![NAGRA]

CDC – Concept CD player

User manual

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Nagra – CDC Concept CD player

Important safety warnings

- Before operating the CDC, read the manual carefully;
- Should you have any questions on how to setup or use your CDC, please contact your dealer;
- Do not attempt to open the unit under any circumstances. Refer any service/repair work to qualified personnel. There are no user serviceable parts inside the CDC;
- Nagravision SA declines all responsibility in the event of an accident caused by the non-observance of these instructions or any other form of user negligence.

NOTA: NOTE: This CD player was not designed for use with a "CD mat" placed on a CD, or with two CDs stacked together. It can read audio CDs but will not accept CD-V, CD-I, CD-ROM, PHOTO CD or DVD format discs.

Warranty

Nagra, a division of Nagravision SA, certifies that this instrument was thoroughly inspected and tested prior to leaving its factory and is in accordance with the data given in the accompanying measurement protocol and test sheet.

We warrant the products of our own manufacture against any defect arising from faulty manufacture for a period of three years from the date of delivery to the user.

Warranty will be voided if the serial number has been removed from the player.

This limited warranty covers the repair of confirmed defects or, if necessary, the replacement of the faulty parts, excluding all other indemnities.

All freight costs, as well as customs duty and other possible charges, are at the customer's expense.

We decline any responsibility for any and all damages resulting, directly or indirectly, from the use of our products.

We reserve the right to modify the product, and / or the specifications without notice.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems).
This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local authority, your household waste disposal service or the shop where you purchased the product.
Applicable to the following devices: CDC CD player and remote control.

Congratulations

Congratulations, you have just purchased one of the best CD player ever made!

The CDC was created by an engineering team with over half a century of experience designing world-class products for the professional audio, national security and military businesses.

Since its inception in 1951, Nagra builds products that continue to earn a reputation for delivering ultimate sonic performance. Numerous awards have been bestowed upon Nagra for its technical innovation, excellence in design and flawless construction including three Oscars® and one Emmy®.

The hi-fi products and field recorders are developed by the same R&D Department. Nagra philosophy is to provide innovation and technology in order to design high quality products. The hi-fi range was created to implement innovative designs and provide Nagra expertise to a new field.

Thank you for being our customer and enjoy your new Nagra CDC!

Package content

In addition to the user manual and the CDC itself, the box contains the following:

- AC power cable*;
- Measurement protocol, this is the actual electrical measurement of your CDC;
- ACPS II external power supply;
- RCU II remote control;
- 9V cell for the remote control;
- Magnetic clamp.
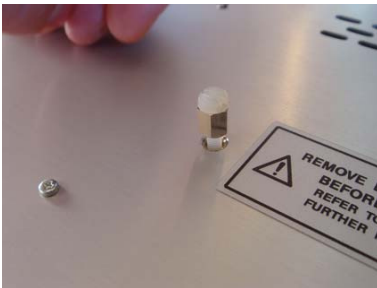
If anything is missing, please contact your dealer.

*depending on your country, the AC mains cable features either bare wired, US, European or Swiss plug.

Installation

Unlocking the playback mechanism
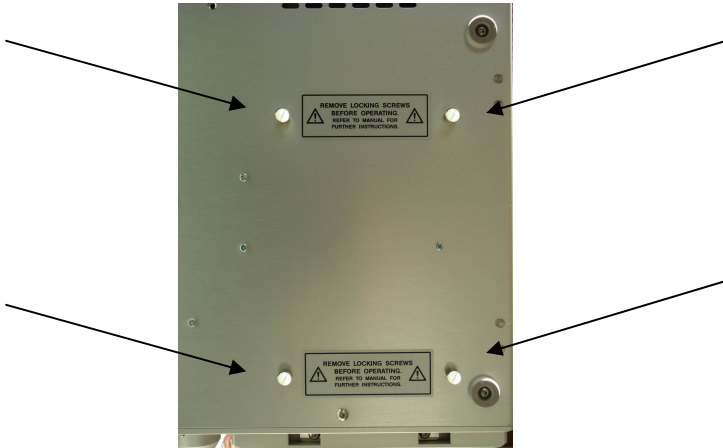
Locking screws x 4

The Nagra CDC features a playback mechanism locking system for transport. Note, the screws on your CDC may differ from the one shown on the picture. All CD players now come with metal screws.

