

## EMERSON RADIO &amp; PHONO. CORP.

MODELS BM206, BM215  
Chassis BM  
MODELS BN206, BN215

*Item	*Item	Part No.	DESCRIPTION	PRICE
Model BM	Model BN			Lis. Price as of Effective as of July 1st, 1938 (Subject to change without notice)
T1	T1	6NT-497	Antenna coil .....	\$ .50
T2	T2	6NT-438	Detector coil .....	.50
R1	—	2VR-519E	Volume control, 75,000 ohms, with line switch .....	.90
—	R1	2VR-219G	Volume control, 75,000 ohms, with line switch .....	.90
R2	R2	SCR-294	240 ohm, $\frac{1}{2}$ watt wire-wound resistor .....	.16
R3	R3	L55-BG	Plug-in ballast tube .....	.55
R4	R4	KR-63U	15,000 ohm, $\frac{1}{4}$ watt carbon resistor .....	.16
R5	R5	HR-42U	2 megohm, $\frac{1}{4}$ watt carbon resistor .....	.16
R6, R7	R6, R7	KR-56U	500,000 ohm, $\frac{1}{4}$ watt carbon resistor .....	.16
R8	R8	SQR-297	110 ohm, $\frac{1}{2}$ watt wire-wound resistor .....	.16
—	R9, R10	KR-55	250,000 ohm, $\frac{1}{4}$ watt carbon resistor .....	.16
C1, C2	C1, C2	5MC-399	Two-gang variable condenser .....	.55
C3	C3	NNC-199	.001 mf, 600 volt tubular condenser .....	.20
+C4, C6	+C4, C6		Trimmers, part of variable condenser.	
C6, C8	C6, C8	AC-6	.1 mf, 200 volt tubular condenser .....	.20
C7	C7	5AC-388	.25 mf, 100 volt tubular condenser .....	.20
C9	C9, C15	LC-65	.02 mf, 400 volt tubular condenser .....	.20
C10	C10	LC-64	.05 mf, 400 volt tubular condenser .....	.20
C11	C11	EEC-132	.1 mf, 400 volt tubular condenser .....	.20
C12, C13	C12, C13	4DC-345A	Dual 16 mf, 100 volt dry electrolytic condenser (See prod. ch.) ..	1.20
C14	C14	6AC-384	.0002 mf, 600 volt tubular or mica condenser .....	.20
—	C16, C17	BC-12	.05 mf, 200 volt tubular condenser .....	.20
—	C18	BC-13	.25 mf, 200 volt tubular condenser .....	.20
		5BS-383	5" dynamic speaker (Model BM) .....	3.90
		5NS-385	5" dynamic speaker (Model BN) .....	4.10
I-6D6, r-f amplifier. I-6C6, biased detector. I-26L6G, beam power output. I-25ZB, dual half-wave rectifier. I-L55BG, ballast tube.	TUBE DATA	4BL-94	Pilot light, 6.3 volt, .25 amp., Mazda No. 44 .....	.20
		4XM-367	Drive pulley .....	.10
		5MZ-829	Dial crystal (Model BM) .....	.10
		5NE-11	Dial crystal (Model BN) .....	.15
		5MZ-830	Drive shaft and pulley .....	.10
		4MZ-588B	Dial pointer .....	.20
		4YZ-772	Drive cord .....	.02
		5JZ-324	Drive cord spring .....	.06
		5MZ-831	Dial face (Model BM) .....	.55
		5ND-57	Dial face (Model BN) .....	.15

