AAVIK SD-880

USER GUIDE | STREAMER DAC

Aavik

THE EQUIPMENT SHOULD BE SERVICED BY QUALIFIED SERVICE PERSONNEL

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Clean the device only with a dry, lint-free cloth. For more thorough cleaning, unplug the device from the mains supply and go over it lightly with a damp cloth.

Do not use any type of chemical solvents or other cleaning products for cleaning.

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

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

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

9. Do not defeat the safety purpose of the polarized or grounding-type plug.

10. Only place apparatus horizontally and on a suitable table or rack. If more components are stacked. Make sure to place the hottest unit – usually the amplifier, at the top.

11. Refer all servicing to qualified service personnel.

12. Servicing is required when the apparatus has been damaged in any way, such as when the 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.

1. WARNING: Take care that objects do not fall and liquids are not spilled into the enclosure through any openings.

The equipment shall not be exposed to dripping or splashing. Liquid-filled objects such as vases should not be placed on the equipment.

2. The equipment has been designed for use in moderate climates and in domestic situations.

3. Only connect the equipment to a power supply of the type described in the operating instructions or as marked on the equipment. The primary method of isolating the equipment from the mains supply is to remove the mains plug. The equipment must be installed in a manner that makes disconnection possible.

4. If an abnormal smell or smoke is detected from the equipment, turn the power off immediately and unplug the equipment from the wall outlet. Contact your dealer and do not reconnect the equipment.

CAUTION ⚠

WARNING: To reduce the risk of fire or electric shock, do not expose the device to rain or moisture.

The lightning flash with an arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

HEAVY PRODUCT: Please note that this product exceeds recommended load for lifting and handling. Place on a surface that supports the weight.

Max ambient operating temperature: 40° Celsius

CONGRATULATIONS

The Aavik audio engineering team are thankful for your unique choice of the Aavik SD-880 Streamer DAC.
We are convinced that you will enjoy the exquisite music experience just as intimate and close as it was originally performed by the artist themselves.

The 880 series is Aavik's most innovative and sophisticated amplifier production to date. The unique design is based on the unique collaboration by the engineer and the artist – Michael Børresen and Flemming Erik Rasmussen.

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ABOUT THE PRODUCT

Unparalleled Innovation and Sophistication

The Aavik 880 series stands as Aavik's most innovative and sophisticated production to date. In mid-2021, Flemming Erik Rasmussen, the esteemed founder of Gryphon Audio, joined our design and development team, bringing over 35 years of experience and a profound artistic passion for hi-fi equipment. His arrival marked the beginning of a dynamic and productive collaboration, merging Michael Børresen's innovative approach with Flemming Erik Rasmussen's artistic and aesthetic design touch. Together, they embarked on a mission to create a new, groundbreaking Aavik series that would elevate the realm of musical authenticity to unprecedented heights.

A Harmonious Fusion of Artistry and Purpose

The exquisite exterior design of the Aavik 880 series reflects Flemming Erik Rasmussen's artistic and aesthetic work. However, at the core of his design philosophy has always been the belief that design must serve a purpose. The cabinet of the Aavik 880 series was meticulously crafted to preserve the finest audio characteristics of the electrical design, ensuring the lowest inductance, minimal hysteresis, and exceptional resonance control.

