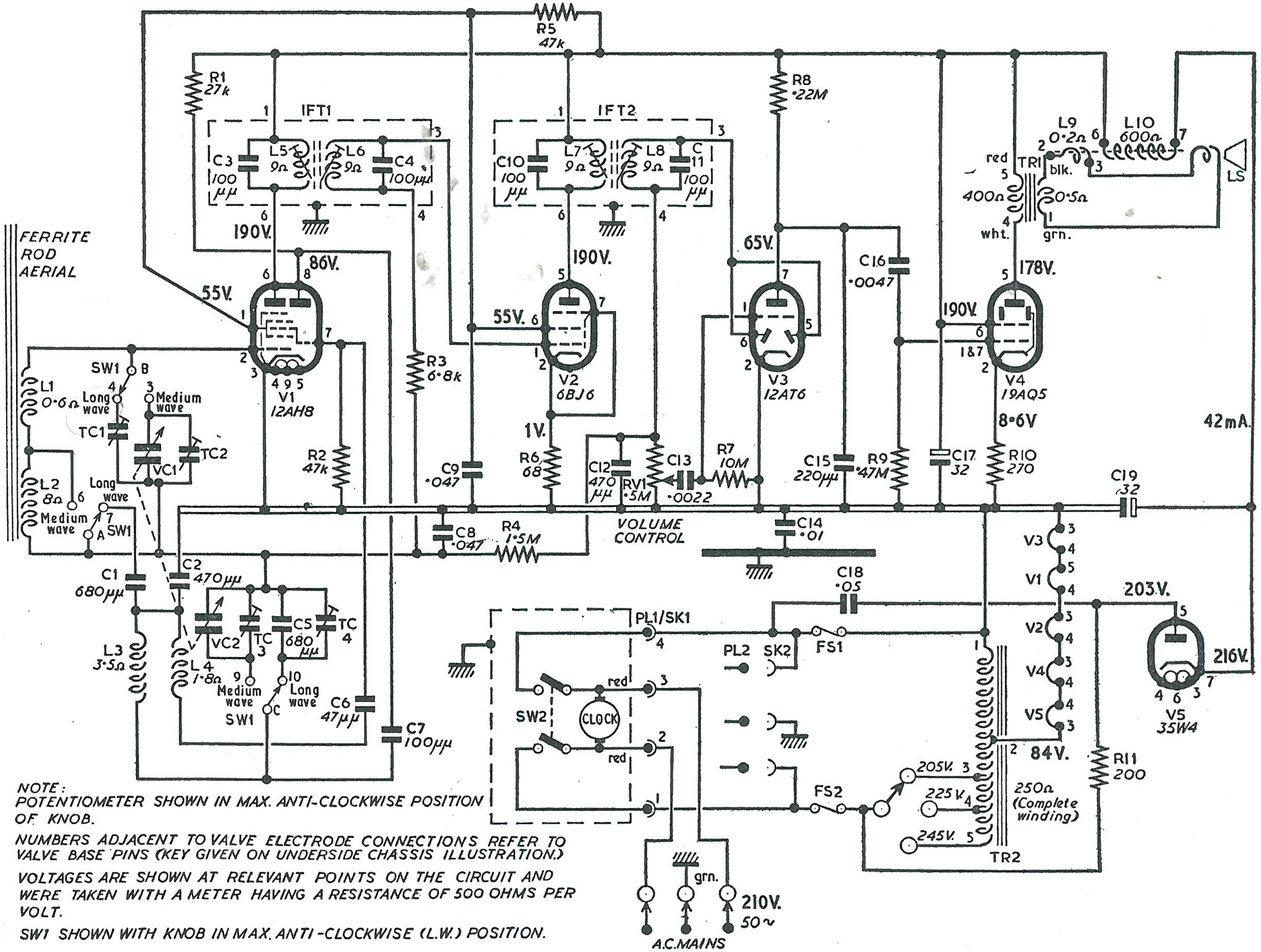
ENG HMV Model 1127 clock radio long wave. sold in N.Z

C	1, 2, 3, 5, 6, 4, 7, 8,9, 10, 12, 13,11, 14, 15.18, 16, 17, 19
R	1, 2, 3, 4, 6, 5, 7, 8, 9, 10, 11
L	1,2, 3, 4, 5, 6, 7, 8, 9, 10
MISC.	SW1, TC1, SW1, VC1, TC2, VC2, TC3, SW1, V1, IFT1, TC4, SW2, V2, Clock, IFT2, RV1, PL1/SK1, PL2, V3, SK2, FS1, FS2, TR2, V4, TR1, V5, LS



NOTE:

POTENTIOMETER SHOWN IN MAX. ANTI-CLOCKWISE POSITION OF KNOB.

