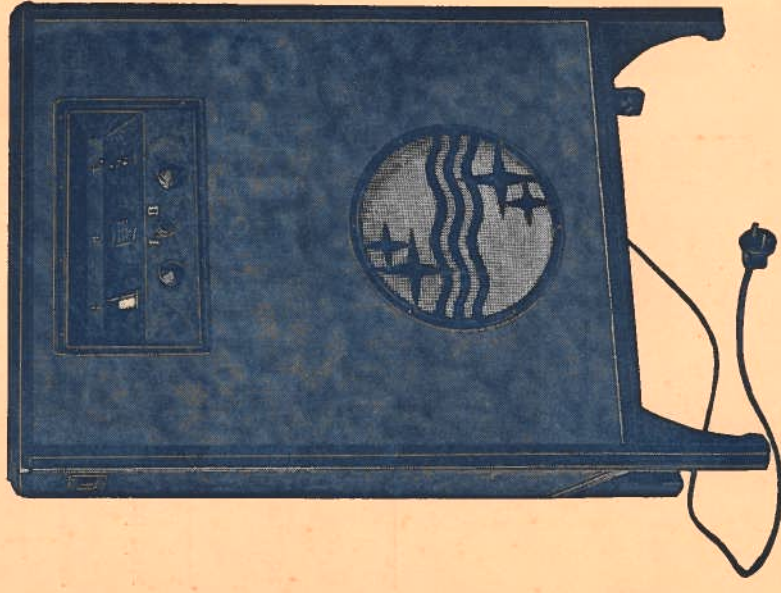


# PHILIPS RECEIVING SET

MODEL 2601



INSTRUCTIONS FOR USE



*Received*

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## Description

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Philips receiving set model 2601 is a four-valve receiver with built-in loudspeaker, for use with either an outdoor, an indoor or a Philips frame aerial.

The apparatus is constructed to operate from A.C. mains from which all required voltages are derived, so that no batteries or other auxiliary apparatus are needed.

The set can also be used together with a pick-up to reproduce gramophone records electrically through the loudspeaker.

The set must be equipped with the following Philips "Miniwatt" valves with base O 35:

- E 442 screened-grid valve,
- E 442 screened-grid valve,
- E 415 detector valve,
- C 443 power valve (pentode).

In addition a Philips rectifying valve 506K must be used. A Philips lamp type 8040 illuminates the tuning dial when the set is switched on and thus also acts as a pilot light.

A safety device automatically switches off the mains voltage when the set is opened.

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These directions have been so compiled that the first part refers only to the installation of the receiving set.

Instructions for operation of the set will be found on page 7.

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## Mains voltage

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The receiving set may be connected only to a supply with the voltage and periodicity for which it is intended. If connection is made to the wrong voltage or periodicity serious damage may result.

The receiver is supplied in two types. One type is suitable for connection to the mains voltages in group I, the other to the voltages in group II.

Group I	Group II
111 volts,	196 volts,
118 volts,	210 volts,
127 volts,	225 volts,
225 volts,	240 volts,
240 volts.	253 volts.

A plate in the receiver shows for which group the apparatus is intended. The voltage for which it is adjusted is indicated below the holes through which a wire is passed.

Adaptation of the set to another voltage may be effected only by a radio dealer.

The receiver can also be supplied to special order for any other mains voltage.

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## Installation of the set

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### Outdoor and indoor aerial

Excellent results are obtainable with a small outdoor aerial, but an indoor aerial may also be found quite satisfactory. If the receiver is near a regional station it is advisable to use a short aerial, e.g. an indoor one consisting of only a few feet of wire.

An outdoor aerial should be installed in as high and open a location as possible. Aerial and lead-in wires should be well insulated and should be kept away from metal conductors (high-tension and telephone wires, water-pipes, radiators, etc.). Contact with climbing plants, etc. should also be avoided. Care should be taken that any joints in the aerial wire are carefully soldered.

