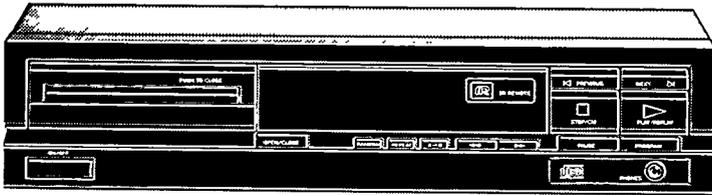




CONSUMER ELECTRONICS

PHILIPS



CD 610

Compact Disc Player



Operating Instructions

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.

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INSTALLATION

CHECKING THE POWER SUPPLY SETTING

- 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. 1-2)

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.

Replace the clamps if you wish to transport the player. To do this, turn the player upside down, insert the clamps in the holes provided 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.

Note!

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

CONNECTIONS (Fig. 4)

a Connection for the mains lead.

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

Use these sockets for connecting up the equipment when you are incorporating the player in a HiFi system with its own remote control system.

Fitting a Mains Plug

The wires in the mains lead are coloured:

Blue - Neutral Brown - Live

As these colours may not correspond with the colour markings identifying the terminals in your plug proceed as follows:

The Brown wire must be connected to the terminal which is marked with the letter L or coloured Red. The Blue wire must be connected to the terminal which is marked with the letter N or coloured Black.

Note! This apparatus must be protected by a 3 amp fuse if a 13 amp plug is used, or, if any other type of plug is used, by a 5 amp fuse either in the plug or adapter, or at the distribution board. If in doubt consult a qualified electrician.

OPERATION

EXPLANATION OF KEYS ETC. (Fig. 5)

1 ON/OFF

- › For switching on and off.

2 DISPLAY

- › Informs you about the functioning of the player.
- › Displays details from the disc contents list.
See also: 'The indications on the display.'

3 IR REMOTE

- › Receives the signals from the remote control.

4 STOP/CM

- › For stopping play (STOP).
- › For erasing a programme (CM = Clear Memory).

5 PREVIOUS and NEXT

- › For selecting another track during play.
- › For selecting a track number to start play.
- › For selecting track numbers when compiling a programme.
(PREVIOUS from high to low and NEXT from low to high.)

6 PLAY/REPLAY

- › For starting play (PLAY).
- › For returning to the beginning of a track (REPLAY).

7 OPEN/CLOSE

- › For opening and closing the disc tray.

8 RANDOM

- › For playing in random order.

9 REPEAT

- › For repeating a disc or a programme.

10 'A-B'

- › For setting the starting and stopping point of a passage to be repeated.

11 '<< >>'

- › For fast search to a particular passage during play. ('<<' backwards and '>>' forwards.)

12 PAUSE

- › For interrupting play.
- › For holding play at the start of a disc, track or passage.

13 PROGRAM

- › For storing track numbers in a programme.
- › For erasing track numbers from a programme.
- › For checking a programme.

14 PHONES

- › For connection of headphones.
See also: 'Listening with headphones'.
-

REMOTE CONTROL

The following keys have a different label on the remote control:

- PLAY/REPLAY = PLAY
- PREVIOUS = ◀ TRACK
- NEXT = TRACK ▶
- ◀◀ = ◀ SEARCH
- ▶▶ = SEARCH ▶
- 'A-B' = 'A/B'

The remote control also has the following extra keys:

'1-0' digit keys

- › For direct selection of:
 - Another track during play.
 - A track number to start play with.
 - Track numbers when compiling a programme.

◀ INDEX ▶

- For selecting another index number during play.
- For selecting an index number to start play with.
(◀ from high to low and ▶ from low to high.)

For the best reception of the signals from the remote control you should aim it as directly as possible at the IR REMOTE eye.

THE INDICATIONS ON THE DISPLAY (Fig. 6)

Each Compact Disc has, along with the music, a list 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.

'--'

› Lights up when you switch the player on.

'8 

› Flashes during when the table of contents of a disc is being scanned.

› Lights up when a 8-cm disc is loaded.

'12 

› Flashes during when the table of contents of a disc is being scanned.

› Lights up when a 12-cm disc is loaded.

REVIEW

› Lights up when you check a programme.

TRACK

Under this indication you will see:

› What track is being played.

› The number of tracks on the disc after it has stopped.

REPEAT

› Lights up when you repeat a disc or programme.

'A-B'

› Lights up when a passage is repeated.

› 'A' lights up when the starting point is set.

› 'A-B' lights up when the stopping point is set.

'▷'

› Lights up during play.

› Flashes when the player is in the pause mode.

TRACK TIME

Under this indication you will see:

› The elapsed playing time of the track being played.

› The total playing time of the disc after it has stopped.

ERROR

› Lights up if you make a mistake when operating the player.

RANDOM

› Lights up when the tracks on the disc are played in random order.

