

Audio CD Recorder

CDR-778

CDR-700



Toll Free Help Line
Ligne d'assistance en service libre
Línea de ayuda telefónica sin cargo
800-531-0039



Let's make things better.



PHILIPS

Return your Warranty Registration card today to ensure you receive all the benefits you're entitled to.

• Once your Philips purchase is registered, you're eligible to receive all the privileges of owning a Philips product.

• So complete and return the Warranty Registration Card enclosed with your purchase at once, and take advantage of these important benefits.

Warranty Verification

Registering your product within 10 days confirms your right to maximum protection under the terms and conditions of your Philips warranty.

Owner Confirmation

Your completed Warranty Registration Card serves as verification of ownership in the event of product theft or loss.

Model Registration

Returning your Warranty Registration Card right away guarantees you'll receive all the information and special offers which you qualify for as the owner of your model.

PHILIPS

Congratulations on your purchase, and welcome to the "family!"

Dear Philips product owner:

Thank you for your confidence in Philips. You've selected one of the best-built, best-backed products available today. And we'll do everything in our power to keep you happy with your purchase for many years to come.

As a member of the Philips "family," you're entitled to protection by one of the most comprehensive warranties and outstanding service networks in the industry.

What's more, your purchase guarantees you'll receive all the information and special offers for which you qualify, plus easy access to accessories from our convenient home shopping network.

And most importantly you can count on our uncompromising commitment to your total satisfaction.

All of this is our way of saying welcome – and thanks for investing in a Philips product.

Sincerely,




Lawrence J. Blanford
President and Chief Executive Officer


P.S. Remember, to get the most from your Philips product, you must return your Warranty Registration Card within 10 days. So please mail it to us right now!



Know these *safety* symbols



 This "bolt of lightning" indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

 The "exclamation point" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot, and fully insert.

For Customer Use

Enter below the Serial No. which is located on the rear of the cabinet. Retain this information for future reference.

Model No. _____

Serial No. _____



Canada

English:

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Français:

Cet appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables dans la règlement sur le brouillage radioélectriques édicté par le ministère des communications du Canada.

English ————— 6

Français ————— 36

Español ————— 66

This warning label is located on the rearside and inside this laser product.

CAUTION: INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM

DANGER: INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.

VARO! AVATTAESSA JA SUOJALUKITUS OHITEJTAESSA OLET ALTTIINANAKYMATTOMAALLE LASERSATEILYLLE. ALA KATSO SATEESEEN.

VARNING! OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPARREN ÄR URKOPPLAD. BETRAKTA EJ STRALEN

or

DANGER - Invisible laser radiation when open.
AVOID DIRECT EXPOSURE TO BEAM

The set complies with the FCC-Rules, Part 15 and with 21 CFR 1040.1. Operation is subject to the following two conditions :

- 1. This device may not cause harmful interference, and**
- 2. This device must accept any interference received, including interference that may cause undesired operation.**

NOTE

- If this equipment does cause harmful interference to radio or television reception, which can be determined by turning this equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :
- reorient or relocate the receiving antenna.
 - increase the separation between the equipment and receiver.
 - connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - consult the dealer or an experienced radio/TV technician for help.

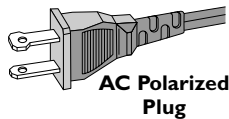
IMPORTANT


THIS PRODUCT WAS FCC VERIFIED UNDER TEST CONDITIONS THAT INCLUDED USE OF SHIELDED CORDS AND CONNECTORS BETWEEN SYSTEM COMPONENTS. IT IS IMPORTANT THAT YOU USE SHIELDED CORDS TO REDUCE THE POSSIBILITY OF CAUSING INTERFERENCE TO RADIOS, TELEVISION SETS AND OTHER ELECTRONIC DEVICES. IF YOU HAVE ANY PROBLEMS CONTACT YOUR DEALER.

ANY CHANGE OR MODIFICATIONS TO THE EQUIPMENT BY THE USER NOT EXPRESSLY APPROVED BY THE GRANTEE OR MANUFACTURER COULD VOID THE USER'S AUTHORITY TO OPERATE SUCH EQUIPMENT.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.



11. Only use attachments/accessories specified by the manufacturer.
12.  Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Battery usage **CAUTION** – To prevent battery leakage which may result in bodily injury or damage to the unit:
 - Install **all** batteries correctly, + and - as marked on the unit.
 - Do not mix batteries (**old** and **new** or **carbon** and **alkaline**, etc.).
 - Remove batteries when the unit is not used for a long time.

EL 6475-E003: 01/6

LIMITED WARRANTY

AUDIO CD RECORDER

One Year Free Labor

One Year Free Service on Parts

This product must be carried in for repair.

WHO IS COVERED?

You must have proof of purchase to receive warranty service. A sales receipt or other document showing that you purchased the product is considered proof of purchase.

WHAT IS COVERED?

Warranty coverage begins the day you buy your product. For one year thereafter, all parts will be repaired or replaced, and labor is free. After one year from the day of purchase, you pay for the replacement or repair of all parts, and for all labor charges. All parts, including repaired and replaced parts, are covered only for the original warranty period. When the warranty on the product expires, the warranty on all replaced and repaired parts also expires.

WHAT IS EXCLUDED?

Your warranty does not cover:

- labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of antenna systems outside of the product.
- product repair and/or part replacement because of misuse, accident, unauthorized repair or other cause not within the control of Philips Consumer Electronics Company.
- reception problems caused by signal conditions or cable or antenna systems outside the unit.
- a product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.
- incidental or consequential damages resulting from the product. (Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. This includes, but is not limited to, prerecorded material, whether copyrighted or not copyrighted.)
- a product that is used for commercial or institutional purposes.

WHERE IS SERVICE AVAILABLE?

Warranty service is available in all countries where the product is officially distributed by Philips Consumer Electronics Company. In countries where Philips Consumer Electronics Company does not distribute the product, the local Philips service organisation will attempt to provide service (although there may be a delay if the appropriate spare parts and technical manual(s) are not readily available).

MAKE SURE YOU KEEP...

Please keep your sales receipt or other document showing proof of purchase. Attach it to this owner's manual and keep both nearby. Also keep the original box and packing material in case you need to return your product.

BEFORE REQUESTING SERVICE...

Please check your owner's manual before requesting service. Adjustments of the controls discussed there may save you a service call.

TO GET WARRANTY SERVICE IN U.S.A., PUERTO RICO OR U.S. VIRGIN ISLANDS...

Take the product to a Philips factory service center (see enclosed list) or authorized service center for repair. When the product has been repaired, you must pick up the unit at the center. Centers may keep defective parts. (In U.S.A., Puerto Rico and U.S. Virgin Islands, all implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the duration of this express warranty. But, because some states do not allow limitations on how long an implied warranty may last, this limitation may not apply to you.)

TO GET WARRANTY SERVICE IN CANADA...

Please contact Philips at:

1-800-661-6162 (French Speaking)

1-800-363-7278 (English Speaking)

(In Canada, this warranty is given in lieu of all other warranties. No other warranties are expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose. Philips is not liable under any circumstances for any direct, indirect, special, incidental or consequential damages, howsoever incurred, even if notified of the possibility of such damages.)

REMEMBER...

Please record the model and serial numbers found on the product below. Also, please fill out and mail your warranty registration card promptly. It will be easier for us to notify you if necessary.

MODEL # _____

SERIAL # _____

This warranty gives you specific legal rights. You may have other rights which vary from state/province to state/province.

Philips Service Solutions Group, P.O. Box 2976, Longview, Texas 75606, USA, (903) 242-4800

EL4965F005 / MAC 4110 / 1-97

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Welcome !

Thank you for buying this Philips Compact Disc Recorder.

In the 1980s Philips invented a new audio system - the CD. The CD (compact disc) revealed the new dimensions of digital sound and added to the pleasure of audio.

Compact-disc technology permits a high contrast in both loud and soft passages, with perfect channel separation.

Philips has now further developed compact disc technology and the result is the CD recorder.

With your Philips CD Recordable/ReWritable Recorder, you can record, play and erase your own high-quality audio CDs, subject to legal restrictions on copying. Naturally, you will also be able to play all pre-recorded audio CDs.

Environmental information

All redundant packing material has been omitted. We have done our utmost to make the packaging easily separable into three mono materials: cardboard (box), polystyrene foam (buffer) and polyethylene (bags, protective foam sheet).

Your CD recorder consists of materials which can be recycled if disassembled by a specialized company. Please observe the local regulations regarding the disposal of packing materials, exhausted batteries and old equipment.

CAUTION

Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.

CAUTION

INVISIBLE RADIATION WHEN OPEN.
AVOID EXPOSURE TO BEAM.

Note: This warning is located inside the enclosure.

About this manual

This manual gives instructions for operating this CD recorder.

Please note:

- the digits (1) throughout the text indicate a sequence of actions necessary to perform a certain operation;
- the arrows (→) indicate the reaction from the recorder;
- the dots (○) indicate remarks, advice or special options within a sequence of actions. The dot-marked instructions are not necessary for operation.

All instructions in this manual are based on control via the buttons on the CD recorder. If there are corresponding buttons available on the remote control they can be used as well.

Technical data

Subject to modification without notice.

General

Power consumption	20 W
Power consumption in Standby	6 W
Operating temperature.....	41-95 °F
Weight.....	9.92 lbs
Dimensions.....	17.1" x 12.2" x 3.5"

Audio

Frequency response.....	2Hz-22050 Hz
Playback S/N (A-weighted)	100 dB
Playback S/N.....	100 dB
Playback dynamic range CDR.....	95 dB (90 dB)
Playback dynamic range CD	90 dB
Playback total harmonic distortion CDR.....	88 dB = 0.0033 %
Playback total harmonic distortion CD	85 dB = 0.0056 %
Channel separation	100 dB
Recording S/N (A-weighted)	98 dB
Recording S/N digital without SRC.....	equal to source
Recording dynamic range.....	92 dB
Recording total harmonic distortion + noise	85 dB (0.0056%)

Laser

Type.....	Semiconductor laser GaAlAs
Wave length.....	775-795 nm (at 77 °F)
Output power.....	2.5 mW (Read), 35 mW (Write)
Beam divergence.....	60 degrees

The type plate is located at the back of the set.

General information

Discs for recording

For recording, make sure to use special audio discs only. These discs are marked with "Digital Audio" and the logos shown below.

There are two different types of audio discs for the use on this CD recorder:

- CD-Audio Recordable (CDR) discs

These discs can be recorded on once and play in all standard CD players and CD recorders, when they are finalized.



- CD-Audio ReWritable (CDRW) discs

These discs can be recorded on, erased and re-recorded many times and play in CDRW compatible CD players and CD recorders, when they are finalized.



- All Philips CD players and CD recorders with the sticker shown here are CDRW compatible.



To ensure proper working of the CD recorder we recommend the use of Philips audio CDR and audio CDRW discs only.

Note: Do not use a computer CDR or CDRW as recording will not work!

Recording is permissible insofar as copyright or other rights of third parties are not infringed upon.

Discs for playback

Your CD recorder is able to play:

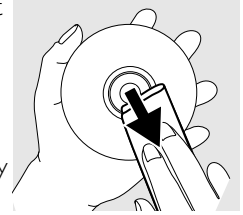
- All pre-recorded audio CDs.
- All Audio CDR and Audio CDRW.

