

How to Instal and Operate

"His Master's Voice"

FIVE - VALVE

A.C. DUAL-WAVE RADIOGRAM

CONSOLE MODEL 548

Now that you are the fortunate owner of an "H.M.V." Radiogram, you are assured of musical entertainment at its best. Careful attention to correct installation will ensure that the excellence of your new "H.M.V." is brought out to full advantage.

This booklet must be delivered with the Instrument to the user

IMPORTANT: Separate Warranty Card supplied with this booklet must be filled in and returned to the H.M.V. Factory.

Customer:	Dealer:
Model TypeSerial No	Date of Purchase

TERMS OF WARRANTY

In the event of any defect becoming apparent in this Radiogram due to either faulty material or workmanship, within a period of 90 days from date of delivery, such defect will be rectified, without cost to you for either labour or material, at the premises of the accredited retailer from whom the Radiogram was purchased, or at the factory of THE GRAMO-PHONE COMPANY LTD., 2 PARRAMATTA RD., HOMEBUSH, N.S.W., provided:—

- (1) That the Radiogram has not at any time been repaired by any person other than the "HIS MASTER'S VOICE" accredited Retailer nor altered or tampered with in any way whatsoever and that the serial number has not been altered, defaced or removed, and that the defect is not due to misuse, negligence, accident or similar cause, or to connection to incorrect power supply.
- (2) That the cost of transportation both ways, either to the retailer's premises or, if necessary, to the "HIS MASTER'S VOICE" factory, is paid by the claimant.
- (3) That the date of original delivery is clearly established. Batteries are excepted from this Warranty, as they are usually guaranteed by their respective makers.

IIS MASTERS VOICE

THE GRAMOPHONE COMPANY LTD. (Inc. in England)
2 Parramatta Road, Homebush, N.S.W.

It is strongly recommended that the installation of this Radiogram be carried out by a competent radio technician, who knows the conditions under which the instrument operates best.

INTRODUCTION

This model is a 5-valve A.C. mains operated Radio-Gramophone Combination. The receiver is a dual-wave superheterodyne with a tuning range extending from 1600 kc/s to 540 kc/s on the broadcast band, and from 16.5 metres to 51 metres on the short-wave band.

VALVE COMPLEMENT

Valve types used are as follows:

1 type 6J8GA — 1 type EBF35 — 1 type 6U7G 1 type 6V6GT — 1 type 5Y3G.

INSTALLATION

This model is designed to operate from alternating current supply mains of any voltage between 200 and 250 volts at a frequency of 50 c.p.s. It is normally supplied with the receiver connected for operation on 221 to 240 volts and the motor for operation on 200 to 250 volts. If it is desired to operate on voltages other than these, the following procedure should be adopted:

- (1) Withdraw the power plug from the mains supply socket;
- (2) Remove the "Warning" cover plate on the back of the chassis;
- (3) Unsolder the lead connected to the terminal lug and transfer to lug marked with the appropriate voltage.

This operation should preferably be carried out by the dealer who supplied the Radiogram.

If you are not sure of the voltage of your supply mains, please inquire from the electric supply authorities before attempting to connect up the Radiogram.

Should the mains supply voltage be changed at any time, care must be taken to see that the instrument is correctly adjusted for the new supply voltage by the dealer from whom the instrument was obtained, or by a competent radio technician.

When connecting the power cord of the receiver to the power plug, it is necessary to try reversing the connections, listening to the receiver whilst it is tuned to some part of the dial where no station is received, and with the Volume Control (see "Controls") turned approximately half-way in a clockwise direction. A faint hum will probably be heard with one connection, which should be reduced when the power cord connections are reversed, and the cord should be permanently connected in the direction which gives the least hum. This will give the quietest operation.

AERIAL AND EARTH

Two terminals are provided at the rear of the cabinet marked A and The aerial should be connected to terminal A and the earth to terminal E. In most localities approximately 20 feet of insulated flexible wire will be found adequate as an aerial. The aerial wire should be conducted either along the floor or skirting board or, preferably, raised to the height of the picture rail. In country localities or if reception of distant stations is desired, the installation of an outside aerial will be For metropolitan locations or in country locations found beneficial. within five miles of a powerful local station, the total length of aerial wire should be from 25 to 50 feet, including the lead-in; it should be installed in as near a vertical position as possible. At greater distances from local stations a longer aerial could be beneficially used up to a maximum length of perhaps 150 feet. For outdoor installation, the aerial should be insulated with two good insulators at each end and should be installed as far as possible from walls, trees or galvanised iron roofs, etc., and as nearly as possible at right angles to any likely source of interference, such as overhead tram wires or electric power supply lines. A suitable lightning switch and arrester should be fitted and the lead-in should be taken into the building through a proper lead-in tube and not jammed in the window frame. The receiver should be earthed by means of a heavy-gauge insulated earth wire of the shortest possible length, connected to the terminal marked E; the use of such an earth will result in quieter and better reception in the majority of cases. The earth connection should always be made either to a buried earth plate or rod, or else to a water pipe which enters the ground within a short distance from the connection. Neither a gas pipe nor the lead covering on a telephone cable should ever be used for earthing purposes.

HOW TO OPERATE

CONTROLS

The receiver has four controls on the control panel. From left to right these controls are arranged in the following order:

On/Off Swith - Tone Monitor - Tuning - Wave-Change. The volume control is recessed into the left side of the cabinet. It is very desirable to study the following notes carefully, in order that the function of each of these controls is fully understood.

ON-OFF SWITCH

This switch controls the mains power supply to the receiver; turning in a clockwise direction will switch the power on.