Remove the four mechanism locking screws before using the device.

You can perform this operation using a flat screwdriver or a hexagonal spanner **only to unblock the screws.**

> **When installing the locking screws, the final tightening must imperatively be performed by hand and extremely carefully.**

Please store these screws safely, as you will need them if you transport your CDC in future.

Warning: **When handling the CDC, the tray is no longer locked. Hold the CDC flat with a slight backwards slant, so that the disc loading tray does not open.**

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Set-up

In order to protect against the risks of fire and electric shock, please keep this device away from rain and humidity.

Place the compact disc player on a perfectly flat and vibration free surface.

The positioning of the CDC must allow free access to the ventilation slots located under the device and to the disc loading tray.

The top cover of the CDC features three slots for isolation spikes.

You can obtain an isolation spike kit for the following devices: CDC, CDP, CDT, PL-L and PL-P from your Nagra dealer.

Remote control

The RCU-II remote control requires a 9V battery.

We recommend using alkaline batteries for extended battery life.

Hold the remote control upside down. Remove the screw (screwdriver number 3). Slide the battery compartment off, install the battery, slide the compartment back on and replace the screw.

Remove the battery at the end of its useful life or if the remote control is not used for a prolonged period.

Batteries contain chemical substances and must be disposed of appropriately.

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Connecting the ACPS II power supply

Place the front panel selector on the OFF position. Insert the LEMO plug from the ACPS II power supply into the POWER IN connector of the connection block.


The Lemo plug features a red dot that must be facing upwards for correct insertion into the power input connector.

You will hear a click, indicating that the plug is securely locked in.

After connection of the Lemo plug, connect the ACPS II to the mains via the IEC cable.

Illumination of the ACPS II's red LED (Light-Emitting Diode) indicates the output of direct current. If the LED is off, check the connection of the IEC mains cable and the delivery of current to the mains plug.
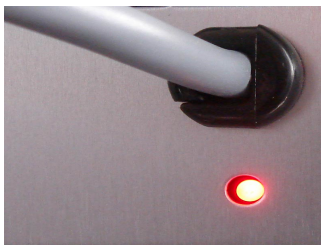
To disconnect the Lemo plug.

Hold the fluted section of the plug as shown in the picture and pull backwards.

Using the ground connector

The CDC is equipped with a connector which is directly linked to its casing.

This allows for consistent earthing of the various audio components.

In specific cases, using this connection can cause damage to your system.

It is imperative to contact your Nagra dealer, who will be able to advise you on the usefulness of this connection according to your setup.

Audio connections

Before making any connections, ensure that the CDC and other components are switched off.

The connection block is located either on the back panel, or on the right side of the unit. Please contact your Nagra dealer if you wish to change its position.

Connection block
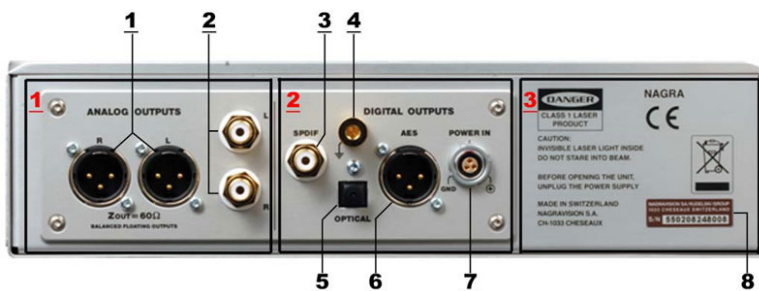
1 – Analogue output group
> 1 – XLR balanced analogue outputs
> 2 – RCA unbalanced analogue outputs

2 – Digital output group and power input
> 3 – SPDIF digital output
> 4 – Earth connector
> 5 – Toslink optical digital output
> 6 – AES-EBU digital output
> 7 – Lemo power input

3 – Device identification plate
> 8 – Serial number

The rear or side panel of the CDC features two output groups: analogue and digital.

