MERIDIAN 207 PRO COMPACT DISC PLAYER INSTRUCTION MANUAL

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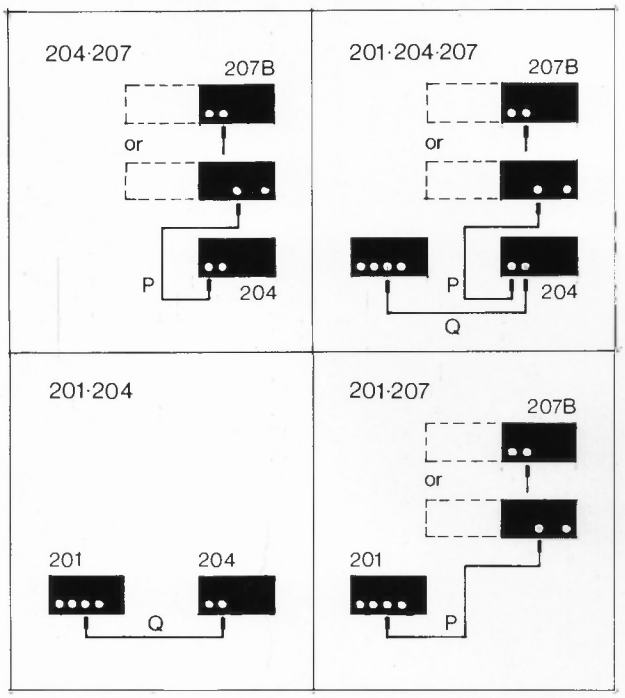
Meridian 200 Series Network Connections



MERIDIAN 207 PRO COMPACT DISC PLAYER INSTRUCTION MANUAL

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1 Unpacking

Carefully unpack both parts of the player and retain the packing material for future transportation.

In the pack you will find:

Mechanical (drawer) section, referred to in future as 207(a)

Control section, referred to in future as 207(b)

Interconnecting "D" cord

Power cord (European version)	Part number J 21953
OR (USA and Canadian version)	Part number J 21954

2 Accessories

Remote Control Unit Model 209 (optional extra)	
Network lead 201-207, P-lead (optional extra)	Part number J 22207
Network lead 201-204, Q-lead (supplied with 204)	Part number J 22204
Power cord for Europe	Part number J 21953
Power cord for USA and Canada	Part number J 21954

3 Installation

3.1 Do not attempt to connect the supply until you have:

- Checked that the unit is marked with the correct voltage to operate from your supply.
- Removed the transit screw and collar from the underside of the mechanical section, 207(a). KEEP THE SCREW AND COLLAR SAFELY.
- Connected the two sections together with the "D" cord

3.2 IMPORTANT: NEVER DISCONNECT OR RECONNECT THE "D" CORD WHILE THE POWER CORD IS CONNECTED.

ALWAYS RE-FIT THE TRANSIT SCREW AND COLLAR BEFORE TRANSPORTATION.

3.3 There are two pairs of output sockets on the 207(b). One is a fixed level output which can be used when the 207 is connected to a pre-amplifier or control unit and when the built-in remote volume control facility is not required. The other output passes through a volume control circuit whose control is accessible either from the front panel (the yellow keys) or from the MERIDIAN 209 remote control unit.

3.4 The 207 not only has an inbuilt volume control, but also has provision for an optional LP phono pickup cartridge (internally switchable between Moving Magnet and Moving Coil) and two additional line input sources such as a tuner and a tape recorder. There is also a TAPE RECORD output so that you can record from CD or tuner. The 207 can be used directly with a pair of MERIDIAN ACTIVE LOUDSPEAKERS without the need of a pre-amplifier and power amplifier.

Phono cartridge, Tuner and tape recorder connections may be made to the appropriately marked sockets at the back of the 207(b).

3.5 Connect the power cord to the back of the 207(a).

3.6 The GROUND switch should be ON unless there is a grounded pre-amplifier or control unit in the system. (A grounded pre-amplifier is recognisable from its power cord, which will have three connections.) Hum can result from an installation with more than one ground connection.

3.7 Location

Do not place the 207 on top of a power amplifier or near central heating radiators.

Avoid locations where the 207 is subjected to direct sunlight.

Ensure that the units are properly ventilated.

The two parts of the 207, the 207(a) and 207(b) may be stacked one on top of the other or placed side by side.