NUMBERS ADJACENT TO VALVE ELECTRODE CONNECTIONS REFER TO VALVE BASE PINS (KEY GIVEN ON UNDERSIDE CHASSIS ILLUSTRATION.)

VOLTAGES ARE SHOWN AT RELEVANT POINTS ON THE CIRCUIT AND WERE TAKEN WITH A METER HAVING A RESISTANCE OF 500 OHMS PER VOLT.

SW1 SHOWN WITH KNOB IN MAX. ANTI-CLOCKWISE (L.W.) POSITION.

4

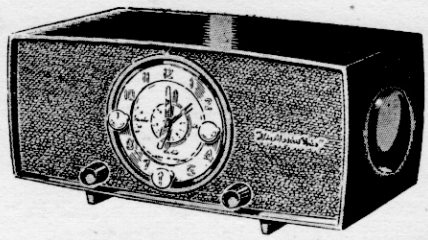
ENG HMV Clock Radio 1127 sold in NZ

MODEL 1127

"HIS MASTER'S VOICE"

SERVICE MANUAL

5 VALVE SUPERHET CLOCK RECEIVER FOR A.C. MAINS



MODEL 1127

MADE IN ENGLAND

INDEX

Part No. 93350

December, 1954

MODEL 1127

SPECIFICATION

Physical

Height .....5½ inch } Approx.
Depth .....6⅞ inch } Overall.
Length .....12½ inch }
Weight .....7 lb.

Mains Supply

195—255 volts, 50 cycles, A.C. only.

Consumption

40 watts approx.

Wave Ranges

M.W. .....187—575 metres (1,602—522 kc/s.)
L.W. .....1,500 metres (200 kc/s. only)

Intermediate Frequency

470 kc/s.

Rated Output

2 watts approx.

Valves

V1	12AH8	Frequency changer
V2	6BJ6	I.F. Amplifier
V3	12AT6	Detector, A.G.C. Rectifier and A.F. Amplifier
V4	19AQ5	Output
V5	35W4	H.T. Rectifier

Clock

Smith's Electric Clock (50 cycles).

Fuses

Two 0·5 amp. Fuses.

Loudspeaker

4-inch mains energised speaker. The speech coil has a D.C. resistance of 3 ohms and an impedance of 5 ohms at 1,000 cps.

INSTALLATION

Aerial

The receiver is equipped with a built-in "Ferrite" rod aerial and no external aerial is required.

Transit Packing

The Clock Hand Setting Control and the Power Plug are packed in a linen bag.

Mains Supply

The receiver may be adjusted to operate on A.C. mains supplies of 195—255 volts, 50 cycles only. To adjust for a particular voltage disconnect the instrument entirely from the mains supply, remove the rear cover and insert the Voltage Adjustment Plug in the position marked with the voltage including that of your supply.

IMPORTANT.—The mains supply point to which the instrument is connected must be fused for 5 amperes. A 5 ampere fuse-plug may be satisfactorily employed if the supply point is on a circuit which has to be fused for a current higher than 5 amperes.

Final Connections

Ensure that the valves are firmly inserted in their correct position and check that the fuses are firmly held.

Replace the card back and insert the Clock Hand Setting Control through the hole in the card back until it engages with a small spindle protruding from the clock mechanism.

Connect a 3-pin plug to the 3-core mains leads as follows:—

Green marker lead to Earth pin.
Black marker lead to "N" pin.
Other lead to "L" pin.

If the outlet socket is for a 2-pin plug, connect the 3-core mains lead as follows:—

Green marker lead to a separate earth point, such as a rising water main.

Do not use a telephone earth or a gas pipe for this purpose. Connect the remaining leads to a 2-pin plug and try reversing the plug in the socket for minimum hum.

Power Plug

See Additional Apparatus under "Operation".

DISMANTLING

Removal of Chassis

To remove the chassis proceed as follows:—

1. Remove the Clock Hand Setting Control (Pull off).
2. Remove the card back.
3. Pull off the two brown front control knobs.
4. Slacken the two screws securing the M.W. tuner to the tuning capacitor spindle.
5. Remove the four screws from the underside of the cabinet.
6. Partially withdraw the chassis and disconnect the earth lead and the four-pin plug from the chassis.
7. Remove the chassis.

To operate the radio unit only when the chassis is withdrawn from the cabinet, shorting links can be placed across pins 1 and 2 and 3 and 4 of SK1 (circuit diagram).

Removal of Clock

1. Repeat operations 1 to 7 as above.
2. Remove the four screws securing the clock to the cabinet moulding and withdraw the clock.

