

# MODEL 60 AND 60-C

NVHR

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	
<b>FILAMENT VOLTAGES</b>	-F to +F Contacts on each Receiving Tube Socket.	2.2	2.4	} Open filament winding or connection.
	F1 to F2 on Rectifier Tube Socket.	4.5	4.9	
<b>PLATE VOLTAGES</b>	C1R to P1R.	156	170	} Open high voltage winding, open speaker magnet coil, open filter choke, open primary No. 2 R.F.T., †† open R.F. bias resistor, or open 1st-R.F. bias resistor.
	C2R to P2R.	160	175	
	C3R to P3R.	160	175	} Open primary No. 3 R.F.T. †† Open primary No. 4 R.F.T. ††
	CD to PD.	101	110	
	C1A to P1A.	69	75	} Open detector filter resistor, coupling resistor, R.F. choke, or det. bias resistor. † Open 1st-A.F. filter resistor, primary of A.F. input transformer, or 1st-A.F. bias.
	-F2A to P2A.	230	250	
-F2Aa to P2Aa.	230	250		
<b>GRID VOLTAGES</b>	C1R to G1R.	7.3	8	} Open secondary No. 1 R.F.T.
	C2R to G2R.	3.7	4	
	C3R to G3R.	3.7	4	} Open secondary No. 2 R.F.T.
	CD to GD.	11	12	
	C1A to G1A.*	1.8	2	} Open secondary No. 3 R.F.T.
	-F2A to G2A.	44	48	
	-F2Aa to G2Aa.	44	48	} Open secondary No. 4 R.F.T. Open 1st-A.F. grid leak. } Open 2nd-A.F. bias resistor No. 2 or secondary of input A.F. transformer.**
<b>SCREEN VOLTAGES</b>	C1R to S1R.	119	130	} Open connection to slider of volume control, open volume-control resistor, or open bleeder resistor. ††
	C2R to S2R.	83	96	
	C3R to S3R.	83	96	

\* This is the measured voltage, not the actual operating voltage.  
 \*\* If 2nd-A. F. bias resistor No. 1 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 later Model 60 and 60-C, the primaries of No. 2, 3 and 4 R. F. T. are replaced by R. F. choke coils mounted under the chassis.  
 ‡ Low plate, screen, or grid voltages may indicate a partially shorted by-pass or filter condenser.  
 ††† In early Model 60 and 60-C, incorrect voltage on 1st-R. F. screen may be used by defective screen-grid resistor No. 1 or 2.

