PHILIPS RADIOPLAYER MODEL 1940

BATTERY OR BATTERY-VIBRATOR OPERATED.
FOR BROADCAST AND SHORT-WAVE RECEPTION.

SPECIFICATIONS. (Subject to Alteration without Notice.)

Tuning Range 1600-550 Kc/s. 6 to 18 Mc/s. **Intermediate Frequency** 472.5 Kc/s.

BATTERY EQUIPMENT.

1-2 Volt Accumulator (100 amp. hours capacity). 3-45 Volt Super Service "B" Batteries.

BATTERY CONSUMPTION.

2 Volt "A" Battery; 0.44 amp. approx. "B" Battery; 14 milliamp. approx.
6 Volt "A" Battery (in conjunction with Vibrator Unit) 1.1 amp. approx.

VALVE EQUIPMENT.

Frequency Converter	Type 1C7G Octode (V1).
I.F. Amplifier	Type 1D5G R.F. Pentode (V2).
Demodulator and 1st Audio	Type 1K7G Duo Diode Pentode (V3).
Power Amplifier	Type KL4G Power Pentode (V4).

DIAL LAMPS (V12).

For "B" Battery Operation 2.5 volt 0.32 amp. For Vibrator Operation 6.3 volt 0.3 amp.

INSTRUCTIONS.

Full instructions for the installation of Model 1940 (battery operation) are contained in the instruction book supplied with each Radioplayer.

INSTRUCTIONS FOR VIBRATOR OPERATION.

Model 1940 is intended for operation with either "B" batteries, or, alternatively, with Philips Model 148, 220 or 330 vibrator unit. Where it is desired to use a unit in place of "B" batteries, reference should be made to the instruction sheet supplied with each unit.

The switch on the vibrator units, if used in conjunction with Radioplayer Model 1940, should be set as follows:—

Unit 148—Position 6510
" 220— " B
" 330— " B

It is also necessary to change the dial panel lamp to a 6.3 volt type.

FUSE LAMP (V11).

A fuse lamp is fitted in series with the "B" battery negative battery lead as a measure of protection against valve filament burnouts. The set will not operate if the lamp is fused or not properly screwed into the socket. The correct replacement fuse lamp is of the 2.5 volt 0.3 amp. type.

REMOVING THE CABINET.

(1) Disconnect batteries and remove back of cabinet.
(2) Remove all knobs. The knobs on the side of cabinet may be removed by unscrewing grub screws which are accessible from the back of the cabinet.
(3) Remove 8 metal thread screws securing baffle to Philite cabinet, as follows:—
  (a) Two are located, one on either side of panel lamp.
  (b) Two are fitted, one at the top and outside of either chassis supporting bracket.
  (c) Two, one on either side of the chassis proper.
  (d) Two screws are fitted through brackets at the front of the set accessible from underneath the chassis.
(4) With the screws removed, the chassis, speaker and baffle may be withdrawn from the cabinet, care being taken that the two back-securing brackets at the bottom rear of the cabinet clear the chassis.
(5) With the chassis removed, it is possible for the dial glass and rubber grommets securing same to fall out of position. Therefore, lay the cabinet face down to retain these components.

REPLACING THE CABINET.

This may be accomplished by a reversal of the removal process. Replacement of the metal thread screws in the cabinet will be facilitated if a magnetised screw driver is utilised for the purpose.

DIAL CALIBRATION.

If, due to transit or some other reason, the pointer does not indicate the correct position for tuning a given station, the position of the pointer in relation to the gang condenser can be adjusted by loosening the grub screws securing the dial drum to the gang shaft.

This operation should not be attempted unless absolutely necessary.

NOTE:

Should it be necessary at any time to replace the dial drive cord, it is important that the method of threading shown on the diagram over the page should be closely followed.

VOLTAGE ANALYSIS.