WAVE-CHANGE SWITCH

This control has three positions, viz.: Short-Wave (extreme anticlockwise), Broadcast (centre position), and Gram. (extreme clockwise). Before tuning-in the Receiver the Wave-Change Switch should be set to the wave-band on which the desired station is known to be operating. When the Receiver is being used for reproduction of records, this control should be set to "Gram" position.

TUNING CONTROL

Rotate the knob until the call sign of the desired station is indicated by the travelling pointer, then tune the instrument until the station is heard at maximum strength; this should be done with the Volume Control advanced about two-thirds of its range. If the volume is excessive, turn the Volume Control knob in an anti-clockwise direction until the station is heard at the desired strength. It is very important that the tuning should be accurately done, as the reception will otherwise be distorted and the tonal quality spoiled. As the Tuning Control is moved across the position of the station, it will be found that the station is heard through a narrow band, on either side of which the station becomes inaudible, and the control should be set as nearly as possible midway between these two positions. Another method of obtaining accurate tuning is to turn the Tuning control until the deepest tone is obtained. It will be noted that on either side of the correct position the tone becomes high-pitched and distorted.

VOLUME CONTROL

During tuning this control should always be set to a position which gives a relatively low volume. When the station is accurately tuned in the Volume Control may then be set to give the desired strength of reception. Always regulate the volume of reception by means of the Volume Control and never by detuning the Receiver with the Tuning Control.

TONE MONITOR

Four variations of tonal balance may be selected by means of this control switch. Turning the control in a clockwise direction gives the following positions:

1st Position	" "Speech"	2nd Position	"Normal"
3rd Position	"Bass 1"	4th Position	"Bass 2"

Tuning is best carried out with the Tone Monitor in the "Normal" position. For purely local reception, where the best possible tonal quality is desired and background noise is not troublesome, this control should be left in the "Normal" position. In cases where a transmission being received has an undue predominance of treble tones, or when static interference is in evidence, many users will find the reproduction improved by switching to either of the "Bass" settings. For long-distance reception of speech, particularly in the case of speakers whose voices have a "boomy" quality, best results will be obtained by utilising the "Speech" setting of this control; this will specially apply where the greatest intelligibility is desired, as, for instance, in country districts for long-distance reception of sporting broadcasts, etc.

SHORT-WAVE RECEPTION

If it is definitely known that the short-wave station desired is transmitting and nothing can be heard at the first attempt, this is probably due to fading, or to the time of day or night being unsuitable for good reception of that particular station. It must also be noted that tuning on the short-wave band is comparatively critical, and it is necessary to turn the tuning knob very slowly indeed in order to avoid the risk of passing completely over the desired station. The commonly used international short-wave broadcasting bands will be found clearly indicated on the short-wave dial by means of short heavy lines, and tuning within these bands will usually produce the largest number of stations, but, nevertheless, worthwhile reception will frequently be obtained from other short-wave stations operating outside these wave bands.

EXTENSION SPEAKER

Provision is made on the back of the chassis for the connection of an extension loudspeaker to be used in another room of the house. This is achieved by connecting the speaker with the necessary length of twin wire to the 2-pin outlet labelled "Ext. Speaker". The extension speaker should be of the permanent magnet type and have a voice coil impedance of approximately 4 ohms at 400 c.p.s.

GRAMOPHONE RECORD REPRODUCTION MOTOR

For transit purposes the motor spindle is disengaged from the turntable rim by means of a transit screw. This screw, which is located on top of the motor-board, should be unscrewed sufficiently to allow the motor spindle to fully bear on the turntable rim; the lock-nut should then be retightened.

HOW TO OPERATE

Turn the wave-change switch to the Gram. position. Lift the pick-up arm to an almost vertical position and insert an H.M.V. "Silent Stylus" Needle, pushing the needle fully home. It is normal for the needle to feel loose when correctly inserted; damage may result if force is used.

After placing a record on the turntable, and with the auto-brake lever in the "On" position, move the pick-up arm towards the right to start the motor. The pick-up should then be placed carefully on the record.

The volume may then be adjusted to the desired level by means of the volume control.

Generally, the best tonal quality will be obtained with the tone monitor switch in the "Normal" position. Use of the "Bass" settings will give a progressive reduction of treble tones. Reproduction of worn records may be improved by setting to either of these positions.

The auto-brake will- automatically stop records which have an eccentric or quick run-in finishing groove. To stop non-standard type records or novelty records, etc., set the automatic brake lever to the "Off" position and control the turntable by means of the manual brake.

After playing a record, always return the pick-up arm to the pick-up rest provided; great care should be taken that the pick-up is not dropped on the needle point, otherwise it may be damaged.

When radio reception is reverted to, it is only necessary to re-set the wave-change switch to the wave-band required.

DIAL & INDICATOR LAMP REPLACEMENT

Dial lamps may be replaced by the following procedure:

- (1) Withdraw the power plug from the mains supply socket;
- (2) Remove the four control knobs on the receiver;
- (3) Loosen the two wing nuts securing the receiver mounting board to the cabinet; this will allow the receiver to drop sufficiently to give access to the dial lamp holders, which are mounted at each end of the dial plate.
- (4) Slide lamp holder from its support and replace the lamp.

The indicator lamp mounted in the cabinet lid may be replaced by simply screwing a new lamp into the socket.

6.3 volt miniature screw-cap lamps with a current consumption of 0.15 to 0.3 amps. should be used for replacement.

SERVICE

If the Radiogram fails to operate and you are unable to locate the trouble, you should enlist the aid of the radio dealer from whom you obtained the Radiogram. Failing this, the makers will always be happy to supply any information or assistance within their power.

All requests for assistance should be addressed to the "Service Department, The Gramophone Co. Ltd., 2 Parramatta Road, Homebush."