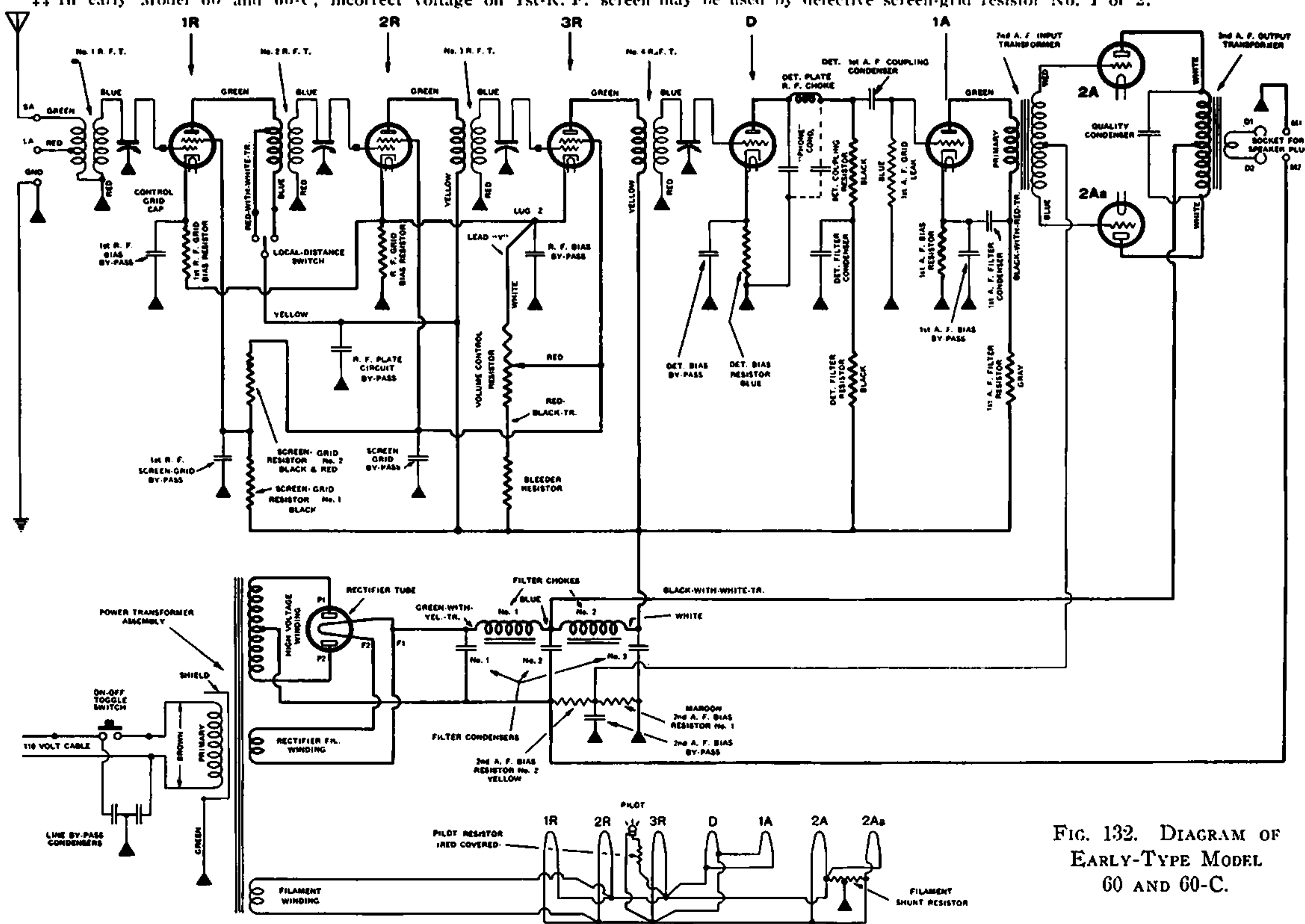


FIG. 132. DIAGRAM OF EARLY-TYPE MODEL 60 AND 60-C.

# MODEL 60 AND 60-C (Early Type)

## Connections of R. F. Coil Group No. 16363

### No. 1 R. F. T.

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

### No. 2 R. F. T.

Red to chassis.  
Blue (with lug) to stator No. 2 V. C.  
Green to P1R.  
Blue, and red-white to leads of corresponding color from local-distance switch.

### No. 3 R. F. T.

Red to chassis.  
Blue to stator No. 3 V. C.  
Green to P2R.  
Yellow to by-pass H.

### No. 4 R. F. T.

Red to chassis.  
Blue to stator No. 4 V. C.  
Blue to GD.  
Green to P3R.  
Yellow to contact No. 6 on filter condenser.

### Condensers in R. F. By-Pass No. 1

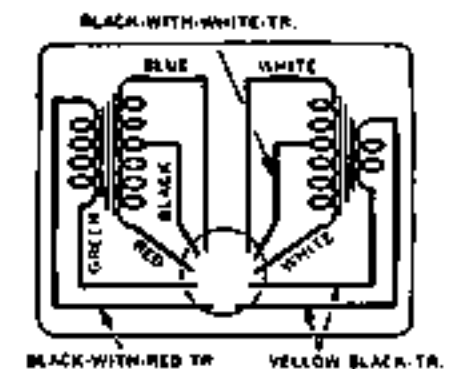
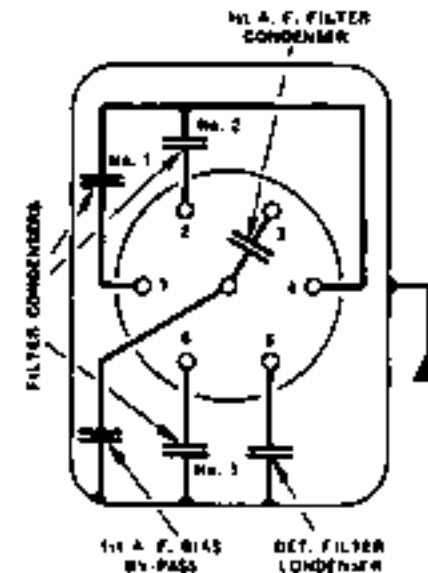
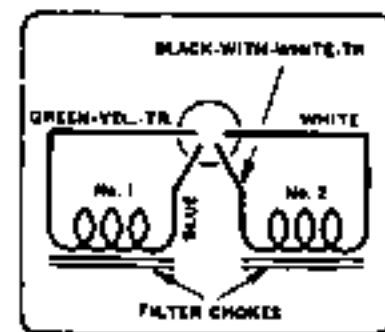
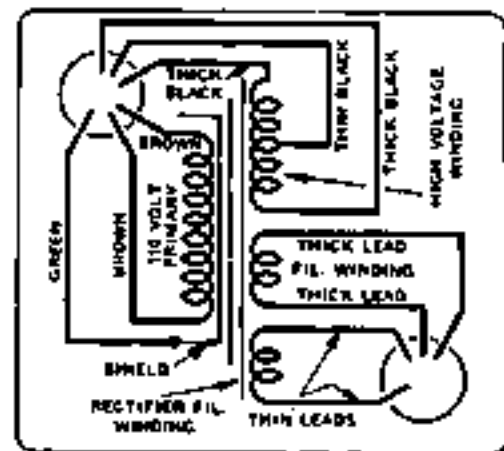
A—1st-R. F. bias by-pass.  
E—1st-R. F. screen by-pass.  
F—2nd-3rd-R. F. screen by-pass.  
H—R. F. plate-circuit by-pass.

