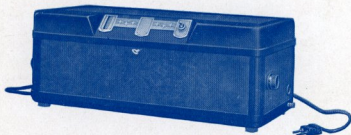


PHILIPS

RECEIVING SET

MODEL 2510



INSTRUCTIONS FOR USE



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Philips receiving set 2510, specially constructed to operate from A.C. mains, is a four-valve receiver with built-in supply unit for filament voltage, anode voltage and negative grid bias. No batteries or other auxiliary apparatus are needed.

The set is equipped with the following Philips A. C. "Mini-watt" valves fitted with O 35 base in each case.

E 442 H.F. screen grid valve.

E 442 " " " " "

E 415 Detector valve.

C 443 Power valve.

(Note: for repeat orders quote: valve..... with base O 35).

Philips rectifying valve No. 506^K supplies anode voltage and negative grid bias. The scale of the tuning dial is illuminated by the Philips lamp type 8040 when the set is switched on.

The low frequency section of the receiving set can be used in conjunction with a pick-up to reproduce record music through a loudspeaker.

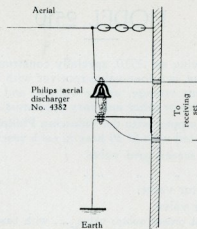
The output transformer is constructed to allow the most suitable adaptation of both moving coil loudspeakers without input transformer (such as Philips model 2008 or 2013) and electro-magnetic loudspeakers (such as Philips model 2003, 2007, 2016 or 2017) to the power valve. See also "Loudspeaker".

A safety device switches off the tension when the set is opened.

The receiver can also be locked with a key to prevent its use by unauthorised persons.

Aerial

Very satisfactory results are obtainable with a small outdoor aerial, but an indoor aerial may also give good results. When, however, local disturbances (such as caused by electric vacuum cleaners, for instance) are present, the use of an outdoor aerial may be found preferable.



With an outdoor aerial the use of a Philips aerial discharger No. 4382 is strongly recommended — this will safeguard the set against heavy atmospheric discharges.

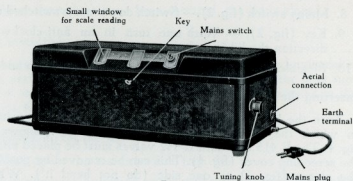
This aerial discharger must be installed as indicated in fig. 1.

How to operate the set

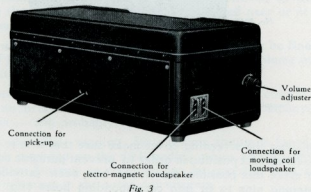
Connections, controls, etc.

1. Aerial connection (fig. 2).
2. Earth terminal (fig. 2).
3. Tuning knob (fig. 2). — Turning the knob in the direction of the arrow as indicated in fig. 2, increases the

wavelength on which reception takes place; the illuminated scale is simultaneously turned in the same direction and to a higher position.



4. Volume adjuster (fig. 3). — To increase the volume turn the knob in the direction of the arrow, as indicated in fig. 3.
5. L1 = sockets for a loudspeaker of the electro-magnetic type (fig. 3), such as Philips loudspeaker model 2003, 2007, 2016 or 2017.
See also "Loudspeaker".
6. L2 = sockets for a moving coil loudspeaker **without an input transformer** (fig. 3), such as Philips loudspeaker model 2008 or 2013.



7. Connection for pick-up (fig. 3).
Break the pick-up connections when reverting to radio reception.
8. Mains switch (fig. 2).— Switch down: set is switched on.
9. Key (fig. 2). — With one turn in an anti-clockwise direction the lid is locked.
10. Flexible cord with plug (fig. 2), for connection to mains.

Inserting the valves

Turn the key to the right and open the lid. The position in which the valves must be placed in the set, is shown in fig. 4. The E 415 and both E 442 valves must be placed under the screening cover (fig. 4). This can be removed by pushing the clamp (fig. 4) to one side (do not bend it!). When

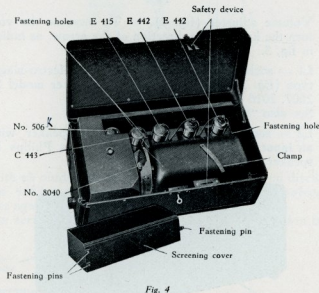


Fig. 4

replacing the screening cover make sure that it is re-inserted into its correct position in order to prevent parasitic couplings. To make this possible, the cover has been provided with fastening pins to fit into corresponding holes (fig. 4). The

scale-illuminating lamp No. 8040 can be inserted after the tuning scale has been placed in position 0 by means of the tuning knob.