## ADDITIONAL PARTS USED ON BM-216 COMBINATION

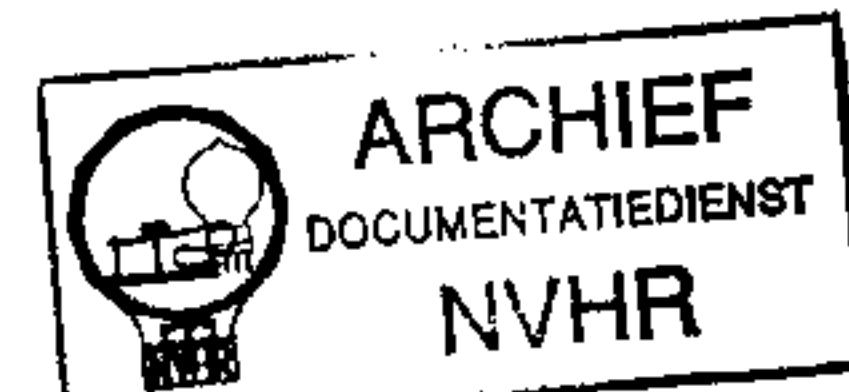
R11	KR-54	100,000 ohm, $\frac{1}{4}$ watt carbon resistor .....	.16
R12	2VR-219H	Phone volume control with motor switch—75,000 ohms .....	.90
S1	6MS-348	Phono-radio-tone control switch .....	.60
C19	XJC-207	.005 mf, 400 volt tubular condenser .....	.20
	4KPM-15	Phono motor .....	12.20
	4YZ-850	Crystal pick-up .....	9.85
	SLM-253	Phonograph needle cup .....	.20

When ordering replacement parts specify part number

\*Item number locates the article on the schematic diagram.

†These condensers cannot be supplied separately.

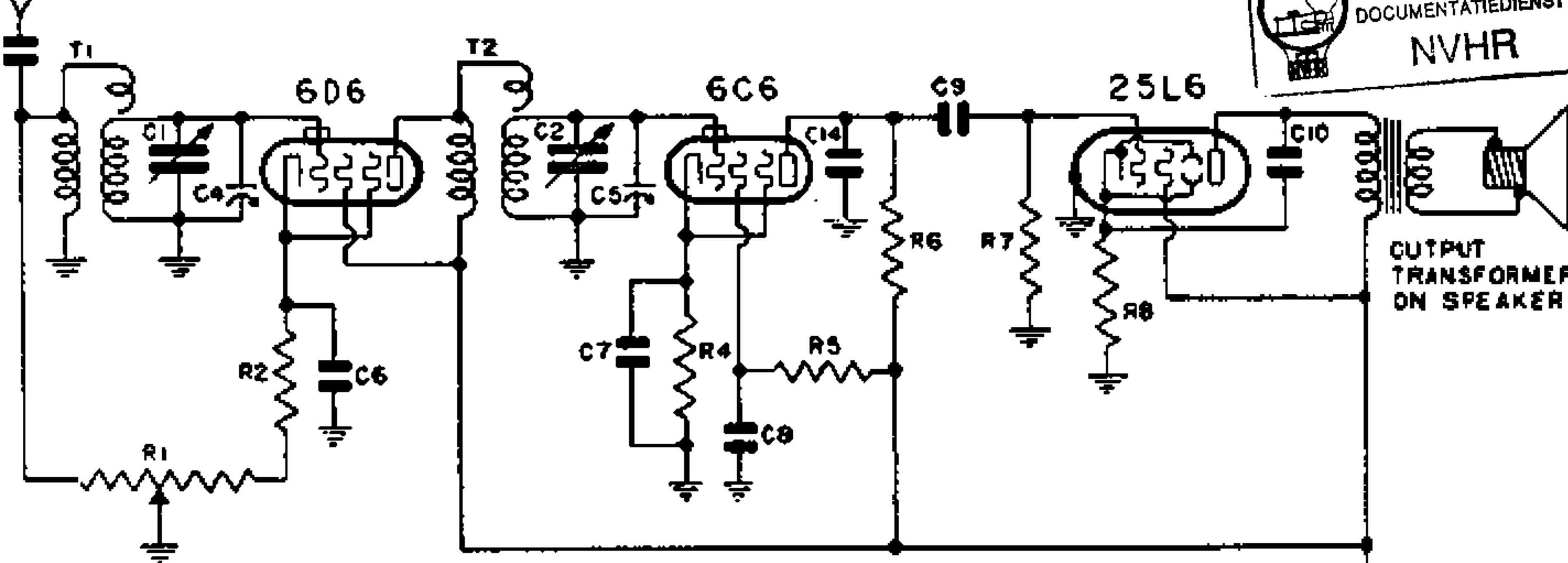
An oscillator with a frequency of 1400 kc is required. Use as weak a test signal as possible. An output meter should be used across the voice coil or output transformer for observing maximum response. Rotate variable condenser to the maximum capacity position and set the pointer at the next calibration mark beyond 56. Then rotate the variable condenser until the pointer is at 140 and feed 1400 kc to the antenna through a .0001 mf mica condenser and adjust both trimmer condensers on the variable condenser for maximum response.



