

EVOLUTION CD

DAC / CD Player

Instruction Manual

Congratulations on purchasing a Creek **EVOLUTION 50 or 100 CD**. Please read this manual thoroughly as it will explain in detail the features and operation of your **EVOLUTION CD** and help to ensure a trouble free installation. Unpack the player carefully, as it is recommended that you save the carton and packing material for future use, should you need to move home or return it for service etc.

SAFETY INFORMATION

The **EVOLUTION 50CD and 100CD** are designed to operate on either 220-240 Volts - 50 Hz AC, or 110-120 Volts - 60 Hz AC. The voltage selector switch is located on the bottom of the case; to select a different voltage range, use a small flat-blade screwdriver to push the switch from one position to the other. A mains fuse is fitted to a sliding tray inside the IEC socket. There is a spare one also fitted inside and they are designed to work in both voltage ranges. If the mains fuse fails and the spare fails also when fitted, it usually indicates a serious internal fault and the product should be returned to the dealer or a specialised service company for inspection and or repair. Do not attempt to effect repairs yourself.

The product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installations.

TO ACHIEVE MAXIMUM PERFORMANCE FROM YOUR EVOLUTION 50CD or 100CD:

Install the equipment in a location which is relatively free of moisture and dust, and is well ventilated. The equipment may not be able to perform at its best in an extremely cold or hot environment. Do not attempt to use below 5 C / 41 F or above 35 C / 95 F.

Always handle compact discs with clean hands. Avoid using scratched discs. Do not attempt to clean the CD player or discs with chemical solvents, as this may cause irreparable damage. Use a clean, dry cloth, or specially designed cleaning materials for discs. If the CD player malfunctions, do not open the unit and attempt to repair it yourself. This is a highly technical product and requires specialist service – please return it to your dealer.

Use two batteries (2 x AA) of the same type in the remote control handset. Do not use odd or different type cells as it may affect the performance.

Keep this manual in a safe place for future reference.

GETTING STARTED

The **EVOLUTION 50/100CD** is not just a CD Player; it is a Digital to Analogue Converter and Pre-Amplifier, fitted with a Slot Drive CD transport as one of its digital sources. The DAC has 2x SPDIF and 2x TOSLINK digital inputs capable of reading digital signals up to 24 bit 192 kHz high-resolution.

Connect your **EVOLUTION 50/100CD** to a suitable audio amplifier. Creek Audio recommends its **EVOLUTION 50A** or **EVOLUTION 100A** integrated amplifiers, or **EVOLUTION 50P** or **EVOLUTION 100P** power amps as a perfect cosmetic and performance match, but virtually any stereo integrated amplifier with a line-level input should be OK. If you enable the **EVOLUTION 50A**'s digital volume control, it is also possible to use it with a power amp like the **EVOLUTION 50P** or **100P**. Alternatively, use the integrated amp like a power amp by configuring your **EVOLUTION 50/100A** for AV Direct mode on Line 3 or 4. This will bypass the volume control for those inputs only.

Connect the mains supply using the 3-core mains cord supplied. Push the 3 pin IEC plug into the socket on the rear panel and plug the other end into a suitable wall socket. Ask your dealer for advice if in doubt.

Use a pair of good-quality stereo interconnects to join the analogue output of the DAC/CD Player to the input of your amplifier. There are both un-balanced and balanced outputs available. Although it is possible to use both outputs simultaneously we do not recommend it, as it can unbalance the signal and reduce the performance.

Note: Balanced outputs can be connected directly to an **EVOLUTION 50A** or **100A** series amplifiers. If the distance between them is greater than 5 metres (26.4 feet), it may provide better sound quality. Balanced audio, using XLRs is a professional standard and designed to reject unwanted noise or hum over long cable lengths. For shorter cable runs it may not improve the sound of your system, because of the additional circuitry required, so please experiment to see what works best for you. Just as with un-balanced interconnects, cable quality can affect the sound quality. Creek follows the EAS48-2005 standard for balanced connections. Ask your dealer for advice if you are not sure.

Output level **EVOLUTION 50CD**

The output level is set at 'Line Level (0dB max)', by default. If you wish to change this to become variable, Pre-Amplifier Mode must be enabled through the Start-Up Menu. To enable 'Pre-amplifier Mode' turn the power off. Press and hold the MENU button while simultaneously powering-on the **EVOLUTION 50CD** to reveal the Start-Up Menu.