OPERATION

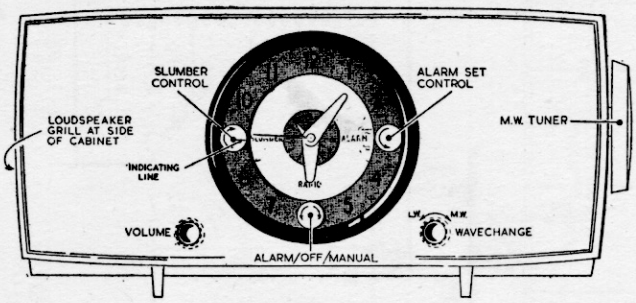
All information given below applies only when the receiver is connected to the mains supply and the Clock operating.

Wave Ranges

M.W. .....187—575 metres (1,602—522 kc/s.)
L.W. .....1,500 metres (200 kc/s) only.

Setting the Clock

The clock will commence to operate as soon as the instrument is connected to the mains. To set the hands, turn the CLOCK HAND SETTING control at the rear of the receiver in the direction of the arrow until the correct time is shown.



Front Controls.

Function of Clock Controls

1. **The centre knob** is the ALARM/OFF/MANUAL switch. It controls the alarm and/or radio and has three positions :—
   (a) Turned to the left (" Alarm ") it is in position for the pre-setting mechanism to operate automatically (see under AUTOMATIC).
   (b) In the middle position (" Off ") it acts as the mains switch for switching off the receiver, but the clock will continue to function as a time-piece.
   (c) Turned to the right (" Manual ") the model may be operated manually in the same way as an ordinary radio receiver without the pre-set mechanism coming into operation (see under MANUAL).

2. **The right-hand knob** is the ALARM SET control. It has a push-pull action as well as rotating. When pulled out and rotated in an anti-clockwise direction, it operates the inner dial of the clock for pre-setting the time at which the alarm and radio mechanism is to operate (see under AUTOMATIC). If the control is pushed in after this adjustment, only the radio will come on at the selected time, the alarm not operating. If left pulled out the alarm will sound ; the control knob can then be pushed in, after the alarm is sounding at the pre-determined time, in order to stop it, but the radio will continue to function.

3. **The left-hand knob** is the SLUMBER control. It controls the period (up to one hour) within which the receiver is required to be switched off (see under SLUMBER CONTROL). Instructions for setting-up these controls for the conditions required are detailed below.

Manual

(a) **To operate as an ordinary radio**

1. Set the ALARM/OFF/MANUAL switch to the " Manual " position to switch on the radio.
2. Turn the VOLUME control to about half-way, and allow a few moments for the valves to warm up.
3. Set the WAVECHANGE switch to Medium Wave (clockwise) and tune in a station in the normal manner (the wavelengths are engraved on the M.W. Tuner) or alternatively switch to the pre-set Long Wave (anti-clockwise) station.
4. Adjust the VOLUME control as required.

NOTE.—Operation 1 above will also switch on any additional apparatus connected to the 3-pin Power Plug at the rear of the instrument (see page 6—Additional Apparatus).

Automatic

(a) **To set the radio to switch on automatically at any time up to 12 hours,** proceed as follows :—

1. Set the ALARM/OFF/MANUAL switch to the " Manual " position to switch on the radio.
2. Turn the VOLUME control to about half-way, and allow a few moments for the valves to warm up.
3. Set the WAVECHANGE switch to Medium Wave (clockwise) and tune in a station in the normal manner (the wavelengths are engraved on the M.W. Tuner) or alternatively switch to the pre-set Long Wave (anti-clockwise) station.
4. Adjust the VOLUME control as required.
5. Set the ALARM/OFF/MANUAL switch to the " OFF " position.
6. Pull out the ALARM SET control and turn it (anti-clockwise) to rotate the metal disc in the centre of the clock face until the small hand comes into line with the time required. If it is desired to have the receiver automatically switched on at 8 o'clock, the small hand should point to eight on the metal disc.
7. Set the ALARM/OFF/MANUAL switch to the " Alarm " position then push in the ALARM SET control knob (see operation 8 below) and the radio only will switch on at the time set.

