MARANTZ CDR630

MODEL

OWNER'S MANUAL

ILLUSTRATION DESCRIPTIONS

For illustration: see fold-out

Player Front

1 **POWER ON/OFF**..turns the UNIT on/off
2 **PHONES**.....plug for headphones
3 **LEVEL**.....headphone volume
4 Display (information screen)
5 Disc drawer
6 **OPEN/CLOSE ▲** opens/closes disc drawer
7 **REC**.....record
8 **FINALIZE**.....finalize recording
9 **ERASE**.....to erase track/disc
10 **CD SYNC**.....synchronized recording (automatic start when recording)
11 **PREV** |◄ .....previous track
12 **NEXT** ►|.....next track
13 **PLAY ►** .....start to play or record
14 **PAUSE II** .....interrupt playing or recording
15 **STOP ■** .....to stop
16 Recording level (analog)
17 **AUTO/MAN**.....to determine recording track number system
18 **DISPLAY**.....to select display information
19 **INPUT** .....to select input signal

Player Back

20 XLR Analog input (left and right)
21 Input level select switch (-10dBu/+4dBu)
22 Analog select switch (XLR/Cinch (RCA))
23 Analog input (left and right)
24 Analog output (left and right)
25 Digital input
26 Digital output
27 Optical digital input
28 Optical digital output
29 AC mains voltage selector (only for 74 CDR630/02M and CDR630F H)
30 Connection to AC mains cord

Remote control

31 **OPEN/CLOSE ▲** ..Open or close disc drawer
32 **INPUT** .....select input signal
33 Number keys 0 - 9 select playback track number
34 **STOP ■** .....stop
35 **PREVIOUS** |◄.....previous track
36 Search backward ◄◄
37 **TRACK INCR**.....marks track number during recording
38 **FINALIZE**.....finalize recording
39 **CDSYNC**.....synchronized recording (automatic start when record)
40 **REC ●** .....record
41 **PROGRAM** .....select playback program
42 **FAST**.....fast search
43 Search forward ►►
44 **NEXT** ►|.....next track
45 **PLAY ►** .....play
46 **PAUSE** .....interrupt playing or recording
47 **REPEAT**.....repeat play
48 **DISPLAY**.....selection for information to be displayed

Display

49 Remote control is active
50 **CD**.....CD present (a pre-recorded CD or finalized CD-R or CD-RW disc)
51 **REWRITABLE** .....CD-RW disc present for recording
52 **RECORDABLE** ....CD-R disc present for recording
53 Indication of recording and playing level
54 **PAUSE** .....pause function is active - during playback or record-pause
56 **ERASE**.....to erase last track or entire CD (flashes in erase-waiting setting)
57 **FINALIZE**.....to finalize recorded CD (flashes in finalize-waiting setting)
58 **RECORD**.....to record (flashes in record-pause setting)
59 **CDSYNC**.....CDSYNC recording
60 Track number and duration
61 **REPEAT (1)**.....repeat function activated during playing
62 **AUTO TRACK** .....automatically increasing track numbers
63 **DIG**.....digital input signal
64 **ANALOG**.....analog input signal
65 **PROG**.....playing based on program

INTRODUCTION

Congratulations on the acquisition of your CDR630 CD Recorder. This CD Recorder now enables you to record, play and erase your own audio Compact Discs. Naturally the recorder can also be used to play all pre-recorded CDs and combined CDs, such as CD Extra.

You can now create your own high-quality audio recordings on CD. The discs used to record must bear the logos shown below.

There are two types of recordable AUDIO discs:

1 CD Recordable Audio (record once):
Fully recorded and subsequently finalized audio CD-R discs can be played on most CD players and recorders. A CD-R disc can be recognized by the following logo:



or



2 CD ReWritable Audio (multiple recording):
Recorded and finalized audio CD-RW discs can be played on most CD players and recorders that are suitable for CD-RW discs. An increasing number of players and recorders will be suitable for these discs in the future. A CD-RW disc can be recognized by the following logo:



or



Once you start using the recorder, you will discover how easy it is to 'make' your own CDs. Nevertheless, we recommend that you use a ReWritable (CD-RW) digital audio disc on your first attempt, while following the instructions given here.

Attention!

Recordings may only be made for professional or personal use.

It is forbidden to copy material protected by copyright, including computer programs, films, television and audio recordings. This appliance may not be used for applications of this type.

Read the text carefully and keep the instructions close at hand so that you can refer to them if necessary.

Unpacking

First check the contents of the packaging. It should contain the following:
- CD Recorder CDR630
- Remote control with batteries packaged separately
- Power cord
- Audio cables (2 - with red and white plugs)
- Digital coaxial audio cable (with black plugs)
- Instructions

If one of these components is missing, please inform your supplier immediately. Save the packaging material - it may come in handy if you move the appliance.

AC mains voltage selection
(for 74CDR630/02M and CDR630F H only)

Check whether the voltage indicated on the back of the appliance is the same as the voltage of the mains. Some models of this recorder have a selector on the back ***(29)*** . Set the selector to the position indicated for the local AC mains voltage.