The Start-Up Menu will display the following: 'Analogue Output' and 'Factory Defaults'. To enable the digital volume control, select Analogue Output by pressing the Play/Pause button. Press the Track Back/Forward button until Pre-amplifier Mode is highlighted. Press the MENU button again to confirm and start the product. The window will briefly display the

CREEK logo and the unit will then start working with digital volume controlled output. You will see there is now a volume level symbol shown in the bottom right hand corner of the display. Volume adjustment can be made using the remote handset blue + or – button, after the CD or DAC button at the top has been pressed. When using the volume control the display will switch to showing the full level setting for a short time and then return to show the input with a small level display only.

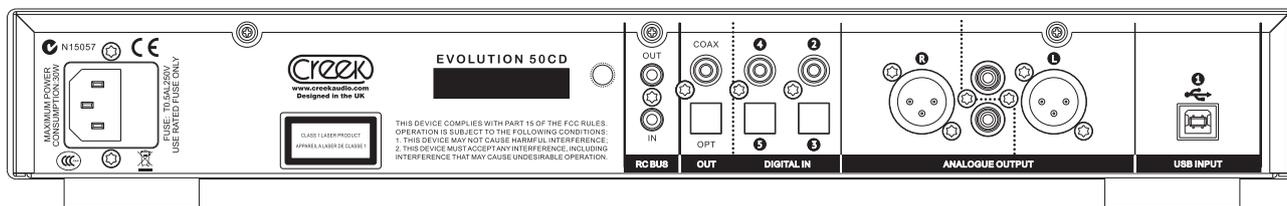
To return to a fixed level output follow the same path as above, but select LINE LEVEL (0dB) and then MENU. Alternatively, select Factory defaults, then press ‘Reset to Defaults’. Press Menu to return to normal operation.

Output level EVOLUTION 100CD

Volume control is adjustable from the front panel control knob and the remote handset. If you require the output level to be set to maximum (0dB) for all inputs, you should follow the **EVOLUTION 50CD** volume instructions to change it. Please Note, the headphone output will always have volume control, even if the output setting is for 0dB Line level.

Note: The maximum volume level, when switching-on, are limited to -20dB. However, if the last volume level before switching off was < -20dB it will be remembered.

REAR PANEL



The rear panel contains all the input and output connections, with the exception of **EVOLUTION 100CD** headphones.

INPUTS

1. USB input, Class 2, is for connection to a computer or streaming device to extract high-resolution digital audio data.
2. Co-ax SPDIF digital input, which can connect to a CD transport, or other digital device.
3. Optical TOSLINK digital input, which can connect to a CD transport, or other digital device.
4. Co-ax SPDIF digital input, which can connect to a CD transport, or other digital device.
5. Optical TOSLINK digital input, which can connect to a CD transport, or other digital device.
6. Bluetooth is enabled on the **EVOLUTION 100CD**. **COMET BT** is available as an optional plug-in module for the **EVOLUTION 50CD**.

Please check with your dealer or www.creekaudio.com for price and availability of the plug-in **COMET BT** module.

Mains input - 3 pin IEC with ground connection and fuse.

Use the power cord supplied, which is suitable for use in your country or region.

RC Bus:

The In and Out sockets connect either **EVOLUTION 50A** or **100A** amplifiers to the matching **EVOLUTION 50CD** or **100CD**, controlling two products with the IR remote sensor in one product only, to maintain functional synchronisation between both products.