Valve Type	Plate Voltage	Osc. Plate Voltage	Screen Voltage	Bias Voltage	Filament Volts
1C7G	BC 120 SW 100	BC 120 SW 100	BC 50 SW 47	0	2
1D5G	127	—	57	0	2
1K7G	30	—	20	0	2
KL4G	125	—	127	6	2

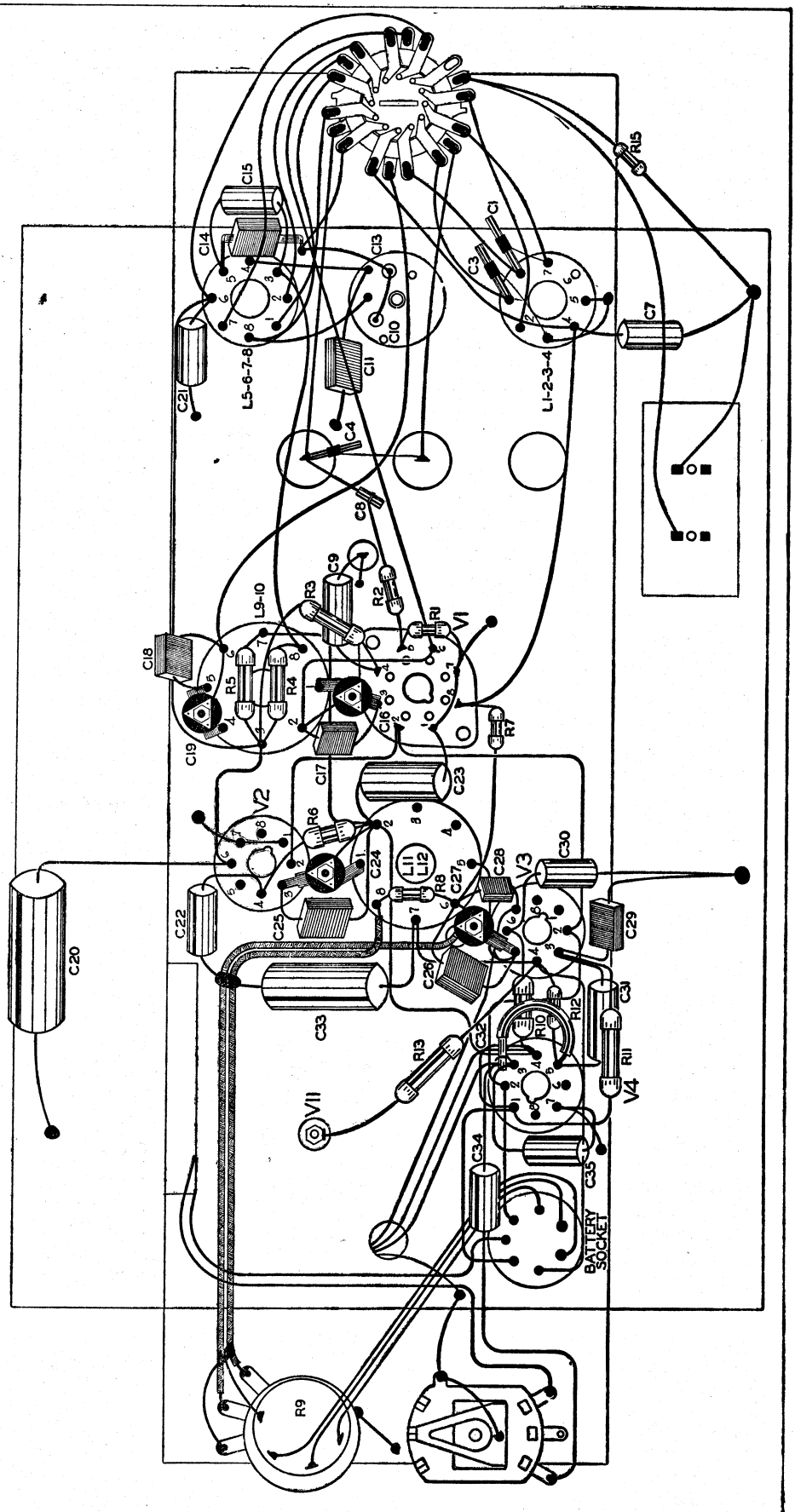
NOTE:

The abovementioned voltage values, with the exception of bias voltages, are measured between the socket points indicated and chassis, with the receiver in the no signal condition and with the volume control at zero. Bias voltages are to be measured at the source of the voltage, as incorrect readings will otherwise be obtained. Voltages are measured with a 1,000 ohm per volt voltmeter and may vary as much as 10% from the figures quoted.