### Condensers in R. F. By-Pass No. 2

B—R. F. bias by-pass.  
C—2nd-A. F. bias by-pass.  
L—Line by-pass.  
L—Line by-pass.

### Condensers in Detector By-Pass

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



POWER TRANSFORMER ASSEMBLY

FILTER CHOKES ASSEMBLY

FILTER CONDENSER ASSEMBLY

A. F. TRANSFORMER ASSEMBLY

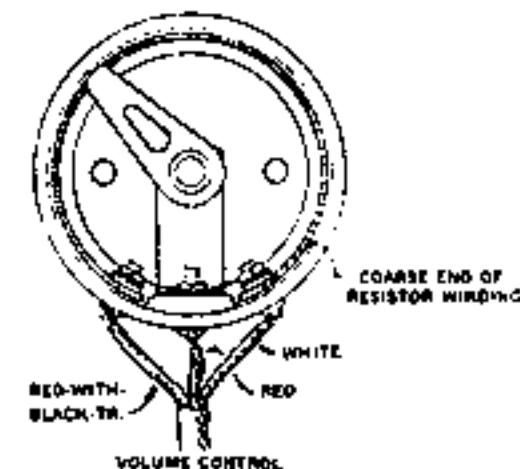
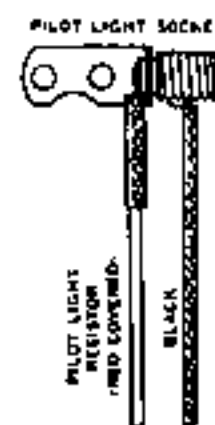
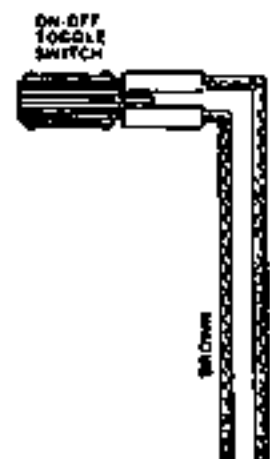
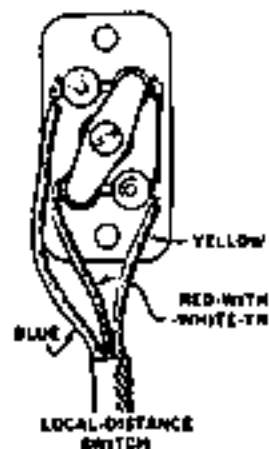


FIG. 135. CONNECTIONS OF UNITS IN EARLY-TYPE MODEL 60 AND 60-C.

MODEL 60 AND 60-C (Early Type)

