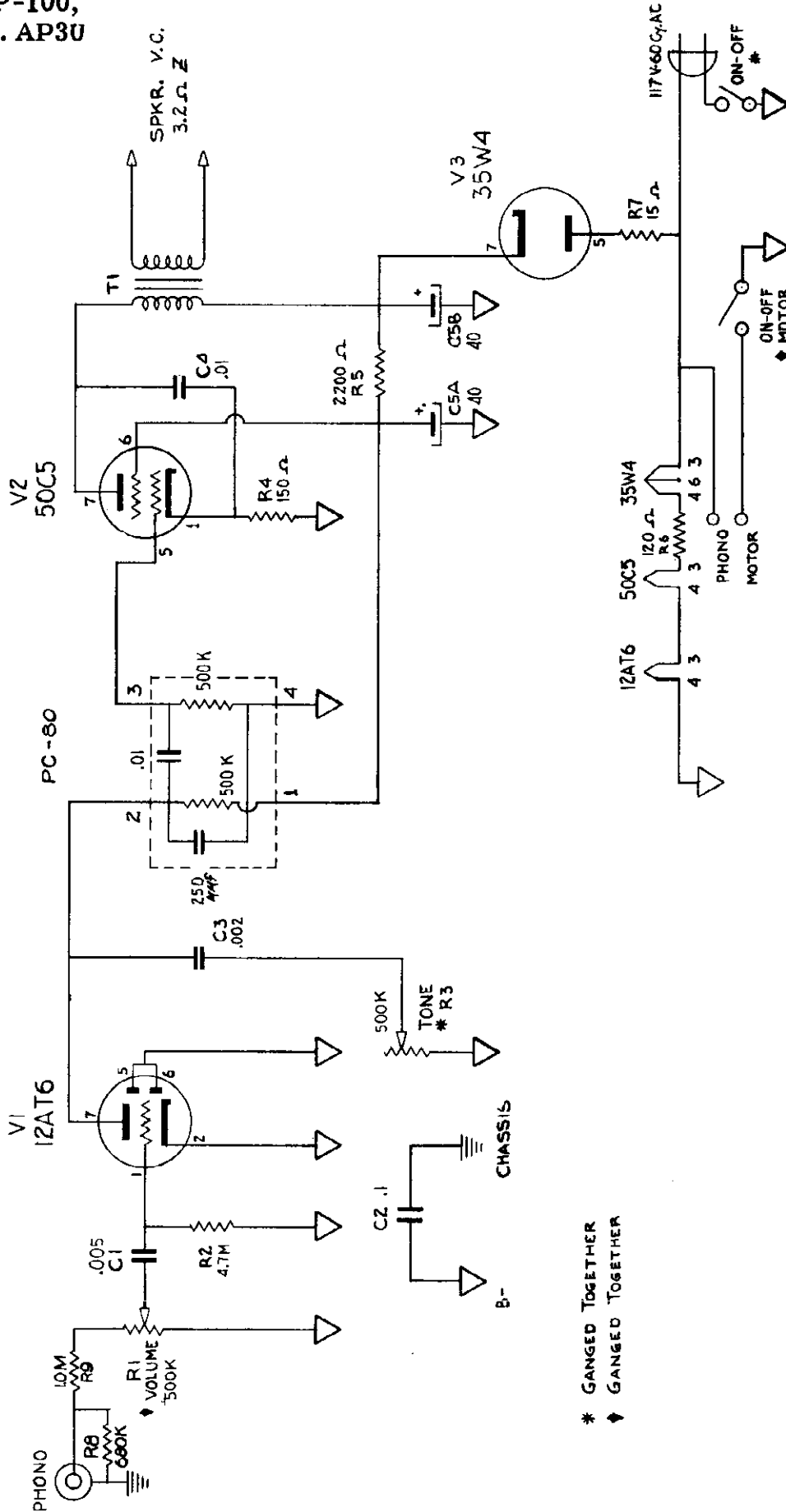
This unit is equipped with a semi-permanent needle which should last several years with normal care and use. If records seem excessively noisy and the needle is suspected of being defective it should be checked and replaced if necessary by a service man. Never allow needle to come in contact with turntable as this will ruin the needle.

TUBES:

Tubes should be checked about once a year and defective or weak tubes should be replaced.

If unit fails to operate check power cord to see that it is making good contact in receptacle. Carefully re-read the instructions to be sure that you are operating the unit correctly. Have the tubes checked.

MODELS JP-100,
JP-300, Ch. AP3U



* GANGED TOGETHER
 † GANGED TOGETHER

K = 1000 OHMS
 M = 1,000,000 OHMS
 ALL CAPACITORS IN MFD UNLESS
 OTHERWISE NOTED.

VOLTAGE CHART

PIN	1	2	3	4	5	6	7
12AT6	-0.8	0	0	12AC	0	0	42
50C5	7.0	0	62AC	12AC	0	110	116
35W4	0	0	115AC	78AC	114AC	0	116

- NOTES: 1. MEASURED WITH VTVM FROM INDICATED PIN TO B- LINE.
 2. LINE VOLTAGE SET AT 115V 60~AC.
 3. VOLTAGE MAY VARY CONSIDERABLY DUE TO VARIATIONS IN LINE VOLTAGES AND COMPONENTS.

CAPACITORS

REF. NO.	PART NO.	DESCRIPTION
C ₁	CWZ06502M	.005 mfd. - 600V paper
C ₂	CWZ04104M	.1 mfd - 400V paper
C ₃	CWZ06202M	.002 mfd - 600V paper
C ₄	CWZ06103M	.01 mfd - 600V paper
C ₅ A, B	CED4415	40-40 mfd - 150V electrolytic

RESISTORS

REF. NO.	PART NO.	DESCRIPTION
R ₁	RVC301S	500K audio volume control with switch
R ₂	RCC475M	4.7M ±20% — 1/2 Watt
R ₃	RVC301S	500K tone control
R ₄	RCC151M	150 ohms ±20% — 1/2 Watt
R ₅	RCF222M	2200 ohms ±20% — 1 Watt
R ₆	RLJ121K	120 ohms ±10% — 5 Watts wire wound
R ₇	RCC150M	15 ohms ±20% — 1/2 Watt
R ₈	RCC684M	680K ±20% — 1/2 Watt
R ₉	RCC105M	1.0M ±20% — 1/2 Watt

MISCELLANEOUS

PC-80	A-1376-6F	Couplate
TI	A-1658-13	Audio output transformer 2500 ohms to 3,2 ohms
.....	C-2502-14	Crystal Pickup
.....	B-4602-15	5" PM Speaker
.....	C-2501-14	3 Speed phono motor

HOW TO ORDER REPAIR PARTS

Always give the part No. (No. printed on the part if different from that shown on this list), and the name the part. When No. is not available, give complete description of part. Be sure to always give the Model No Chassis No. The Model No. will be found on a printed label which will be found at the back of the cabinet. Chassis number is stamped on the amplifier chassis inside the unit.

