

English

Figures

page 1

page 58

Français

Figures

page 7

page 58

Deutsch

Abbildungen

Seite 14

Seite 58

Nederlands

Figuren

pagina 21

pagina 58

Español

Figuras

página 27

página 58

Italiano

Figure

pagina 33

pagina 58

Dansk

Figurer

side 40

side 58

Svenska

Figurer

sida 46

sida 58

Suomi

Kuvat

sivu 52

sivu 58

**CLASS 1
LASER PRODUCT**

English

INTRODUCTION

The Compact Disc system is a major step forward in the sphere of audio technology. By employing the most sophisticated digital and optical technologies, Compact Disc not only produces the ultimate in sound reproduction, it also offers unprecedented ease of operation, with rapid access to every track on the disc and the possibility of programming.

CONTENTS	Page
INSTALLATION	1
OPERATION	2-4
PROGRAMMING	4-5
ADDITIONAL INFORMATION	5-6
FAULTS AND THEIR LIKELY CAUSES	6
ILLUSTRATIONS	58

INSTALLATION

CHECKING THE POWER SUPPLY SETTING (Fig. 1)

- Check that the type plate on the rear of your player indicates the correct supply voltage.
- If your mains supply voltage is different, consult your dealer or our Service Organisation.

REMOVING THE TRANSIT CLAMPS (Fig. 2)

The two red transit clamps on the bottom lock the play mechanism to protect it during transportation.

- Turn the player upside down.
- Turn the clamps anti-clockwise and remove them from the player.
- Store them in the recesses provided.

If you wish to transport the player, reinsert the clamps and rotate them clockwise until they lock in position.

INSERTING AND REPLACING THE BATTERIES IN THE REMOTE CONTROL (Fig. 3)

- Open the battery compartment.
- Insert the two batteries according to the diagram in the compartment.
- Replace the cover.

The life of the batteries is around one year. Remove them when they are flat or when you are not intending to use the remote control for some time. In this way you will prevent damage to the remote control by possible battery leakage.

For replacement only use batteries of the type R03, UM4 or AAA.

SITING THE COMPACT DISC PLAYER

Free-standing

- Always position the player horizontally on a flat, firm surface.
- Allow a free space of at least 3 cm above the player so as not to interfere with the cooling of the player.

In an audio rack

- The player can be sited in any desired position.

Stacked

- Site the player preferably at the bottom or at the top.
- Never position the player directly on top of a high-power amplifier, as such an amplifier gives off a substantial amount of heat.

Warning

Never allow the player to stand for long periods in direct sunlight or near a heat source.

CONNECTIONS (Fig. 4)

a **RC5 IN/OUT**: for a remote control system.

Use this connection for:

- Connecting up the equipment when you are incorporating the player in a HiFi system with its own remote control system.
- Connecting the remote control receiver EM 2200, available as an accessory, if the siting of the player prevents its REMOTE CONTROL-eye from receiving the signals from the remote control directly.

b **OUT L R**: for the connecting cable to the amplifier.

- Insert a red plug into the 'R' socket (right-hand channel) and the other plug into the 'L' socket (left-hand channel).

- Insert the two other plugs into the corresponding sockets of the CD or AUX input of your amplifier. You can also use the TUNER or TAPE IN connection, but *never* the PHONO input. This is not suitable for Compact Disc reproduction.

c Connection for the mains lead.

OPERATION

EXPLANATION OF KEYS ETC. (Fig. 5)

