

MODEL 55 AND 55-C

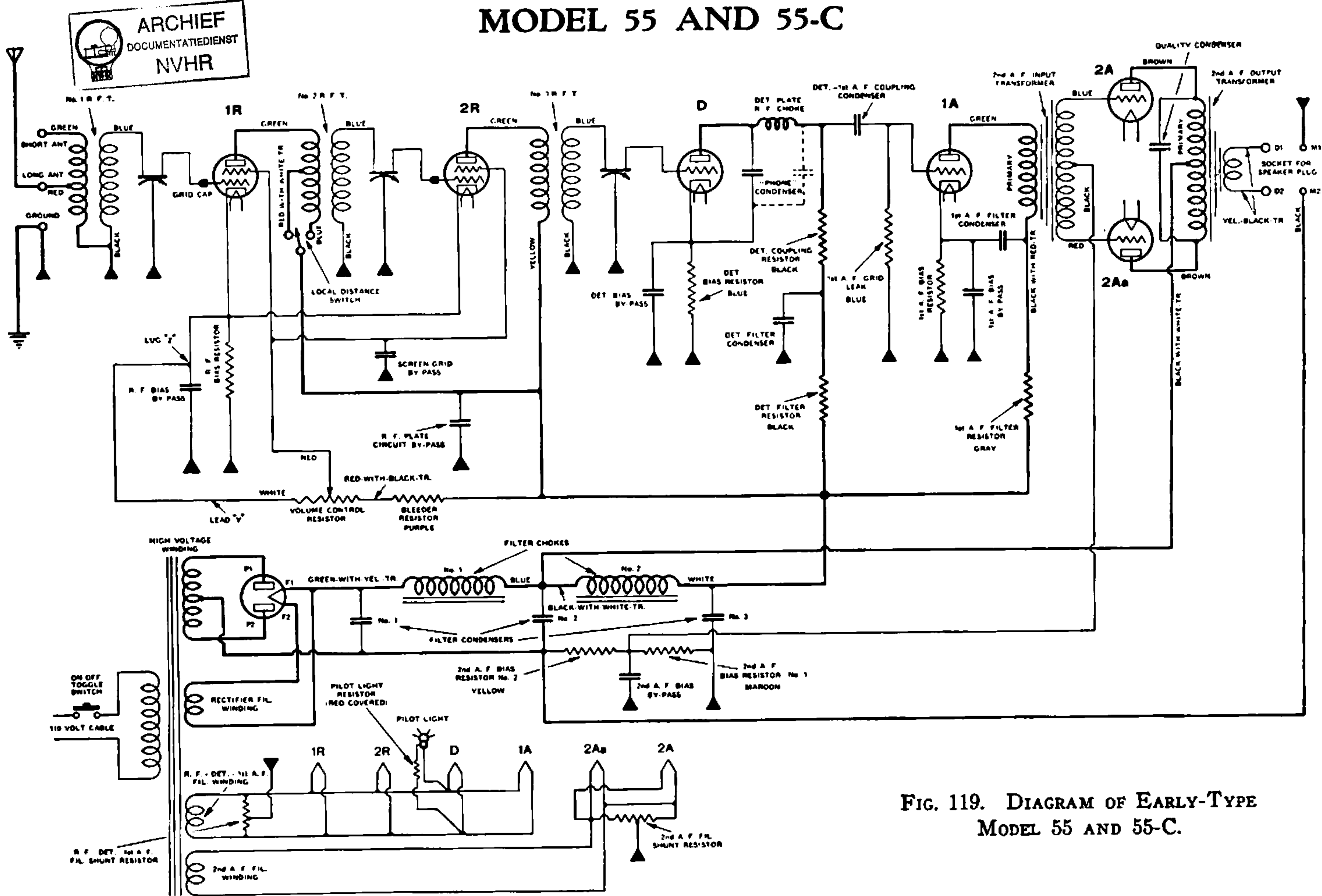


FIG. 119. DIAGRAM OF EARLY-TYPE MODEL 55 AND 55-C.