Note: CDR(W) discs containing audio recorded with a computer can only be played when they are correctly treated according the audio standard (IEC958: Consumer part). Single session only!

Maintenance

For recording, it is very important to use discs that are free of dust and scratches.

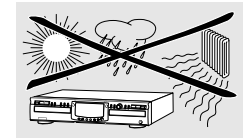
To clean a CD, wipe it in a straight line from the center towards the edge using a soft, lint-free cloth. A cleaning agent may damage the disc! Write only on the printed side of a CDR or CDRW, and only with a soft felt-tipped pen.



Clean the CD recorder with a soft, slightly dampened lint-free cloth. Do not use any cleaning agents as they may have a corrosive effect.



Do not expose the CD recorder, batteries or CDs to humidity, rain, sand or excessive heat (caused by heating equipment or direct sunlight).



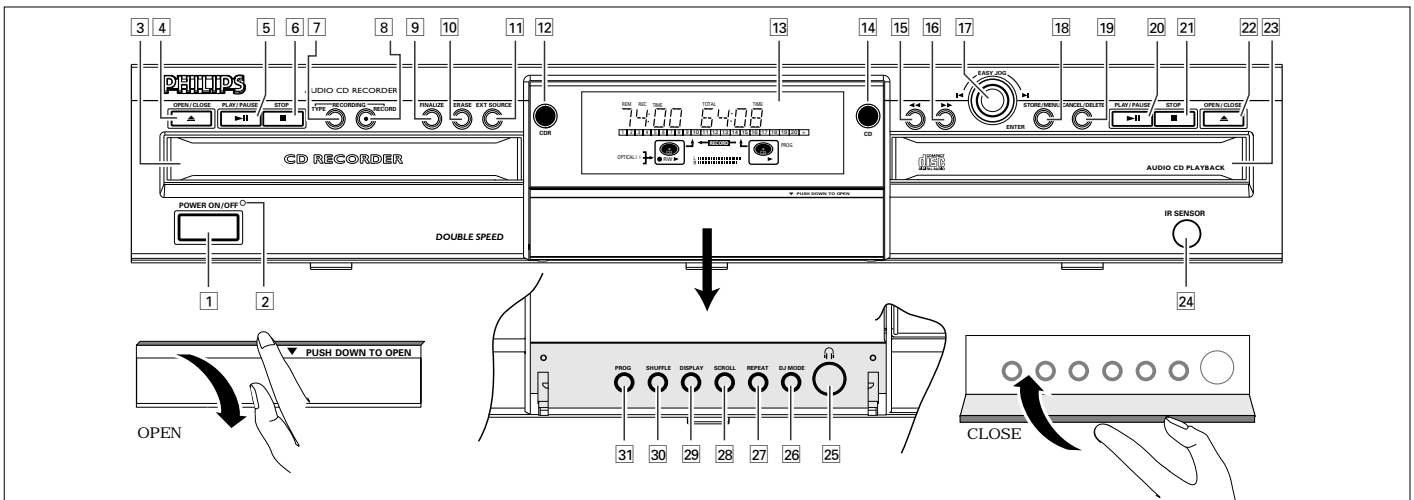
Always keep the tray closed to avoid dust on the lens.

The lens may cloud over when the CD recorder is suddenly moved from cold to warm surroundings, making it impossible to play a CD. Leave the CD recorder in the warm environment until the moisture evaporates.

Accessories

- 2 Analog audio cords (with red and white plugs)
- 1 Digital coaxial cable (with black plug)
- Power cord
- 2 Batteries
- Remote control
- Warranty

Operating buttons



Controls

CD recorder

- 1 **POWER ON/OFF**
turns the CD recorder ON or OFF (if the recorder is in Standby mode, any button press will activate the CD recorder)
- 2 Standby indicator
- 3 CD Recorder disc tray
- 4 **OPEN/CLOSE ▲**
opens/closes disc tray
- 5 **PLAY/PAUSE ►||**
starts play/interrupts play or recording
- 6 **STOP ■**
stops/clears a program
- 7 **RECORDING-TYPE**
selects recording modes
- 8 **RECORDING-RECORD**
starts recording, finalizing, erasing
- 9 **FINALIZE**
selects finalize mode
- 10 **ERASE**
selects erasing mode (disc or track)
- 11 **EXT SOURCE**
selects external input source (e.g. Analog input, Digital input)
- 12 **CDR**
selects CD recorder deck display/buttons

CD player

- 14 **CD**
selects CD player deck display/buttons
- 20 **PLAY/PAUSE ►||**
starts play/interrupts play
- 21 **STOP ■**
stops/clears a program
- 22 **OPEN/CLOSE ▲**
opens/closes disc tray
- 23 CD Player disc tray

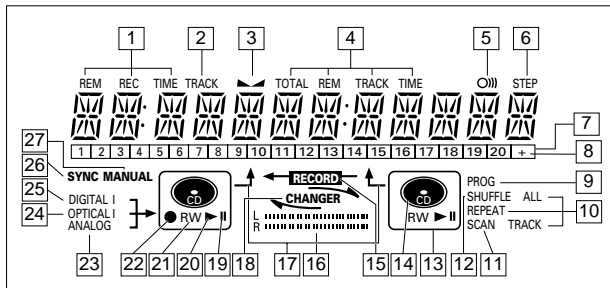
General

- 13 Display; information screen
- 15 ◀◀ - searches backward
- cursor control in Menu/Prog. review mode
- 16 ▶▶ - searches forward
- cursor control in Menu/Prog. review mode
- 17 ◀ **EASY JOG** ▶ (rotate)
- previous/next track (Play and Program mode)
- recording level control (recording)
- selects settings (menu on)
ENTER (push)
- plays selected tracks
- selects settings in Menu mode
- programs track numbers
- starts unfinalizing
- 18 **STORE/MENU**
- stores Menu settings
- enters Menu mode
- 19 **CANCEL/DELETE**
- deletes tracks from a program
- deletes text in Menu mode
- returns to a higher level in the menu
- 24 **IR sensor**
receives signals from the remote control
- 25 jack for headphones
- 26 **DJ MODE**
separate play of CD recorder deck and CD player deck
- 27 **REPEAT**
repeats play (All, program or track)
- 28 **SCROLL**
activates scrolling of text over the display (once)
- 29 **DISPLAY**
selects display information, permanent text scrolling and time
- 30 **SHUFFLE**
plays CD(RW) or program in random order
- 31 **PROG**(ram)
opens/closes program memory

Note: Unless stated otherwise, all controls are on the front of the CD recorder. When provided on the remote control, you can also use the corresponding buttons, after selecting the CD recorder deck or CD player deck by pressing CDR or CD.

Display

DISPLAY indications



1 **REM/REC TIME**
remaining time/remaining recording time/recording time

2 **TRACK**
track number

3 balance (lights during balance adjustment)

4 **TOTAL REM TRACK TIME**
total or remaining time of disc or track

5 O)))
remote control active

6 **STEP**
indicates the number of tracks in a program

7 **Track bar**
indicates:
- tracks on a disc or in a program
- track in play

8 **+ 20**
disc or program contains more than 20 tracks

9 **PROG**(ram)
flashes during programming/lights in program mode

10 **REPEAT TRACK/ALL**
lights up when a track/ complete disc (or program) is repeated

11 **SCAN**
lights up when the first 10 seconds of each track are played

12 **SHUFFLE**
plays tracks in random order

13
CD player deck selected

14
CD inserted (a pre-recorded CD or finalized CDR or CDRW disc)

15 **←RECORD→**
lights during recording from the internal CD

16 **L/R III**
(record/play) level bar: Indicates the audio signal level

17
DJ mode selected

18 **←CHANGER→**
changer mode selected

19 **||**
pause function active

20
lights during play

21 **R(W)**
unfinalized CDR(W) disc inserted

22
lights during recording

23 **ANALOG**
- analog input selected for **external** recording
- analog recording in case a disc is copy protected

24 **OPTICAL I**
optical input I selected for external recording

25 **DIGITAL I**
digital input I selected for external recording

26 **SYNC**
automatic or synchronised start of external recording

27 **MANUAL**
track increments can be added manually during manual recording from external analog source (AUTO TRACK set to OFF)

DISPLAY messages

Messages, as listed and explained here, may appear on the display for your guidance.

General

READING

reading disc information

OPEN

during tray opening

CLOSE

during tray closing

NO DISC

no disc inserted, disc unreadable or disc inserted upside down

PROG FULL

program full

INSERT DISC

insert disc or insert disc correctly

WRONG DISC

inserted disc is not an audio CD

UNFINALIZED

unfinalized CDR(W) disc

MEMORY XXù

indicates the amount of text memory used for unfinalized discs

Recording

WAIT

- when STOP ■ is pressed during recording
- when STOP ■ is pressed during recording the first 4 seconds of a track

UPDATE

updating disc contents

DISC FULL

no more recording possible

DIGITAL 1

digital coaxial input 1 selected

OPTICAL

digital optical input selected

ANALOG

analog input selected

COPY PROTECT

no digital recording can be made of the external source

NOTFINALIZED

when opening the tray with an unfinalized disc inserted (CD recorder)

RECORD FAST

high speed recording selected

REC LISTEN

listen speed recording selected

MAKE CD

high speed recording of a complete disc and Auto Finalize function selected

REC EXT DISC

synchronized start of recording from external source selected

REC EXT MAN

manual start of recording from external source selected

_XX DB

level is being adjusted

DOES NOT FIT

time left on CDR(W) disc is not enough for proposed recording

ANALOG REC

copy prohibited track found during recording. Track will be copied analog (Copy Protection Regulations)

ERASE TRACK

when erasing one or more tracks

ERASE DISC

when erasing a disc

FINALIZE CD

when finalizing a disc

FINALIZED

when trying to finalize an already finalized disc

CHECK INPUT

when RECORD is pressed while no digital source is detected

XX XX ERASE

time countdown when erasing a track or a disc

XX XX FINAL

time countdown when finalizing a disc

PRESS RECORD

to start manual recording, finalizing or erasing

START SOURCE

to start synchronised recording from a source (e.g. CD player)

FINALIZED CD

when trying to record on a finalized CDR or a prerecorded CD

UNFINALIZE/PRESS ENTER

when trying to record on a finalized CDRW

PROF SOURCE

when a professional source is connected

REC TEXT

when reading CD text from source disc for recording

TEXT PROTECT

when CD text of source disc is subjected to copy protection (CD text will not be recorded)

Display

Play

CHANGER MODE

CD changer-mode selected

DJ-MODE

DJ- mode selected when recording buttons are pressed in DJ-mode

PROGRAM

program mode selected

ALBUM TITLE

will be followed by album title

TRACK TITLE

will be followed by track title

ALBUM ARTIST

will be followed by artist name

TRACK ARTIST

will be followed by track artist name

Others

NO AUDIO TR

when the recorder enters a data track during recording

FINALIZE CD

laser power calibration performed 96 times, finalize disc needed

INITIALIZING

during laser power calibration for unfinalized discs

DISC RECOVER

during disc recovering after power failure

OPC ERROR

OPC failure during OPC procedure (OPC = Optimum Power Calibration)

