Model 601

Battery Operated Radio Receiver

Specifications

Frequency Range:

Broadcast—Green: 530 to 1730 K.C.
Short Wave—Red: 5.8 to 19 megacycles
Police—Semi-fixed tuning centering on the 2400 K.C. Police Band.

I.F.:

463 K.C.

Tubes:

Type	Function
1C6	1st Detector and Oscillator
34	1st I.F. Amplifier
34	2nd I.F. Amplifier
30	2nd Detector, A.V.C.
32	1st A.F. Amplifier
33	Power Output (2nd A.F. Amplifier).

Power Supply:

"A" Battery—2 volts
"B" Battery—135 volts
"C" Battery—15 volts
See Schematic for connections.

A.V.C.:

On 1C6 and two 34 type tubes.

Controls:

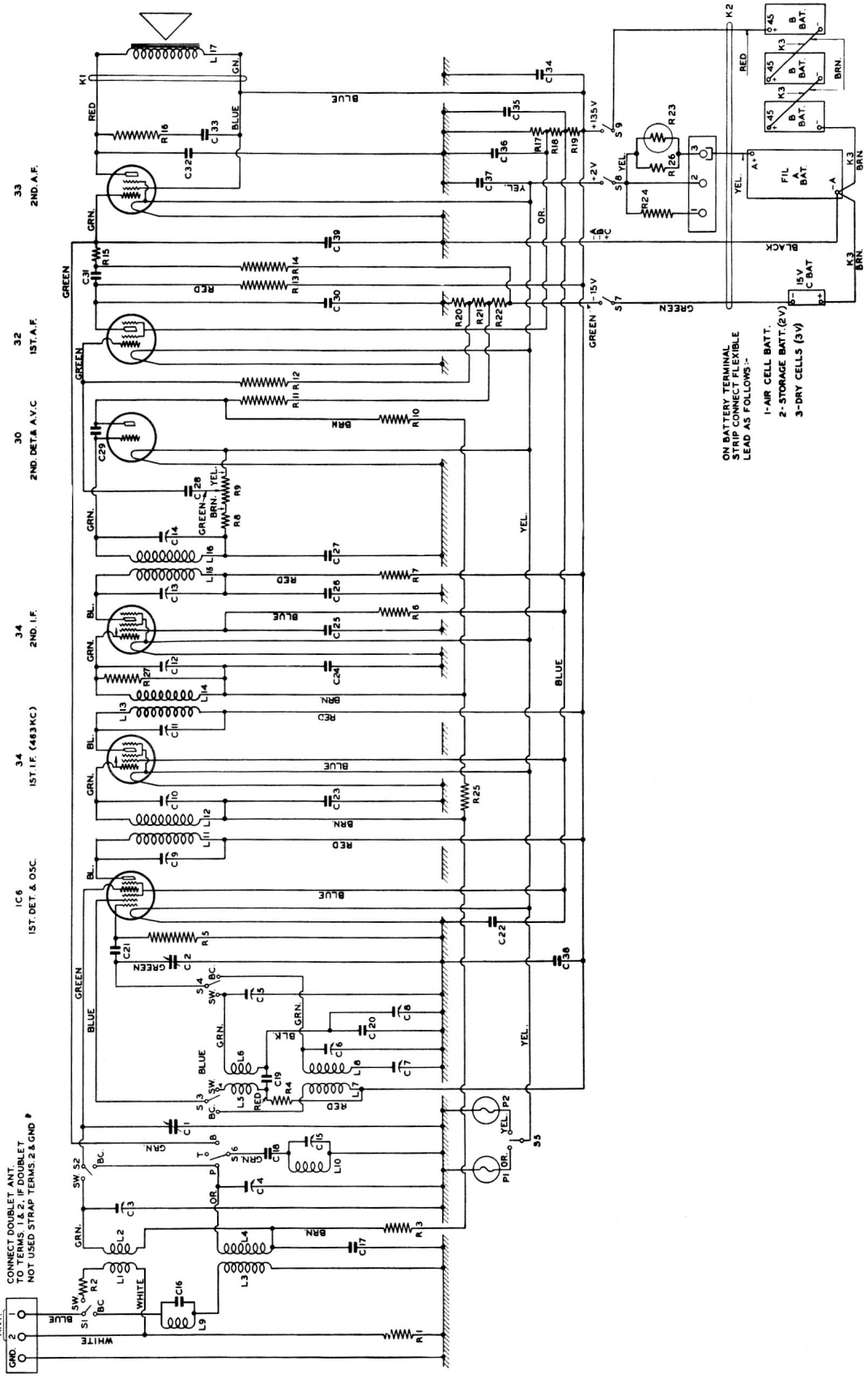
Left to Right — Volume control; battery switch; tone control and police switch; wave change switch; tuning control.