Setup

- Place the recorder on a strong, vibration-free surface.
- Do not place the recorder near a source of heat or in direct sunlight.
- Do not use the recorder under extremely damp conditions.
- If the recorder is placed in a cabinet, make sure that a 2.5 cm space remains free on all sides of the recorder for proper ventilation.

Attention!

If the appliance is not used or operated in accordance with the instructions, this may result in exposure to dangerous radiation or other risks.

Only authorized technicians are allowed to open the appliance casing or to perform repairs or maintenance.

CONNECTIONS

English

The numbers between parentheses refer to the fold-out illustration.

This CD Recorder can be used to record directly or through a (pre-) amplifier from any digital or analog audio source.

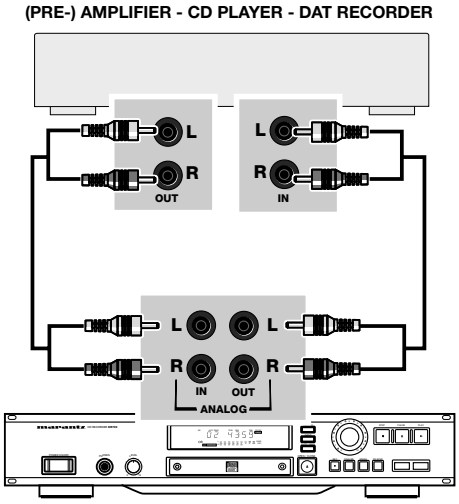
In addition, the unit can be used as a regular CD player. Read how to connect the CD Recorder based on the possibilities your other audio equipment offers.

Please refer to the operating instructions for your other audio equipment first.

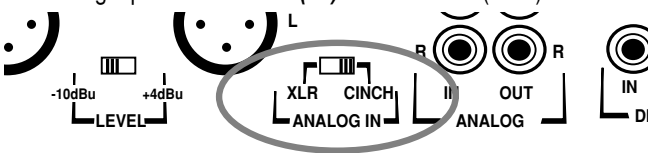
The following options are available:
– Cinch (RCA) analogue connections
– XLR analog connections
– digital connections
– optical connections

Cinch (RCA) analog connections

1 For recording and playing, connect (using the enclosed cable with red and white plugs) the CD Recorder to a source based on the following diagram:

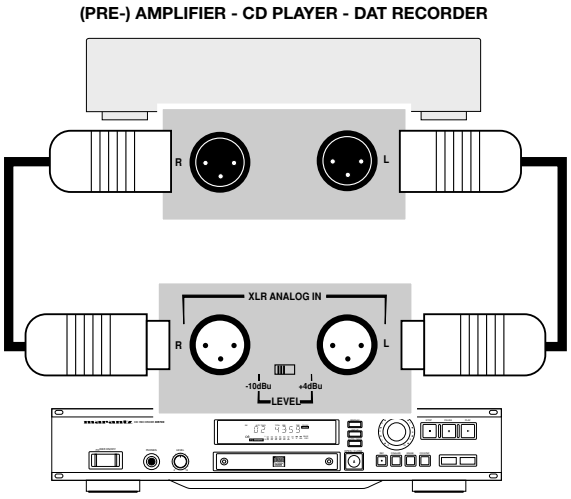


2 Analog input select switch ***(22)*** selects Cinch (RCA).

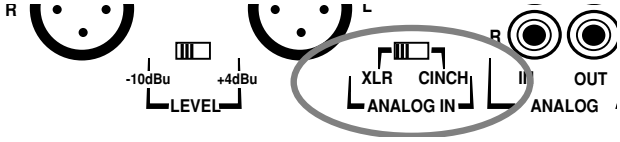


XLR analog connections

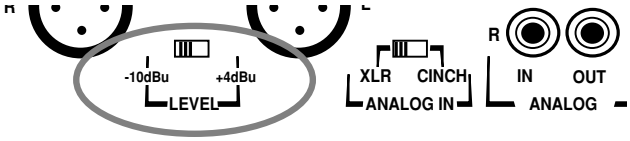
1 For recording, connect (using analog balanced cables) the CD Recorder to a source based on the following diagram:



2 Analog input select switch ***(22)*** selects XLR.

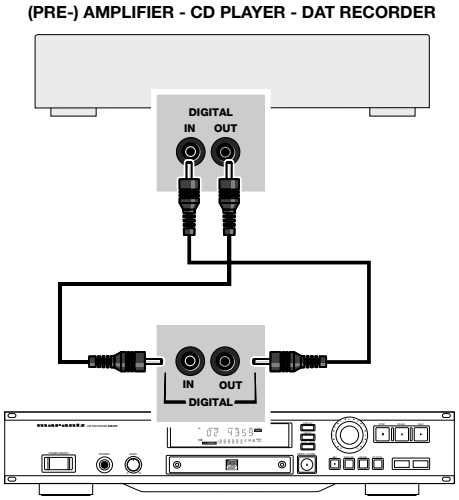


3 Input level select switch ***(21)*** choose either -10dBu or +4 dBu.



Digital connections

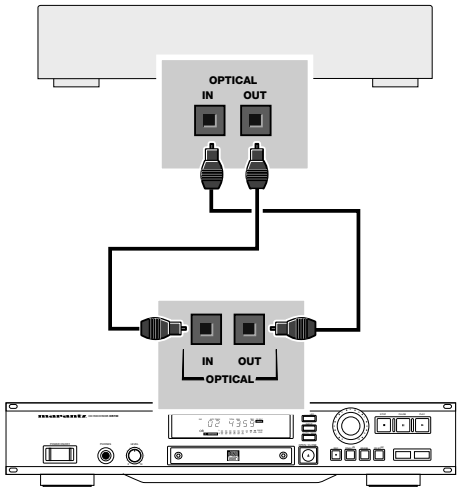
1 For recording and playing, connect (using the enclosed cable with black plug) the CD Recorder to a digital amplifier based on the following diagram :



Optical digital connections

1 For recording and playing (using a suitable fibre-optic cable, available from your supplier) connect the CD Recorder based on the diagram below. To do so, remove the dust caps from the digital optical connections. We recommend that you save the caps.

(PRE-) AMPLIFIER - CD PLAYER - DAT RECORDER

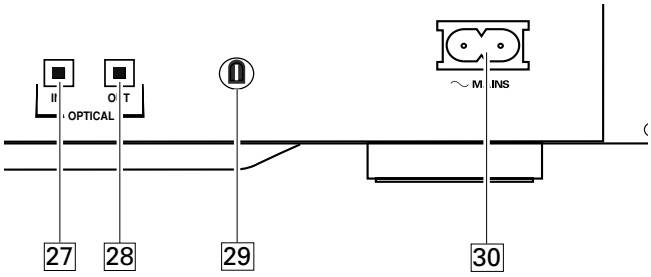


USING THE RECORDER

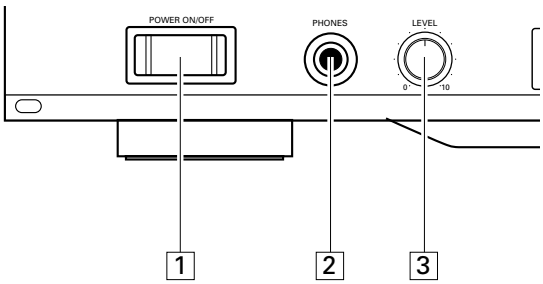
The numbers between parentheses refer to the fold-out illustration.

Switching ON and OFF

1 Connect the plug on the mains cable in the proper connection point ***(30)***. Plug the cable into the mains.



2 Press the Power ON/OFF button on the front ***(1)*** of the CD Recorder to turn it on (display will light up) or off.



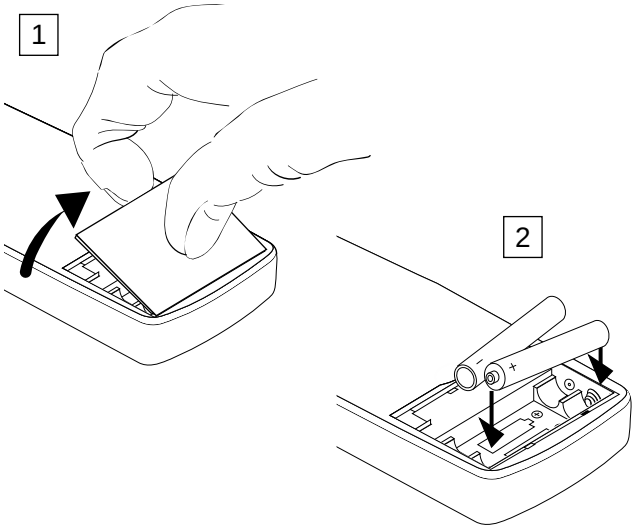
Using the remote control

Inserting the batteries

1 Open the battery lid.

2 Insert two 'AAA' (R03 or UM-4) batteries in the manner indicated.

3 Replace the lid.



Attention!

Do not use old and new batteries together.

Never use different types of batteries (standard, alkaline, etc.) together.

Note:

- *The player cannot be switched on and off using the remote control.*
- *Always point the remote control directly towards the recorder and make sure there are no obstacles between the remote control and the appliance.*
- *When you press a button on the remote control, the indicator* ***(49)*** *on the display of the CD Recorder will light up.*

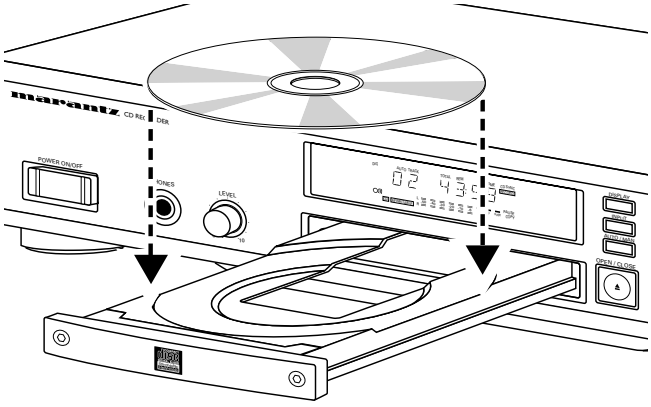
Inserting and removing discs

Inserting discs

1 Press the OPEN/CLOSE button ***(6)*** on the front of the appliance to open the disc drawer.

2 Insert an appropriate disc (see Introduction 1 and 2 p. 5) in the appropriate area in the drawer with the label facing up.