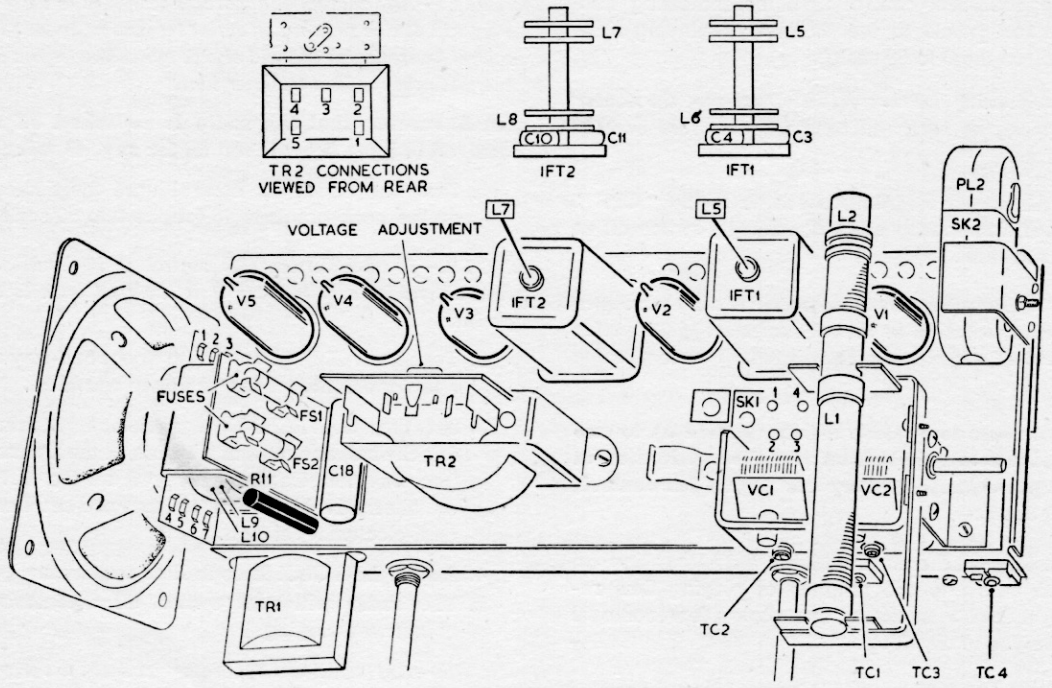
(b) **To have the alarm operate after the radio is automatically switched on:—**

8. If it is desired to have the alarm operate after the radio is automatically switched on, leave the ALARM SET control knob in the pull-out position. The alarm will operate approximately 15 minutes after the radio switches on and will continue for one hour or until the ALARM SET control knob is pushed-in.

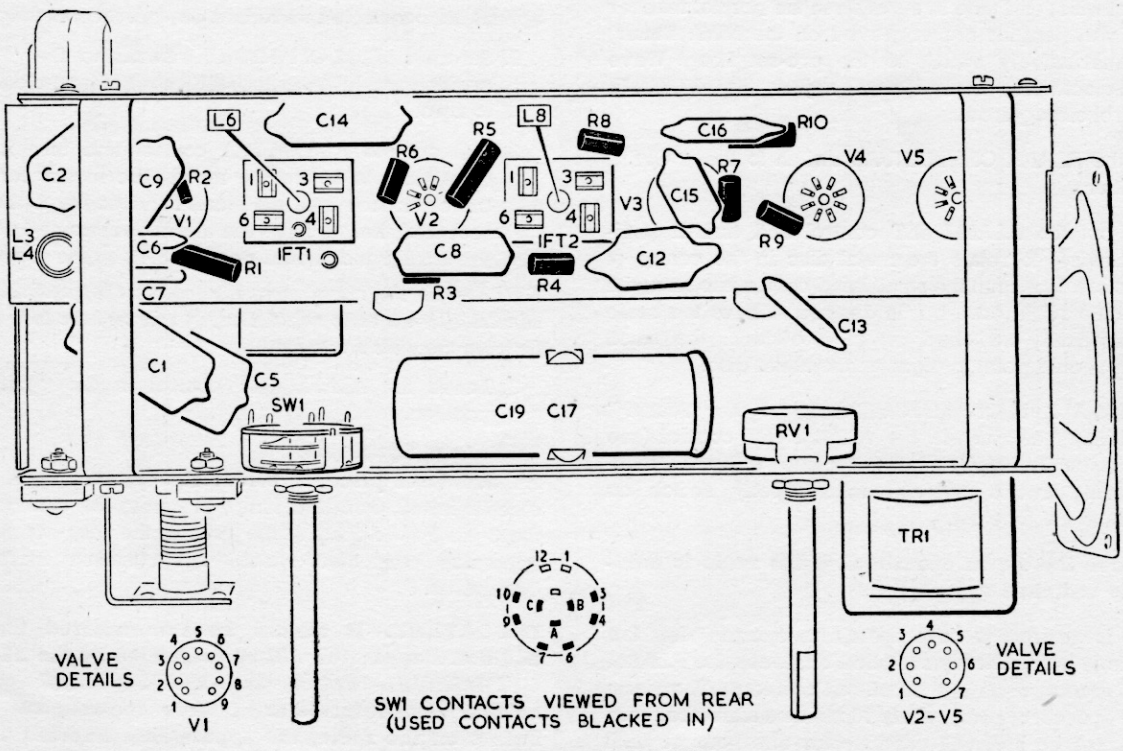
NOTE.—Operation 1 above will also switch on any additional apparatus connected to the 3-pin Power Plug at the rear of the instrument. Operation 5 switches the apparatus off and it will switch on again at the same time as the radio, operation 7.

