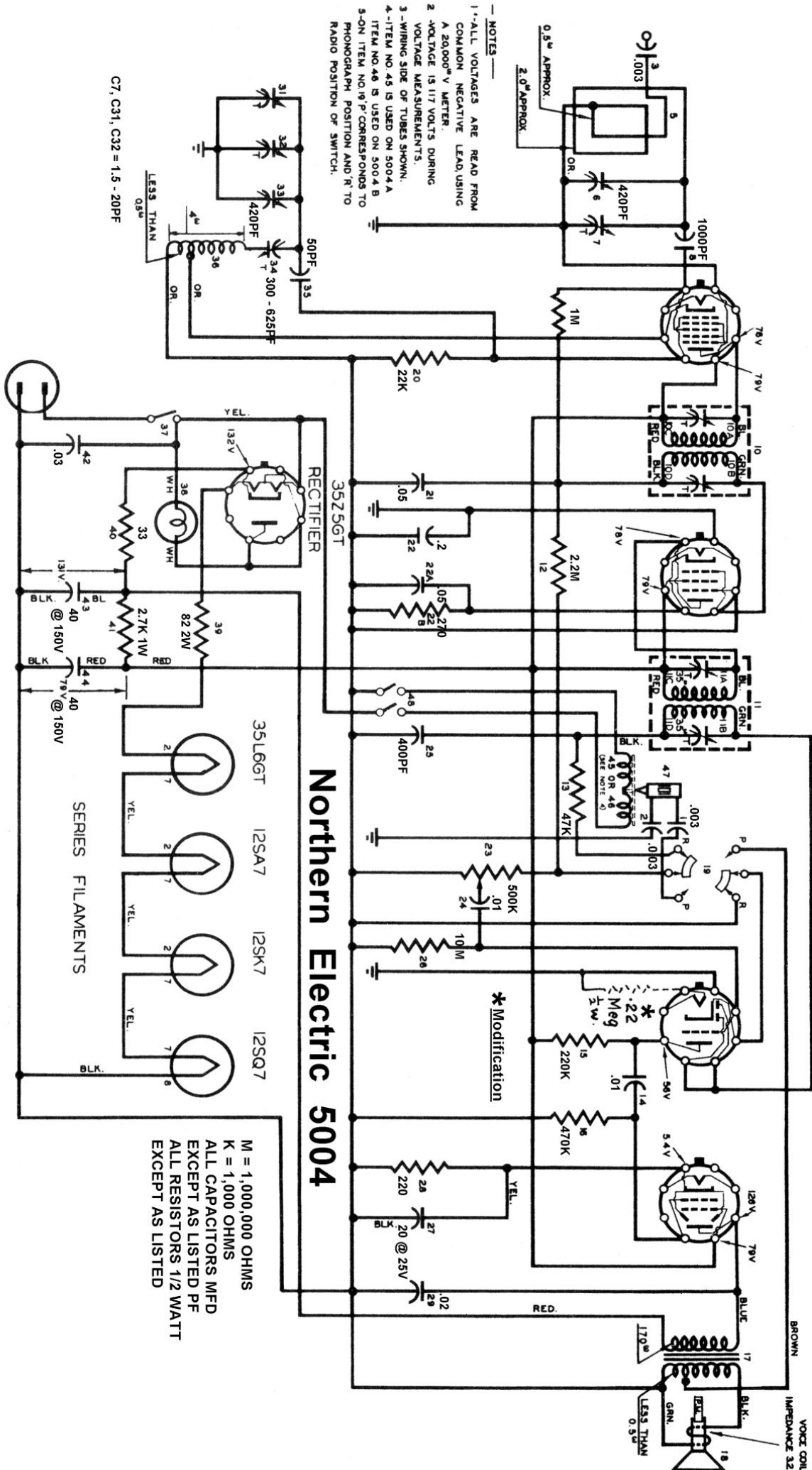


12SA7
CONVERTER

12SK7
1F AMPLIFIER

12SQ7
2ND DETECTOR AVC.
& 1ST AF AMPLIFIER

35L6GT
OUTPUT AMPLIFIER



Northern Electric 5004

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

- NOTES —
1. ALL VOLTAGES ARE READ FROM COMMON NEGATIVE LEAD USING A 20,000^Ω V METER.
 2. VOLTAGE MEASUREMENTS:
 3. WIRING SIDE OF TUBES SHOWN.
 4. ITEM NO. 45 IS USED ON 5004A
 5. ON ITEM NO. 19 P. CORRESPONDS TO PHONOGRAPH POSITION AND R TO RADIO POSITION OF SWITCH.

C7, C31, C32 = 1.5 - 20PF
LESS THAN 0.5^μ

VOICE COIL
IMPEDANCE 3.2^Ω

REALIGNING DETAILS

NOTE: When tests are made in complete model with phbnomotor in circuit DO NOT USE DIRECT CURRENT, USE ONLY 60 CPS A.C. ON MODEL 5004A, AL AND 25 CPS A.C. ON MODEL 5004B, BL.

I.F. Alignment

Connect generator ground lead to common negative return circuit in receiver. It remains in this position throughout test. Set generator to 455 K.C. Connect generator high side through a 0.1 mfd. condenser to 1st detector grid (pin #8 on 12SA7). Adjust trimmers, items 10A, 10B, 11A and 11B on I-F cans, for maximum output.

Note 1

Gang condenser should be open during I.F. alignment.

R.F. Alignment

Connect generator ground lead as above. Use a 100 mmfd. capacitor in series with generator lead (high side) and connect to antenna terminal. Set signal generator and dial pointer to 1400 KC and adjust oscillator trimmer items 31 and 32 (trimmers on front section of gang) for maximum output. The gang condenser should be rocked while adjusting antenna trimmer, item 7 (trimmer on rear section of gang) for maximum output. Next move signal generator and dial pointer to 600 KC. Adjust the oscillator lag, item 34 (on fixed end of oscillator coil, under chassis) for maximum output, rocking the gang condenser while doing so.

Note 1—The R.F. Alignment procedure should be repeated at least twice in order to obtain maximum sensitivity.

Note 2—When the gang condenser is closed, the frequency should be 540 KC. or lower. Also check for motor-boating when the gang condenser is closed with no load on antenna primary.

Note 3—When the gang condenser is open, the frequency should be 1570 KC. or higher.