3 Gently press the front of the drawer or press the OPEN/CLOSE button ***(6)*** to close the drawer.



Note:

- *Check to ensure that the recording side of the disc is clean (See Disc Maintenance).*
- *If you insert a blank disc or non-finalized CD-R or CD-RW in the drawer, the recorder will calibrate the disc for optimum recording. During this process, the display will first show OPC and then the recording time used and the last track number.*

Removing discs

1 Press the OPEN/CLOSE button ***(6)*** on the front of the appliance to open the disc drawer.

2 Remove the disc from the drawer.

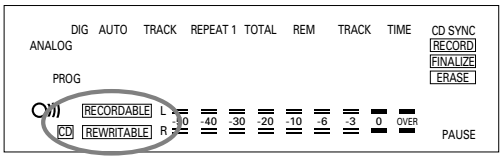
3 Gently press the front of the drawer or press the OPEN/CLOSE button ***(6)*** to close the drawer.

RECORDING

The numbers between parentheses refer to the fold-out illustration.

General Comments

Make sure the display indicator 'CD-RECORDABLE' or 'CD-REWRITABLE' is on; the recording procedure is the same for both types of disc.



If the disc already contains recordings, the CD Recorder will automatically search for the end of the last track so that recording can be started from there.

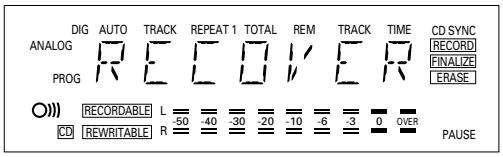
Recordings can only be made if there are at least seven seconds of recording time left on the disc. You can check this by pressing the Display button ***(18)***, after which the remaining recording time will be shown.

A maximum total of 99 tracks can be recorded on a disc.

Attention!

Never switch the CD Recorder off when recording; this can damage the disc.

If a power failure occurs during recording, the CD Recorder will attempt to repair the disc as soon as the power is restored; during this procedure, the display will indicate RECOVER. If recover is unsuccessful, discard that disc because it may no longer read/record.

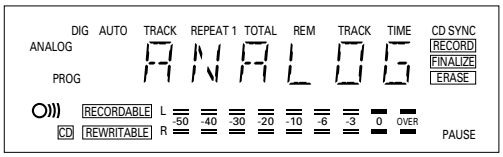


Manually recording an analog source

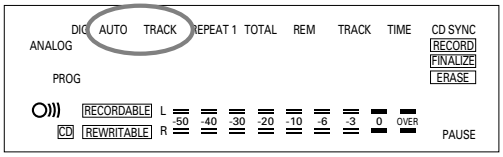
Preparing to begin recording

➜ Make sure the disc is free of scratches and/or dust particles.

1 Press the INPUT button ***(19)*** until ANALOG appears on the display.



2 By pressing AUTO/MANUAL ***(17)***, you can select manual or automatic track marking. If "automatic" is selected, 'AUTO TRACK' will appear on the display.



➜ With **automatic increments**, a new track number will be automatically added after a silence (< -50dB) on the original of at least three seconds; track numbers cannot be added manually.

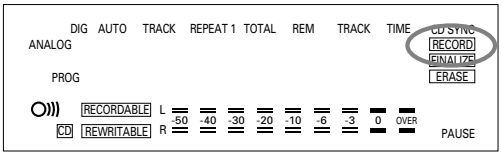
➜ With **manual increments**, you can add track numbers at any time during recording by pressing REC ***(7)*** or TRACK INCR ***(37)*** (on the remote control); the minimum track length is four seconds. Track numbers cannot be added after recording.

Attention!

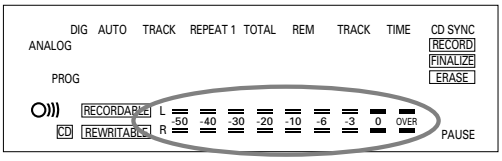
If the original has pauses lasting less than three seconds, the track numbers should be increased manually. If you are recording from LP's, it is recommended that you always select manual operation of the track numbering.

To start recording

1 Press the REC ***(7)*** button to enter the Record-Pause mode. The display indicator will start to flash 'RECORD'



➜ To set the desired recording level, start playing the analog source and adjust the recording level using the record level knob ***(16)*** so that all of the blue but none of the red segments light up on the recording and playing level indicator on the display during the loudest fragments.



➜ If you want a period of silence at the beginning of a new number, press PAUSE ***(14)***. A three-second pause (silence) will be recorded.

2 Press PLAY ***(13)*** to start recording, and immediately start the analog source.

➜ The relevant track number and the recording time used will be displayed. Press the Display button ***(18)*** to view the amount of total recording time remaining.