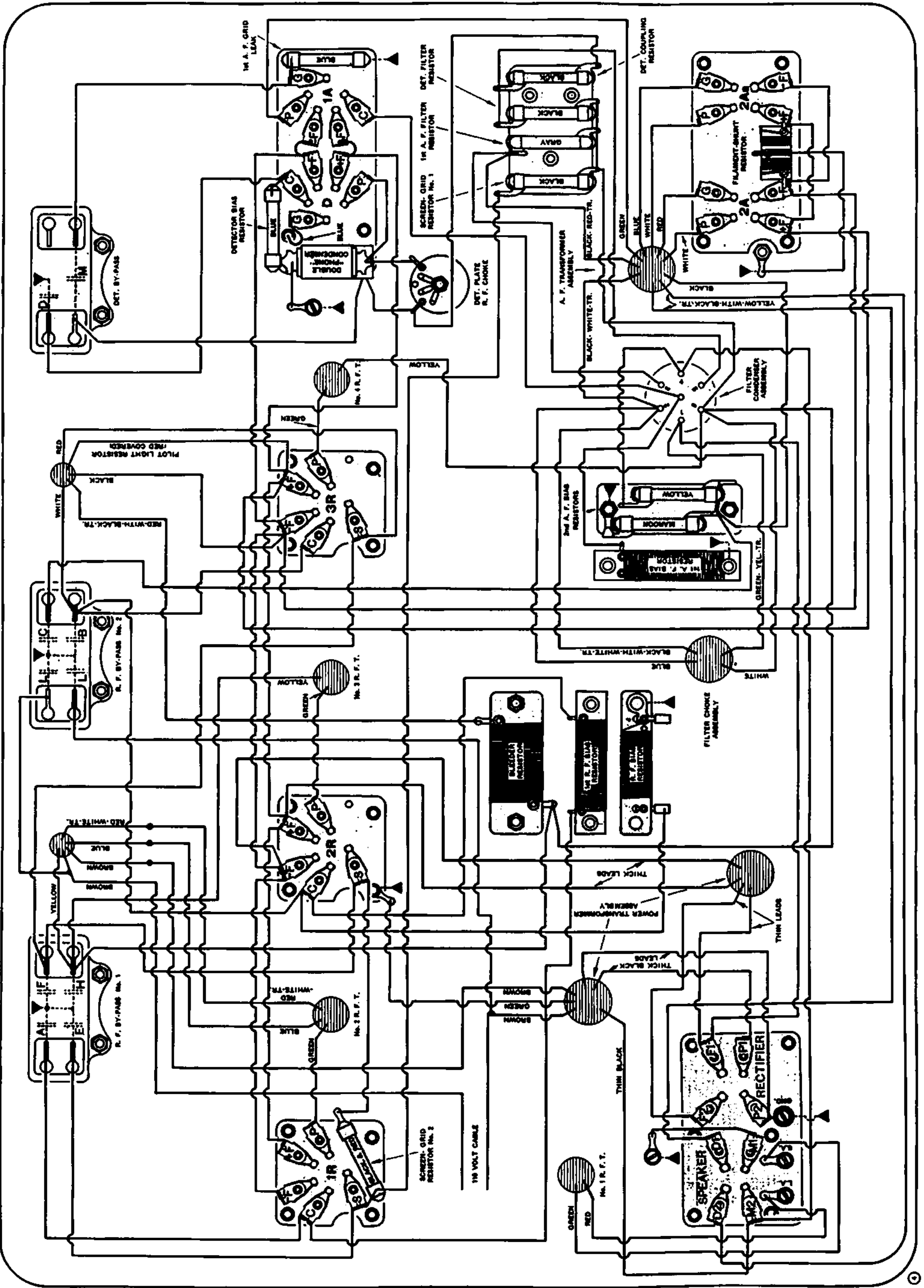


FIG. 136. BOTTOM WIRING OF EARLY-TYPE MODEL 60 AND 60-C.

