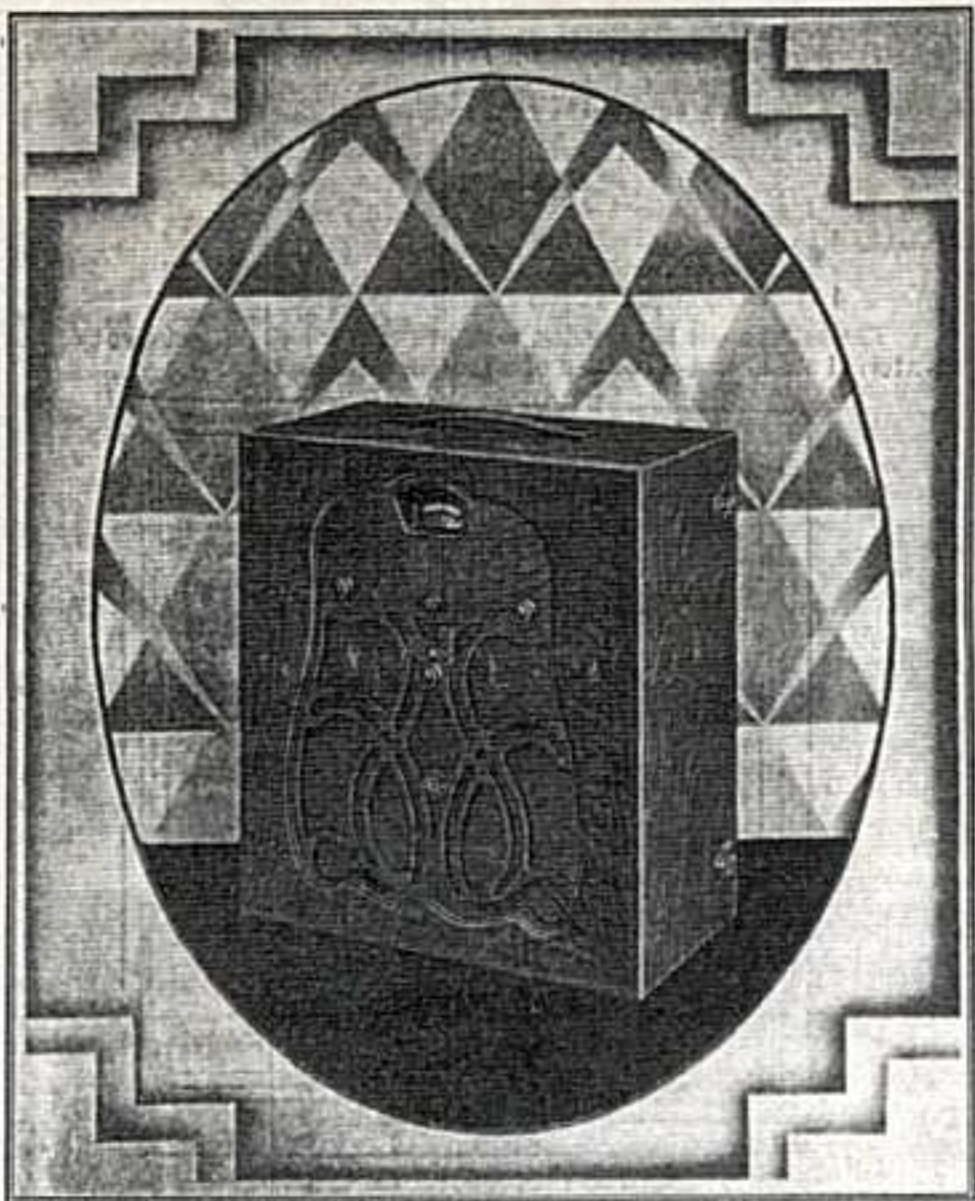


Marconiphone

Super-Tuned Portable IV



(MODEL 66) A Four-Valve
Screened Grid Battery Portable

INSTRUCTIONS for INSTALLING and OPERATING

Instructions for Operating MARCONIPHONE MODEL 66 Portable Battery Receiver

The Marconiphone Model 66 Portable Battery Receiver is a self-contained instrument incorporating its own aerial, batteries and loud-speaker. Its equipment is as follows :—

- 1 Marconiphone 108-volt High Tension Battery.
- 1 Marconiphone 9-volt Grid Battery.
- 1 Marconiphone 2-volt Low Tension Battery (Accumulator).
- 1 Marcon phone S21 Valve.
- 2 Marconiphone HL2 Valves.
- 1 Marconiphone PT2 Valve.