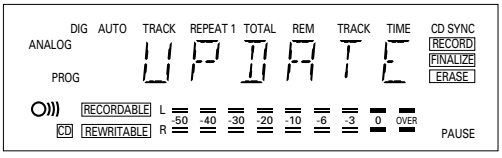
3 Press the STOP button ***(15)*** to stop in the recording modes.

Note:

- In the automatic mode, recording will stop after a twenty second silence (< -50dB) on the original.

➜ You can also use the PAUSE button ***(14)*** instead of the STOP ***(15)*** button if you want to stop and re-enter the Record-Pause mode.

➜ After recording, the temporary table of contents of the disc will be automatically up-dated. During this process, the display will indicate UPDATE.



Attention!

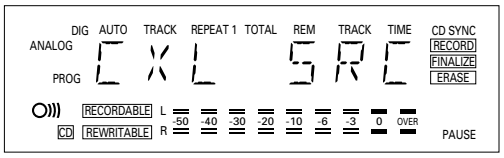
If you want to play the disc in another, regular CD-player, the disc must be finalized. See 'Finalizing discs' p. 11.

Manual recording from a digital source

Preparations for recording

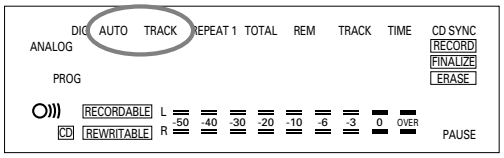
In order (depending on the connection used) to record from a CD, DAT or MD

1 Press the INPUT button ***(19)*** a number of times until CXL SRC, CXL 44, OPT SRC or OPT 44 appears on the display.



CXL SRC and OPT SRC are displayed in SRC-on mode (Sample Rate Conversion).
CXL 44 and OPT 44 are displayed in SRC-off mode.
If you want a full (1 to 1) copy (CXL 44 or OPT 44), a stable source with sample frequency of 44.1 kHz +/- 100 ppm must be used.

2 By pressing AUTO/MANUAL ***(17)***, you can select manual or automatic track marking. If "automatic" is selected, 'AUTO TRACK' will appear on the display.



➜ In Auto mode, track numbers are automatically detected from the digital source material. In this mode, you cannot insert track numbers manually.

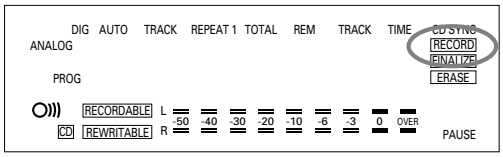
➜ In the manual mode, you can add track numbers at any point by pressing on REC ***(7)*** or TRACK INCR ***(37)*** (on the remote control). The minimum track length is four seconds. Increments cannot be inserted after recording.

Note:

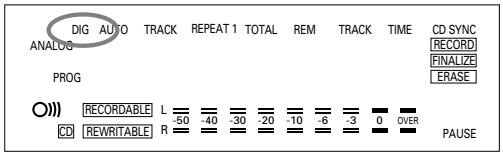
- If you try to make a full (1 to 1) copy [OPT 44, CXL 44] of a digital source that does exceed the 44.1 kHz +/- 100 ppm range, recording will most likely not start. In some rare cases, mutes may occur and recording may stop. Use a better source or use OPT SRC or CXL SRC to avoid these problems.

To start recording

1 Press the REC ***(7)*** button to enter the Record-Pause mode. . The display indicator '**RECORD**' will start flashing.



➜ If the digital connection is incorrect, the display indicator '**DIG**' will flash.



➜ If the digital source exceeds the 44.1 kHz +/- 100 ppm range and CXL44 or OPT44 is selected, the display indicator **DIG** will flash. When the source gets better (for example by adjusting a bad cable connection) the label stops blinking.

➜ If you want a pause at the beginning of a new track, press the PAUSE button ***(14)***. A three-second pause (silence) will then be recorded.

2 Press the PLAY button ***(13)*** to start recording and immediately start the digital source.

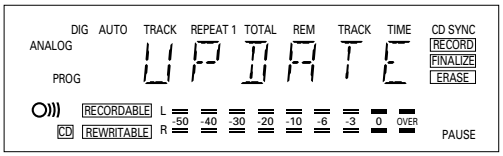
➜ The relevant track number and the recording time used will appear on the display. Press DISPLAY ***(18)*** to view the total remaining recording time.

3 Press STOP ***(15)*** to stop recording in either the manual or automatic mode.

➜ **In the automatic mode, recording will stop after a twenty-second silence (-50dB) on the original.**

Note:

- *You can also use the PAUSE button **(14)** instead of the STOP **(15)** button if you want to stop and re-enter the Record-Pause mode.*
- *After recording, the temporary table of contents will be automatically up-dated. During this process, the display will indicate* UPDATE.



Attention!

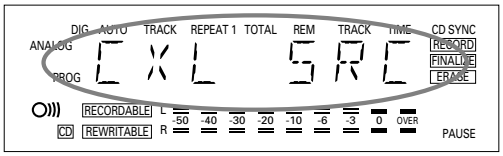
If you want to play the disc in a different, regular CD-player, the disc must be finalized. See 'Finalizing discs' p. 11.

