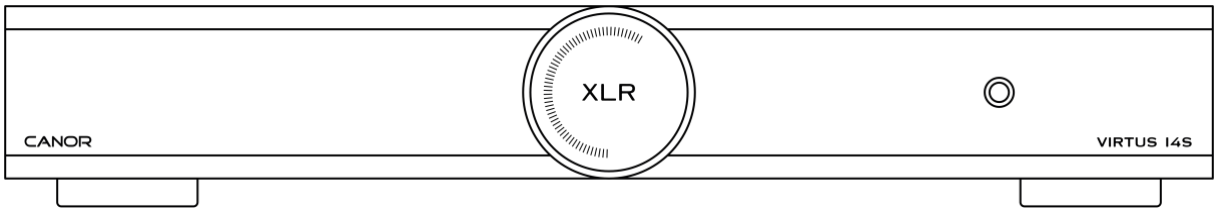
USER MANUAL



CANOR

CANOR VIRTUS I4S

Integrated Solid-State Amplifier

Dear Music Lover,

Thank you for purchasing our CANOR VIRTUS I4S Integrated Solid-State Amplifier. To preserve and maintain the best performance of your amplifier, we recommend you carefully read the following lines.

Virtus I4S is an integrated amplifier operating in Class AB, with all gain stages implemented using a fully discrete design, featuring a phono preamplifier and a headphone amplifier.

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 amplifier.
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 Virtus I4S amplifier 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. Do not place any other device on the top of the Virtus I4S while it is operating.
7. Ventilation – the unit should be placed the way to ensure proper airflow. That means it is not allowed to place the amplifier on a sofa, or on upholstered furniture. The amplifier may not be covered over when in operation; it would otherwise prevent proper airflow around the vent holes of the amplifier.
8. Heat – amplifier 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 must be at least 20 cm, and there must be no barrier within 20 cm above the area of Virtus I4S. Alongside the unit should be ensured 20 cm minimum distance from other objects. The Virtus I4S top cover works as an amplifier heatsink. Do not place any objects or devices on it while it's operating.
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 amplifier 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 amplifier to rain or moisture!

DELIVERY CONTENT

- Shipping packaging
- CANOR VIRTUS I4S Integrated Solid-State Amplifier
- Remote control (2 x AAA battery required)
- Power cord
- CANOR VIRTUS I4S User Manual

FRONT PANEL

- **VOLUME CONTROL KNOB / SELECTOR OPERATING KNOB with a touch screen**
- **HEADPHONE JACK OUTPUT** – 6,3mm jack connector

HEADPHONE AMPLIFIER / HEADPHONE OUTPUT

The front panel of the Virtus I4S features an unbalanced headphone output using a 6.3mm audio jack.

To activate the headphone amplifier, simply insert the headphone jack into the dedicated slot on the front panel. This will disconnect the output signal from the speaker terminals. To deactivate the headphone output, unplug your headphones from the Virtus I4S.

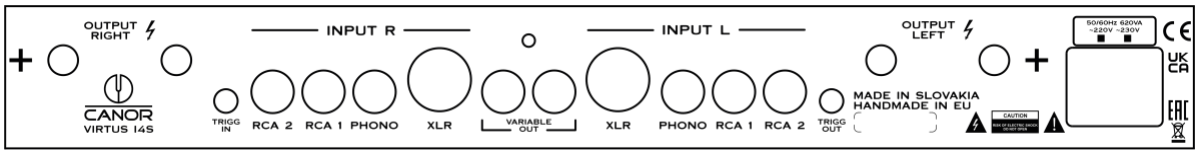
Active headphone output is indicated by a headphone icon at the top of the Virtus I4S display.



When the headphone output is active and the volume is set below -30dB, deactivating the headphone output will automatically lower the volume by 20dB when reconnecting the signal to the amplifier output terminals. This adjustment is made to protect the connected speakers.