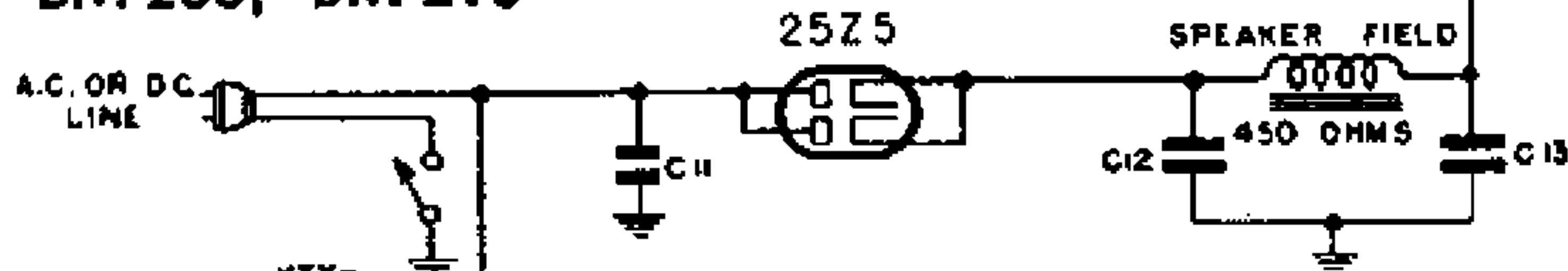
On early BM and BN chassis the red lead from the dual electrolytic condenser is connected to the 25Z5 cathodes and green lead to the 6D6 screen. In later models the green lead is connected to the 25Z5 and red to 6D6. Replacements should be connected as in the later models.

Note: Octal-base tubes may be replaced with either metal tubes or equivalent octal-base glass tubes.