'(((O'

› Lights up when the IR REMOTE eye receives a command from the remote control.

'1-20' track number indicator

› Shows the number of tracks on the disc after the table of contents has been scanned.

'+ 20'

› Lights up when there are more than 20 tracks on a disc.

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:

– Push it lightly or press PLAY/REPLAY if you wish to simply play the disc.

– Press RANDOM if you wish the disc to be played in random order.

– Press OPEN/CLOSE or PAUSE if you wish to start with a particular track or index number.

– Press OPEN/CLOSE if you wish to compile a programme.

If ERROR lights up after the tray has been closed, this means 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.

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 indications '▷' and '8 ' or '12 

› The number indicator shows how many tracks are on the disc. When a track has been played its number disappears. Under TRACK is always shown what track is being played. Under TRACK-TIME the elapsed playing time of the track being played is always shown.

› After the last track play stops. The indication '▷' goes out and the display shows the number of tracks and the 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 ('1-0', NEXT or PREVIOUS)

- Key in the desired number (numbers consisting of two figures must be keyed in *within 2 seconds*) or press NEXT or PREVIOUS until the number appears under TRACK.
- › The playing time indication disappears.
- › The music stops and a moment later the selected track begins to play.

If you press NEXT while playing the last track, or PREVIOUS while playing the first track, ERROR will light up and play will continue as normal.

SELECTING ANOTHER INDEX NUMBER DURING PLAY (◁ INDEX ▷)

NOTE! - Index numbers do not have an indication on the display. If the parts of a track have index numbers, this will be specified in the list of contents in the disc holder.

- Press INDEX ▷ to move on to a later index number.
- Press ◁ INDEX to return to a previous index number.
- › The playing time indication disappears.
- › The music stops and a moment later the selected index number begins to play.

If you press INDEX ▷ while playing the last index number of a track, ERROR will light up and play will start again at the beginning of the track which is being played. This will also happen if you press ◁ INDEX while playing the first index number of a track.

SEARCHING FOR A PARTICULAR PASSAGE DURING PLAY ('◀◀ ▷▷')

- Hold '◀◀' down to search backwards to the beginning.
 - Hold '▷▷' 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 PARTICULAR TRACK NUMBER

- ('1-0', NEXT or PREVIOUS and PLAY/REPLAY)
- Close the tray by pressing OPEN/CLOSE.
 - › The indication '8'  or '12'  lights up and the display shows the number of tracks and the playing time of the disc.
 - Key in the required number or press NEXT or PREVIOUS until the number appears under TRACK. If you require the highest number, you must still press PREVIOUS once.
 - › The playing time indication disappears.
 - › On the number indicator the selected track number and those following it light up.
 - Press PLAY/REPLAY.
 - › The '▷' indication lights up and play starts from the selected track.

Alternatively, you can close the tray by pressing PAUSE, select the required track number and then press PAUSE again to start play.

If you select a non-existent number, ERROR lights up and playback starts with the first track of the disc.

BEGINNING WITH A PARTICULAR INDEX NUMBER (◁ INDEX ▷ and PLAY/REPLAY)

- First select the track number you wish to start with.
- › Then press INDEX ▷ or ◁ INDEX until the desired index number appears on the display.
- › The playing time indication disappears.
- Press PLAY/REPLAY.
- › The '▷' indication lights up and play starts from the selected index number.

Alternatively, you can close the tray by pressing PAUSE, select the required track and index number and then press PAUSE again to start play.

If you select a non-existent index number, ERROR lights up and playback starts with the selected track.

PLAYING THE DISC IN RANDOM ORDER (RANDOM)

- Before or during play press RANDOM.
- › The RANDOM indication lights up.
- › If the tray was open, it will now close.
- › All the tracks on the disc are now played in a sequence to be determined by the player.
- › Press RANDOM again if you wish to return to normal play.

If during play you press PREVIOUS you will return to a track which has already been played. If you press NEXT you are selecting any one of the following tracks.

By pressing REPEAT you can repeat random order play. The player then always begins with the same track, but otherwise changes the sequence every time the disc is repeated.

BRIEFLY INTERRUPTING PLAYBACK/HOLDING PLAY AT THE START OF A DISC, TRACK OR PASSAGE (PAUSE)

To briefly interrupt playback

- Press PAUSE.
- › The 'P' indication starts flashing.
- › The sound stops but the disc continues to spin.
- Press PAUSE again to restart.
- › The 'P' indication now remains lit.
- › Play restarts at the point where it was interrupted.

Holding play at the start of a disc, track or passage

You can go to any place on the disc and hold it by pressing PAUSE before:

- starting to play the disc;
- going back to the beginning of a track;
- selecting another track or index number ;
- searching for a particular passage;
- beginning with a particular track or index number;
- playing the disc in random order.