OUTPUTS

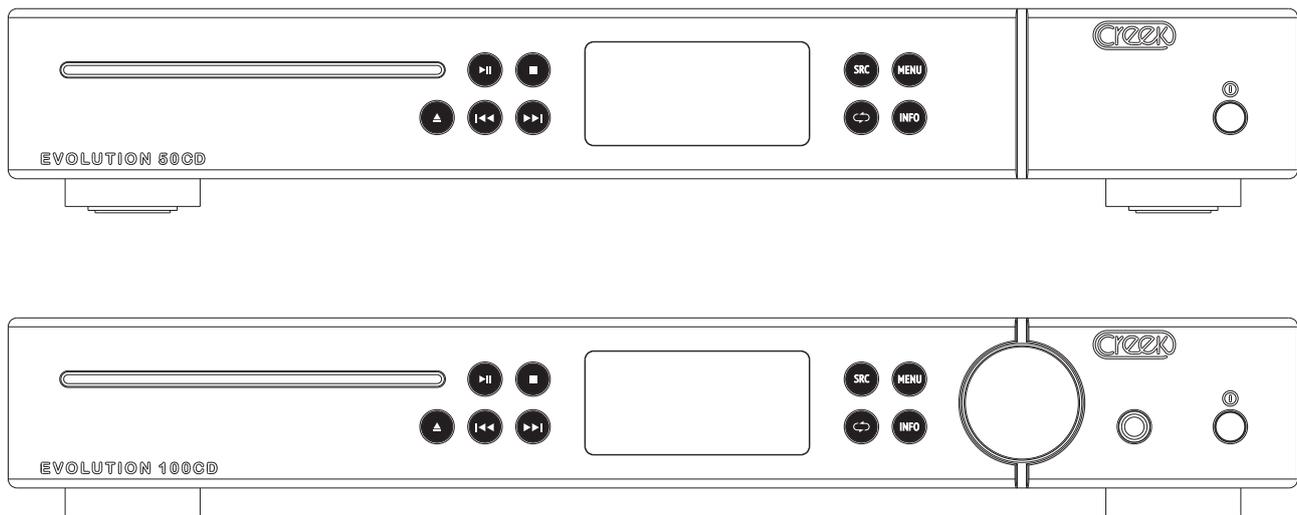
1 x Co-ax digital output SPDIF

1 x Optical digital output

2 x RCA un-balanced audio outputs, Left and Right (red).

2 x XLR balanced audio outputs, Left and Right.

FRONT PANEL CONTROLS



POWER

Press the push button on the right to switch power On or Off. Please note that the **EVOLUTION 50CD** and **100CD** do not have a Standby power function.

Headphone output - EVOLUTION 100CD only

The 6.35mm (1/4") headphone jack can power most types of headphones and will output whatever is present on the output sockets on the rear panel. Line output will not be muted when headphones are in use. The headphone output level is adjusted by the front panel or remote volume control. Output level will always be minimised to -20dB when a headphone jack is inserted, or the previous level will be remembered, if it was below -20dB. Suitable for a wide-range of headphones from 8 Ohms to 1 k Ohms. High impedance headphones can also be used, but the maximum output level will be proportionally lower.

Volume control - EVOLUTION 100CD only.

The rotary volume knob adjusts the output level. Press the knob once to Mute and again to un-mute. Push and turn the knob to adjust balance. Note that balance only works when the normal display screen is present. So wait five seconds, after changing the volume, to change the balance. Output level is displayed in decibels. 0db is maximum level and -79dB in minimum; -80dB is Muted.

INFO

Pressing INFO will allow CD time to be toggled between elapsed and remaining track time. SRC = Source.

Press SRC to select the various inputs: Internal CD drive, external Input 1 = USB, Input 2 = Co-Ax, Input 3 = Optical, Input 4 = Co-Ax Input 5 = Optical. Input 6 on **EVOLUTION 100CD** = Bluetooth, which is an option for **EVOLUTION 50CD**. Check with your dealer for price and availability.

MENU

Pressing the MENU button will reveal a selection of options that affect the way the product operates. These should be set to taste and the option tree looks like this:

DISPLAY SETTINGS

Always on Display is always switched-on

Auto off Display goes off after a short time.

 Selecting any function will cause the display to light again for a few seconds.

Display Brightness Low - Medium – Full

CD OPERATON

There is a group of 5 buttons next to the slot for CD operation, plus a Repeat button in the group of 4 buttons right of the display. Listing buttons in a clockwise order:

PLAY/PAUSE

Press the Play button once to play the first track. Press once again to Pause while playing. Press Play to release Pause.

STOP

Press the Stop button to end disc play.

LOADING/EJECTING A DISC

To load a disc, simply post one through the slot aperture on the left hand side of the front panel, with the label facing upwards, being careful not to put finger prints or dirt on the playing surface. The mechanism will sense the proximity of the disc after it is half-way in. It will then automatically draw the disc inside completely and read its Table of Contents (TOC), which will be displayed. It will then be in the Stop position. To save time, it is possible to press Play before the disc has finished Reading. Once it has read the TOC it will then play the first track.

EJECT

To remove a disc, press the Eject button to force the disc out of the slot drive. Pressing Eject while the disc is playing will not harm the disc.

SKIP FORWARD/SCAN FORWARD

Press once to Skip-forward through the tracks. Press and hold to Scan-forward through the track currently playing.

SKIP BACKWARDS/SCAN BACKWARDS

Press once to Skip-back to the start of the track and again to Skip-back to the previous track, or tracks. Press and hold to Scan backwards through the track currently playing.

REPEAT

Repeat toggles between single tracks, a whole CD, or repeat-off. Press and hold repeat longer to turn the Random play function on/off.