The Sonic Symphony of Copper

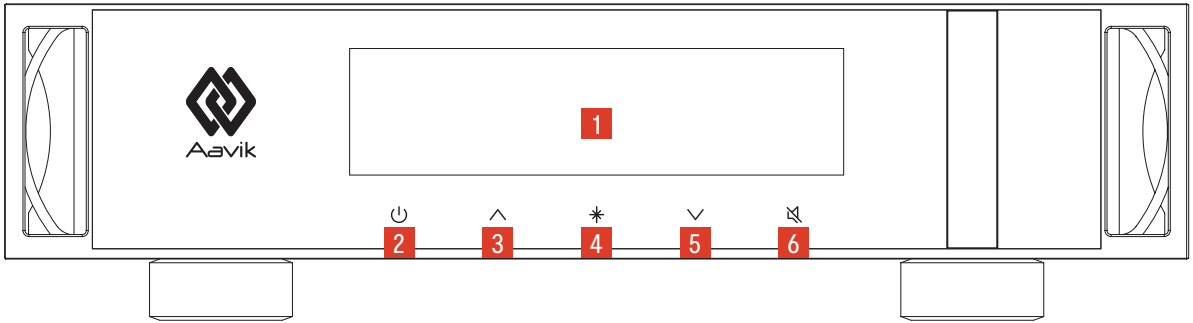
Inspired by Flemming Erik Rasmussen's fascination with copper's visual allure and Michael Børresen's profound insight into its sonic properties, this remarkable material became a cornerstone of the design. Thus, the Aavik 880 series features a solid copper enclosure, resulting in a further reduction in hysteresis, lower output impedance, decreased inductance, a positive impact on the damping factor, and enhanced amplifier cooling. These meticulously chosen components work in harmony, enabling the music to be reproduced with heightened energy and power. Furthermore, the amplifier proudly displays Flemming's design signature through cooling elements elegantly integrated on the sides and top.

The Perfect Fusion of Functionality and Aesthetics

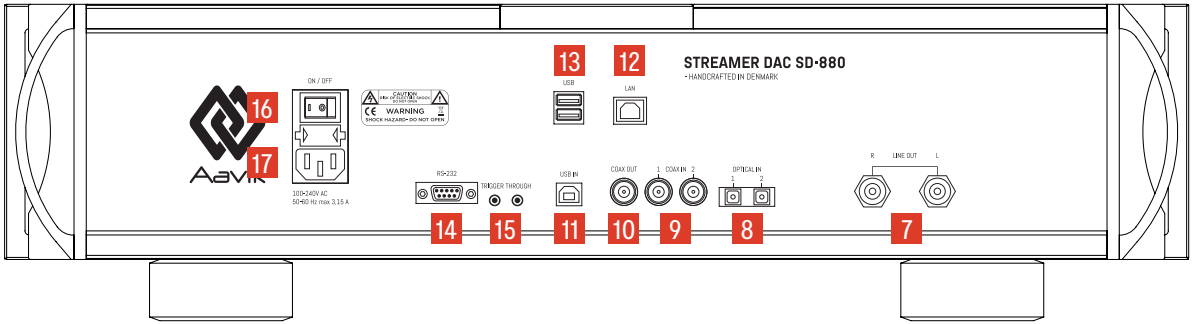
The choice of materials, as well as the interior and exterior design, are a testament to the fruitful collaboration between Flemming and Michael. Characterized by their unwavering focus on functionality and their innate sense of aesthetic elegance, the Aavik 880 series embodies the harmonious balance of form and purpose. Get ready to immerse yourself in an extraordinary audio experience, where cutting-edge innovation seamlessly intertwines with captivating elegance.

FUNCTIONS

BUTTONS ON THE FRONT OF THE STREAMER DAC



CONNECTORS ON THE BACK OF THE STREAMER DAC



FRONT PANEL FUNCTIONS

1 DISPLAY

During streamer playback the display shows the first two lines of metadata – usually the artist and track name. The bottom line shows the input ("Stream"), and the format being played. When the streamer is not playing, or if a non-streamer input is selected, the active input is shown.

When changing settings ("Menu functions" on page 10), the display will show the setting being changed.

2 STANDBY

Press the standby button to place the DAC in standby mode, or to switch on the DAC from standby mode. When the DAC is in standby mode, the only light showing on the device will be a dim LED illuminating the standby button. When you switch on the DAC, the outputs will be muted, and a line will illuminate at the bottom of the displays, starting in the lower left corner.

During the start-up cycle, the circuits of the unit will initialise. When using trigger cables between the DAC and an amplifier, the DAC will be switched on and off together with the amplifier.