- 1 **ON/OFF** key
 - › For switching on and off.
- 2 **REMOTE CONTROL** eye
 - › Receives the signals from the remote control.
- 3 **DISPLAY**
 - › Informs you about the functioning of the player.
 - › Displays details from the disc contents list.See also: 'The indications on the display'.
- 4 **PLAY/REPLAY** key
 - › For starting play (PLAY).
 - › For returning to the beginning of a track (REPLAY).
- 5 **STOP** key
 - › For stopping play.
 - › For erasing a programme.
- 6 **PHONES** socket
 - › For connection of headphones.See also: 'Listening with headphones'.
- 7 **OPEN/CLOSE** key
 - › For opening and closing the disc tray.
- 8 **SHUFFLE** key
 - › For playing all tracks on a disc in random order.
- 9 **PROGRAM** key
 - › For storing track numbers in a programme.
 - › For erasing track numbers from a programme.
 - › For checking the programme.
- 10 **REPEAT** key
 - › For repeating a disc or a programme.
- 11 **◀ SEARCH** and **SEARCH ▶** keys
 - › For fast search to a particular passage during play. ('◀' backwards, '▶' forwards.)
- 12 **PAUSE** key
 - › For briefly interrupting play.
 - › For holding play at the start of a disc, track or passage.
- 13 **PREV TRACK** **NEXT** keys
 - › For selecting a previous or a later track during play.
 - › For selecting the track number you want play to begin with.
 - › For selecting track numbers when compiling a programme.('PREV' from high to low, 'NEXT' from low to high.)

The keys of the remote control have the same function as the corresponding ones on the player. For the best reception of the signals from the remote control you should aim it as directly as possible at the REMOTE CONTROL-eye.

THE INDICATIONS ON THE DISPLAY (Fig. 6)

Each Compact Disc has, along with the music, a list of contents detailing the numbers of the tracks, the playing time of each track and the total playing time of the disc. The player always scans this first and stores it in its memory in order, for instance, to provide information via the display.

'_ _'

- › Light up when you switch the player on.
- › Flash during the scanning of the contents list of the disc.

TRACK

Under this indication you will see:

- › The number of the track which is playing.
- › The number of tracks on the disc when you close the tray with OPEN/CLOSE.

'▷'

- › Lights up when you close the tray by hand, with PLAY/REPLAY or with SHUFFLE.

TIME

Under this indication you will see:

- › The elapsed playing time of the track which is playing.
- › The total playing time of the disc when you close the tray with OPEN/CLOSE.

PROGRAM

- › Lights up when you store the first track number of a programme.

SHUFFLE

- › Lights up when you play a disc in random order.

REVIEW

- › Lights up when you check the programme.

PAUSE

- › Lights up when the player is in the pause mode.

REPEAT

- › Lights up when you repeat a disc or programme.

'O)l'

- › Lights up briefly when the REMOTE CONTROL-eye receives a command from the remote control.

ERROR

- › Lights up briefly when you make an error in operating.

SWITCHING ON AND OFF (ON/OFF)

Switching on

- Press ON/OFF.
- › The display lights up.

Switching off

- Press ON/OFF again.
- › The display is extinguished.

LOADING AND UNLOADING THE DISC

(OPEN/CLOSE)

Loading (Fig. 7-9)

- Open the disc tray by pressing OPEN/CLOSE.
- Insert the disc into the tray *printed side up*.
- To close the tray:
 - Press the front of the tray lightly or press PLAY/REPLAY if you wish to simply play the disc.
 - Press SHUFFLE if you wish the disc to be played in random order.
 - Press OPEN/CLOSE if you wish to start with a track number other than the first one or you wish to compile a programme.

If ERROR lights up after the tray is closed, this means that you have loaded the disc upside down or it is dirty, badly scratched or faulty, for example warped. ERROR also lights up if you close an empty tray by hand, by pressing PLAY/REPLAY or SHUFFLE.

Unloading

- Open the tray by pressing OPEN/CLOSE.
- Hold the disc in same way as when loading.
- Store the disc immediately in its holder. This prevents soiling and damage.
- Close an empty tray by pressing OPEN/CLOSE. Avoid leaving the tray open, to prevent dust from entering.

PLAYING THE ENTIRE DISC (PLAY/REPLAY)

- Close the tray by hand or by pressing PLAY/REPLAY.
 - › The '▷' indication lights up.
 - › '1' appears on the display.
 - › Play starts as soon as the elapsed playing time of the first track number is shown.
 - › At each following track the track number jumps on. The display of the playing time starts again at '0 00' after any preceding pause has been counted off.
 - › After the last track the disc stops. The '▷' indication goes out. The display shows the number of tracks and the total playing time of the disc.

GOING BACK TO THE BEGINNING OF A TRACK (PLAY/REPLAY)

- Press PLAY/REPLAY.
 - › The track starts again from the beginning.