MODELS JP-200,
JP-400, Ch. AP5U

HOW TO OPERATE THE RADIO:

This radio is equipped with three controls, the right hand control is the combined off-on switch and volume control. The left hand control is the phono-radio switch, the center control is used for tuning the desired station. To place the set in operation, rotate on-off volume control knob to right and allow 30 seconds for set to warm up. Rotate tuning control to desired station. Adjust volume control to desired volume. To use phonograph follow above steps, except turn phono-radio switch, to phono position. Place records on changer in sequence desired, push reject button, and allow changer to cycle.

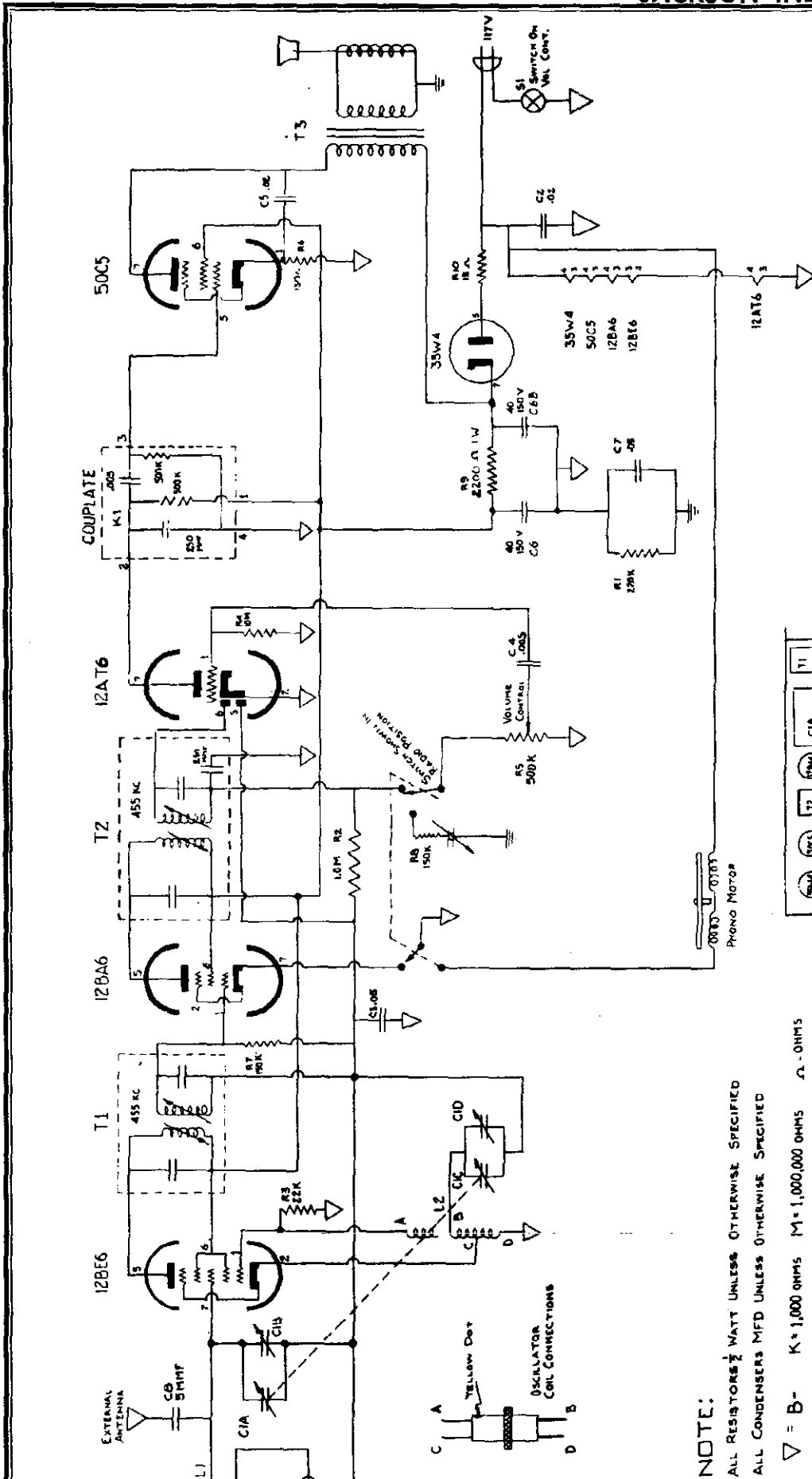
ALIGNMENT PROCEDURE

Feed a 455 K.C. modulated signal from grid (pin No. 7 12BE6 through a .01 M.F.D. condenser) and B-. Connect an output meter across the voice coil. Tune slugs on first and second I.F. transformers for maximum indication on meter. Set signal generator to 1600 KC modulated signal and couple loosely to loop antenna. Set dial to 1600 K.C. and tune oscillator trimmer for maximum indication on meter.

Set signal generator and dial to 1400 K.C. and tune R.F. trimmer, for maximum indication on meter. Check tracking at 600 K.C., knife gang if necessary. Repeat these adjustments until the receiver tracks correctly.

HOW TO ORDER REPAIR PARTS

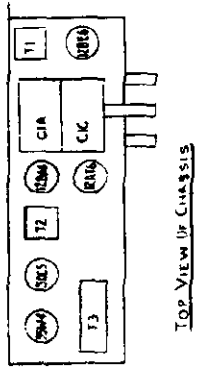
Always give the part No. (No. printed on the part if different from that shown on this list), and the name of the part. When No. is not available, give complete description of part. Be sure to always give the Model No. and Catalog No. The Model No. will be found on a printed label which will be found at the back of the cabinet.



