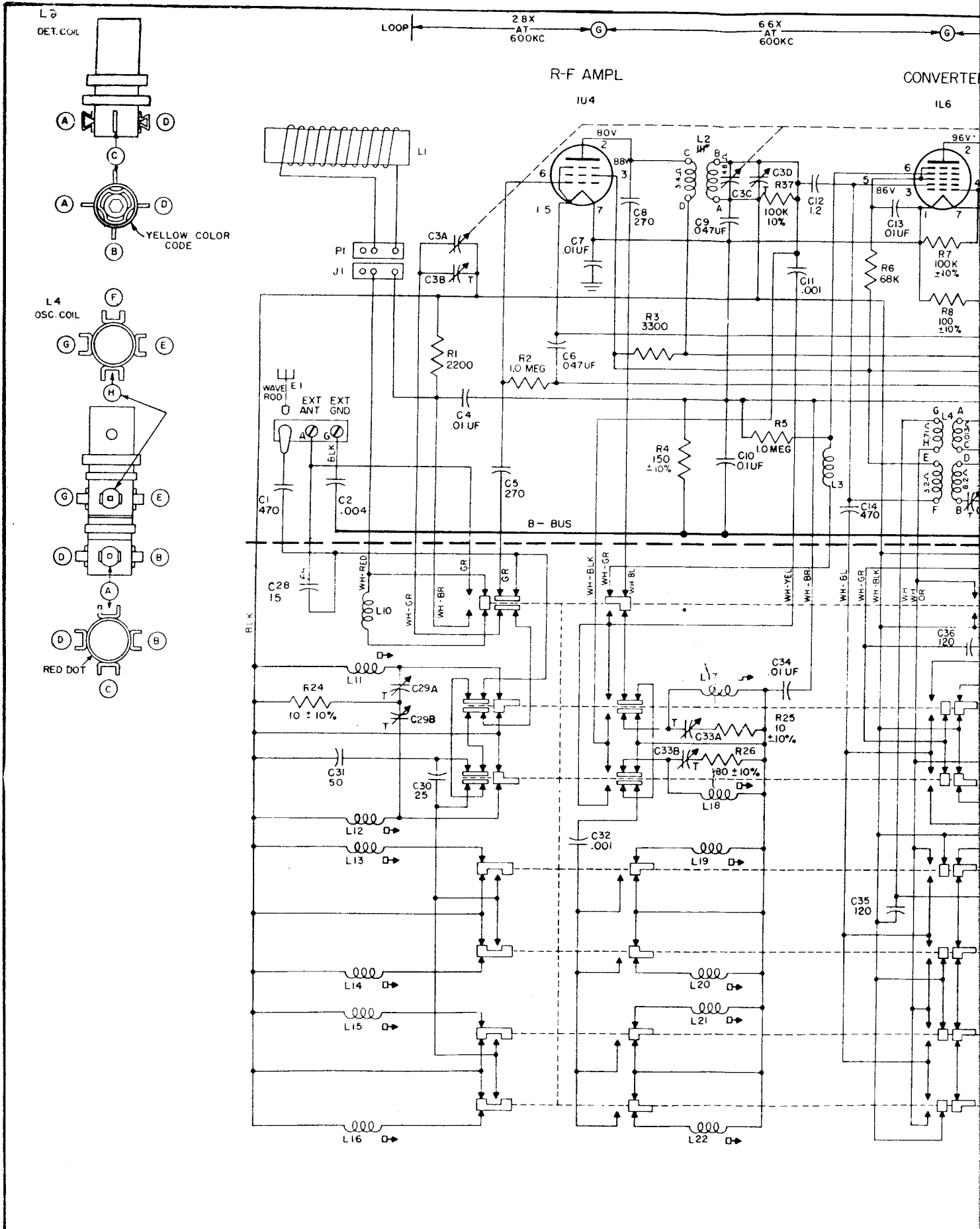


MODEL L600  
CHASSIS 6L40



6.6X  
AT  
600KC



35X  
FROM  
600KC TO 455KC



11X  
FROM  
455KC TO 400u



65X  
AT  
400u 50MW OUTPUT



### CONVERTER

1L6

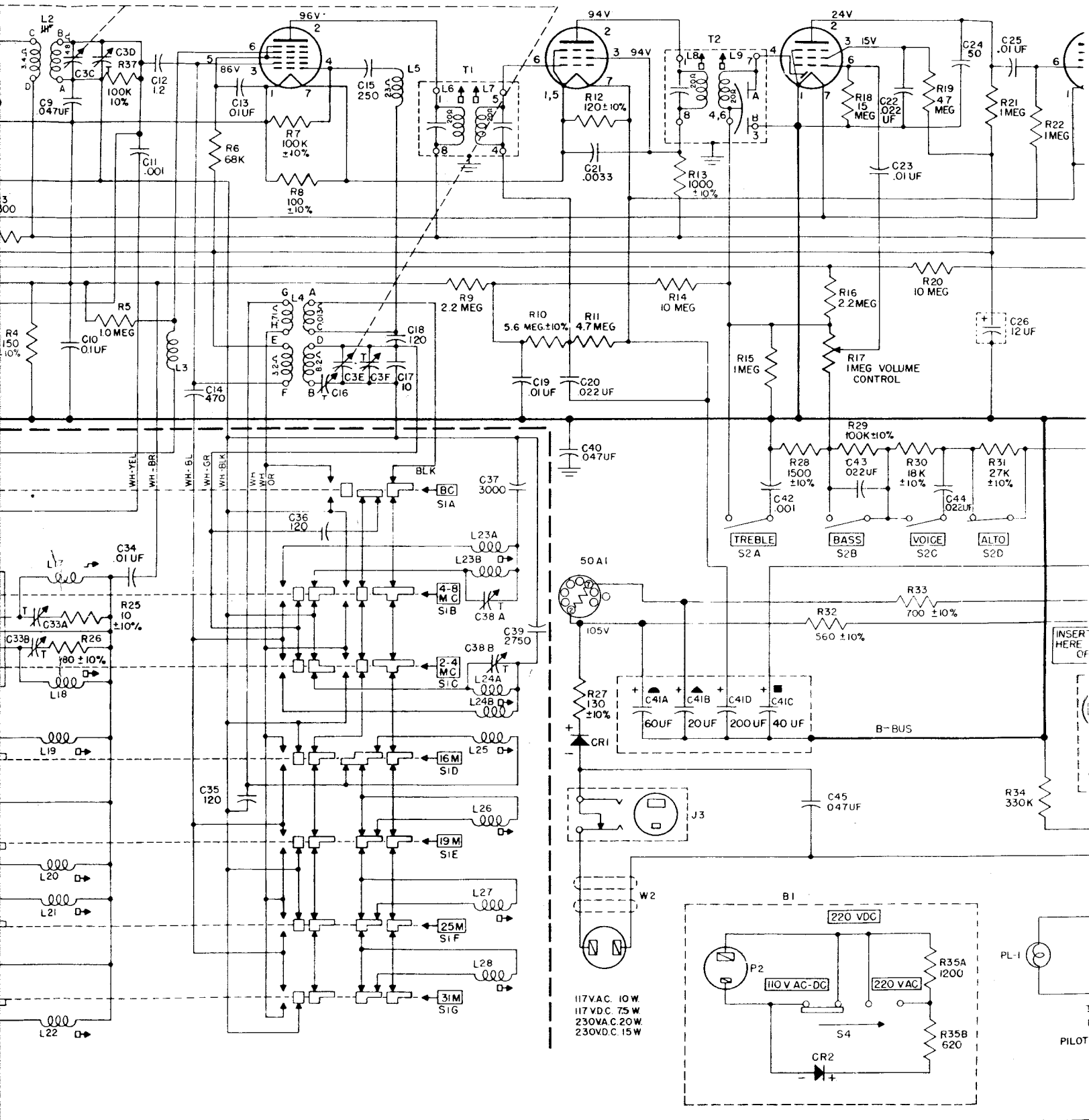
### I-F AMPL

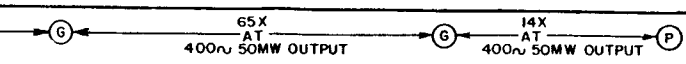
1U4

### DET-AMPL

1U5

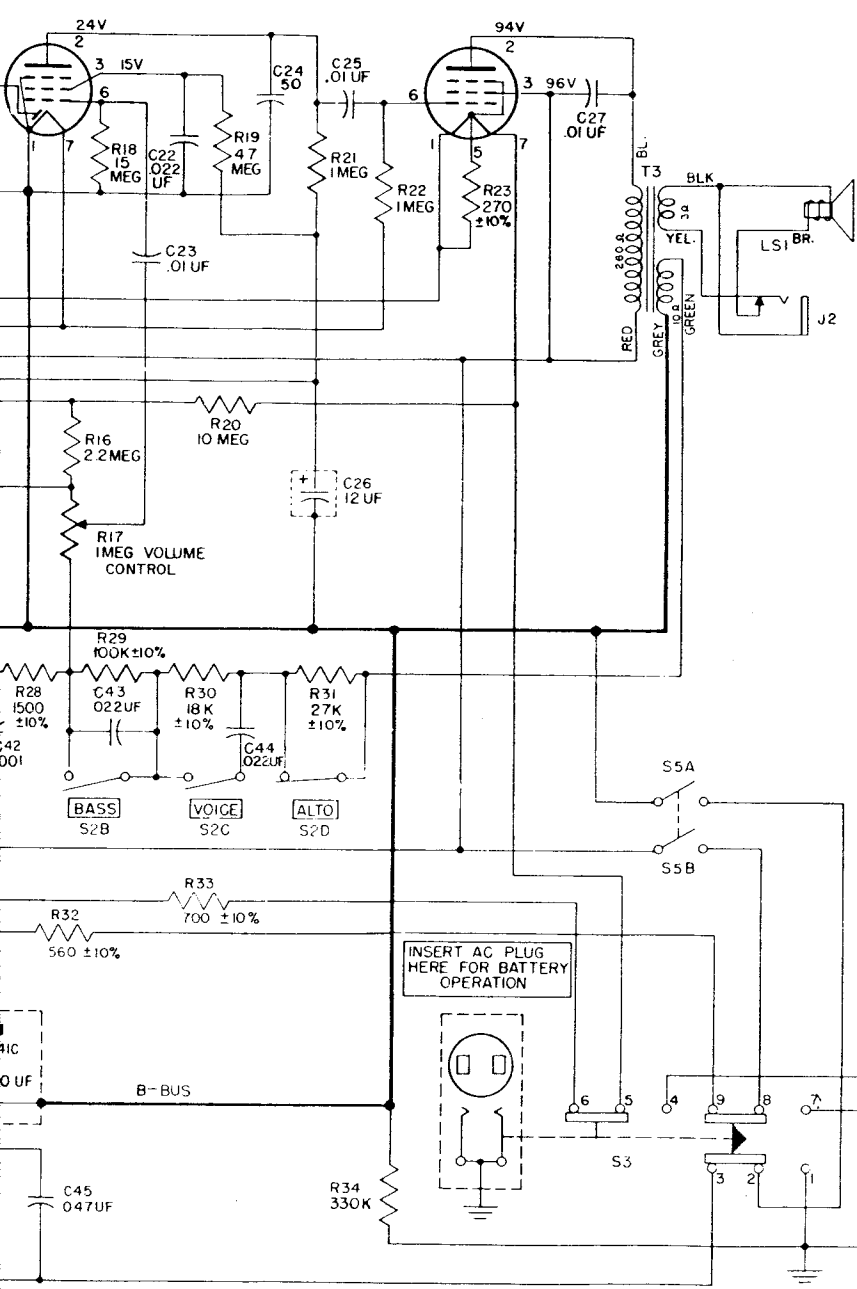
### AUDIO





DET-AMPL                      AUDIO OUTPUT

