

SERVICE BULLETIN



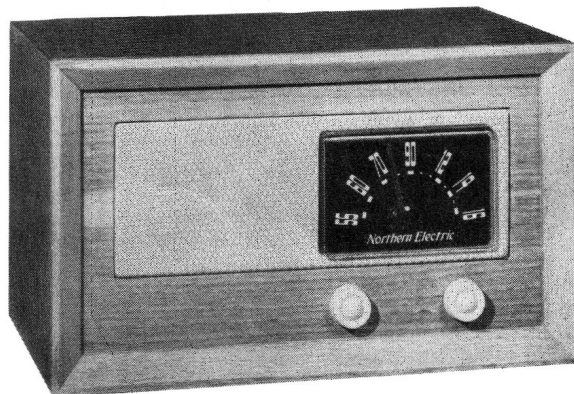
Northern Electric RADIO

Model B5302

5-Tube Mantel Model

Battery Operated Radio Receiver

SERVICE INFORMATION



SPECIFICATIONS

GENERAL:

5-Tube Superheterodyne Battery Operated Radio Receiver, housed in limed oak cabinet.

1. FREQUENCY RANGE

Broadcast band -- 530 to 1600 K.C.

2. INTERMEDIATE FREQUENCY

455 K.C.

3. TUBES

Type	Function
1U4	Reamplifier
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 Amplifier
1R5 Converter
1U4 IF Amplifier

5. POWER SUPPLY

"A" Battery -- 1½ Volts, 350 Milliamperes
"B" Battery -- 90 Volts, 13 Milliamperes

6. POWER OUTPUT

250 Milliwatts

7. ANTENNA

An external antenna is required for the operation of this set. Connect to brown lead on back of cabinet. Use single wire 40 to 100 feet in length including lead-in.

8. GROUND

Connect to black lead at back of cabinet.

9. AUDIO SYSTEM

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

10. LOUDSPEAKER

5¼" permanent magnet.