RECORD ERROR

recording error in menu mode

DISC ERROR

when trying to record on or finalize a recovered disc

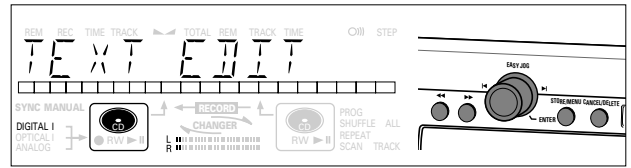
MEMORY FULL/FINALIZE CD

when text memory is full. To add a CD to the list, first finalize or erase another disc from the list

NOT POSSIBLE

when trying to erase a CDR

MENU messages - See Menu mode



Menu messages

NO TRACKS

when attempting to edit text for a disc which has no tracks

TEXT EDIT

when entering Text Edit mode

ALBUM ARTIST

when editing or erasing an artist name

ALBUM TITLE

when editing or erasing a title

ARTIST TR N

when editing or erasing an artist name per track

TITLE TR N

when editing or erasing a title per track

TEXT ERASE

when entering Text Erase mode

ALL TEXT

when entering AllText mode

ERASE OK

when confirmation for erasing has to be given with ENTER button

ERASE ALL OK

when confirmation for erasing has to be given with ENTER button

ERASE MEMORY

when waiting for confirmation when erasing a disc

MEMORY VIEW

when selecting text review per unfinalized disc in memory

MEMORY EMPTY

when REVIEW is selected while no text is in memory

AUTO TRACK

when selecting auto track increment ON or OFF

ON

auto track increment on

OFF

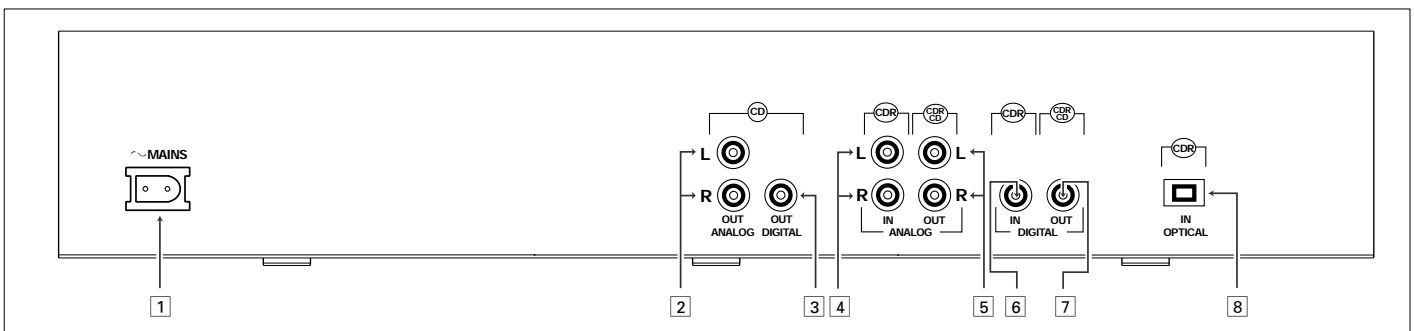
auto track increment off

SET BALANCE

when selecting BALANCE

NO TEXT

no text stored for disc



Which connections do you need?

For playback on the CD recorder

(and/or CD player deck) the following outputs are present:

- Digital coaxial output (CD & CDR - DIGITAL OUT) [7];
- Analog output (CD & CDR - ANALOG OUT) [5].

We advise you to connect these to the TAPE or CDR input on your amplifier.

For recording from internal player deck no connections are needed.

For external recording the following inputs are present:

- Digital optical input (CDR - OPTICAL IN) [8];
- Digital coaxial input (CDR - DIGITAL IN) [6];
- Analog input (CDR - ANALOG IN) [4].

For playback of CD player deck separately

(DJ mode) from the CD recorder the following outputs are present:

- Digital coaxial output (CD) [3];
- Analog output (CD) [2].

The connections you make will depend upon the possibilities your audio equipment offers. Please refer to the user manuals for your other audio equipment first.

Digital recordings (optical or coaxial) give the best performance in audio and usability (e.g. auto-track increment). The digital optical connection is less sensitive to external disturbances.

We advise you to always establish both digital and analog connections. This will mean that analog recordings can always be made when digital recording is not possible.

We have described the most common ways of connecting the CD recorder. If you still have difficulties with the connections, please contact the Philips Consumer Service desk in your area.

Explanation of connections

- 1 Connection to main supply (AC power)
- 2 **ANALOG OUT CD**
connects to the line (analog) input of an amplifier/receiver, so you can listen to playback of the CD player deck via the amplifier/receiver (only needed for separate playback of CD player deck in DJ mode)
- 3 **DIGITAL OUT CD**
connects to the digital coaxial input of an amplifier/receiver, so you can listen to playback of the CD player deck via the amplifier/receiver (only needed for separate playback of CD player deck in DJ mode)
- 4 **ANALOG IN CDR**
Note: It is not possible to connect a record player directly to the CD recorder. Recordings can only be made from a record player connected via amplifier or receiver.
connects to the line (analog) output of an amplifier/receiver or other analog source (tape deck, tuner etc.), so you can record from this source (ANALOG). For recording from a record player both recorder and record player should be connected to an amplifier/receiver
- 5 **ANALOG OUT CD & CDR**
connects to the line (analog) input of an amplifier/receiver, so you can listen to playback of this CD recorder via the amplifier/receiver
- 6 **DIGITAL IN CDR**
connects to the digital coaxial output of an external digital source (CD player, DVD, DAT, etc.), so you can record from this source (DIGITAL1)
- 7 **DIGITAL OUT CD & CDR**
connects to the digital coaxial input of an amplifier/receiver, so you can listen to playback of the CDR or CD deck via the amplifier/receiver
- 8 **OPTICAL IN CDR**
connects to the digital optical output of an external digital source (CD player, DVD, DAT, etc.), so you can record from this source (OPTICAL)

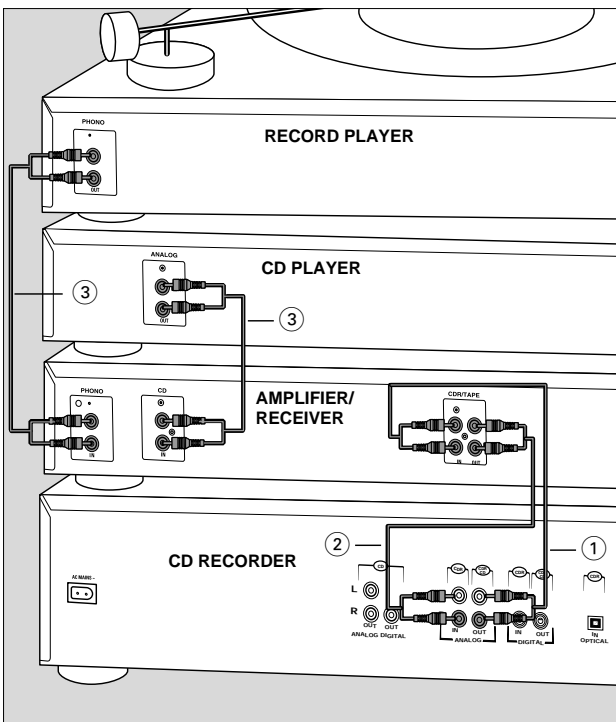
How to connect your recorder

Tip:

If the integrated CD player deck will be the only source from which you are going to record, just connect the analog output for playback of the CD recorder to your amplifier/receiver (cord 1).

Analog connections

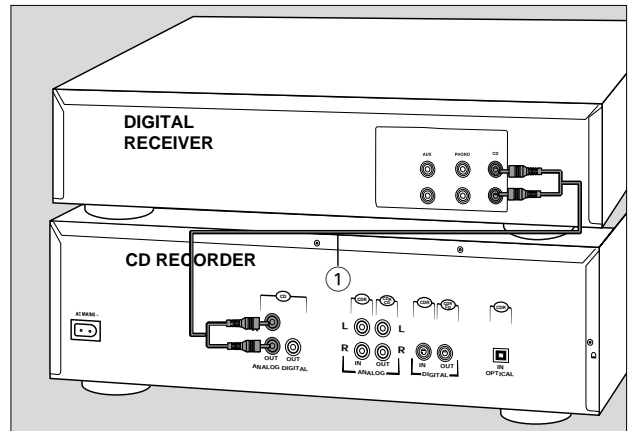
These connections are required for playback on the CD recorder deck as well as the CD player deck (cord 1). Cord 2 is required for making recordings from an external analogue source (e.g. via amplifier: cassette deck or turntable).



- 1 Connect supplied audio cord between the ANALOG OUT-jacks on the CD recorder and the ANALOG input jacks of the amplifier/receiver (TAPE, CD-R, AUX or PLAY IN, LINE IN). Insert the red plugs into the R jacks, and the white plugs into the L jacks.
- 2 Connect supplied audio cord between the ANALOG IN-jacks on the CD recorder and the analog outputs of the amplifier/receiver (CDR OUT, TAPE OUT, AUX OUT, REC OUT, LINE OUT etc.). Insert the red plugs into the R jacks, and the white plugs into the L jacks.
- 3 Connect all other components of your system (tape deck, CD player; tuner; record player etc.) via their ANALOG OUT-jacks to the appropriate analog input jacks of the amplifier/receiver (CD IN, TUNER IN, AUX IN, PHONO IN etc.).
→ Any analog device, connected to the amplifier/receiver can now be used as recording source (ANALOG).

Analog connection CD player deck (DJ-mode)

This connection is only required if you want to playback on the CD player deck separately from the CD recorder deck. This will be the case in DJ-mode.



- 1 For separate playback on the CD player deck, connect a third cord 3 (not supplied) between the ANALOG OUT jacks of the CD recorder and the input jacks of an amplifier e.g. CD, or AUX. Insert the red plugs into the R jacks, and the white plugs into the L jacks.

Notes:

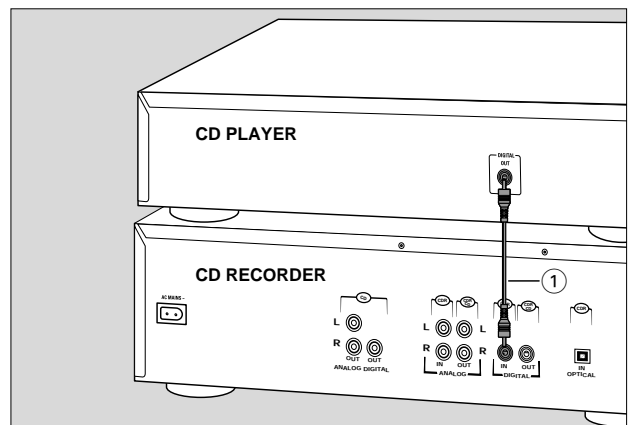
Never use the PHONO input.

Your CD recorder/player is equipped with a digital coaxial output for the CD player deck. This output can be used for digital playback.

Digital connections

Digital coaxial connection

This connection is only required for direct recording from an external digital coaxial source (e.g. a CD player, DVD, DAT).