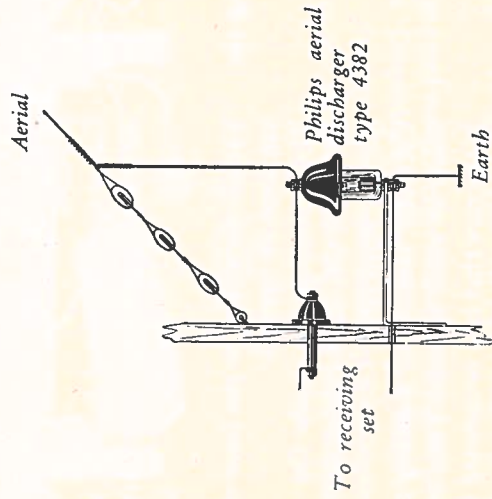


Fig. 1

With an outdoor aerial the use of a Philips aerial discharger type 4382 is strongly recommended — this will safeguard the set against heavy atmospheric discharges. This aerial discharger must be connected as indicated in fig. 1.

### Frame aerial

The Philips frame aerial can be placed in any convenient position. It is not, however, advisable for any large metallic apparatus, e.g. a radiator, to be in the immediate vicinity.

### Earth connection

A good earth is obtained by making connection to an earthing tube driven into damp soil or to a metal plate buried in a vertical position in damp soil.

As a rule a good connection to a main water-pipe by means of a clamp after the pipe has been scraped clean will be sufficient. The earth connection of a lightning arrester can be also used for this purpose. The earth connection must be as short and direct as possible.

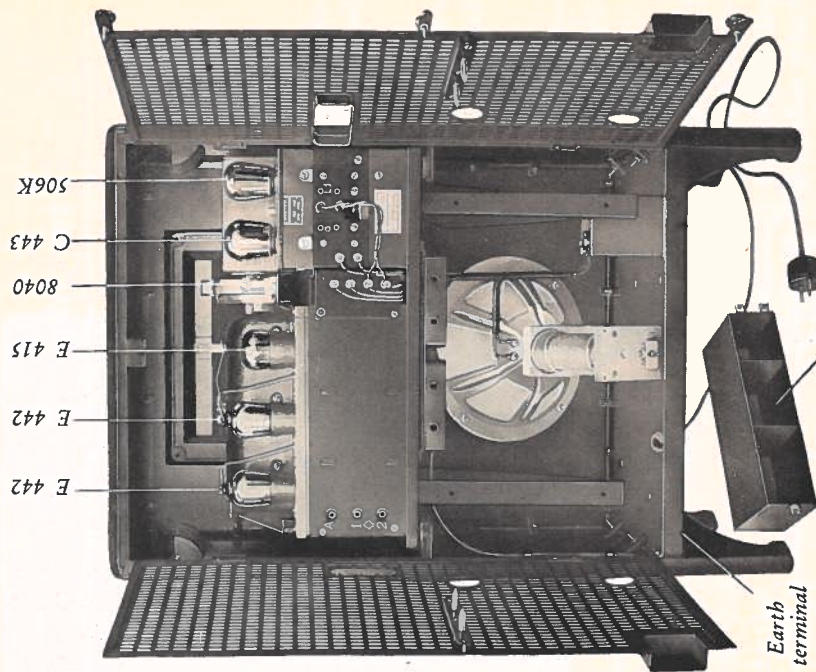
Gas mains or central heating systems should under no circumstances be used as an earth.

### Inserting the valves

Loosen the screws at the back of the receiver. The doors can then be opened.

The screening cap inside the apparatus must then be removed; this can be done after pushing the clamp aside (do not bend it!).

Carefully remove all packing and push the valves well home in their sockets. Then replace the screening cap. Make sure that it is re-inserted in its correct position. To facilitate this, the cap has been provided with guiding pins which fit into corresponding holes.



Screening cap  
Fig. 2

### Connections

The earthing wire must be connected to the earth terminal underneath the apparatus (see fig. 2).

The two plugs (of the built-in loudspeaker) must be connected to the middlemost of the three pairs of sockets ("L2").

Then the doors must be closed (first left, then right) and fastened by means of the screws.