BACK PANEL

- **LEFT / RIGHT SPEAKER OUTPUTS** – Dedicated to both 4 and 8-Ohm loudspeakers
- **PHONO Grounding Screw** – Grounding point for phono analog input
- **PHONO Analogue Input** – Left / Right RCA phono input for MM/MC cartridge
- **RCA 1, RCA 2 Analog Inputs** – Left / Right RCA inputs
- **XLR Analog Inputs** – Left / Right XLR input
- **VARIABLE OUT / Analog Output RCA** – Left / Right RCA variable 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

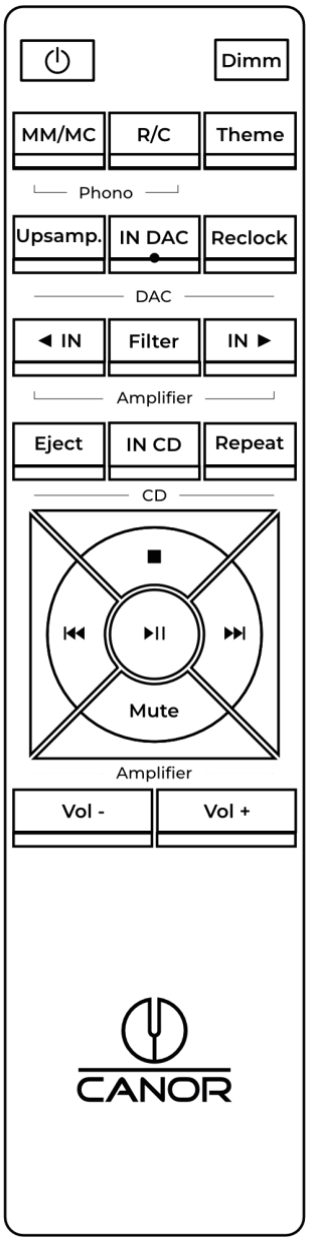


CANOR

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 Amplifier and Phono preamplifier built in Virtus I4S.



General features

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

Phono preamplifier features

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

DAC features (Not supported for Virtus I4S)

- **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

- **◄ 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 Virtus I4S)

- **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 REPRODUCTION

Ensure that all inputs and outputs are connected while the Virtus I4S is turned off or disconnected from the mains.

1. Connect the power cord to the Virtus I4S.
2. Turn on the Virtus I4S 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 display on the central knob on the front panel or by using the power button on the remote control. This will initiate the controlled startup sequence.
4. A power-off sequence will also occur when the unit is turned off.
5. During the first power-up or when the main power supply is disconnected, the XLR1 input will be pre-selected, and the volume level will be set to –44 dB.

OPERATION OF THE VIRTUS I4S

The Virtus I4S features a central circular touch display, integrated into the control knob, 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 circular 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 / VIRTUS I4S typeface and a circular countdown timer. Once the sequence is complete, the device automatically switches to the default or last selected input and information about selected volume level is displayed.





To switch off the device (put it into standby mode), swipe your finger down from the top of the control circular display to reveal the Power-Off icon. To initiate the shutdown process, press and hold the Power-Off icon for 2 seconds. This will start a controlled power-off sequence, which will be visually represented by a CANOR logo / VIRTUS I4S icon and a circular countdown timer indicating the time remaining until shutdown.

Once the power-off sequence is complete, the device will enter standby mode, and the display will turn off.



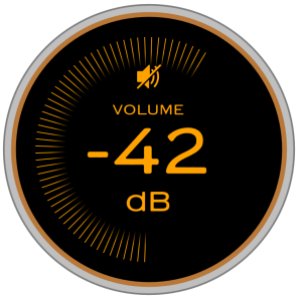




VOLUME CONTROL

The volume can be adjusted in 100 steps, each changing the level by 1 dB. The highest volume setting is 0 dB, while the lowest is -99 dB. An additional step-down switches the device to MUTE mode. You can adjust the volume using the central control knob on the front panel or with the remote control.







INPUT SELECTION

There are three ways to choose your desired input:

1. Use the ◄ IN / IN ► buttons on the remote control.
2. Slide the control touch screen to the right or left.
3. Hold your finger on the selected input for 2 seconds to unlock the input roller blind. You can then move this roller blind by rotating the central knob and selecting the desired input with a brief touch.





Virtus I4S features the following analog inputs: PHONO, RCA 1, RCA 2 and XLR.

