

Models M500, M501

Radio Receivers

Specifications

Models M500, M501 are essentially the same as Models 500, 501 with changes as listed below:

Dial Recalibration, due to changes in the tuning gang, antenna transformer and oscillator coil.

New tuning ranges are as follows:

Broadcast band: 530 to 1750 K.C.

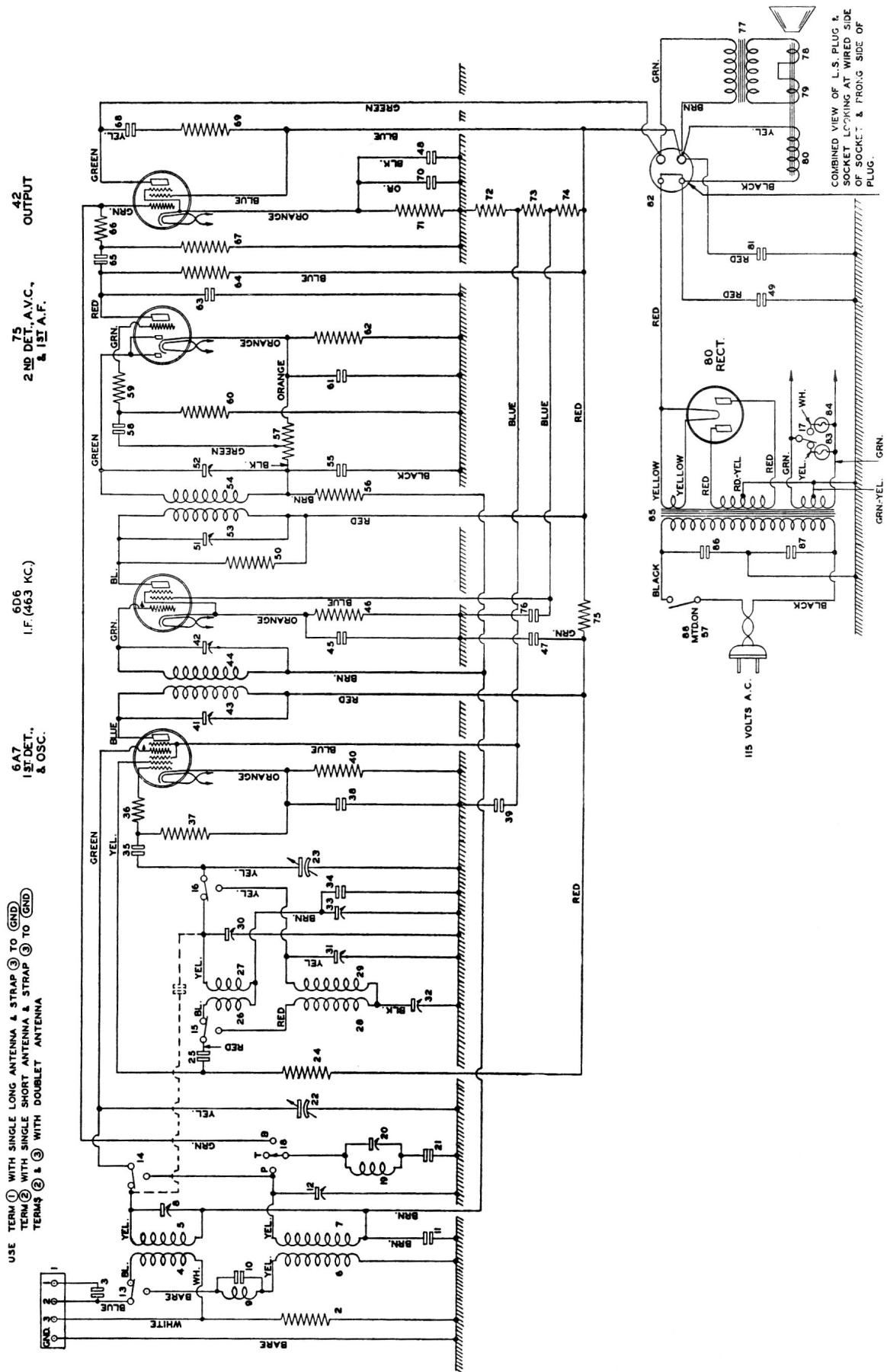
Police band: 2300 to 2500 K.C.

Short Wave band: 5850 to 16000 K.C.

Model M501 employs a different loudspeaker, part numbers being shown in new parts list.

Additional circuit changes are shown in the schematic.

MODEL M-500 AND M-501 RADIO RECEIVERS



Schematic Diagram Model M-500 and M-501 Receivers.