# ATWATER KENT RADIO

## MODEL 60 AND 60-C

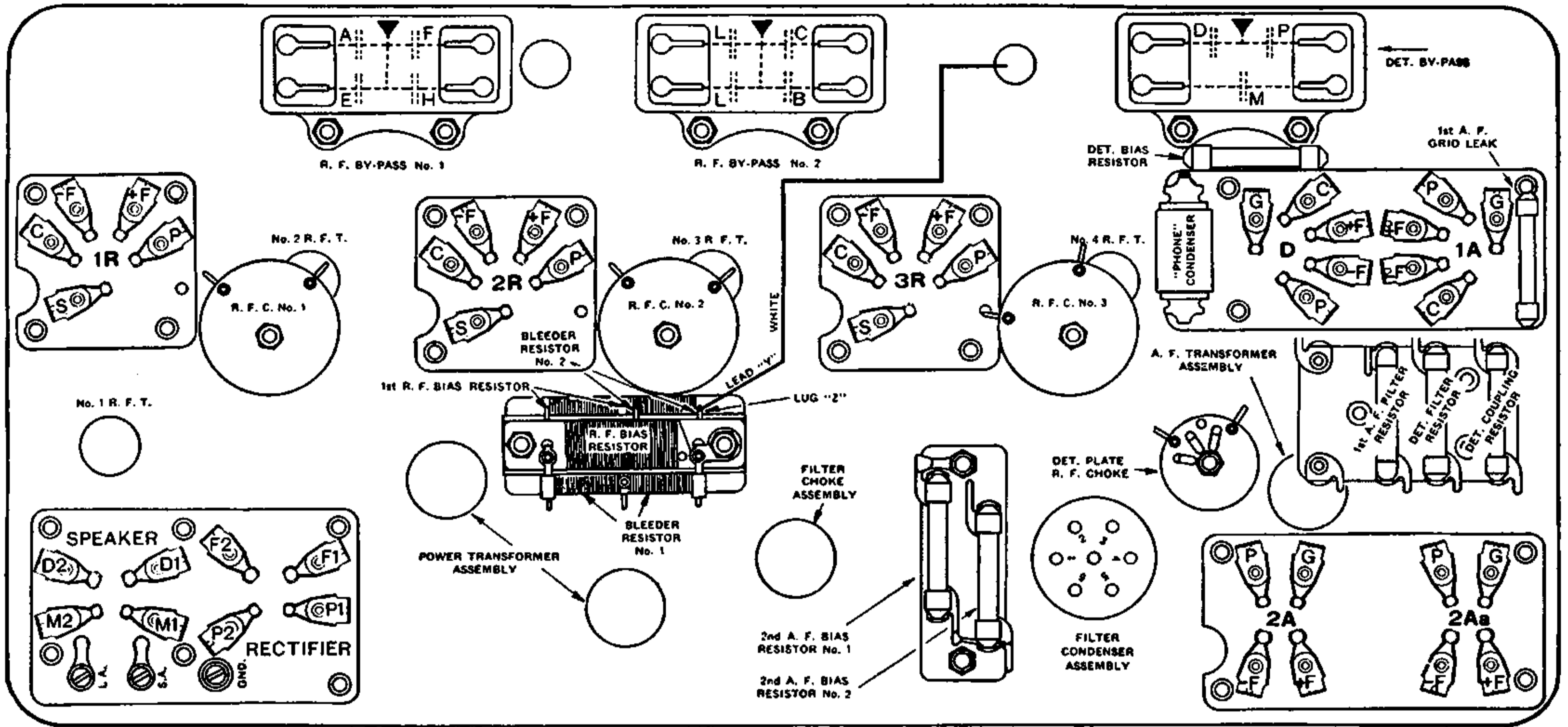


FIG. 133. BOTTOM CHART OF LATER-TYPE MODEL 60 AND 60-C.