4 Simple Operating Instructions

4.1 At the back of the 207(a) there is a power switch. The **Standby** key is lit up when the power switch is on.

4.2 Simplest operation

To play a disc press **Open**

Insert a disc (label upwards)

Play

4.3 Volume can be raised or lowered with the

Yellow keys

(assuming connections are as described in 3.3 for volume control use)

4.4 To change on to the next track on the CD

Play

4.5 To stop the music temporarily

Pause

To continue playing

Pause

The **Pause** key toggles between PAUSE AND CONTINUE

4.6 To revert to the previous track

Previous • **Play**

4.7 To mute the music

Mute

4.8 To un-mute the music

Mute

The **Mute** key toggles between mute and un-mute.

4.9 To stop the music, either

Stop or **Open**

4.10 To open the drawer

Open

4.11 To put the player into STANDBY

Standby

5 Preamplifier Facilities

The 207 has preamplifier facilities providing you are using the variable output as described in 3.3.

5.1 Volume can be raised or lowered with the

Yellow keys

5.2 VOLUME LEVEL. There are 64 volume steps from the quietest to the loudest settings. At the moment that either of the Yellow keys are adjusted to increase or decrease the volume, the display shows the level momentarily, and then reverts to the default display. The volume level might thus be displayed:

The L stands for "level".

5.3 To listen to an LP (phono cartridge if connected)

Phono or **LP**

The **Phono** key will become lit

To de-select PHONO press **Phono** again or press **Line.** The light in the **Phono** key is extinguished.

5.4 To listen to the tuner (if connected)

Line

The **Line** key will become lit

To de-select LINE press **Line** again or press **Phono.** The light in the **Line** key is extinguished.

5.5 To listen to a tape (if connected)

Tape

The **Tape** key will become lit

To de-select TAPE press **Tape** again. The light in the **Tape** key is extinguished.

5.6 To record onto a tape (if connected)

Follow the instructions given with your recorder. While a CD is being played, it can be recorded at the same time. If the Phono or tuner (LINE) has been selected, it can similarly be recorded.

5.7 If you have a three-headed tape machine (one which allows you to replay the tape as it is being recorded) you can hear the recording, "monitor" it, by pressing **Tape**. Pressing **Tape** does not interrupt the recording

5.8 To mute the music

Mute

5.9 To un-mute the music

Mute

The **Mute** key toggles between mute and un-mute.

6 Alternate keyboard

The **Alternate** key works rather like the CAPS key on a typewriter. For instance, the 9 key on a typewriter might have a bracket marked above the 9. To obtain the bracket instead of the 9 you would hold down the CAPS key while you pressed the 9 key. On the 207, the **Alternate** key operates in the same way except that you don't have to hold the key down while you press the other key. Pressing the **Alternate** key instructs the 207 in such a way that the very next key that is pressed will have its secondary function. Immediately after this key has been pressed, the ALTERNATE instruction to the 207 is cancelled, and all keys revert to their primary functions.

6.1 SECONDARY FUNCTIONS

The secondary functions are indicated on the control panel by symbols as shown in the diagram in yellow.

6.2 REPLAY.

You can arrange to replay the track you are listening to

Alternate - Play

6.3 REPEAT.

The 207 can be set to repeat endlessly any selected programme

Alternate - Stop

When the 207 is in the repeat condition, an indicator light shows in the display.

6.4 PHASE.

The absolute phase of the 207 can be digitally reversed.

Alternate - Open

An indicator light shows that the absolute phase has been reversed.

The phase reversal applies only to the CD section of the 207; the phase of the other inputs (PHONO CARTRIDGE, LINE and TAPE) cannot be reversed. The phase reversal takes approximately half a second.

Note. On many discs it is quite likely that little or no difference will be noted when the absolute phase is switched. This is because the recordings were made with a multiplicity of microphones, and the phase information resulting from this was confused.

7 Displays

7.1

The main display digits of the 207 can show you several different things. The normal default mode for display is to show the number of the track being played—this is called TRACK or if no disc is playing and one of the inputs is being used the display shows VOLUME LEVEL. See 5.2.

7.2

To change the display press **Display** followed by a number taken from the alternate key pattern—these are the numbers marked in yellow on the front panel, (or normal numbers on the 209 remote handset).

Display-1

This gives the default TRACK number display. When the disc is stopped, the total number of tracks on the disc are shown.

Display-2

This shows Absolute Time, that is the total time into the disc.

Display-3

This shows Relative Time, sometimes known as Track Time.

Display-4

This shows Remaining Time on the whole disc.

Display-5
Display-0

These sequences allow you to review or check the VOLUME NUMBER without changing the volume itself. This is a momentary display.

Display-6

This starts a review of any track numbers that may have been programmed, in the correct order. If there is no stored sequence, the display will show:

Display-7

Momentarily shows the Total number of Tracks on the Disc.