The unbalanced analogue outputs are on RCA connectors (Hi-Fi standard) and the balanced analogue outputs are on XLR connectors. Use these analogue outputs to connect the CDC to your integrated amplifier or to your stereo or monoblock amplifier.

The analogue output level can be modified by your Nagra dealer.

The CDC features 3 digital outputs:

- SPDIF
- AES-EBU
- Toslink optical

Use these connectors to link the CDC to an external converter, such as the Nagra DAC.

When the CDC is set to the Output position, the analogue and digital outputs are active.
When the CDC is in the Phones position, the analogue outputs are deactivated (the digital outputs are active). (See front panel).

Front panel / controls
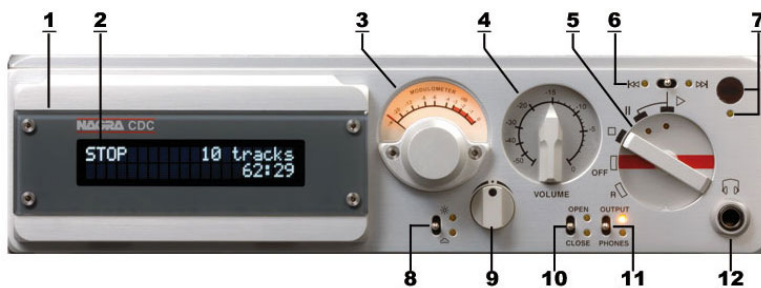
1 – Loading tray
2 – Display
3 – Modulometer
4 – Output level control
5 – Main control
6 – Fast Forward/Rewind - Track skipping control
7 – Remote control receiver with status LED
8 – 7-position brightness control
9 – Left/Right balance
10 – Loading tray open/close control
11 – Headphone/Analogue output switch
12 – ¼" (6.35mm) jack stereo headphone output

Main selector

1 – Main selector
2 – Function LEDs
3 – Play
4 – Pause
5 – Stop
6 – Off
7 – Remote control

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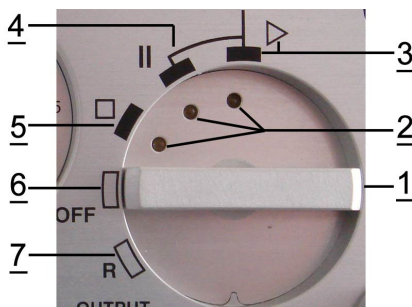
Display

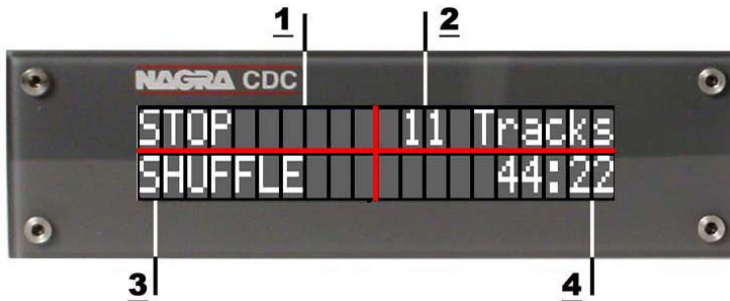The integrated display on the loading tray provides information about the playback status functions.
The displayed track/time information is obtained by reading inaudible "subcode" data recorded on the disc.

1 – Active functions: STOP, PLAY, OPEN, CLOSE, etc.
2 – Track display: Current or table of contents.
3 - Function modes: REPEAT, SHUFFLE, INTROSCAN, information or error messages.
4 – Time display: Current, total, remaining.

When you load a new disc in Stop mode: the display indicates the total number of tracks and disc playing time.

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Basic functions

Powering up the CDC

Set the main selector to the Stop ■ position, or to the Remote R position if you want to use the remote control (see advanced functions).
If the loading tray is empty the display reads NO DISK.
If a disc is present in the tray, the display indicates the total number of tracks and total disc playing time.
Switching to the Play ▶ position initiates playback.

Switching off the CDC

Set the main selector to the **OFF** position.