NOTE:
ALL RESISTORS 1/2 WATT UNLESS OTHERWISE SPECIFIED
ALL CONDENSERS MFD UNLESS OTHERWISE SPECIFIED

▽ = B- K = 1,000 OHMS M = 1,000,000 OHMS Ω = OHMS

☐ = CHASSIS



MODELS JP-200,
JP-400, Ch. AP3U

VOLTAGE CHART

PIN	#1	#2	#3	#4	#5	#6	#7
12BE6	-7.5	0	12AC	23AC	90	90	0
12BA6	-0.8	0	23AC	35AC	90	90	0
12AT6	-0.8	0	0	12AC	-0.8	-0.5	45
50C5	6	0	35AC	83AC	0	90	120
35W4	0	0	83AC	117AC	115AC	0	130

NOTES:

1. Measured with VTVM from indicated pin to B - line.
2. Phono-radio switch in radio position.
3. Line voltage set at 117V 60~AC.
4. Voltage s may vary considerably due to variations in line voltage and components.

CAPACITORS

REF. NO.	PART NO.	DESCRIPTION
C ₁	A-1200-6	TUNING CAPACITOR
C ₂	CWZ 04203 M	.02 Mfd 400 volts
C ₃	CWZ 04503 M	.05 Mfd 400 volts
C ₄	CWZ 06502 M	.005 Mfd 600 volts
C ₅	CWZ 04203 M	.02 Mfd 400 volts
C ₆	CED-4415	DUAL 40 Mfd 150 volt electrolytic capacitor
C ₇	CWR-04503 M	.05 Mfd resonant
C ₈	CCC, 05050 M	5 Mmf ceramic or mica

RESISTORS

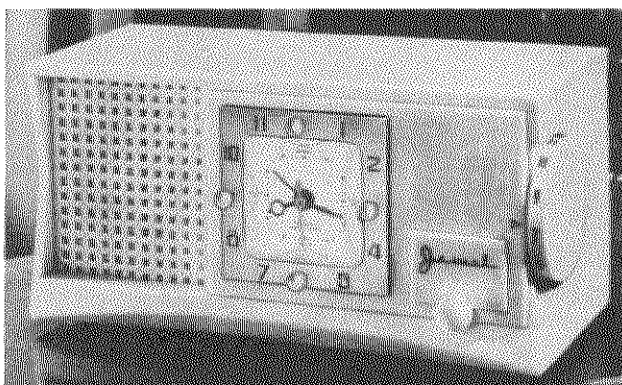
REF. NO.	PART NO.	DESCRIPTION
R ₁	RCC 224 M	220,000 ohms ± 20% ½ watt Resistor
R ₂	RCC 105 M	1.0 megohms ± 20% ½ watt Resistor
R ₃	RCC 223 M	22,000 ohms ± 20% ½ watt Resistor
R ₄	RCC 106 M	10 megohms ± 20% ½ watt Resistor
R ₅	RVC-301S	500,000 ohms volume control audio taper with switch
R ₆	RCC 151 M	150 ohms ± 20% ½ watt
R ₇	RCC 154 M	150,000 ohms ± 20% ½ watt
R ₈	RCC 154 M	150,000 ohms ± 20% ½ watt
R ₉	RCF 222 M	2,200 ohms ± 20% 1 watt
R ₁₀	RCC 150 M	15 ohms ± 20% ½ watt

COILS AND TRANSFORMERS

REF. NO.	PART NO.	DESCRIPTION
L ₁	A-1493-10	Loop Antenna
L ₂	A-1492-10	Oscillator Coil
T ₁	A-1490-10	Input IF Transformer
T ₂	A-1491-10	Output IF Transformer
T ₃	A-1656-13	Audio Output Transformer 2500~. to 3.2

MISCELLANEOUS

C-2500-14	Record changer - VM
A-1059-4	Control knob
A-1060-4	Pointer knob
100-84	Record Changer - Webster



• CHASSIS SPECIFICATIONS •

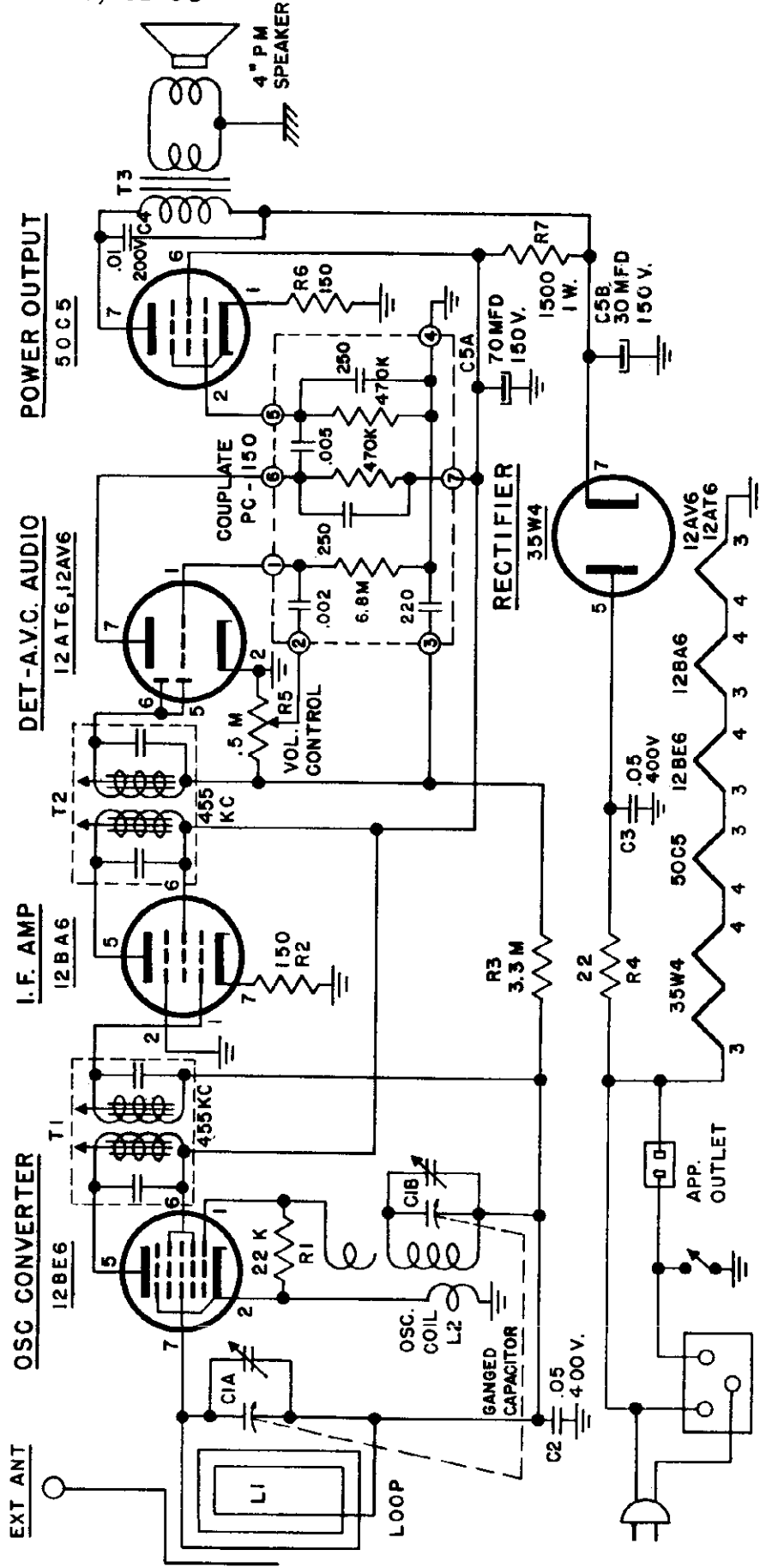
- Tuning Range: 540 Kc to 1650 KC
- 105 to 125 volts, 60 cycles A.C. only
50 cycles available on special order.
- Cabinet Size: Width, 11-1/16"
Height, 5 1/4"
Depth, 5 3/4"
- Tube complement:
 - 1—12BE6 Converter
 - 1—12BA6 I.F. Amplifier
 - 1—12AT6 Detector, first audio and A.V.C.
 - 1—50C5 Beam Power Output
 - 1—35W4 Rectifier
- Power Consumption: 30 watts