Automatic recording from a digital source

In order to make recordings easily and quickly, the recorder is equipped with the handy CD-SYNC function. This function can be used to synchronously record individual tracks or entire discs. The original may be a CD, DAT or MD, or any compatible digital source.

Preparations for recording

1 Press the INPUT button ***(19)*** a number of times until (depending on the connection used) CXL SRC, CXL 44, OPT SRC or OPT 44 appears on the display.



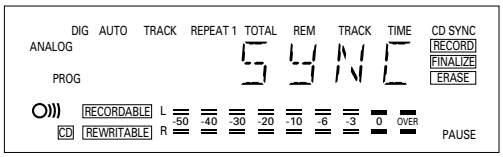
Note:

- *If you try to make a full (1 to 1) copy [OPT 44, CXL 44] of a digital source that does exceed the 44.1 kHz +/- 100 ppm range, recording will most likely not start. In some rare cases, mutes may occur and recording may stop. Use a better source or use OPT SRC or CXL SRC to avoid these problems.*

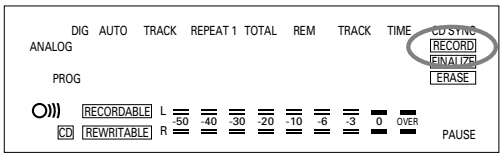
➜ Do not start the digital source yet.

To start recording

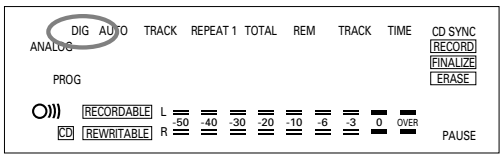
1 To record a single track, press CD-SYNC ***(10)*** once to record one track; SYNC-1 will appear on the display. To record all tracks, press CD-SYNC ***(10)*** twice in rapid succession to record all tracks; SYNC will appear on the display.



➜ Wait until the pause setting is activated and the display indicator 'RECORD' starts to flash.



If the digital connection is incorrect, the display indicator 'DIG' will flash.



➜ If the digital source exceeds the 44.1 kHz +/- 100 ppm range and CXL44 or OPT44 is selected, the display indicator **DIG** will flash. When the source gets better (for example by adjusting a bad cable connection) the label stops blinking.

2 Press Play on the digital source.

➜ The CD Recorder will now automatically start to record. If you start the source in the middle of a track, automatic Synchro recording will not commence until the beginning of the next track.

➜ The relevant track number and the recording time used will appear on the display.

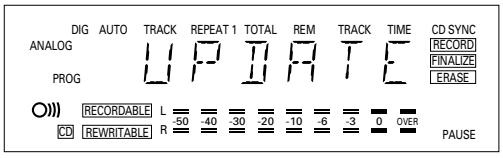
➜ To view the recording time remaining, press DISPLAY ***(18)***.

3 Press STOP ***(15)*** to stop recording.

➜ **In the automatic mode, recording will stop after a twenty-second silence (<-50dB) on the source.**

Note:

- *You can also use the PAUSE button **(14)** instead of STOP **(15)** to stop and re-enter the Record-Pause mode.*
- *After recording, the temporary table of contents will be automatically up-dated. During this process, the display will indicate* UPDATE.



Attention!

If you want to play the disc on a different, regular CD player, the disc must be finalized first. See 'Finalizing a disc', p.11.

Note:

- ***If you do not want a twenty-second silence (<-50dB) to be recorded, you must manually stop recording.***
- ***Do not record a programmed sequence*** *from a or DAT, because this will result in the wrong track numbering. Always record numbers in the original (non-programmed) sequence.*
- ***A track on a CD will sometimes immediately start with music information.*** *The CD Recorder will not start unless it recognizes a digital signal. Although the reaction time is* ***less than 400 milliseconds****, a fraction of the beginning of a number may sometimes not be completely recorded. If this happens, you can start the recording manually (see Manual recording from a digital source).*

FINALIZING/ERASING

Finalizing a disc

Finalizing is an extremely simple procedure that is necessary in order to play the disc on another, regular CD player. It is not necessary if the disc is used in another CD Recorder.

Attention!

Finalizing makes it impossible to record further on a CD-R disc. With a CD-RW disc, the entire disc must be erased before it can be used again.

To start finalizing

1 Place the disc you want to finalize in the CD Recorder (if it is not yet in the recorder).

2 From the STOP setting, press FINALIZE ***(8)*** and then REC ***(7)*** within two seconds.
The approximate finalization time will be shown on the display and will be at least two minutes.

➜ During finalization, the display will count down. Finalization is complete when the total number of tracks and the total time recorded appears in the display.

Note:

- *During finalization, the CD Recorder will not accept any operating commands.*
- *In order to prevent damages to the disc, the CD Recorder may not be switched off or disconnected during finalization.*

Erasing a disc

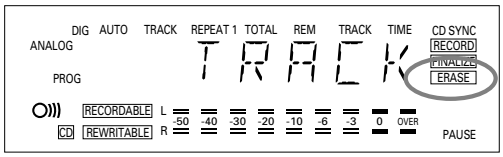
With a CD-RW disc, recordings can be erased and replaced by a new recording.