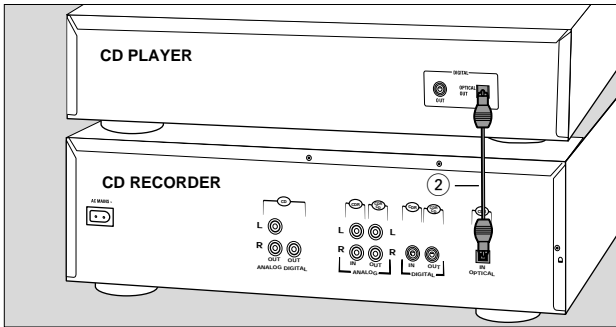


- 1 Connect a digital coaxial cord between the DIGITAL IN-jack on the CD recorder and the DIGITAL OUT jack of the digital source.
→ Recording can now be done via the digital coaxial input (DIGITAL1).

How to connect your recorder

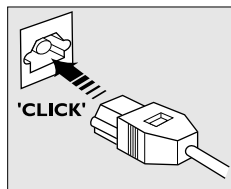
Digital optical connection

Instead of the digital coaxial connection you can make use of the optical input. Optical connections are less sensitive to external disturbances. This connection is required for direct recording from an external digital optical source (e.g. a CD player, DVD, DAT).



- 1 Remove the dust caps from the digital optical connections of both source and CD recorder. Keep the caps in a safe place.

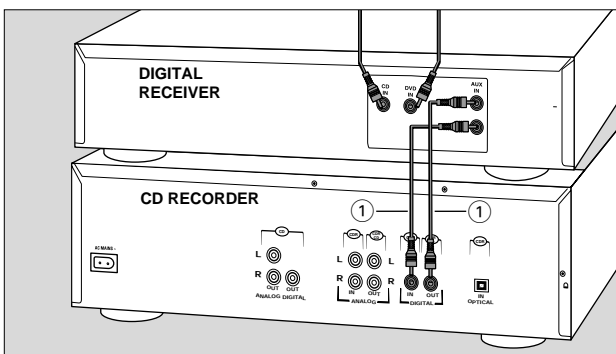
- 2 Connect an optical fibre-optic cord between the OPTICAL IN jack of the CD recorder and the OPTICAL OUT jack of the source. Make sure you insert both plugs fully, until a click is heard.



→ Recording can now be done via the digital optical input (OPTICAL).

Digital coaxial connections via a digital receiver

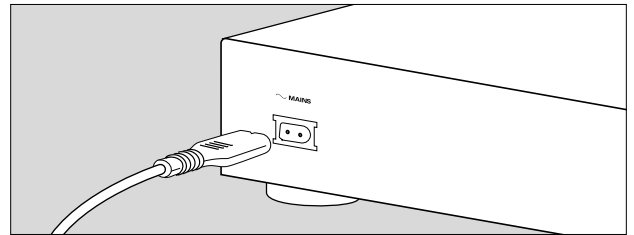
If you have a receiver with digital coaxial in- and outputs, these connections allow you to make digital recordings from various sources, connected to the receiver.



- 1 Connect a digital coaxial cord between the DIGITAL IN- and OUT jacks on the CD recorder and e.g. the (digital) AUX in- and output jacks on the digital receiver.
→ Any digital device, connected to the digital input jacks of the digital receiver (e.g. CD and DVD) can now be used as recording source.

Note: Your CD recorder is equipped with a digital coaxial output (common output for CD recorder & CD player deck). This output can be used for digital playback.

AC Power supply



- 1 Check whether the AC power voltage as shown on the type plate corresponds to your local power voltage. If it does not, consult your dealer or service organisation.
- 2 Make sure all connections have been made before switching on the AC power supply.
- 3 Plug the power cord supplied into the AC POWER ~ connector and the CD recorder, then into the wall jack.
- 4 Press POWER ON/OFF.
→ The CD recorder will switch on. This may take a few seconds.

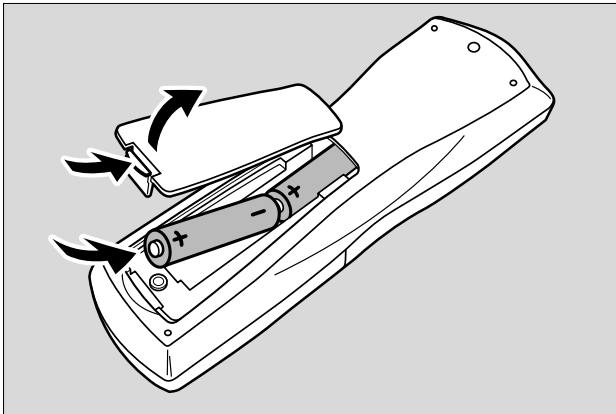
Notes:

If the CD recorder is in Standby mode (red LED on), press any button to activate the recorder.

When the CD recorder is in the "OFF" position, it is still consuming some power. If you wish to disconnect your CD recorder completely from the power, withdraw the plug from the AC Outlet.

Remote control

Inserting batteries in the remote control

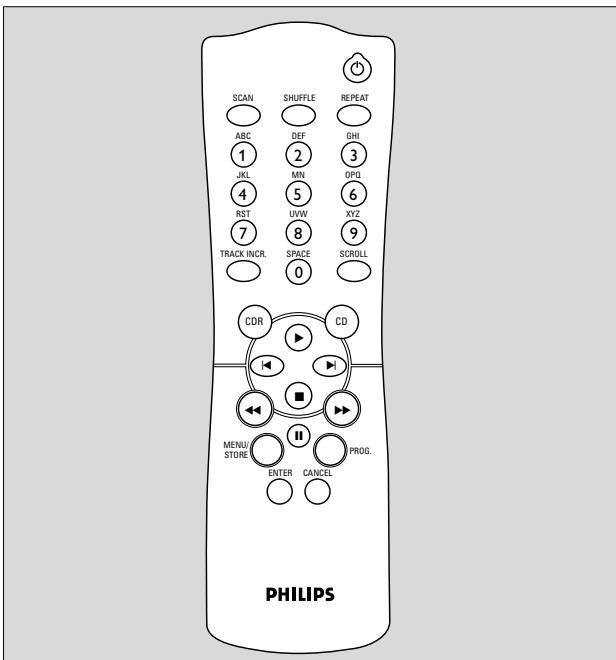


- 1 Open the battery compartment cover.
- 2 Insert 2 batteries (AA, LR6 or UM-3; as supplied) as shown.
- 3 Replace the cover:

Note: We recommend you use 2 batteries of the same type and condition.

Batteries contain chemical substances, so they should be disposed of properly.

Remote control commands



Note: First select the deck you want to control by pressing the selection button CDR or CD.

STANDBY

switches to Standby/On/Off

SCAN

plays the first 10 seconds of each track

SHUFFLE

plays CD(RW) or program in random order

REPEAT

repeat play

Number/alphabet buttons 0 - 9

- selects a track by number
- selects character for text input

TRACK INCR(ement)

increases track numbers during recording

SCROLL

activates scrolling of text over the display

CDR

selects CD recorder deck

CD

selects CD player deck



starts CD(RW) play



previous track (Play and Program mode)

- cursor control in Menu/Prog. review mode



next track (Play and Program mode)

- cursor control in Menu/Prog. review mode



stops CD(RW) and clears a program



- searches backward

- cursor control in Menu/Prog. review mode



- searches forward

- cursor control in Menu/Prog. review mode



interrupts CD(RW) play/recording

MENU/STORE

- enters Menu mode

- stores Menu settings

PROG(ram)

opens/closes program memory

ENTER

- selects settings in Menu mode

- programs track numbers

- starts playback of selected track

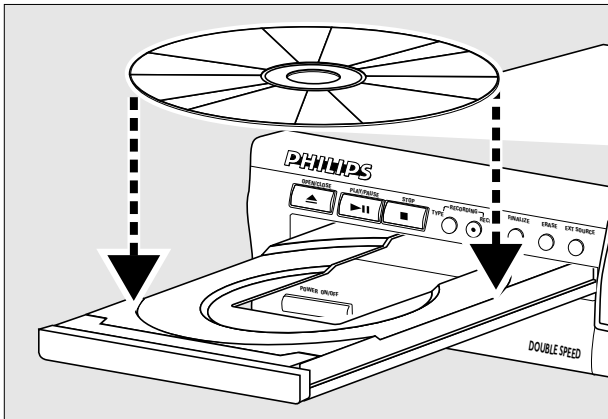
CANCEL

- deletes tracks from a program

- deletes text in Menu mode

- returns to a higher level in the menu


Inserting discs



Important!

1) This CD recorder is designed for regular CD(RW)s. Therefore, do not use any accessories such as disc stabilizer rings or CD treatment sheets, etc. as offered on the market, because they may cause jamming of the changer mechanism.

2) Do not load more than one disc into one tray.

- 1** Press OPEN/CLOSE to open the disc tray.
→ OPEN lights up.
 - 2** Insert a CD, CDR or CDRW in the appropriate recess in the tray, label side up.
 - 3** Press OPEN/CLOSE to close the tray (see also Playing a CD).
→ CLOSE lights up, followed by READING the display will show the type of disc that has been inserted.
- If a blank or partly-recorded CDR or unfinalized CDRW is inserted, the CD recorder will calibrate the disc for optimum recording. During this process the display will first show **INITIALIZING** and then the number of audio tracks. Calibration can take up to 25 seconds.
 - If a CDR(W) is finalized,  will show on the display.
 - If CD-text is available the **ALBUM/ARTIST** will scroll by.

Notes:

*Only Audio CDs will be accepted. If a non-audio disc is inserted, the display will show: **WRONG DISC/USE AUDIO CD.***

For recording it is important that the blank disc is completely free from dust particles or scratches (see maintenance).

Recording general

Introduction

You will soon discover how easy it is to make your own CDs. Your recorder offers several recording modes:

For recording from internal CD-deck:

RECORD FAST (high speed digital recording)

- fast recording of a disc or programmed tracks.

REC LISTEN (normal speed digital recording)

- listening to a recording while making it.

MAKE CD (high speed digital recording and auto-finalize)

- fast recording of a disc or programmed tracks.

Recording will be finalized automatically.

For recording from external sources:

REC EXT DISC (automatic start of recording)

- to make an automatic recording of an external source simply by starting the source.

REC EXT MAN (manual start of recording)

- to start a manual recording from an external source simply by pressing the RECORD button.

Important: Use only discs with CDR AUDIO only or CDRW AUDIO only logo. Discs for use in a personal computer's CD-(re)writer cannot be used in an Audio CD-recorder.

If you want to play the recorded CDR disc on a regular CD player, it must be finalized.

Finalizing is a simple procedure, necessary to:

- be able to play recordings on a CD PLAYER,
- avoid further unwanted recordings on a disc,
- avoid erasure of tracks on a CDRW,
- write CD text on a CDR(W).

Finalized CDRW discs play only on CDRW compatible CD players.

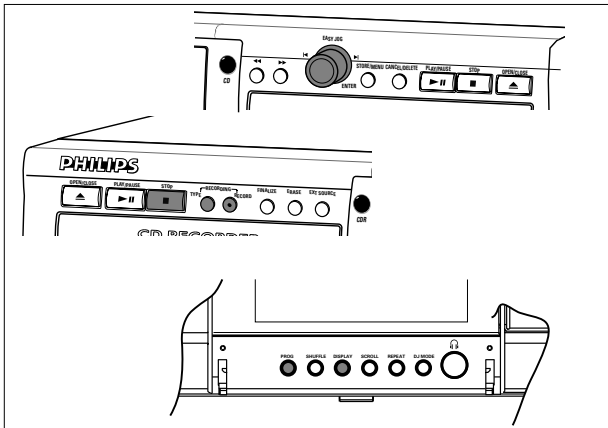
General information on recording

It is advisable to use a CDRW disc for your first try.

