ATWATER KENT MFG. CO.

Model 20 #7570

CONDENSERS

Detector phone	0.002 mfd	# 8241 500 volts
Detector grid	0.000250 mfd	# 4465 500 volts
Plate bypass	0.3 mfd	# 14902 450 volts

RESISTORS

Grid suppressors	600 ohms	# 4949, wire wound
Detector grid leak	2 megs	# 15892, 1 watt, Green
R-f rheostat	10 ohms	# 4690
Detector rheostat	10 ohms	# 4690

TRANSFORMERS

1st a-f primary	1700 ohms	# 4779
1st a-f secondary	3250 ohms	
2nd a-f primary	1700 ohms	# 4779
2nd a-f secondary	3250 ohms	

ATWATER KENT MFG. CO.

MODEL 20 #7960

CONDENSERS

Detector phone	0.002 mfd	# 8241	500 volts
Detector grid	0.00025 mfd	# 8112	500 volts
Plate bypass	0.3 mfd	# 14902	450 volts

RESISTORS

Grid suppressors	600 ohms	# 4949	wire wound
Detector grid leak	2.0 megs	# 15892	1 watt Green
Detector bias	450 ohms	# 8190	tapped at 180-270 ohms
A-f filament	1.0 ohm	# 8303	brown covered
Detector rheostat	20 ohms	# 8310	
R-f rheostat	10 ohms	# 4690	

TRANSFORMERS

1st a-f primary	1000 ohms	# 8060
1st a-f secondary	8000 ohms	
2nd a-f primary	1700 ohms	# 7661
2nd a-f secondary	3250 ohms	

The detector grid bias resistor is adjacent to the detector socket. It is a flat resistor . The plate bypass condenser is adjacent to the 2nd r-f socket. The phone condenser is located between the detector and 1st a-f sockets.

Model 20 Compact Receiver—Continuity Table

(For Following Tests, Place Filament Switch "On" and Rheostats Barely "On")

TEST FROM	Correct Reading	WRONG READING INDICATES	REMARKS and FURTHER POSSIBILITIES
			NOTE: Examine cable for broken leads, broken connections and short circuits. Repair or replace cable if necessary.
BLACK to			
—F1R, —F2R, Ground Post.	*Full*	Open R.F. rheostat or connection.	R.F. rheostat at left.
—FD (7960 Set).	*Full*	Open detector rheostat or connection.	Detector rheostat at right.
—F1A, —F2A (7960 Set).	*Full*	Open A.F. filament fixed resistance.	Green insulated wire between rheotat assembly and —F1A.
—FD, —F1A, —F2A (7570 Set).	*Full*	Open Detector-A.F. filament rheostat or connection.	Detector-A.F. rheostat at right.
+FD (7960 Set).	*Nearly Full*	Open detector grid bias resistance.	
Antenna Post.	*Full*	Open primary antenna transformer or defective tap switch.	Test with antenna switch on each of 3 taps.
G1R	*Partial*	Open secondary antenna transformer or open first grid resistance.	Test secondary and grid resistor separately. Grid resistors mounted on back of R.F. variable condensers.
P1R, P2R	*None*	No. 1, 2 R.F.T. primary circuit grounded.	Or shorted by-pass condenser. (Unsolder lead and test condenser separately.)
PD	*None*	No. 1 A.F.T. primary circuit grounded.	Or shorted phone condenser (on 7960 set).
P1A	*None*	No. 2 A.F.T. windings grounded.	Examine transformer connections.
G2R	*Partial*	None—Open secondary No. 1 R.F.T. or open grid resistor.	Full—Shorted grid circuit or shorted grid resistor.
GD	*None*	Shorted grid condenser.	Mounted on det. var. condenser.
G1A (7960 Set).	*Partial*	None—Open secondary No. 1 A.F.T.	Full—Shorted secondary.
Stator of Detector Variable Condenser.	*Full*	Open secondary No. 2 R.F.T.	
RED to			
+F of All Sockets.	*Full*	Open positive filament circuit.	
PD (7570 Set).	*None*	Shorted phone condenser.	
WHITE to			
P1R	*Full*	Open primary No. 1 R.F.T.	
P2R	*Full*	Open primary No. 2 R.F.T.	
P1A (7960 Set).	*Partial*	None—Open primary No. 2 A.F.T.	Full—Shorted primary.
YELLOW to			
PD	*Partial*	None—Open primary No. 1 A. F. T.	Full—Shorted primary.
BROWN to			
Speaker Post No. 2.	*Full*	Open cable lead or connection.	
P1A (7570 Set).	*Partial*	None—Open primary No. 2 A.F.T.	Full—Shorted primary.
OTHER TESTS			
P2A to Speaker Post No. 1.	*Full*	Open connection.	
—C Lead to G2A	*Partial*	None—Open secondary No. 2 A.F.T.	Full—Shorted secondary.
—C Lead to G1A (on 7570 Set).	*Partial*	None—Open secondary No. 1 A.F.T.	Full—Shorted secondary.