IU5                                      3V4

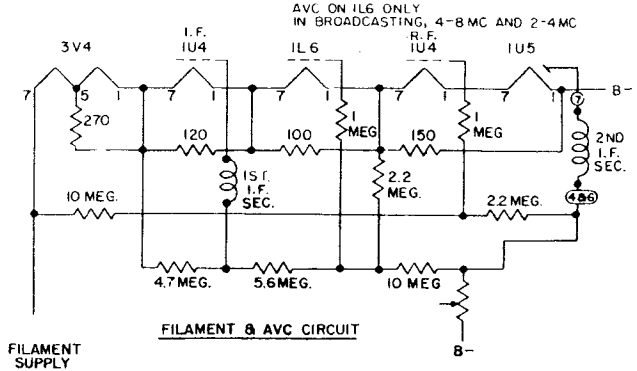
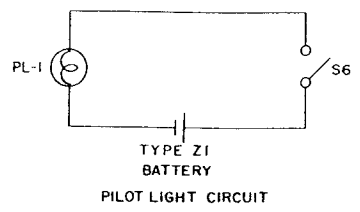
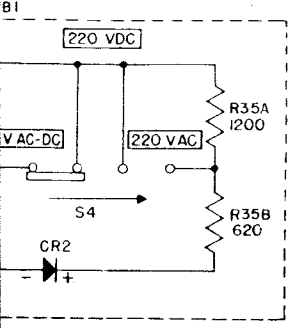


- NOTES
- 1 RESISTOR VALUES IN OHMS, CAPACITY VALUES IN UF UNLESS OTHERWISE SPECIFIED.
  - 2 IF TRANSFORMER NUMBERING STARTS WITH #1 TERMINAL AS FIRST TERMINAL CLOCKWISE AND ADJACENT TO MARKER, AS VIEWED FROM THE BOTTOM OF CHASSIS.
  - 3 ALL SECTIONS OF BAND SELECTOR SWITCH S1 SHOWN IN NONOPERATING POSITION. IN OPERATING POSITIONS SLIDING CONTACTS MOVE TO THE LEFT.
  - 4 ALL TONE BUTTONS S2 SHOWN IN RIGHT POSITION AS VIEWED FROM THE FRONT OF CABINET.
  - 5 S3 POWER CHANGEOVER SWITCH SHOWN IN POSITION FOR POWER LINE OPERATION.
  - 6 POWER ADAPTER SWITCH S4 SHOWN IN 110 VOLTS AC-DC POSITION.
  - 7 ALL VOLTAGES MEASURED FROM COMMON RETURN TO POINTS INDICATED WITH A DC VACUUM TUBE VOLTMETER AND SET OPERATING ON 117V A.C.