11. CONTROLS

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

12. DIMENSIONS

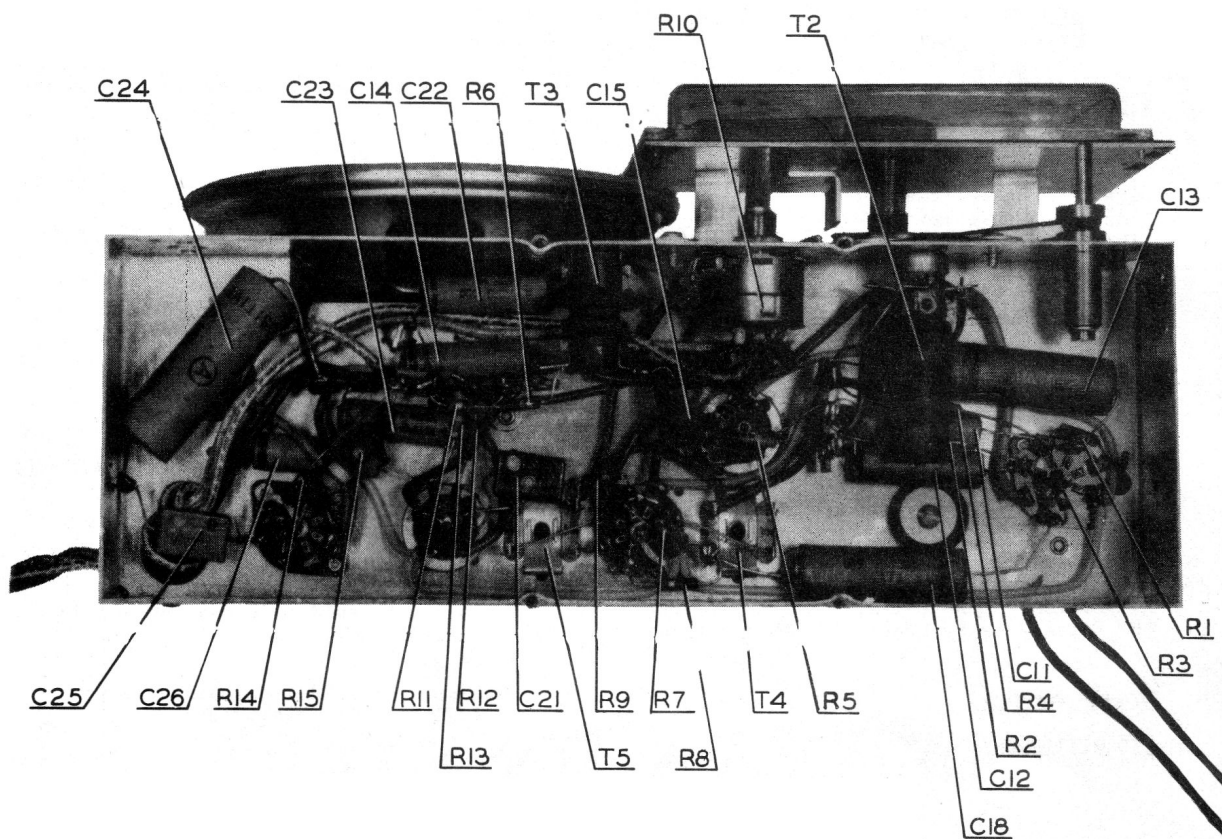
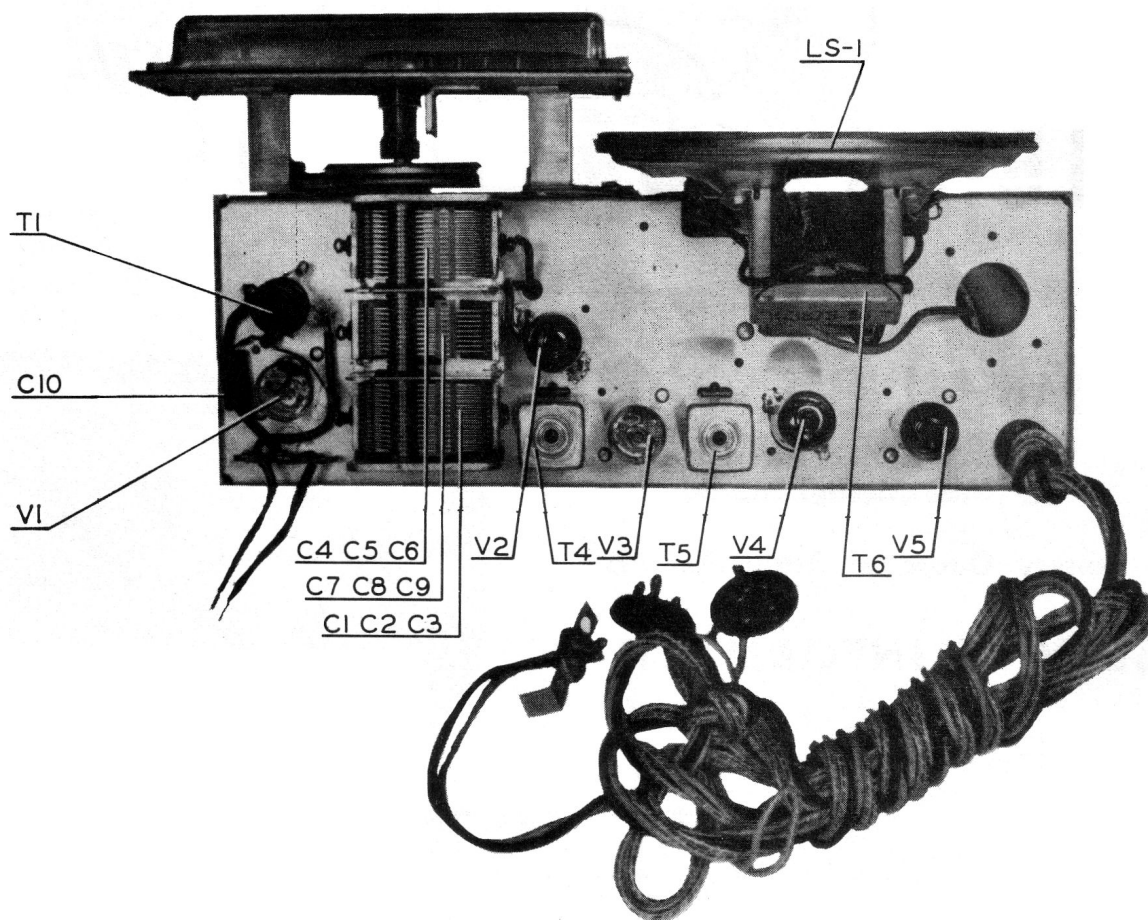
Chassis, Assembled (excluding shafts)
Length 10½", Width 5¼"
Height 3½"

Cabinet, Overall (including knobs)
Length 14½", Width 10"
Height 8½"