Alignment Procedure

Output meter across voice coil (3.2 ohm)
Volume control at maximum for all adjustments.
Align for maximum output. Reduce input as needed to keep output near 1.28 volts (0.5 watt).

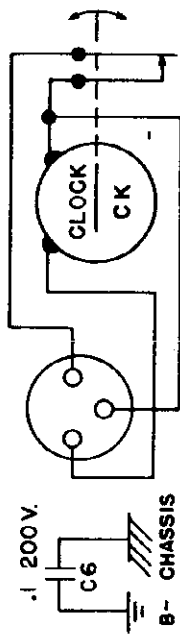
SIGNAL GENERATOR					
Fre- quency	Coupling Capacitor	Connection to Receiver	Ground Connection	Tuner Setting	Adjust trimmers to maximum out- put (in order shown)
455kc	0.1 mf	12BE6 grid	B-	Rotor fully open (plates out of mesh)	Primary & second- ary slugs of I. F. transformer
1650kc	0.1 mf	12BE6 grid	B-	Rotor fully open (plates out of mesh)	Osc. trimmer
1500kc		Radiating loop		1500kc	Antenna trimmer

MODELS 5125, 5125U



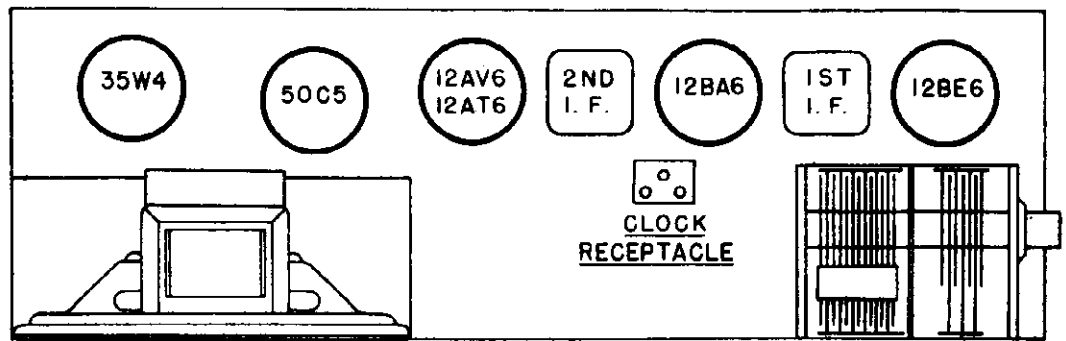
NOTES

- 1. ALL RESISTORS IN OHMS; K = 1,000; M = 1,000,000
- 2. UNLESS OTHERWISE NOTED:
 - A. ALL RESISTORS 1/2 WATT
 - B. CAPACITORS LESS THAN 1 IN MFD; CAPACITORS GREATER THAN 1 IN MMF

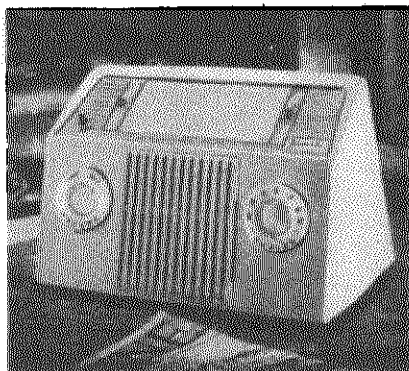


B - CHASSIS

Part No.	Description	Coils and Transformers	
Resistors		60-31	Oscillator coil
20-223-31	22K Ω 1/2w 20%	61-11	I. F. transformer
20-335-31	3.3M Ω 1/2w 20%	Miscellaneous	
20-151-31	150 Ω 1/2w 20%	80-36	Speaker 4"
20-152-41	1500 Ω 1w 20%	120-94	Cabinet
20-220-31	22 Ω 1/2w 20%	122-65	Selector knob
50-42	Volume cont. . 5M Ω SPST	122-69	Volume control knob
Capacitors		125-58	Back with loop
30-48	Variable	Tubes	
31-41	70/30mf 150V elect.	12BE6	
32-5	.05mf 400V paper tub.	12BA6	
32-30	.1mf 200V paper tub.	12AV6 or 12AT6	
32-29	.01mf 200V paper tub.	50C5	
36-5	Couplate	35W4	