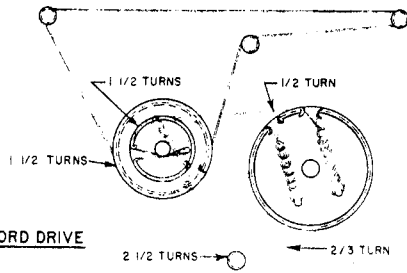
TUNING RANGES

540	1600 KC.
4MC	8 MC.
2MC	4 MC.
174	18.2 MC.
148	15.6 MC.
115	12.1 MC.
94	9.8 MC.

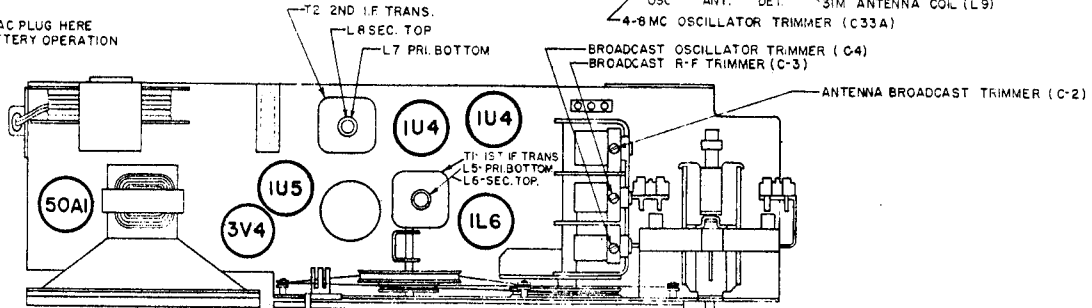
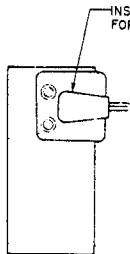
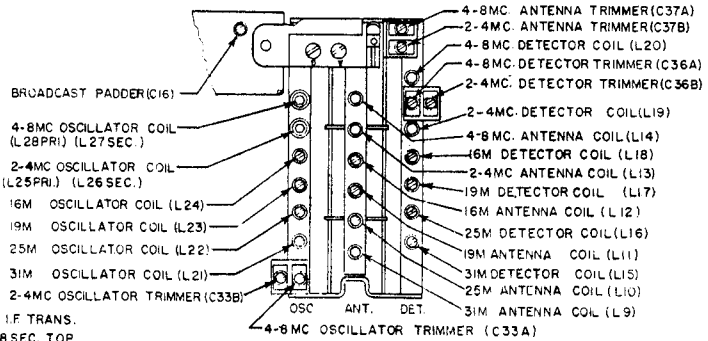
I.F. FREQUENCY 455 KC.  
BATTERY PACK NO Z-985



**REAR VIEW OF BAND SELECTOR SWITCH.**



**DIAL CORD DRIVE**



**ON-OFF SWITCH & VOLUME CONTROL**

**TUNING TONE CONTROL SWITCH**

**BAND SWITCH**

- 1 TREBLE
- 2 VOICE
- 3 ALTO
- 4 BASS

ALIGNMENT PROCEDURE

TO THE SERVICE MAN:

Chassis 6L40 features a high gain tuned RF stage ahead of a conventional superheterodyne circuit with band spread tuning on the 31, 25, 19 and 16 meter bands. There are two continuous coverage bands, one covering 2-4 megacycles and one covering 4-8 megacycles.

If removal of the chassis from the cabinet ever becomes necessary this should be done with care.

The alignment of chassis 6L40 is conventional. However, care must be exercised when making adjustments, and the alignment procedure must be followed exactly. Set the chassis over a metal plate approximately the same distance the battery pack is from the bottom of the chassis when it is in the cabinet. This procedure will introduce the approximate amount of metal in the field of the RF and oscillator coils as when the chassis is in the cabinet. A signal generator of reasonable accuracy and good attenuation must be used. An output meter (AC) of the copper oxide rectifier type with a range of 1 to 30 volts in several steps is necessary to get accurate output readings. Alignment wrenches should be of the non-metallic type, especially when making adjustments at the higher frequencies.

When reinstalling the chassis in the cabinet be careful not to disturb the cabling between the short wave coil assembly and chassis. Tune in a weak broadcast signal near 1400 Kc. and touch up trimmer C2. This will insure maximum performance after alignment.

The I.F. transformers incorporated in this receiver are of the new permeability tuned type. The advantage of an I.F. transformer of this type is its extreme stability under various humidity and temperature conditions. The upper coil is the secondary and the lower the primary. When adjusting these I.F. transformers the tuning wrench 68-19 can be inserted into the top slug, rotated until maximum output is obtained and then dropped down to the lower slug and the same operation repeated. The tuning wrench is so designed that tuning one slug does not affect the adjustment of the other.

