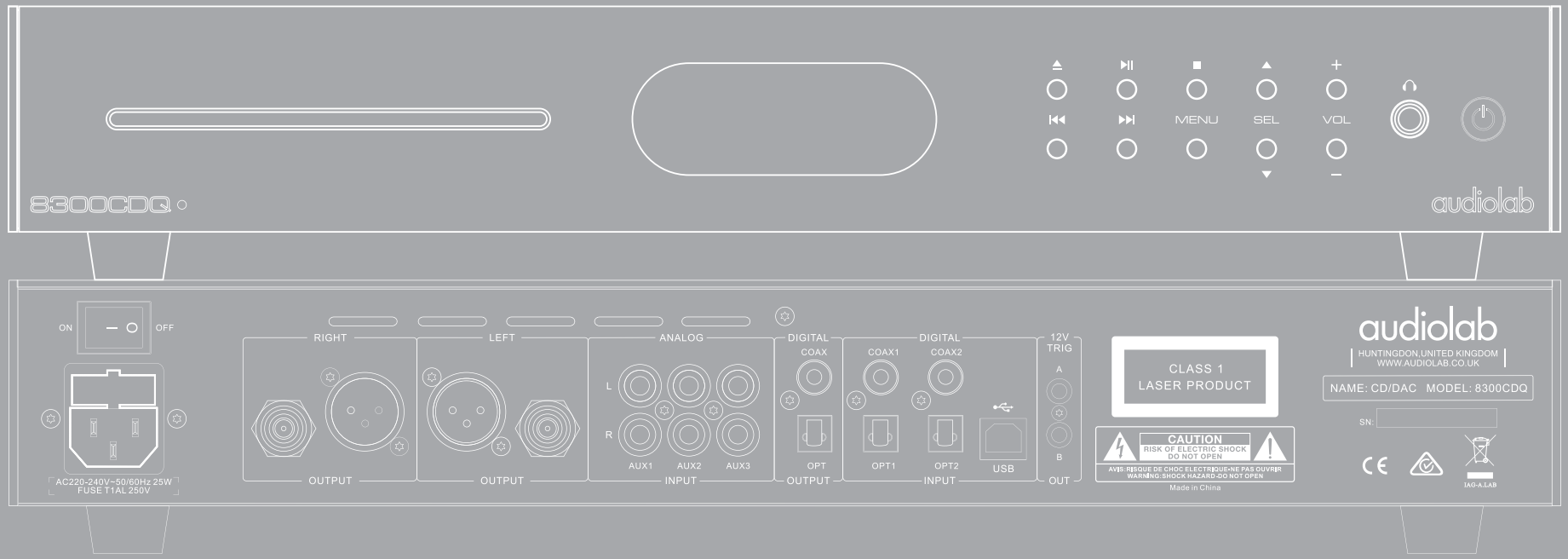


8300CDQ

User Instructions

audiolab

1: Important Safety Information

This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

Warning: To reduce the risk of electric shock, do not remove cover (or back) as there are no user-serviceable parts inside. Refer servicing to qualified personnel.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

IMPORTANT SAFETY INFORMATION

Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Do not use this apparatus near water.

Clean only with dry cloth.

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

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 plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.

Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart or rack is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

Unplug this apparatus during lightning storms or when unused for long periods of time.

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.

CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Do not install this equipment in a confined or built-in space such as a bookcase or similar unit, and keep well ventilated in open space. The ventilation should not be impeded by covering the ventilation openings with items such as newspaper, table-cloths, curtains etc.

WARNING: Only use attachments/accessories specified or provided by the manufacturer (such as the exclusive supply adapter, etc).

WARNING: Please refer to the information on the exterior panel of the enclosure for electrical and safety information before installing or operating the apparatus.

This label tells you that the unit contains a laser component. Opening the unit will expose the user to radiation from the laser beam.

Mains Supply: The mains operating voltage of Audiolab 8300 series units is shown on the rear panel. If this voltage does not match the mains voltage in your area, consult your Audiolab dealer about converting the unit.

The mains supply fuse on the rear panel is accessible when the IEC mains plug has been removed. In the rare event that it has broken, check for any obvious cause before replacing the fuse with one of the correct rating and type. The fuse values are:

220 – 240V (UK, China, etc.) T1AL 250V Slow Blow

100 – 120V (USA, Japan, etc.) T1.6AL 250V Slow Blow

2: Getting Started

Welcome to Audiolab 8300 Series.