Slumber Control

(a) **Assuming that the radio is already switched on, tuned to a station, the Volume control correctly set and it is desired to have it automatically switched off at any time up to one hour,** proceed as follows :—



TOP SIDE CHASSIS VIEW



UNDER SIDE CHASSIS VIEW

1. Turn the SLUMBER control until the indicating line on the knob points to the minutes of playing time required (on the 0 to 60 scale).

NOTE.—If when setting this control it is turned past the number of minutes required, no harm will occur if it is turned back to the desired position.

2. Set the ALARM/OFF/MANUAL switch to the " OFF " position and the radio will automatically switch off at the desired time.

NOTE,—Any additional apparatus connected to the 3-pin Power Plug will also be switched on at the commencement of this section (operation 1 above) and will also be switched off in conjunction with the radio.

(b) **To set the radio to operate for any period up to one hour, to automatically switch off and then switch on at a later time pre-determined by the Alarm Set control,** proceed as follows:—

1. Turn the SLUMBER control until the indicating line on the knob points to the minutes of playing time required (on the 0 to 60 scale), and allow a few moments for the valves to warm up.

NOTE.—If when setting this control it is turned past the number of minutes required, no harm will occur if it is turned back.

2. Turn the VOLUME control about half-way.

3. Set the WAVECHANGE switch to Medium Wave (clockwise) and tune in a station in the normal manner (the wavelengths are engraved on the M.W. Tuner) or alternatively switch to the pre-set Long Wave (anti-clockwise) station and adjust the VOLUME control as required.

4. Set the ALARM/OFF/MANUAL switch to the " OFF " position.

5. Pull out the ALARM SET control and turn it (anti-clockwise) to rotate the metal disc in the centre of the clock face until the small hand comes into line with the time required. If it is desired to have the radio automatically switched on at 8 o'clock, the small hand should point to eight on the metal disc.

6. Set the ALARM/OFF/MANUAL switch to the " Alarm " position, then push-in the ALARM SET control (see operation 7 below) and the radio will now automatically switch off and automatically switch on again at the time set.

(c) **To have the alarm operate after the radio is automatically switched on:—**

7. If it is desired to have the alarm operate after the radio is automatically switched on, leave the ALARM SET control knob in the pull-out position. The alarm will operate approximately 15 minutes after the radio switches on and will continue for one hour or until the ALARM SET control knob is pushed in.

NOTE.—Any additional apparatus connected to the 3-pin Power Plug will also be switched on during the time set by the SLUMBER control (operation 1) and will also be switched on again in conjunction with the radio at the later time.

(d) **Assuming that the radio is switched off and it is desired to have it switched on for say, 45 minutes only.**

1. Turn the SLUMBER control until the indication line on the knob points to 45 (on the 0 to 60 scale).

NOTE.—If when setting this control it is turned past the 45 minutes, no harm will occur if it is turned back to the desired position.

2. Turn the VOLUME control to about half-way and allow a few moments for the valves to warm up.

3. Set the WAVECHANGE switch to Medium Wave (clockwise) and tune in a station in the normal manner (the wavelengths are engraved on the M.W. Tuner) or alternatively switch to the pre-set Long Wave (anti-clockwise) station.

4. Adjust the VOLUME control as required.

5. The radio will now switch off automatically after 45 minutes playing.

NOTE.—Any additional apparatus connected to the 3-pin Power Plug will also be switched on for 45 minutes in conjunction with the radio.

Alarm Only

(a) **To operate the instrument as an ordinary alarm clock without having either the radio or additional apparatus connected switched on,** proceed as follows:—

1. Set the ALARM/OFF/MANUAL switch to the " OFF " position and turn the SLUMBER control (anti-clockwise) to zero.

2. Pull out the ALARM SET control and turn it (anti-clockwise) to rotate the metal disc in the centre of the clock face until the small hand points to the time required, i.e., to have the alarm operate at 6 o'clock, the small hand should point to 5.45 on the metal disc.

NOTE.—As the alarm normally operates approximately 15 minutes after the radio switches on, 15 minutes have to be allowed for when using the alarm only.

3. Leave the ALARM SET control in the " pull-out " position.

Additional Apparatus

An additional piece of electrical apparatus such as an electric kettle, standard lamp, etc., may be connected to the 3-pin Power Plug at the rear of the instrument. The apparatus connected should not consume more than 5 amperes.

IMPORTANT.—It should be remembered that the additional apparatus will be controlled by the ALARM/OFF/MANUAL switch and the SLUMBER control, so that whenever either of these controls are set to switch on the radio, the apparatus connected will be automatically switched on at the same time, and will

be automatically switched off when the controls are at the " OFF " position. Pushing in the ALARM SET control to silence the alarm will not switch off any additional apparatus connected.

