

INSTRUCTIONS
FOR OPERATING
PHILIPS
RECEIVING SET
Model 2516



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voor de Historie van de Radio

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OPERATING INSTRUCTIONS

FOR

PHILIPS RECEIVING SET

MODEL 2516

Philips receiving set, model 2516, which has been specially designed for reception of the local station, is a two valve set.

Very satisfactory results can be obtained by using a single wire outdoor aerial, of the inverted "L" type, but in many cases it will be found that good reception is also possible with a small indoor aerial. Often it is even possible to receive without any aerial at all (when the set is adjusted for reception with the aid of the mains wires); this, however, depends on local conditions.

The set, in which a supply unit has been incorporated for filament voltage, anode voltage and negative grid bias, is specially constructed to operate from A.C. mains. Batteries or any other auxiliary apparatus are therefore unnecessary.

The set can be used, with a pick-up, to reproduce gramophone music through the loudspeaker.

Philips A.C. detector valve E 415, Philips power valve B 443 and Philips rectifying valve No. 506 are used.

GENERAL INFORMATION CONCERNING INSTALLATION OF AERIAL AND EARTH SYSTEM.

Aerial

A single wire inverted "L" type aerial, not exceeding 70 feet (total length) and erected as high as possible, is recommended as an outdoor aerial.

This must be perfectly insulated and the lead-in should not be too near or parallel with high trees, buildings etc.

It is recommended to use 7/22 hard drawn copper wire for the aerial. All joints must be properly soldered.

The use of a Philips aerial discharger No. 4382 is highly recommendable to protect the receiver against heavy discharges, due to atmospheric influences.

The aerial discharger should be connected as shown in fig. 1.

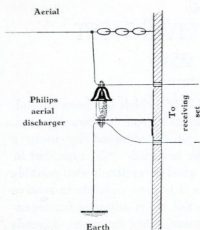


Fig. 1

Earth connection

As a rule a good connection to a main water pipe will be sufficient. In some cases good results are obtained by utilizing a central heating installation for the purpose. The earth connection of a lightning conductor can also be used. Gas mains must **not** be used as an earth.

Where no efficient earth is available, a metal pipe can, if conditions permit, be driven into damp soil or better still, a metal plate can be buried in a vertical position at a depth where damp soil is found.

The earth connection must be as short and as direct as possible.

INSTALLATION OF THE RECEIVER

The cover is first removed by pushing it backwards and then lifting it out. The earth terminal indicated by sign "⏏" is connected to earth. The diagram (fig. 2) shows where the valves, packed with the set, are to be installed, after which the cover is replaced.

The aerial must be connected to socket "A" (fig. 2) with the aid of the plug which is supplied with the set. The loudspeaker is plugged into the 2 sockets on the right hand side marked

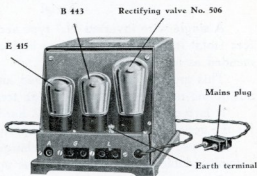


Fig. 2

"L" (fig. 2). The two pin mains plug is then inserted into a mains socket.

The set should only be connected to a supply having the voltage and periodicity for which it is intended (see underside of apparatus), otherwise serious damage may result.

OPERATING THE SET

Controls

The set has the following controls (fig. 3):

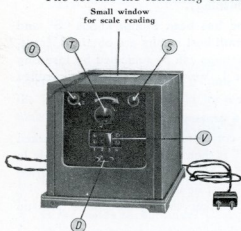


Fig. 3

Position 4 = reception on the mains wires, only to be used when aerial is dispensed with;

O = wavelength switch:

Position I = 200 — 400 m,

.. II = 300 — 600 m;

D = on and off switch:

Black button pressed = set switched off,

Red = on.

The rotating scale of the tuning condenser can be read through the small window at the top of the receiver.

Tuning

When the apparatus has been connected as directed, plug "V" must be inserted in position 3, or, when receiving without an aerial (reception on mains wires dependent on local conditions), in position 4. Switch "O" is adjusted to the waveband

in which the local station operates. Knob "T" is then turned, as far as it will go, in opposite direction to arrow and switch "D" is set to "on" position.

Tuning condenser "S" is then adjusted until the local station is heard. If nothing is heard, knob "T" is turned a little in direction of arrow and further adjustments are made as described above.

Knob "T" however, should never be turned back so far as to cause oscillating (whistling).

Once the local station has been found, knobs "S" and "T" are further adjusted until best results are obtained. Interference caused by other stations can be remedied by inserting plug "V" into socket 2 or 1. Volume can also be controlled by this method.

How to use a gramophone pick-up

The pick-up must be connected to the 2 sockets marked "G" (see fig. 2). Knob "T" is then turned as far as possible in the direction opposite to that of arrow and plug "V" inserted into position 1. The aerial must be disconnected.

The flexibles to loudspeaker and gramophone pick-up should be well spaced.

A potentiometer of the order of 50,000 ohms must be used for volume control and must be connected between the set and the pick-up as indicated in figure 4.

When reverting to radio reception break connection of gramophone pick-up with receiving set.

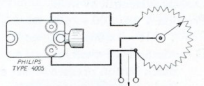


Fig. 4

To pick-up connection on receiving set

Switching off the receiver

The apparatus is switched off by pressing the black button "D".

TONE FILTER TYPE 4004.

The power valve B 443, used in Philips receiving set model 2516, not only gives a high degree of amplification, but

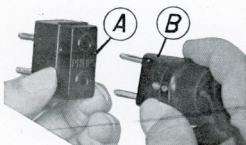


Fig. 5

unlike the usual power valves, a faithful reproduction of the high tones. The tone character might sometimes be found too shrill. This can be modified by using tone filter No. 4004 which reduces the strength of repro-

duction of the high tones.

The tone filter (A) is connected between loudspeaker and receiving set by plugging it into sockets "L" (see fig. 2). the loudspeaker plug (B) in its turn being plugged into the tone filter.

DEFECTS

If, when the receiving set is connected up, no sound is heard, the following points should be considered:

1. Have operating instructions been faithfully followed?
2. Do the valves make good contact?
3. Is the mains socket alive? (Can be tested with a lamp).
4. Where an aerial-earth switch is used, make sure that it is in the correct position.

When there is doubt about a valve, it should be replaced by another of the same type. The valve can be removed without jarring by levering it, with the aid of a knife, from its socket.

Important

The receiver should only be opened after having been disconnected from the mains.

GUARANTEE

Philips Radio guarantee the good working of the set. Should the receiver develop a fault, consult your dealer who, if necessary, will communicate with us.

We no longer guarantee any apparatus once the seals have been broken.

**USE WITH THIS RECEIVING SET A
PHILIPS LOUDSPEAKER AND A PHILIPS PICK-UP.**