The analog phono input (labelled PHONO) is compatible with turntables that support both MM (Moving Magnet) and MC (Moving Coil) cartridges.

To select the cartridge type and adjust the gain, touch the MM or MC icon above the PHONO input, then rotate the central knob. The available gain settings are: MM at 40 dB or 46 dB and MC at 60 dB or 66 dB. You can select your desired setting by briefly touching the icon. You can use the MM/MC button on the remote control for this selection as well.

Additionally, to choose capacitance/load parameters, touch the capacitance/load icon below the PHONO input and rotate the central knob. For MM cartridges, you can select from 50pF, 150pF, 300pF, and 400pF. For MC cartridges, the options are 47k, 1k, 100Ω, 50Ω, and 10Ω. Again, briefly touch the parameter you want to select. You can use the R/C button on the remote control for this selection as well.



DEVICE SETTINGS / SUB-MENU

To access the sub-menu from the main menu on the circular display, swipe up from the bottom. In this sub-menu, you can adjust the following settings: Dimmer, Display, HT mode (Home Theatre mode), GAIN (+3dB/+6dB) feature and view information about the temperature of the heatsinks as well as the speed of the cooler fan.

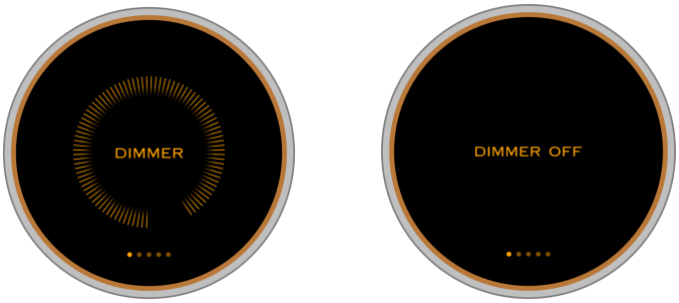
Navigate through the sub-menu by swiping right to view the next page and left to return to the previous page. To exit the sub-menu and return to the main menu, swipe down from the top of the circular display. This swipe action applies to all pages within the sub-menu.

Please note that in the sub-menu, you cannot adjust the volume using the rotary knob.

DIMMER FUNCTION

This feature allows you to adjust the backlight level of the Virtus I4S display. You can control the brightness using the rotary central knob or the DIMM button on the remote control, and any selected backlight level does not require confirmation.
Please note that in the Dimmer menu, you cannot adjust the volume using the rotary knob. Instead, the knob is used to adjust the dimmer/backlight level.

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 touchscreen or change the volume or input, the display will briefly light up for 3 seconds to provide information. Unless you change the backlight setting, the "Dimmer OFF" function will remain active.



DISPLAY

This feature allows you to choose between two options of themes for your Virtus I4S as well as selecting Canor LOGO as display screensaver on the control circular display. When selecting LOGO as a screensaver, this will appear after 1 minute of inactivity in the main menu. LOGO screensaver will disappear when any interaction with touchscreen, rotary knob or remote control, and it will reappear after another minute of inactivity. Please note that in the Display menu, you cannot adjust the volume using the rotary knob.









HT MODE (HOME THEATRE MODE)

Allows you to set a fixed volume for one of the available inputs: RCA 1, RCA 2 or XLR. Once you select an input, the current volume for that input is frozen, and the selected input is displayed with "HT" icon and volume information. While in HT mode, the volume cannot be adjusted for that input unless you either select HT mode for a different input or deactivate HT mode altogether. This feature is ideal for devices that have volume control, enabling the user to make direct volume adjustments or align the volume with the specific device. Please note that in the HT mode menu, you cannot adjust the volume using the rotary knob.







GAIN +3 dB / +6 dB

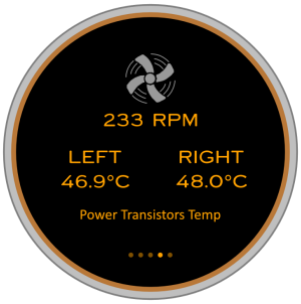
This setting allows you to adjust the gain for the analog inputs: PHONO, RCA 1, RCA 2 and XLR. By checking the corresponding checkbox, you can set the gain for each analog input based on the preferences of either +3 dB or +6 dB. This function is useful for aligning connected devices that have different input gain levels. Turn the central rotary knob to navigate through the menu.