## How to operate the set

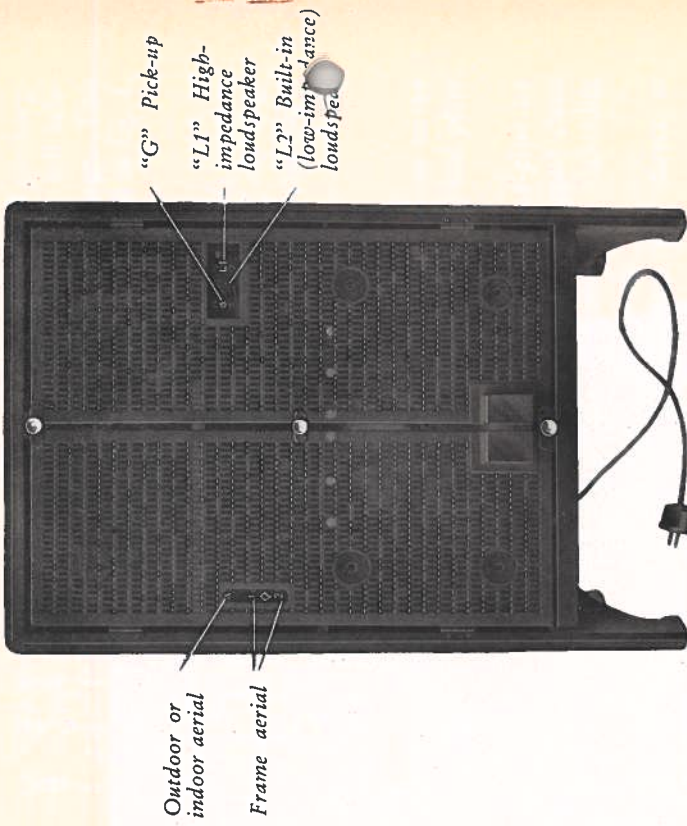


Fig. 3

If an outdoor or indoor aerial is used, connect it to the socket "A" (situated on the left at the back of the apparatus, see fig. 3) by means of the plug provided. When a Philips frame aerial is used, the plugs marked "1" and "2" of the frame must be inserted in the corresponding sockets, which are situated below the aerial socket and are also marked "1" and "2" (see fig. 3). Finally the two-pin mains plug must be inserted in a wall-socket (see page 2).

### Switching on

The master switch (fig. 4) has the following positions:

Position "0" = set switched off.

Positions "200—600" = for reception on wavelengths between 200 and 600 metres.

Position "1000—2000" = for reception on wavelengths between 800 and 2,000 metres.

Position "G" = for electrical reproduction of record music with the aid of a pick-up.

Set the switch at the position for the waveband in which the desired station operates or for the electrical reproduction of records. This automatically switches on the set. A momentary humming sound is heard, after which the set is ready for tuning.

### Tuning

1) *Outdoor or indoor aerial.*

In order to tune in a station, first turn the volume control (fig. 4) to the right as far as it will go and then turn the tuning control. For a given range of wavelengths as indicated by the position of the switch, the higher the reading on the illuminated scale, the higher will be the wavelength to which the instrument is tuned.

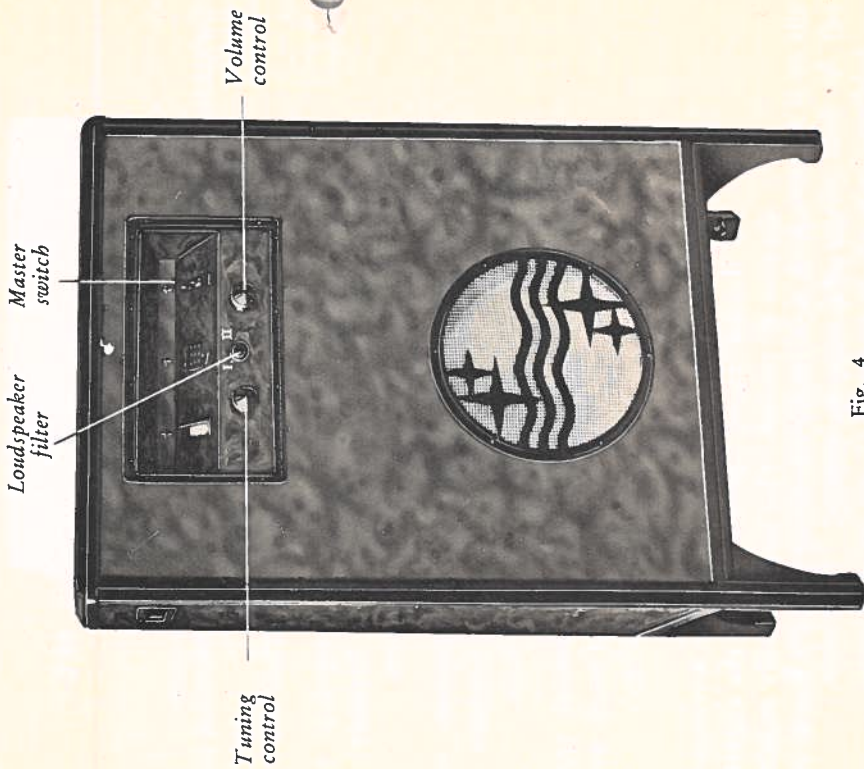


Fig. 4

The correct tuning position for a station will be found by adjusting to maximum volume by means of the tuning control.