3 UP BUTTON

The up button is used for switching inputs, and for changing menu options, when in the menu ("Menu functions" on page 10).

4 MENU BUTTON

The menu button is used for accessing the menu ("Menu functions" on page 10).

5 DOWN BUTTON

The down button is used for switching inputs, and for changing menu options, when in the menu ("Menu functions" on page 10).

6 MUTE

When you press this button briefly, it will mute the analogue outputs of the DAC. The display will show "Mute" next to the active input name. Press mute again, to disable mute.

REAR PANEL FUNCTIONS

7 LINE OUT
The DAC is equipped with an analogue line output. This can be fixed level or variable. Use fixed level for best quality playback.

DIGITAL INPUTS AND OUTPUTS
The DAC is equipped with the following digital inputs and outputs:

8 TOSLINK OPTICAL INPUT
The DAC comes equipped with two optical S/P-DIF (32-192kHz, 16-32 bit) TOSLINK inputs.

9 BNC DIGITAL INPUTS
The DAC comes equipped with two electrical S/P-DIF (32-768kHz, 16-32 bit) digital inputs.

10 DIGITAL OUT
The DAC is equipped with an electrical (BNC) digital S/P-DIF output, for connecting an external DAC. It support sample rates up to 768kHz. Most equipment cannot handle sample rates that high, so the maximum sample rate can be limited in the menu settings.

11 USB INPUT
The DAC comes equipped with one fully isolated, UAC 2, asynchronous USB input. It supports 32-384kHz, 16-32 bit PCM DSD64/DSD128 using DoP encoding and up to DSD256 using native mode.

When connecting a computer running Mac OS X or Linux or a recent Windows version, no drivers are needed. For Windows 7/8 a driver can be downloaded from the Aavik Acoustics website.

12 NETWORK
The DAC is equipped with an Ethernet 100BASE-TX network interface. Connect to a 100Mb or 1Gb network for best performance. A 10Mb network will not support high-res streaming.

13 USB
The DAC is equipped with two USB 2.0 sockets. They can be used for a WiFi dongle and a USB flash drive. Note: 500mA max. can be supplied to connected USB devices, as specified in the USB standards. So external hard drives will usually need a power supply to work.

14 RS-232, SOFTWARE UPDATE
The DAC RS-232 terminal is used mainly for software updates. You can check for updates on the Aavik Acoustics homepage.

15 TRIGGER CONNECTIONS
The DAC is equipped with two DC trigger connectors. These can be used to power-on the DAC, when the amplifier is switched on. Connect one of the connectors to the amplifier. The second connector can be used to switch on a further piece of equipment. The DAC will switch on when 5-15VDC is applied to a trigger input.

16 POWER ON/OFF SWITCH
Toggle the switch to switch between fully off and standby mode. The power consumption is less than 1W in standby mode. When the DAC is on, the power consumption is less than 50W.

17 POWER INLET (CAUTION!)
The DAC accepts mains voltages from 100 to 240VAC 50-60Hz.
The power inlet accepts power cables with an IEC 60320-C13 female connector.
To ensure the best performance, please consult your Aavik Acoustics dealer for a suitable mains cable.

REMOTE

B **STANDBY**, Press this button to place the device in standby mode, or to switch the device on from standby mode.

C **INV**, Used to invert the phase when playing back digital audio (streamer or DAC). An 'i' will be added to the source display, when the DAC is in inverting mode. Not used in amplifier mode.

Allows compensation for recordings that have inverted polarity.
Default setting "Positive": A positive sine wave at the input remains positive at the output.
Inverted setting: A positive sine wave at the input is negative or inverted at the output. When the setting is inverted, an "I" is shown in the display of the Aavik device.

E **MENU**, Use this button to enter the menu, or switch back to normal operation. Use the ARROW RIGHT and LEFT buttons to cycle through the menu, and the ARROW UP and ARROW DOWN buttons to change a setting. See "MENU FUNCTIONS" for details.

