

SERVICE BULLETIN



Northern Electric RADIO

Model BP 5304

5 - Tube Portable Model

Battery Operated Radio Receiver

SERVICE INFORMATION



SPECIFICATIONS

GENERAL:

5-Tube Superheterodyne Battery Operated
Portable available in two colours: Maroon
and Maroon & Cream

1. FREQUENCY RANGE

Broadcast band - 530 to 1600 K.C.

2. INTERMEDIATE FREQUENCY

455 K.C.

3. TUBES

Type	Function
1U4	R.F. Amplifier
1R5	Converter
1U4	I.F. Amplifier
1U5	2nd Detector, A.V.C. and 1st Audio Amplifier
3V4	Output Amplifier

4. A.V.C.

On 1U4 RF Amp

5. POWER SUPPLY

"A" Battery - 9 Volts, 50 Milliampères
"B" Battery - 90 Volts, 15 Milliampères

6. POWER OUTPUT

250 Milliwatts

7. ANTENNA

Loop type installed in set

8. GROUND

Not Required

9. AUDIO SYSTEM

Audio portion 1U5 resistance - capacity
coupled to 3V4 power output tube

10. LOUDSPEAKER

5¼" permanent magnet

11. CONTROLS

Right - Volume Control and ON-OFF Switch
Left - Tuning Control

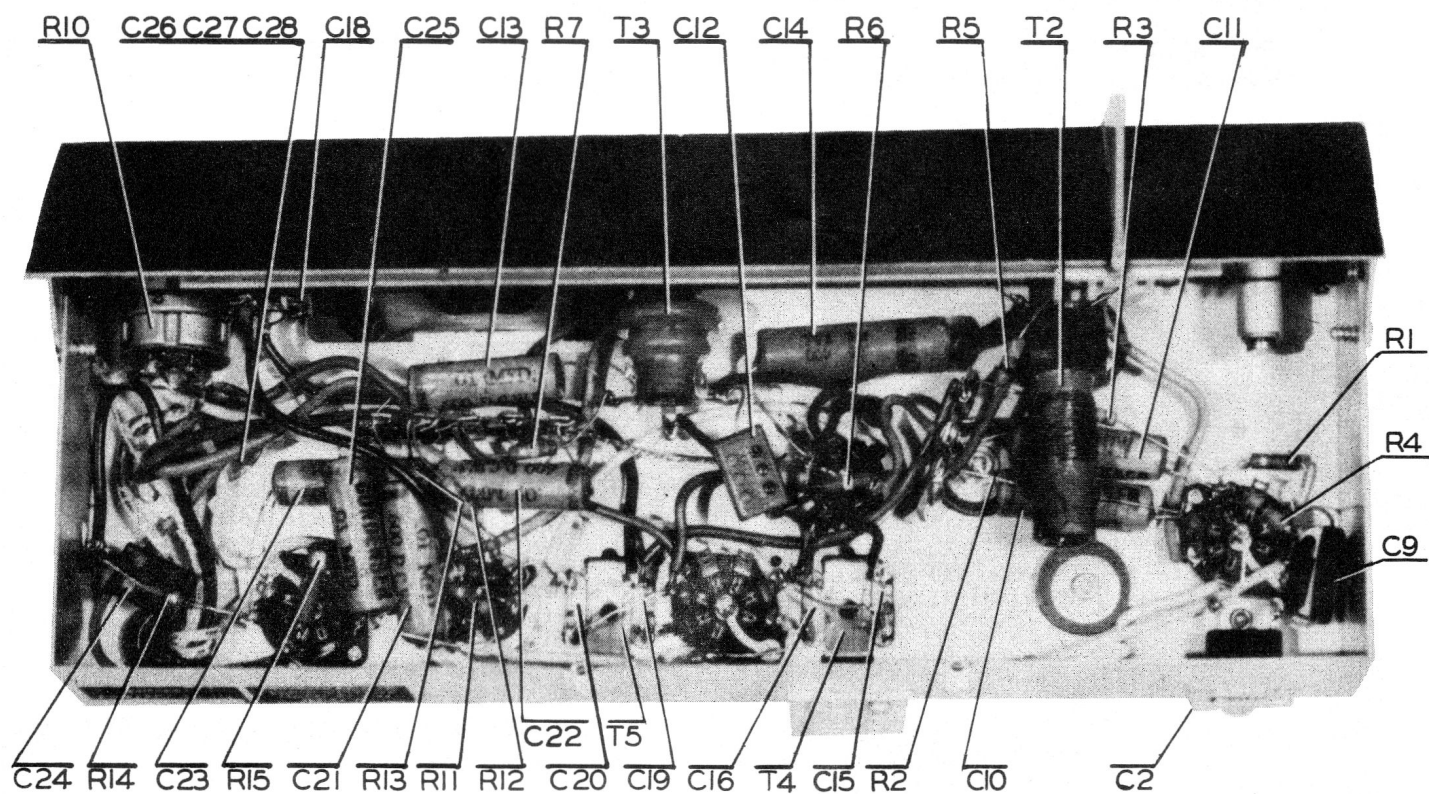
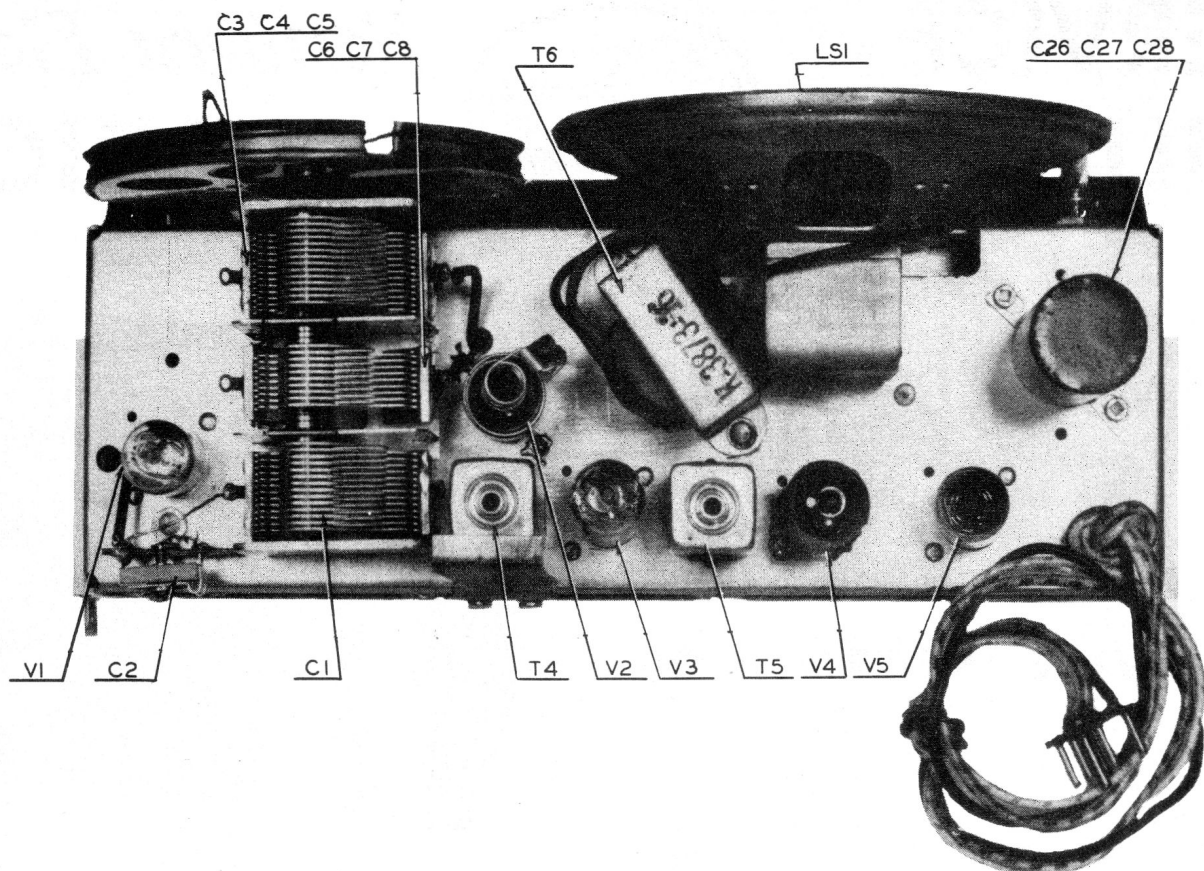
12. DIMENSIONS

Chassis, Assembled (excluding shafts)
Length 10½" Width 5¼"
Height 3¼"
Cabinet, Overall (including knobs)
Length 11 7/8" Width 5 7/8"
Height 9¼"