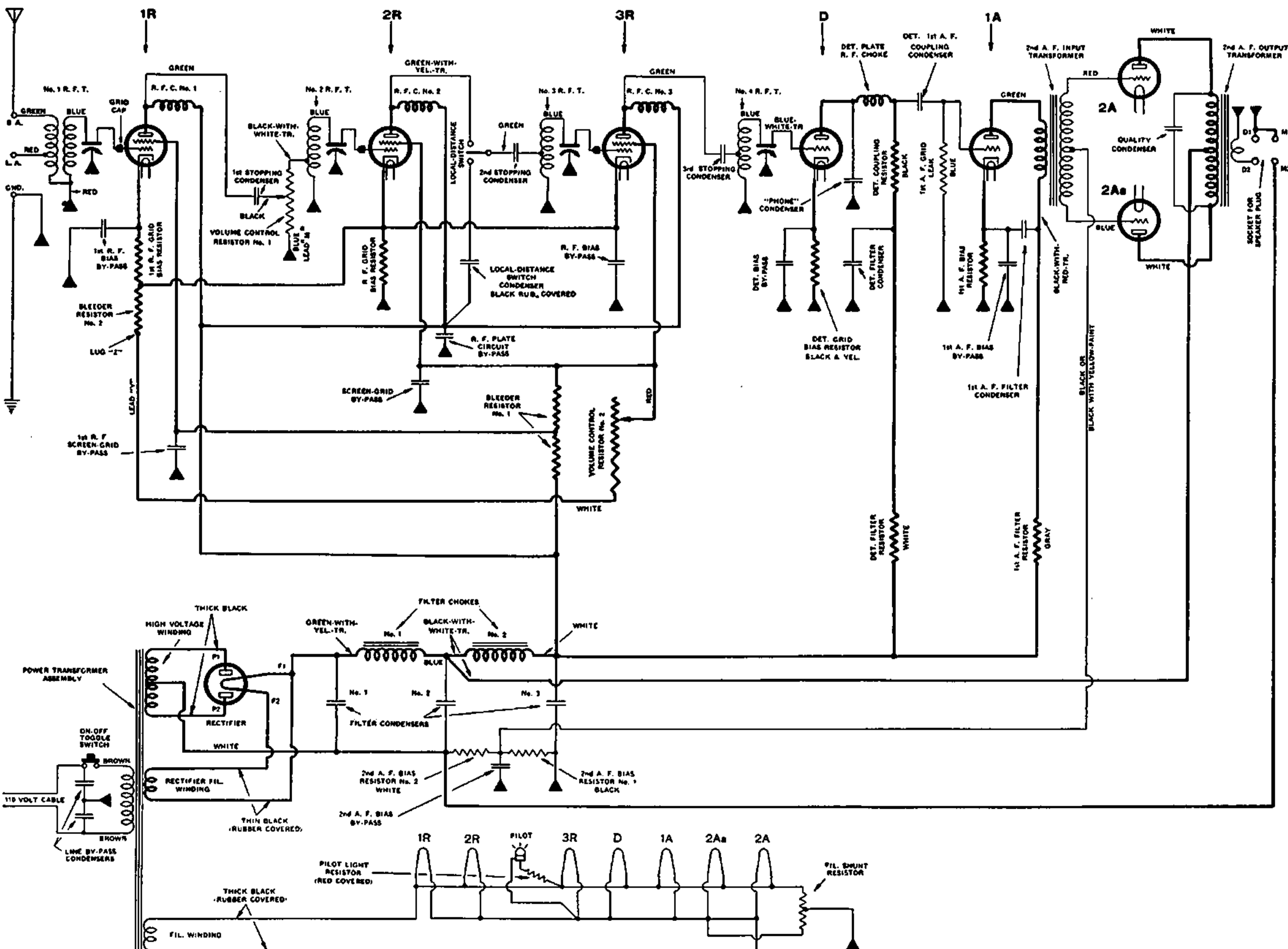


FIG. 134. CIRCUIT OF LATER MODEL 60 AND 60-C.  
The changes shown above were made gradually, not all at one time.

# MODEL 60 AND 60-C (Later Type)

## Connections of R.F. Coil Group No. 16984

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.

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

### No. 2 R. F. T.

Blue-white-tr. (1") to chassis.  
Blue-white-tr. (5") to stator No. 2 V.C.  
Green to P1R.  
Black-white-tr., and plain black, connect to leads of corresponding color from volume control.

### No. 3 R. F. T.

Blue-white-tr. (1") to chassis.  
Blue-white-tr. (5") to stator No. 3 V.C.  
Green to green lead from local-distance switch.

### No. 4 R. F. T.

Blue-white-tr. (1") to chassis.  
Blue-white-tr. (5") (with lug) to stator No. 4 V.C.  
Blue-white-tr. (without lug) from stator No. 4 V.C. to GD.  
Green to P3R.

### Condensers in R. F. By-pass No. 1

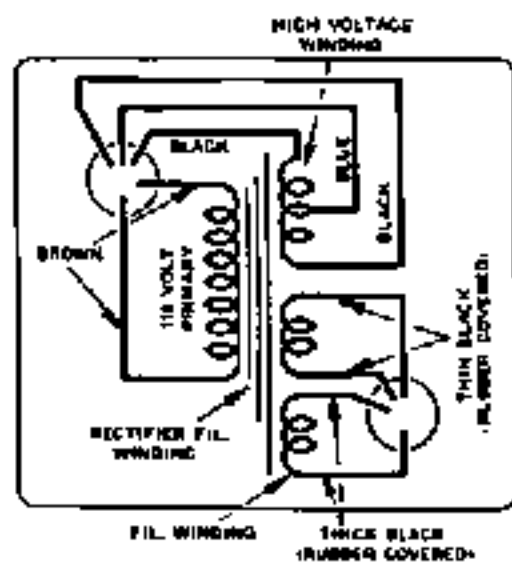
A—1st-R. F. bias by-pass.  
E—1st-R. F. screen by-pass.  
F—2nd-3rd-R. F. screen by-pass.  
H—R. F. plate-circuit by-pass.

### Condensers in R. F. By-pass No. 2

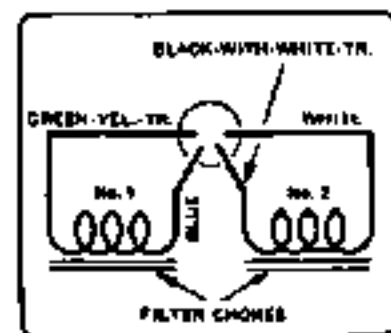
B—R. F. bias by-pass.  
C—2nd-A. F. bias by-pass.  
L—Line by-pass.  
L—Line by-pass.