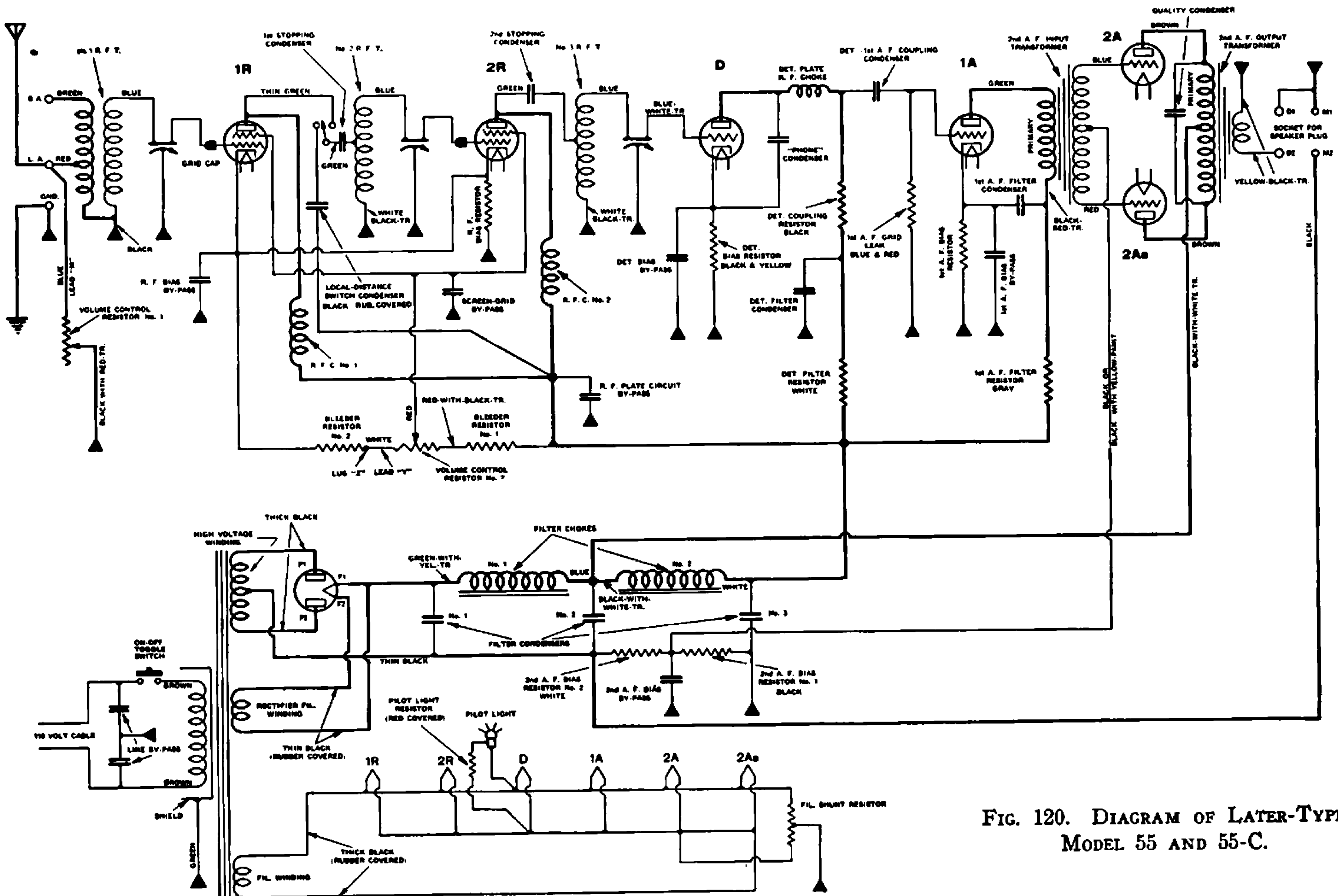


FIG. 120. DIAGRAM OF LATER-TYPE MODEL 55 AND 55-C.

ATWATER KENT RADIO

MODEL 55 AND 55-C

Voltage Readings on Atwater Kent Model 55, 55-C Receiver (60 Cycle)

Use High Resistance D. C. Voltmeter (About 0-50-250) To Measure Plate and Grid Voltages. Use A. C. Voltmeter To Measure Filament Voltages.

	MEASURE ACROSS	APPROX. VOLTAGE				NO READING INDICATES ‡
		Early Type ††		Later Type ††		
		110 V. Line	120 V. Line	110 V. Line	120 V. Line	
FILAMENT VOLTAGES	-F to +F Contacts on each Receiving Tube Socket, ††	2.2	2.4	2.2	2.4	} Open filament winding or connection.
	F1 to F2 on Rectifier Tube Socket.	4.5	4.9	4.5	4.9	
PLATE VOLTAGES	C1R to P1R.	160	175	160	175	} Open high voltage winding, open speaker magnet coil, open filter choke, open R.F. bias resistor, open primary No. 2 R.F.T., or open R.F.C. No. 1.
	C2R to P2R.	160	175	160	175	
	CD to PD.	101	110	101	110	} Open primary No. 3 R.F.T., or open R.F.C. No. 2.
	C1A to P1A.	64	70	69	75	
	-F2A to P2A.	213	235	230	250	} Open primary of output transformer.
	-F2Aa to P2Aa.	213	235	230	250	
GRID VOLTAGES	C1R to G1R.	2.8	3	3.7	4	} Open secondary No. 1 R.F.T.
	C2R to G2R.	2.8	3	3.7	4	
	CD to GD.	11	12	11	12	} Open secondary No. 2 R.F.T.
	C1A to G1A.*	1.8	2	2.8	3	
	-F2A to G2A.	39	42	46	50	} Open secondary No. 3 R.F.T.
	-F2Aa to G2Aa.	39	42	46	50	
SCREEN VOLTAGES	C1R to S1R.	78	85	96	105	} Open 1st-A.F. grid leak.
	C2R to S2R.	78	85	96	105	
						} Open No. 2 2nd-A.F. bias resistor or secondary of input A.F. transformer.**
						} Open connection to slider of volume control, open volume-control resistor, or open bleeder resistor.

* This is the measured voltage, not the actual operating voltage.

