2-Valve Battery Receiver

Manufactured for CODFREY PHILLIPS, Ltd., by Kolster-Brandes, Ltd.

INSTRUCTIONS FOR INSTALLING AND OPERATING THE SET.

VALVES.

Two 2-volt valves are supplied for use in the positions indicated below and as shown in the illustration.

Detector valve (left-hand holder). **L.F. Output valve** (right-hand holder).

Do not insert the valves in the set until the batteries have been connected.

BATTERIES.

A 2-volt low tension accumulator will be required, also a reliable high-tension battery providing 99 volts H.T. and preferably of a type incorporating a section for grid bias up to 9 volts negative.

Note. Separate H.T. and grid bias batteries may be employed if preferred but in this case it will be necessary to make an additional connection from H.T.— to G.B.+ as the connecting cord fitted to the set is designed for use with a combined H.T. and G.B. battery.

Two red-top and two black top wander plugs will also be required

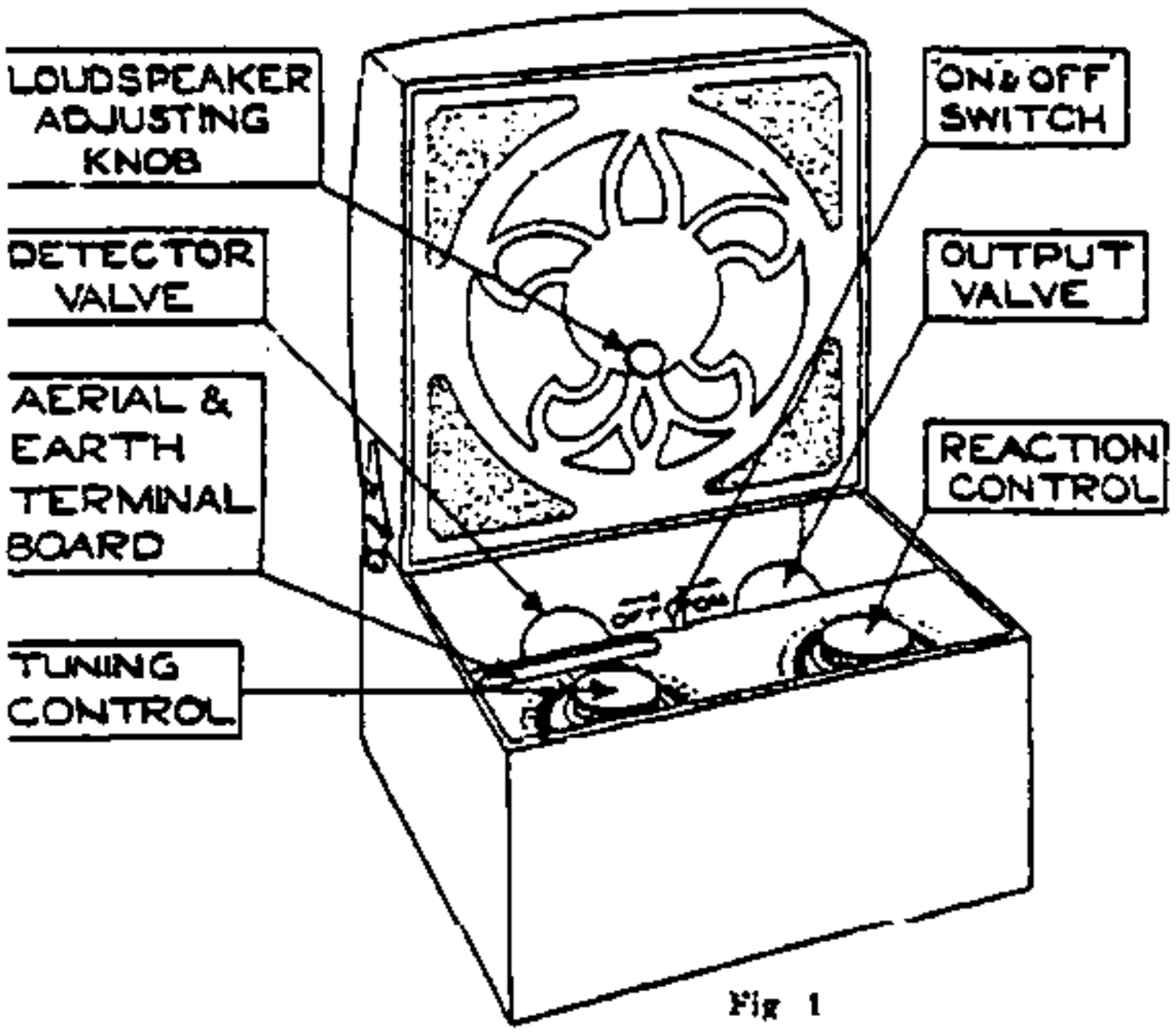

Fig 1

INSTALLING THE SET.

Connect the aerial lead to the aerial plug and insert into the socket designated as "A.1" which is one of the 5 sockets provided on the Aerial-Earth Terminal Panel. Connect a plug to the earth wire and insert in the socket marked "E." Care should be taken to have all wire connections well cleaned and making good contact with the plugs and the latter making clean and tight fit in the sockets.

CONNECTING THE BATTERIES.

The "on-and-off" switch should first be placed in the "off" position before making any battery connections.

Attach to each of the Royal Blue (H.T.2) and Light Blue (H.T.1) leads a red top wander plug and to each of the Brown (H.T.—) and Yellow (G.B.1) leads a black-top wander plug. Connect the battery leads to the H.T. and L.T. batteries as follows:—

L.T.+(Red lead) connect to positive or red terminal on L.T. accumulator.