Display-8

Momentarily shows the Total Playing Time of the disc.

Display-9

Allows the VOLUME LEVEL to the permanently displayed—even if there is a disc spinning. Note that when a disc is running the PLAY key is lit.

7.3 INDEX

The CD standard allows for any TRACK to be subdivided into INDEX points. These may be used for access to sections of the music, and can be significant for some applications. The majority of discs available do not use these subdivisions of tracks.

Where index points are available on the disc, the Display of TRACK will change when the INDEX point exceeds 1. Thus when playing such a disc (In **Display 1** mode), the display could show you for example:

This would have the meaning TRACK 3, INDEX point 4.

8 Programming

8.1 Programmed operation

At the back of the 207(a), switch on.

Open

Insert a disc (label upwards)

8.2 NOTE: the key marked OPEN also has the function of CLOSING the drawer if it is pressed when the drawer is already open.

8.3 To close the drawer

Open

After the drawer closes, the 207 automatically reads the directory on the disc. While this is happening the display shows

and after this, the number of tracks there are on the disc in the machine, for example

8.4 To select one track only from a disc

Next repetitively

until the number of wanted track appears in the display.

Instead of repetitive pressing of **Next** you can hold down the **Next** key until the display counts up to the wanted track.

Play

8.5 By pressing **Pause** instead of **Play** the laser moves up to the start of the wanted track and waits. Subsequent pressing of **Pause** allows you to get a virtually instantaneous start.

8.6 To select a programme of tracks from a disc

Next as above

until the first wanted track number appears in the display. The display throughout this process will show an "S" before the track number thus

The S stands for "select".

Store

Notice that the display now shows

The P stands for "programmed".

Proceed, using the **Next** key as before to the second wanted track and press **Store** again. Continue this process until all the wanted tracks have been stored in the 207's memory.

Play

You can select earlier tracks by using the **Previous** key. The select counter will wrap round at the maximum track number available on the disc.

8.7 The 207 can store up to 30 tracks in any order. Any track can appear any number of times in the programme provided that the total number of selections does not exceed 30.

8.8 NUMBER KEYBOARD. The fluent operator can use the number keyboard to speed programming. Instead of using the **Next** key to arrive at the track to be selected or cancelled, it is possible to go directly to it by pressing **Alternate** followed by the track number. There is, however, one point to note in connection with this method of programming. Because the number of tracks frequently runs into double figures, the ALTERNATE key has been programmed to expect two numbers (rather than the single key as with other secondary functions). This means that it is necessary, when selecting a track number less than 10 to press 0 first; thus **3** becomes **03,** **1** becomes **01** etc.

8.9 Reviewing a selected programme

After making a series of selections or omissions (cancelled tracks), you can review your selection by pressing

DISPLAY-6 (see 7.2)

8.10 Any selected programme remains in the memory of the 207 even after it has been played or interrupted by pressing STOP.

To erase the programme

Stop twice

(once to stop the disc and once to clear the programme). If the disc is already stopped, one press of **Stop** clears the programme. Another way to erase the programme is to open the drawer

Open

8.11 CANCEL. You may wish to play all of a CD except one or more tracks. This can of course be done by programming all the tracks you *do* want as explained under number 5.8. This is laborious, particularly if the disc in question has a large number of tracks.

To play a disc omitting one or more tracks, use the **Next** key to arrive at the first unwanted track (for example: 4)

The display will show

Alternate—Standby

The display will change to

The C stands for "cancelled"

You can proceed using **Next** in the usual way to arrive at any other unwanted tracks. As each unwanted track number appears in the display, press **Alternate Standby** to omit it from the programme. If the cancellation of a track results in a program of more than 30 tracks, an error will be generated and shown in the display (see 8.7).

8.12 Selecting Index Points

You are able to select a TRACK + INDEX combination, but the index information cannot be stored into a programmed sequence.

If a disc is playing you can show the INDEX points with

Alternate + Display

for example, if you were playing the start of TRACK 3, pressing **Alternate** + **Display** would give the display

This would have the meaning TRACK 3 INDEX point 1.

You can now select an index point with the **Next** or **Previous** keys.

For example, pressing **Next** twice would give the display

Then pressing **Play** would start the player playing at INDEX 3 of the current track.

If the disc is not playing you can select a combination of TRACK and INDEX as follows, e.g. if you want to play TRACK 3 INDEX 3

press **Next** 3 times and see the display

Then press **Display** to see the display

Press **Next** 2 times to count up the index to

Now press **Play** to play the track, or **Pause** to move to TRACK 3 INDEX 3 and wait.