The instrument is provided with contacts for the attachment of an external aerial and earth and of a gramophone pick-up.

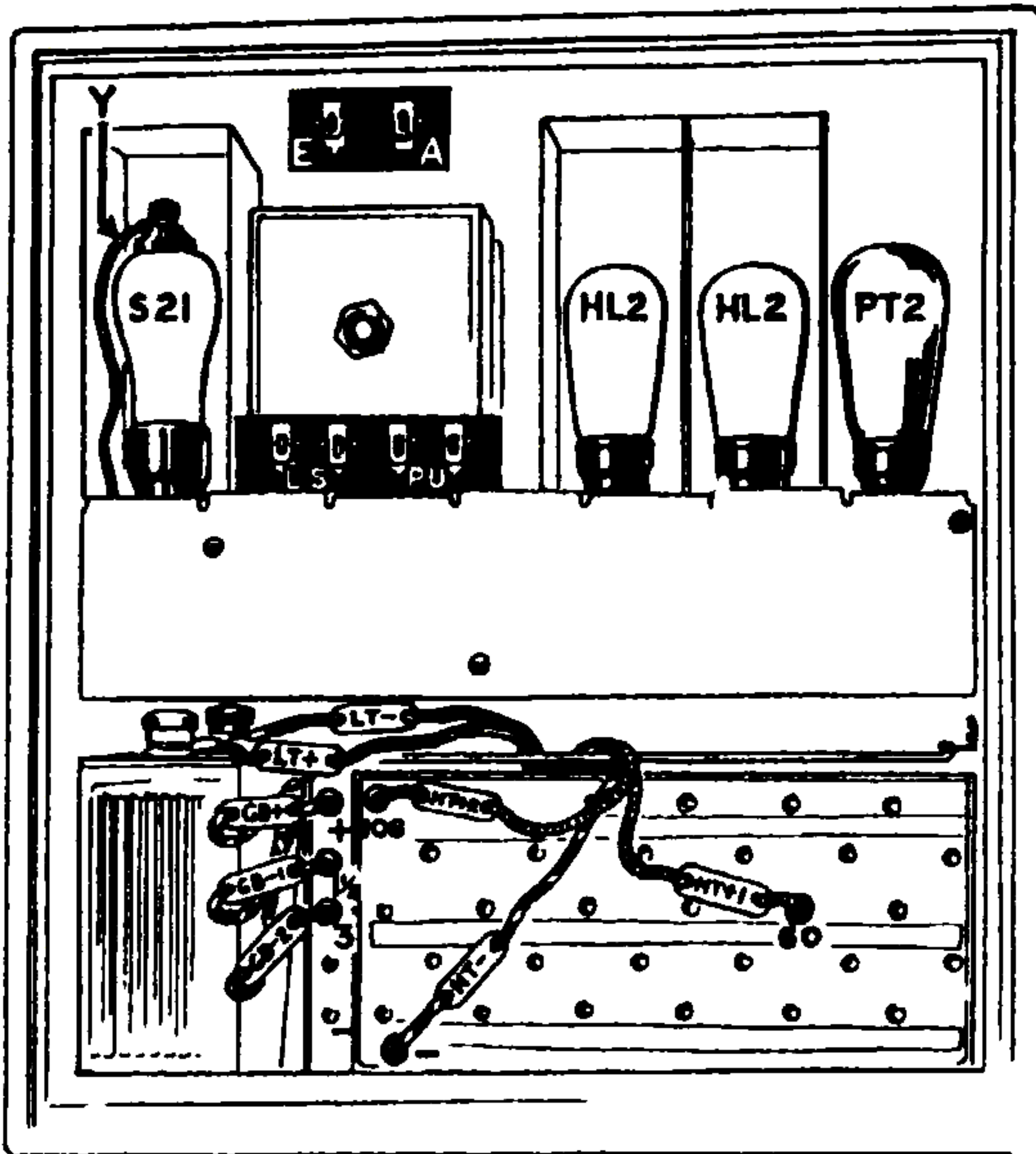


Fig. 1.