Model 20 Compact Receiver—Test Chart and Diagrams

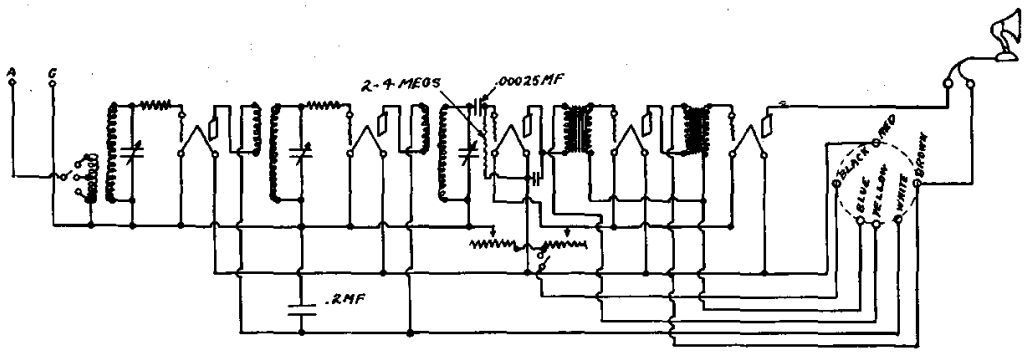

FIG. 36. MODEL 20 COMPACT SET NO. 7570. WIRING DIAGRAM.

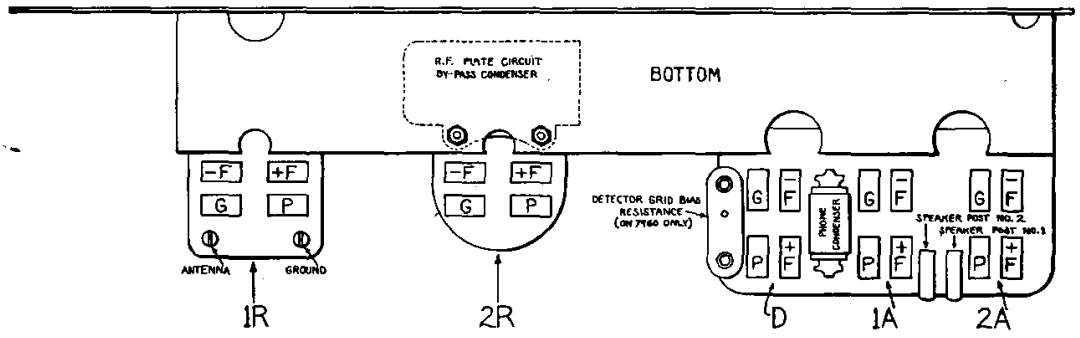

FIG. 37. TESTING CHART FOR MODEL 20 COMPACT (BOTH TYPES).

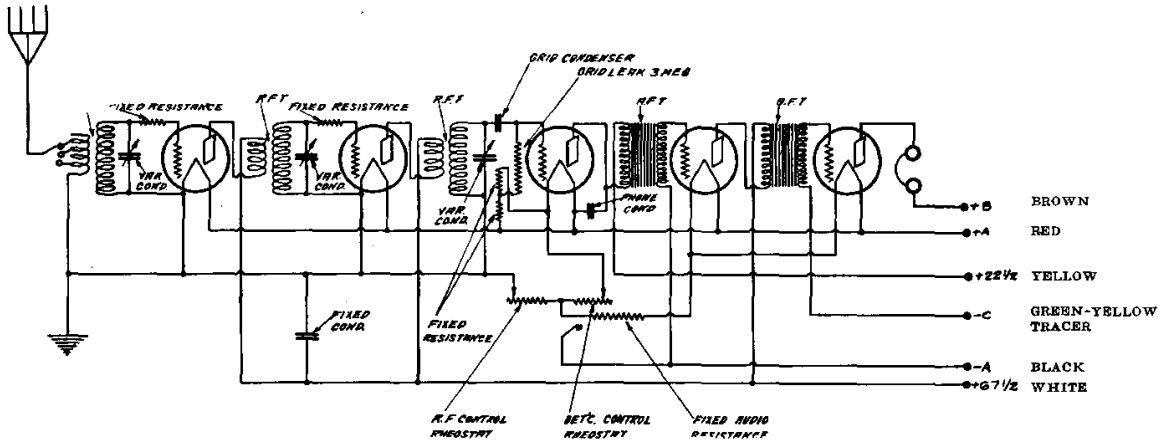

FIG. 38. MODEL 20 COMPACT SET NO. 7960. WIRING DIAGRAM.