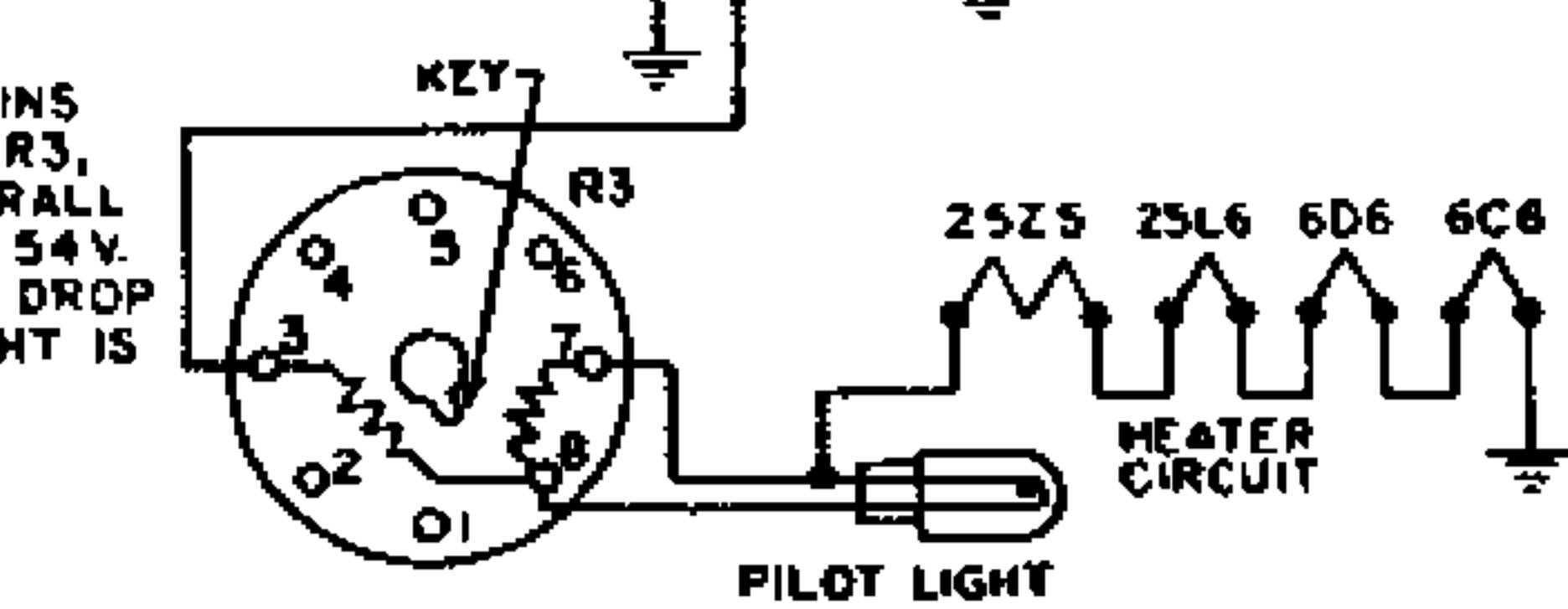
## PRODUCTION CHANGE



**MODEL BM-206, BM-215**

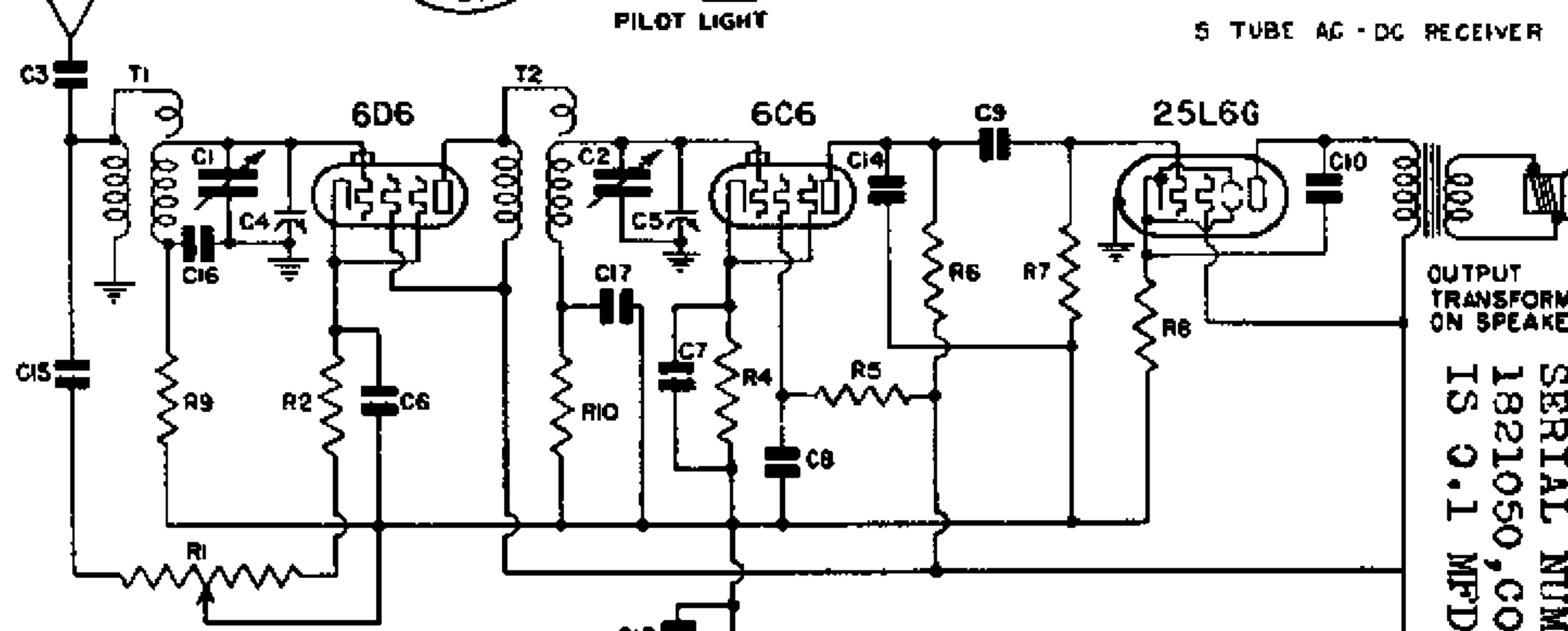


VIEW LOOKING AT PINS OF BALLAST TUBE R3, WHICH HAS AN OVERALL VOLTAGE DROP OF 54V. AT 3 AMP VOLTAGE DROP ACROSS PILOT LIGHT IS 4 VOLTS.