Please note that in the GAIN menu, you cannot adjust the volume using the rotary knob. Instead, the knob is used to scroll through the GAIN +3 dB / +6 dB options.



INFORMATIVE DISPLAY

The display shows real-time temperature data on the power components and fan speed of the Virtus I4S output stage. Please note that the temperature difference between channels can vary by up to 10 degrees. This is a perfectly normal operational state. The data presented here is for informational purposes only.



FACTORY RESET

The factory reset will restore the device to factory settings. For the factory reset, tap the power button, then use the knob to navigate through the following menu. Choose the “Yes” option and confirm by tapping the screen.





The last page in the settings menu is the software version information screen.



VARIABLE OUT / ANALOG OUTPUT

The back panel of the Virtus I4S includes a pair of unbalanced (RCA) variable output connections. These connections are mainly designed for use with a powered (active) subwoofer or an external power amplifier.

ELECTRICAL PROTECTIONS

The Virtus I4S is equipped with several advanced fault detection and protection features to prevent damage to the device. The protection features include protection against incorrect device connection, overload, overheat and short circuits of the output terminals. These features are designed to protect the Virtus I4S itself as well as other components in your setup.

SMALL and LARGE WARNING TRIANGLE

A small red triangle with an exclamation mark indicates a short-term detected temporary error on the left or right channel. This only informs the user about the short-term problem that occurred momentarily (mostly a signal peak overload). Playback is not interrupted, and if the problem doesn't persist, the message disappears after a minute.

A large red triangle with an exclamation mark indicates a long-term detected error. Playback is interrupted, and the Virtus I4S amplifier output stages are disconnected. When the large red triangle alert shows, it is necessary to turn off the device. To learn more about possible errors and their solutions, follow the chapters DC ERROR, OT PROTECTION and OC PROTECTION.







DC ERROR

This error is detected if a DC signal voltage is presented at the output. This may be caused by an external source device error.

To resolve the error, unplug the source device from the Virtus I4S. In case this error persists, please contact the service center or manufacturer.



OVERTEMPERATURE PROTECTION—OT PROTECTION
The VIRTUS I4S power components can reach temperatures of up to 91°C during normal operation. This is expected and within normal operating conditions.
OT protection reacts if the device starts to overheat due to incorrect product placement or if there is insufficient airflow for the cooling fans. In case of overheating, a large red warning triangle will appear on the display, indicating an OT protection alert on the right (R) or left (L) channel.

Additional overheating protection senses the temperature of the device's aluminum housing and responds with a large red warning triangle, indicating an OT protect C alert if the cover temperature rises above 65°C.

To resolve the problems, turn the Virtus I4S off and let it cool down for a few minutes. To prevent this problem, make sure the product is placed in a location with sufficient airflow for the cooling fan, and inspect that the fan grilles are not covered or obstructed. In case this error persists, please contact the service center or manufacturer.



OVERCURRENT PROTECTION—OC PROTECTION
This is an overcurrent, overload, or speaker terminal short circuit detection and protection.

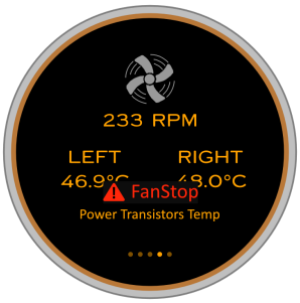
This protection will react and disconnect the amplifier output stages if the output is on long-lasting overload, or if speaker terminals are accidentally short-circuited. The output stage overloads can be caused by an inappropriate choice of speakers (mostly too low impedance speakers). In case of overloading, a large red warning triangle will appear on the display indicating an OC protection alert on the right (R) or left (L) channel.

To resolve the problem, turn the Virtus I4S off and let it cool down for a few minutes. Subsequently, make sure that the speaker terminals are not short-circuited, and, that the positive and negative speaker poles are not reversed. In addition, check if your speakers meet the required impedance. If the error persists, please contact the service center or manufacturer.