MODELS 5205,
5205B, 5205E,
5205G, 5205I,
5205R, 5205W



• CHASSIS SPECIFICATIONS •

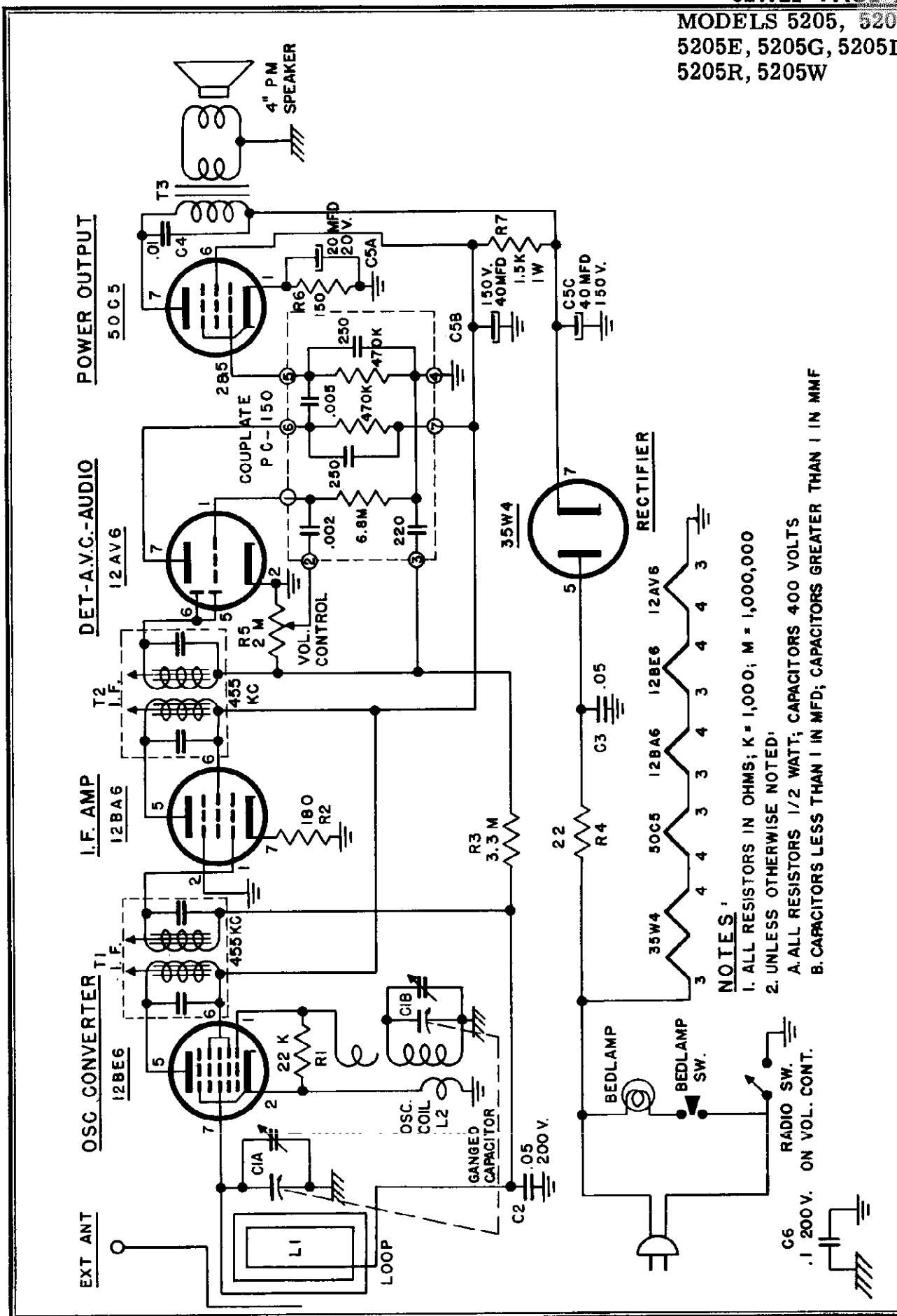
- ★ Superheterodyne circuit
- ★ A.C.-D.C. Operation
- ★ 105-125 Volts A.C. and same D.C.
- ★ Power Consumption: 30 Watts
- ★ 'Alnico' V P.M. Wonder Speaker . . . full tonal range
- ★ Tuning range: 540 K.C.—1650 K.C.
- ★ TUBE COMPLEMENT:
1—12BE6, 1—12BR6, 1—12AT6,
1—50C5, 1—35W4
- ★ Built-in "DURALOOP" antenna
- ★ Weight of set: 4 lbs.
- ★ Weight of carton: add 1½ lbs.
- ★ Size of cabinet: Width, 10¼"; Depth, 6⅞"
Height, 5⅝"
- ★ Model 5205E (Ebony)
Model 5205W (Walnut)
Model 5205I (Ivory)
Model 5205B (Boudoir Blue)
Model 5205R (Dusty Rose)
Model 5205G (Grey)

Alignment Procedure

Output meter across voice coil (3.2 ohm)
Volume control at maximum for all adjustments.
Align for maximum output. Reduce input as needed to keep output near 1.28 volts (0.5 watt).