COMPONENTS NOT SHOWN ON CIRCUIT DIAGRAM.

No. on Diagram	Description	Code No.	Price
—	Back cabinet	93/269	3/6
—	Baffle, with silk	34/430	5/3
—	Bars, chromium	24/550	10/6 pr.
—	Cabinet, moulded	32/292	18/6
—	Cable, battery connecting	26/235	5/4
—	Clicker, plate, wave change	72/215	2/3
3	Cord, dial drive	35/314	4d.
1	Drum, dial drive	34/594	2/–
—	Glass, dial, printed	33/584	5/–
—	Grommets, rubber, Chassis mounting	32/311	2d.
—	Grommets, dial glass support	32/321	2d.
6	Holder, dial light	24/644	6d.
—	Holder, fuse lamp	93/267	6d.
—	Knob, tuning control, metal insert	34/920	11d.
—	Knob, tuning control, plain	32/232	6d.
—	Locking ring, amphenol socket	24/666	1d.
7	Pointer and slide bar	93/272	1/6
—	Plates, dial backing	24/472	2/– pr.
—	Silk for baffle	35/238	2/6
—	Socket, octal, amphenol	34/521	6d.
—	Socket, 7 pin, amphenol	34/542	6d.
—	Socket, wafer, amphenol	34/546	6d.
—	Spacers, chassis mounting, brass	24/218	2d.
8	Spindle, tuning control assembly	24/530	2/3
2	Spring, dial cord tension	25/219	2d.
—	Switch section, wave change	73/411	2/–
—	Switch, tone control	93/239	2/9
—	Speaker, complete	45/332A	23/6
—	Transformer, speaker output	44/314	6/–
4	Wire assembly, dial drive	26/321	6d.

COMPONENT LOCATION DIAGRAM.



COMPONENT PARTS.

CONDENSERS (PRICES QUOTED ARE STRICTLY NETT AND ARE SUBJECT TO ALTERATION WITHOUT NOTICE.)

No.	Value	Code No.	Price
C1	10 uuF	52/516	3d.
C3	25 uuF	52/515	3d.
C4	.5 uuF	52/533	3d.
C5, C6	Tuning Gang	53/319	9/11
C7	.05 uF	52/315	7d.
C8	100 uuF	52/811	6d.
C9	.01 uF	52/332	7d.
C10	2.5 to 30 uuF	54/313	8d.
C11	340 uuF	52/257	7d.
C13	2.5 to 30 uuF	54/313	8d.
C14	.0035 uF	52/258	7d.
C15	.05 uF	52/315	11d.
C16	2.5 to 30 uuF	54/313	8d.
C17	80 uuF	52/239	6d.
C18	80 uuF	52/239	6d.

No.	Value	Code No.	Price
C19	2.5 to 30 uuF	54/313	8d.
C20	40 uF	52/438	2/9
C21	.01 uF	52/332	7d.
C22	.01 uF	52/332	7d.
C23	.1 uF	52/317	7d.
C24	2.5 to 30 uuF	54/313	8d.
C25	80 uuF	52/239	6d.
C26	80 uuF	52/239	6d.
C27	2.5 to 30 uuF	54/313	8d.
C28	100 uuF	52/212	7d.
C29	100 uuF	52/212	7d.
C30	.05 uF	52/315	11d.
C31	.01 uF	52/332	7d.
C32	10 uuF	52/531	3d.
C33	25 uF Electrolytic	52/416	1/3
C34	.01 uF	52/332	7d.
C35	.002 uF	52/333	7d.

RESISTORS.

No.	Value	Code No.	Price
R1	50,000 ohm	62/212	4d.
R2	25 ohm	62/223	4d.
R3	50,000 ohm	62/312	5d.
R4	5,000 ohm	62/412	5d.
R5	1,000 ohm	62/428	5d.
R6	50,000 ohm	62/312	5d.
R7	2 megohm	62/222	4d.