After the valves have been inserted, the lid is closed.

Connection

After the earth connection has been made, the loudspeaker and aerial are connected, the latter by means of the plug supplied with the set. The mains plug is then inserted in the mains socket.

Switching on the set

Push down the mains switch (fig. 2).

A momentary humming sound will presently be heard, after which the set is ready for tuning.

Tuning

When trying to find a certain station, the tuning knob must be turned. As already stated on page 5, the wavelength on which reception takes place is increased by turning the illuminated scale to a higher position by means of the tuning knob.

The correct tuning position for a powerful station will be found by adjusting to maximum strength by means of the tuning knob, after the volume has been reduced by using the volume control knob. — When listening, however, to weak stations, the volume control should be adjusted near or at its maximum —.

Only after this has been done should the volume be finally adjusted to the desired strength by means of the volume control knob.

If a powerful station is tuned in, with the volume control set to loud, an incorrect tuning adjustment — with accompanying distortion — will probably result.

Once the dial reading for a certain station is found, it should be recorded on the dial-reading tables accompanying this booklet. Stations so recorded can be reverted to at any time by reference to the noted adjustments.

Stations which may be received

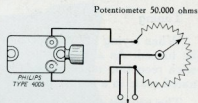
Reception is possible of all stations — of sufficient power — operating on wavelengths between 200 and 600 metres. Many smaller stations, however, are "local" transmitters with a normal operating range of 100 to 200 miles. Regular reception of these stations cannot be relied upon at greater distances.

Use of a pick-up

Pick-up sockets will be found at the back of the set (see fig. 3). It is advisable to keep the pick-up and loudspeaker leads well spaced, in order to avoid possible interaction. The volume control of the set must be turned to the fullest extent in a direction opposite to that indicated by the arrow in fig. 3.

A potentiometer of the order of at least 50,000 ohms should be used for volume control and must be connected as indicated by figure 5.

Break pick-up connection with the set when reverting to radio reception.



To pick-up connection on receiving set
Fig. 5

Switching off the set

The set is switched off by pushing up the mains switch.

Should reception fail, the switch must be pushed up or the plug removed from the mains socket.

Loudspeaker

Philips receiving set model 2510 is specially designed for use with a moving coil loudspeaker without input transformer, such as Philips loudspeaker model 2008 or 2013. This should be connected to L2.

It is, however, also possible to utilize an electro-magnetic loudspeaker, such as Philips loudspeaker model 2003, 2007, 2016 or 2017, L1 being provided for its connection. A moving coil loudspeaker, if provided with an input transformer, can also be connected to L1.

If one already possesses a Philips moving coil loudspeaker, either 2009 or 2011, with input transformer, it is of the utmost importance to disconnect its transformer, and to connect the



Fig. 6

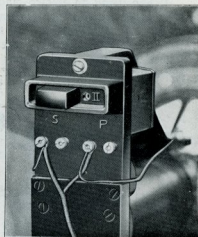


Fig. 7

loudspeaker to L2, specially provided for the purpose. Disconnecting the transformer is done by placing one of the end eyelets of the connecting flexible cord, together with one of the wires leading from the cone, under either of the terminals "P", and the other eyelet and wire under one of the terminals "S" of the transformer (see fig. 6 resp. 7).

How to use the Philips tone filter 4006

If the tone character of a certain station is found too shrill, it can be modified by using tone filter 4006, supplied with the set.

Also for the suppression of disturbing noises, often experienced in large towns, tone filter 4006 will be found pre-eminently suitable.

The tone filter must always be inserted in connection L1, irrespective of the type of loudspeaker used.

Even when using a moving coil loudspeaker without input transformer connected to L2, the tone filter should be inserted in L1.

When using an electro-magnetic or a moving coil speaker with input transformer (not advisable however, see "Loudspeaker"), connected to L1, the tone filter must be inserted between loudspeaker and receiving set. The tone filter (A) is placed on the loudspeaker plug (B) (see fig. 8) and subsequently connected to L1.

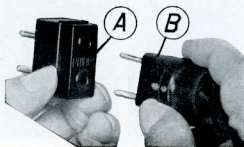


Fig. 8

Guarantee

Philips Radio guarantee the set against any manufacturing defect. A guarantee label is attached to each model.

Should the set 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 or tampered with.



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