Loudspeaker:

K-1575 permanent magnet loudspeaker.

Cabinet:

Console model.



Schematic Diagram—Model 601 Battery-Operated Receiver. (Issue No. 8).

REPLACEMENT PARTS LIST

Schematic Designation	Value and Description	Part Number
C-1, C-2	367.7 mmf. max. cap. two gang variable	K-1670
C-3	1.5-10 mmf; variable	K-1458-5
C-4	1.0-6 mmf; variable	K-1458-7
C-5	1.5-10 mmf; variable	K-1458-5
C-6	3-25 mmf; variable	K-1458-6
C-7, C-8	300-600 mmf / 1100-2000 mmf Dual, variable	K-1567-1
C-9, C-10	35-130 mmf / 35-130 mmf Dual, variable	K-1368-4
C-11, C-12	30-100 mmf / 30-100 mmf Dual, variable	K-1600-1
C-13, C-14	35-130 mmf / 35-130 mmf Dual, variable	K-1368-4
C-15	10-35 mmf; variable	K-1458-3
C-16	500 mmf; mica	K-1611-7
C-17	.05 mf; 175 volts	K-2227-8
C-18	500 mmf; mica	K-1952-3
C-19	.05 mf; 175 volts	K-2227-8
C-20	1500 mmf; mica	K-1952-5
C-21	100 mmf; mica	K-1611-2
C-22	.05 mf; 175 volts	K-2227-8
C-23	.05 mf; 175 volts	K-2227-8
C-24	.05 mf; 175 volts	K-2227-8
C-25	.05 mf; 175 volts	K-2227-8
C-26	.05 mf; 175 volts	K-2227-8
C-27	100 mmf; mica	K-1611-2
C-28	.005 mf; 350 volts	K-2228-5
C-29	100 mmf; mica	K-1611-2
C-30	100 mmf; mica	K-1611-2
C-31	.05 mf; 175 volts	K-2227-8
C-32	.001 mf; 350 volts	K-2228-1
C-33	.02 mf; 175 volts	K-2227-7
C-34, C-35	4 mf; 175 volts / 2 mf; 175 volts Block	K-1678
C-36	.25 mf; 175 volts	K-2227-10
C-37	2 mf; 175 volts	K-2227-13
C-38	.05 mf; 175 volts	K-2227-8
C-39	100 mmf; mica	K-1611-2
R-1	100,000 ohms; ½ watt	K-2226-5
R-2	50 ohms; ½ watt	K-2226-25
R-3	100,000 ohms; ½ watt	K-2226-5
R-4	1,000 ohms; ½ watt	K-2226-16
R-5	50,000 ohms; ½ watt	K-2226-6
R-6	4,000 ohms; ½ watt	K-2226-28
R-7	1,000 ohms; ½ watt	K-2226-16
R-8	50,000 ohms; ½ watt	K-2226-6
R-9	½ meg. (var.) volume control	K-1092-9
R-10	1 megohm; ½ watt	K-2226-2
R-11	1 megohm; ½ watt	K-2226-2
R-12	1 megohm; ½ watt	K-2226-2
R-13	¼ megohm; ½ watt	K-2226-4
R-14	½ megohm; ½ watt	K-2226-3
R-15	½ megohm; ½ watt	K-2226-3
R-16	20,000 ohms; ½ watt	K-2226-8
R-17	25,000 ohms; ½ watt	K-2226-7
R-18	30,000 ohms; ½ watt	K-2226-44
R-19	15,000 ohms; ½ watt	K-2226-9
R-20	500 ohms; ½ watt	K-2226-18
R-21	2000 ohms; ½ watt	K-2226-14
R-22	5000 ohms; ½ watt	K-2226-12
R-23	Ballast lamp (type LLL-25)	K-1673
R-24	.38 ohm (±10%)	K-1671-1
R-25	100,000 ohms; ½ watt	K-2226-5
R-26	8.0 ohms; ½ watt	K-2226-64
R-27	350,000 ohms; ½ watt	K-2226-53
L-1	Primary S.W. R.F. transformer	K-1717-2
L-2	Secondary S.W. R.F. transformer	
L-3	Primary broadcast R.F. transformer	K-1717-1
L-4	Secondary broadcast R.F. Transformer	
L-5	S.W. oscillator plate	K-1732-2
L-6	S.W. oscillator grid	
L-7	Broadcast oscillator plate	K-1732-1
L-8	Broadcast oscillator grid	
L-9	Antenna trap (463 K.C.)	K-1639
L-10	Police band	K-1642
L-11	Primary 1st I.F. transformer	K-1513-3
L-12	Secondary 1st I.F. transformer	
L-13	Primary 2nd I.F. transformer	K-1668-1
L-14	Secondary 2nd I.F. transformer	
L-15	Primary 3rd I.F. transformer	K-1513-3
L-16	Secondary 3rd I.F. transformer	
L-17	Loudspeaker coil	K-1598

