

MODEL 55-F AND 55-F-C

Voltage Readings on Atwater Kent Model 55-F, 55-F-C Receiver (25 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 ‡
		110 V. Line	120 V. Line	
FILAMENT VOLTAGES	-F to +F Contacts on the detector, 1st-A.F. and each R.F. Socket.	2.2	2.4	Open filament winding or connection.
	-F to +F on each 2nd-A.F. Socket.	4.5	4.9	
	F1 to F2 on Rectifier Tube Socket.	4.5	4.9	
PLATE VOLTAGES	C1R to P1R.	160	175	Open high voltage winding, open speaker magnet coil, open filter choke, open primary No. 2 R.F.T., or open R.F. bias resistor.**
	C2R to P2R.	160	175	
	CD to PD.	101	110	
	C1A to P1A.	69	75	
	-F2A to P2A. -F2Aa to P2Aa.	174 174	190 190	
GRID VOLTAGES	C1R to G1R.	3.7	4	Open secondary No. 1 R.F.T. Open secondary No. 2 R.F.T. Open secondary No. 3 R.F.T. Open 1st-A.F. grid leak. Open 2nd-A.F. bias resistor, or secondary of input A.F. transformer.
	C2R to G2R.	3.7	4	
	CD to GD.	11	12	
	C1A to G1A.*	2.8	3	
	-F2A to G2A.	41	45	
	-F2Aa to G2Aa.	41	45	
SCREEN VOLTAGES	C1R to S1R.	96	105	Open connection to slider of volume control, open volume-control resistor, or open bleeder resistor.
	C2R to S2R.	96	105	