** If No. 1 2nd-A. F. bias resistor is open, the grid voltage will be approximately 85.

† The detector plate voltage will be low, and the detector grid voltage high, if the "phone" condenser is shorted.

†† In early-type Model 55 and 55-C, the filaments of the 2nd audio tubes are fed from a separate filament winding on the power transformer.

‡ Low plate, screen, or grid voltages may indicate a partially shorted by-pass or filter condenser.

‡‡ In later Model 55 and 55-C, the primaries of No. 2 and 3 R. F. T. are replaced by R. F. choke coils mounted under the chassis.

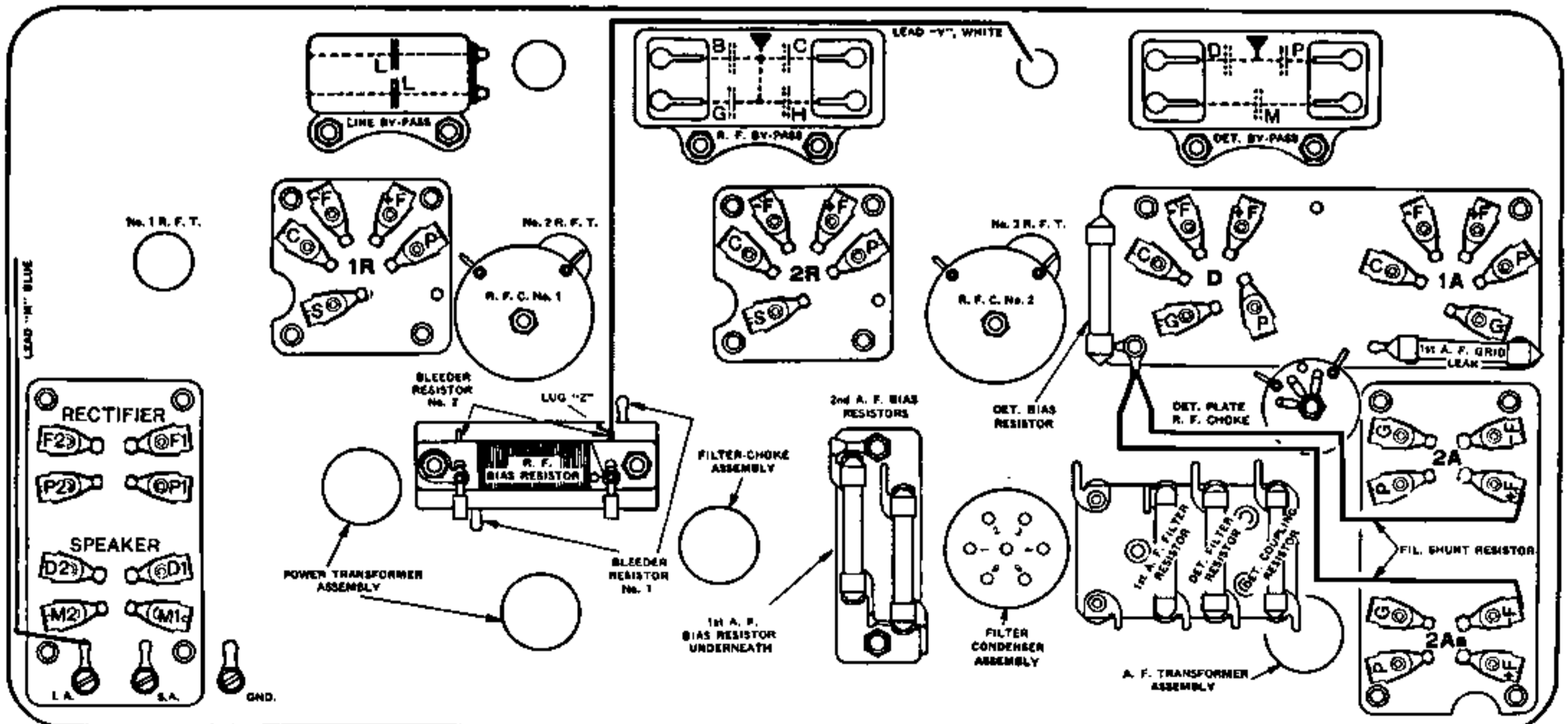


FIG. 118. BOTTOM CHART OF LATER-TYPE MODEL 55 AND 55-C.

MODEL 55 AND 55-C (Early Type)

Connections of R. F. Coil Group No. 15638

No. 1 R. F. T.

Black (1") to chassis.
 Blue to stator No. 1 V. C.
 Green to Short-Antenna.
 Red to Long-Antenna.

No. 2 R. F. T.

Black (1") to chassis.
 Blue to stator No. 2 V. C.
 Green to P1R.
 Blue, and red-white to corresponding leads from local-distance switch.

No. 3 R. F. T.

