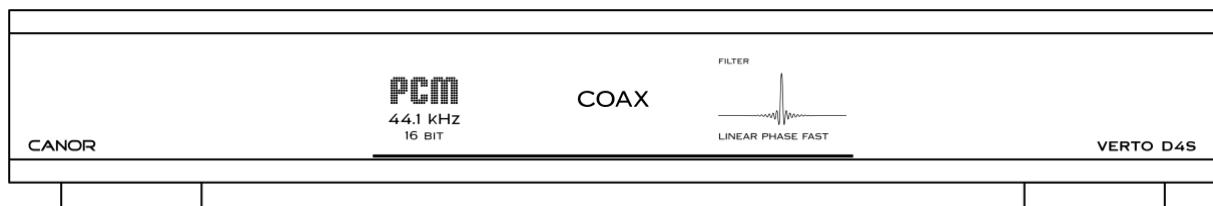


# USER MANUAL



**CANOR VERTO D4S**  
Solid-State DAC

Dear Music Lover,

Thank you for purchasing our CANOR VERTO D4S Digital to Analog Converter. To preserve and maintain the best performance of your device, we recommend you carefully read the following lines.

Verto D4S uses a dual ESS Sabre ESS9038Q2M chipset, configured for high dynamic range and ultra-low noise performance. The analog output stage is entirely discrete, with no operational amplifiers in the signal path.

## **SAFETY INSTRUCTIONS**

Please read before putting the device into operation.

1. Read the instructions – all safety information and instructions should be read before using the device.
2. Keep the user manual – the safety and user instructions manual should be stored for possible later use.
3. Follow the instructions – all safety and user instructions should be followed.
4. Water and moisture – the Verto D4S DAC should not be placed near water, for example near bathtubs, swimming pools, kitchen sinks, etc.
5. Accessories – do not use accessories not recommended by the manufacturer.
6. Placement – do not place a device on an unstable pad. The device may fall, which can cause serious injuries to children or adults, as well as damage to the device. Use only pads or racks recommended by the manufacturer or pads sold to dealers with this device. Any placement of the device should be in accordance with the manufacturer's instructions and only accessories recommended by the manufacturer should be used.
7. Ventilation – the unit should be placed the way to ensure proper airflow. That means it is not allowed to place the device on a sofa, or on upholstered furniture. The DAC may not be covered over when in operation; it would otherwise prevent proper airflow around the vent holes of the device.
8. Heat – DAC must be placed to avoid the heating effect from heat sources, for example, radiators or stoves, or other heat-producing equipment. The distance from the back wall of the unit may not be less than 20 cm, and 20 cm above the area of Verto D4S may not be any barrier. Alongside the unit should be ensured 20 cm minimum distance from other objects.
9. Power source – the device must be connected only to a main supply for what it is designed for.
10. Power cord – it is necessary to pay particular attention to a power cord, it must be positioned to avoid setting foot on it and ensure it is protected against mechanical damage.
11. If you do not use the DAC for a longer period – you should disconnect the power cord from the mains supply or at least turn off the main power switch located on the back panel.
12. Objects containing liquid – do not place these objects (vases, flowerpots), so that they can fall on the amplifier and, eventually, prevent the liquid from being leaked out on the amplifier.
13. Damages requiring service – equipment should be repaired only by qualified service if:
  - a. The power cord is damaged.
  - b. The device dropped into the water or was poured.
  - c. The device was exposed to rain.
  - d. The device works incorrectly.
  - e. The device fell on the ground or is otherwise mechanically damaged.
14. Repairs – all repairs must be entrusted to a qualified service.
15. General warning – use the device only in accordance with this user guide.