The earth lead from the apparatus must be connected to the centre pin of the Power Plug.

To Replace a Fuse

Disconnect the instrument from the mains supply.

Remove the Clock Hand Setting Control (pull off).

Remove the rear card back (4 screws).

Unclip the faulty fuse and replace with one of similar type and rating, i.e., 500 mA Cartridge type.

NOTE.—The two fuses are for the receiver protection only. Any additional piece of apparatus connected will be protected by the 5-ampere fuse (Mains Supply).

I.F. AND R.F. ALIGNMENT

General

The chassis must be withdrawn from the cabinet for alignment purposes and shorting links can be connected across pins 1-2 and 3-4 of SK1.

If the I.F. circuits have been disturbed, complete I.F. and R.F. alignment must follow.

Whilst aligning, the input to the receiver must be progressively reduced as the circuits are brought into line so that the output does not exceed 500 mW (i.e., 1·4 volt across the speech coil).

An A.C. voltmeter (rectifier type) connected across the loudspeaker speech coil may be used as an output meter.

I.F. Alignment

Set the Waveband Switch to M.W. (clockwise) and the Volume Control fully clockwise and the Gang Capacitor to minimum capacity (anti-clockwise).

Inject a 470 kc/s modulated signal into the grid of V1 (pin 2) and chassis.

Adjust coils L8, L7, L6 and L5 in that order for maximum output.

Radio Frequency

Connect a few turns of wire to the output lead of a signal generator and inductively couple the turns to the M.W. or L.W. aerial coils (L1 or L2) on the Ferrite rod aerial.

Medium Wave

Set Volume Control to maximum and Waveband Switch to M.W.

Op. No.	Gang Cap. Setting	Tune Test Oscillator to		Operation.
		Metres	kc/s.	
1	Minimum	187	1,602	Adjust TC3 for maximum output
2	210	210	1,427	Adjust TC2 for maximum output
3	—	—	—	Repeat operations 1 to 2

Long Wave

Set Volume Control to maximum and Waveband switch to L.W.

Op. No.	Tune Test Oscillator to		Operation
	Metres	kc/s.	
1	200	1,500	Adjust TC4 for maximum output
2	200	1,500	Adjust TC1 for maximum output
3	—	—	Repeat operations 1 and 2

MODIFICATIONS

C18, R11

On some early production models C18 and R11 were situated directly above the loudspeaker field coil L10 with C18 connected to the chassis side of the fuse FS1. In cases where the two components are so situated they should be repositioned as shown in the " Top Side Chassis " illustration and C18 connected to the mains side of fuse FS1 (circuit diagram). The stand off insulation tag which was fitted behind the fuse panel can be conveniently attached to the screw securing TR2 nearest the loudspeaker.

SPARE PARTS LIST

Part No.	Description	No. per Inst.
	INSTRUCTIONS	
93225	Instruction Card	1
93226	Valve Position Label	1
93227	Knob Function Label	1
	CABINET FITTINGS	
93427	Cabinet Shell	1
93582A	Cabinet Back	1
26257	P.K. Screws } securing Back	4
29356	Washers } securing Back	4
91344	Linen Bag	1
	CONTROL KNOBS	
46677L	Knob—" Volume "	1
46677L	Knob—" Waveband "	1
47042	Spring Clips—securing Knobs	2
93560A	Knob—" Tuning "	1
13387	Screws—securing Tuning Knob	2
	NOTE.—For knobs on clock, see " Clock Assy." below.	
	CLOCK ASSEMBLY	
93428A	Clock Assy. complete	1
11805	P.K. Screws—securing Clock	4
BP1028	Knob—" Slumber "	1
CP1029	Knob—" Radio "	1
CP1030	Knob—" Alarm "	1
BP1030	Knob—" Set Hands "	1
BP1031	Rod and Insulation for " Set Hands " Knob	1
BP1032	Window	1
BP1033	Escutcheon—Numbered " 1 to 12 "	1
BP1034	Large Dial	1
BP1035	Small Dial—Numbered " 1 to 12 "	1
BP1036	Minute Hand	1
BP1037	Hour Hand	1
BP1038	Red Indicator Hand	1
93591A	Cableform and 4-pin Plug (PL1) Assy.	1
31490A	4-pin Plug (PL1) only	1
4120 x 2300	Flex only—in bulk	36 in.
36892G	Black Rubber Sleeves	2
39799B	Red Rubber Sleeves	2
16578	Cleat—holding Cableform to Chassis	1
59119AB	Rivet—securing Cleat	1
4120 x 1600	Flex for Earth Lead—in bulk	8 in.
24606	Tag for Earth Lead	1
10606	P.K. Screws } securing Tag to Chassis	1
201304	Washer } securing Tag to Chassis	1
	CHASSIS ASSEMBLY	
93588A	Chassis Assy. complete	1
200040G	Screws } securing Chassis to Cabinet	4
201304	Washers } securing Chassis to Cabinet	4