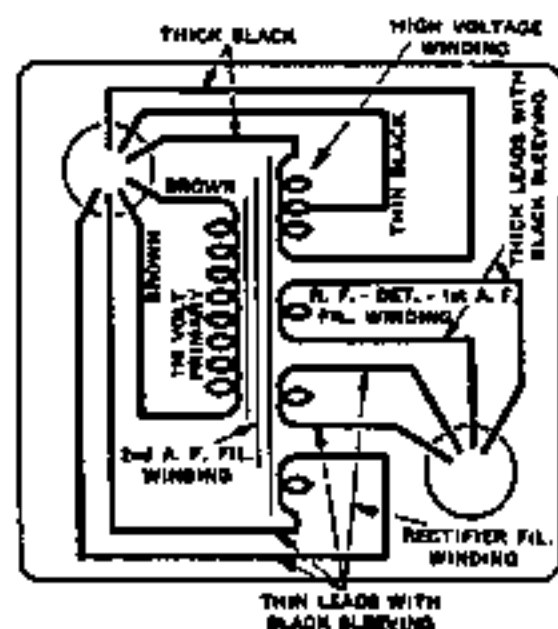
Black (1") to chassis.
 Blue (with lug) to stator No. 3 V. C.
 Blue-white to GD.
 Green to P2R.
 Yellow to by-pass H.

Condensers in Left-Hand By-Pass

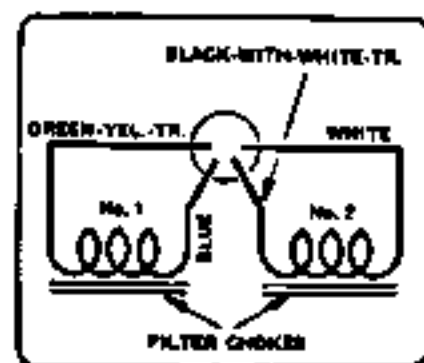
B—R. F. bias by-pass.
 C—2nd-A. F. bias by-pass.
 G—Screen by-pass.
 H—R. F. plate-circuit by-pass.

Condensers in Right-Hand By-Pass

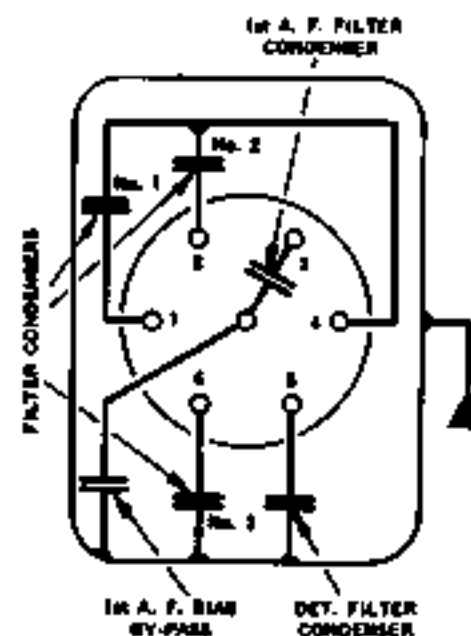
D—Detector bias by-pass.
 M—Detector-1st-A. F. coupling condenser.
 P—"Phone" condenser.



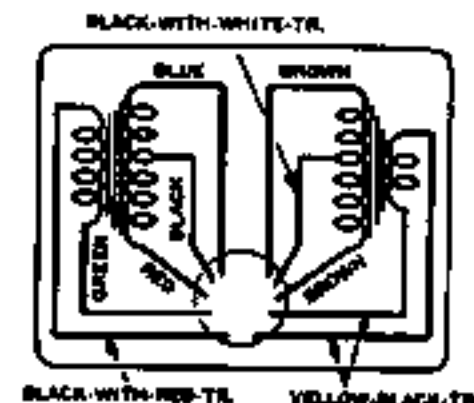
POWER TRANSFORMER ASSEMBLY



FILTER-CHOKER ASSEMBLY



FILTER CONDENSER ASSEMBLY



A. F. TRANSFORMER ASSEMBLY

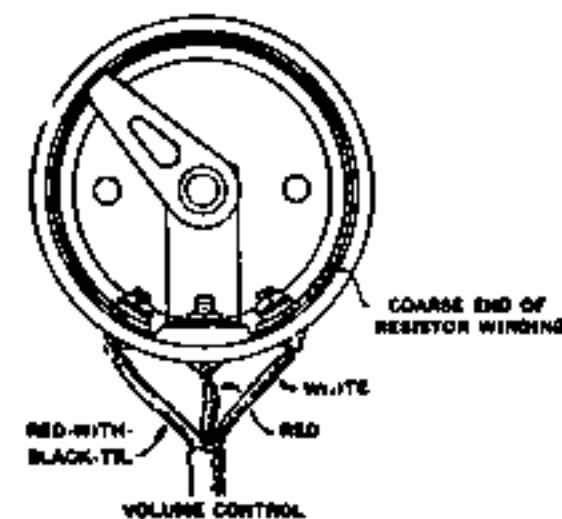
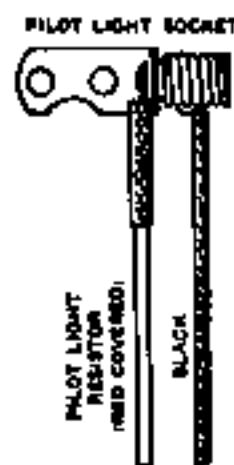
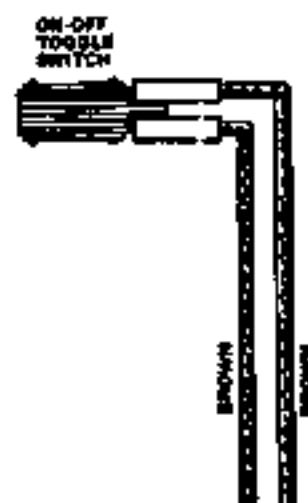
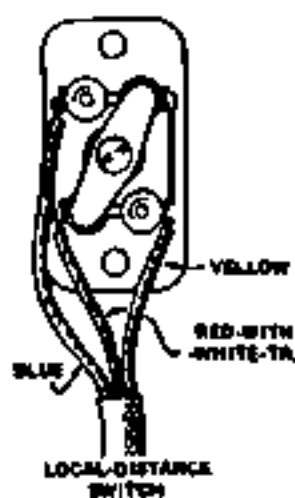