Bulletin RS 122 - June, 1949

Mailing Classifications 12.3 & 28.17

Price 25¢



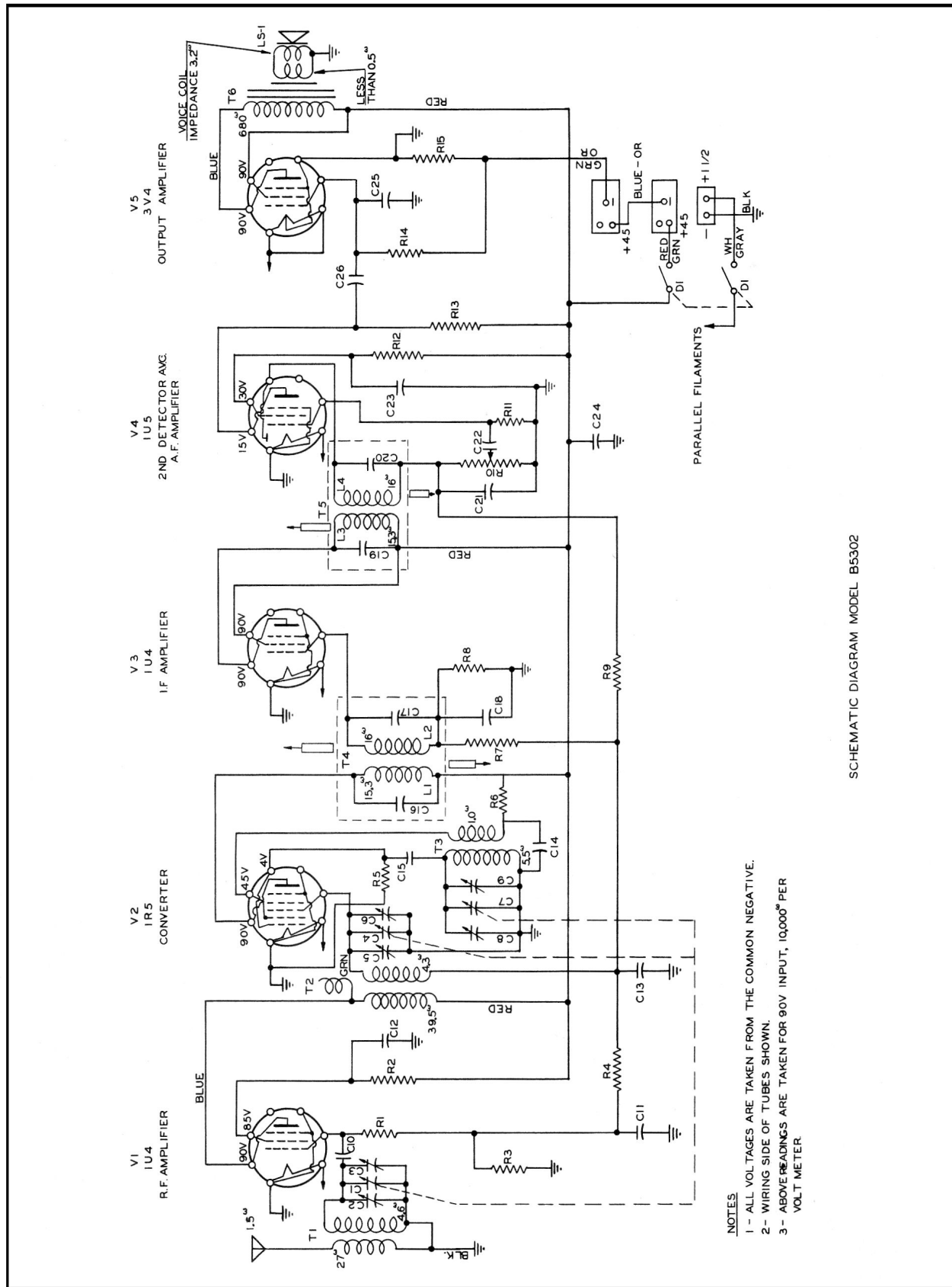
ALIGNMENT

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

<i>Alignment Frequency</i>	<i>Dummy Antenna</i>	<i>Receiver Connection</i>	<i>Items to be adjusted for maximum output and their location.</i>
I.F. 455 KC/S	.1 ufd	Front section of tuning gang.	I.F. Tuning slugs from top and bottom of tranformer with non-metallic alignment tool with gang open.
B.C. 1400 KC/S	.1 ufd	Front section of tuning gang.	Oscillator trimmers on gang
B.C. 1400 KC/S	100 uufd	Antenna Lead	R.F. and antenna trimmers.