Opening/Closing the disc loading tray

Use control number 10 (Open/Close).
This function is only available in Stop or Remote **R** mode.
The tray can also be closed by pushing it manually.
It is preferable to wait for the end of each opening/closing cycle before using this function again.

Loading a CD

The CDC's disc loading tray features a lighting system to help with disc positioning in low light conditions.

Holding the disc by its edge, place it on the rotation axle, printed side facing you.

Then, position the clamp as shown in the picture.

The CDC is equipped with a clamp detection system.
If you forget the clamp, a "NO CLAMP" message will appear on the display.

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Compatible CD types

The CDC supports the Audio CD, CD-R and CD-RW formats.

Disc playback

Set the main selector to the Play ▶ position.

Track skipping – Fast Forward/Rewind

Use the Fast Forward/Rewind – Track skipping control
Brief push to the right ⏭, next track.
Brief push to the left ⏮, previous track.

If you use the "previous track" function within the first 4 seconds of playback of a given track, you will switch to the previous track, rather than return to the start of the current track.

This control must be held for more than 2 seconds to use the Fast Forward/Rewind functions. The search speed increases as the control is held.

Pause

During playback, set the main selector to Pause ⏸ . The display indicates the current track and time position.

Set the main selector to Play ▶ to resume playback.

If the device is stopped, it get will start again from the first track of the disc or program.

STOP

When the device is in Playback or Pause mode, this function stops playback, displays the number of tracks and their duration and defaults back to the first disc track.

Setting the outpout level and balance

Use the output level control to set
the level between -60dB and 0 dB
(maximum)

Use the left/right balance control
to adjust the balance within a +/-
3 dB range

Volume and balance settings will also apply to the headphone output.

Headphone outpout

You can switch the audio output to Phones using control
number 11 (Headphone/Analogue output switch).
The Headphone output setting automatically deactivates the
analogue outputs.

Beware of hearing damage:
In order to prevent hearing damage, do not listen through
headphones at high output levels for prolonged periods of
time. We recommend using moderate listening volumes at
all times.

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Brightness setting

- The CDC is equipped with a seven-position brightness control. From maximum brightness to complete extinction .

- The current brightness setting is memorized when the unit is switched off and restored at power on.

- When the display is off, pressing the control downwards lights up the display and front panel LEDs.

Modulometer

The CDC is equipped with the Nagra stereo modulometer. This measuring device – identical to the one featured on the Nagra V professional recorder – indicates the level of the signal recorded on the CD.
The red pointer indicates the signal level for the left channel.
The black pointer indicates the signal level for the right channel.

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RCU-II remote control

1. Remote control/device assignment section.

The RCU-II allows various Nagra products to be controlled. Buttons 1 to 6 allow you to select a device from the Nagra range. This selection remains active until a different one is made.

The CDC is assigned to button 4 by default.

2. Multi-function keys including:

Main functions:
- Playback ▶ , Pause ‖ , Stop ■
- Track skipping and Fast Forward/Rewind
- Mode functions: Time, Program, Scan, Shuffle, repeat, A/B

Numerical function:
The numeric keypad is activated by pressing

the 🅽🆄🅼 key.
(See direct track selection below*)

Ancillary functions (red serigraphy) :
These keys are only active for the DAC, PL-L and MPA-RCMI.

3. Volume/Balance controls:

UP key: Increases the volume.
DOWN key: Decreases the volume.
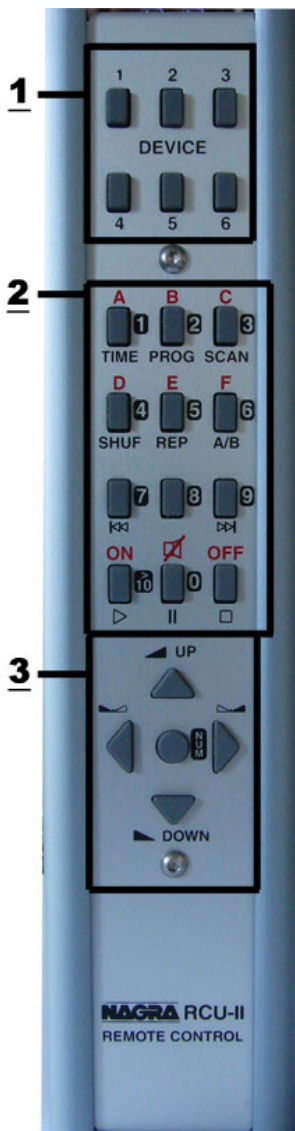
key: Shifts the balance to the left.

key: Shifts the balance to the right.