FIG. 121. CONNECTIONS OF UNITS IN EARLY-TYPE MODEL 55 AND 55-C.

ATWATER KENT RADIO MODEL 55 AND 55-C (Early Type)

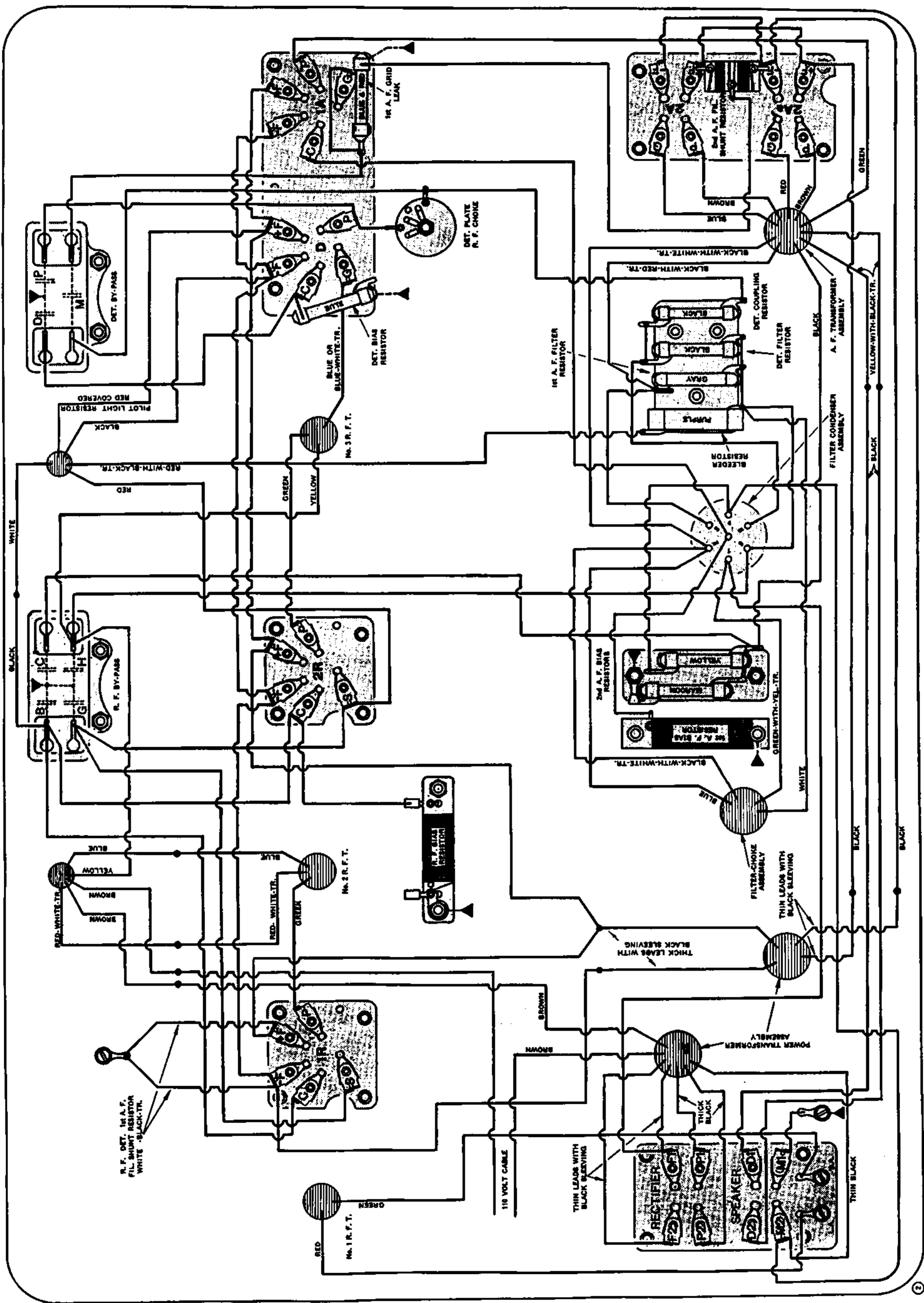


FIG. 122. BOTTOM WIRING OF EARLY-TYPE MODEL 55 AND 55-C.
 This drawing shows the new-style R. F. bias resistor. In some early sets, a separate double-type phone condenser is used. See Page 107 for connections.