### Condensers in Detector By-pass

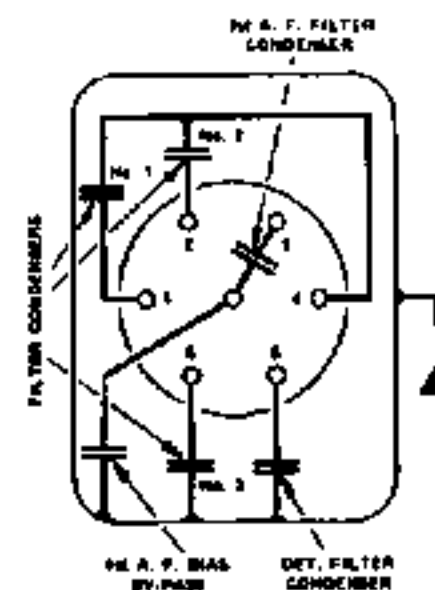
D—Detector bias by-pass.  
M—Detector-1st-A. F. coupling condenser.  
P—"Phone" condenser.



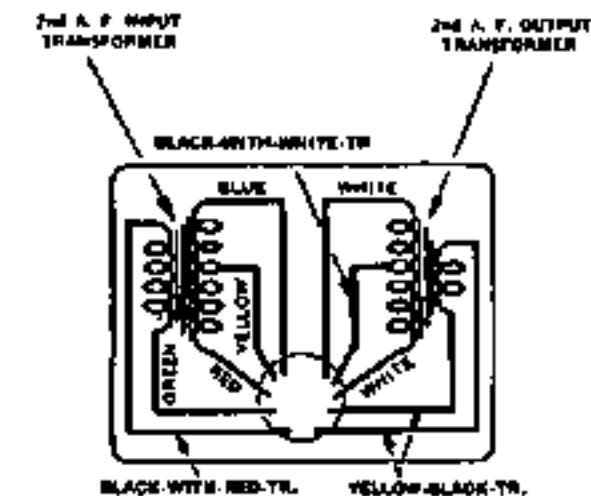
POWER TRANSFORMER ASSEMBLY



FILTER CHOKES ASSEMBLY



FILTER CONDENSER ASSEMBLY



A. F. TRANSFORMER ASSEMBLY

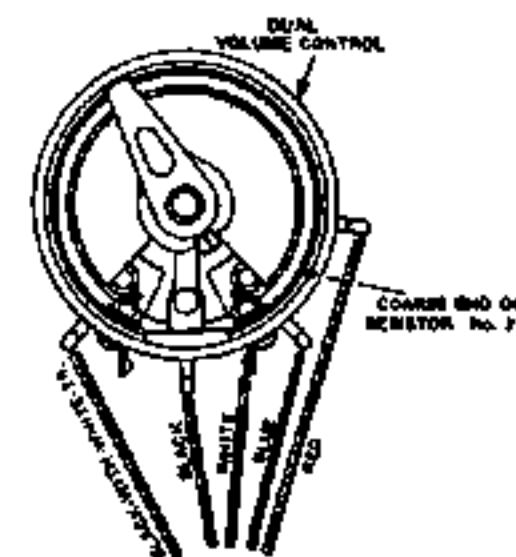
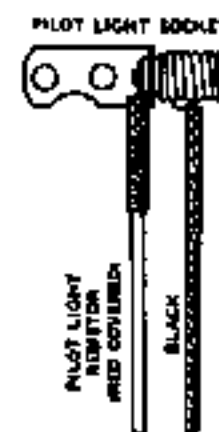
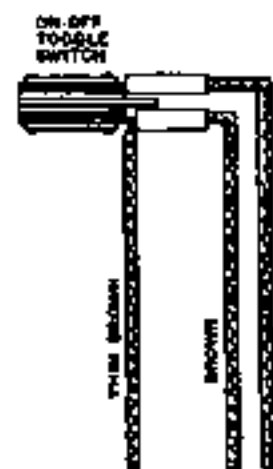
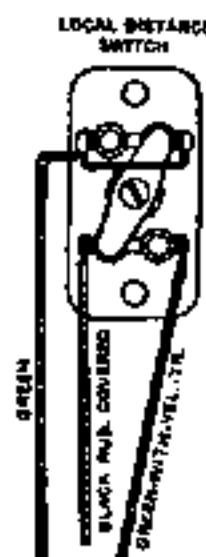


FIG. 137. CONNECTIONS OF UNITS IN LATER-TYPE MODEL 60 AND 60-C.