8300CDQ is the latest version of Audiolab's classic Compact Disc player with high quality DAC incorporated.

This versatile digital player now accepts inputs from a variety of digital sources right up to 24-bit/192kHz (USB even high to 32-bit/384kHz) resolution and decodes them utilizing the high-end Sabre 32-bit DAC with Audiolab's precision filters.

You can select between 7 different filter choices based on personal preference as well as suitability for different sources, all at the touch of a button on the versatile remote control.

More than just a CD player, 8300CDQ is a versatile digital decoder that will serve you for many years to come.

Please read through this manual to obtain the very best performance from 8300CDQ.

Inputs:

- CD disc playback.
- Two external SPDIF stereo LPCM coaxial digital input
- Two external SPDIF stereo LPCM optical digital input
- USB 2.0 port for replaying stereo from a compatible host
- Three external analogue inputs

Outputs:

- Balanced and unbalanced stereo analogue output
- Optical and coaxial SPDIF digital output
- A stereo 6.3mm headphone output

Operating Features:

- Automatic detection decoding of external digital input source.
- Selectable digital filter setting.
- Fully variable output in the digital domain absolute fidelity with the straightest possible signal path.
- Mute and balance controls.
- Automatic standby on-off switching of connected equipment via 12V trigger output.
- Analogue output level selectable between fixed and variable.
- Three display brightness levels with on/off options.
- Auto standby function with on/off options.

Note: The 8300CDQ should be used with the variable outputs connected directly to a power amplifier. If there are gain controls on the power amplifiers, set them to maximum and leave them there. Use the volume control on the 8300CDQ exclusively to alter the level.

If you wish to connect the outputs of 8300CDQ into a pre-amplifier, you may wish to disable the volume control functions, so that the player operates at a fixed gain. In this mode the unit behaves as a CD/DAC operating in the digital domain.

*Compatible with 120mm (4.73-inch) CDs only.

Unpacking

- Unpacking the product fully. The carton should contain:
- The Audiolab 8300CDQ
- One IEC power cord suitable for your area.
- One Remote handset
- This instruction manual.

If an item is missing or damaged report this to your dealer as soon as possible. Retain the packing for safe transport of your unit. If you dispose of the packing, do so with regard to any recycling regulation in your area.

USB DRIVERS (AND FIRMWARE UPDATES)

To download Windows Drivers, please see the separate manual. Any firmware updates will also be available from www.audiolab.co.uk