Press PAUSE again to start play at the chosen place.

REPEATING A PASSAGE ('A-B')

- During play press 'A-B' at the required starting point.
- › The 'A' indication lights up.
- Press 'A-B' again at the required stopping point.
- › The 'A-B' indication lights up.
- › The passage between points A and B will now be replayed continuously.
- Press 'A-B' again to stop repeat.
- › The 'A-B' indication goes out and play continues as normal.

To find the starting and stopping points quickly, you can use the '◀ ▶' keys.

The repeating of a passage can also be stopped by pressing STOP/CM or OPEN/CLOSE.

REPEATING THE DISC (REPEAT)

- Press REPEAT before or during playback.
 - › The REPEAT indication lights up.
 - Press REPEAT again to stop repeating.
 - › The REPEAT indication goes out.
 - › The disc will play on to the end and then stop.
- Repeating can also be stopped by pressing STOP/CM or OPEN/CLOSE.

STOPPING PLAYBACK (STOP/CM or OPEN/CLOSE)

- Press STOP/CM if you merely wish to stop.
- › The 'P' indication goes out.
- › The display shows the number of tracks and the total playing time of the disc.
- Press OPEN/CLOSE if you wish to stop and take out the disc.
- › The indications 'P' and '8' or '12' go out.

PROGRAMMING

By programming the player you can play up to 20 tracks of a disc in any required sequence. Each track can however only be selected once. If you exceed the maximum of 20 tracks, ERROR lights up. Index numbers cannot be stored.

STORING A PROGRAMME

- Close the tray by pressing OPEN/CLOSE.
 - › The indication '8' or '12' lights up and the display shows the number of tracks and the playing time of the disc.
 - Key in the first number you wish to programme or press NEXT or PREVIOUS until the number appears under TRACK. If you require the highest number on the disc as the first track, you must still press PREVIOUS once.
 - › The playing time indication disappears.
 - › After the number '-' flashes
- Press PROGRAM while '-' is flashing.
 - › '-' will be replaced by 'P' (for Programme).
 - › The number has now been stored.
 - Store each of the remaining track numbers required in the same way.

Note! - '-' will flash for approx. 7 sec. each time. If you fail to press PROGRAM within that time, the flashing will stop. You can then no longer store the number: instead of '-' you will see ERROR light up - or the numbers already stored will appear if you press PROGRAM too late. You can however still store such a missed number by keying it in again or by returning to it from the previous or the following number using NEXT or PREVIOUS.

For example:

- On a disc with 16 tracks you wish to listen to the numbers 7, 3, 9, 5, 12 and 10 in that sequence.
- Load the disc in the tray and close it by pressing OPEN/CLOSE.
 - › A few moments later the display will indicate '16' and - for example - '62 13'.
 - Key in '7'.
 - › '7' appears under TRACK.
 - Press PROGRAM.
 - › Under TRACK you will now see '7 P' and on the number indicator '7'.
 - Key in '3' and press PROGRAM again.
 - › You will now see '3 P' under TRACK and on the number indicator '3' and '7'.
 - Key in the numbers 9, 5, 12 and 10 in turn and store them by pressing PROGRAM after each one.
 - › When the last number has been stored, the display will show '10 P' continuously. On the number indicator you will read: '7' '3' '9' '5' '10' '12'.

Alternatively, you can call up the numbers by pressing NEXT or PREVIOUS and then store them by pressing PROGRAM.

RECTIFYING A MISTAKE

- Key in the wrong number.
 - › The number appears under TRACK.
 - Press PROGRAM while the 'P' after the number is flashing.
 - › The 'P' is replaced by a 'C' (for Clear).
 - › The number disappears from the number indicator.
 - Store the correct number.

In our example: you have stored '4' instead of '5'. Key in '4' and press PROGRAM. Now proceed to store '5'.
-

CHECKING THE PROGRAMME

- Press PROGRAM if you wish to see the sequence in which you have stored the track numbers.
 - › The REVIEW indication lights up.
 - › All the numbers appear in the programmed sequence under TRACK.
- 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. You can check a programme prior to, during or after programmed play.
-

ERASING A TRACK NUMBER FROM THE PROGRAMME OR THE ENTIRE PROGRAMME

- Key in the number you wish to erase or press NEXT or PREVIOUS until the number appears under TRACK.
 - Press PROGRAM while the 'P' after the number is flashing.
 - › The 'P' is replaced by a 'C' and the number disappears from the number indicator.
 - Press STOP/CM if you wish to erase the entire programme.
 - › The display shows the number of tracks and the total playing time of the disc.
-

PLAYING THE PROGRAMME

- Press PLAY/REPLAY.
 - › 'P' lights up and playback starts with the first number of the programme.
- All keys (except RANDOM and A-B) can be used during programmed play.
- 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/CM is pressed or when the programme has been played, the disc stops, but the programme remains stored.
- The programme will be erased when you open the tray or if you press STOP/CM twice in succession *during playback*. Once play has started you can no longer change the programme.
-

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 the disc.
- 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 breath 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: ± 0.02 dB (20-20,000 Hz)

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

Dynamic range: > 90 dB (20-20,000 Hz)

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

Channel separation: 100 dB (1 kHz)

Total harmonic distortion: 0.015% (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 65

Cabinet

Material/finish: metal and polystyrene with decorative trim

Dimensions (w x h x d): 420 x 90 x 280 mm

Weight: 3.8 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 the laser due to a dramatic change in temperature. This will disappear automatically after 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.