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.

MODEL 60 AND 60-C (Later Type)

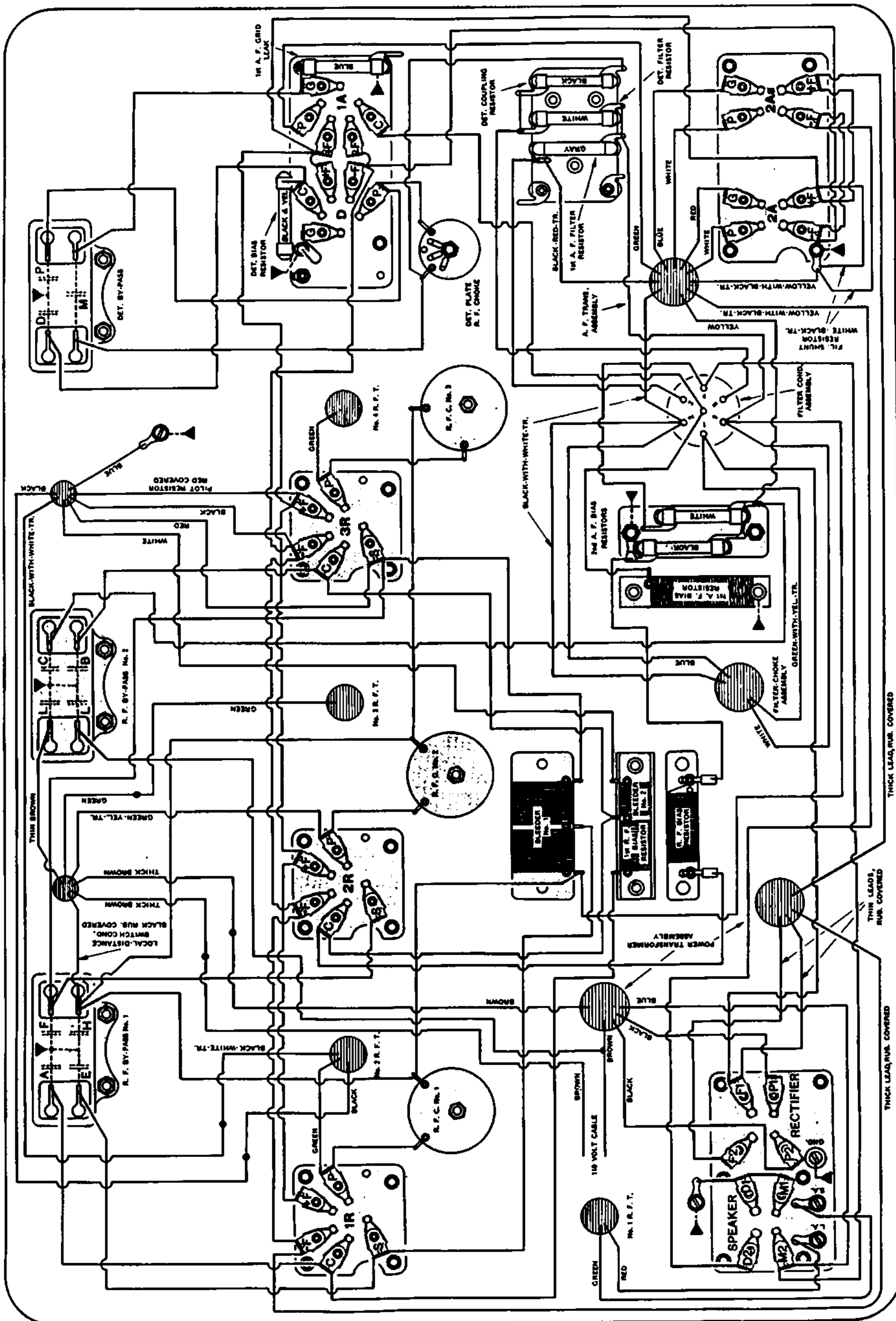


FIG. 138. BOTTOM WIRING OF LATER-TYPE MODEL 60 AND 60-C.

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.

The lead from No. 4 V. C. to the grid contact of the detector socket is blue-with-white tracer. The combination resistor No. 16872, comprising 1st-R. F. bias resistor and bleeder No. 2, is superseded by two separate resistors, No. 16253 being used as 1st-R. F. bias, and No. 15660 being used as bleeder No. 2.