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

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

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

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

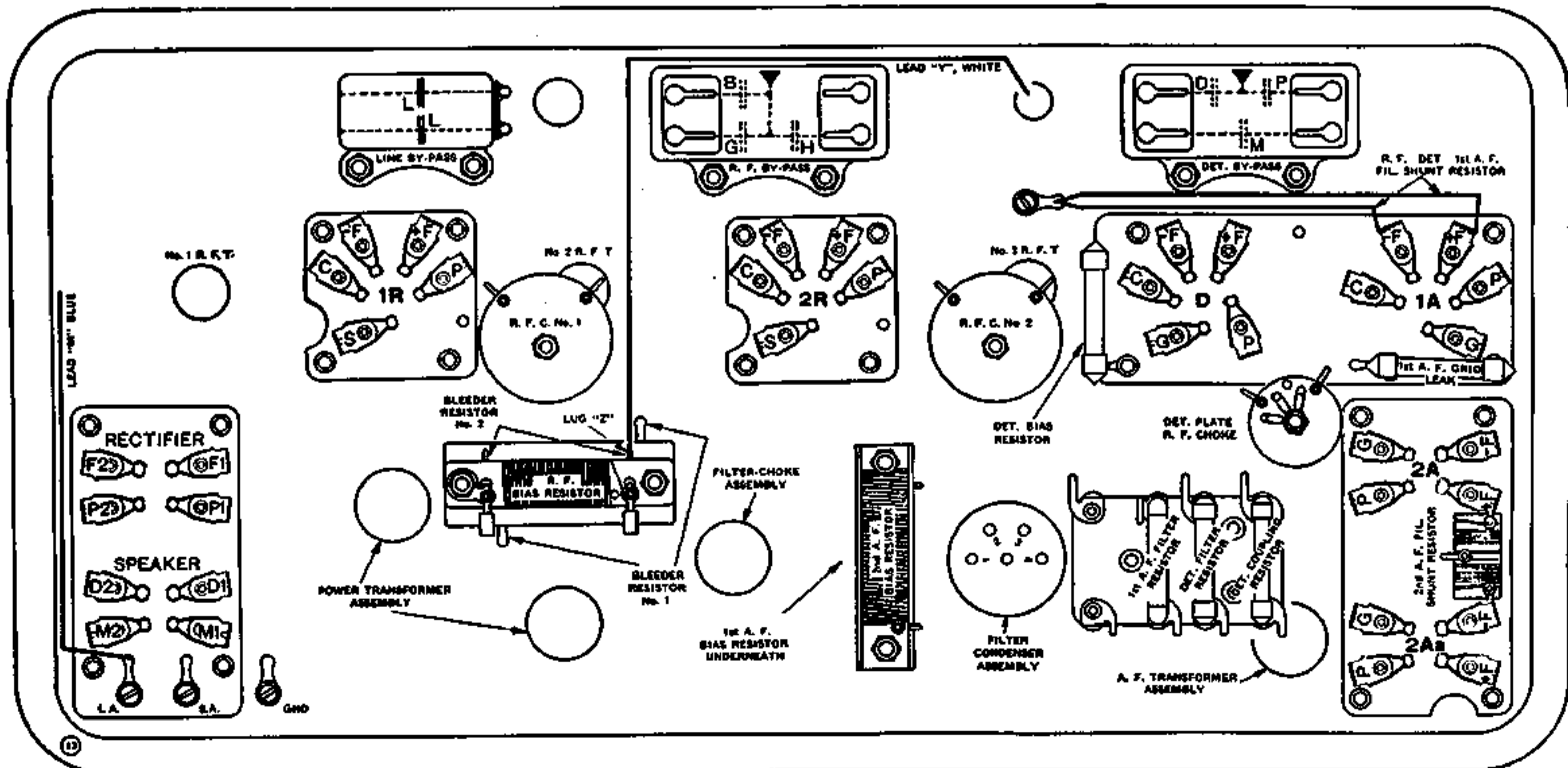


FIG. 125. BOTTOM CHART OF LATER-TYPE MODEL 55-F AND 55-F-C.