SETTING UP THE RECEIVER.

Insertion of Valves. (Fig. 1.)

1. Turn the knob "S" (Fig. 2) on the front of the cabinet to the "OFF" position and open door at the back of the cabinet.

2. Insert the valves in the sockets in the following order. (See Fig. 1) :—

S21 first attaching tag " Y " (Fig. 1) firmly to the terminal on top of the valve.

WARNING.—It is important that this tag should be attached before the batteries are connected up.

HL2.

HL2.

PT2.

The pins of the valves are not symmetrical. Holding the valves by the base, not by the glass, rotate them until the pins coincide with the sockets and then push them firmly in. The black base of the valve should press down on the brown insulating material of the valve holders. (Do not use undue force.)

INSERTION OF BATTERIES. (See Fig. 1.)

Low Tension Battery (Accumulator).

Owing to restrictions on the carriage of acid the Accumulator is despatched empty and uncharged, and it must, therefore, be filled with acid and charged before it is ready for use. This should be done by a competent electrical dealer.

1. Insert accumulator in left hand of lower compartment, as shown in Fig. 1.

2. Connect up as follows :—

L.T. +
(forked terminal on brown wire with red tracer)

to positive (+) terminal of charged Marconiphone 2-volt accumulator.

L.T. —
(forked terminal on brown wire with black tracer)

to negative (—) terminal of accumulator.

Grid Battery and High Tension Battery.

1. Remove large knurled-head nut from the battery securing rod in the lower compartment and swing out metal bracket. Insert the high tension battery with the grid battery next to it, so that the " + " socket of the grid battery and the 108-volt socket of the high tension battery are uppermost, the grid battery being on the left of the high tension battery ; then insert the screwed end of the rod in the metal bracket and screw up tightly with the nut so that grid and high tension batteries are firmly gripped in position shown in Fig. 1.

2. Insert the grid-bias plugs as follows :—

G.B. + (red plug on black wire with white tracer)	Top socket (+) of grid battery.
G.B. - 1 (green wire with yellow tracer)	- 1½-volt socket
G.B. - 2 (green wire)	- 3-volt socket

3. Insert the high tension plugs in the sockets in the high tension battery as follows :—

If necessary slightly open the points of the plugs with a knife to make sure that they make good contact with the battery sockets.

H.T. - (black plug on black wire with white tracer)	Lowest left-hand socket of H.T. battery (-).
H.T. + 1 (red wire with black tracer)	60-volt socket.
H.T. + 2 (red wire)	108-volt socket.

4. Check over all plugs and sockets by tables and Fig. 1 ; make sure all plugs are tight.

5. Close the back door of the cabinet.

TUNING. (Fig. 2.)

Controls.—Turning to the front of the cabinet the following controls will be found :—

Volume Control (R.K.), top left-hand knob ; Balancing Control (S.K.), top centre knob ; Tuning Control (T.K.), right-hand knob ; and in the centre of the instrument the wave-length on-off switch (S.), and at the extreme top the tuning dial calibrated in wave-lengths.

Ascertain the approximate direction of the station to be received and turn the instrument so that its carrying handle is approximately in that line. Then proceed as follows :—

1. Turn the wave-length switch " S " (Fig. 2) so that the small indicator dial shows the required wave band, viz. :—

Turn switch to the left for stations on the medium wave band (M.W.), that is, between 250 and 500 metres.

Turn switch to the right for stations on the long wave band (L.W.), that is, between 1,000 and 2,000 metres.

This automatically switches on the valves. (These are automatically switched off when the switch is in the centre position, that is turned so that the word "OFF" appears at the window.)