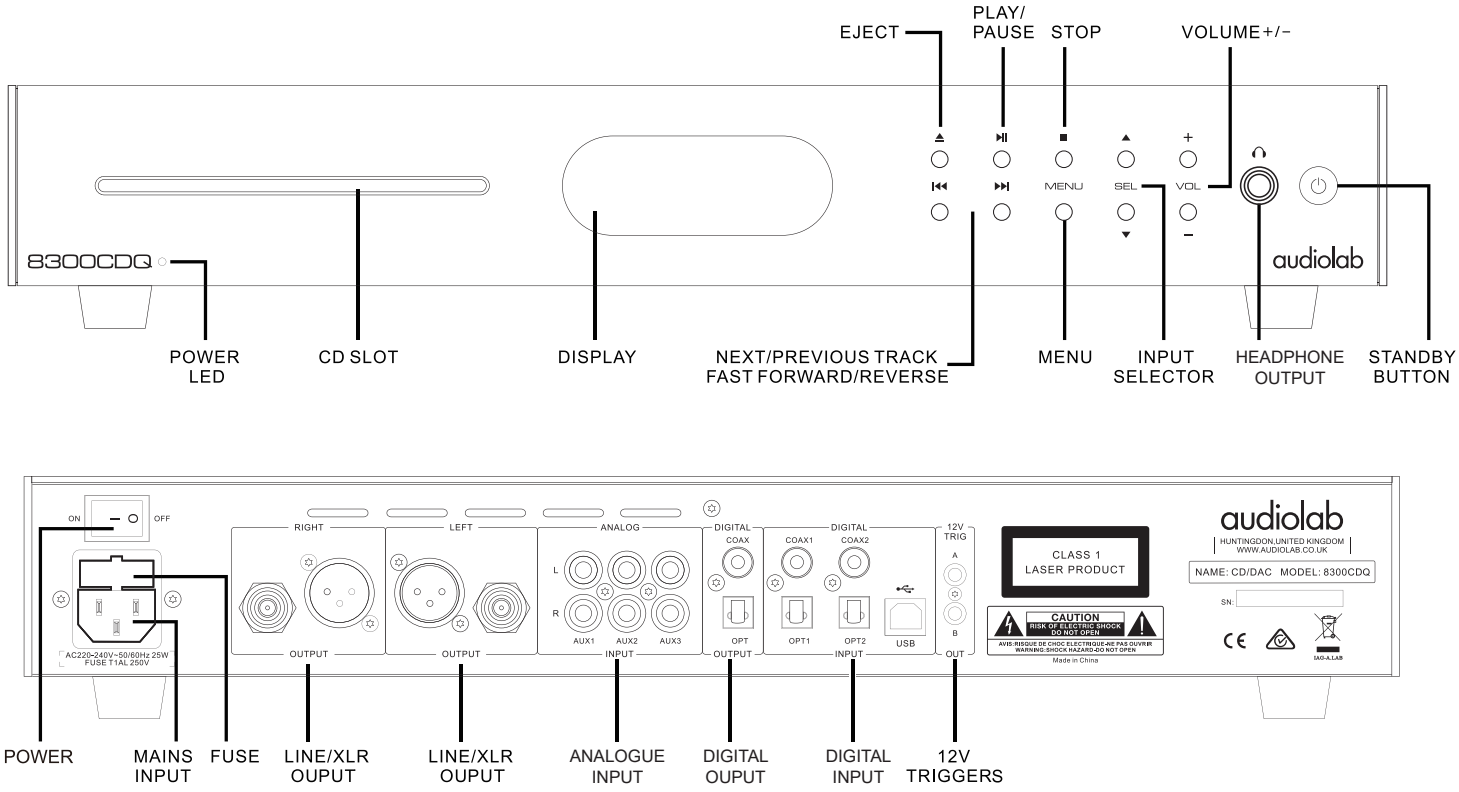
Placement

The unit is designed to run warm during normal operation but ensure you do not block any ventilation openings.

Place the unit on a sturdy shelf or table. If you use an equipment rack ensure the unit has adequate ventilation and is on its own shelf.

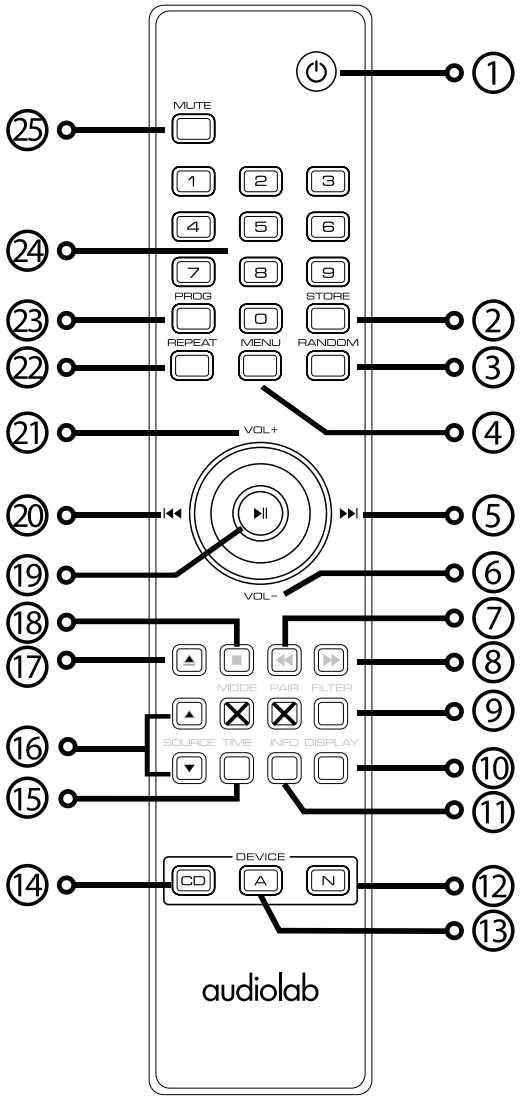
Ensure your mains voltage corresponds to the rating plate on the rear of the product's power supply. If in doubt, consult your dealer. If you move to an area with a different mains voltage seek advice from an Audiolab appointed dealer or a competent service technician.