# MODEL 55-F AND 55-F-C

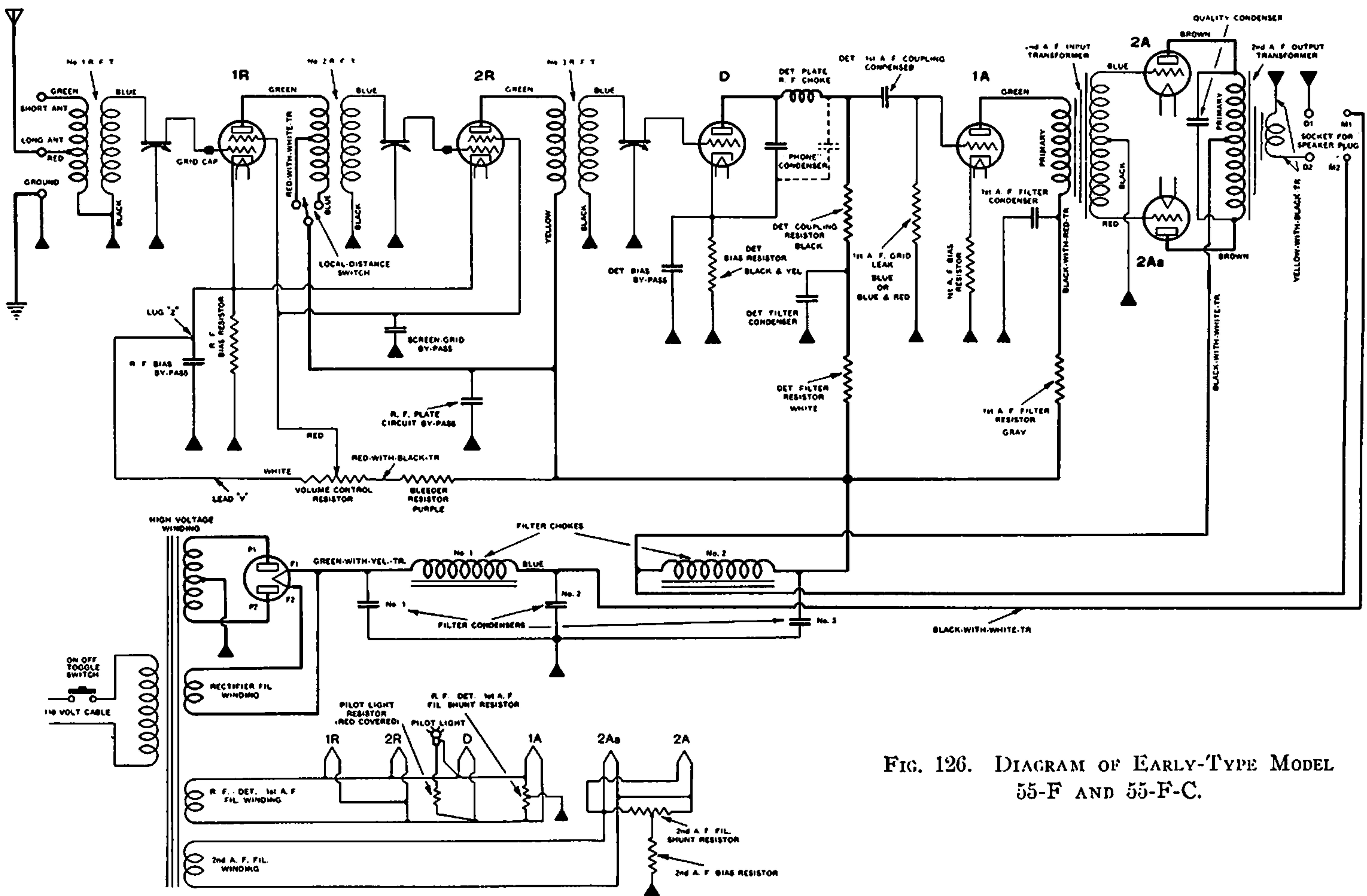


FIG. 126. DIAGRAM OF EARLY-TYPE MODEL 55-F AND 55-F-C.

