



BY APPOINTMENT
THE GRAMOPHONE CO. LTD. SUPPLIERS OF GRAMOPHONES
RECORDS, RADIO AND TELEVISION APPARATUS
TO HIS MAJESTY THE KING

INSTRUCTIONS

for the installation and operation of

MODEL 2807



The Hallmark of Quality

THIS CARD MUST BE DELIVERED WITH THE INSTRUMENT TO THE USER

We advise you to have this instrument installed by a competent television engineer ; if this is not practicable, carefully read the following notes on installation before attempting to connect the supply. In either case, a thorough perusal of the operating instructions will enable you to get the best from your new receiver.

This instrument operates on the 405 lines 50 frames per second interlaced system transmitted by the B.B.C. (Birmingham), on the ultra short wavelengths of 4.86 metres (61.75 megacycles) for vision and 5.15 metres (58.25 megacycles) for sound.

INSTALLATION

The best position for the instrument should be decided before installation is begun. Care must be taken to see that a ventilation space of 3 to 4 inches is left at the rear of the instrument.

The position of the instrument should, if possible, be such that direct light from windows or interior lighting does not fall on the Emission screen, nor shine into the eyes of the observer, since in both cases the quality of the picture will apparently be reduced.

The best distance for viewing is usually about 5 feet from the instrument.

Aerial and Earth

A simple inexpensive aerial for use with this receiver in areas of high signal strength, *i.e.*, near the transmitter, or a more efficient aerial for areas of low signal strength, may be obtained from E.M.I. Sales and Service Limited.

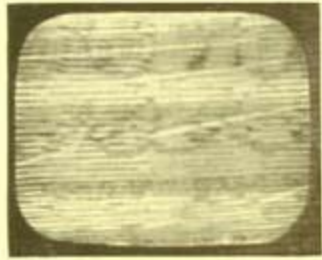
Connection to the receiver is made with a specially adapted balanced input cable of the twin feeder type, or a concentric cable having an impedance of 50 ohms. The latter is advocated where interference is troublesome. Do not use flex or cable, the impedance of which is unknown, or an inferior performance will result.

If a concentric cable is used, the inner core should be soldered to the smaller (upper) pin of the plug, and the braided outer sleeve to the larger pin. Secure the cable to the spear shaped cut-out in the back panel (above aerial socket).

An efficient earth should be connected to the Earth socket beneath the Aerial socket, at the rear of the receiver.

Mains Voltage Adjustment

WARNING.—Do not attempt to make any adjustment inside the cabinet unless the receiver is entirely disconnected from the mains supply.



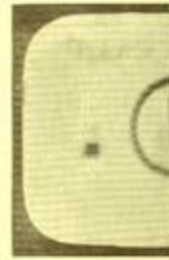
Adjust Horizontal and Vertical Hold Controls



Adjust Vertical Hold Control



Adjust Centering



Adjust Focus



Increase Contrast



Reduce Contrast

**THESE PHOTOGRAPHS, REPRODUCED FROM THE SC
PROVIDED SO THAT MALADJUSTMENTS AFFECTING**



Adjust Width Control



Adjust Height Control



Control



Adjust Emiscopes Coils



Increase Brightness



Reduce Brightness

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THE PICTURE CAN BE MORE EASILY IDENTIFIED

Before operating the receiver, ascertain that it is correctly adjusted for your mains supply.

The receiver will operate on D.C. mains supplies of 220 to 250 volts, or A.C. supplies of 200 to 250 volts, 50 cycles.

To adjust proceed as follows:—

Remove the back panel from the receiver; this is secured by 4 screws. Ascertain the exact voltage of your mains supply from the local offices of the supply authority. Attach the mauve and blue adjustment leads to the tags appropriate to your supply. The connections for the leads are as follows:—

Mains Voltage.				Connect mauve lead to tag:—	Connect blue lead to tag:—
220 to 235 v. D.C.	..	..	..	1	4
235 to 250 v. D.C.	..	..	..	1	5
200 to 220 v. A.C.	..	..	..	1	3
220 to 235 v. A.C.	..	..	..	1	4
235 to 250 v. A.C.	..	..	..	2	5

IMPORTANT.

When operating on D.C. mains supplies, if no results are obtained when first switching on, reverse the plug in the mains socket.

Valves

The position and type of each valve are shown on the label inside the cabinet at the left-hand side.

Fuses

Two fuses are incorporated in the mains supply of this receiver. To replace a fuse, disconnect the receiver entirely from the mains supply and remove the back panel. Take out the broken fuse and replace with one of similar type and rating, i.e., 1.5 amp. Silver Wire cartridge type.

DO NOT OPERATE THE RECEIVER WITHOUT THE BACK AND BOTTOM PANELS IN POSITION AND AN EARTH CONNECTION.

THE CONTROLS

The following brief explanatory notes are given in order that the action of the basic controls and adjustments may be appreciated.

Front Controls

"VOLUME" controls the strength of the sound reproduction.