**The manufacturer declines any liability should these safety measures not be observed. To help you avoid an electric shock, do not expose the device to rain or moisture!**

## DELIVERY CONTENT

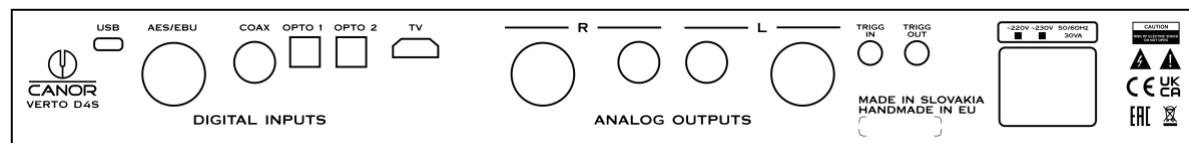
- Shipping packaging
- CANOR VERTO D4S Digital to Analog Converter
- Remote control (2 x AAA battery required)
- Power cord
- CANOR VERTO D4S User Manual

## FRONT PANEL

- **CENTRAL DISPLAY** – 7-inch touchscreen with direct access to all device settings

## BACK PANEL

- **USB Digital Input** – USB type-C digital input
- **AES/EBU Digital Input** – 3pin XLR digital input
- **COAX Digital Input** – Coaxial digital input
- **OPTO 1, OPTO 2 Digital Input** – Optical digital inputs
- **TV Digital Input** – TV digital input
- **XLR Analog Output** – Left / Right XLR balanced analog output
- **RCA Analog Output** – Left / Right RCA unbalanced analog output
- **TRIGGER IN** – 3.5mm jack trigger input (12V)
- **TRIGGER OUT** – 2 x 3.5mm jack trigger output (12V)
- **Power** – Mains power inlet
- **Power Switch** – Mains power switch



## REMOTE CONTROL

Do not expose the sensors of your remote control to direct sunlight or to other strong light sources. Remote control operates at an angle of 60 ° to about 5 meters. Aim your remote control at the sensor on the device. There may not be any obstacles in the way between the sensor and remote control. If the appliance is placed behind glass, it may result in shortening the operating distance of a remote control (according to the color and strength of the glass).

**The remote control is compatible with your Verto D4S Digital to analog converter.**

### General features

- **Power** – Turning on and off the device.
- **Dimm** – Sets the display brightness in steps.
- **Theme** – Switch display theme on supported devices.

### Phono preamplifier features (Not supported for Verto D4S)

- **MM/MC** – Instant switching between MM / MC cartridges.
- **R/C** – Instant switching between Load (MC cartridge) and Capacitance (MM cartridge).

### DAC features

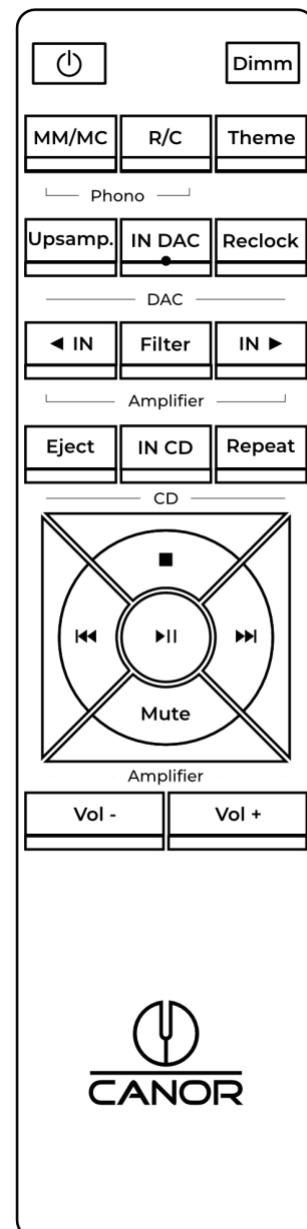
- **Upsamp.** – Enable/disable the up-sampling function.
- **IN DAC** – DAC input selector (switching in loop).
- **Reclock** – Enable/disable the re-clocking function.
- **Filter** – Digital filter selector (switching in loop).

### Amplifier / Preamplifier features (Not supported for Verto D4S)

- **◀ IN** – Amplifier input selector (left).
- **▶ IN** – Amplifier input selector (right).
- **Mute** – Instant muting of the volume.
- **Vol -** – Volume down control button.
- **Vol +** – Volume up control button.

### CD Player features (Not supported for Verto D4S)

- **Eject** – A short press ejects the CD from the CD player.
- **IN CD** – CD player input selector (switching in loop).
- **Repeat** – Allows you to cyclically opt for a single-track repeat, entire disc repeat, or disable repeat.
- **■** – Ceases CD playback.
- **◀◀** – One short press jumps to the beginning of a track. If playback time lasts longer than 5 seconds, further pressing results in jumping one track back. When pressed for a longer time, playback moves smoothly backwards.
- **▶▶** – A short press skips one track forward; when pressed for a longer time, playback moves smoothly forward.
- **▶▷** – Resumes and pauses CD playback.