3: Controls and Connectors



5: Remote Handset

NOTE: the handset buttons shown crossed out are for use with other Audiolab units and are not operational when used with the 8300CDQ



1 STANDBY	Press to bring the unit in/out of Standby
2 STORE	Press to store a track in Program mode
3 RANDOM	Press to select random mode
4 MENU	Press to enter menu mode
5 ▶▶|	Move to the next track of CD/USB
	Move to next menu page or setting
6 VOL–	Decrease Volume
7◀◀	Press and hold to Fast Reverse
8 ▶▶	Press and hold to Fast Forward
9 FILTER	Press to select a digital filter
10	DISPLAY Press to toggle the display on/off
	Press and hold to select display brightness levels
11 INFO	Press to toggle track name or artist name
12 N	Press to select 8300N remote mode
13 A	Press to select 8300A remote mode
14 CD	Press to select 8300CDQ remote mode
15 TIME	Press to toggle track time remaining and elapsed
16 SOURCE	Press to cycle source inputs
17 ⏏	Press to eject/load the disc
18 ■	Press to stop CD
19 ▶||	Press to start/pause CD/USB playback
	Press to next menu page or setting
20 |◀◀	Press once to replay the current track of CD/USB
	Press again to move to the previous track of CD/USB
	Move to last menu page or setting
21 VOL+	Increase Volume
22 REPEAT	Press to select a repeat mode
23 PROG	Press to program tracks of your choice
24 NUMBER KEYS	Press to go directly to a track by number
25 MUTE	Press to mute and unmute the sound

Fitting Batteries

Always use AAA batteries and always replace them in sets. Never mix old and new batteries. Very weak batteries can leak and damage the handset. Replace them in good time!

There is a risk of fire and burns if a battery is handled improperly. Do not disassemble, crush, puncture, short external contacts, or dispose of in fire or water.

Do not attempt to open or service a battery. Discard used batteries in full accordance with recycling regulations in force in your area.

Handset Operation

The handset operates several Audiolab components. The handset buttons shown crossed out are for use with other Audiolab units and are not operational when used with the 8300CDQ.

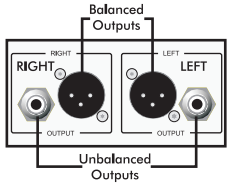
Point the handset at the remote receiver and press the relevant key. The handset should be within 15 meters of the player and there must be a clear line of sight between the two units.

6: Connections - 1

Analogue Outputs

Balanced Output

Balanced connections provide greater dynamic headroom and improved S/N ratio. If your amplifier has a greater dynamic headroom input uses the balanced connection. You need one XLR balanced cable per channel. The socket connects to the player and the plug normally connects to the amplifier.

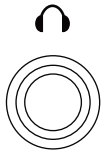


Unbalanced Output

If you cannot used the balanced outputs, connect a high quality stereo screened RCA phone change to phono lead from the unbalanced outputs of the 8300CD to a suitable input of the amplifier.

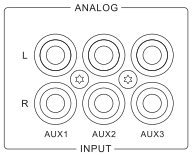
Headphone Output

A stereo 6.3mm (1/4") jack is provided on the front panel for connecting headphones. Connecting headphones mutes the audio signal. 8300CDQ headphone output is up to +3dB, users can select suitable output level base on their headphones. Caution: When using headphones, playing music at very high volumes may permanently damage your hearing.



Analogue Input

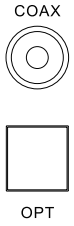
Three standard line inputs are provided. Connect a high quality screened RCA phono lead from the line output of your source component the appropriate input of the 8300CDQ



Digital Outputs

Coaxial and Optical output

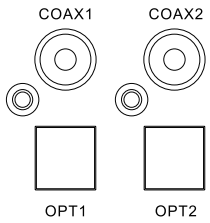
One Coaxial and one Optical SPDIF digital output. Connect a suitable digital coaxial (fully screened) interconnect or optical cable from the appropriate SPDIF output of the 8300CD to the input of the DAC or CD transport.



Digital Inputs

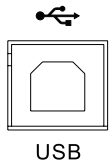
Four digital inputs (Two Coaxial and two Optical) are provided for connecting the 8300CDQ to an external SPDIF source. The inputs are connectable to a wide range of digital media. Connect a suitable digital coaxial (fully screened) interconnect or optical cable from the SPDIF output of the source component to the appropriate input of the 8300CDQ.