"BRIGHTNESS-ON OFF" varies the luminosity of the picture on the screen of the Emiscope tube, and also switches on or off the mains supply within the receiver.

Rear Controls

"CONTRAST" controls the intensity of the picture by regulating the amplification of the signals being received. Turning the control in an anti-clockwise direction increases the contrast; but when near the transmitter, there is a point beyond which overloading may occur, affecting the light values of the picture.

" FOCUS " regulates the focussing of the picture on the screen of the Emiscope tube and should be set for a clear, crisp picture. Re-setting of this control may be found necessary after adjustment of the Brightness or Contrast Controls.

" PICTURE INTERFERENCE LIMITER " The purpose of this control is to limit interference due to car ignition systems, etc., which appears as white spots on the Emiscope screen.

NOTE.—The test card preceding a transmission is provided to facilitate the setting of these controls before the actual broadcast commences.

Pre-Set Controls

" HORIZONTAL HOLD " regulates the timing of the horizontal scanning lines so that these coincide with and are controlled by the line synchronising impulses sent out by the transmitter. If this control is out of adjustment the picture will break up or move irregularly across the screen.

" VERTICAL HOLD " regulates the timing of the vertical scanning so that it coincides with and is controlled by the frame synchronising impulses sent out by the transmitter.

" WIDTH " regulates the width of the picture and should be set, using the test card so that the serrated edges of the pattern are partly concealed by the edges of the mask. This control is accessible only when the back panel is removed and should require only occasional adjustment.

" HEIGHT " governs the height of the picture and should be set, using the test card, so that the serrated edges of the pattern are partly concealed by the edges of the mask. This control is accessible only when the back panel is removed and should require only occasional adjustment.

" VERTICAL FORM " corrects any vertical distortion of the picture shape and is accessible only when the back panel is removed. **This control should not be adjusted except by a competent television maintenance engineer.**

" ATTENUATOR ". By means of the small adjusting screw, situated next to the aerial socket, a reduction of the incoming signal may be obtained in areas near the transmitter where overloading is likely to occur. Normally the screw will be left in the upper screw socket, but if attenuation is necessary the screw should be transferred to the lower socket.

SETTING OF CONTROLS

When the installation of the receiver has been completed, in order to receive television programmes it is necessary to adjust the controls in the manner given below, using the test card transmitted prior to each programme. The same procedure should be adopted if for any reason complete re-setting of the controls is necessary.

The pre-set controls on the recessed panel at the rear of the receiver are locked in position by the control knobs and are released by unscrewing the knobs slightly. All directions for operating the rear controls are given looking at the back of the receiver.

1. Set the Focus and Contrast Controls fully clockwise. Slide the Horizontal and Vertical Hold Controls fully to the right.

2. Turn the Brightness Control clockwise, sufficient only to operate the switch and allow ample time, approximately 10 minutes, for the receiver to reach a settled temperature condition.

3. With the aerial disconnected, slowly turn the Brightness Control clockwise until the screen is faintly illuminated.

4. Re-connect the aerial, and turn the Contrast Control anti-clockwise, towards maximum, until a light and dark contrasting pattern appears on the screen.

5. Move the Horizontal Hold Control to the left until the pattern no longer moves sideways, although continuing to move upwards.

6. Move the Vertical Hold Control to the left until the picture remains stationary.

NOTE.—If in either 5 or 6 above, it is found that the picture will not "hold", increase the contrast slightly.

7. Adjust the Brightness and Contrast Controls as desired, and set the Focus Control to give a clear, crisp picture.

8. If necessary, repeat the operations above in the sequence given.

OPERATION

Vision Receiver

Once the controls have been set as given above, the operation of the receiver is a simple matter. To receive a television programme, turn the Brightness Control slightly clockwise. Allow about one minute for the picture to build up, and adjust the Brightness Control to give a satisfactorily bright picture. The Contrast Control, which is situated on the left at the back of the receiver, may be set to suit individual taste in picture contrast, and should not require frequent adjustment. The Focus Control, which is on the right at the back of the receiver, should be set to give a clear, crisp picture. It may be necessary to re-set this control after any major adjustment of the Brightness or Contrast Controls.

NOTE.—No difficulty need be experienced if, in order to become familiar with the action of the pre-set controls, each individual control is moved from side to side, and then returned to its original position. These controls are locked in position by means of the control knobs, which must be unscrewed slightly before the control can be moved and afterwards re-tightened.

To switch off, turn the Brightness Control *fully* anti-clockwise.

IMPORTANT.—In the event of the picture being unsatisfactory at any time, do not at once assume that re-adjustment of the controls is necessary. Make sure that the aerial and earth are connected and bear in mind that any unusual effect may be due to transmission conditions, in which case no re-adjustment of the controls will be needed.

If at any time, except within 30 seconds of switching on, only one horizontal or one vertical line appears across the centre of the screen, or a bright spot appears in the centre, switch off immediately and do not use the receiver until it has been examined by a competent television maintenance engineer. It is very detrimental to the life of the Emission tube to attempt to operate the receiver in the above-mentioned circumstances.