- During high speed recording, the original recording quality will be maintained.
 - When Auto track is on (default setting), track numbers will automatically be increased during recording.
 - By programming tracks first, a compilation can be recorded.
 - If a finalized CD recordable disc is inserted in the CD recorder, **FINALIZED** CD will be displayed when **TYPE** is pressed. Recording will not be possible.
 - If a finalized CD rewritable disc is inserted in the CD recorder, **UNFINALIZE** and **PRESS ENTER** will be displayed when the **TYPE** is pressed. If **ENTER** is pressed, the disc will be unfinalized.
 - The recording procedure is the same for CDRs and CDRWs.
 - The CD recorder deck is able to record CD text from the internal CD player deck only. (If not subject to copy protection)
 - There must be at least 7 seconds of recording time left on the disc, otherwise you will not be able to enter record standby mode. **DISC FULL** will then show on the display.
 - If the display indicates **COPY PROTECT** no digital recording can be made of the source material. Recording will not start.
 - The Serial Copy Management System (SCMS) only allows digital recording under specific conditions:
 - This means that it is not possible to make a digital copy from a digital copy.
 - Analog recording is always possible !
 - The number of recordings to be made from the original is unlimited.
- Note: If during recording **ANALOG REC** appears, the track will be recorded as analog, at normal speed. All other tracks will be copied normally (at double speed).*
- A maximum of 99 tracks can be recorded on a disc. Minimum allowable track length is 4 seconds.
 - For external recordings from CD changers always use **REC EXT DISC**.

How to record from the internal deck

Recording an entire CD



The MAKE CD recording mode is a fast and easy way to copy an entire CD. During high speed recording the sound is not audible.

Important: After this recording the disc is finalized and cannot be recorded on anymore.

1 Preparing

- Place an unfinalized CDR(W), absolutely free of scratches and dust particles in the CDR tray. Place the disc from which you want to record in the right CD tray.
 - With the CD recorder stopped, press TYPE three times to select MAKE CD for recording of an entire CD or a program of tracks and to automatically finalize the recording.
 - The display first shows MAKE CD. The ←RECORD→ label starts blinking. After 3 seconds the display shows the remaining CDR(W) recording time on the left and total time of source on the right. (every 2 seconds PRESS RECORD is displayed.)
- If DOES NOT FIT appears on the display, there is not enough recording space on the CDR(W) disc. You can press RECORD: only complete tracks that still fit on the CDR(W) will be recorded.

3 Recording

- Press RECORD to start recording.
 - WAIT lights up. The display shows the total remaining time for the selected recording. High speed recording starts. ←RECORD→ lights continuously.
- To check the track number and track time, press DISPLAY. This can be done during recording.
 - Recording will stop automatically.

Note: Copy prohibited tracks will be copied analog. ANALOG REC is displayed.

- 4 To stop recording manually, press STOP ■.
 - UPDATE lights up, ←RECORD→ goes out and recording stops. (Minimal track length must be 4 seconds otherwise silence will be added to the track.)
- If STOP ■ was pressed within 3 seconds after RECORD, no recording will take place.

After recording, the display shows UPDATE for several seconds. The Total time indications can differ slightly. However, no music information is lost.

Notes:

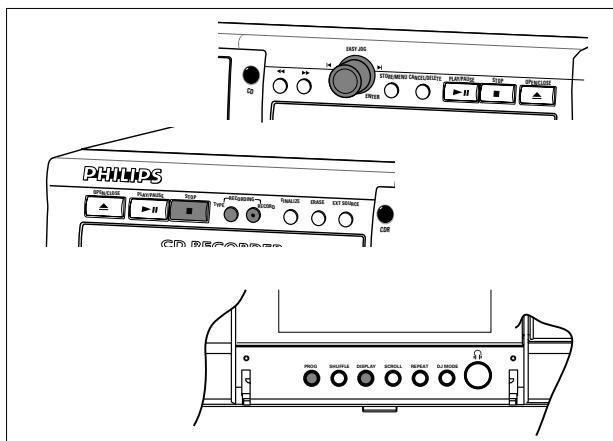
In this Recording mode, the Pause function is not operative. We advise you to leave the recording level at its factory setting (0 dB). If the recording level is too low, check if the setting is 0 dB with the EASYJOG.

Finalizing

- In 'MAKE CD' recording mode your disc will be automatically finalized, so it can be played on any CD player.
- After recording, the display shows UPDATE for several seconds. Finalizing starts and the display shows FINAL and the remaining finalization time. The Total time indications can differ slightly. However, no music information is lost.

How to record from the internal deck

Recording a single track



These recording modes are ideal for recording tracks from several CD's. If you are making a compilation CD you can do it either at high speed (**RECORD FAST**) or while listening to the tracks (**RECORD LISTEN**). Finalization is not executed automatically.

1 Preparing

Place an unfinalized CDR(W), absolutely free of scratches and dust particles in the left CDR tray.

Place the disc from which you want to record in the right CD tray.

2 With the CD recorder stopped, press **TYPE** one time to select **RECORD FAST** or two times to select **RECORD LISTEN**.

→ The display first shows **RECORD FAST** or **RECORD LISTEN**.

The **←RECORD-** label starts blinking. After 3 seconds the display shows the remaining CDR(W) recording time on the left and total time of source on the right. (every 2 seconds **PRESS RECORD** is displayed.)

3 Program the track(s) for recording.

Press **PROG** to select one or more tracks for recording (see programming):

- rotate the **EASY JOG/ENTER** button to the required track number; then press the button (or **ENTER** on the remote control) or
- directly select the track number via the 10-keypad on the remote control, then press the **ENTER** button to confirm your selection and go to the next step.

4 Press **STOP** ■ or **PROG** to end programming.

→ **PROG** lights continuously.

Recording

5 Press **RECORD** to start recording the program.

→ **WAIT** lights up. The display shows the total remaining time for the selected recording. High speed recording starts. **←RECORD-** lights continuously.

- For recording from the internal deck (**RECORD FAST**, **REC LISTEN** or **MAKE CD**) we advise you to leave the recording level at its factory setting (0 dB).

Note: It is possible to equalise the recording level of tracks recorded from different CD's. See the next paragraph.

- To check the track number and track time, press **DISPLAY**. This can be done during recording.
- Recording will stop automatically.

*Note: Copy prohibited tracks will be copied analog. **ANALOG REC** is displayed.*

- 6 To stop recording manually, press **STOP** ■.
- **UPDATE** lights up, **←RECORD-** goes out and recording stops. (Minimal track length must be 4 seconds otherwise silence will be added to the track.)

- 7 Press **STOP** ■ one more time to remove the program of tracks, if any.

- 8 Insert a new disc from which you want to record and resume at step 1.

- If **STOP** ■ was pressed within 3 seconds after **RECORD**, no recording will take place.
- After recording, the display shows **UPDATE** for several seconds. The Total time indications can differ slightly. However, no music information is lost.

Note: In this Recording mode, the Pause function is not operative.

Finalizing

If you want to play the recorded CD(RW) on a normal CD player; you must first finalize the disc. Please note that you cannot add anymore tracks on a finalized CDR. See Finalizing CDR and CDRW discs. When all tracks are recorded you can finalize the CDR(W) disc:

- 9 With the recorder stopped press **FINALIZE**.
- The display shows **FINALIZE CD** and **PRESS RECORD**.

- 10 Press **RECORD**.
- **XX XX FINAL** and the approximate finalization time appear on the display.

- The display counts down through the finalization. On completion, the total number of tracks and the total time recorded appears on the display.

- For CDR(W),  changes to  on display.

Notes:

Finalizing will take at least 2 - 4 minutes.

During finalization, the CD recorder accepts no operating commands.

When a CDR is finalized no more recordings can be added.

Adjusting recording level

Recording from internal deck

Set the recording level, if necessary, to make compilations from different discs with equalized volume levels. Pre-recorded CD's often have different volume levels. When playing back your compilation you could hear these differences in volume between tracks.

Amplifying a of digital audio information stream will distort the audio signal. This means that digital signals can only be decreased in volume to obtain equal audio levels for different tracks. Our advise is to record all tracks on -3dB (or lower if needed). In this way it is possible to

- increase (0 dB is maximum) the volume level for those tracks with a weaker signal,
- decrease (-3 dB or less) the volume level for those tracks with a stronger signal.

For pre-listening you need to make a test recording with a CDRW disc in the left disc tray:

- 1** After pressing the TYPE button rotate the EASY JOG/ENTER button to decrease the level (e.g. -3dB) for the track(s) of the first disc.
- 2** Press RECORD to record a track.
- 3** Press STOP ■.
- 4** Listen to the track(s) of the next disc to determine the recording level.
- 5** Press the TYPE button, rotate the EASY JOG/ENTER button to increase/decrease the recording level and repeat step **2** and **3**.
- 6** Judge the various recording levels from your test recording. Now you are able to make a final recording and preset the correct recording level of each individual track before you record it.
- 7** Place the CDR(W) disc on which you want to make your final recording.

Notes:


During recording it is possible to adjust the recording level with the EASY JOG/ENTER button.

The adjusted recording level is stored in the memory of your recorder (also when powered off!).

During RECORD FAST mode no sound and therefor no adjustments are audible.

Recording from external source

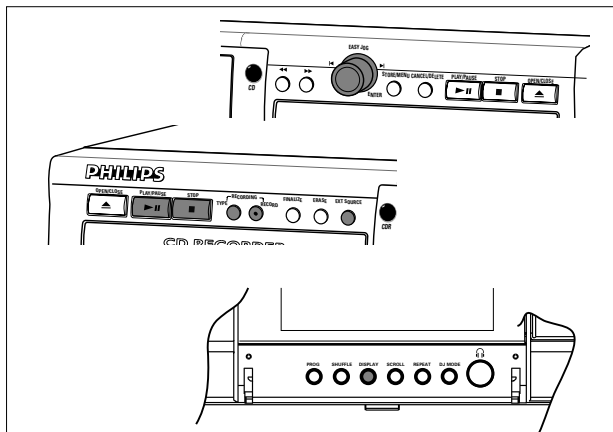
Some external analog sources have such high output levels, that you may need to adjust the recording level to ensure good quality recordings without distortion.

- 1** Place an unfinalized CDR(W), absolutely free of scratches and dust particles in the left CDR tray.
- 2** Press EXT SOURCE repeatedly to select the ANALOG input
→ **ANALOG** lights up and **ANALOG** will appear on the display.
- 3** With the CD recorder stopped, press TYPE five times to select REC EXT MAN.
→  starts to flash and the display shows
PRESS RECORD.
- 4** Start the source by pressing PLAY/PAUSE ►||.
DO NOT start recording!
- 5** Rotate the EASY JOG/ENTER button to decrease the record level until, on the Record/Play Level bar, all the blue segments are alight, but the red segments do not light continuously during the loudest passages.
- 6** Press STOP ■ on the CD recorder and on the source.
→ The adjusted recording level is stored in the memory of your recorder (also when powered off!).

Note: The recording level can also be adjusted for digital or optical recordings after selecting the DIGITAL 1 or OPTICAL input.