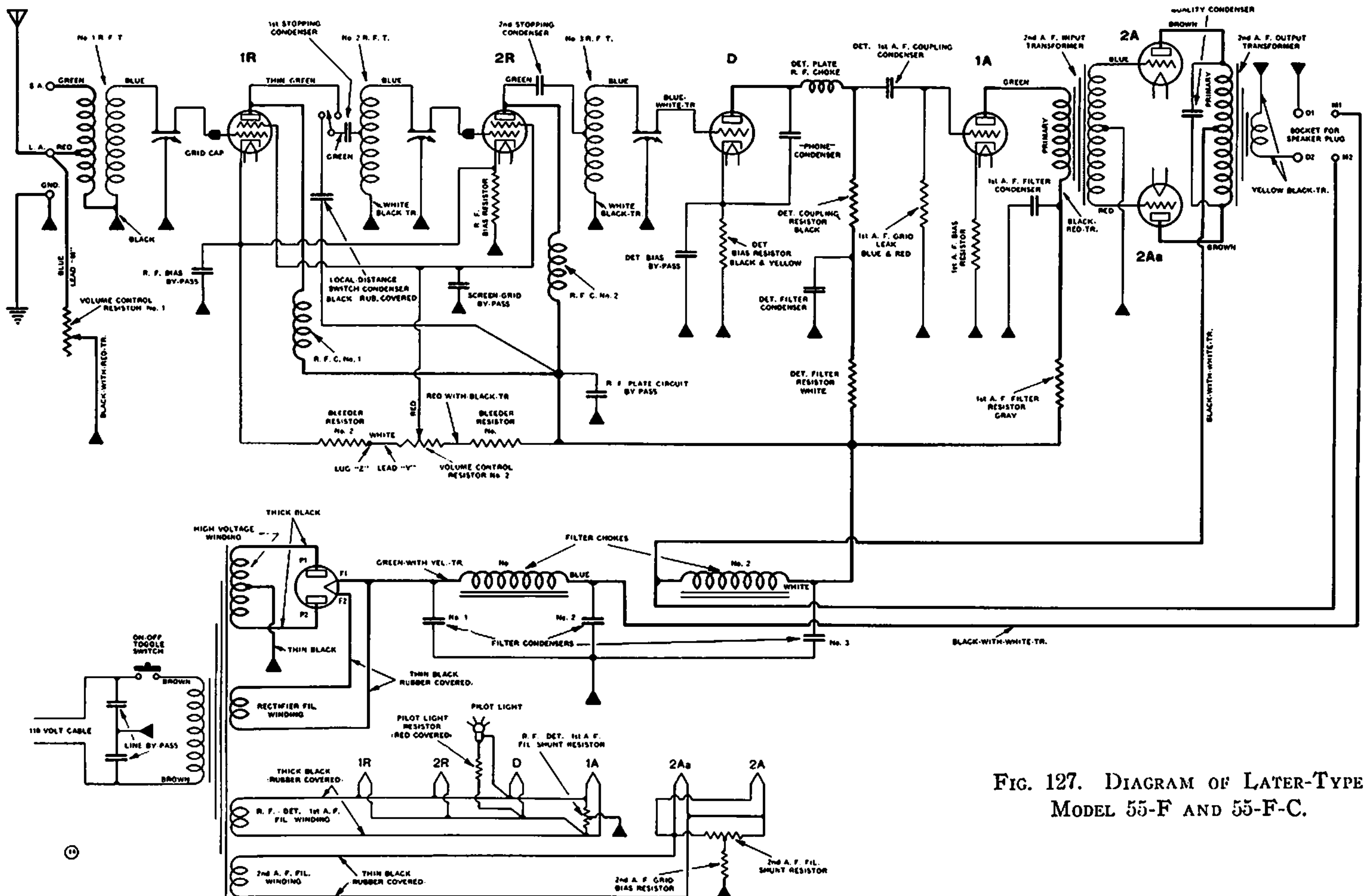


FIG. 127. DIAGRAM OF LATER-TYPE MODEL 55-F AND 55-F-C.

# MODEL 55-F AND 55-F-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.  
 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.