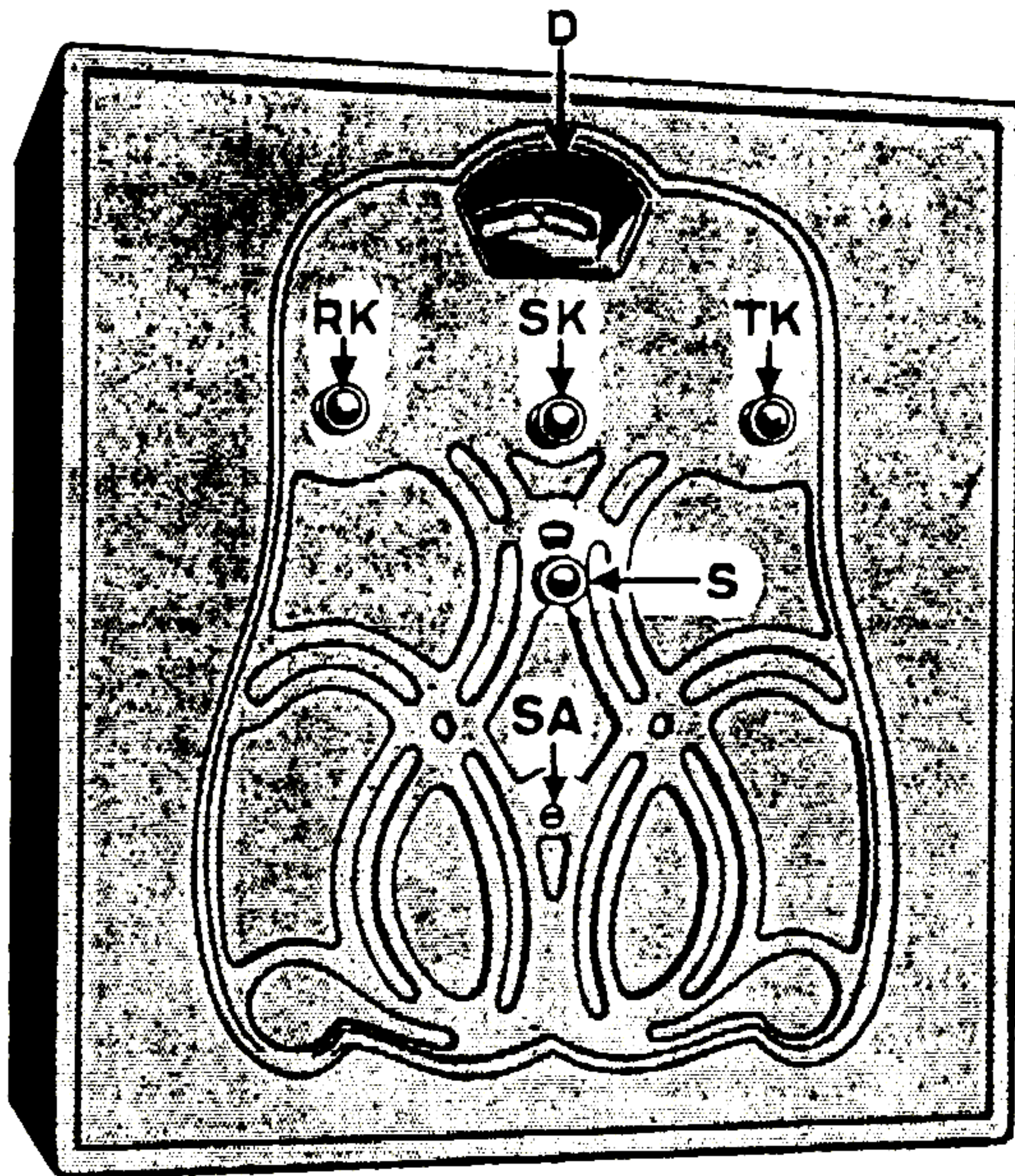


Fig. 2.

2. Turn the top centre knob S.K. (Fig. 2) to the *left* as far as it will go, and then $\frac{1}{4}$ of a turn to the right.

3. Turn the left-hand top knob R.K. (Fig. 2) to the left as far as it will go and then slowly rotate the right-hand knob T.K. (Fig. 2) until a station is heard.

The transmission at this stage may be only faint and the tuning knob (T.K.) should be moved very slowly.

(If difficulty is experienced in finding a station, the knob R.K. should be advanced slightly—that is, turned towards the right.)

When a transmission is heard, move knob S.K. carefully backwards and forwards until the best position is secured, if necessary readjusting T.K. and R.K. slightly.

