

UNITY AMPLIFIER

USER GUIDE | AAVIK U-188 / U-288 / U-588



Rev.1.0 ENG



CAUTION:

Max. ambient temperature: 40 DegC

The power cord must comply with local safety regulations.

The device must be connected to a grounded outlet.

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 amplifier only with a dry, lint-free cloth. For more thorough cleaning, unplug the amplifier 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 (not included) 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.



WARNING: To reduce the risk of fire or electric shock, do not expose the amplifier 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.



CONGRATULATIONS

Thank you for choosing this Aavik product and congratulations on accessing Audio Group Denmark's unique and exceptional audio universe.

Handcrafted in Denmark, Aavik captures the essence of Audio Group Denmark, reflecting a world of high-end audio equipment, where technological excellence and the aesthetics of Danish design go hand in hand with authentic musical performance.

We are convinced that you will find great emotional satisfaction in the unique musical experience that Aavik will give you and that you will get the sensation of getting closer to the music.

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ABOUT THE PRODUCT

External excellence

Inspired by Aavik 880-series flagship products, the Aavik U-x88 range fuses their very best features into one state-of-the-art enclosure, crafted meticulously to preserve the finest audio characteristics of the electrical design inside it. As aesthetically remarkable and sophisticated as it is, each its component serves a precisely defined purpose, ensuring the lowest inductance, non-existent hysteresis and exceptional resonance control.

The exceptional design born in two exceptional minds

The esteemed founder of Gryphon Audio – Flemming Erik Rasmussen – joined our design and development team in mid 2021, bringing over 35 years of experience and profound artistic passion for hi-fi equipment. Flemming's arrival marked the beginning of a dynamic and productive collaboration, merging his artistic and aesthetic design touch with Michael Børresen's innovative approach. The result speaks for itself.

Full-scale integration at its finest

Unity amplifiers from the Aavik U-x88 range were designed to blend the most important and relevant utilities into one. A streamer, DAC, line stage and power amplifier combined within the same masterfully executed enclosure allow for the shortest possible connections between them, which greatly contributes to raising the sound quality of the entire design. The effect takes the form of a single all-in-one amplifier device, which is as capable on modern functionalities as it is excellent performance wise.

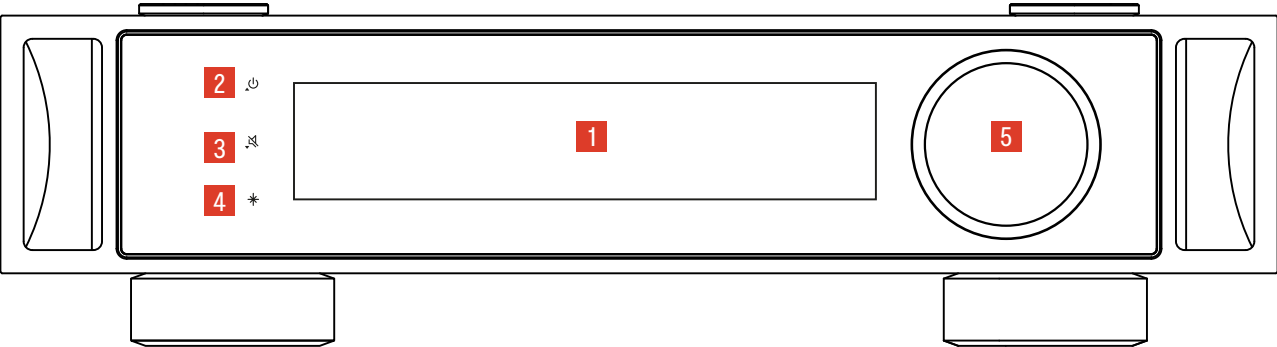
The heart that beats like no other

Aavik U-x88-series unity amplifiers are based on the latest version of Pascal class D amplifier technology, which features even faster UMAC switching modulation and generates lesser. This circuit now requires lesser filtering and has lower output impedance, which ensures greater control over connected speakers than before, and significantly higher sound quality of the entire design.

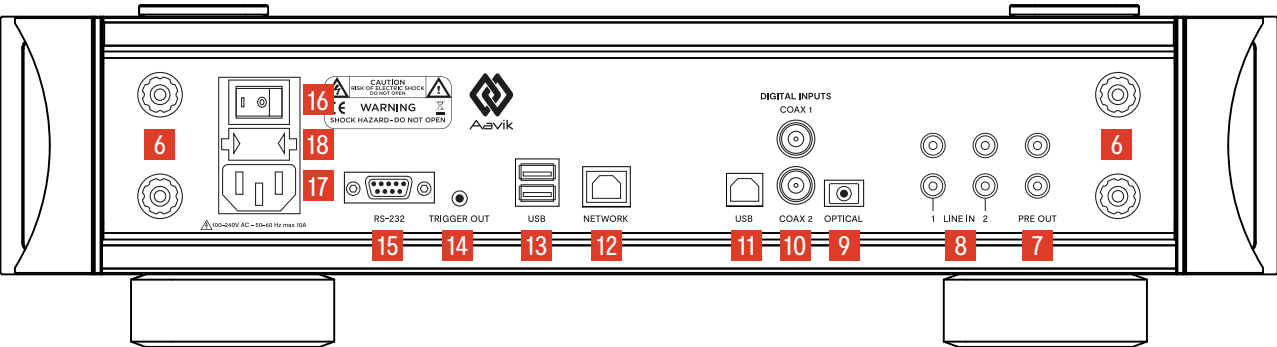




BUTTONS ON THE FRONT OF THE AMPLIFIER



CONNECTORS ON THE BACK OF THE AMPLIFIER



FRONT PANEL FUNCTIONS

1 DISPLAY

During normal operation the top line of the display shows the selected source, and the bottom line shows the volume setting. When a digital input is selected, the format received is also displayed (PCM, MQA or DSD). The display changes to metadata, when the built-in streamer is playing.