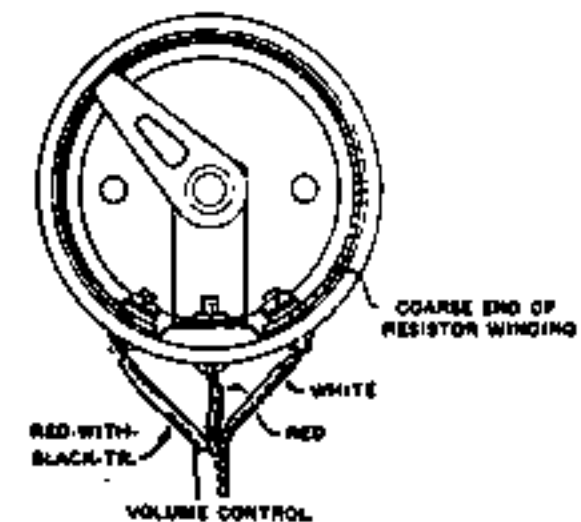
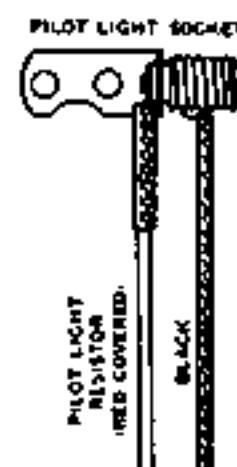
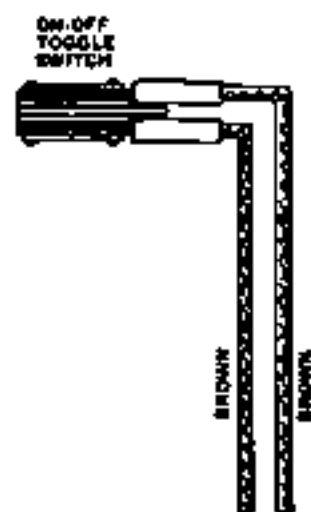
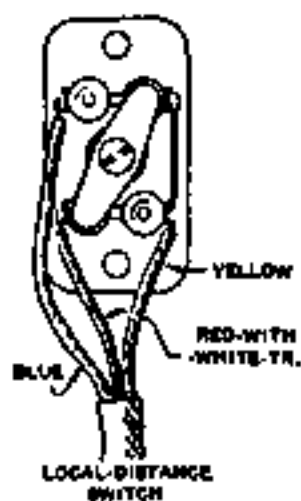