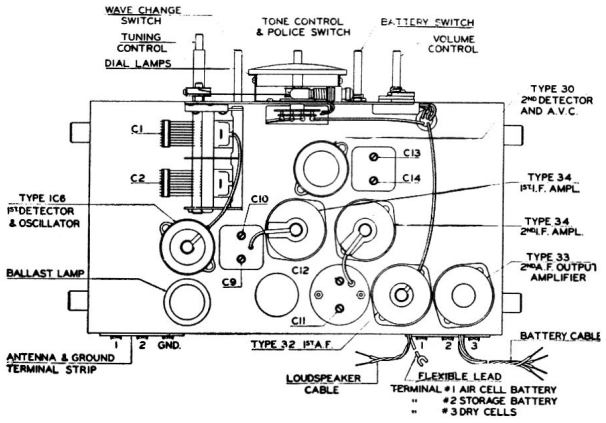
MISCELLANEOUS:

P-1 & P-2	Dial lamps (2 volts)	K-1024-3
S-1 to S-5	Wave change switch	K-1716
S-6	Tone control and police switch	K-1648-2
S-7 to S-9	Battery switch	K-1648-3
K-3	Battery connections (4 used)	K-1498
K-2	Battery cable	K-1535-1
K-1	Loudspeaker cable	K-1494-1
—	Antenna terminal strip	K-1755-2
—	Sockets, four hole	K-1221-1
—	Sockets, five hole	K-1221-3
—	Sockets, six hole	K-1221-4
—	Tube shield base (type 32 and 34 tubes)	103233
—	Dial Bracket & Ring Assy	K-1698-2

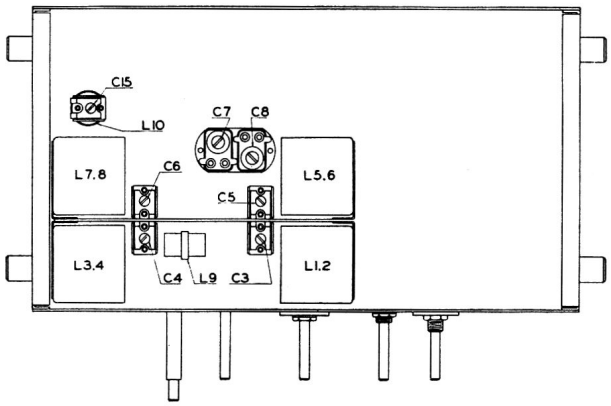
REPLACEMENT PARTS LIST—Continued

Value and Description	Part Number
Tube shield base (type 30 and 1-C-6 tubes)	BE-955
Indicator rings	K-1703
Dial Card	K-1666-3
Indicators	K-1674-1
Gaskets for dial	107254
Covers for dial	CV-9521
Cable for dial drive	K-1694-2
Pulleys	K-1727
Set screws for pulleys	K-1521-3
Dial lamp bracket assembly	K-1675-1
Thumbscrews	100172
Tube shield (type 32 tube)	103861
Tube shield (type 34 tube)	CV-9535
Tube shield (type 30 tube)	CV-9516
Tube shield (type 1-C-6 tube)	CV-9540