F **i**, Use this button to show information about the device, or the currently playing audio.

G **ARROW UP/ARROW DOWN**, Press this button to increase/decrease the volume setting.

H **ARROW RIGHT/LEFT**, Press this button, to move to the next/previous input. **The arrow buttons are also used for menu navigation.**

I **VOLUME DOWN**, Press this button to decrease the volume setting of an Aavik amplifier.

J **MUTE,** Press the button to mute the outputs of the amplifier, the display will show "Mute". Pressing the button again will reactivate the outputs of the device.

K **VOLUME UP**, Press this button to increase the volume setting of an Aavik amplifier.

A **A**, Used to select the amplifier mode of the remote control.

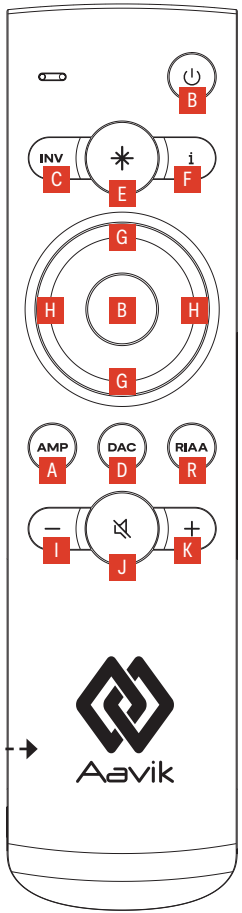
D **D**, Used to select the Streamer DAC mode of the remote control.

R **R**, Used to select the RIAA mode of the remote control.

INSTALLING/REPLACING BATTERIES

To remove the backplate, apply slight pressure and move it downwards to release it. Install one AAA battery as indicated in the battery compartment.

Remove the battery if you are not going to use the remote for an extended period of time.



MENU FUNCTIONS

Using the front panel, you can change settings of the DAC.

Using the remote, you press the “Menu” button to enter or exit the menu. Using the front panel, you press and hold the menu button for 3 seconds

When you enter the menu, the display brightness setting will be shown on the display. The top line of the display shows the current option (“Display brightness” when you enter the menu), and the bottom line shows the current setting.

Using the remote, you can cycle through the options using the right and left buttons.

Using the front panel, press the menu button to cycle through the options.

Use the up and down buttons of the remote, or the up and down front panel buttons to change the settings.

Once in the menu, using the remote, you can cycle through all options in the order shown in the diagram below.

Using the front panel, the DAC will return to normal operation once you have cycled through all the options.

SETTINGS	DISPLAY SHOWS
DISPLAY BRIGHTNESS You can change the display brightness in four steps: 10, 40, 70 and 100%.	Display brightness 100%
DISPLAY DIM Using this setting, you can set the display to switch off automatically after 1–5 seconds. The standard setting is off. When the display is off, a single dim LED will be lit in the lower right corner.	Display dim Off
DAC SAMPLING RATE You can switch the sampling rate of the internal DAC between 22.6MHz and 11.3MHz. Generally the default setting 22.6MHz provides the best sound quality.	CAC sampling rate 22.6Mhz
FIXED VOLUME You can select between having fixed output volume, or variable output volume. Use fixed volume for best sound quality, and adjust the volume on your amplifier instead. The volume control should be regarded as a convenience feature only.	Fixed volume On (fixed)
GAPLESS PLAYBACK With gapless playback off, the streamer will insert small breaks between tracks. This is needed by some DACs.	Gapless playback On