REPLACEMENT PARTS LIST

Schematic Designation	Value and Description	Part Number	Schematic Designation	Value and Description	Part Number
1	Antenna Terminal Strip....	K-1761-3	45	.05 mf. 175 volts Capacitor..	K-2227-8
2	1/10 meg. 1/2 watt Resistor..	K-2226-5	46	300 ohms 1/2 watt Resistor..	K-2226-20
3	100 mmf. mica Capacitor...	K-1611-2	47	8 mf. 300 volts.....	K-1909
4	Ant. R.F. Transf. Pri. S.W.	K-2004	48	10 mf. 25 volts.....	
5	Ant. R.F. Transf. Sec. S.W.		49	8 mf. 400 volts.....	
6	Ant. R.F. Transf. Pri. B.C.		50	1/2 meg. 1/2 watt Resistor..	K-2226-3
7	Ant. R.F. Transf. Sec. B.C.		51	35-130 mmf. Var. Trim. Cap.	K-1600-2
8	10-55 mmf. Var. Trimmer Capacitor.....	K-1458-3	52	35-130 mmf. Var. Trim. Cap.	
9	Antenna Trap Coil.....	K-2027	53	2nd I.F. Transformer Prim-ary.....	K-1699-1
10	1000 mmf. mica Capacitor...		54	2nd I.F. Transformer Se-ondary.....	
11	.05 mf. 175 volts Capacitor..	K-2227-8	55	100 mmf. Mica Capacitor...	K-1611-2
12	1.5-10 mmf. Var. Trim. Cap.	K-1458-4	56	1 meg. 1/2 watt Resistor....	K-2226-2
13	Wave Change Switch R.F. Pri.....	K-1647	57	1/2 meg. Var. Volume Control	K-1649-1
14	Wave Change Switch R.F. Sec.....		58	.005 mf. 350 volt Capacitor..	K-2228-5
15	Wave Change Switch Osc. Anode.....		59	1/10 meg. 1/2 watt Resistor..	K-2226-5
16	Wave Change Switch Osc. Grid.....		60	1 meg. 1/2 watt Resistor....	K-2226-2
17	Wave Change Switch Lamp	K-1648-1	61	.5 mf. 175 volt Capacitor...	K-2227-11
18	Police & Tone.....		62	5000 ohms 1/2 watt Resistor..	K-2226-12
19	Police Band Coil.....	K-1642	63	100 mmf. Mica Capacitor...	K-1611-2
20	10-55 mmf. Var. Trimmer Capacitor.....	K-1458-3	64	1/4 meg. 1/2 watt Resistor...	K-2226-4
21	.001 mf. 350 volts Capacitor	K-2228-1	65	.005 mf. 350 volts Capacitor	K-2228-5
22	R.F. Section two Gang Var..	K-1635-2	66	1/4 meg. 1/2 watt Resistor...	K-2226-4
23	Osc. Sect. Cap. 462 mmf. max.....		67	1/4 meg. 1/2 watt Resistor...	K-2226-4
24	20,000 ohms, 1 watt Resist- or.....	K-2363-10	68	.02 mf. 175 volts Capacitor..	K-2227-7
25	.02 mf. 350 volt Capacitor...	K-2228-7	69	15000 ohms, 1 watt Resist- or.....	K-2363-20
26	Osc. Anode Coil S.W.....	K-1643 (Part of K-1644 Assem.)	70	.05 mf. 175 volt Capacitor..	K-2227-8
27	Osc. Grid Coil S.W.....		71	470 ohms	K-1636
28	Osc. Anode Coil B.C.....		72	12000 ohms	
29	Osc. Grid Coil B.C.....		73	1800 ohms	
30	5-25 mmf. Var. Trimmer Capacitor.....	K-1515-3	74	11200 ohms	K-2226-18
31	5-25 mmf. Var. Trimmer Capacitor.....		75	1000 ohms, 1/2 watt Resistor	
32	300-600 mmf. Var. Trimmer Capacitor.....	K-1567-1	76	.05 mf 175 volts Capacitor..	K-2227-8
33	1100-2000 mmf. Var. Trim-mer Capacitor.....		77	Output Transformer (Model M-501).....	K-2061
34	2200 mmf. mica Capacitor..	K-1952-11	77A	Output transformer (Model M-500).....	K-2127-1
35	100 mmf. Mica Capacitor...	K-1611-2	78	V.C. & Diagraphm Assem- bly (Model M-501).....	K-2063-1
36	100 ohm 1/2 watt Resistor...	K-2226-24	78A	V.C. and Diaphragm As- sembly (Model M-500)...	K-2128-1
37	50000 ohm 1/2 watt Resistor..	K-2226-6	79	Hum Bucking Coil }Model	K-2064-1
38	.05 mf. 175 volt Capacitor..	K-2227-8	80	Field Coil }M-501	
39	.05 mf. 175 volt Capacitor..	K-2227-8	80A	Field coil (Model M-500)...	K-2129-1
40	450 ohms 1/2 watt Resistor..	K-2226-43	81	8 mf. 300 volts Reg. Wet. Elec. Cap.....	K-2011
41	30-100 mmf. Var. Trimmer Cap.....	K-1600-1	82	Loudspeaker Plug.....	K-2101-1
42	30-100 mmf. Var Trimmer Cap.....		83	Dial Lamp 6-v. S.W.....	K-1024-2
43	1st I.F. Transformer Prim-ary.....	K-1668-1	84	Dial Lamp 6-V. B.C.....	K-1024-2
44	1st I.F. Transformer Second-ary.....		85	Power Trans.—60 cycle....	K-1652-4
			85A	Power Trans.—25 cycle....	K-1652-1
			86	.025 mf. 520 V. A.C. Test..	K-1750
			87	.025 mf. 520 V. A.C. Test..	
			88	Off-On Switch.....	Mtd. on 57

REPLACEMENT PARTS LIST—(Cont'd.)