If you are connecting a multichannel source, access the menu of the source component and set SPDIF output to (L)PCM Stereo with the speakers OFF.



USB Port

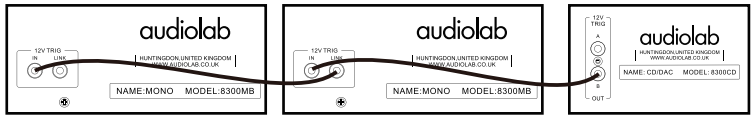
Use a certified USB2.0 cable, connect the cable to 8300CDQ and then to the USB port on the digital source. If the media player on your computer features stereo and multichannel output set the output of the media player to stereo.



12V Trigger Connectors

A trigger circuit is a "daisy chain" in which one unified command from the master unit (8300CDQ) can bring all the connected "slave" units into or out of standby. The slave equipment is left powered on but is switched in and out of standby in synchronism with the master. When the 8300CDQ is powered on or off, the trigger pulse switches all slave equipment on or off in tandem.

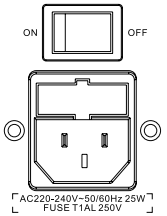
Two trigger outputs are provided and they are both enabled as supplied though you may fully or partially disable them as required.



Trigger operation of 8300CDQ with two 8300MB power amplifier

Mains Input

Before connecting the 8300CDQ to the mains supply make sure that all the other connections to your system have been properly and securely made. Make sure the ON/OFF switch on the 8300CDQ is switched off. Switch the mains supply off at the wall socket, and then, using the cable supplied, connect the socket on the back of your 8300CDQ to an AC supply outlet. The player is now ready for operation.



7: Operation - 1

Switching On and Off

Connect power to all system units. Switch the mains on. Switch on all source units including the 8300CDQ. Switch on the power amplifiers.

When switching off: switch off the amplifier first before switching off the 8300CDQ unless they are trigger enabled.

When switching on: The power LED illuminates.

Standby Mode

Audiolab 8300CDQ will be in standby mode when power on. Press the ⏻ button to bring 8300CDQ out of standby, the power indicator LED becomes brighter, after a short period the units boots up,the display shows the welcome screen You can activate the 'auto standby' function by holding the ⏻ button down for 3 seconds. Using this 'auto standby' function, 8300CDQ will automatically go into standby mode when there is no signal input or operation for 20 minutes, and the power indicator LED becomes dim .

Altering the Volume Level

Press the VOL +/- keys on front panel to alter the level.

The range is -80dB to +3dB, 0dB is nominally 2.0Vrms .

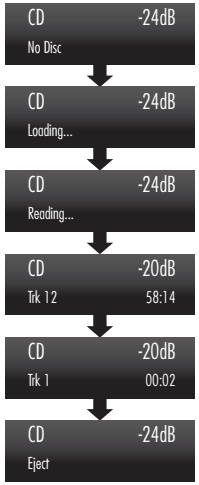
The factory default volume is -20dB. If the volume is set to lower than -20dB when the unit is closed, the default volume will be last used value when the unit next boots up. If the volume is set to higher than -20dB, the default volume will be -20dB when the unit next boots up.

Playing a CD

If not already selected, press the DIGITAL key on the handset to cycle the CD input, or cycle the SEL key on the front panel to select the CD input.

Loading a Disc

Insert one CD into the slot. The disc information will now display. After reading the track information the disc will stop.



Playing a Disc

Press ⏯ to play a disc.

Press ⏯ to pause a disc, press again to resume play

Press ■ to stop the disc

Press ⏏ to eject the disc

Next/Previous Track

Press ⏭ to move to the next track.

Press ⏮ to once to replay the current track.

Press ⏭ / ⏮ repeatedly to move through the tracks forward or back on track at a time.

If you exceed the number of tracks on the disc, the player will wrap round and play from track 1.

If you go past track 1, the player will wrap round and reverse search from the final track on the disc.

Direct selection of the tracks from the handset

Select the wanted track directly from the remote key pad. The disc will play forward from the chosen track. If you choose a single digital track (e.g.1) in a disc which contains more than 10 tracks, the player will pause briefly, waiting for you to enter a second digital. If none is entered, player will commence from the entered single-digit track. If the choice is invalid the display reverts to the previous state.

Note: You can preselect a track before you load a disc. When the disc is loaded the player will play from the selected track.