SELECTING ANOTHER TRACK DURING PLAY (PREV TRACK NEXT)

Selecting a following track

- Press TRACK NEXT until the desired track number appears on the display.
 - › The playing time indication disappears.
 - › Play is interrupted when the key is released.
 - › As soon as the playing time indication returns, the selected track begins to play.
- If you press TRACK NEXT while playing the last track, ERROR lights up to remind you that there is no next track and playing of the last track continues. If the player is in the repeat mode, then play continues with the first track.

Selecting a previous track

- Press PREV TRACK until the required track number appears on the display.
 - › The playing time indication disappears.
 - › Play is interrupted when the key is released.
 - › As soon as the playing time indication returns, the selected track begins to play.

If you press PREV TRACK while playing the first track, ERROR lights up to remind you that there is no previous track and playing of the first track continues. If the player is in the repeat mode, then play continues with the last track.

SEARCHING FOR A PARTICULAR PASSAGE DURING PLAY (◀ SEARCH ▶)

- Hold ◀ SEARCH down to search backwards to the beginning.
- Hold SEARCH ▶ down to search forwards to the end.

As soon as the key is released play restarts at once. The length of time for which you hold the key down determines the search speed:

- the first three seconds relatively slowly;
- after approx. four seconds slightly faster;
- the highest speed is reached after approx. seven seconds.

At the first two speeds the sound of the disc remains audible, although accelerated. When searching by ear it is therefore advisable to release the key as soon as the sound disappears. If you have pressed PAUSE before you started the search, you will hear nothing.

As soon as you reach the beginning of the first track, ERROR lights up. Play will resume there as soon as you release the key. If you reach the end of the last track, ERROR will also light up. If you then release the key, play will resume a few seconds before the end of the disc.

BEGINNING WITH A TRACK NUMBER OTHER THAN THE FIRST (PREV TRACK NEXT and PLAY/REPLAY)

- Close the tray by pressing OPEN/CLOSE.
 - › The highest selectable track number appears on the display, together with the total playing time of the disc.
- Press TRACK NEXT or PREV TRACK until the required track number appears. If you require the highest number, you must still press PREV TRACK once.
 - › The playing time indication disappears.
- Press PLAY/REPLAY.
 - › The '▷' indication lights up.
 - › As soon as the elapsed playing time appears, play starts from the selected track.

PLAYING THE DISC IN RANDOM ORDER (SHUFFLE)

- Close the tray by pressing SHUFFLE.
 - › The SHUFFLE and '▷' indications light up.
 - › All the tracks on the disc are played in a sequence to be determined by the player.
 - › When all the tracks have been played the disc stops. The SHUFFLE and '▷' indications go out. The display shows the number of tracks and the total playing time of the disc.

RECTIFYING A MISTAKE

- Go to another track number by pressing TRACK NEXT or PREV TRACK.
 - Return to the wrong number.
 - Press PROGRAM while the 'P' after the number is flashing.
 - ↳ The 'P' is replaced by a 'C' (for Clear).
 - Store the correct number.
- In our example: you have stored '4' instead of '5'. Go to '3' using PREV TRACK, return to '4' using TRACK NEXT and press PROGRAM. You will then see '4 C'. Now proceed to store '5'.
-

CHECKING THE PROGRAMME

- You can check the track numbers you have stored by pressing PROGRAM.
 - ↳ The REVIEW indication lights up.
 - ↳ All the track numbers appear in the programmed sequence on the display.
 - ↳ The REVIEW indication goes out again.
- In our example: '7' '3' '9' '5' '12' '10' '10 P'. If ERROR lights up, this means that no track numbers have yet been stored.
-

ERASING A TRACK NUMBER FROM THE PROGRAMME OR THE ENTIRE PROGRAMME

- Bring up the track number you wish to erase by pressing TRACK NEXT or PREV TRACK.
 - Press PROGRAM while the 'P' after the number is flashing.
 - ↳ The 'P' is replaced by a 'C' (for Clear).
 - Press STOP if you wish to erase the entire program.
 - ↳ The display shows the number of tracks and the total playing time of the disc.
-

PLAYING THE PROGRAMME

- Press PLAY/REPLAY.
 - ↳ The '▷' indication lights up.
 - ↳ The first number of the programme appears on the display; in our example: '7'.
 - ↳ Play begins as soon as the elapsed playing time of the first track is shown.
 - ↳ As play continues the following numbers in the sequence appear.
 - ↳ The entire programme can be displayed by pressing PROGRAM. The REVIEW indication will meanwhile be lit.