MENU FUNCTIONS

SETTINGS	DISPLAY SHOWS
MQA STREAM UNFOLDING The DAC supports MQA unfolding (decoding). To enable this, use the default option "On (full)". Enabling full MQA unfolding disables the digital output, so if you use an external DAC or amplifier with DAC, use the settings "On (core only)", "In external DAC" or "Off". The setting "In external DAC" will inform some streaming services, that MQA decoding is on, although the internal DAC is not performing the decoding step.	
DSD S/P-DIF OUTPUT If you use an external DAC that supports DoP (DSD over PCM) on it's S/P-DIF input, use the "Encapsulate as DoP" setting. Most DACs do not, and the the "Convert to PCM" setting should be used. If the internal DAC of the streamer is used, either setting will work.	
STREAM MAX. PCM RATE This setting can be used to reduce the maximum PCM sample rate reported to streaming services. This can be used if an external DAC does not support the default 384kHz maximum. When using the internal DAC, you should use the default 384kHz setting.	
STREAM MAX. DSD RATE This setting can be used to reduce the maximum DSD rate reported to streaming services. This can be used if an external DAC does not support the default DSD256 maximum (many DACs support only DSD64 over S/P-DIF). When using the internal DAC, you should use the default DSD256 setting.	
NETWORK STATUS This will show if either LAN (wired Ethernet) or WiFi (wireless network) is connected. If both is available, the wired connection is selected.	
STREAM FIRMWARE This can be updated over the network.	
SOFTWARE VERSION This can be updated through the RS-232 port.	

MENU FUNCTIONS

SETTINGS	DISPLAY SHOWS
WIFI SIGNAL LEVEL This displays the signal level between 0 and 100%. If your streamer does not have an active WiFi connection, "0%" will be shown.	
SCAN WIFI NETWORK If you want to connect to a WiFi network, and have a supported WiFi dongle installed in the top USB socket, you can scan for available networks. Press the up button to scan. After the scan, you can browse through networks using the up and down buttons. Connecting to a WiFi network, can only be done using the remote – not through the front panel. Select the network using the centre button of the remote (E). To enter the password of the network, browse through letters and numbers using the up and down buttons. To move to the next character, press the right button. When you have selected the final character, do not press the right button, but press the centre button of the remote (E) to enter the password. If the connection fails, you can enter the password again.	
FIRMWARE UPDATE Press the up button to check, if a firmware update is available. If it is, you can install it by pressing the down button. The update takes a few minutes – progress is shown on the display. If will stay at "0%" while the update is downloaded. DO NOT switch off the power while the streamer is updating.	

SPECIFICATIONS

STREAMING	DLNA 1.5 UPnP AV 1.0
INPUTS	2 x BNC S/P-DIF (32 - 768 k-samples, 32-bit 2 x TOSLINK optical (32 – 192 k-samples, 32-bit 1 x USB fully isolated, UAC 2, asynchronous PCM 32–384 k-samples, 32-bit, DSD 64-256 native, DSD 64-128 in DoP mode
OUTPUTS	1 pair of RCA line outputs 1 x BNC S/P-DIF (32 - 768 k-samples, 32-bit 1 x TOSLINK optical (32 – 192 k-samples, 32-bit
AAVIK NOISE REDUCTION	Active Tesla Coils: 314 Active Square Tesla Coils: 663 Dither circuitry: 35 Active zirconium anti aerial resonance Tesla coils: 2
POWER CONSUMPTION	Standby: <1W On: <50W
DIMENSIONS	580,0 x 510,0 x 155,0 mm / 22,8 x 20,1 x 6,1 inches
WEIGHT	33 kg / 72,8 lbs
MAINS VOLTAGE AND CURRENT:	100-240V AC - 50-60 Hz max 3,15A
ENCLOSURE CLASSIFICATION:	IP10

FACTORY RESET

You can reset all settings back to factory defaults. This will erase all settings. To do this, proceed as follows:

Switch on the device using the standby button 2 or the remote control.

Press and hold the up and down front panel buttons (3 and 5) simultaneously.