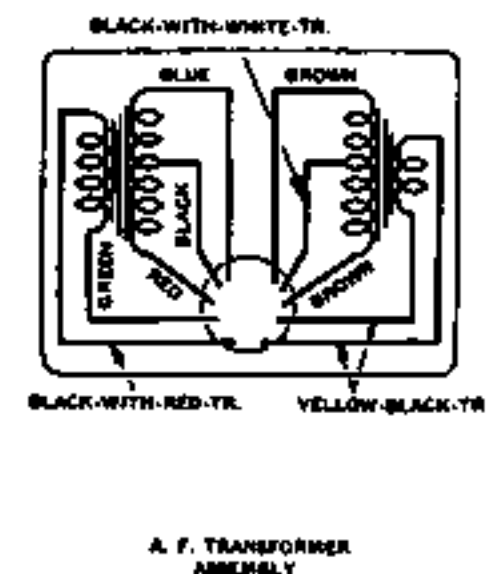
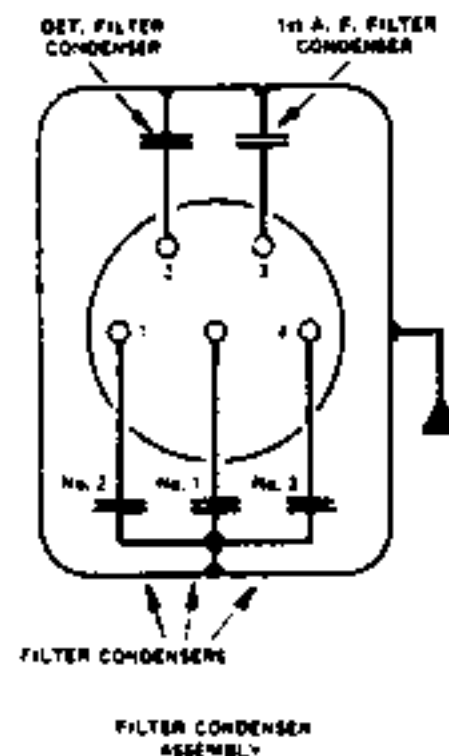
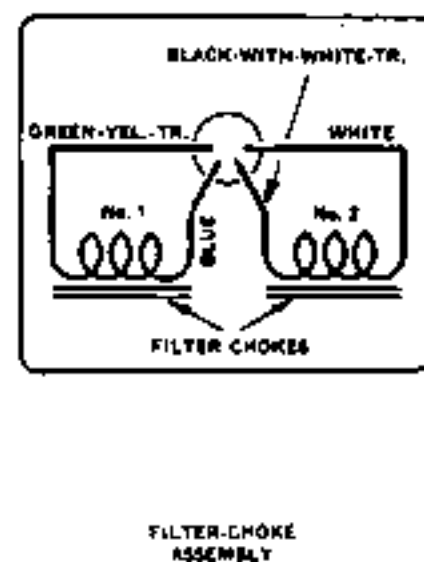
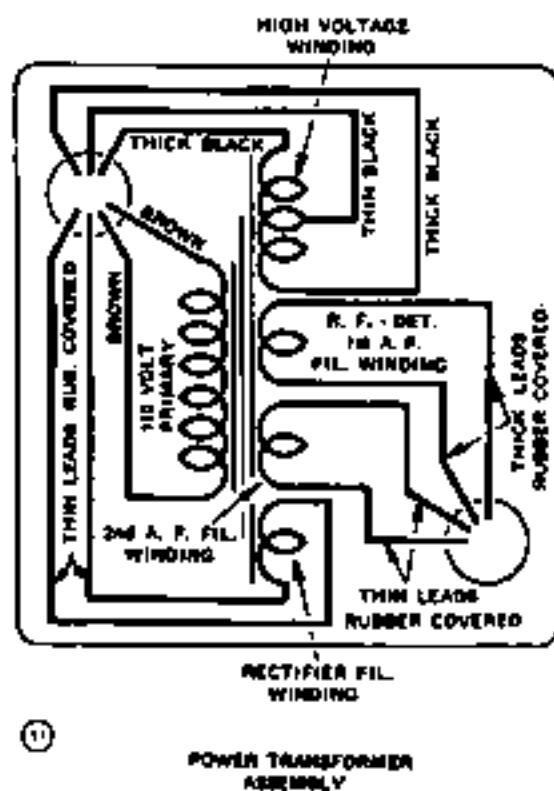