## BASIC FUNCTIONS OF OPERATION

Ensure that all inputs and outputs are connected while the Verto D4S is turned off or disconnected from the mains.

1. Connect the power cord to the Verto D4S.
2. Turn on the Verto D4S using the main power switch located on the back panel. After you switch it on, the device will enter standby mode, indicated by the red LED lighting up on the front panel.
3. Once on standby, you can power it up by either touching the 7-inch touchscreen display on the front panel or by using the power button on the remote control. This will initiate the controlled startup sequence.

## OPERATION OF THE VERTO D4S

The Verto D4S features a 7-inch touchscreen display integrated into the front panel. This display allows you to turn the device on and off, select the desired input, and adjust other device functions.

To start up from standby mode, simply touch the display or press the power button on the remote control. This action initiates a controlled startup sequence, which is graphically represented on the display by a CANOR logo / VERTO D4S typeface. Once the sequence is complete, the device automatically switches to the default or last selected input and settings.



To switch off the device (put it into standby mode), swipe down from the top of the display to reveal the Power-Off icon.

To initiate the shutdown process, simply press the Power-Off icon. This will initiate a controlled power-off sequence and the device will enter standby mode, and the display will turn off.





### DIGITAL INPUT SELECTION

There are two ways to choose your desired digital input.

1. Use the IN DAC button on the remote control (switching in loop).
2. Hold your finger on the input icon for 2 seconds to unlock the input menu. You can then simply select the desired input with a brief tap.

Verto D4S features the following digital inputs: USB, AES/EBU, COAX, OPTO 1, OPTO 2, and TV.



### DIGITAL FILTER SELECTION

All Verto D4S digital inputs allow the selection of digital filters. The available digital filters are: Fast Rolloff, Slow Rolloff, Linear Apodizing, Minimum Phase Fast, Minimum Phase Slow, Hybrid Filter, Brickwall and Optimal Transient filter. To select a filter, hold your finger on the filter icon for 2 seconds to enter the filter menu. You can then simply select the desired filter with a brief tap or use the Filter button on the remote control (switching in loop).



## DEVICE SETTINGS / SUB-MENU

To access the sub-menu from the main menu on the display, swipe up from the bottom. In this sub-menu, you can adjust the following settings: Dimmer, Theme, Power on CEC (TV input), TV Volume (TV input) and view the Firmware version information.

In the sub-menu simply tap desired function for activate or deactivate and swipe through the dimmer bar. To exit the sub-menu and return to the main menu, tap the return arrow in the upper right side of the menu.



## DIMMER FUNCTION

This feature allows you to adjust the backlight level of the 7-inch touchscreen display. You can control the brightness by swiping through the dimmer bar or by pressing the DIMM button on the remote control, and any selected backlight level does not require confirmation.

When you select the lowest backlight level, known as "Dimmer OFF", the device's backlight will completely turn off after 3 seconds. However, if you touch the display, or press any button on the remote control, the display will briefly light up for 3 seconds to provide information. Unless you change the dimmer setting, the "Dimmer OFF" function will remain active.



## THEME

This feature allows you to choose between two themes for your Verto D4S display: Theme 1 (orange) and Theme 2 (white). The preview of the selected theme is shown as a miniature in the submenu itself.



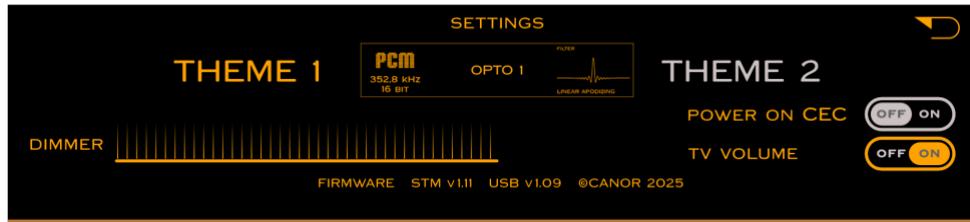
### POWER ON CEC (Consumer Electronics Control)

This is a TV Input feature that allows devices to communicate and be controlled using a single remote. It uses a single-wire serial bus within the HDMI cable to transmit commands between connected devices, such as TVs, soundbars, and gaming consoles. Activated Power on CEC function allows a supported device connected via TV Input to turn the Verto D4S on and off from standby using the connected device's remote control. For the function to work properly, the connected device must support CEC communication via HDMI. To activate or deactivate this function, touch the corresponding bar in the submenu.