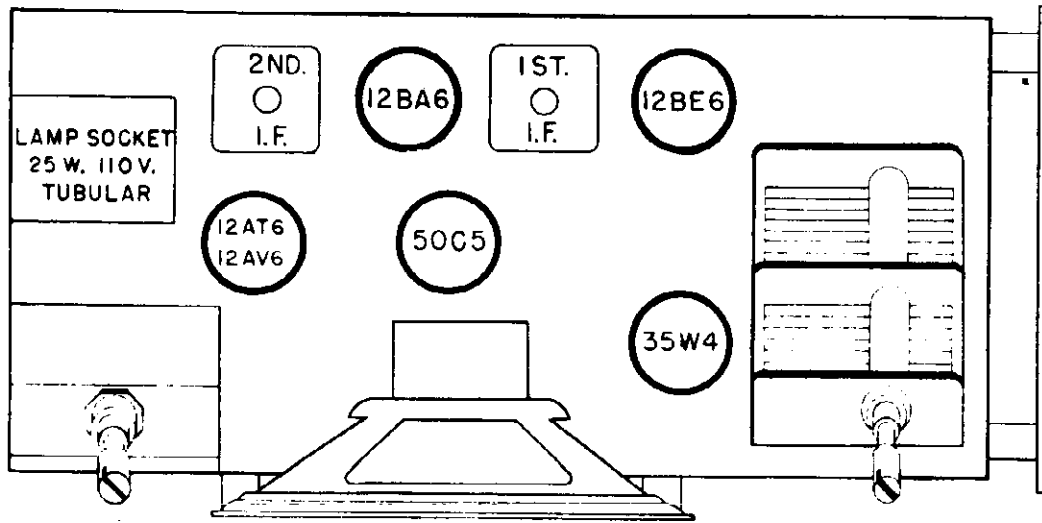
SIGNAL GENERATOR					
Fre- quency	Coupling Capacitor	Connection to Receiver	Ground Connection	Tuner Setting	Adjust trimmers to maximum out- put (in order shown)
455kc	0.1 mf	12BE6 grid	B-	Rotor fully open (plates out of mesh)	Primary & second- ary slugs of I. F. transformer
1650kc	0.1 mf	12BE6 grid	B-	Rotor fully open (plates out of mesh)	Osc. trimmer
1500kc		Radiating loop		1500kc	Antenna trimmer

MODELS 5205, 5205E, 5205G, 5205I, 5205R, 5205W



MODELS 5205, B,
E, G, I, R, W

Part No.	Description		
Resistors		Coils and Transformers	
20-220-31	22Ω 1/2w 20%	60-34	Oscillator coil
20-152-41	1500Ω 1w 20%	61-11	I. F. Transformer
20-151-31	150Ω 1/2w 20%		
20-181-31	180Ω 1/2w 20%		
20-223-31	22KΩ 1/2w 20%		
20-335-31	3.3MΩ 1/2w 20%		
50-37	Volume cont. -SPST Switch		
Capacitors		Miscellaneous	
30-41	420mmf-108mmf Variable	80-37	Speaker 4"
31-42	30mf 20V, 40mf-40mf 150V electrolytic	120-64H	Cabinet
32-55	.05mf 400V	122-51	Selector knob
32-29	001mf 200V, paper tubular	122-52	Volume knob
32-57	.1mf 400V		
32-4	.05mf 200V		
36-5	Couplate		
		Tubes	
		12BE6	
		12BA6	
		12AU6	
		50C5	
		35W4	



TUBE LAYOUT

S P E C I F I C A T I O N S

"WAKEMASTER" — MODEL 5250

1. Superheterodyne circuit
2. Built-in loop antenna
3. 5 tubes
4. 60 cycle operation—50 cycle movements available on special order
5. Self-starting clock — sweep second movement — upon pre-setting, automatically turns on radio
6. Molded all plastic cabinet in pure plastic colors: Ivory, Walnut, Ebony (also decorator colors)

Electrical Specifications

105-125 Volts AC 60 Cycles
 Maximum power output 1.4 watts
 Full A.V.C. for optimum quieting
 Hi-"Q" low loss antenna circuit for optimum sensitivity
 Full broadcast frequency coverage, 540 Kc to 1650 Kc
 Alnico V P.M. speaker—full tonal range

Tube Line-up and Functions

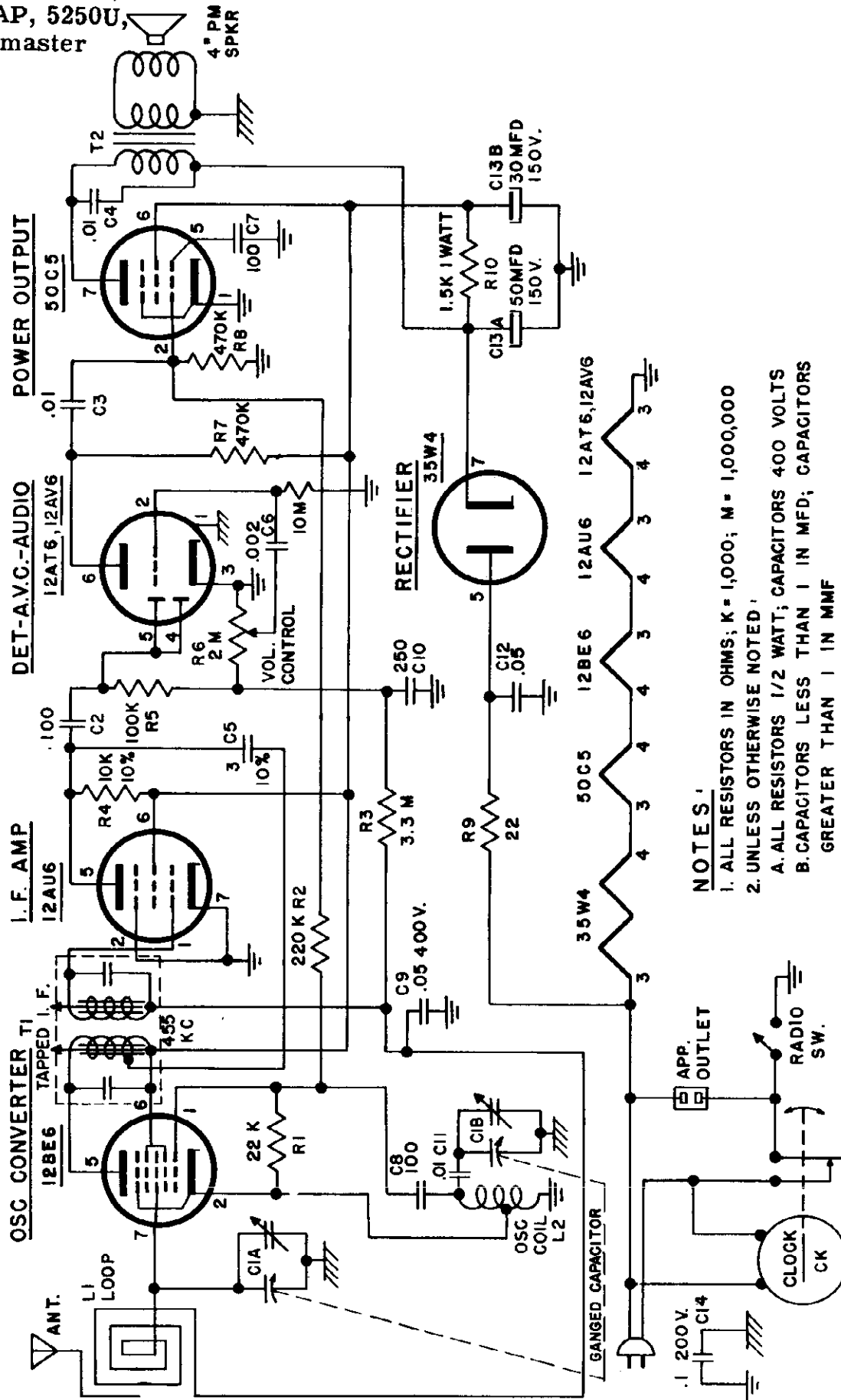
12BE6 Converter
 12AU6 I.F. Amplifier
 12AT6 (12AU6) Detector and first audio, A.V.C.
 50C5 Output
 35W4 Rectifier