All functions of the player can be used during programmed play except for:

- Beginning with a track other than the first one on the programme using PREV TRACK NEXT and PLAY/REPLAY.
- Playing in a random order with SHUFFLE.

Searching for a particular passage is limited to within the track being played. When either end of the track is reached ERROR lights up.

When STOP is pressed or when all the tracks of the programme have been played, the disc stops, but the programme remains stored.

The programme will be erased when you open the tray. It will also be erased if you press STOP twice in succession *during playback*.

ADDITIONAL INFORMATION

LISTENING WITH HEADPHONES (PHONES)

Connect headphones with a 6.3 mm jack plug and an impedance between 8 and 1000 ohms to the PHONES socket.

The sound level you hear is dependent on the impedance of the headphones and the signal level on the disc itself.

CARE OF THE DISCS

Although both sides of a disc are protected by a special coating, it is still advisable to treat the discs with care:

- Never leave discs lying around, put them back in their holders immediately after use.
- Never write on the printed side!
- Do not attach any stickers on that side.
- Keep the shiny surface of the disc clean. Use a soft lint-free cloth and always wipe the disc in a straight line from centre to edge. You may breathe lightly on the disc first.

The cleaning set SBC 3540, available separately, is a useful accessory for cleaning your discs. It contains a protective support, a special disc cleaning cloth and a bottle of cleaning fluid.

Warning - Cleaning agents for conventional records are not suitable for cleaning a Compact Disc. Nor may detergents or abrasive cleaning agents be used.

PLAYER MAINTENANCE

A chamois leather slightly moistened with water is sufficient for cleaning the player. Do not use cleaning agents containing alcohol, spirits, ammonia or abrasives.

The disc tray should be kept free of dust with a dry cloth.

TECHNICAL DATA

Typical Audio Performance

Frequency range: 2-20,000 Hz

Amplitude linearity: ± 0.1 dB (20-20,000 Hz)

Phase linearity: $\pm 0.5^\circ$ (20-20,000 Hz)

Dynamic range: > 96 dB (20-20,000 Hz)

Signal-to-noise ratio: > 100 dB (20-20,000 Hz)

Channel separation: 96 dB (1 kHz)

Total harmonic distortion: 0.025% (1 kHz)

Wow and flutter: quartz crystal precision

D/A conversion: quadruple oversampling (176.4 kHz) with digital filter and two 16-bit D/A-converters

Audio output level: $2 V_{\text{rms}}$

Impedance PHONES socket: 8-1000 ohms

Power supply

Mains voltage and frequency: see the type plate on the rear of the player

Power consumption: 25 W approx.

Safety requirements: IEC

Cabinet

Material/finish: metal and polystyrene with decorative trim

Dimensions (w x h x d): 420 x 80 x 300 mm

Weight: 3.5 kg approx.

Subject to modification

This Compact Disc player complies with radio interference requirements as laid down in EC regulations.

FAULTS AND THEIR LIKELY CAUSES

Insufficient familiarity with the combination of a new product and new discs may lead to faults arising during use. These are generally caused by simple errors in operation or external factors.

It is perhaps useful to check the points listed below and where possible remedy these before taking your player for repair.

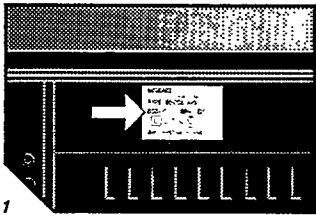
- The transit clamps have not been removed.
- Condensation has formed on the lens of laser due to a dramatic change in temperature. This will disappear automatically after a some time.
- There is a foreign object in the disc tray.
- The disc has not been inserted with the printed side up or there is no disc in the tray.
- The disc is dirty, badly scratched or warped.
- The player has been connected to the PHONO socket of the amplifier.