L.T.—(Black lead) connect to negative or black terminal on L.T. accumulator.

H.T.—(Brown lead) plug into H.T.— socket on H.T. battery.

H.T.1 (Light Blue lead) plug into H.T.+ (60-90 volts).

H.T.2 (Royal Blue lead) plug into H.T.+(99 volts).

G.B.1 (Yellow lead) plug into G.B.—(6-9 volts).

The above voltages are given as a useful guide but experiments should be made in order to find the actual H.T. and G.B. voltages at which best results are obtained. Maximum grid bias consistent with good quality should be employed.

SPECIAL NOTE.

Care should be taken to ensure that the Grid Bias connection is made correctly, as some batteries of the combined type are tapped and marked in steps of 1½ volts from negative up to about 9 volts positive, and then in sections of larger voltages up to the maximum H.T. voltage of the battery. If a battery of this type is employed, the H.T. — (brown) lead should be plugged into the H.T. + 9 volt tapping and the G.B. 1 (yellow) lead should be plugged into one of the voltage tappings between 1½ and 4½ volts. A simple rule to remember, when using a battery as described, is that the Bias should be reckoned from the 9 volt positive tapping towards the negative tapping, i.e. deduct the amount of Grid Bias required from 9; for example, if it is desired to apply 6 volts G.B. plug into the tapping marked 3 volts, i.e. 9 — 6 = 3 (volts.)

INSERT THE VALVES in the set as shown in the illustration.

OPERATING THE RECEIVER.

To receive on the long wavelength range set the "on-and-off" switch to the "on" position and remove the wave-range plug from the socket in the Aerial-Earth Terminal Panel (See Fig. 2.) Turn the reaction control knob in an anti-clockwise direction (towards 0 on the scale) and then slowly rotate the Aerial Tuning Control knob. Directly signals are heard, gradually rotate the reaction control in a clockwise direction until signals are at a maximum. Then make a final and critical adjustment with the Aerial Tuning Control.

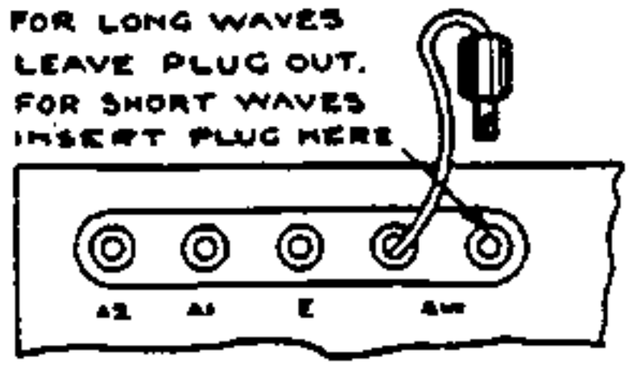

Fig 2

If the set oscillates, which will be evidenced by whistling noises when the Aerial Tuning Control is rotated, this should be stopped immediately by rotating the reaction control in an anti-clockwise direction.

To receive on short wavelengths, switch on as before and insert the wave-range plug in the socket marked "SW." With the plug inserted, the receiver will tune to wavelengths from 250 to 565 metres approx., when the set is operated with an average outdoor aerial. The tuning is then carried out in exactly the same manner as for long waves described above.

When searching for distant stations the reaction control knob should be turned to as high a reading on the scale as possible without the receiver breaking into oscillation, as under these conditions the set is in its most sensitive state.

It will be noticed that one other aerial socket "A.2" is incorporated in the set. With the aerial in socket "A.1" it may be found that it is not possible to tune to a low enough wavelength or the selectivity is not sufficient. If this is so, plug the aerial into socket "A.2" and proceed in accordance with the previous instructions.

Loudspeaker. Always make sure that the loudspeaker is correctly adjusted. To adjust the armature to the normal position tune in a station and turn the adjusting knob to the left (anti-clockwise) until it stops. Then reverse the rotation of the control knob until maximum volume is obtained with freedom from chattering, i.e. :—until the armature is free to vibrate without fouling the pole pieces.

IMPROVING RECEPTION.

For greater volume lengthen the aerial, preferably in a straight line. The aerial should be raised in height and suspended clear of all surrounding objects. If the volume is ample but the selectivity is not good enough, simply shorten the aerial.

When using aerial socket "A.2" there may be a tendency for the set to oscillate; to rectify this, reduce the voltage on the light blue lead.

The low-tension battery should be re-charged and maintained in accordance with the maker's instructions. The high-tension battery should be tested periodically and replaced if the H.T. voltage has fallen excessively. If either or both batteries are allowed to deteriorate weak reception and crackling noises may develop. It should be noted that almost invariably poor reception, crackling noises, etc., are not due to any defects in a receiver, provided this has not been tampered with after leaving the factory, but to external causes such as defective or deteriorated accessories, etc. If trouble develops, first thoroughly inspect the aerial, earth, valves, batteries and battery connections, and if such inspection fails to reveal any defect and it appears that the set or speaker is defective, do not attempt to remedy the trouble yourself, but communicate with Kolster-Brandes, Ltd., Service Dept., Cray Works, Sidcup, Kent, giving fullest possible particulars of the nature of the trouble and what steps have been taken to overcome the difficulty.

This receiver is guaranteed for 12 months provided that it has been used strictly in accordance with these printed instructions, that it has not been tampered with, and that the defect is due to faulty material or workmanship. Claims made will not be considered unless the receiver is returned carriage paid, with the name and address of the sender clearly indicated on and enclosed in the package, to Godfrey Phillips, Ltd., 112 Commercial St., London, E.

This guarantee does not cover the valves supplied with the receiver.