7: Operation - 2

Search

Press and hold ▶▶| on front panel or ▶▶ on remote to search forward through a tracks or tracks. If you keep the button pressed, the player will search the entire disc. When the end of the disc is reached the player will cycle around a point 1 second before the end of the disc. On releasing the button the player plays to the end of the disc.

Press and hold the |◀◀ on front panel or ◀◀ on remote to search back through a track or tracks. If you keep the button pressed, the player will search back through the disc. When the start of the disc is reached, nothing further will happen. On releasing the button the player plays from track 1.

Repeat

Press the repeat key to cycle the repeat mode

Mute

Press the MUTE key to toggle the sound off/on.

Program Play

You can create a custom program of up to 99 chosen tracks.

Program mode must be accessed when the disc is stopped.

Press PROG first to enter program mode. Press a track number, and then press STORE to save.

To play the program: Press ▶||

To stop program play: Press ■ .

To erase a program from memory: The program is stored in the player's memory until erased. Press ■ twice or eject the disc to erase stored program.

Info Display

Repeatedly press the INFO key on remote to show Artist and Title. When playing a disc the player remembers the last INFO display mode set. If you switch to another input and then back to CD mode, the player recalls the last used state and plays from the point at which you changed inputs.

The info feature requires disc support and can be enabled/disabled in the menu. See page 9.

Selecting a Digital Input Source

Press the DIGITAL keys on the handset or the SEL buttons on the front panel to select a digital input.

When the input is locked, the front panel will display the input source frequency. If the input display reads "Unlock", this because the source is switched off, in standby or the unit is paused.

There are no playback controls active when the 8300CDQ is processing a digital coaxial or digital optical input. But HID function is available when playing PC USB,Play, Pause, Previous track, Next track can be controlled by the handset and front panel buttons.

Notes: We recommend you pass a Digital signal to the 8300CDQ without any DSP processing or resampling at the source. This will allow the upsampling circuits in the 8300CDQ to work at their optimum.

If there is a digital volume control on the source unit, set it at maximum and use the volume control in the 8300CDQ to alter the volume level. This may seem counter-intuitive but will preserve optimum performance. Consult the user manual on your source unit for advice.

Setting the DPLL Bandwidth (SPDIF inputs only)

The SPDIF inputs are tolerant of high-jitter digital steams. When receiving input from some DVT-B and satellite receives, games consoles etc. the high jitter form these sources may cause the interface suffer from clicking, drop-outs etc.

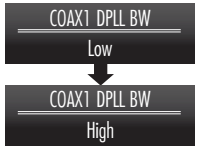
The 8300CDQ is set by default to Auto mode for maximum compatibility with digital source. However, each digital input may be altered to be more/less tolerant of jitter.

- Select the required SPDIF input
- Press and hold the PROG button for remote handset
- Press |◀◀ ▶▶| can choose different setting.

There are two settings:

Low Bandwidth: this setting offers the best performance but with the lowest tolerance of source jitter errors.

High Bandwidth: this offers the highest tolerance to high jitter or unstable data streams but with reduced performance.



7: Operation - 2

When an external input is playing:

- The volume level is alterable.
- Mute is operational.
- The display can be switched off/on and the brightness can be set.

Playing a USB input

To use the USB input for the first time, the device requires the installation of the USB driver . Download the driver via www.audiolab.co.uk. Please refer to the file when installing the software. Connect your computer to 8300CD via USB cable (type A to Type B), change the Play mode to USB input using the handset or the button on the front panel.

"Unlocked" will be displayed if no input signal for USB. The Play with digital inputs will lock onto the input data when there is an input signal for USB. The display screen will then indicate the presence of a digital signal and show the output sampling frequency of the music file in your computer.

If input sampling frequency is 384kHz, display shows PCM384 kHz.

If the format of music file is DSD64, display shows DSD2.8MHz.

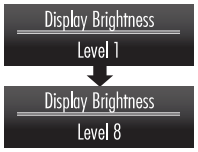
If the format of music file is DSD128, display shows DSD5.6MHz.

If the format of music file is DSD256, display shows DSD11.2MHz.

If the format of music file is MQA,display shows MQA.

Selecting the Display brightness level

Press the DISPLAY button to toggle the display off/on. When the display is set to OFF: Pressing any key will bring the display on. After a few moments the display will again switch off.



To alter the display brightness: Press and hold the DISPLAY button. The current brightness level display, Press DISPLAY button repeatedly to alter the level from 1-8.