FAN STOP WARNING
This message indicates the failure of the cooling fan. Check the cooling fan grill for any foreign objects. The fan stop alert overlaps any other UI graphics when detected.





INPUT RELAY CLEANING
The Virtus I4S has a cleaning function for the contacts of used electronic relays. This function is intended to extend the relay contact lifespans that have not been used for a long time and also 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 Virtus I4S integrated solid-state amplifier 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 an 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 or Mac computer
- Update ZIP package provided by CANOR

UPDATE PRODCEDURE

1. Prepare your computer for a firmware update of your Virtus I4S.

2. Download the ZIP Firmware Update Package from the Virtus I4S product page at www.canor-audio.com.

3. Extract the entire ZIP archive into a folder stored on the local disk of your computer. This is necessary for the successful completion of the update.

4. Enable the update on the device's touchscreen, swipe up the bottom menu, then go to the last screen with the Update EN switch and hold the button. Update Enable is in active mode as long as the switch on the display turns to blue.





NOTE: After enabling the Update Enable feature, the device can continue to be used as normal. However, the Update Enable switch cannot be reset, which has no effect on the device functionality. The feature will reset after the device is restarted.

5. After enabling the Update EN OTA function, go into your computer's Wi-Fi settings, find the Wi-Fi network "CANOR_OTA" and connect to it. The Wi-Fi password is showed on the Virtus I4S screen. This will disconnect you from the internet and your computer will be connected to the Virtus I4S Wi-Fi update network.

6. In your internet browser type the device IP Address as showed on the Virtus I4S screen.

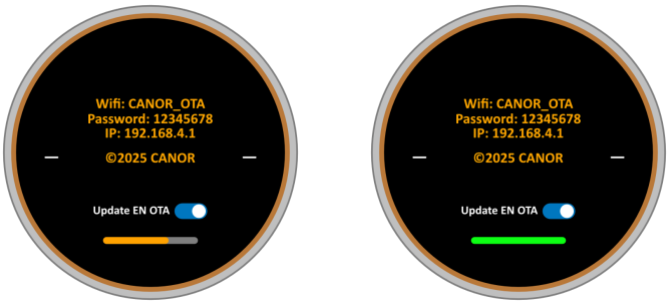
7. Click on "Choose File" and find a BIN File in the unzipped Firmware Update Package Folder.

8. To start the Virtus I4S update, click on "Upload & Update".

CANOR



9. You can follow the progress bar on the Virtus I4S screen to inform you about the update status. After the update is successfully completed, the progress bar will momentarily turn green and the device will turn off.



10. After restarting, the device is updated and ready for operation.

SPECIFICATIONS

Amplifier Class	AB
Stereo Output Power	2 x 120 W / 4 Ω 2 x 75 W / 8 Ω
Headphone Unbalanced Output	580 mW / 30 Ω 190 mW / 300 Ω
Gain	35.5 dB
Input Sensitivity	380 mV
Gain Phono	MM 40 dB MM 46 dB MC 60 dB MC 66 dB
Damping Factor at 1 kHz	160 / 4 Ω 330 / 8 Ω
Frequency Range	10 – 20 000 Hz / < -0.2 dB
Input Impedance	RCA: 50 kΩ XLR: 100 kΩ
Analog Inputs	1 pair RCA (Phono) 2 pairs RCA 1 pair XLR
Analog Variable Output	1 pair RCA
Headphone Output	1 x 6.3mm jack
Total Harmonic Distortion	< 0.005 % / 1 kHz, 5 W
Signal-to-noise ratio	> 90 dB
Trigger Connectors (12 V)	1 x IN (3.5mm jack) 1 x OUT (3.5mm jack)
Power	230 V / 50–60 Hz / 620 VA
Dimensions (W x H x D)	430 x 75 x 310 mm
Weight (Net)	12 kg
Weight (Gross)	14 kg

CANOR

CANOR, spol. s r.o., Druzstevna 39, 080 06 Presov, Slovakia

www.canor-audio.com
sales@canor-audio.com
+ 421 51 7710 396