If the fault remains, try to clear it by switching the player off and on.

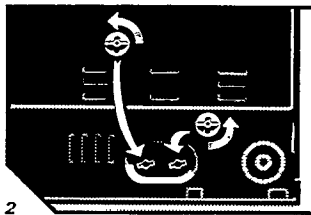
If this also fails to help, do not continue experimenting, but remove the plug from the socket and consult your dealer.

Certain faults may be caused by a disc. In order to help determine the precise cause, take the disc with which the fault occurred with you when you take the player for repair.

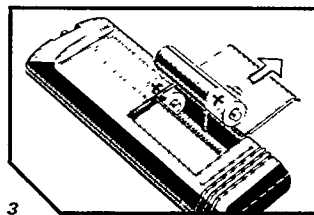
Under no circumstances should you repair the player yourself, as this will invalidate the guarantee!



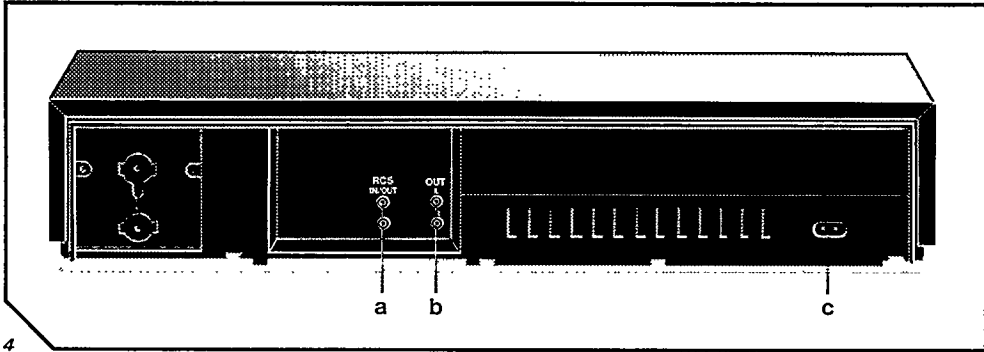
1



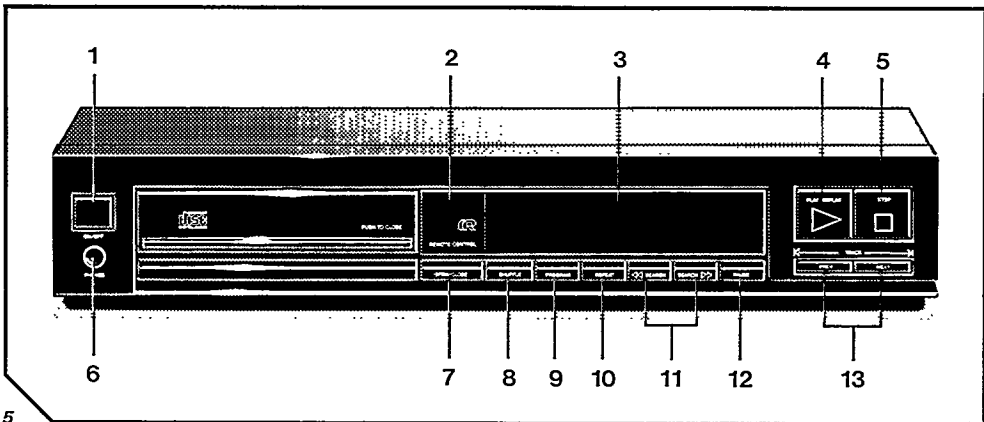
2



3



4



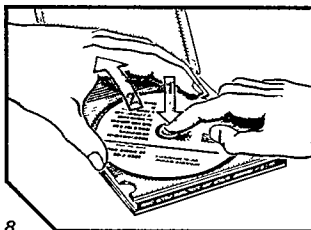
5



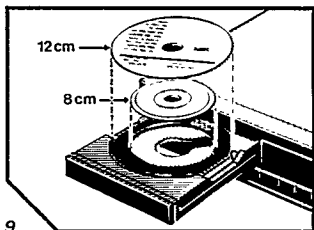
6



7



8



9