Part No.	Description	No. per Inst.
93570	Chassis Straps only	2
200040F	Screws } securing Straps to Chassis	4
201804	S.P. Washers } securing Straps to Chassis	4
	LOUDSPEAKER	
33685L	Loudspeaker complete	1
10606	P.K. Screws—securing Speaker to Chassis	2
	FUSES AND FUSE PANEL	
38825B	FS1 } Fuses, 500 m/A.	1
38825B	FS2 } Fuses, 500 m/A.	1
47974A	Fuse Panel, complete	1
200040H	Screws } securing Panel	2
201804	S.P. Washers } securing Panel	2
200404	Nuts } securing Panel	2
36889A	Insulating Tag } securing Panel	1
	CLIPS, CLEATS, GROMMETS, ETC.	
16578	Cleat—holding Cableform from Clock	1
93569	Spring Clips—holding Component Panel	2
59119AB	Rivets—securing above Cleat and Clips	3
93575	Spring Clip—securing Electrolytic Capacitor	1
59119AC	Rivet securing Clip	1
93574	Spring Clips—securing Aerial Coil Assy.	2
40764B	Fibre Cleat—holding Mains Lead	1
11187	P.K. Screws } securing Cleat	1
201304	Washer } securing Cleat	1
56147	Rubber Grommets on Chassis	2
36892G	Black Rubber Sleeves on Clock Cableform	2
39799B	Red Rubber Sleeves on Clock Cableform	2
39799E	Green Rubber Sleeve on Mains Lead	1
	WIRES AND CABLES	
93644A	Mains Lead Assy.	1
4301 x 3001	Mains Lead only—in bulk	6ft.
39799E	Green Rubber Sleeve only	1
93591A	Cableform and Plug Assy. from Clock	1
4120 x 2300	Flex only, in Cableform—in bulk	36 in.
36892G	Black Rubber Sleeves	2
39799B	Red Rubber Sleeves	2
4120 x 1600	Flex for Earth Lead from Clock—in bulk	8 in.
24606	Tag for above Earth Lead	1
4201 x 2300	Twin P.V.C. Covered Flex between Mains Sockets	6 in
4020 x 2300 to 4020 x 2309	P.V.C. Covered Wire for Chassis Wiring—in bulk. 1/0·24in. Black to White. Change last Figure as per Standard Colour Code	As reqd
4120 x 1600 to 4120 x 1609	P.V.C. Covered Flex, 14/0·0076 in., Colours as Wire above	As reqd.

Part No.	Description	No. per Inst.
6537 x 0204	1 mm. Yellow Sleeving	As reqd
6537 x 0400	2 mm. Black Sleeving	
6537 x 0405	2 mm. Green Sleeving	

VALVES

12AH8	V1—Frequency Changer	1
6BJ6	V2—I.F. Amplifier	1
12AT6	V3—A.F. Amplifier—Detector and A.G.C. Diode	1
19AQ5	V—4 Output	1
35W4	V5—H.T. Rectifier	1
	Valveholders—See "Component Panel Assy." below	

COMPONENT PANEL ASSEMBLY

93586B	Assy. complete with Components ready Wired	1
93586A	Panel Assy., less all Components	1
93569	Spring Clips—holding Panel	2
59119AB	Rivets—securing Clips to Chassis	2

TAGS

36889A	Single Stand-off Insulator Tag	1
200040H	Screw — securing Tag with Fuse Panel	1
201804	S.P. Washer — securing Tag with Fuse Panel	1
200404	Nut — securing Tag with Fuse Panel	1
24606	Tag for Earth Lead on Clock	1
10606	P.K. Screw — securing Tag to Chassis	1
201304	Washer — securing Tag to Chassis	1

SWITCHES

93568A	S.W.1—Wavechange Switch	1
1061	Washers for S.W.1	2
	S.W.2—Mains On/Off Switch. Part of Clock Assy.	