The display will show “Restoring default settings ...” and then “Shutting down”. The DAC will switch off, and you can turn it back on using the front panel button 2 or the remote control.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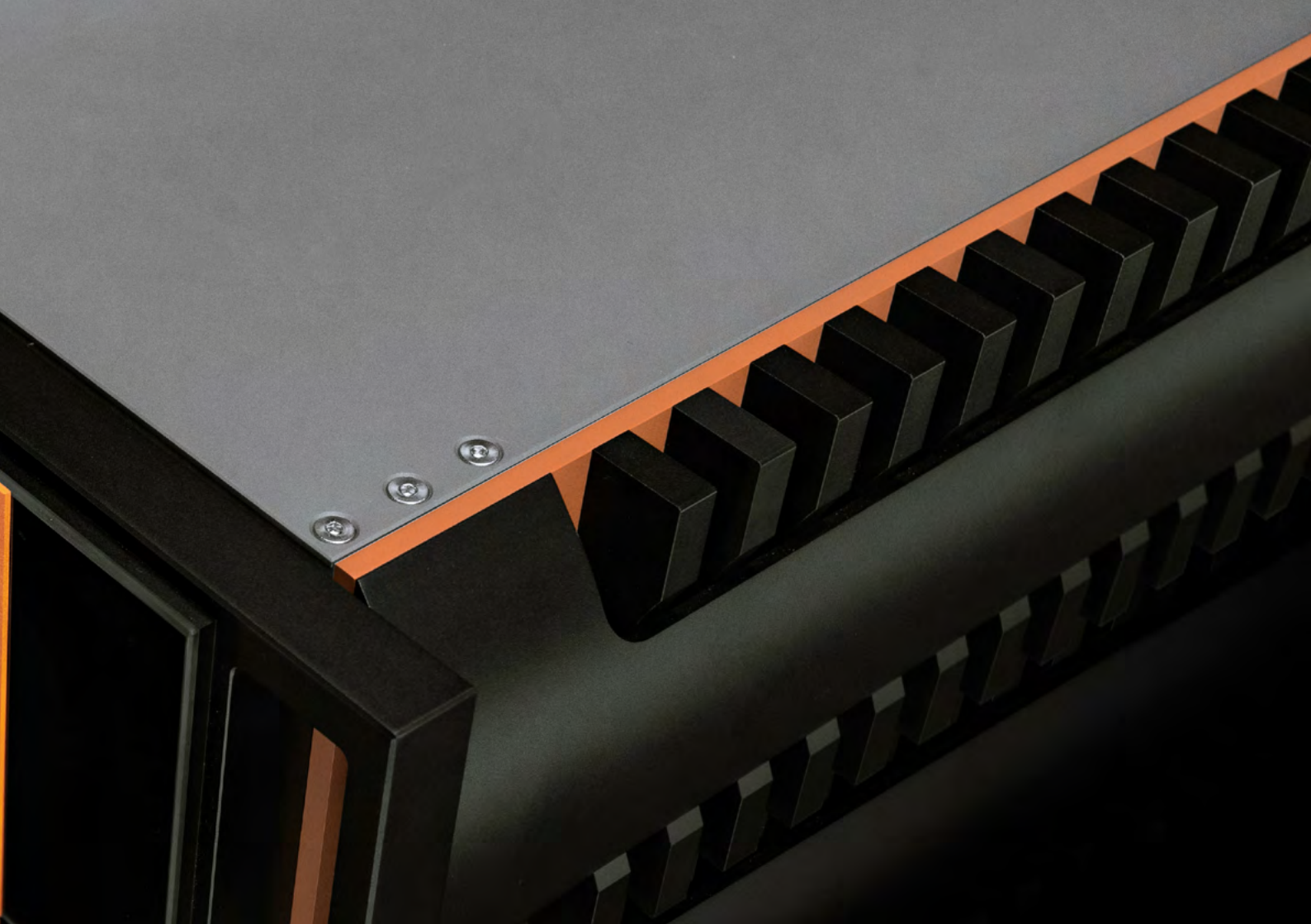

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We would love to hear about your experience with this product.
Don't hesitate to contact us with feedback or questions.

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