Thermal Regulator Tube 50A1 is an automatic rheostat designed to keep the current in a circuit at a definite value. Should the supply voltage change, either upward or downward, the Thermal Regulator will automatically increase or decrease its resistance to compensate for this change and keep the current thru the controlled circuit at a constant value.

As used in the L600, the controlled circuit consists of the filament of the five vacuum tubes connected in series. A constant current thru these filaments is equivalent to a constant voltage applied across them.

The Thermal Regulator tube is capable of performing its function because of its peculiar electric thermal characteristics. Basically the tube consists of a fine iron wire filament hermetically sealed in a hydrogen atmosphere. By balancing the temperature resistance curve of the wire against the thermal conductivity curve of the gas, it is possible to make a unit that automatically changes its resistance to keep a constant current flowing over a large range of voltage variation.

By keeping the filament current of the vacuum tubes constant at 50 milliamperes we extend the line voltage range over which the set will operate from 90 to 130 volts and increase tube life by an indefinite amount.

OPER.	CONNECT OSCILLATOR TO DUMMY ANTENNA	INPUT SIGNAL FREQ.	BAND	SET DIAL AT	TRIMMERS	PURPOSE
1	Positive lead of signal generator to converter grid through a .1 Mfd. condenser & negative lead to negative filament of 1L6 tube.	455 Kc	BC	600 Kc	L5,6,7,8	Align I.F.
2	3 feet of wire approximately 1 foot from extended wave rod.	1600 Kc	BC	1600 Kc	C4	Set oscillator to scale
3		1400 Kc	BC	1400 Kc	C3	Alignment of setector
4		1400 Kc	BC	1400 Kc	C2	Alignment of BC antenna
5*		600 Kc	BC	600 Kc	Rock C16	Alignment of BC at 600 Kc
6		7.8 Mc	4-8 Mc	7.8 Mc	C33A,C36A,C37A	Alignment of S.W. Oscillator Detector and Antenna
7*		4.2 Mc	4-8 Mc	4.2 Mc	Rock L27	
8		Repeat Operations 6 & 7				
9		3.9 Mc	2-4 Mc	3.9 Mc	C33B,C36B,C37B	
10*		2.1	2-4 Mc	2.1 Mc	Rock L26	
11		Repeat Operation 9 & 10				
12		17.8 Mc	16 Meters	17.8 Mc	L24,L18,L12	
13*		15.2	19 Meters	15.2	L23,L17,L11	
14		11.8 Mc	25 Meters	11.8	L22,L16,L10	
15*		9.6 Mc	31 Meters	9.6 Mc	L21,L15,L9	

\*Note: Rock Tuning Condenser When Making Alignment Under Operations 5,7,10,12,13,14 & 15.

NOTE: If Trimmers C2,C3,C4 are adjusted after procedures #2 through #15 are completed, it will be necessary to repeat alignment procedures #2 through #15.