There are two options:

Erasing the last recording

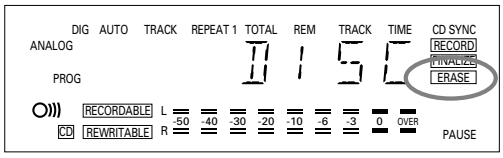
1 Place the disc to be erased in the CD Recorder (if it is not yet in the recorder).

2 From the STOP setting, press the ERASE button ***(9)*** once and then REC ***(7)*** within two seconds to erase the last track; TRACK and 'ERASE' will appear on the display.



Erasing the entire disc

1 From the STOP setting, press the ERASE button ***(9)*** twice within two seconds, and then press REC ***(7)*** within two seconds to erase the entire disc; DISC and 'ERASE' will appear on the display.



➜ This process may take up to 1,5 minutes.

Note:

- *Before the disc is finalized, the last track recorded can be erased.*
- *A finalized disc must be completely erased before being used again to record.*
- *While erasing, the CD Recorder may not be switched off.*

PLAYING

The numbers between parentheses refer to the fold-out illustration.

Normal playing

1 Press PLAY ***(13)*** to start playing (this button may be pressed when the disc drawer is either open or closed).The relevant track number and the playing time passed will appear on the display.

➜ Press DISPLAY ***(18)*** to view the remaining playing time of the track.

➜ Press DISPLAY ***(18)*** a second time to view the total remaining playing time of the disc.

➜ Press DISPLAY ***(18)*** a third time to deactivate the record indicators (blue and red indicators) on the display. The playing time passed will once again appear on the display.

➜ Press PAUSE ***(14)*** to temporarily interrupt playing. Press this button again to continue playing.

➜ Press NEXT ***(12)*** to go to the next track.

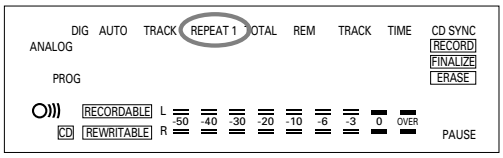
➜ Press PREV ***(11)*** to go to the previous track.

➜ You can select any track number by pressing the track number using the number buttons ***(33)*** on the remote control. For a two-digit number, press the two digits in rapid succession.

➜ Press ►► *(43)* or ◄◄ *(36)* on the remote to search forward or backward at twice the playing speed.

➜ Press FAST *(45)* and then ►► *(43)* or ◄◄ *(36)* on the remote to search forward or backward at eight times the playing speed.

➜ Press REPEAT *(47)* to repeat the track that is currently displayed. 'REPEAT 1' will appear on the display.



➜ Press REPEAT *(47)* again to repeat the entire disc or pre- programmed sequence. 'REPEAT' will appear on the display.

2 Press STOP *(15* or *34)* to stop playing.

Programmed play

1 With the CD Recorder stopped, press PROGRAM *(41)* on the remote control.

2 Enter the tracks you want to play using the numeric keys *(33)*. For 2-digit track numbers, enter both digits in quick succession.

➜ You can program up to 20 tracks in any order.

3 To play your program, press PLAY *(13* or *45)*.

➜ To cancel the program, press STOP *(15* or *34)* twice, or open the drawer.

ADDITIONAL INFORMATION

Specific display messages

MESSAGE ....MEANING

READING ....disc information is being read

OPC .....laser power calibration in progress

NO DISC .....no disc present or disc is unreadable

UPDATE .....the table of contents of the disc is being updated after a recording

WAIT ..... the player is performing internal actions

FULL ..... the playback program already contains twenty numbers; it is full

CD FULL ..... there is no room for additional recording

EMPTY ..... the disc contains no recordings; it cannot be finalized

INPUT ..... no digital input was selected for CD-SYNC

FINAL ..... OPC has been performed 96 times (maximum number of calibrations); the disc must be finalized

RECOVER ....recovery procedure performed automatically after power failure during recording. If this procedure fails, the CD-R disc - unlike the CD-RW disc - may no longer be usable

OPCFAIL ....OPC has failed; disc is damaged or player is defect

SERVICE ....recorder's self-test has failed; see 'Fixing problems'; contact your supplier

NO AUDIO ..no audio information is available on the disc.

FIXING PROBLEMS

The numbers between parentheses refer to the fold-out illustration.

If you think your CD Recorder is defective, it is wise to read this list first. Maybe you forgot a simple step.

SYMPTOM.....SOLUTION

No power.....• check to ensure that POWER button *(1)* is on.
• check to ensure that the AC mains cable is plugged in correctly
• switch the recorder OFF and then immediately back ON

No sound .....• check the audio connections
• if using an amplifier, try using a different source

Amplifier sound is distorted .....• the line outputs on the CD Recorder may not be connected to the PHONO input; make sure this is not the case

Play will not start.....• check to ensure that the label of the CD is facing up
• clean the disc
• check that the disc is not defect by trying another disc

Remote control does not work .....• point the remote control directly at the CD Recorder
• check the batteries and replace if necessary

Will not record ..• no recordable disc has been inserted
• check the disc and replace if necessary
• use better source or SRC-input mode

Recording is distorted .....• make sure the recording level was not too high

20 second pause between recordings .....• see 'Automatic recording from a digital source' CD-SYNC p. 10

Player does not react .....• use the ON/OFF *(1)* button on the front of the player to switch it off and back on

OTHER INFORMATION

If the malfunction continues, perform the Diagnostic Program:

1 Switch the recorder off using the POWER ON/OFF button ***(1)***.

2 Simultaneously press the PLAY ***(13)*** and STOP ***(15***) buttons and switch the recorder back on using the POWER ON/OFF ***(1)*** button.