PLUGS AND SOCKETS

93591A	PL1—4-pin Plug and Cableform Assy. from Clock	1
31490A	4-pin Plug (PL1) only	1
4120 x 2300	Flex only—in bulk	36 in.
36892G	Black Rubber Sleeves	2
9799B	Red Rubber Sleeves	2
31505A	SK1—4-way Socket, on Chassis	1
59007AC	Rivets—securing SK1	2
93565A	PL2—3-pin Mains Plug, for External Circuit Control	1
93584A	SK2—3-way Mains Socket on Chassis	1
200068Q	Screw — securing SK2 to Bracket	1
201806	S.P. Washer — securing SK2 to Bracket	1
200406	Nut — securing SK2 to Bracket	1
93583	Bracket for SK2	1
8777	P.K. Screws—securing Bracket	2
47006A	Mains Adjustment Socket Panel	1
44562B	Mains Adjustment Plug	1

Part No.	Description	No. per Inst.
	INDUCTORS	
92822B	L1 and L2—Aerial Coil and Rod Assy.	1
93574	Spring Clips—securing L1 and L2 to Bracket Assy.	2
93649A	Bracket Assy. for L1 and L2	1
8777	P.K. Screws—securing Bracket	2
92820C	L3 and L4—Oscillator Coil	1
	L5 and L6—See I.F.T.1 below	
	L7 and L8—See I.F.T.2 below	
93478C	I.F.T.1—1st I.F. Transformer, complete	1
93478C	I.F.T.2—2nd I.F. Transformer, complete	1
8777	P.K. Screws—securing I.F.T.'s	2
46553	Dust Iron Cores only	4
38006TF	Capacitors only, 100 pfs., 2%	4
34680AK	TR1—Output Transformer	1
8777	P.K. Screws—securing TR1	2
22628DG	TR2—Mains Transformer, with Panel (less Plug)	1
10606	P.K. Screws—securing TR2	2
47006A	Mains Adjustment Panel only	1
44562B	Adjustment Plug	1
L9 L10	Loudspeaker Field Coil	

CAPACITORS

38002VT	C1—680 pfs., 350 v., 2%	1
38001VP	C2—470 pfs., 350 v., 2%	1
38006TF	C3—100 pfs., 350 v., 2%	1
38006TF	C4—100 pfs., 350 v., 2%	1
38002VT	C5—680 pfs., 350 v., 2%	1
38004BE	C6—47 pfs., 350 v., 10%	1
38004BG	C7—100 pfs., 350 v., 10%	1
38210DY	C8—0·047 mfd., 150 v., 20%	1
38216DY	C9—0·047 mfd., 350 v., 20%	1
38006TF	C10—100 pfs., 350 v., 2%	1
38006TF	C11—100 pfs., 350 v., 2%	1
38051DL	C12—470 pfs., 500 v., 20%	1
38216DQ	C13—0·0022 mfd., 350 v., 20%	1
38214F	C14—0·01 mfd., 1,000 v., 20%	1
38000BJ	C15—220 pfs., 350 v., 10%	1
38216DS	C16—0·0047 mfd., 350 v., 20%	1
38401A	C17 and C19—32 + 32 mfd., 350 v., Electrolytic	1
93575	Clip—securing C17 and C19	1
59119AC	Rivet—securing Clip	1
36355F	C18—0·05 mfd., 500 v., 20%	1
	C19—See C17 above	
36900E	TC1—Trimmer 100-550 pfs.	1
	TC2—Trimmer 0-30 pfs. — Part of VC1/VC2	
	TC3—Trimmer 0-30 pfs. — Part of VC1/VC2	
36900E	TC4—Trimmer 100-550 pfs.	1
200502	Nuts — securing TC1 and TC4	2
201802	S.P. Washers — securing TC1 and TC4	2
201302	Plain Washers — securing TC1 and TC4	2
93587A	VC1 and VC2—Twin Gang Tuning Capacitor	1
200040D	Screws — securing Gang to Bracket	3
201804	S.P. Washers — securing Gang to Bracket	3

Part No.	Description	No. per Inst.
93571	Bracket for Gang	1
93573	Insulation under Bracket	1
93576	Insulated Screws } securing Bracket	2
201804	S.P. Washers } securing Bracket	2
200404	Nuts } securing Bracket	2

RESISTORS

Part No.	Description	No. per Inst.
33363ND	R1—27 K/ohms, ½ w., 10%	1
33360DY	R2—47 K/ohms, ¼ w., 20%	1
33360DT	R3—6·8 K/ohms, ¼ w., 20%	1
33360EH	R4—1·5 M/ohms, ¼ w., 20%	1
33363Y	R5—47 K/ohms, ½ w., 5%	1
33360DF	R6—68 ohms, ¼ w., 20%	1
33360EN	R7—10 M/ohms, ¼ w., 20%	1
33360AC	R8—220 K/ohms, ¼ w., 5%	1
33360EE	R9—470 K/ohms, ¼ w., 20%	1
33363JX	R10—270 ohms, ½ w., 10%	1
37873CW	R11—200 ohms, 6 w., 20%	1
37963E	RV1—500 K/ohms, Volume Control	1

In order to expedite delivery of Spare Part orders, please quote:—

1. Model and serial numbers.
2. Spare Part number and description.
3. Quantity required.

Unless full particulars are quoted, delay in execution of orders must inevitably result.

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