TUBE, TRIMMER LOCATION AND DIAL CABLE DRAWING

PART NO.	REF. NO.	DESCRIPTION	PRICE
12-1873		Bracket (Part of S-20821)	
12-2053		Dial support bracket	
12-2054		Pointer shaft bracket	
12-2056		Tuning shaft bracket	
15-57		Cap & insulation (Part of S-15785)	.10
19-189		Coil Mtg. clip	.02
19-249		Coil Mtg. clip	.03
22-3	C7,13,23,25		
	34	.01 Mfd. Ceramic 500V (5 used)	.26
22-4	C2	.004 Mfd. 500V	.26
22-1390	C1,14	470 Mmfd. Mica 500V (2 used)	.26
22-1392	C30	25 Mmfd. Ceramic 500V	.33
22-1433	C39	2750 Mmfd. Mica 500V	.65
22-1674	C24	50 Mmfd. Ceramic 500V	.20
22-1741	C41A,B,C, D	Electrolytic 20/150V-40/150V, 60/150V-200/10V	3.50
22-1761	C31	50 Mmfd. Ceramic 500V	.20
22-1765	C12	1.2 mmfd. molded 500V	.20
22-1775	C9,40	.047 Mfd. 400V (2 used)	.26
22-1777	C10	.1 Mfd. 200V	.26
22-1778	C6	.047 Mfd. 200V	.26
22-1779	C27	.01 Mfd. 600V	.26
22-1780	C21	.0033 Mfd. 400V	.26
22-1784	C4	.01 Mfd. 400V	.20
22-1844	C45	.047 Mfd. 600V	.35
22-1846	C19	.01 Mfd. 400V	.20
22-1886	C11	.001 Mfd. Ceramic 500V	.35
22-1953	C17	10 Mmfd. Ceramic 500V	.35
22-2056	C26	Electrolytic 12/150V	1.20
22-2058	C5,8	270 Mmfd. Mica 500V (2 used)	.26
22-2071	C20,43,44	.022 Mfd. 200V (3 used)	.26
22-2072	C22	.022 Mfd. 400V	.26
22-2126	C15	250 Mmfd. Ceramic 500V	.26
22-2127	C32,42	.001 Mfd. 600V (2 used)	.26
22-2279	C18,35	120 Mmfd. Ceramic 500V (2 used)	.30
22-2280	C36	120 Mmfd. Ceramic 500V	.35
22-2281	C37	3000 Mmfd. Mica 500V	.55
22-2282	C16	Single section trimmer	.70
22-2283	C38A,C38B	Two section trimmer	.55
22-2284	C33A,C33B	Two section trimmer	.55
22-2285	C29A,C29B	Two section trimmer	.65
22-2329	C28	15 Mmfd. Ceramic 500V	
22-2520	C3A,B,C, D,E,F	Three section variable	
26-520		Dial scale	
44-29	J2	Headphone Jack	.75
49-748	LS1	Speaker, 5 1/2 PM (Part of S-20790)	
54-34		Hex nut (2 mt. ea. 95-1148, 95-1149, 1 mt. 212-7)	.01
54-139		Palnut (1 mt. ea. 44-29, 63-2276)	.01
57-1520		Adaptor socket cover plate	.15
57-1911		Trim plate (for 85-543)	.10
57-1986		Scale background plate	
58-182	P2	Adaptor plug on S 15715	
59-300		Dial pointer	
61-137		Idler pulley (3 part of S-20793)	
63-1701	R24,25	10 ohm 1/2 W ins. 10% (2 used)	.21
63-1743	R8	100 ohm 1/2 W ins. 10%	.21
63-1744	R36	100 ohm 1/2 W ins. 20%	.21
63-1747	R12	120 ohm 1/2 W ins. 10%	.21
63-1750	R4	150 ohm 1/2 W ins. 10%	.21
63-1754	R26	180 ohm 1/2 W ins. 10%	.21
63-1761	R23	270 ohm 1/2 W ins. 10%	.21
63-1775	R32	560 ohm 1/2 W ins. 10%	.21
63-1785	R13	1 K ohm 1/2 W ins. 10%	.21
63-1792	R28	1500 ohm 1/2 W ins. 10%	.21
63-1800	R1	2200 ohm 1/2 W ins. 20%	.21
63-1807	R3	3300 ohm 1/2 W ins. 20%	.21
63-1838	R30	18 K ohm 1/2 W ins. 10%	.21
63-1845	R31	27 K ohm 1/2 W ins. 10%	.21
63-1863	R6	68 K ohm 1/2 W ins. 20%	.21
63-1869	R7,29,37	100 K ohm 1/2 W ins. 10% (2 used)	.21
63-1891	R34	330 K ohm 1/2 W ins. 20%	.21
63-1912	R2,5,15,21, 22	1 meg. ohm 1/2 W ins. 20% (5 used)	.21
63-1926	R9,16	2.2 meg. ohm 1/2 W ins. 20% (2 used)	.21
63-1940	R11,R19	4.7 meg. ohm 1/2 W ins. 20% (2 used)	.21
63-1943	R10	5.6 meg. ohm 1/2 W ins. 10%	.21
63-1954	R14,R20	10 meg. ohm 1/2 W ins. 20% (2 used)	.21
63-1961	R18	15 meg. ohm 1/2 W ins. 20%	.21
63-2276	R17	Volume control & switch	1.81
63-2395	R35A,R35B	Candohm (Part of S-15715)	
63-2839	R27	130 ohm 3 W ins. 10%	.40
63-2930	R33	700 ohm 3 W W ins. 10%	
64-4		Rivet (2 mt. ea. 78-802, 78-844)	.01
64-27		Rivet (1 mt. ea. 19-189, 249, 83-1102, 2190)	.01
64-163		Rivet (2 mt. ea. 78-806, 807, 846)	.01
64-250		Brass eyelet (Mt. 26-520 & S-20793)	.01
64-306		Shoulder rivet (Mt. 61-137)	
64-521		Brass eyelet (4 mt. S-17749)	
78-274		Socket, electrolytic	.03
78-543	J4	Socket, four contact (Part of S-15785)	.13
78-802	J1	Socket, wavemagnet	.10
78-806		Socket, min. tube	.15
78-807		Socket, min. tube (4 used)	.15
78-844	J3	Socket, adaptor (220V)	.25
78-846		Socket, noval min. tube	.20
80-69		Dial cord tension spring (1 for ea. S-20783, S-20805)	.05
80-209		Dial cord tension spring (for S-20784)	.03
83-1071		Threaded retaining strip (used with 149-86)	.02

