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“MASTERPIECE”

3-Valve Battery Operated Receiver

(Screened-Grid—Detector—Power)

INSTRUCTIONS

SWITCH. Ensure that the combined "Wave-Range and On-and-Off Switch" (see Fig. 2) is in the "Off," or centre, position before connecting the batteries.

L.T. ACCUMULATOR. The accumulator must not be installed in the set if the outside is wet, or if it is gassing too freely, otherwise serious damage to the set will occur. A receiver damaged by acid cannot be repaired free under guarantee.

Place the accumulator as shown in Fig. 1 and connect as follows:—

Red Lead to L.T. + or red terminal.

Black Lead to L.T. — or black terminal.

H.T. BATTERY. Place the battery in position, with the Grid Bias tappings at the bottom, as shown in Fig. 1. Connect as follows:—

H.T. +1 lead	→ to battery socket marked	70
H.T. +2	" " " " " "	100
G.B. -1	" " " " " "	1½
G.B. -2	" " " " " "	3 or 4½
H.T. -	" " " " " "	H.T. -

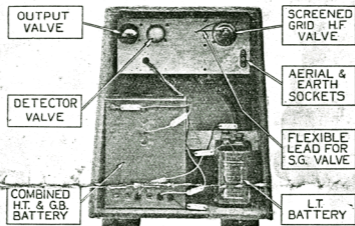


FIG. 1.

VALVES. Three of the following valves are inserted in the positions shown in Fig. 1.

Make	OUTPUT (Left Hand)	DETECTOR (Middle)	SCREENED-GRID H.F. VALVE (Right Hand)
Standard "Micromesh"	PB.1	HLB.1 (Met)	5.B.1 (Met)
Mullard	PM.2A	PM.1HL. (Met)	PM.12A (Met)

NOTE. The positions of the valves as indicated in the above table are as seen when looking at the back of the set and they should not be altered under any circumstances.

Make sure that the flexible lead is securely connected to the terminal on top of the Screened-Grid H.F. Valve.

AERIAL AND EARTH CONNECTIONS. Connect aerial to red plug and earth wire to black plug and insert in aerial socket A1 and earth socket E respectively (see Fig. 1). If interference occurs refer to paragraph 9.

The aerial should be an outdoor type erected as high as possible. Its length may be 50 to 75 feet, including the down lead, and it should be kept well away from the building in which the set is installed. A good earth, such as a water-pipe or an earthing tube, is essential for satisfactory results.

OPERATION. (Refer to Fig. 2.)

1. Turn the **Reaction Control** to the "minimum" position.
2. Switch the receiver **ON** by turning the combined "**Wave-Range and On-and-Off Switch**" to "Medium" or "Long," according to the wave length of the station required.

Medium Waves (210—560 metres, approx.)

Long Waves (1000—2000 metres, approx.)

3. **Adjust the Loudspeaker.** For protection in transit the speaker is sent out in an unadjusted condition and should now be adjusted by turning the adjusting knob (see Fig. 2) two or three turns in a clock-wise direction. After a station has been tuned in the speaker may be adjusted finally for best results.

4. Slowly rotate the **Tuning Control** until signals are heard. If unsuccessful, rotate the **Reaction Control** a few degrees towards "maximum," and again search with the **Tuning Control** until the required station is heard, when the volume of reproduction may be increased by advancing the **Reaction Control** up to a certain limit. **If this Control is advanced too far the receiver will oscillate (howl). This must be stopped immediately by turning the Control towards "minimum" position.**

5. Adjust **Trimmer** for best results.

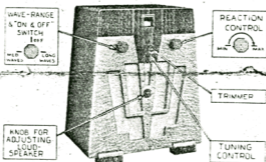


FIG. 2.

6. After adjusting the **Reaction Control**, always make final adjustments with the **Tuning Control** and **Trimmer**.

7. If reproduction is distorted or too loud, correct by turning the **Reaction Control** towards "minimum."

8. **Reception of Distant Stations.** For distant reception advance the **Reaction Control** to increase sensitivity, but not so far as to cause distortion or to make the receiver oscillate (denoted by squeals and whistles when the **Tuning Control** is rotated). If distant stations fade, this is due, in most cases, to atmospheric conditions.

9. **To Reduce or Eliminate Interference.** If interference is experienced when the aerial is plugged into the A1 socket, try the alternative socket A2. Advance the **Reaction Control** (as described above for distant reception) and carefully tune to the desired station with the **Tuning Control** and **Trimmer**. If interference is severe it may be necessary to shorten the aerial.

10. **To Switch Off.** After reception, turn switch to the "Off" position and connect the aerial to earth.

GENERAL INSTRUCTIONS.

Batteries. If a high pitched whistle or howl develops, even though the reaction control is at "minimum" the H.T. battery probably requires replacing.

The H.T. +1 lead may be adjusted between 70 and 90 volts for best results. When the battery is new, a low voltage will probably prove most satisfactory, but after the battery has been in use for some time the H.T. +1 lead may be moved to a higher voltage socket.

The G.B. -2 lead should be adjusted between 3 and 6 volts, but do not adjust G.B. tappings while set is switched on or damage to the valves will result. The G.B. -2 lead should be adjusted to as high a value as possible consistent with obtaining good quality and volume of reproduction, as this lengthens the life of the H.T. Battery.

The L.T. accumulator must be recharged at regular intervals or its efficiency will be impaired. If the receiver plays softly it is generally a sign that the accumulator requires charging.

VALVES. Replacements should be made always with the same types as originally specified. Intermittent or noisy reception may be due to bad contact between valve pins and the valve-holder sockets. A howl or whistle may be due to a microphonic valve.

Special Note. When changing valves or battery connections always switch the set "off" and disconnect the H.T. - lead from the battery.

In the event of your experiencing trouble with the set please write full details to B.D.V. Gift Dept., 39 Commercial Street, E.1.

On no account should the set be returned without our sanction. A careful check on all the battery connections, etc., will, in many cases, save the unnecessary expense, trouble, and delay involved in returning the receiver to the Works. The guarantee against faulty workmanship and component parts (excepting valves and batteries) becomes void if the set is tampered with in any way whatsoever. Under no circumstances can we be held responsible for any expenses in repairs or replacements incurred outside our premises, nor can we pay carriage either way when sets are returned for attention. The receipt attached to the guarantee form must be returned to us, otherwise the guarantee is not valid. Technical questions or correspondence relating to the set must be accompanied by a stamped addressed envelope.

Return. In the event of the receiver reaching you in a damaged condition the local carriers must be notified at once in writing, and we must also be notified to enable us to enter a claim. If these notifications are not made at once we cannot undertake to replace the damaged receiver or effect any repairs free of charge to you. When the notification has been made, the set should be carefully packed and clearly marked "Free on Rail," and declared as "goods damaged in transit being returned for repairs or replacement." The carriers and/or Railway Company should then return these goods at no cost to yourself or us.

If the receivers are sent to us "Carriage Forward" they will be refused. Sets sent back for examination or attention must be Carriage Paid. Sets damaged in transit should be sent back Free on Rail. Parcels insufficiently prepaid cannot be accepted. If it is necessary to return the receiver for attention, it must be very carefully packed as we cannot under any circumstances accept liability for damage in transit. The original case should if possible, be used, complete with the cardboard buffers on all sides. It must be sent Carriage Paid and addressed to:—

B.D.V. GIFT DEPARTMENT, 39 COMMERCIAL STREET, E.1, and labelled "Wireless—Handle Carefully." In any communication respecting this set please refer to the Serial Number as stamped on the cabinet. When sets are returned to us a label bearing the name and address of the sender should always be enclosed.