MODEL 55 AND 55-C (Later Type)

Connections of R. F. Coil Group No. 16990

The colors of the leads to chassis and to the variable condensers are in some cases different from those specified below.

No. 1 R. F. T.

Black (1") to chassis.
 Blue-white-tr. (5") to stator No. 1 V.C.
 Green to Short-Antenna.
 Red to Long-Antenna.

No. 2 R. F. T.

White-black-tr. (1") to chassis.
 Blue-white-tr. to stator No. 2 V. C.
 Green to green lead from local-distance switch.

No. 3 R. F. T.

White-black-tr. (1") to chassis.
 Blue (with lug) to stator No. 3 V.C.
 Blue-white-tracer to GD.
 Green to P2R.

Condensers in Line By-pass

L—Line by-pass.
 L—Line by-pass.

Condensers in R. F. By-pass

B—R. F. bias by-pass.
 C—2nd-A. F. bias by-pass.
 G—Screen by-pass.
 H—R. F. plate-circuit by-pass.

Condensers in Detector By-pass

D—Detector bias by-pass.
 M—Detector-1st-A. F. coupling condenser.
 P—"Phone" condenser.

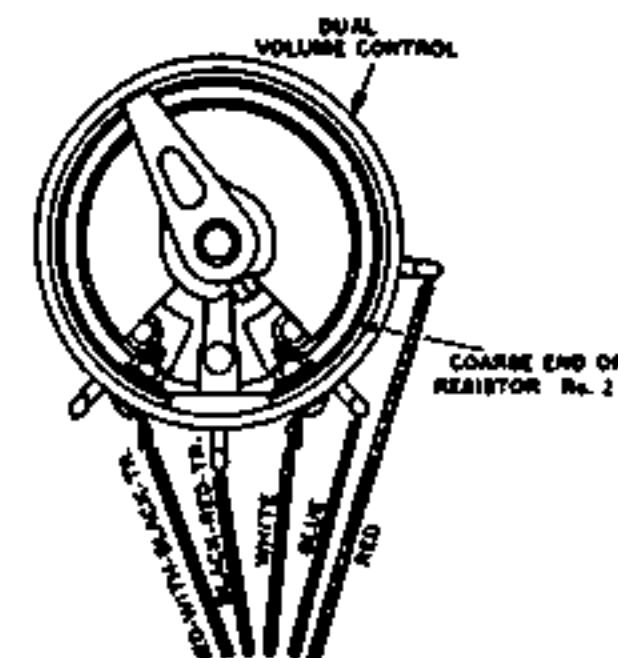
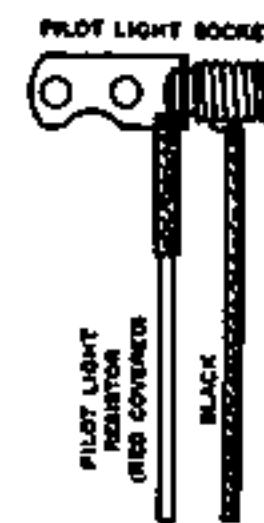
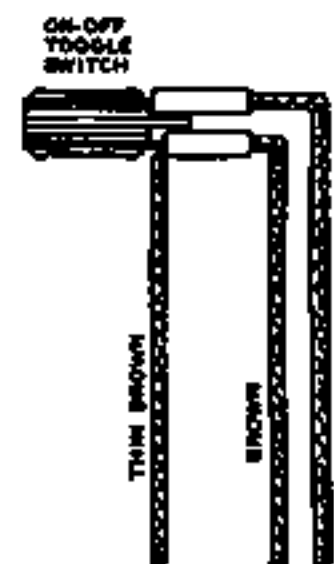
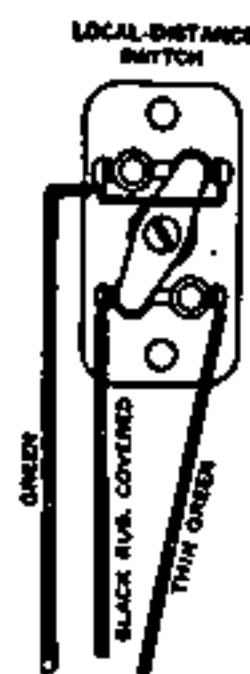
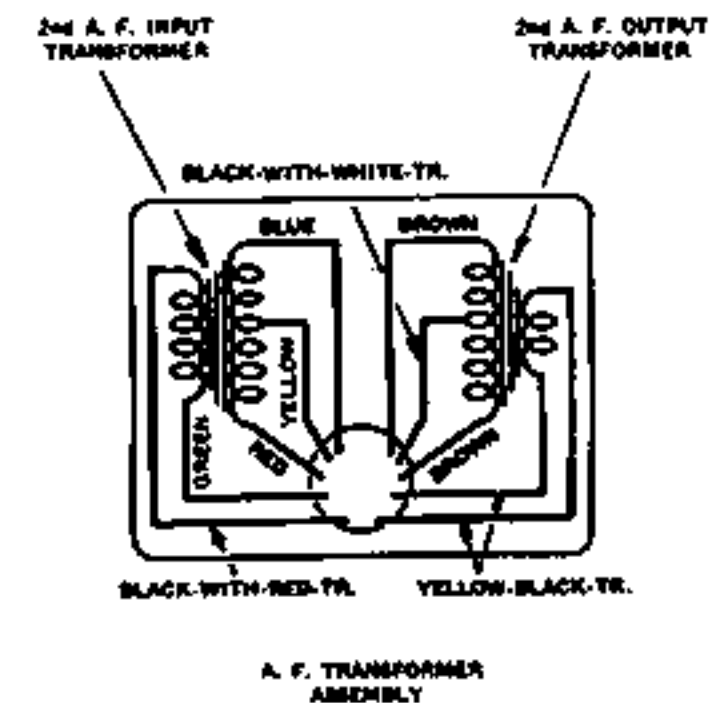
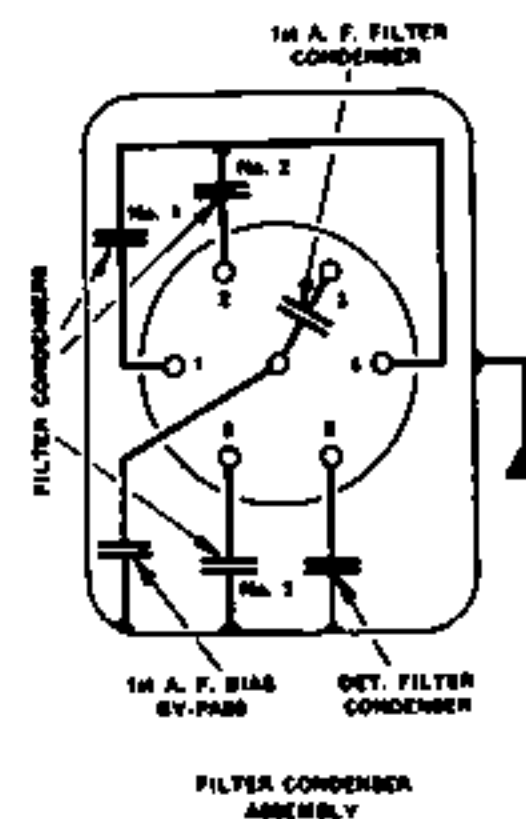
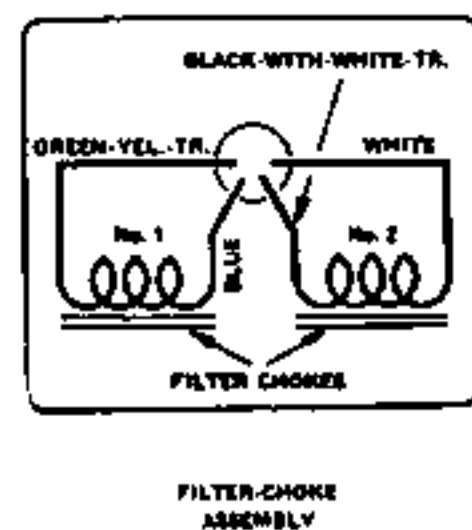
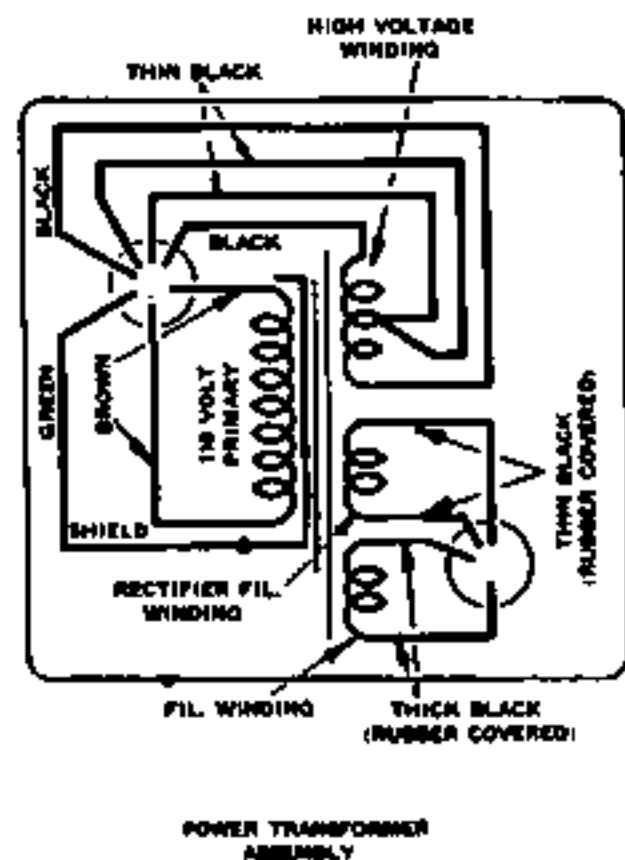


FIG. 123. CONNECTIONS OF UNITS IN LATER-TYPE MODEL 55 AND 55-C.