PART NO.	REF. NO.	DESCRIPTION	PRICE
83-1102		Two lug term. strip	
83-1880		Antenna terminal strip (part of S-17806)	.20
83-1919		Two lug terminal strip	.05
83-2190		Seven lug terminal strip	
85-473	S4	3 position switch on S-15715	
85-502	S1	Band switch (Part of S-20821)	12.25
85-503	S2	Tone control switch	1.00
85-543	S3	Power change over switch	
or 85-520	S3	Power change over switch	1.00
93-2		Brass washer (2 mt. ea. 78-802,844)	.01
93-93		Insulating washer (mt.44-29)	
93-125		Lockwasher (2 mt. ea. 95-1148, 95-1149, 1 mt. 212-7)	.01
93-158		Steel washer (1 mt. 212-7)	
93-209		Steel washer (2 mt. 26-520)	.02
93-1145		Insulating washer (1 mt.44-29)	
94-295		Mtg. bushing (6 used-gang & speaker)	.04
94-742		Tuning slug insert (Part of S-17730, S-17731)	.09
94-773		Insert (Part of S-18735, S-18614, S-18615)	
94-812		Coil insert bushing (Part of S-20844)	.05
95-1148	T1	1st IF transformer	1.60
95-1149	T2	2nd IF transformer	1.60
95-1369	T3	Audio output transformer (Part of 49-748)	
113-8		6-32 x 1/4 hex hd mach screw (11 used mt. 22-2282, 12-2056, S-20793, S-17686, S-17806, 22-2283, 22-2284, 22-2285)	.02
113-13		6-32 x 2/16 hex hd mach screw (1 mt. 22-2520, 3 mt. speaker)	.02
113-18		6-32 x 5/16 hex hd mach screw (1 mt. S-17686 & 12-1873)	.02
113-56		4-40 x 1/4 hex hd mach screw (2 mt. 85-543)	
114-39		8-32 x 1/4 hex hd self tap screw (1 mt. 12-2053)	.01
114-51		6-32 x 1/2 hex hd mach screw (2 mt. 22-2520)	.01
114-157		6-32 x 1/2 hex hd self tap screw (2 mt. 26-520)	.01
114-247		6-32 x 1/4 hex hd self tap screw (7 used mt. S-20821, 85-503, 12-2054, 57-1520)	.01
114-393		6-32 x 1 3/8 hex hd mach screw (1 mt. 212-7)	.02
114-435		8 x 5/16 hex hd self tap screw (2 mt. S-20776)	
114-437		6-32 x 7/16 hex hd mach screw (2 mt. 26-520)	
125-17		Rubber grommet (6 used)	.03
139-96		Speaker baffle (Part of S-20790)	.25
149-85		Iron core (Part of S-20844)	.10
149-86		Iron core (12 used)	.10
149-96		Iron core (Part of S-17730, S-17731, S-18614, S-18615, S-18735)	.10
188-148		Retaining ring (used on S-20794)	.02
188-149		Retaining ring (used on S-20791)	.02
188-168		Retaining ring (used on S-20794)	
196-174		Speaker gasket (Part of S-20790)	.25
212-7	CR1	Selenium Rectifier	1.80
or 212-13	CR1	Selenium Rectifier	1.80
212-9	CR2	Selenium Rectifier (Part of S-15715)	
S-14403	L5	RF choke coil assem.	.20
S-15715	B1	Voltage adaptor assem. (available for this model)	
S-15785	W1	Battery cable & socket assem.	.55
S-17686		Coil support bracket assem. (Part of S-20821)	
S-17709	L4	Oscillator coil assem. B.C.	1.00
S-17714	L19	RF coil assem. (16M)	.50
S-17715	L20	RF coil assem. (19M)	.50
S-17716	L21	RF coil assem. (25M)	.50
S-17717	L22	RF coil assem. (31M)	.50
S-17718	L13	Ant. coil assem. (16M)	.50
S-17719	L14	Ant. coil assem. (19M)	.50
S-17720	L15	Ant. coil assem. (25M)	.50
S-17721	L16	Ant. coil assem. (31M)	.50
S-17726	L25	Osc. coil assem. (16M)	.50
S-17727	L26	Osc. coil assem. (19M)	.50
S-17728	L27	Osc. coil assem. (25M)	.50
S-17729	L28	Osc. coil assem. (31M)	.50
S-17730	L23A, L23B	Osc. coil assem. (4-8 M.C.)	.70
S-17731	L24A, L24B	Osc. coil assem. (2-4 M.C.)	.70
S-17806		Band switch mtg. bracket & term. (Part of S-20821)	
S-18614	L18	RF coil assem. (2-4 M.C.)	.50
S-18614	L12	Ant. coil assem. (2-4 M.C.)	.50
S-18615	L17	RF coil assem. (4-8 M.C.)	.50
S-18735	L11	RF coil assem. (4-8 M.C.)	.50
S-20776		A.C. cord & reel assem.	
S-20782		R.F. terminal strip	
S-20783		Drive cord & eyelet (gang)	
S-20784		Drive cord & eyelet (pointer)	
S-20790		Speaking baffle & gasket assem.	
S-20791		Pointer pulley & shaft	
S-20793		Dial mtg. & dial light bracket	
S-20794		Drive shaft & pulley	
S-20805		Drive cord & eyelet (idler)	
S-20820	L10	Antenna loading coil assem.	
S-20821		Band switch, bracket & coil assem. complete	