9 USE WITH 209 REMOTE CONTROLLER

The handbook supplied with the 209 describes the main features of that product. The following differences should be noted.

9.1 DISPLAYS. The display modes described in 7.3 can be obtained from the 209 using its **Display** key, followed by a number on the 209 keypad.

9.2 INDEX. To display the INDEX for selection when a disc is playing press **Display** or • keys

To select a TRACK + INDEX combination e.g. TRACK 9 INDEX 6 from 209 use the following procedure.

Press **Track** then **9**, the display will show

Press • or **Display**, then **6**, the display will show

Then select it using **Play** or **Pause**.

• or **Display** allows you to switch for selection between TRACK and INDEX.

9.3 Fast forward and Fast back facilities are available only from the 209, not the front panel.

9.4 The **Line** and **Tape** inputs may be selected using the keys marked **Line** or **Tape 3** on the 209.

If you are not using a 201 preamplifier, then the **Phono** input may be selected using the **LP** key on the 209. In this case the inputs may be reset to allow you to listen to the CD, by pressing the **CD** key on the 209.

About CD

10.1 Music is stored on a disc on a spiral track. This is where the common ground between LP and CD ends. The LP plays from the outside inwards at a constant angular speed. The CD plays from the centre to the outside at a steady linear speed so that it starts revolving relatively quickly (500 rpm) and ends slowly (about 200 rpm).

10.2 With the LP the pitch stability depends absolutely on the smooth and constant rotational speed of the turntable. With CD the pitch is governed by a quartz oscillator and does not depend on the unvarying speed of the disc rotation. LP record grooves are a replica of the musical signal (this is called "analogue"). CD makes use of digital techniques to sample and quantify the signal thousands of times a second. The result is a stream of binary numbers represented on the disc simply by ridges or long or short troughs—yes or no; there are no variations of degree.

10.3 Two features of digital CD distinguish it absolutely from the LP and cassette method of recording. First, because the recording is transformed into a series of numbers, these can be re-recorded any amount of times, and given that three are no mistakes in transferring the numbers, the ultimate recording will not differ in any way from the original. Of course it is necessary to use a digital recorder for such re-recordings. With analogue recording there is a finite deterioration every time the recording is re-recorded. Second, and of crucial importance to the home user, no wear occurs to the disc when it is played for the simple reason that no stylus touches the disc. The ridges and troughs on the CD are detected by a tiny laser beam.

10.4 The format selected for disc digital recording provides for a formidable improvement in some of the key characteristics which govern the ultimate performance:

10.5 Dynamic range (a measure of the difference between the quietest sound, the background noise and the loudest fortissimo) is increased from about 55dB to 90dB. This vast increase allows the engineer to present on the disc what he actually recorded without first "compressing" it to fit the limited range of the LP and cassette.

10.6 Distortion, which usually increases with analogue recording as the sound gets louder actually diminishes with CD, and the worst-case inherent distortion on CD is still better than LP at its best.

10.7 Pitch stability, freed from dependence on beautifully made bearings, turntables, drive belts and motors, is controlled by the quartz oscillator (the same device which has revolutionized watches and clocks in the last 15 years). Even the most rudimentary CD player will have less "wow" than the best turntable ever made.

10.8 In addition to all these basic advantages, CD has complex systems to correct errors, interpolate and mute in the event that the number stream be interrupted by dust or scratches. These systems ameliorate the effects of any slight damage or defect usually to the point where it is impossible to tell that they have been operating.

10.9 It might seem from what has been written that with CD, the medium and system are so superior that it is impossible to go wrong, and at a superficial level this could be said to be true; the average ordinary sound system will sound clearly better to the man in the street when playing a CD. At a more serious level, casual design of many of the intricate parts of a CD player contribute to subtle degradation of the sound, and it is an awareness of such results which explains some of the reservations expressed about CD by some hi-fi enthusiasts. (Inexperience of undoctored, uncompressed recordings probably explains the rest.)

10.10 MERIDIAN were first in the field to work successfully on an enthusiast's CD player and achieved world recognition for the classic MCD player. A professional version of the MCD—the PRO-MCD followed and is today widely used in recording studios. The 207 is our latest design.

11 Maintenance

11.1 Cleaning

The main bodies of the 207 units are epoxy enamelled aluminium. To clean them use a cloth barely moistened with a mixture of washing up detergent and water. Disconnect the power cord before doing this and make sure the cloth is dry enough to ensure that no water can get into the inside of the machine.

The front of the 207(a) is all glass and can be cleaned with a barely damp leather or other lint-free cloth.