If, whilst tuning in a station, the volume is excessive, the volume control should be turned slightly in an anti-clockwise direction. Only after the set has been accurately tuned should the volume be finally increased to the desired strength by means of the volume control.

If a powerful station is tuned in while the volume control is turned too far to the right, an incorrect tuning adjustment with consequent distortion will probably result.

## 2) Philips frame aerial.

When a Philips frame aerial is used the following method of operating should be employed:

First tune in the set, using the frame aerial as an indoor aerial. This is done by removing the plug marked "2" of the frame from its original socket and inserting it in the aerial socket (see fig. 3).

Then make a note of the different positions of the tuning scale of the receiver (in both wavebands) at which music or speech is heard. After this the plugs marked "1" and "2" of the frame aerial should be re-inserted in their original position. Set the switch of the receiver and the waveband switch of the frame at the position for the wavelength range on which reception is desired.

Set the tuning scale of the apparatus at one of the noted positions and turn the volume control as far as possible to the right. Then turn the tuning control of the frame aerial until greatest volume is obtained.

Do not forget to ascertain the most favourable direction of the frame. Maximum volume is obtained when the frame is turned so as to point in the direction of the transmitting station.

Finally, adjust the sound at the desired intensity by means of the volume control of the receiving set.

Once the scale-reading for a station is found, it should be noted on the chart provided inside the back cover of this booklet. Stations thus recorded can be reverted to at a moment's notice.

## Stations which can be received

Powerful reception is possible of all stations of sufficient power whose wavelengths range between 200 and 600 or 800 and 2,000 metres. Under favourable conditions, particularly at night, weaker and more distant stations can also be well received.

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### Use of a separate loudspeaker

With this receiving set a separate loudspeaker may also be used. Loudspeakers with high impedance, e.g. the Philips loudspeakers 2007, 2019 and 2020, may be connected to the sockets marked "L1" (see fig. 3). The built-in loudspeaker can easily be disconnected by removing its plugs from the sockets marked "L2".

### Use of a pick-up

With this receiver a pick-up can be used to reproduce gramophone music through the loudspeaker. Music obtained in this way will be of much better quality than when reproduced by means of a gramophone with an ordinary soundbox. Electrical reproduction ensures perfectly clear rendering of all the fine details of electrically-recorded music. Moreover, volume can be adjusted to any desired intensity by means of a volume control. Pick-up sockets marked "G" will be found at the back of the set (see fig. 3).

The volume control of the apparatus must be turned to the left as far as it will go.

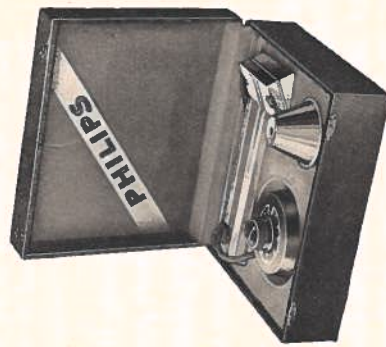


Fig. 5

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The use of Philips pick-up equipment type 4040 is recommended. This outfit consists of Philips pick-up with arm and base 4065, Philips volume control 4041, and the necessary flexible leads (see fig. 5).

There is no necessity to disconnect the pick-up leads when reverting to radio reception.

### Loudspeaker filter

By means of a loudspeaker filter which is incorporated in the set, the high notes can be partly suppressed, without influencing, however, the lower notes. The filter can often be successfully used, for instance, to suppress interference (whistling) caused by two heterodyning transmitters. It will also greatly diminish interference due to atmospherics, electric motors, etc. In the case of gramophone music the filter may serve to subdue the surface noise made by the needle. The filter is switched on by placing the switch (see fig. 4) in position "I", and is switched off by placing it in position "II".

### Switching off the set

To switch off the set it is sufficient to return the master switch to position "0".

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