Note: Switching the 8300CDQ off and on again restores the display settings to high.

7: Operation - 3

Selecting a Digital Filter:

8300CDQ has 7 filters available for PCM audio. Press the FILTER key once to display current PCM filter, Press the FILTER key again to change filters. Or press MENU key to enter menu mode, press ⏮ or ⏭ to turn menu to "Digital Filter" page, press ⏯ to enter filter page, press ⏮ or ⏭ again to select different filters, press ⏯ again to confirm chosen filter.

The "Optimal Transient" filters exhibit no ringing – the transient nature of the music is preserved. Although exhibiting poorer performance in technical measurements, sound from this type of filter has a purity and "naturalness" that more than compensates for the lack of the technical specifications. There are three Optimal Transient Filters. They exhibit identical frequency and time domain response but the internal structure of the filters varies. Resulting in small but the perceptibly different sonic nuances.

The "Sharp Rolloff" filter typifies industrial standard characteristics (-6dB at 1/2 Fs with significant time-domain ringing) and is included here for comparison purposes.

The "Slow Rolloff" filter starts rolling off at a lower frequency then the Sharp Rolloff filter but has a gentle rate of attenuation and significantly less "time-domain ringing". This filter is not recommended to use normally, unless the difital signal from source is very poor can't play with other filters.

The "Minimum Phase" filter has a gentle attenuation slope similar to the Slow Rolloff option, however it exhibits no pre-ringing in the time domain. It can be likened to an analogue filter applied in the digital domain.

The "Optimal Spectrum" filter implements sampling theory and is designed for near perfect technical response in the frequency domain. This filter also has time-domain pre-ringing which can lead to listener fatigue.

For DSD mode, there are four filters "Normal", "50K", "60K" and "70K" which with cutoffs at 47k, 50K, 60k, 70k. End user can adjust the IIR bandwidth via selecting different filters to get favorite sonic nuances.

The Audiolab products uniquely offer you a wide choice of filters to meet your listening expectation.

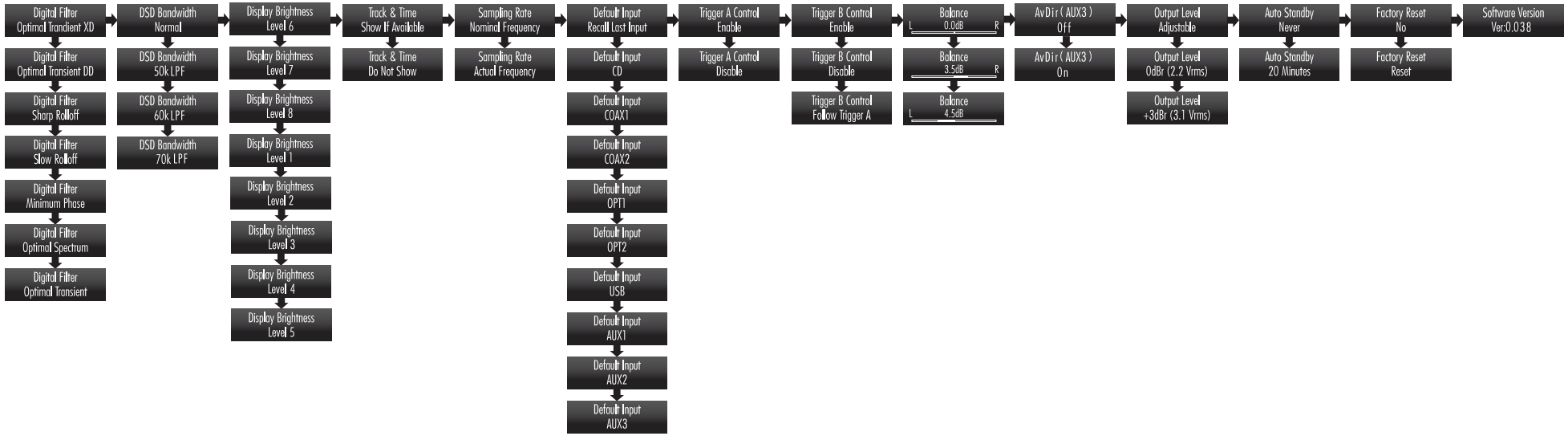
8: The Menu

The menu enables you to customize the unit and optimize the interface with other equipment in your system.