Alignment Procedure

Output meter across voice coil (3.2 ohm)
 Volume control at maximum for all adjustments.
 Align for maximum output. Reduce input as needed to keep output near 1.28 volts (0.5 watt).

SIGNAL GENERATOR					
Fre- quency	Coupling Capacitor	Connection to Receiver	Ground Connection	Tuner Setting	Adjust trimmers to maximum out- put (in order shown)
455kc	0.1 mf	12BE6 grid	B-	Rotor fully open (plates out of mesh)	Primary & second- ary slugs of I. F. transformer
1650kc	0.1 mf	12BE6 grid	B-	Rotor fully open (plates out of mesh)	Osc. trimmer
1500kc		Radiating loop		1500kc	Antenna trimmer

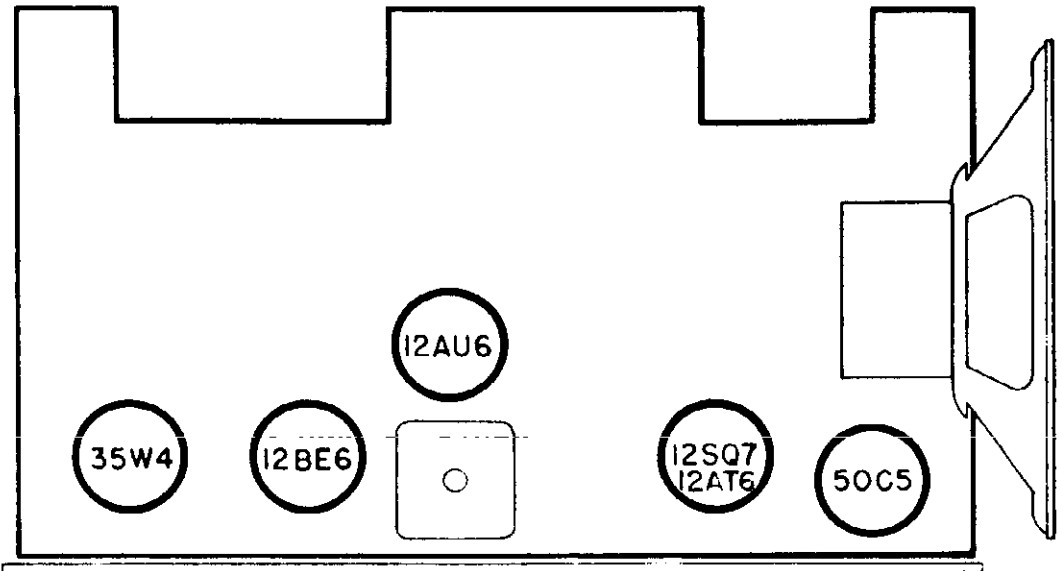
MODELS 5250,
5250AP, 5250U,
Wakemaster



NOTES:

1. ALL RESISTORS IN OHMS; K = 1,000; M = 1,000,000
2. UNLESS OTHERWISE NOTED:
 - A. ALL RESISTORS 1/2 WATT; CAPACITORS 400 VOLTS
 - B. CAPACITORS LESS THAN 1 IN MFD; CAPACITORS GREATER THAN 1 IN MMF
3. APP. OUTLET ON 5250UAP

Part No.	Description		
Resistors		35-32	3mmf 500V ceramic 10
		35-34	.002-500V disc cerami
		35-29	.01mf disc ceramic
20-103-32	10KΩ 1/2w 10%	Coils and Transformers	
20-104-31	100KΩ 1/2w 20%	60-27	Oscillator coil
20-106-31	10MΩ 1/2w 20%	6126	I. F. Transformer
20-220-31	22Ω 1/2w 20%	Miscellaneous	
20-223-31	22KΩ 1/2w 20%	65-11	Switch SPST
20-224-31	220KΩ 1/2w 20%	80-30B	Speaker 4"
20-335-31	3.3MΩ 1/2w 20%	120-62G	Cabinet
20-474-31	470KΩ 1/2w 20%	122-49	Selector knob
20-152-41	1.5KΩ 1w 20%	122-50	Volume knob
50-34D	Volume cont. 2MΩ	125-64	Back with loop
Capacitors		125-66	Back with loop
30-38A	Variable	Tubes	
31-39	50-30mf 150V elect.	12BE6	
32-4	005mf 200V paper tub.	12BF6	
32-5	.05mf 400V paper tub.	12AU6	
32-30	.1mf 200V, paper tub.	50C5	
35-1	250mmf 500V mica	35W4	
35-30	100mmf 500V ceramicon	12SQ7	
35-30	100mmf 500V ceramicon	12AT6	
35-29	.01mf disc ceramic		



TUBE LAYOUT

SPECIFICATIONS

JEWEL — MODEL 5200

1. Superheterodyne circuit
2. Full sweep dial
3. Built-in loop antenna
4. 5 tubes
5. A.C. - D.C. operation
6. Molded all plastic cabinet in pure plastic colors: Ivory, Walnut, Ebony and Chinese Red

Electrical Specifications

110-125 Volts AC 50-60 cycles
 110-125 Volts DC
 Maximum power output 1.4 watts
 Full A.V.C. for optimum quieting
 Bandwidth—9.5 Kc at 2 times down for optimum selectivity
 Hi-"Q" low loss antenna circuit for optimum sensitivity
 Full broadcast frequency coverage, 540 Kc to 1650 Kc
 Alnico No. 5 P.M. Speaker—full tonal range