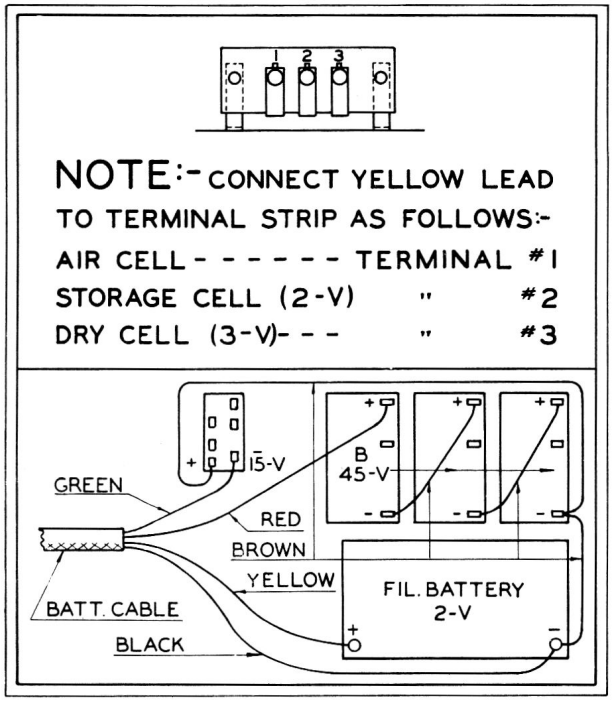
Value and Description	Part Number
Ballast lamp	K-1673
Indicator set screw	K-1667
Diaphragm assembly for K-1575 magnetic loudspeaker	K-1409
Knob for tuning control (base only)	K-1278-1
Vernier knob for tuning	K-1278-2
Knob for volume control	K-1278-4
Knob for wave change, tone—police or battery on-off switches	K-1278-6
Tuning wrench	K-836
Replacement tube for K-836	K-836-A
Battery terminal strip	K-1755-1
Dial sleeve	K-1701
Dial shield	K-1699-1



Chassis layout showing aligning positions.



Bottom view of chassis showing aligning position.



Battery connections.

SOCKET VOLTAGE AND CURRENT READINGS

These readings were taken with a Weston Model 663 Voltohmmeter and a type 1-A adapter, using a standard production Model 601 chassis. The voltage readings may be duplicated with any good voltmeter with a resistance of 1000-ohms per volt.

Tube	Position	Filament Volts	Plate Volts	Screen Volts	Plate Current	
					Normal Bias	Bias Reduced 4.5 Volts
1-C-6	1st Det. and Osc.	2.1	135	70	1.6	5.0
34	1st I.F.	2.1	135	70	2.1	5.0
34	2nd I.F.	2.1	130	65	1.5	3.5
30(a)	2nd Det.	2.1	....	....	....	....
32	1st A.F.	2.1	21	28	.4	.46
33	2nd A.F.	2.1	125	135	13.	19.

All readings taken with dial set at 530 K.C. (gang all in), volume control at maximum and tone switch in treble position.

Filament tap (yellow spade tip lead) on No. 1, using an air cell.

(a) Readings for this tube too low to be considered of value.

REALIGNING INSTRUCTIONS

1. I.F. ADJUSTMENT:—

(*a*) Set signal generator to 463 K.C. and connect output through an 0.1 mfd. capacitor to grid cap of the 1st detector (type 1-C-6).

(*b*) Adjust C-9, C-10, C-11, C-12, C-13, C-14 for maximum output.

(*c*) Reduce the output from the oscillator to as low a value as will give an output reading and check the adjustments. All trimmers should peak properly.

2. R.F. ADJUSTMENTS (Broadcast Band):—

(*a*) Set signal generator and receiver to 600 K.C.

(*b*) Connect output from generator to receiver through 200 mmf. mica capacitor to terminal number 1 on the antenna strip. Adjust C-7 for maximum output, at the same time slowly rocking the gang back and forth until the point of maximum sensitivity is obtained.

(*c*) Set generator and receiver to 1500 K.C.

(*d*) Adjust C-6 and C-4 for maximum output.

3. POLICE BAND ADJUSTMENTS:—

(*a*) With the signal generator still connected to the antenna, set it to 2400 K.C.

(*b*) Tune set to 1474 K.C. and put police switch in extreme counter-clockwise position.

(*c*) Adjust C-15, and at the same time rock the gang back and forth until the point of maximum senstiviity is obtained.

4. R.F. ADJUSTMENTS (Short-Wave Band):—

(*a*) Set signal generator and receiver to 16 megacycles.

(*b*) Connect to antenna terminal number 1 through a 400-ohm resistor (not wire wound).

(*c*) Align C-5.

(*d*) Align C-3 and rock gang slowly back and forth until most sensitive point is obtained.

(*e*) Set signal generator and receiver to 6 megacycles.

(*f*) Align C-8, and rock gang slowly back and forth until most sensitive point is obtained.