NB: These keys are always active, regardless of the current setting of the main selector (5).
🅽🆄🅼 key: Provides access to the numeric keypad in section 2 of the remote control.

NB: The CDC is set to device number 4 by default. You can ask your Nagra dealer to change this setting.

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Direct track selection*

When the CDC is in Playback ▸ or Pause Ⅱ mode, direct track selection is available via the remote control.

The 🔢 key activates the numeric keypad. You can then choose between two access modes:

- You can dial the track number quickly on the keypad. For instance: dial 1 and 2 to select track 12.
- You can also use the 🔟 key. For instance: to select track 26, press the 🔟 key twice, then press 6.

When selecting a track numbered between 1 and 9, you can speed up track access by pressing 0 before the required track number. For instance: 06.

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Advanced functions

"Remote" mode

The CDC can operate in either of two modes: Manual or Remote.

In manual mode, the remote control provides access to the following functions:

Fast search, Track skipping, Direct track selection, Playback ▸, Pause ɪɪ, Time display, Introscan, Repeat and Shuffle.

In Stop ■ mode, the remote control provides access to the Repeat, Introscan and Shuffle modes.

In Remote mode, you can use all of the remote control functions.

The front panel is deactivated except for the Brightness control, OPEN/CLOSE control and Headphone/Analogue output switch

To switch to Remote mode, set the main selector to the **R** position.

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Advanced functions description

"Time" mode

In playback mode, the display indicates by default the current track number and elapsed track time.

The remote control's "Time" key allows various time values to be displayed. Successive key presses display:

- the remaining time for the current track
- the absolute total time
- the total remaining time for the CD
- no time indication

This function is not available in the INTROSCAN and REPEAT A/B modes.
The absolute total time and total remaining time values cannot be displayed in the PROGRAM, SHUFFLE and REPEAT ONE modes.

Please note: on some CDs negative time values may be displayed. This is a countdown between tracks.

"Prog" mode

```
PROGRAM
```

The program mode – "PROG" key on the remote control – allows you to program the track playing order.

A program can include up to 20 tracks.

The device must be set to Remote **R** and in Stop ■ mode.

The first key press activates the track selection mode.

You can select tracks using either the backward/forward track skipping function or direct selection via the numeric keypad.

After entering each required track number, press Prog to validate your selection. The display indicates the track order number from 1 to 20 in zone 3, the current track number in zone 2 and the total program duration, including the duration of the displayed track, in zone 4.

```
PROGRAM   Track      11
Step 18   Time   3:56
```

Press the Stop ■ key to end programming or the Play ▸ key to start playback.

Program check

Use the PROG key to check the program. Successive key presses show: the track order number in zone 3 of the display, the corresponding track number in zone 2. Successive key presses show the track order numbers in zone 3 of the display and the corresponding track numbers in zone 2.

At the end of the cycle, the display indicates the number of tracks in the program in zone 3 and the program duration in zone 4. STOP PGM is displayed in zone 1.

During playback, the Pause ‖ key temporarily interrupts playback, while the Stop ■ key stops playback without leaving the program mode.

The Fast Forward/Rewind keys allow you to change track within the program. Fast search is only available within the current track.

Press the Stop ■ key twice to cancel the program. All program entries will be erased.

The ALL/ONE repeat function is available in Program mode.

In this mode, the total program duration display is limited to 240 minutes.

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"Scan" mode

```
INTROSCAN
```

The Introscan mode – "Scan" key on the remote control – allows the first ten seconds of each track to be played automatically.

This function is not available in program mode.

"Shuffle" mode

```
SHUFFLE
```

The Shuffle mode – "SHUF" key on the remote control – allows the tracks of a CD to be played in random order.