Value and Description	Part Number
MISCELLANEOUS: —(Not included in schematic designations)	
Dial light bracket assembly.....	K-1675-1
Dial Gasket.....	107254
Dial Cover.....	CV-9521
Dial Shield.....	K-1699-2
Dial Bracket and Ring Assembly	K-1698-5
Dial Scale Card.....	K-1666-5
Dial Light Shield	K-1699-2
Dial Indicator.....	K-1674-1
Screw for dial Indicator (per doz.)	K-1667
Washer for dial Indicator.....	K-1526-3
Dial Pulleys.....	K-1727
Set Screws for pulleys (per doz.)..	K-1521-3
Machine Screws (RH) for pulleys (per doz.).....	K-1033-1
Dial Drive Cable (9 inches).....	K-1694-1
Thumbscrews.....	100172
Knob for wave change switch and volume control.....	K-1278-6
Knob for tuning (base).....	K-1278-1
Knob for tuning (vernier).....	K-1278-3

Value and Description	Part Number
Dial Sleeve.....	K-2003
Knob for police-tone switch (with white dot).....	K-1278-8
Screws for chassis mounting M-501—M-501-A*).....	K-1033-9
Set screws for K-1278-1 (per doz)	K-1521-5
Socket, four contact, rectifier....	K-1194-2
Socket, six contact, medium....	K-1221-4
Socket, six contact, small.....	K-1194-5
Socket, seven contact, medium..	K-1221-5
Tube shield base.....	BE-955
Tube Shield.....	CV-954
Grid Clips.....	K-1747
Screws for chassis mounting M-500—M-500A).....	K-1033-10
Tuning Wrench.....	K-836
Replacement tube for K-836....	K-836-A
Rubber Bushings (chassis mounting.).....	Ø 107397
Reduction Drive (on tuning Capacitor).....	K-1948

The Models M-500 and M-501 are essentially similar to the 500 and 501 and therefore only the slight differences between them will be given in this sheet. For full realigning details, voltage and current readings, socket resistance readings, coil resistances, replacement parts price list and general description, reference should be made to the models 500-501.

DIAL RECALIBRATION:—The dial scale on the M-500 and M-501 series is different in that calibration changes were made necessary due to changes in the tuning gang, the antenna transformer and oscillator coil, consequent upon extension of the lower end of the broadcast band to 530 kilocycles.

The new tuning ranges are as follows:—

- Broadcast Band — 530 to 1750 kilocycles.
- Police Band — 2300 to 2500 kilocycles.
- Short Wave Band — 5850 to 16000 kilocycles.

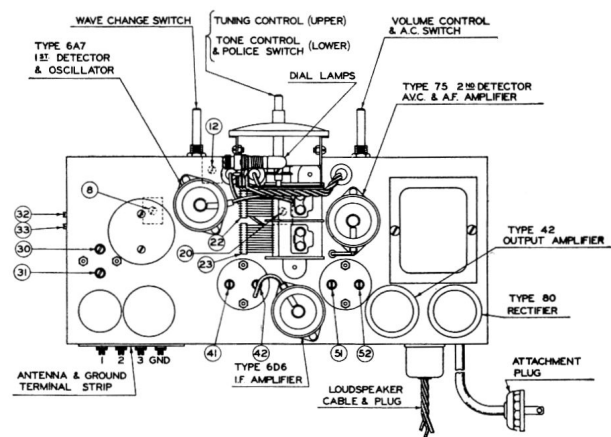
The dial scale coloring is also slightly changed.

LOUDSPEAKERS:—On the Model M-501 a different loudspeaker and output transformer is used. The new parts numbers are shown in the additions to the nomenclature overleaf. A separate loudspeaker cable is no longer used, the leads on the output transformer and field coil being long enough to reach direct to the loudspeaker plug; this plug is used on both the M-500 and M-501 series.

On the Model M-500 a 6" loudspeaker (part

K-2039) is used, the change necessitating new part numbers. These are shown in the nomenclature.

FILTERS:—Some changes have been made in the circuits. In place of two dry electrolytic capacitor units, one of 10 mf, 25 volts; 8 mf, 450 volts; and the other of 8 mf, 475 volts; 8 mf, 525 volts rating, a separate regulating type electrolytic capacitor is used for C-34 and is coded as K-2011. The remaining three capacitors in the filter C-35, C-31, C-32 are in a K-1909 assembly.



Chassis Lay-out Showing Realigning Positions.