8300CDQ has 14 different menu pages. Press MENU key to enter menu mode, and then press ⏮ or ⏭ to turn to different menu pages, press ⏯ to enter any menu page, press ⏮ or ⏭ again to select different setting, press ⏯ again to confirm chosen setting and exit the menu mode. No operation for 5 seconds will also exit menu mode. The Setting will not take effect if ⏯ is not pressed.

The Menu Tree

The chart shows the menu options, Main menu item are at the top. The next level shows the default settings.



9: Warranty

Audiolab Ltd. warrants this product, subject to the terms and conditions below, to be free from defects in materials and workmanship. During the warranty period Audiolab will repair or replace (at Audiolab's option) this product, or any defective part in this product, if it is found to be defective due to faulty materials, workmanship or function. The warranty period may vary from country to country.

Terms and conditions

The warranty starts on the date of purchase (or the date of delivery if this is later).

You must provide proof of purchase/delivery before work can be carried out. Without this proof, any work carried out will be chargeable to you.

All work will be carried out by Audiolab or its authorized agents or distributors.

Any unauthorized repair or modification will void this warranty.

If any part is no longer available it will replaced with a functional replacement part.

Any parts that are replaced will become the property of Audiolab.

Any repair or replacement under this warranty will not extend the period of warranty.

This warranty is valid only in the county of purchase, applies only to the first purchaser and is not transferable.

The following are not covered:

1. Products which the serial number have been removed, altered or otherwise made illegible.

2. Normal wear tear and cosmetic damage.

3. Transportation or installation of the product.

Accidental damage, fault caused by commercial use, acts of God, incorrect installation, connection or packing, misuse, neglect or careless operation or handling of the product which is not in accordance with Audiolab's user instructions.

1. Repairs or alterations carried out by parties other than Audiolab or its authorized agents or distributors.

2. Products not purchased from an Audiolab authorized dealer.

3. Products that were not new at the time of original purchase.

4. Products sold 'as is', 'as seen' or 'with all faults'.

Repairs or replacements as provided under this warranty are the exclusive remedy of the consumer. Audiolab shall not be liable for any incidental or consequential damages for breach of any express or implied warranty in this product. Except to the extent prohibited by law, this warranty is exclusive and in lieu of all other warranties whatsoever, both express and implied, including, but not limit to, the warranty of merchantability and fitness for a practical purpose.

This warranty provides benefits that are additional to and do not affect your statutory rights as a consumer.

Some countries and U.S. states do not allow the exclusion or limitation of incidental or consequential damages or implied warranties so the exclusions in the paragraph above may not apply to you. This warranty gives you specific legal rights, and you may have other statutory rights, which vary from state to state or county to county.

How to claim:

To obtain warranty service contact the Audiolab authorized dealer from which you purchased this product. Do not dispatch goods without the prior agreement of the dealer, Audiolab or their authorized distributors.

If asked to return products for inspection and/or repair, pack carefully, preferably in the original cartons or packing affording an equal degree of protection, and return prepaid. If unsuitable packaging is used, Audiolab may make a charge for the supply of new packaging.

Insurance is recommended and goods are returned at owner's risk. Audiolab or their authorized distributors cannot be held liable for loss or damage in transit.

10: Specifications

(Measurement made with 230V power supply)

Output Voltage	4.2Vrms ±0.1 (Balanced) 2.1Vrms ±0.1 (Unbalanced)
Output Impedance	10Ω
Total Harmonic Distortion (THD)	<0.002% (1kHz, 0dB, 20Hz ~ 20kHz, A weighted)
Frequency Response	20Hz - 20kHz (± 0.2dB)
Signal to Noise Ratio (S/N)	<-100dB A Weighted (Balanced) <-98dB A Weighted (Unbalanced)
Dyanmic Range (A Weighted)	>100dB (Balanced) >98dB (Unbalanced)
Crosstalk (@1kHz)	<-130dB (Balanced) <-120dB (Unbalanced)
Standby Power Consumption	<0.5W
Power Requirements	240V ~ 50 - 60Hz 230V ~ 50 - 60Hz 115V ~ 50 - 60Hz 100V ~ 50 - 60Hz
Dimension(mm) (W x H x D)	444 X 80 X 317
Carton size(mm) (W X H X D)	500 x 140 x 455
Weight	6.0kg (Net) 7.5kg (Gross)

Correct disposal of this product. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

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