### TV VOLUME

This is a TV Input feature that allows you to control the volume of the Verto D4S via a connected TV using its remote control. The activated function will display a simple volume bar under the TV input icon on the Verto D4S main screen. For the function to work properly, the connected TV must support communication via HDMI. To activate or deactivate this function, touch the corresponding bar in the submenu.



### INPUT RELAY CLEANING

The Verto D4S has a cleaning function for the contacts of used electronic relays. This function is intended to extend the relay contact lifespans and increase their electrical conductivity. Cleaning is carried out by triggering multiple high-frequency signals sequentially through all relays in the device. The function is started automatically every 20th time the device is turned off, and its progress is shown by the Relay Cleaning inscription on the display during the power-off sequence.

### CAUTION!

The Waste Electrical and Electronic Equipment Directive Regulation of the European Union 2002 / 96 / EC governs the issue of separate waste collection.

This device may not be disposed of in unsorted municipal waste. Devolve the appliance into a collection centre for recycling and disposal of electrical and electronic equipment waste. Correct disposal of waste does not cause negative impacts on the environment and human health. You will thus contribute to the protection of the environment.

## **EUROPEAN COMMUNITY DIRECTIVES**

This product is designed and manufactured to comply with existing laws of the European Community. This product is certified by a testing laboratory and bears the CE mark.

## **GUARANTEE CONDITIONS**

Your CANOR Verto D4S is guaranteed against any defect in materials and workmanship for 24 months from the date of purchase.

The warranty only applies if an original proof of purchase and acknowledged certificate of warranty can be furnished. The warranty covers defects in materials and labour but does not cover misuse, unauthorized modifications, and external causes such as acts of nature.