The center-tap of the input A. F. transformer is sometimes black-with-yellow-paint. A "quality" condenser, not shown above, is connected across the primary (large winding) of the 2nd-A. F. output transformer.

ATWATER KENT RADIO

MODEL 55 AND 55-C (Later Type)

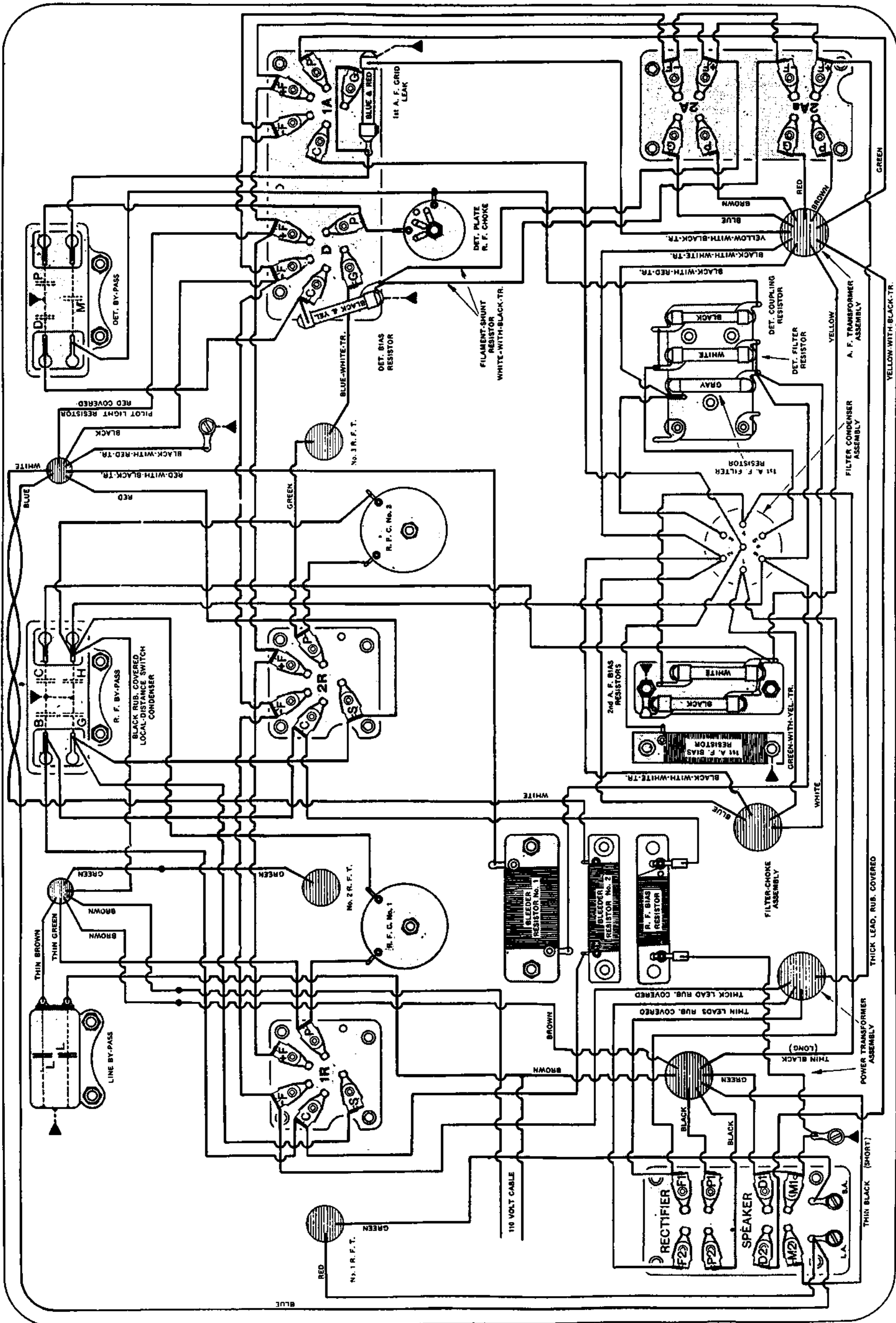


FIG. 124. BOTTOM WIRING OF LATER-TYPE MODEL 55 AND 55-C.

The 1st-A. F. bias resistor is mounted under the base of the 2nd-A. F. bias resistors. The other three wire-wound resistors are mounted together, being insulated from each other by sheets of fibre.

Atwater Kent 55 and 60

If the first a-f. bleeder resistor is defective in either of these models, replace with a No. 15660 resistor (1050 ohms).

When either the yellow (No. 15544) or the maroon (No. 15545) second a-f. bias resistor requires replacing, do not use a new yellow or maroon resistor, but follow the procedure found below.

Remove both the yellow and maroon resistors and replace the yellow one with a white resistor (No. 16724), 40,000 ohms, 1 watt, and the maroon resistor with a black (No. 15592), 65,000 ohms, 1 watt.

These changes affect only the second a-f. bias resistors in Models 55, 55C, 60 and 60C.