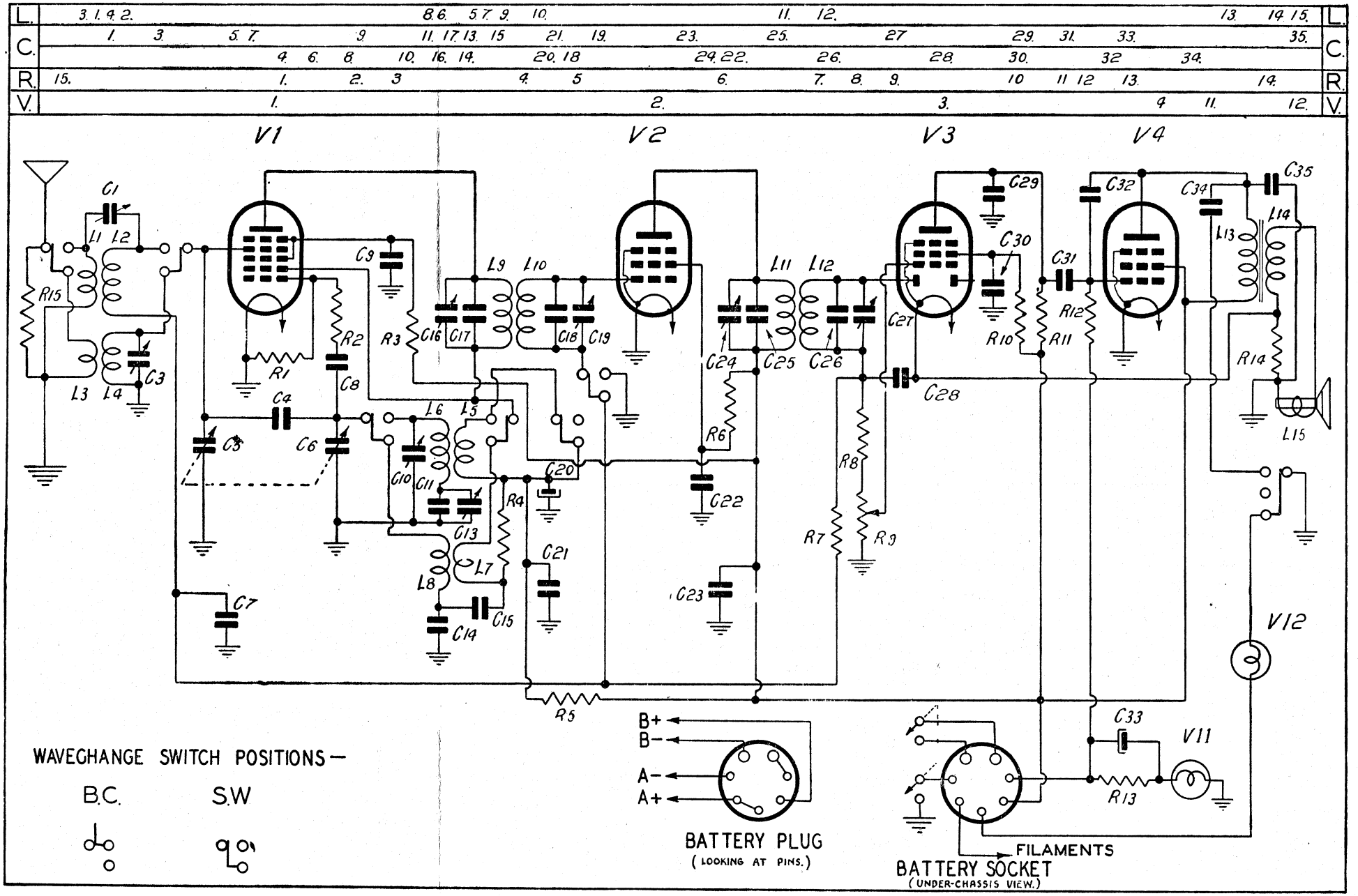
No.	Value	Code No.	Price
R8	50,000 ohm	62/212	4d.
R9	.5 megohm potentiometer	63/418	5/–
R10	1 megohm	62/418	5d.
R11	250,000 ohm	62/415	5d.
R12	1 megohm	62/214	4d.
R13	400 ohm	62/429	5d.
R14	Included in speaker	——	—
R15	10,000 ohm	62/213	4d.