Bulletin RS 120 - June, 1949

Mailing Classifications 12.3 & 28.17

Price 25¢



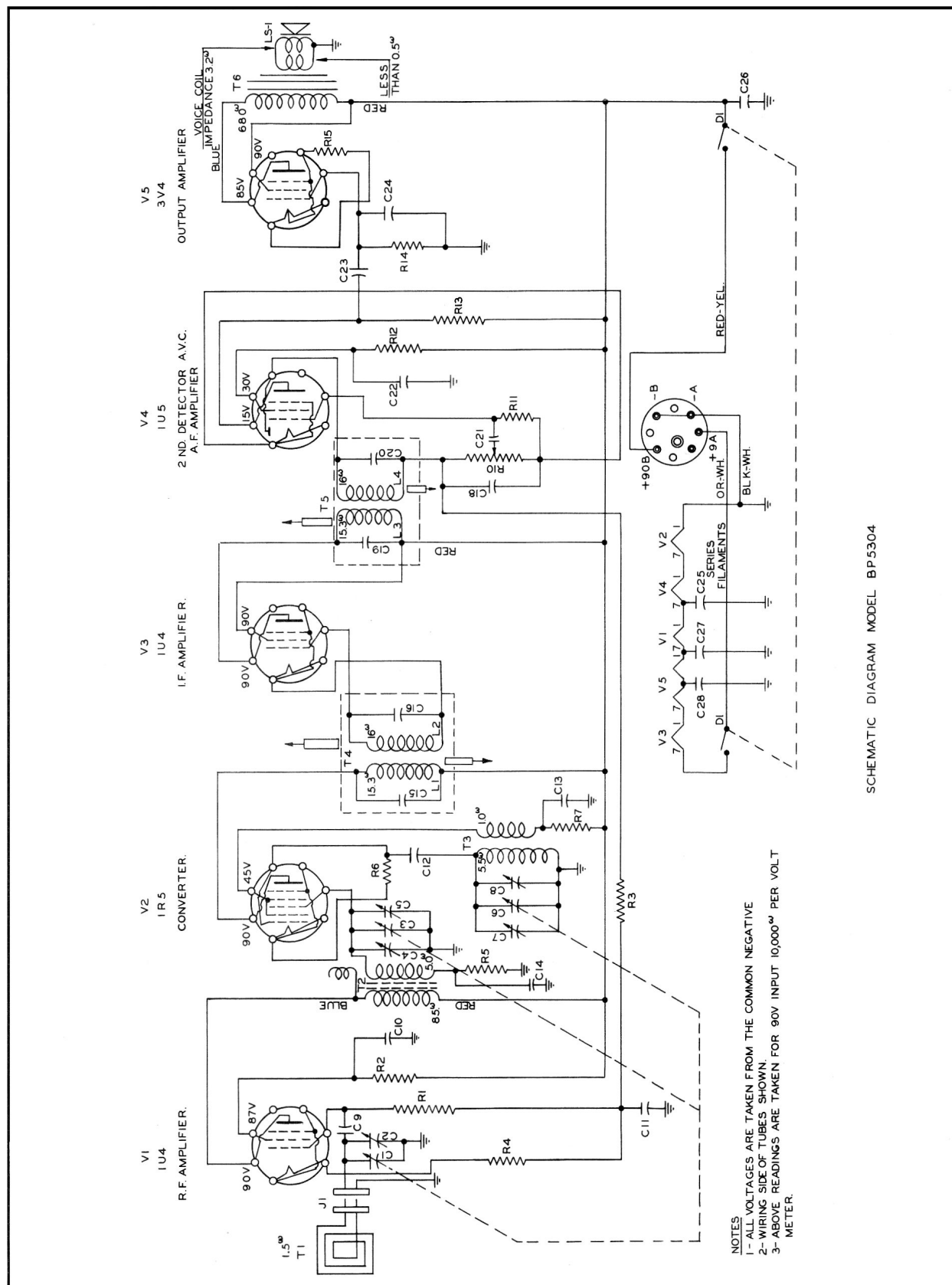
ALIGNMENT

Alignment procedure should be carried out according to the following table and in the order shown.

Alignment Frequency	Dummy Antenna	Receiver Connection	Items to be adjusted for maximum output and their location.
I.F 455 KC/S	.1 Ufd	Front Section of Gang Condenser	I.F tuning slugs from top and bottom of transformer, with non-metallic alignment tool and gang open.
B.C. 1400 KC/S	.1 Ufd	Front Section of Gang condenser	Oscillator trimmers on gang. Pointer Opposite right-hand notch.
B.C. 1400 KC/S	.1 Ufd	Rear Section of Gang condenser	R.F. Coil trimmer on front of gang.
B.C. 1400 KC/S	Place the signal generator lead near the set, with the loop plugged in. Increase the output of the generator until a satisfactory signal is obtained, then orient the set for minimum signal.		Antenna trimmer facing rear of set.