"repeat" mode

```
REPEAT ALL
```

```
REPEAT ONE
```

The Repeat mode – "REP" key on the remote control – allows the whole disc (REPEAT ALL) or current track (REPEAT ONE) to be played repeatedly.

You can use this function in Program mode.

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Repeat "A/B" mode

REPEAT A/B

The A/B mode – "A/B" key on the remote control – allows repeated playback of a section between specified time positions.

The A/B time positions may be located on different tracks.

During playback, press A/B at the time position where you want repeat playback to start (time position A).
- The "A" indicator lights up.

During playback, press A/B at the time position where you want repeat playback to stop (time position B).
- The "A/B" indicator lights up and the A to B section is played repeatedly.

Press A/B again to exit the A/B mode.

This function is not available in program mode.

Maintenance

Case cleaning

Clean the CD player casing using a soft, non-fluffy, slightly wet cloth.
Do not use any cleaning products which could have a corrosive effect.
Do not expose the CD player, batteries or CDs to humidity, rain or excessive heat (from domestic heating or direct sunlight).

Always keep the disc loading tray closed to prevent the accumulation of dust on the lens.

Mist formation can occur on the lens if the device is moved from a cold environment to a warm environment. In this case, playback becomes impossible. Keep the CD player in a thermally stable environment until the mist has evaporated.

To clean a CD, wipe it along straight lines from its center to its edge with a soft, non-fluffy cloth. A cleaning product could damage the disc!
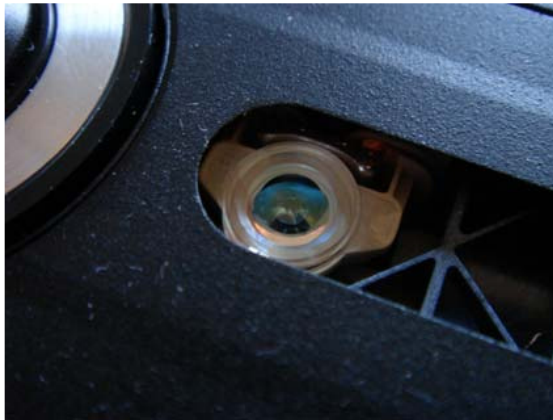
Never write on or affix labels to a CD.

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Laser lens maintenance

If the CD player fails to read CDs correctly, you can clean the laser lens.

This operation must be performed with extreme care.

First, blow some air onto the lens to remove any particles that could scratch the lens's anti-reflectivity layer.

Cleaning must be performed using a non-abrasive cleaning liquid. We advise using a photographic lens cleaning product such as the KODAK LENS CLEANER, reference CAT 1767136, available from camera retailers.

Clean the lens with a lightly impregnated cotton bud. Exert only a very small amount of pressure and imperatively follow the movement shown below.
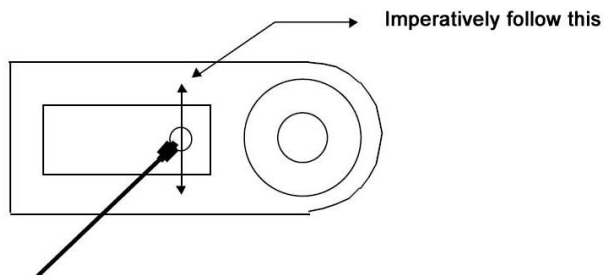
WARNING: Any other cleaning method could destroy the lens.

Technical specifications

The following table shows the general specifications for all Nagra CD players. Your personal CD player measurements are provided on the accompanying "measurement protocol" document.