➜ The display will now indicate *BUSY*.

➜ After a few minutes, the message will change to *ERROR* or *PASSED*.

➜ If the *ERROR* message appears, your recorder is defective and needs to be repaired. Consult your supplier or call the Marantz Consumer Line to find the nearest service centre. The number of the Consumer Line can be found in the guarantee booklet.

➜ If the *PASSED* message appears, there is no clear defect and the malfunction may be a result of misinterpretation of the user instructions, an inappropriate disc, a mechanical defect or an incorrect connection. To solve this problem, carefully read the user instructions once again; you can also contact your supplier.

➜ If you cannot solve the problem, go to the nearest service centre.

3 Switch off the recorder using the POWER ON/OFF button ***(1)*** to exit from the Diagnostic Program.

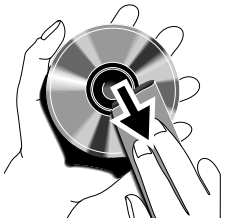
Recorder maintenance

The appliance can be cleaned using a damp leather cloth.
Do not use cleaning agents such as alcohol, methylated spirits, ammonia or scouring agents.

Disc maintenance

As is the case with pre-recorded CDs, fingerprints and spots on the disc will not directly affect the signal. Depending on how dirty the disc is, the clarity of the reflected signal may deteriorate to such an extent that the sound quality diminishes.

- To write on the printed side of a CD-R, use a felt-tipped pen; never use a pen with a hard point (such as a ball-point) because this could damage the recording.
- Keep the shiny side of the disc clean. Use a non-fluffy cloth and always wipe in a straight line from the centre to the edge.



- Never use cleaning agents for conventional records.
- Never use other cleaning agents or scouring agents.
- Never leave the disc in direct sunlight and do not subject the disc to extremely high temperatures.

HINTS FOR OPTIMAL USE OF THE MARANTZ CDR630 CD-R/CD-RW RECORDERS

1 How to avoid recording errors?

Media
Use proper CD-R media, suitable for 1x speed. Unsuitable media causes recording interruptions and recording errors. See below.

Signal sources
Use stable digital sources, meeting the IEC958-I/II standards (Jitter <20ns, Frequency deviation ±50ppm). Unstable sources can result in recording interruptions and recording errors.

Condition of media (source media and recording media)
Keep CD's and tapes free from fingerprints, scratches and other markings.
Note that a scratched CD can cause an unstable signal coming out of a CD Player.

Power ON/OFF
Avoid power ON/OFF during recording, erasing and finalizing the disc.

Temperature
The machine performs best at a stable, low to normal environmental temperature (15-20 degrees C). Avoid excessive heating, for example by close mounting in a rack. A smooth air flow around the product improves the performance (min. 2,5 cm/1 inch of free space above and below the unit for adequate ventilation).

2 What type of disc should I use?

The Marantz CDR630 CD Recorders are developed to record according to the Orange Book specifications. This is the specification for CD Recorders and CDR-media. Every CDR-disc sold, should perform according to Orange Book specification and therefore be compatible with our recorder.

In practice however, the quality of the recording depends on the match between the disc used and the writing strategy of the recorder. Specially at 1x speed (stand alone audio) the match between disc and recorder is important (higher recording speeds are less critical in terms of recording quality).
Regarding the recording capacity of the disc, it can be stated that in general 63-minutes discs produce better results than the 74-minutes versions. Discs with higher capacity than 74 minutes (80 minutes) are not recommended due to very poor performance.

Marantz recommends the following disc types for optimal results in combination with the CDR630 for audio applications:
(only 74-minutes types mentioned)

Type (manufacturer)	**Dye**	**Remark**
Philips	Cyanine (green)	
TDK 'Studio'	Cyanine (green)	Designed for 1x Audio
Taiyo Yuden	Cyanine (green)	
Mitsui Toatsu Gold	Phtalo Cyanine (gold)	
Ricoh Gold	Phtalo Cyanine (gold)	Sunflower 2 type

In general the majority of green discs (Cyanine-dye) performs better on 1x speed than gold discs (Phtalo Cyanine-dye) with the exception of the types listed above. (As of 1-1-1998).

3 Disc position in drawer

When loading a CDR disc, take care that the disc is put properly in the middle of the guides of the loading drawer, to avoid initializing and reading errors.

4 Auto Start Recording with DAT

The first part of track is cut off when recording from DAT. The start IDs of your DAT source are too close to the audio information.

- Use manual recording or re-mark the start IDs on the DAT source.

NOTAS