REPLACEMENT PARTS LIST

Item	Description	Part No.	Item	Description	Part No.
C1	Capacitor,Ant. 420 uuf Part of	R17256-1	R10	Volume Control & Switch .5 meg.	K4754-6
C2	Trimmer Variable 1.5-10 uuf	K1458-4	R11	Resistor 8.2 meg ½ W	K10000C-825
C3	Capacitor,R.F. 420 uuf Part of	R17256-1	R12	Resistor 2.2 meg ½ W	K10000C-225
C4	Capacitor,Trimmer 2-15 uuf Part of	R17256-1	R13	Resistor 470000 ohm ½ W	K10000C-474
C5	Capacitor,Trimmer 2-15 uuf Part of	R17256-1	R14	Resistor 2.7 meg ½ W	K10000C-275
C6	Capacitor,Osc. 162 uuf Part of	R17256-1	R15	Resistor 270 ohm ½ W	K10003B-271
C7	Capacitor,Trimmer 2-15 uuf Part of	R17256-1	T1	Loop Mounting Assembly	R17258-28
C8	Capacitor,Trimmer 2-15 uuf Part of	R17256-1	T2	Transformer, R.F.	R17258-63
C9	Capacitor,Mica 100 uuf	K10134C-101	T3	Coil,Oscillator	R17258-30
C10	Capacitor,Paper .01 uf 600V	K10128-103	T4	Transformer,I.F.	R17296-2
C11	Capacitor,Paper .01 uf 600V	K10128-103	T5	Transformer,I.F.	R17296-2
C12	Capacitor,Mica 51 uuf 500V	K10134C-510	T6	Transformer,Output	K3873-16
C13	Capacitor,Paper .01 uf 600V	K10128-103	V1	Tube,Type 1U4	
C14	Capacitor,Paper .05 uf 400V	K10129-503	V2	Tube,Type 1R5	
C15	Capacitor,Part of	R17296-2	V3	Tube,Type 1U4	
C16	Capacitor,Part of	R17296-2	V4	Tube,Type 1U5	
C18	Capacitor,Mica 100 uuf 500V	K10134C-101	V5	Tube,Type 3V4	
C19	Capacitor,Part of	R17296-2	J1	Plug,Antenna Connector	R17198-2
C20	Capacitor,Part of	R17296-2	D1	Switch,ON-OFF	K4754-6
C21	Capacitor,Paper .01 uf 600V	K10128-103		Battery Cord & Plug Assembly	R17258-65
C22	Capacitor,Paper .01 uf 600V	K10128-103		Battery Plug only	R17258-64
C23	Capacitor,Paper .01 uf 600V	K10128-103	LS-1	Loudspeaker	R17289-38
C24	Capacitor,Mica 300 uuf 500V	K10134C-301		Dial Plate Assembly	R17258-32
C25	Capacitor,Paper .01 uf 600V	K10128-103		Dial Indicator Assembly	R17258-67
C26	Capacitor,Electrolytic 40 uuf 150V Part of	R17295-1		Dial Scale	R17258-25
C27	Capacitor,Electrolytic 20 uuf 25V Part of	R17295-1		Tuning Shaft	K10296-4
C28	Capacitor,Electrolytic 20 uuf 25V Part of	R17295-1		Dial Cord	K10301
R1	Resistor 2.7 meg ½ W	K10000C-275		Pulley	K10215-1
R2	Resistor 1000 ohms ½ W	K10000C-102		Dial Spring	R13898
R3	Resistor 3.3 meg ½ W	K10000C-335		"C" Washer	K2895
R4	Resistor 1 meg ½ W	K10000C-105		Cabinet,Dark	R17258A-31
R5	Resistor 1 meg ½ W	K10000C-105		Cabinet,Light	R17258B-31
R6	Resistor 220000 ohm ½ W	K10000C-224		Grille	R17258-57
R7	Resistor 22000 ohm ½ W	K10000A-223		Baffle	R17258-56
				Knob Assembly	R14958-5
				Retaining Clip	K10216
				Handle	R17258-53
				Casting,Handle	R17258-52



SCHEMATIC DIAGRAM MODEL BP5304

Northern Electric

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