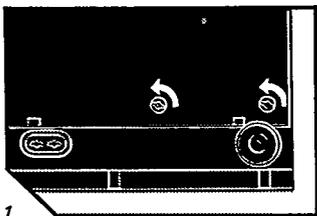
If the fault remains, try to clear it by switching the player off and on.

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

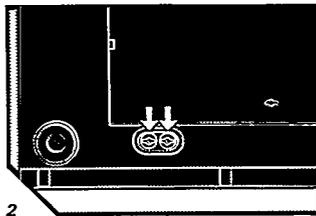
Certain faults may be caused by a disc. In order to help determine the precise cause, take the disc with which the fault occurred with you when you take the player for repair.

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

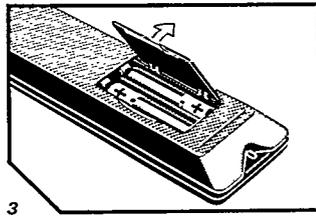




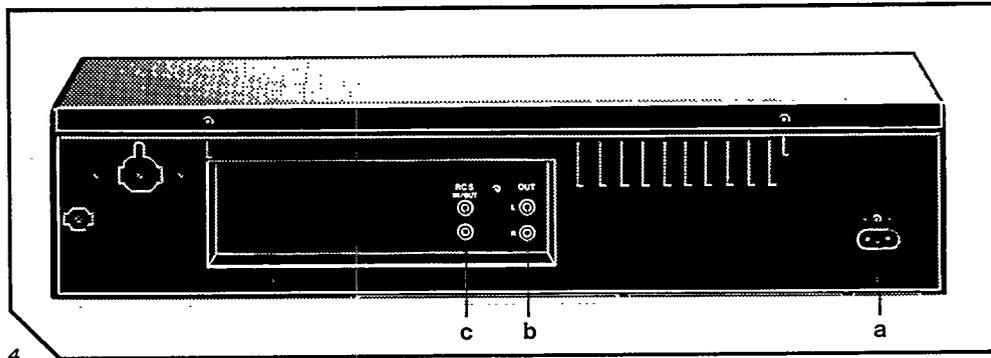
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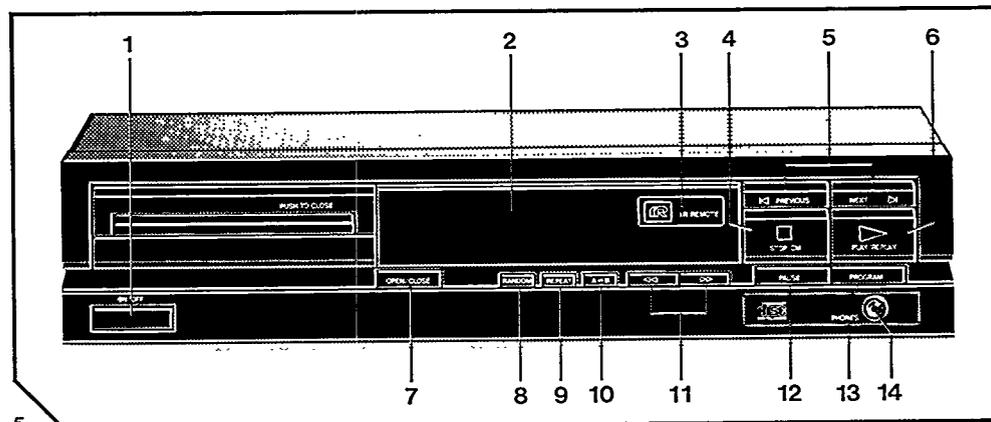
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3



4



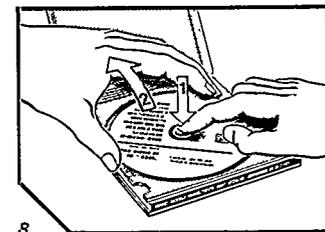
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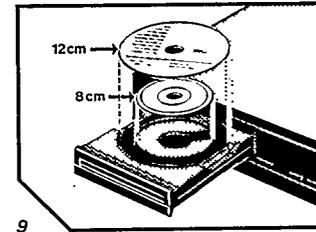
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7



8



9