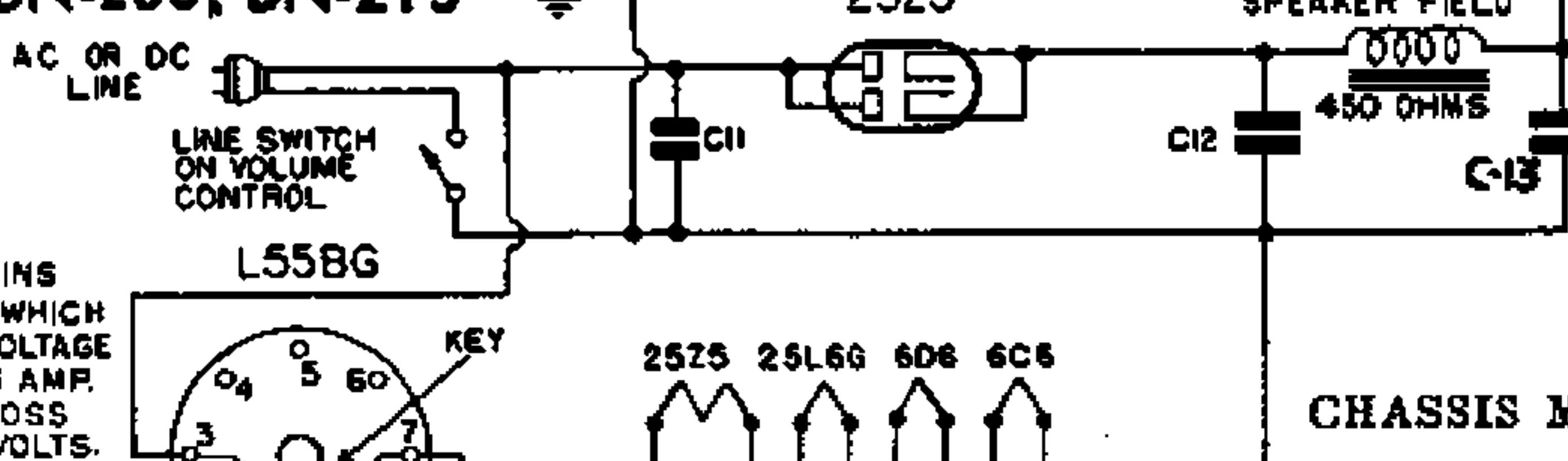


**CHASSIS MODEL BM**

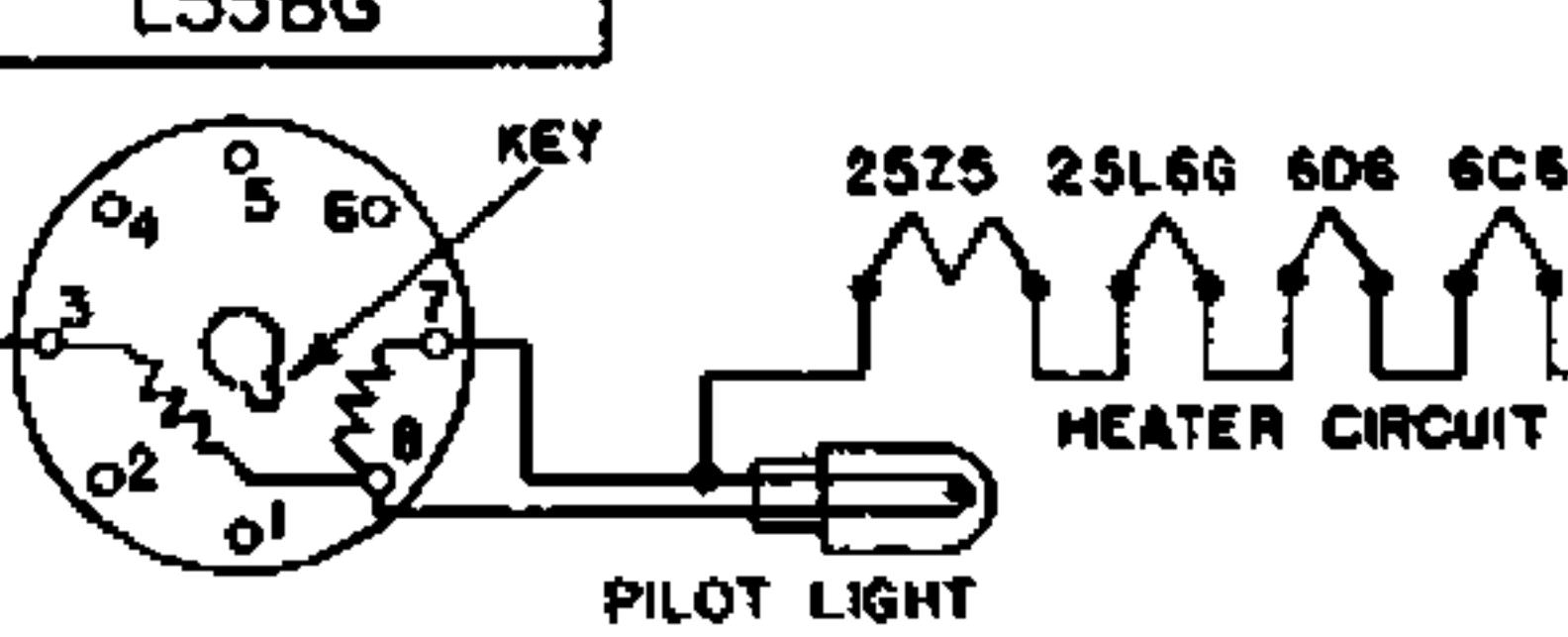
**SCHEMATIC DIAGRAM  
5 TUBE AC - DC RECEIVER**



**MODEL BN-206, BN-215**



VIEW LOOKING AT PINS OF BALLAST TUBE, WHICH HAS AN OVERALL VOLTAGE DROP OF 55V. AT .3 AMP. VOLTAGE DROP ACROSS PILOT LIGHT IS 4 VOLTS.



**CHASSIS MODEL BN**

**SCHEMATIC DIAGRAM  
5 TUBE AC - DC RECEIVER**

**BM-216 SCHEMATIC ON NEXT PAGE**

## VOLTAGE ANALYSIS

Readings should be taken with a 1000 ohms-per-volt meter. Voltages listed below are from point indicated to ground (chassis) with volume control turned on full and no signal. The line voltage for these readings was 117.5 volts, 60 cycles, a.c. All readings except heaters and cathodes were taken on 250 volt scale.

Tube	Plate	Screen	Cathode	F.L.
6D6	100	100	2.3	6.8
6C6	20	15	2.1	6.3
25L6G	93	100	6	25.0

Voltage across speaker field—26 volts.  
25Z5 cathode to ground—126 volts.

Voltage rating ... 105 to 125 volts.  
Power consumption ... 45 watts for receiver.  
10 watts for motor in Model BM-216.

Frequency range ... 640 to 1730 kc.