COILS.

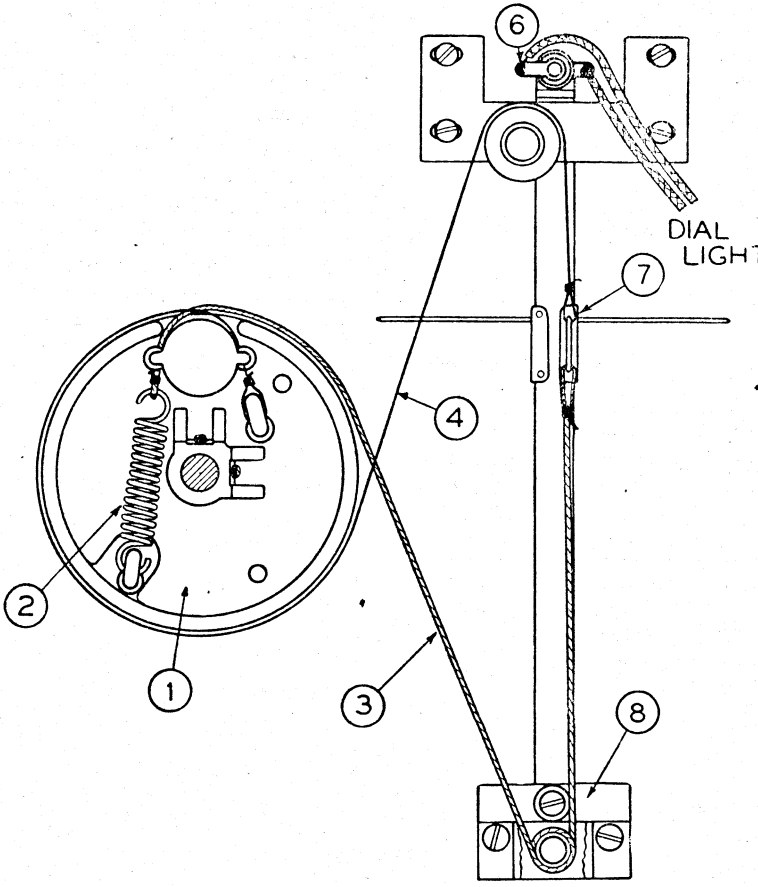
No.	Value	Code No.	Price
L1, L2, L3, L4	Aerial Coil	42/725	4/3
L5, L6, L7, L8	Oscillator Coil	42/234	4/3
L9, L10	1st I.F.	42/319	7/3

No.	Value	Code No.	Price
L11, L12	2nd I.F.	42/423	7/3
L13, L14, L15	Speaker plus transfmr	45/332A	23/6
L13, L14	Speaker transformer	44/314	6/–

IMPORTANT: In ordering spare parts quote CODE NUMBER ONLY. If claiming free replacement under GUARANTEE, return defective parts PROMPTLY and quote TYPE and SERIAL NUMBER of RADIOPLAYER.


V1
V2
V3
V4
C1
L1 L2
R15
L3 L4
C3
R1
C9
R2
C8
R3
C16 C17
L9 L10
C18 C19
C4
C5
C6
L6 L5
C10 C11
C13
C20
R4
L7
L8
C14
C15
C21
C7
R5
C24
C25
C26
L11 L12
R6
C22
C23
R8
R7
R9
C29
C30
C27
C28
R10
C31
R12
R11
C32
C34
C35
L13
L14
R14
L15
V12
C33
V11
R13
B+
B-
A-
A+
BATTERY PLUG
(LOOKING AT PINS.)
FILAMENTS
BATTERY SOCKET
(UNDER-CHASSIS VIEW.)
WAVECHANGE SWITCH POSITIONS—
B.C.
S.W

DIAL PARTS DIAGRAM



CHASSIS LAYOUT DIAGRAM.