FIG. 128. CONNECTIONS OF UNITS IN EARLY-TYPE MODEL 55-F AND 55-F-C.



# MODEL 55-F AND 55-F-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.  
 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.

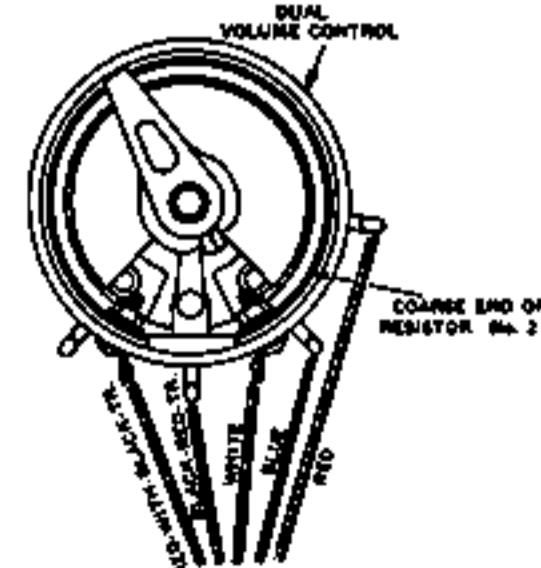
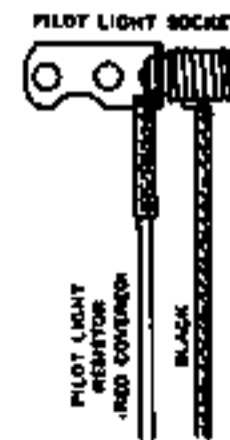
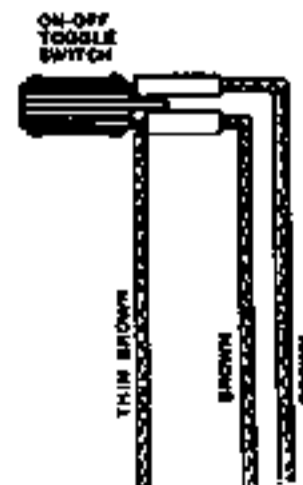
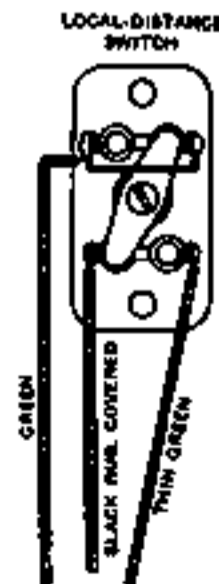
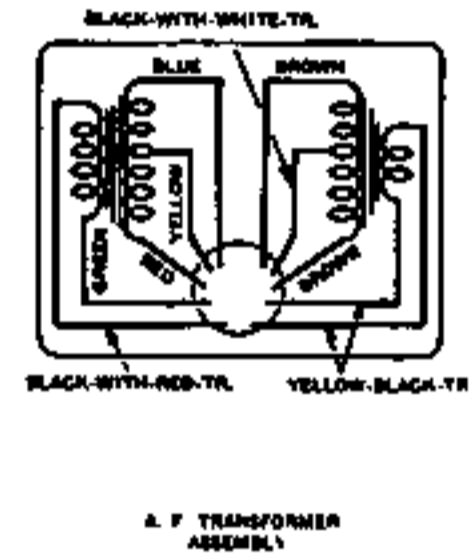
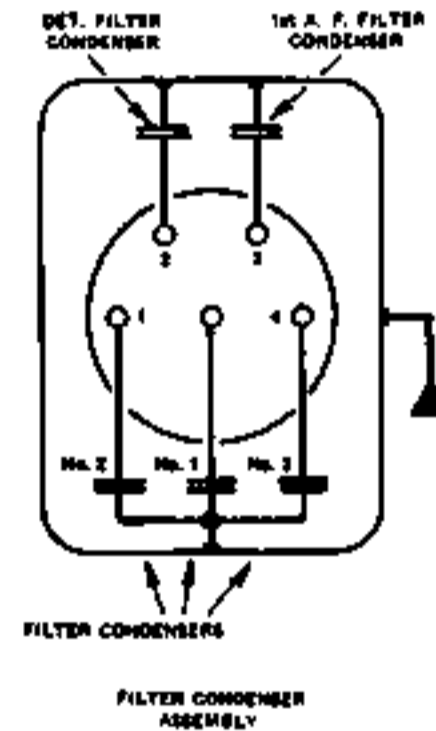
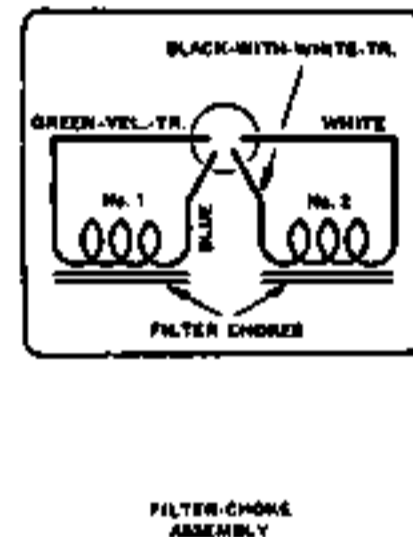
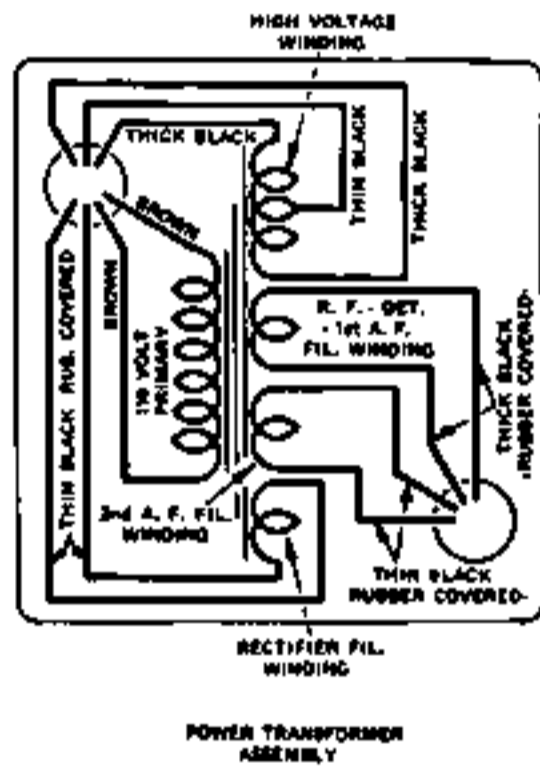


FIG. 130. CONNECTIONS OF UNITS IN LATER-TYPE MODEL 55-F AND 55-F-C.