DISPLAY FEATURES:

With a disc loaded, the display will indicate the total number of tracks and total playing time when in STOP mode. During playback, the track number and track time will also be displayed. Symbols are also shown for Repeat, Random, Headphones, Volume level and Mute functions.

DAC AND CD OPERATION

EVOLUTION 100CD only

Using the front panel or remote CD buttons will enable Human Interface device (HID) functions for USB input:

Play/Pause = Start/Pause

Next/Previous moves to the next or previous track

REMOTE CONTROL OPERATION

SELECT A SPECIFIC TRACK

Press the track numbers at the top, 0 - 9. The number will appear in the display and the track will begin to play after a short delay.

RANDOM

Will select random track playback.

INFO

Toggles the display between elapsed and remaining time.

REPEAT

Causes the current track or the whole disc to be repeated. Press the REPEAT button once and the current track will be repeated. Press REPEAT a second time and the entire disc will be repeated. Press the REPEAT button a third time and the player will revert to normal play.

DIM

Adjusts the display brightness.

FILTER

Offers 5 optional digital filter shapes. see further FILTER description below.

VOLUME

Blue buttons +/- will adjust the volume level, provided the product has been configured to Preamplifier Mode. see explanation on earlier page. Select either CD or DAC buttons at the top first.

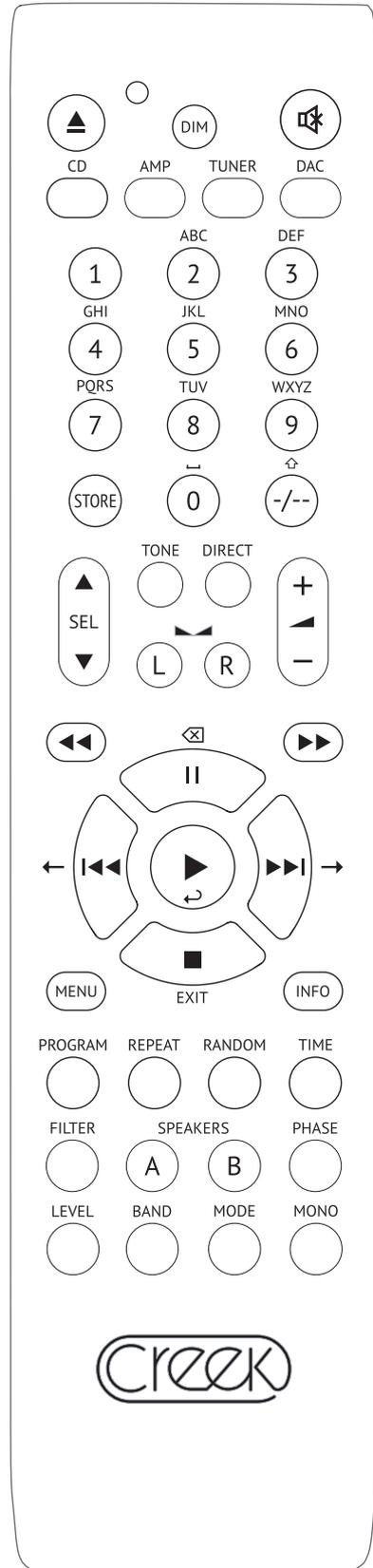
FUNCTIONS NOT IN USE:

PROGRAM

Is not yet enabled.

PHASE

Not yet enabled.



DAC OPERATION

Press DAC button first. The internal DAC will operate like a digital pre-amp, allowing you to select a different input for various digital sources. Some digital devices output their signal optically, so use a good quality TOSLINK cable to pass the signal to the DAC. Some products use only co-axial connections. Use a dedicated 'digital interconnect' for the best results. Ask your dealer for advice.

The incoming signal will be checked and the sample and bit-rate will automatically be displayed.

All digital signals are output via the co-ax, or optical connector, to allow another device to receive the same signal.

DIGITAL FILTERS

Toggling the FILTER button on the remote handset selects five available digital filter options. These are used by the DAC to reconstruct the analogue waveform from the digital signal provided by the source. The five filters offer differing compromises between performance and suppression of ultrasonic noise. The best option will be system dependant so try experimenting to see which option you prefer. The differences are very subtle so it may take some time to find your favourite! None of the filters significantly affect the frequency response in the critical 20Hz – 20kHz audible range so don't be worried about having the "wrong" selection; there is no right or wrong option.

USB Operation

The Class 2 USB input is capable of playing high resolution music files, up to 24 bit 192 kHz, from either a PC or MAC computer. Streaming from a PC requires an additional (ASIO) driver software to be installed and possibly a USB2 driver, if your computer hasn't already got one. USB cables up to 5 metres (16.4 feet) may be used.