PART NO.	REF. NO.	DESCRIPTION	PRICE
S-20843	L3	RF choke coil assem.	
S-20844	L2	Detector coil assem. (B.C.)	
100-162		Thermal resistor (50A1)	
12-1082		Telescoping ant. mtg. bracket	.06
12-2058		Inside cover hinge bracket (2 part of S-20815)	
14-1633		Cabinet-portable model L600	
16-957		Packing carton	
17-67		Telescoping ant.rod retaining clamp	.08
19-256		Battery retaining clip	
19-258		Retaining clip (3 used)	
24-670		Inside front cover (Part of S-20815)	
24-671		AC plug cover	
36-46		Cabinet handle	1.00
40-73		Cabinet back cover hinge (2 used)	.25
43-233		Wavemagnet housing (part of S-20813)	
43-234		Cover housing (part of S-20815)	
46-912		Knob, band switch (7 used)	.10
46-913		Knob, tuning	.15
46-1242		Knob, volume control	
54-341		Hex nut (2 mt. S-15802)	
54-369		Cable retaining nut (2 used)	
56-320		Inside cover hinge pin (part of S-20815)	
57-1725		Emblem plate (part of S-20815)	.20
57-1987		Escutcheon	
58-157		Battery plug (used with 85-542)	.05
58-179	P1	Three prong plug (part of S-20809)	.15
64-18		Brass eyelet (part of S20809)	.01
69-108		6-32 x 1/4 rd hd mach screw (2 part of S-20823)	.02
69-292		4-40 x 1/4 phil rd hd mach screw (2 mt. 85-542)	
70-166		6 x 1/2 phil rd hd wood screw (1 mt. chassis)	
70-168		4 x 1/2 phil rd hd wood screw (3 mt. 57-1987)	.02
70-169		4 x 3/4 phil rd hd wood screw (4 mt. 57-1987)	.02
70-189		6 x 5/16 rd hd wood screw (3 mt. 19-258)	
70-196		6 x 3/8 phil rd wash hd wood screw (5 mt. S-20823, 1 mt. 19-256)	.03
72-115		#3 x 3/8 phil flat hd wood screw (2 mt. 159-49)	
72-121		#4 x 3/8 phil flat hd wood screw (6 mt. S-20815, 3 mt. 24-671)	
78-985		Dial light socket	
80-976		Cover return spring (2 part of S-20815)	
83-1617		Pull tab (part of S-20809)	
83-1876		Push button felt strip	.15
83-2184		Wavemagnet mtg. strip (part of S-20823)	
85-542	S6	Momentary contact switch (S.P.)	
93-126		Lockwasher (2 mt. S-15802)	.01
97-367		Handle mtg. stud (2 part of cabinet)	.25
97-428		Wavemagnet retaining stud (2 part of S-20823)	
100-171	PL1	Pilot light bulb	
112-772		Wavemagnet mtg. screw (2 part of cabinet)	
112-919		Special screw (2 mt. S-20813)	
112-920		6-20 x 3/8 phil bind hd self tap screw (4 part of S-20813)	
114-197		Hex wash hd self tap screw (2 mt. chassis)	.02
114-294		6-20 x 1/4 hex hd self tap screw (4 part of S-20815)	.02
156-42		Door latch (upper half)	1.25
156-43		Door latch (lower half)	1.25
157-7		Strike fastener (2 used)	.08
157-8		Strike fastener (2 used)	.05
159-49		Snap button (4 used)	.01
166-75		Recessed bumper (4 used on cab.)	
--		Retaining ring for S-15802 (Part of S-15802)	.02
199-160		Antenna insulating sleeve (2 used)	
202-1011		Shortwave chart book	
202-1012		Operating guide	
202-1013		Service notes	
202-1014		Booklet	
S-15635		Wavemagnet suction cup (2 used)	.15
S-15722		Antenna knob & latch spring (Part of S-15802)	.45
S-15802	E1	Telescoping antenna assem.	7.50
S-15806		Eyelet & wire (used with S-15802)	.05
S-20799		Front cover hinge assem. L.H.	
S-20800		Front cover hinge assem. R.H.	
S-20809		Cable & plug (Part of S-20813)	
S-20811		Wavemagnet winding assem. (part of S-20813)	
S-20813		Wavemagnet assem.	
S-20815		Inside cover & housing assem.	
S-20822		Wavemagnet cover assem. (part of S-20813)	
S-20823		Wavemagnet mtg. strip assem.	
Z985X		Battery pack	
	Z1	Pilot light battery is Part of Z985X	
S-18631		Headphone kit (available for use with Model L600) (consists of 1 headphone set & 1 58-203 adaptor plug)	6.00