



Northern Electric B4002

- NOTES**
1. JUMPERS 55 AND 56 MUST BE REMOVED WHEN A 2 VOLT STORAGE BATTERY IS USED.
 2. WIRING SIDE OF TUBES SHOWN.
 3. VOLTAGES MEASURED WITH D.C.V.T. VOLTMETER, WITH RADIO-PHONO SWITCH IN RADIO POSITION AS SHOWN.
 4. FOR CIRCUIT DESIGNATION SEE SPARE PARTS LIST.

M = 1,000,000 OHMS
 K = 1,000 OHMS
 ALL CAPACITORS MFD
 EXCEPT AS MARKED PF
 ALL RESISTORS 1/2 WATT

7A BATTERIES
 (TWO 45 VOLTS)

Northern Electric B4002

Battery Operated Radio / Phonograph

MODIFICATION

A small number of these sets sold before modification, will have to be modified if and as the need arises. For this purpose, a Modification Kit is available covering the following circuit changes.

- 3Q5GT.....replaces 1T5GT
- Item 33 — Capacitor .003 mfd.....replaces .01 mfd.
- Item 37 — Transformer, output.....replaces K3873-11
- Item 39 — Resistor 430 ohms $\frac{1}{2}$ watt replaces 820 ohm $\frac{1}{2}$ watt
- Item 51 Resistor 5.6 ohm $\frac{1}{2}$ watt replaces 6.8 ohm $\frac{1}{2}$ watt
- Item 52 — Resistor 3.9 ohm $\frac{1}{2}$ watt replaces 6.8 ohm $\frac{1}{2}$ watt
- Item 53 — Resistor 4.7 megohm $\frac{1}{2}$ watt
- Item 54 — Capacitor paper .01 mfd.
- } Feedback Circuit added.

Alignment;

REALIGNING DETAILS

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.	0.1 mfd. (paper)	1A7GT grid cap	I.F. Trimmers, items 17, 18, 13 and 14 on I.F. transformers (tuning gang open).
B.C. 1400 Kc.	100 mmf. (mica)	Antenna Terminal	Oscillator trimmers on gang, items 4 and 5. Antenna trimmer on gang, item 3.
B.C. 600 Kc.	100 mmf. (mica)	Antenna Terminal	Oscillator lag trimmer, item 6, adjust while rocking gang.
			Recheck at 1400 Kc.