REPLACEMENT PARTS LIST

<i>Item</i>	<i>Description</i>	<i>Part No.</i>	<i>Item</i>	<i>Description</i>	<i>part no.</i>
C1	Capacitor, Variable 420 uuf Part of	R17256-2	R8	Resistor 1.0 meg. 1/2 W	K1000C-105
C2	Capacitor, Trimmer 2-15 uuf Part of	R17256-2	R9	Resistor 2.7 meg. 1/2 W	K1000C-275
C3	Capacitor, Trimmer 2-15 uuf Part of	R17256-2	R10	Volume Control .5 meg.	K4754-6
C4	Capacitor, Variable 420 uuf Part of	R17256-2	R11	Resistor 8.2 meg. 1/2 W	K1000C-825
C5	Capacitor, Trimmer 2-15 uuf Part of	R17256-2	R12	Resistor 2.2 meg. 1/2 W	K1000C-225
C6	Capacitor, Trimmer 2-15 uuf Part of	R17256-2	R13	Resistor 470000 ohm 1/2 W	K1000C-474
C7	Capacitor, Variable 162 uuf Part of	R17256-2	R14	Resistor 2.7 meg. 1/2 W	K1000C-275
C8	Capacitor, Trimmer 2-15 uuf Part of	R17256-2	R15	Resistor 390 ohm 1 W	K10001B-391
C9	Capacitor, Trimmer 2-15 uuf Part of	R17256-2	T1	Coil, Antenna	R17289-32
C10	Capacitor, Mica 100 uuf 500 V	K10134C-101	T2	Transformer, RF	R17289-33
C11	Capacitor, Paper .01 uf 600 V	K10128-103	T3	Coil Oscillator	R17258-30
C12	Capacitor, Paper .01 uf 600 V	K10128-103	T4	Transformer, I.F.	R17296-2
C13	Capacitor, Paper .05 uf 400 V	K10129-503	T5	Transformer, I.F.	R17296-2
C14	Capacitor, Paper .01 uf 600 V	K10128-103	T6	Transformer, Output	K3873-16
C15	Capacitor, Mica 51 uuf 500 V	K10134C-510	V1	Tube, Type 1U4	
C16	Capacitor, Part of	R17296-2	V2	Tube, Type 1R5	
C17	Capacitor, Part of	R17296-2	V3	Tube, Type 1U4	
C18	Capacitor, Paper .05 uf 400 V	K10129-503	V4	Tube, Type 1U5	
C19	Capacitor, Part of	R17296-2	V5	Tube, Type 3V4	
C20	Capacitor, Part of	R17296-2	D1	Switch: "ON-OFF" Part of	K4754-6
C21	Capacitor, Mica 100 uuf 500 V	K10134C-101		Battery Cord & Plug Assy.	R17289-39
C22	Capacitor, Paper .01 uf 600 V	K10128-103		"A" Battery Plug only	K4781-2
C23	Capacitor, Paper .01 uf 600 V	K10128-103		"B" Battery Plug only	K4780-2
C24	Capacitor, Electrolytic 16 uf 150 V	K4698-2		Loudspeaker 5/4"	R17289-38
C25	Capacitor, Mica 470 uuf 500 V	K10134C-471		Dial Plate Assembly	R8234-32
C26	Capacitor, Paper .01 uf 600 V	K10128-103		Dial Scale	R17289-25
R1	Resistor 2.7 meg. 1/2 W	K1000C-275		Dial Indicator Assy.	R16334
R2	Resistor 1000 ohms 1/2 W	K1000C-102		Shaft Tuning	K10296-3
R3	Resistor 1.0 meg. 1/2 W	K1000C-105		Dial Cord	K10301
R4	Resistor 2.7 meg. 1/2 W	K1000C-275		Dial Spring	R13898
R5	Resistor 220000 ohms 1/2 W	K1000C-224		"C" Washer	K2895
R6	Resistor 22000 ohm 1/2 W	K1000C-223		Cabinet	R17289-31
R7	Resistor 2.7 meg. 1/2 W	K1000C-275		Tube Socket, Shock Mounted	R17289-50
				Tube Socket, Wafer	K10405-1
				Knob Assembly	R14958-3



SCHEMATIC DIAGRAM MODEL B5302

Northern Electric

COMPANY LIMITED

HALIFAX MONCTON QUEBEC CHICOUTIMI THREE RIVERS SHERBROOKE MONTREAL OTTAWA VAL D'OR
 KINGSTON TORONTO HAMILTON LONDON WINDSOR KIRKLAND LAKE TIMMINS SUDBURY
 PORT WILLIAM WINNIPEG REGINA LETHBRIDGE CALGARY EDMONTON VERNON VANCOUVER VICTORIA