Formats	CD Audio, CD-R, CD-RW	Ø 120 ou 80mm
Programming	Up to 20 tracks	
Remote control	Nagra RECS80 protocol	
D/A conversion	24 bit	«Advanced segment architecture»
Oversampling	8x (352.8 KHz)	
Frequency response	20 Hz (0dB) to 20 kHz (-1dB)	
Signal to noise ratio	> 108 dB	Measured in ASA A
Total harmonic distorsion	< 0.003%	
Channel separation	90 dB	
Analogue outputs	Balanced XLR Unbalanced RCA	Loading impedance 600 Ω 50 Ω
Output level	3.5 Vrms (or 1 Vrms)	At 0dBFS
Headphone output	6.35mm jack (1/4 inch)	Output impedance 50 Ω
Digital output	AES / UER S/PDIF electrical S/PDIF optical	XLR RCA TOSLINK
Jitter	Negligible (<200 ps)	VCXO Nagra technology
External power supply	12 V DC	
Consumption	Continuous 6 W	Peak : 12W
Dimension	12.2 x 10 x 3 inches	310 x 254 x 76 mm
Weight	8.8 pounds	4 Kg

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NAGRA

Déclaration de conformité
Declaration of conformity

FABRICANT: NAGRAVISION S.A. KUDELSKI GROUP, 1033 Cheseaux SUISSE
MANUFACTURER: *NAGRAVISION S.A. KUDELSKI GROUP, 1033 Cheseaux, SWITZERLAND*

APPAREIL :	Nagra CDC – CDT - CDP
MODEL:	*Nagra CDC – CDT - CDP*

NORMES APPLICABLES :
APPLICABLE NORMS:

Champ électromagnétique rayonné	EN 55022 Cl. B
Radiated electromagnetic field	**EN 55022 Cl. B**
Perturbations conduites sur secteur	EN 55022 Cl. B
Disturbance voltage on mains terminal	**EN 55022 Cl. B**
Immunité aux champs électromagnétiques	EN 61000-4-3
Immunity to electromagnetic fields	**EN 61000-4-3**
Immunité aux décharges électrostatiques	EN 61000-4-2
Immunity to electrostatic discharges	**EN 61000-4-2**
Immunité aux transitoires électriques rapides en salves sur câble d'alimentation	EN 61000-4-4 level 2 (1000V)
Immunity to burst on mains line	**EN 61000-4-4 level 2 (1000V)**
Immunité aux transitoires électriques rapides en salves sur câbles d'entrées/sorties signaux	EN 61000-4-4 level 1 (500V)
Immunity to burst on input/output signal line	**EN 61000-4-4 level 1 (500V)**
Immunité aux ondes de choc	EN 61000-4-5 level 2 (1000V)
Immunity to surge	**EN 61000-4-5 level 2 (1000V)**

Cheseaux   3ème trimestre 2006
Cheseaux   3rd   quarter 2006

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Nagra Hi-Fi range

Please, take a minute to familiarize yourself with our Hi-Fi range. Should you have any further questions, please contact your Nagra dealer or visit our website.

VPS Tube phono stage
Inherited from the PL-P phono stage. The VPS offers one or two MC / MM inputs. It comes in a PL-L box with external power supply. It features new Nagra transformers. The VPS will be available in Autumn 2007.

DAC High definition digital to analogue converter
The DAC has inherited the fabulous electronic design of the Nagra D and Nagra V digital recorders used by the most prestigious music companies and recording engineers around the world.

PL-L Line vacuum tube preamplifier
The PL-L is a Pure Class A vacuum tube line preamplifier, based on the proven design concepts of the world-renowned PL-P. The PL-L is designed to provide the highest quality audio performance in an ultra-high-resolution audio system.

PL-P Battery operated tube preamplifier with phono stage
The PL-P is a Pure Class A vacuum tube pre-amplifier including fully MM or MC a phono stage, the whole unit runs on a rechargeable battery system.

VPA Pure Class A 50 W monoblock tube amplifier without feedback
Since its introduction, the VPA has set new standard for vacuum tube amplifiers, won prestigious awards and, more importantly, became a reference for a tremendous number of audiophiles all over the world.

PMA is a pair of mono-block floor standing pyramids. Offering a power output of 200 watts, these solid-state amplifiers offer a class AB operations inherited from the prestigious MPA family. The PMA gives the discerning audiophile a natural transparency and clarity of sound.

PSA is a stereo version of the PMA mounted in a single pyramid chassis. It gives 100W of output power from a single stereo unit. The PSA provides the same sonic purity and natural transparency as the MPA but in a more compact format.

www.nagraaudio.com