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-F AND 55-F-C (Later Type)

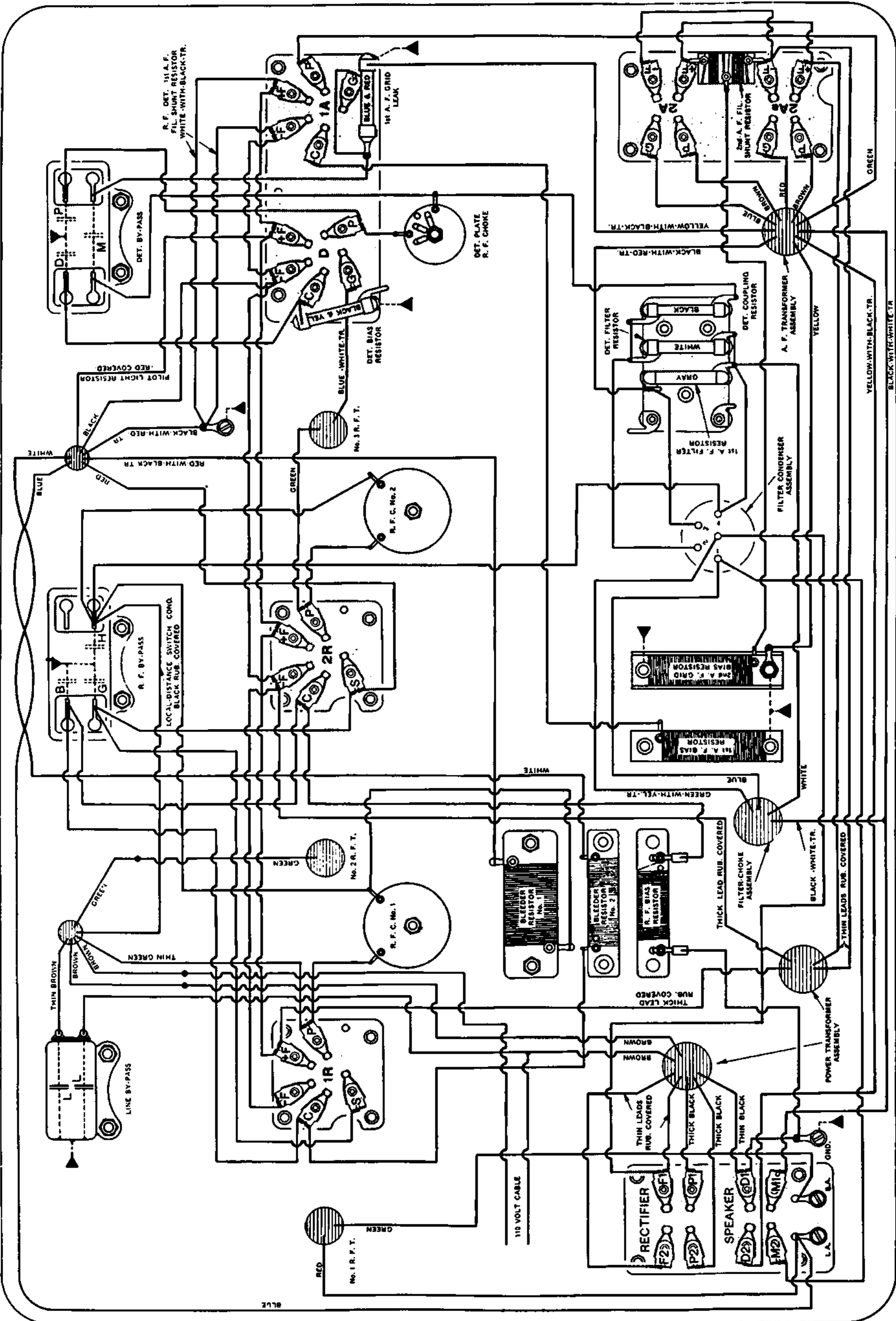


FIG. 131. BOTTOM WIRING OF LATER-TYPE MODEL 55-F AND 55-F-C.

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

Some of these sets had a combination resistor, No. 16868, which is superseded by two separate resistors, No. 16988 being used as R. F. bias, and No. 16989 as bleeder No. 2.