How to record from an external source

Recording from LP's or cassettes



Make sure that the turntable or cassette deck is connected with its analog out connectors to the amplifier/receiver which is connected to the analog in connectors of your CD-recorder: connection is ANALOG.

Note: It is not possible to connect a turntable directly to the CD recorder.

Track increments

- For recordings from 'noisy' external analog sources like LP or cassette tapes we strongly recommend to switch Auto Track to OFF and insert track numbers manually.
- Auto Track is default switched on. If you wish to switch Auto Track off or on:

- 1** Press STORE/MENU.
→ TEXT EDIT will appear on the display.
- 2** Rotate the EASY JOG/ENTER button to select the AUTO TRACK submenu.
→ AUTO TRACK will appear on the display.
- 3** Press EASY JOG/ENTER to confirm.
→ ON or OFF will appear on the display.
- 4** Turn the EASY JOG/ENTER button to select Auto track ON or OFF.
- 5** Press EASY JOG/ENTER to confirm.
→ AUTO TRACK will appear on the display.
- 6** Press STOP ■ to exit.

During analog and digital recording, you can always insert track numbers manually by pressing TRACK INCR. on the remote control. The minimum track length is 4 sec. Track numbers cannot be changed after recording.

Tip:

For the best recording results we advise you to first make a recording onto a CDRW (rewritable) disc. If for instance you forgot to add track increments or made another mistake during recording this can always be corrected. When your recording is complete and correctly recorded:

- finalize the CDRW disc
- record this disc onto a CDR (recordable) disc, using the 'Make CD' function. (See paragraph 'Recording an entire CD')

Preparing

- 1** Place an unfinalized CDR(W), absolutely free of scratches and dust particles in the left CDR tray.
- 2** Press EXT SOURCE repeatedly until ANALOG lights up and ANALOG appears on the display.
- 3** With the CD recorder stopped press TYPE five times to select REC EXT MAN.
→ The display shows REC EXT MAN followed by WAIT. If MANUAL starts to flash you can insert track increments manually (AUTO TRACK is set to OFF). After a few seconds PRESS RECORD followed by the remaining time and track number appear on the display.
- You can record a 3-second silence at the start of a track by pressing PLAY/PAUSE ►|| on the CD recorder before starting the recording.

Recording

- 4** To start recording, press RECORD on the CD recorder and immediately start the turntable.
→ ⌂ lights continuously. The track number and recording time will appear on the display.
- To interrupt recording, press PLAY/PAUSE ►|| on the CD recorder:
→ ⌂ starts to flash. Resume at step 4.
- 5** To stop recording, press STOP ■ on the CD recorder.
→ UPDATE lights up and ⌂ goes out.

After recording the display will show UPDATE for several seconds.

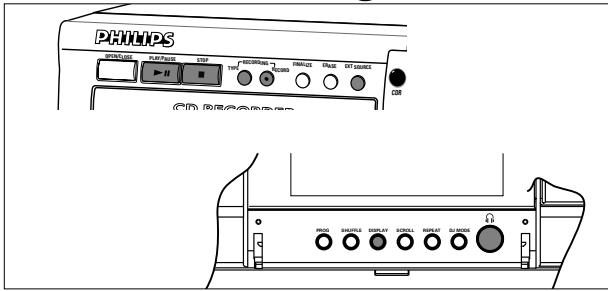
Note: With AUTO TRACK OFF, the recording will not stop automatically.

Finalizing

If you want to play the recorded CD(RW) on a normal CD player, you must first finalize the disc. Please note that you cannot add anymore tracks on a finalized CDR. See Finalizing CDR and CDRW discs.

How to record from an external source

Autostart recording



This feature enables you to make fast and easy recordings of an external source. The recorder will detect the start of the source and track increments are automatically detected from digital source material. Track increments can be added manually.

1 Preparing

- 1 Place an unfinalized CDR(W), absolutely free of scratches and dust particles in the left CDR tray.

- 2 Press EXT SOURCE repeatedly to select the type of connection to your source of recording:

→ **DIGITAL I**, **OPTICAL I** or **ANALOG** lights up and **DIGITAL 1**, **OPTICAL** or **ANALOG** appears on the display.

Examples:

- CD-player is connected with its digital out connector directly to the digital in connector of your CD-recorder: connection is **DIGITAL I**.
- CD-player is connected with its analog out connectors directly to analog in connectors of your CD-recorder: connection is **ANALOG**.
- Turntable is connected with its analog out connectors to amplifier/receiver which is connected to the analog in connectors of your CD-recorder: connection is **ANALOG**.

- 3 With the CD recorder stopped press TYPE four times to select **REC EXT DISC**.

→ **SYNC** starts to flash and the display shows **REC EXT DISC** followed by **WAIT**. After a few seconds **PRESS RECORD** followed by the remaining time and track number appear on the display.

- If **CHECK INPUT** message and the input label **DIGITAL I** or **OPTICAL I** also flashes, switch on the external source, check the digital connection or select the right input with the **EXT SOURCE** button.

- You can record a 3-second silence at the start of a track by pressing **PLAY/PAUSE** ►► on the CD recorder before starting the recording.

Recording

- 4 To start recording, press **PLAY** on the external CD player: → **▶▶** lights continuously. The track number and recording time left appear on the display.

Note: In case the recording does not start use the Manual recording mode. See previous paragraph: 'Recording from LP's or cassettes'.

- To interrupt recording, press **PLAY/PAUSE** ►► on the CD recorder:

→ **▶▶** starts to flash. Resume at step 1.

- If, however, you start the source during a track, recording will start at the beginning of the next track or after 2.7 seconds of silence in analog recordings.

- Track numbers are automatically incremented. During an analog recording you can insert additional track numbers during recording by simply pressing **TRACK INCR.** on the remote control.

- The **EASY JOG/ENTER** button can be used to adjust the recording level. The setting of the recording level is stored in the recorder's memory.

- The recorder stops automatically in case of digital recording from a CD. With **AUTO TRACK ON**, the recorder pauses and waits for a new track for 1 minute before going to stop. Recordings from **DAT**, **DCC** or analog sources will only stop after 20 seconds of silence.

- 5 To stop recording, press **STOP** ■ on the CD recorder: → **UPDATE** lights up and **▶▶** goes out.

After recording the display will show **UPDATE** for several seconds.

Finalizing

If you want to play the recorded CD(RW) on a normal CD player, you must first finalize the disc. Please note that you cannot add anymore tracks on a finalized CDR. See Finalizing CDR and CDRW discs.

Finalizing

Finalizing CDR & CDRW discs

During finalizing, an index is written to the disc.

Finalizing is a simple procedure that is necessary in order to:



- be able to play recordings on a CD PLAYER
- avoid further unwanted recordings on a disc,
- avoid erasure of tracks on a CDRW,
- write CD text on a CDR(W).

Note: When a CDR has been finalized, no more recordings can be added.

Auto finalizing

The CDR(W) is automatically finalized when using the MAKE CD recording function.

Manual finalizing

- 1** Make sure the disc (in the CD recorder) is absolutely free of scratches and dust particles.
- 2** With the recorder stopped, press FINALIZE.
→ The display will show **FINALIZE CD** and **PRESS RECORD**.
- 3** Press RECORD.
→ **XX XX FINAL** and the approximate finalization time is shown on the display.
The display counts down through the finalization.
Upon completion, the total number of tracks and the total time recorded will appear on the display.
For CDR(W),  changes to  on display.

Finalizing will take at least 2- 4 minutes.

Note: During finalization, the CD recorder will not accept operating commands.

Unfinalizing CDRW discs

For CDRW discs only

If you want to make more recordings (or erase tracks) on a finalized disc, you must unfinalize it first. The index of the disc content will be removed.

To unfinalize

- 1** With the CD recorder stopped, press TYPE or ERASE.
→ **UNFINALIZE** and **PRESS ENTER** will appear on the display.
- 2** Press the EASY JOG/ENTER button.
→ The disc will now be unfinalized and can be used again to record.

Note: After unfinalizing the recorder enters:

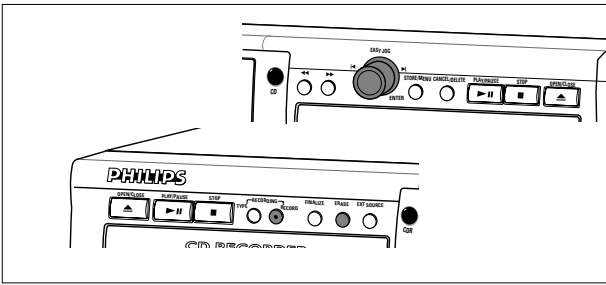
- **RECORD FAST** mode if the TYPE button was pressed before unfinalizing
 - **ERASE TRACK** mode if the ERASE button was pressed before unfinalizing
- If no further recording or erasure is required, press **STOP ■**.

Notes:

Unfinalizing will take approximately 1.5 minutes.

*When unfinalizing a CDRW disc with text available, this text will be transferred to the CD recorder memory. However, if the text memory is full, the message **MEMORY FULL/FINALIZE CD** will be displayed. Text must be erased, stored for other discs, or another disc must be finalized in order to create space in the memory.*

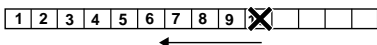
Erasing CDRW discs content



For unfinalized CDRW discs only!

You can erase:

- Tracks can only be erased from the end.




With the EASY JOG you can select more than one track to be erased simultaneously.




Note: It is not possible to erase tracks within the sequence.

- It is also possible to erase the entire disc at once.

To erase one or more tracks from the end:

- 1 Press ERASE once.
 - The display will show the number of tracks and their total playing time. ERASE TRACK and PRESS RECORD will light up.
- If the disc is finalized,  will appear on the display after inserting a CDRW in the recorder. The recorder will ask you to confirm unfinalizing first. Confirm by pressing the EASY JOG/ENTER button or ENTER on the remote control.
- 2 Select the track(s) you wish to erase by turning the EASY JOG/ENTER button to the left.
 - The selected track numbers will start blinking on the track bar.
 - The display will show the remaining time after erasing the selected track(s). The track shown will be included in the tracks erased.
- 3 Press RECORD.
 - The display will show the total countdown time and ERASE.
 - After the selected track(s) has/have been erased, the display will show the number of remaining tracks and their total playing time.

To erase the entire disc:

- 1 Press ERASE twice.
 - The display will show the number of tracks and their total playing time. ERASE DISC and PRESS RECORD will light up.
 - If the disc is finalized,  will appear on the display after inserting a CDRW in the recorder. The recorder will ask you to confirm unfinalizing first. Confirm by pressing the EASY JOG/ENTER button or ENTER on the remote control.
 - 2 Press RECORD.
 - The display will show the total countdown time and ERASE. The entire disc will be erased.
- Erasing an entire disc may take up to 15 seconds.

Playing

Playing CD's (Changer mode)

Your CD recorder is able to play the two decks sequentially (CHANGER mode). This is the default setting.

- 1 Select Changer mode using the DJ MODE button.
→ CHANGER appears on the display and **CHANGER** lights up.
 - 2 On the deck you want to play, press PLAY/PAUSE ►|| to start CD play.
→ ► lights up, the track number and track time of the track in play appear on the display.
→ After playing the first disc, the second disc will automatically be played.
- Press DISPLAY once, twice or three times to see:
→ Remaining track time, total remaining time, permanent text information (see Menu mode).
 - To interrupt play temporarily, press PLAY/PAUSE ►|| again.
→ || lights on the display.
 - To continue play, press PLAY/PAUSE ►|| again.