Do not forget to turn the instrument in the direction of the station you wish to hear. The signal will be strengthened in this way.

When you have obtained a transmission satisfactorily, strengthen the volume by advancing the knob R.K.

Adjustment of Loud-speaker.—If the transmission is faint and distorted a screwdriver should be inserted in the screw head SA. Rotate driver until the maximum volume is obtained. Do not turn too far or chattering may result.

Eliminating a near-by station.—Although Model 66 is sharply tuned, a powerful local station may tend to interfere with distant reception.

In these conditions the directional properties of the set are particularly useful, as the case may then be placed at right angles to the local transmitter, thus reducing its effect and generally allowing the more distant stations to be received.

CONNECTION OF EXTERNAL AERIAL AND EARTH.

The instrument is provided with clip contacts marked A and E (Fig. 1). The attachment of these contacts to aerial and earth wires passed through one of the holes in the back door of the cabinet, will be of assistance in areas where reception conditions are difficult and when the instrument is placed where it may not be conveniently rotated.

CONNECTION OF A GRAMOPHONE PICK-UP.

An electrical pick-up may be connected to the terminals PU (Fig. 1).

The leads from the pick-up must be metal screened and the screening connected to earth. A volume control must be employed. (See Fig. 3.)

The value of the volume control should be about 15,000 ohms. The pick-up must be disconnected by a double-pole switch when Radio is being received.

CONNECTION OF ADDITIONAL LOUD-SPEAKER.

An additional high resistance loud-speaker may be connected to the contacts LS, the leads being passed through one of the holes in the back door of the cabinet.

NOTE re SPRING CONTACTS (A, E, PU and LS).

When connecting wires to these clips depress the lower end of the clip until the fixed centre portion emerges through the slot in the movable portion. Thread the wire through the centre portion and release the movable portion so that it grips the wire in position.

• **Care of Receiver.**—The receiver should be kept in an upright position, since however carefully the accumulator is designed the acid may escape and cause damage.

Charge the accumulator regularly, whether it has been used or not.

If the receiver gets wet through rain, etc., be careful to dry it thoroughly. Keep it in a dry place, as damp will reduce its efficiency.

ALWAYS SWITCH OFF AFTER USE.

If any difficulty arises which you cannot overcome yourself, please communicate full details to the nearest Marconiphone Office or Service Agent.

The following information may be useful in the event of difficulty being experienced in the erection or operation of the Model 66.

Symptom.	Possible Cause.	Suggested Remedy.
Set will not operate	Faulty valve Accumulator run down .. Plug incorrectly adjusted in High Tension Battery Loud-speaker out of ad- justment. Metal screened wires de- tached from spring clips. Loud-speaker leads dis- connected. Flexible lead detached from terminal on top of H.F. valve.	Try new valves. Test and re-charge. Check up with instruc- tions given, if necessary widening the points of the plugs slightly. Adjust (<i>see</i> Instructions). Switch off set and ex- amine connections. Examine. Examine.
Weak signals.. ..	Pick-up connected Accumulator or H.T. bat- tery partially run down.	Disconnect both leads from pick-up clips. Re-charge or re-new.

Symptom.	Possible Cause.	Suggested Remedy.
Crackling or "frying" noises.	Valves not making proper contact in sockets. Switches out of adjustment. Loose plugs Dirty contacts on accumulator. Old or worn out H.T. battery.	See that valve pins are clean. See your dealer. Open points. Scrape clean, and apply small quantity of vaseline. Change.
Whistling or "whooping" sounds.	Outside heterodyne interference or oscillation.	Procure a copy of "Oscillation" sent on request by the B.B.C.
Sustained howl ..	Valve gone Microphonic due to jar.	Change over the two H.L. 2 valves.
Distorted signals ..	Loud-speaker out of adjustment. Wrong voltage adjustment on G.B. and H.T. batteries. In the neighbourhood of powerful stations signals may overload instrument Valves may be in wrong position.	Retard R.K. and change direction in which the set is pointing. Refer to Fig. 1.
Interference from Radio when instrument is operating on Gramophone.	—	Turn R.K. to zero position. If external aerial is being used disconnect same from set. Turn to best position to avoid interference.
Rattle or buzz ..	Loudspeaker out of adjustment.	Adjust "SA."