The top of the front of the 207(b) is also glass. The bottom part of the panel is plastic. To clean the plastic do not use abrasive cleaners or solvents. A barely damp leather should be adequate.

11.2 Lubrication

There are no user-serviceable parts, and no lubrication should be necessary or attempted.

12 Help!

12.1 CAUTION: Do not attempt to operate or connect the supply until the 25-way interconnecting lead is plugged in and the locking screws on the plug and socket secured. Never disconnect this lead with the power connected.

12.2 If the **Standy** key will not light up, check that

power is connected and switched on at the back of the 207(a). Notice that there are two similar switches on the back. The power ON/OFF switch is the one nearest to the power cord.

12.3 If the drawer will not open check that

the **Standby** key is lit and that the transit bolt is not still in.

12.4 If the player refuses to play a disc, check that

the disc is in with the label facing upwards

the volume control is sufficiently raised

audio output connections have been made to the correct sockets

the **Phono, Mute, Line** or **Tape** keys are not lit. Press the lit key to extinguish it

12.5 If the player hums through the speakers, check that

The GROUND switch at the back of the 207(a) is in the correct position (see 3.6).

13 Service

There are no user-serviceable parts inside the player. Should the player need service, it should be returned in the packing supplied AND WITH THE TRANSIT BOLT AND COLLAR FITTED to the dealer who supplied it or, in the case of any difficulty write to:

Boothroyd Stuart Ltd.,
13 Clifton Road,
Industrial Estate,
HUNTINGDON,
Cambridgeshire,
PE18 7EJ

CD players outside the UK should be returned to the importing agent for the territory (see also section 10 in connection with warranty). A list of our agents abroad is available from the factory.

The owner is responsible for the player during transit to us or our agents.

14 Guarantee

The player is guaranteed against defects in material and workmanship for 12 months from the date of purchase.

The guarantee is void if the player has been subjected to misuse, accident or negligence, or has been in any way modified without our written authorisation. Attempted servicing by unauthorised people may result in loss of guarantee.

Labour and carriage charges are not covered unless by local agreement.

When seeking service under guarantee, it is necessary to produce dated proof of purchase.

Outside the UK local warranty liability is restricted to equipment purchased within the territory. Our agents aborad are only under contractual obligation to service under guarantee equipment sold through them. They are entitled to make a non-refundable charge for any service carried out on equipment not supplied through them.

This guarantee does not limit your statutory rights within the UK.

15 Specification

Inputs	Compact Disc	
	Line (tuner, etc)	500mV, 10k-ohms
	Tape	500mV, 10k-ohms
Outputs	Fixed	300mV, 12 ohms
	Variable	600mV max, 60 ohms
	Tape	300mV, 470 ohms
	Headphones	600mV max, 60 ohms
Distortion		<0.004%
Noise		<90 dB
Conversion		4 × over-sampling at 16 bits
Precision		15.5 bits minimum
Facilities		open/close, replay, pause, repeat, next/previous, store/cancel volume up/down, standby direct track number programming, absolute phase switch, two additional inputs/output for tape
Display		track/time/track time/remaining time, Volume level, stored/cancelled tracks
Indicators		phase reversal, equalisation, repeat, alternate display, error correction, muting pause, line input, tape monitor, Power-ON (standby)
Finsh		Black textured enamel and glass
Dimensions (W × H × D) each half		160mm × 100mm × 320mm (+plugs/sockets) 6.3″ × 3.9″ × 12.6″ (+plugs/sockets)
Weight		8.5 kg 18 lbs

KEYS (abbreviated operating instructions)

Open	Opens and closes the drawer
Play	Starts the player
Stop	Stops the player. Pressed twice it clears the programme
Pause	Causes a pause in the playing without losing the place. Also used to continue playing
Next	Used when programming to index the next track either for programming (**Store**) or cancelling (**Alternate**•**Standby**)
Yellow keys	Volume control. Top key volume up. Bottom key volume down
Line	Selects LINE input (for tuner etc if connected). **Line** key toggles LINE input ON/OFF
Tape	Selects TAPE replay. **Tape** key toggles TAPE replay ON/OFF
Phono	Selects PHONO input to allow playing turntable
Mute	Silences the variable output, pressing again demutes
Display	Followed by a number, selects the various displays—see 7.3
Previous	Used like **Next** when programming to move to the previous track. Also used in the form **Previous-Play** to play the previous track
Store	Used while programming to insert a track into the programme memory
Standby	Switches the unit from operating state to standby
Alternate	Used as a preface to obtain the secondary functions, Phase, Replay, Repeat, Cancel, and the numerical keyboard for direct track number programming. Example: To change the absolute phase: **Alternate**•**Phase**

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