- 3 To stop play, press STOP ■.
→ The number of tracks and the total playing time appear on the display.

- If you want to see the information about the other deck, press the CDR button or the CD button in the display frame.

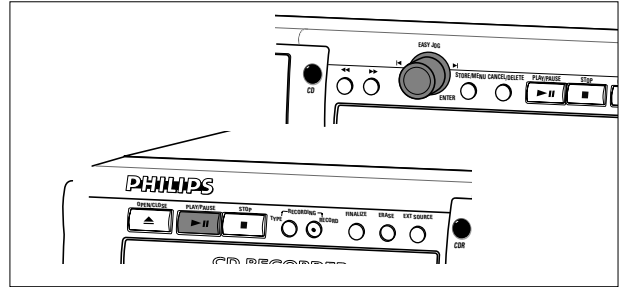
Playing CDs on Deck 1 and Deck 2 simultaneously (DJ mode)

With this double deck it is possible to play the CD recorder deck and/or the CD player deck individually (at the same time). In this case the extra CD output must also be connected to an amplifier.

- 1 Select DJ mode using the DJ MODE button.
→ DJ MODE appears on the display and **↑ ↑** lights up.
 - 2 On the deck you want to play, press PLAY/PAUSE ►|| to start CD play.
→ ► lights up and the track number and track time of the track in play appear on the display.
- You can also play the two decks at the same time. By pressing the CDR button or the CD button you can choose the deck you want to listen to.
 - Press DISPLAY once, twice or three times to see:
→ remaining track time, total remaining time, permanent text information (see Menu mode).
 - To interrupt play temporarily, press PLAY/PAUSE ►|| again.
→ || lights on the display.
 - To continue play, press PLAY/PAUSE ►|| again.

- 3 To stop play, press STOP ■.
→ The number of tracks and the total playing time appear on the display.
- If you want to see the information about the other deck, press the CDR button or the CD button in the display frame.

Selecting a track

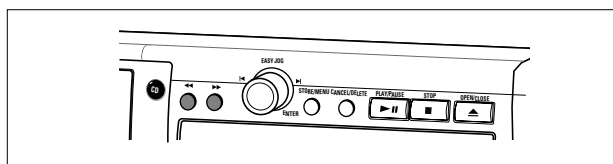


Press the CDR or CD button to select the deck you want to control.

- 1 **Selecting a track during play**
Turn the EASY JOG/ENTER button until the required track number appears on the display.
→ Play will skip to the beginning of the selected track.
- 1 **Selecting a track when CD play is stopped**
Turn the EASY JOG/ENTER button until the required track number appears on the display.
- 2 Press EASY JOG/ENTER or ENTER on the remote control to confirm or press PLAY/PAUSE ►|| to start playing.

Note: You can also enter the required track number using the numerical buttons on the remote control. For 2 digit numbers, press the buttons in rapid succession.

Search



- 1** Hold down ◀◀ or ▶▶ (in Play mode).
→ The player first searches backwards or forwards at 10 times normal speed with sound at low volume, then goes to 50 times normal speed with sound muted.
- 2** Release the button at the desired passage.
→ Play will start at the desired passage.

Note: During Shuffle, Repeat Track or Programmed play, search is restricted to within the track being played at the time.

Shuffle (random order) play

Only in Changer mode.

- 1** Press SHUFFLE before or during CD play to start shuffle play.
→ The tracks on the CD (or program if set) will play in random order.
- 2** Press SHUFFLE again to return to normal CD play.
→ CD recorder goes to Stop mode.

Note: Shuffle is also cleared when you open the disc tray.

Repeat CD, track or program

- 1** Press repeat one or more times during CD play.
→ When **REPEAT TRACK** lights up, the current track will play repeatedly. When **REPEAT ALL** lights up, the entire disc or program plays repeatedly.
- 2** To return to normal play, press REPEAT one or more times until:
→ The **REPEAT** text disappears from the display.

Note:

*You can use shuffle in combination with **REPEAT ALL** or programmed play.*

***REPEAT** is also cleared when you open the disc tray.*

Programming tracks

- You can program up to 99 tracks to play in any desired sequence.
- Tracks can be programmed more than once, but each time counts as a track (**STEP**).
- A program for playback can be made from both the disc in the recorder deck and the disc in the player deck. A program for recording can only be made from the disc in the player deck.

Programming

- 1** Select Changer mode or DJ mode using the DJ MODE button.
→ **CHANGER** or **DJ MODE** appears on the display.
- 2** Press CDR or CD to select the required deck.
→ Selected button lights up.
- 3** In Stop mode press PROG to enter Program mode.
→ **PROG** flashes and **PROGRAM** followed by track information appears on the display.
- 4** Select the desired track numbers by turning the EASY JOG/ENTER button left or right and store by pressing ENTER.

or:
Key in a track number with the number buttons and press ENTER to confirm. For 2-digit numbers, press the buttons in rapid succession.
→ The track will be stored in the program.
→ The track number, total program time and the number of programmed tracks (**STEPS**) are displayed.
- 5** Repeat step **4** for all tracks to be programmed.
- 6** Press STOP ■ or PROG to end programming.
→ **PROG** lights continuously.
- 7** Press PLAY/PAUSE ▶▶ to start programmed play.

Notes:

To review the program, press PROGRAM, followed by ◀◀ or ▶▶ with the CD recorder in Stop mode.

*To add more tracks to the program, repeat steps **3** to **7**.*

*If you try to store more than 99 tracks, **PROG FULL** will appear on the display.*

Clearing a program

- 1** Press STOP ■ if necessary to stop programmed play.
 - 2** Press STOP ■ again to clear the program.
→ **PROG** will disappear from the display.
- The program is also cleared when you open the disc tray.

Erasing a track from a program

- 1** In Stop mode press PROG to enter Program mode.
- 2** Use ◀◀ or ▶▶ to select the track from to be deleted.
→ The track number and program step will be shown on the display.
- 3** Press CANCEL/DELETE to erase the track from the program.
→ The remaining program steps and the remaining playing time on the program will be displayed.
- 4** Repeat steps **2** and **3** for all tracks to be erased.
- 5** Press STOP ■ or PROG to end erasing.
→ **PROG** will light up continuously.

Menu mode

Remarks about Menu mode

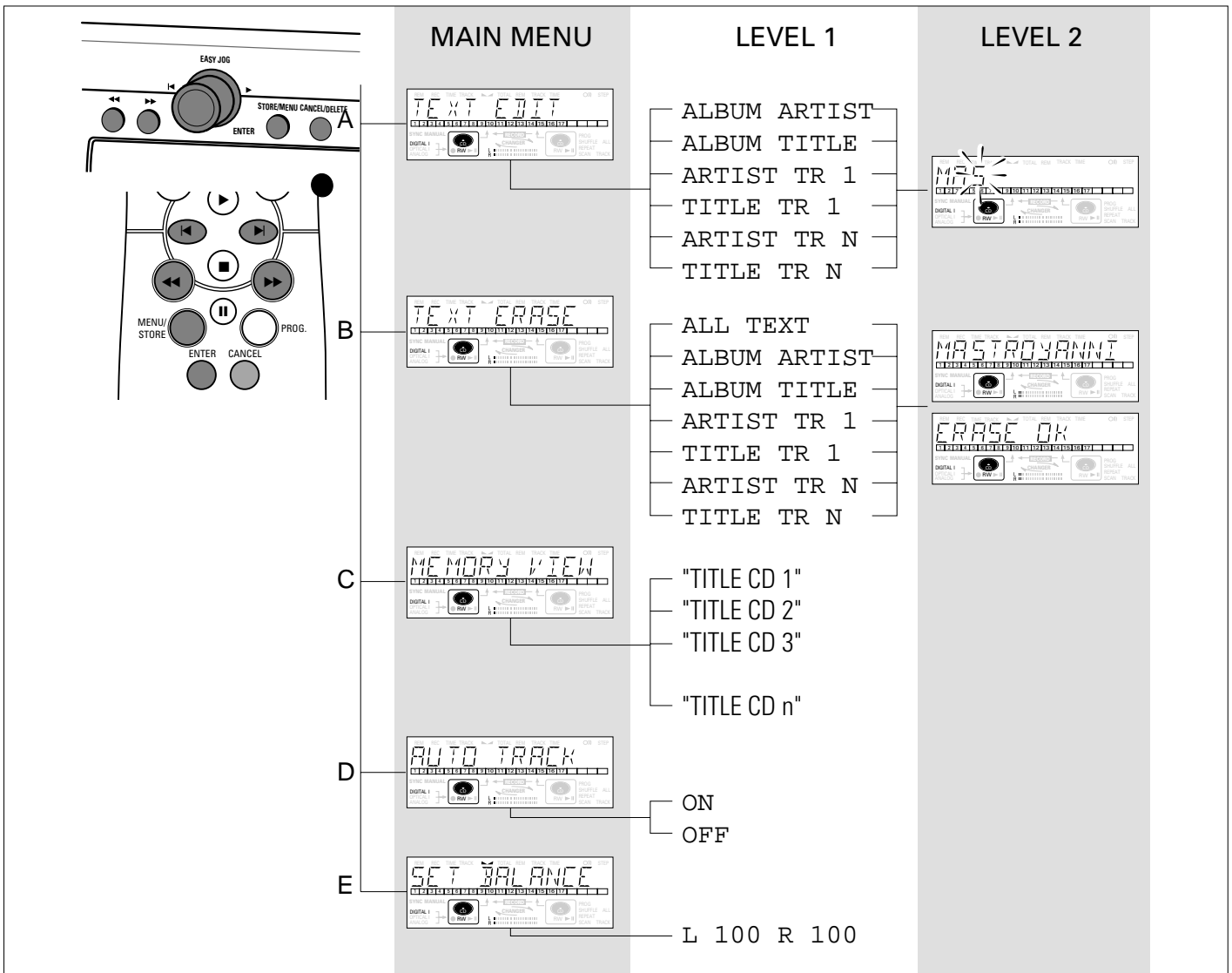
- In Menu mode you will have access to a number of features which are not available via the regular buttons (on the deck's front and the remote control).
- The TEXT submenus (A & B) allow you to give names to discs and tracks. The disc and track names will be displayed during playback.
- In the RECORDING submenus (D & E) you can set Auto Track and Balance.
- All settings (except Balance) made in Menu mode will be stored in the deck's memory and can be called up and changed at any time.

General operation of Menu

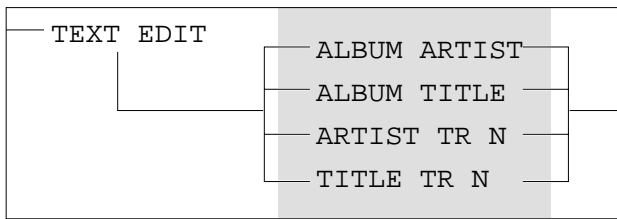
Menu active in Recording or Stop mode!