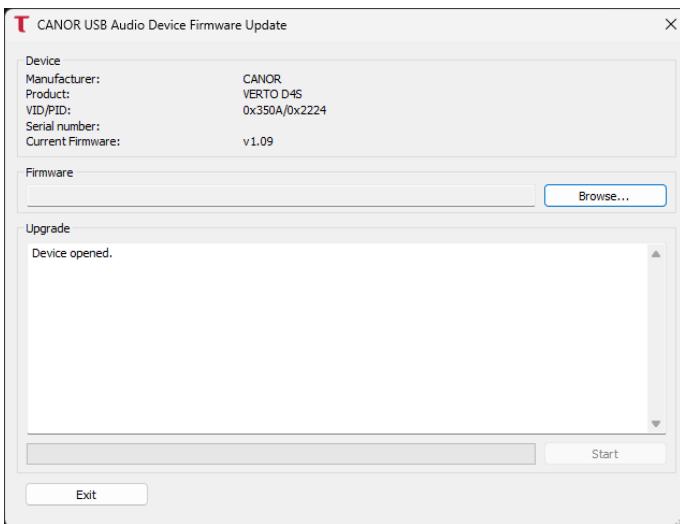
## **FIRMWARE UPDATE MANUAL**

### **UPDATE REQUIREMENTS**

- Windows x86 computer
- Update ZIP package provided by CANOR
- USB-C cable

### **UPDATE PROCEDURE**

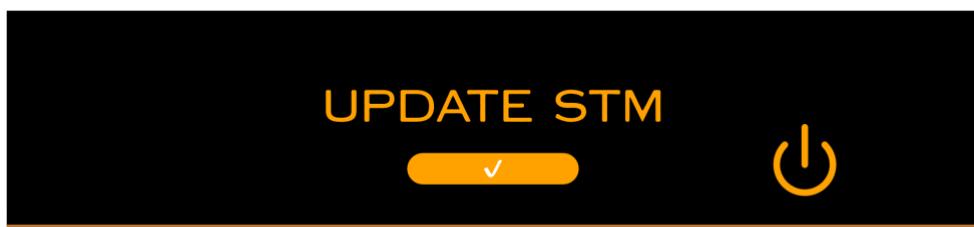
1. Prepare your Windows computer for a firmware update of your Verto D4S.
2. Download the ZIP Firmware Update Package from the Verto D4S product page at [www.canor-audio.com](http://www.canor-audio.com).
3. Extract the entire ZIP archive into a folder stored on the local disk of your Windows computer. This is necessary for the successful completion of the update.
4. Install the “CANORUsbAudio” driver on your Windows computer. If you already have this driver installed, please skip this step.
5. Make sure your Verto D4S is in stand-by mode and connect it with your Windows computer with a USB-C cable.
6. Open the “CANORUsbAudioDfu” application on your Windows computer.
7. Turn on your Verto D4S (digital input selection is not important).
8. When all is installed and connected OK, you will see the Verto D4S details loaded in “CANORUsbAudioDfu” application.



9. Click on "Browse" and find a BIN File in the unzipped Firmware Update Package Folder.
10. "Ready for firmware update" message will be displayed in the application window.
11. Click "Start" to initialize the update process. Never turn off the device during this process, as this may damage the device.
12. Verto D4S will show a "FIRMWARE" message on the display.



13. Next step is an "Update STM" confirmation, where you simply press accept button to proceed. Confirm only in case if all other steps have been completed successfully. Otherwise, press power off.



14. STM FIRMWARE UPLOAD information with process bar will be shown on the Verto D4S display.



15. After displaying the final information about the STM update, the Verto D4S switches to stand-by mode. The Verto D4S is ready for use with the updated firmware.



16. Exit the update application and disconnect the USB cable from your computer. If something goes wrong during the update and the device cannot be turned on, contact the manufacturer or a service center.

## SPECIFICATIONS

DAC Configuration	2 x ESS9038Q2M (Dual-mono)										
Filter Settings	8 x Digital Filter										
Digital Inputs	<table><tr><td>1 x USB</td><td>(PCM up to 24-bit / 768 kHz &amp; DoP DSD up to DSD256 &amp; Native DSD up to DSD512)</td></tr><tr><td>1 x AES/EBU</td><td>(PCM up to 24-bit / 192 kHz)</td></tr><tr><td>1 x Coax</td><td>(PCM up to 24-bit / 192 kHz)</td></tr><tr><td>2 x Opto</td><td>(PCM up to 24-bit / 192 kHz)</td></tr><tr><td>1 x TV Input</td><td>(PCM up to 24-bit / 192 kHz)</td></tr></table>	1 x USB	(PCM up to 24-bit / 768 kHz & DoP DSD up to DSD256 & Native DSD up to DSD512)	1 x AES/EBU	(PCM up to 24-bit / 192 kHz)	1 x Coax	(PCM up to 24-bit / 192 kHz)	2 x Opto	(PCM up to 24-bit / 192 kHz)	1 x TV Input	(PCM up to 24-bit / 192 kHz)
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1 x Coax	(PCM up to 24-bit / 192 kHz)										
2 x Opto	(PCM up to 24-bit / 192 kHz)										
1 x TV Input	(PCM up to 24-bit / 192 kHz)										
Analog Outputs	<table><tr><td>1 pair unbalanced RCA</td></tr><tr><td>1 pair balanced XLR</td></tr></table>	1 pair unbalanced RCA	1 pair balanced XLR								
1 pair unbalanced RCA											
1 pair balanced XLR											
Output Impedance	RCA: 100 Ω XLR: 200 Ω										
Frequency Range	20 – 20 000 Hz / < -0.1 dB										
Total Harmonic Distortion	< 0.0005 %										
Output Voltage	RCA: 2 VRMS XLR: 4 VRMS										
Signal-to-noise ratio	> 112 dB (A-wt)										
Crosstalk	< -127 dB										
Trigger Connectors (12 V)	1 x IN (3.5mm jack) 2 x OUT (3.5mm jack)										
Power	230 V / 50–60 Hz, 30 VA										
Dimensions (W x H x D)	430 x 75 x 300 mm										
Weight (Net)	8 kg										
Weight (Gross)	10 kg										



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