Drivers for PCs can be downloaded from the Creek website at the following address:

<http://creekaudio.com/drivers/USB2.0.zip>

<http://creekaudio.com/drivers/SaviAudioBravoHDS.rar>

USB input, allows the DAC to behave like a sound card. Once the link is established audio data can be transferred and converted at the highest resolution of 24/192. The remote control handset and CD buttons on the front panel will allow limited control of the tracks (HID), such as play, pause, forward and back. However, if a media player such as iTunes or J-River is used, it is much more convenient to control files using an appropriate remote App to view and control your library via a tablet computer, smart phone, or other remote device.

Bluetooth Operation

Screw the antenna into the F socket marked BT on the rear panel. Do not over-tighten and fold parallel to the rear panel. It may provide slightly better reception if the antenna is adjusted vertically, if required.

Select Bluetooth input to enable the device to be paired with your Phone or mobile device such as a tablet computer. In Bluetooth settings look for a device called EVOLUTION BT to appear. Select it and wait for it to be paired successfully. No more than one device can be used with the EVOLUTION BT input at a time. So, if multiple BT devices, that have previously been paired, are in reception range there may be a conflict. Turn BT off unused devices to avoid a conflict.

You can now choose music files stored on your mobile device and stream them to the **EVO-LUTION 100CD**. **EVOLUTION 50CD** must be fitted with a **COMET BT** module to enable this function. If BT input is deselected, the source will Pause the music.

Check with your dealer for more information.

Technical Specifications:

Digital inputs	2 x SPDIF, 24 Bit 192 kHz, via RCA sockets, transformer isolated 2 x TOSLINK, 24 Bit 192 kHz, optically isolated 1 x Class 2, High-resolution 24 Bit 192 kHz, asynchronous
Bluetooth	Input 6 on EVOLUTION 100CD . Optional Comet BT module required for EVOLUTION 50CD
CD transport	Custom designed, ICE quality, CD slot-loader, externally clocked for bit perfect performance.
Signal to Noise ratio	> 115 dBA
THD	typ. 0.001% @ 1kHz 0dBFS
Frequency Response	+/-0.1dB 20Hz-20kHz (at 48kHz and higher sampling rates)
Channel Separation	>95dB 20Hz-20kHz, typ. 110dB @ 1kHz
Digital output	1 x SPDIF and 1 x Toslink optical output, pass-on all input signals
Digital filter	5 digital filters are selectable via the remote
Audio output	2.0V max. Gold plated RCA un-balanced. <i>Gold over solid brass RCA sockets fitted to EVOLUTION 100CD only.</i> 4.0V max. XLR balanced output (AES48-2005)
Audio buffering	High-grade symmetrical FET Op-amps for audio output buffer and filtering.
Headphone output	EVOLUTION 100CD only. Output impedance <22 Ohms. 6.35mm or 1/4" socket
Output impedance	47 Ohms unbalanced and 94 Ohms balanced
Power supply	25 Watt toroidal mains transformer
RC Bus	Input/output connection for external IR remote and serial link to EVO 50A
DAC type	2 x in double differential configuration
Input receiver	WM8805, multichannel digital input receiver
USB type	Class 2, 24bit 192kHz
Operating Voltages	100 - 120V/ 200 - 240V, Switchable
Consumption	6W idle, 10W During CD Playback
Weight	5.5Kgs (12.12 lbs)
Dimensions W/H/D	430 x 60 x 280mm (16.9 x 2.36 x 11 inches)
Finish	Silver or black engraved front panels

Creek Audio Ltd reserves the right to change or modify the specification of its products without prior warning.

WARRANTY

If within two years of purchase date your Creek product proves to be defective for any reason other than accident, misuse, neglect, unauthorized modification, or fair wear and tear, Creek Audio Ltd. will, at its discretion, replace the faulty parts without charge for labour or return carriage within the United Kingdom. For warranty outside the UK, please consult your dealer or the importer. Worldwide distributors details are shown on the Creek website.

This warranty is valid only in the United Kingdom and given in addition to statutory rights. Service enquiries outside the United Kingdom should be addressed first to the supplying dealer and/or the Creek distributor/importer.

Warranties granted in countries other than the UK are entirely at the discretion of the distributor/importer.

Creek Audio Ltd

12 Avebury Court, Mark Road, Hemel Hempstead, Hertfordshire, HP2 7TA England

www.creekaudio.com - info@creekaudio.com - +44(0)1442 260146