- 1 When using the remote control, select CDR first.
- 2 Press STORE/MENU on the deck or the remote control to enter Menu mode.
→ TEXT EDIT will appear on the display.
- 3 Rotate EASY JOG/ENTER to select the required submenus:
- 4 Press EASY JOG/ENTER to confirm your selection.
- 5 Rotate EASY JOG/ENTER to select options in the submenus.
- 6 Press EASY JOG/ENTER to confirm selections.
- 7 Press STORE/MENU to store settings and return to the submenu.
- 8 Press STOP ■ to store settings and exit Menu mode.

Note: Text can only be edited for unfinalized discs. (Finalized CDRW discs must be unfinalized first.)



A. Text input



Your recorder can display CD text information such as artist name, album title etc. that is present on a disc. Only CD players with CD text capability can read and display CD text.

CD text can be added and/or changed to a recording. This can be done in Stop mode or during recording. With this feature you can store the name of artist and album to a CDR as well as a track title and name of artist per title.

Text will be stored in the recorder memory and can be edited until the CDR is finalized. When a CDR(W) is finalized, the CD Text will be written on the disc and removed from the recorder's memory. Text on a (finalized) CDRW can be edited at any time.

- 1** Press STORE/MENU.
→ **TEXT EDIT** will appear on the display.
- 2** Press EASY JOG/ENTER to confirm.
→ **ALBUM ARTIST** will appear on the display.
- 3** Rotate EASY JOG/ENTER to select the required option in the submenu: **ALBUM ARTIST**, **ALBUM TITLE**, **ARTIST TR 1**, **TITLE TR 1**, etc.
- 4** Press EASY JOG/ENTER to confirm.
→ The first character space appears on the display.
- 5** Select the characters by rotating the EASY JOG/ENTER button or by pressing the corresponding numeric/alphabet button on the remote control.
- 6** Press EASY JOG/ENTER to store each character and move to the next cursor position.
 - With the ◀ and ▶ buttons you can move to a required cursor position.
 - With the CANCEL button you can delete a character.
- 7** Press STORE/MENU to store the name you have entered and return to the submenu, or STOP ■ to exit.
→ **UPDATE** will appear on the display.

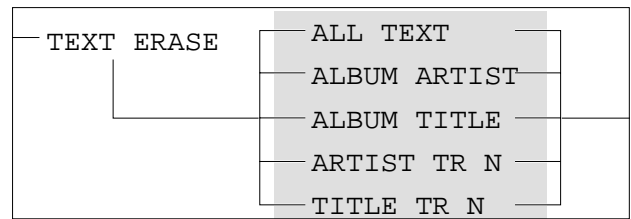
Notes:

A maximum of 60 characters can be stored per item.

By pressing the EASY JOG/ENTER button or ENTER on the remote control without selecting a character first, you can insert a space between characters.

When an artist's name has been stored for a certain track, the name will automatically be copied for the next track. The name can be confirmed by pressing STORE/MENU or a new name can be entered as described above.

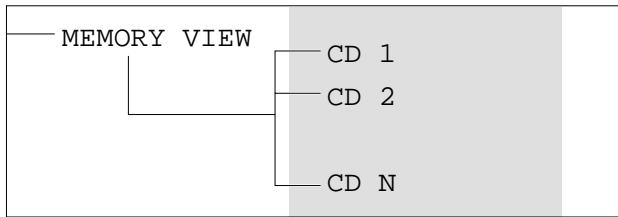
B. Erasing text



- 1** Press STORE/MENU.
→ **TEXT ERASE** will appear on the display.
- 2** Rotate the EASY JOG/ENTER button to select the **TEXT ERASE** submenu.
→ **TEXT ERASE** will appear on the display.
- 3** Press EASY JOG/ENTER to confirm.
→ **ALL TEXT** appear on the display.
- 4** Rotate EASY JOG/ENTER to select the required option in the submenu: **ALL TEXT**, **ALBUM ARTIST**, **ALBUM TITLE**, **ARTIST TR 1**, **TITLE TR 1**, etc.
- 5** Press EASY JOG/ENTER to confirm.
→ The display will ask you to reconfirm your selection.
ERASE OK will appear on the display.
- 6** Press EASY JOG/ENTER to reconfirm.
→ **UPDATE** will appear on the display.
- 7** Press STORE/MENU to return to the submenu or STOP ■ to exit.

Menu mode

C. Reviewing CD text in memory



CD text is stored in the recorder's memory. When a CDR(W) is finalized, the CD Text will be written on the disc and removed from the recorder's memory. With the MEMORY VIEW function you can view/delete the CD text in the recorder's memory for each unfinalized disc. The amount of memory used is displayed each time the tray opens with an unfinalized CDR(W) inserted (e.g. MEMORY 9□/□).

- 1 Press STORE/MENU.
→ TEXT EDIT will appear on the display.
- 2 Rotate the EASY JOG/ENTER button to select the MEMORY VIEW submenu.
→ MEMORY VIEW will appear on the display.
- 3 Press EASY JOG/ENTER to confirm.
→ The first album title in the recorder memory will appear on the display.
- 4 Select the album title you wish to erase.
- 5 Press EASY JOG/ENTER to confirm.
→ ERASE MEMORY will appear on the display.
- 6 Press the EASY JOG/ENTER button to confirm the erasure of the text for that particular disc.
→ UPDATE will appear on the display.
- 7 Press STORE/MENU to return to the submenu or STOP ■ to exit.

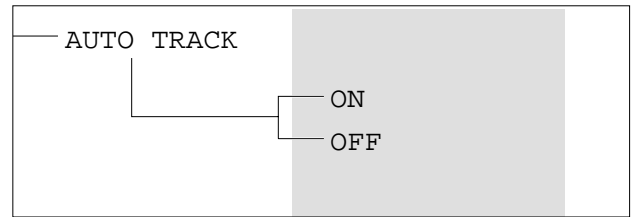
Notes:

If there are no discs in the memory, the message MEMORY EMPTY will appear on the display.

When the text memory of your CD recorder is full, the message MEMORY FULL will appear, followed by FINALIZE CD. If you want to add a CD to the list of discs for which text is stored, you will have to erase a disc from this list or finalize another disc for which text is stored.

MEMORY FULL/FINALIZE CD may also appear when unfinalizing a CDRW disc for which text was stored (see 'Unfinalizing CDRW discs'). The same action(s) should be taken in order to obtain memory space.

D. Auto track increment



Track increments

During synchronised recordings, track numbers will be copied from the original. This will be done automatically for digital sources. For analog recordings, the CD recorder can detect silences (longer than 2.7 seconds) in the source material and start a new track (Auto track increment).

Auto Track is however dependent on the quality of the analog source material and will not always increase the track number like on the original.

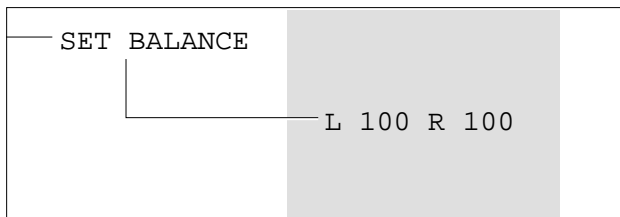
Auto Track is default switched on. If you wish to switch Auto Track off or on:

- 1 Press STORE/MENU.
→ TEXT EDIT will appear on the display.
- 2 Rotate the EASY JOG/ENTER button to select the AUTO TRACK submenu.
→ AUTO TRACK will appear on the display.
- 3 Press EASY JOG/ENTER to confirm.
→ ON or OFF will appear on the display.
- 4 Turn the EASY JOG/ENTER button to select Auto track OFF or ON.
- 5 Press EASY JOG/ENTER to confirm.
→ AUTO TRACK will appear on the display.
- 6 Press STOP ■ to exit.

During analog recording, you can always insert track numbers manually by pressing TRACK INCR. on the remote control. It is not possible to add track numbers manually during digital recording. The minimum track length is 4 sec. Track numbers cannot be changed after recording.

Note: Auto Track is always active during synchronised recordings.

E. Balance



This feature is only active in Record/Standby mode

- 1** Press STORE/MENU.
→ **TEXT EDIT** will appear on the display.
- 2** Rotate the EASY JOG/ENTER button to select the SET BALANCE submenu.
→ **SET BALANCE** will appear on the display.
- 3** Press EASY JOG/ENTER to confirm.
→ **↖ ↗** and **L 100 R 100** will appear on the display.
- 4** Adjust recording balance by turning the EASY JOG/ENTER button.
 - Turn to the left: the figure on the left (**L XXX**) counts down, that on the right counts up.
 - Turn to the right: the figure on the right (**R XXX**) counts down, that on the left counts up.
- 5** Press EASY JOG/ENTER to confirm.
- 6** Press STORE/MENU to store settings.

Note: The balance setting will not be stored once the recording is completed.

Fixing problems

TIP:

Check 'Display messages': the nature of a problem will in most cases be indicated with a display message.

WARNING

Under no circumstances should you try to repair the CD recorder yourself as this will invalidate the warranty.

Do not open the CD recorder as there is a risk of electric shock.

If a fault occurs, first check the points listed, before taking the CD recorder for repair. If you are unable to solve a problem by following these hints, consult your dealer or service center.

Laser safety

This unit employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

Problem	Solution
No power	<ul style="list-style-type: none"> – ensure that the POWER ON/OFF button is in the on position (red LED on): the CD recorder is in standby mode, press any button to activate it – make sure that the power cord is plugged in correctly – switch the recorder OFF and then immediately back ON
No sound	<ul style="list-style-type: none"> – check the audio connections (external recording) – try using a different source on the amplifier – make sure the record level was correctly adjusted – check if the right deck was selected
Amplifier sound is distorted	<ul style="list-style-type: none"> – make sure that the CD recorder analog output is not connected to the amplifier Phono input
Play will not start	<ul style="list-style-type: none"> – make sure that the label of the CD is facing up – clean the disc – make sure that the disc is not defective by trying another disc – check if the right deck was selected (in DJ mode) – finalize the disc first before playing it in the CD player deck
Remote control does not work	<ul style="list-style-type: none"> – press CDR on the remote control and try again – point the remote control directly at the CD recorder – check the batteries and replace if necessary – select the right source first
Will not record	<ul style="list-style-type: none"> – clean the disc – check if CDR(W) is an unfinalized disc (INITIALIZING is displayed when disc is unfinalized) – check that the disc is recordable and replace if necessary – the disc is not an AUDIO disc (WRONG DISC) – wrong input source chosen. Input label flashing (CHECK INPUT) – try using a Philips Audio CDR(W)
Recording is distorted	<ul style="list-style-type: none"> – make sure the recording level is correctly adjusted
Recorder does not react	<ul style="list-style-type: none"> – switch the POWER ON/OFF button on the front of the recorder off and back on
DISC RECOVER on display	<ul style="list-style-type: none"> – a power failure has occurred during recording; the CD recorder is attempting to repair the disc
DISC ERROR appears on the display	<ul style="list-style-type: none"> – the disc cannot be recorded further, and cannot be finalized. – on a CDRW disc, the track being recorded is lost, but further recording and finalization can still be done
Recorded tracks do not start or stop at the correct time or tracks have been merged together	<ul style="list-style-type: none"> – check if there are at least 2.7 seconds silence in between the tracks (analog recording only) – insert track increments manually with the remote control (during recording)
START SOURCE indication	<ul style="list-style-type: none"> – start the synchronized external recording by pressing PLAY on the external source you wish to record from – check the connections – press STOP ■, select REC EXT MAN and start the recording manually – select the right input with the EXT SOURCE button