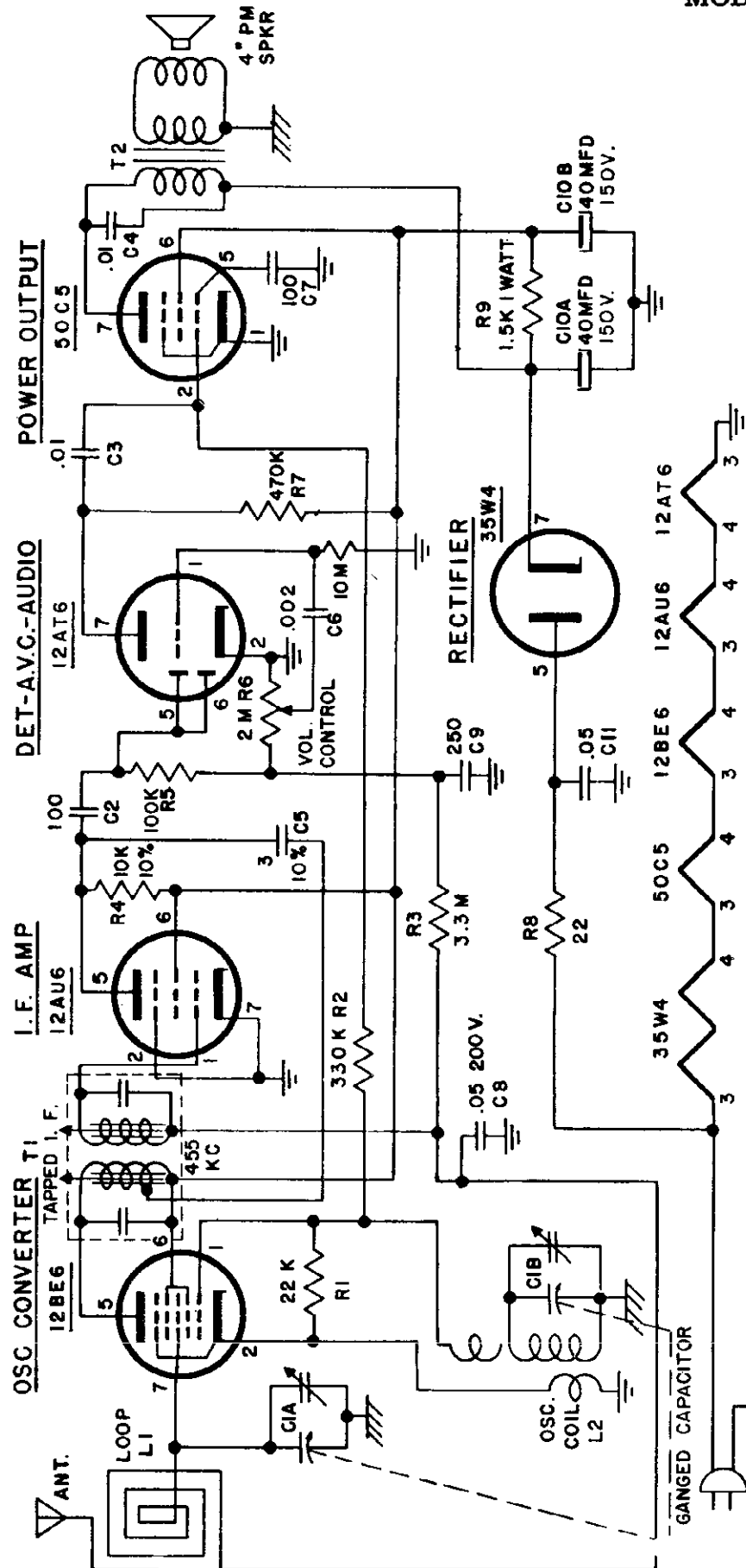
Tube Line-up and Functions

12BE6 Converter
 12AU6 I.F. Amplifier
 12AT6 or 12AV6 Detector and first audio, A.V.C.
 50C5 Output
 35W4 Rectifier

Alignment Procedure

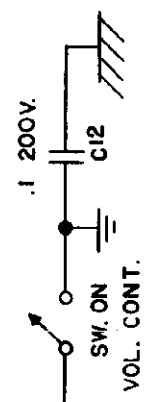
Output meter across voice coil (3.2 ohm)
 Volume control at maximum for all adjustments.
 Align for maximum output. Reduce input as needed to keep output near 1.28 volts (0.5 watt).

SIGNAL GENERATOR					
Fre- quency	Coupling Capacitor	Connection to Receiver	Ground Connection	Tuner Setting	Adjust trimmers to maximum out- put (in order shown)
455kc	0.1 mf	12BE6 grid	B-	Rotor fully open (plates out of mesh)	Primary & second- ary slugs of I. F. transformer
1650kc	0.1 mf	12BE6 grid	B-	Rotor fully open (plates out of mesh)	Osc. trimmer
1500kc		Radiating loop		1500kc	Antenna trimmer



NOTES:

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2. UNLESS OTHERWISE NOTED:
 - A. ALL RESISTORS 1/2 WATT; CAPACITORS 400 VOLTS
 - B. CAPACITORS LESS THAN 1 IN MFD; CAPACITORS GREATER THAN 1 IN MMF



Part No.	Description
Resistors	
20-223-31	22K Ω 1/2w 20%
20-334-31	330K Ω 1/2w 20%
20-335-31	3.3M Ω 1/2w 20%
20-474-31	470K Ω 1/2w 20%
50-11B	Volume cont. 2M Ω SPST Switch
Capacitors	
3146	40/40/150V elect.
32-4	.05mf 200V paper tub.
32-5	.05mf 400V paper tub.
32-17	.002mf 200V paper tub.
32-30	.1mf 200V paper tub.
35-1	250mmf 500V mica
35-29	.01mf disc ceramic
35-29	.01mf disc ceramic
35-30	100mmf 500V ceramicon
35-33	4mmf 500V 10% ceramicon

Coils and Transformers

60-32	Oscillator coil
61-26	I. F. transformer

Miscellaneous

80-17B	Speaker 4"
120-70	Cabinet
122-57	Knob, selector
122-15	Knob, volume
125-62	Back with loop

Tubes

12
12BE6
12AV6
12AU6
50C5
35W4