It is possible to change the source with the rotating knob and/or the up/down buttons when in input selection mode. When changing settings (see "MENU FUNCTIONS" page 12), the display will show the setting being changed.

2 STANDBY

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

When using trigger cables between the amplifier and other units, these units will be switched on and off together with the amplifier.

In input selection mode, or when in the menu, the standby button is used as arrow up.

3 MUTE

When you press the mute button briefly, it will mute the speaker outputs of the amplifier. The display will show "Mute" instead of the volume setting. If the streamer is playing, a mute symbol will be displayed in front of the top line text. When listening on headphones, you can change the volume setting without switching off muting. The volume will return to the previous "speaker" level, when you switch off muting.

In input selection mode, or when in the menu, the mute button is used as arrow down.

4 INPUT SELECT/ MENU BUTTON

The input select button lets you select the desired source. Pressing the button briefly will activate input selection. The display will flash, while still showing the selected input. Turning the volume control knob, either clockwise or counter-clockwise, or pressing the up/down buttons lets you select the desired source. Press the input select button again to deactivate input selection mode.

5 VOLUME CONTROL (ROTATING KNOB)

Use the rotating knob to change the volume, source or other settings.

REAR PANEL FUNCTIONS

6 SPEAKER TERMINALS

The amplifier accepts speaker cables terminated with spade connectors and 4mm banana plugs.

To connect speaker wires terminated with spades, loosen the isolation knob and insert the spade between the isolator and terminal. Tighten the isolation knob to secure the spade.

To connect speaker wires terminated with banana plugs, insert the banana plug into the centre hole of the terminal.

7 PRE OUT

The amplifier is equipped with a set of pre out (pre-amplifier output) connections. They can be used for an active sub-woofer, a separate power amplifier or a headphone amplifier.

8 LINE INPUT

The amplifier is equipped with two single-ended, RCA line inputs.

9 TOSLINK OPTICAL INPUT

The DAC comes equipped with an optical S/P-DIF TOSLINK input. It supports PCM (32-192kHz, 16-24 bit) and MQA.

10 BNC DIGITAL INPUT

The DAC comes equipped with two electrical S/P-DIF digital inputs. It supports PCM (32-192kHz, 16-24 bit) and MQA.

11 USB B INPUT

The DAC comes equipped with one UAC 2, asynchronous USB input. It supports 32-384kHz, 16-32 bit PCM, MQA, DSD64/DSD128 using DoP encoding or in native mode.

12 NETWORK

The streamer is equipped with an Ethernet 100BASE-TX network interface.

Connect to a 100Mb or faster network for best performance. A 10Mb network will not support high-res streaming.

13 USB A

The streamer is equipped with two USB A 2.0 sockets. They can be used for a WiFi dongle and a USB flash drive.

14 TRIGGER OUTPUT

The amplifier is equipped with one DC trigger output. This can be used to power-on power amps, sub-woofers and other equipment together with the amplifier. When the amplifier is switched on (not in standby mode), the trigger output will supply 12VDC at up to 50mA.

15 RS-232, SOFTWARE UPDATE

The streamer RS-232 terminal is used mainly for software updates. You can check for software updates on the Audio Group Denmark homepage.

16 POWER ON/OFF SWITCH

Toggle the switch to switch between fully off and standby mode. When the amplifier is in standby mode, the power consumption is less than 1W. When the amplifier is on and idling, the power consumption is less than 30W.

17 POWER INLET (CAUTION!)

The amplifier 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 dealer for a suitable mains cable.

18 MAIN FUSE

The fuse is 10A slow.

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

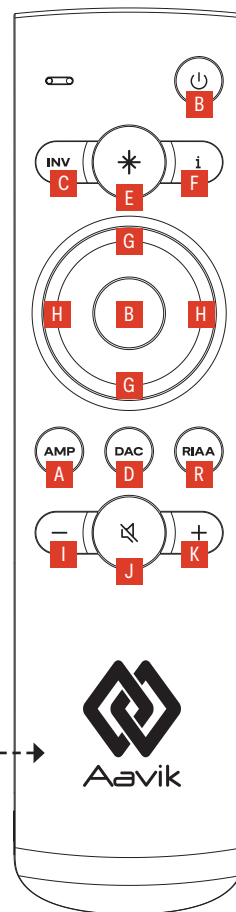
D **DAC**, Used to select the Streamer DAC mode of the remote control.

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

INSTALLING/REPLACING BATTERY

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

Note: Settings are stored when your Aavik device is switched to standby. So remember to switch your device to standby, before removing power, if you have changed settings.

Using the front panel or remote control, you can change many settings of the amplifier.

Using the remote, press the "Menu" button **E** to enter or exit the menu.

Using the front panel, press and hold the INPUT SELECT/MENU BUTTON **4** button for 3 seconds.

When entering the menu, either information on the currently playing stream will be shown, or the display brightness setting.

Using the remote, cycle through the options using the ARROW LEFT and ARROW RIGHT **H** buttons.

Using the front panel, press the INPUT SELECT/MENU BUTTON **4** button to cycle through the options.

Use the ARROW UP and ARROW DOWN **G** buttons of the remote, the up and down front panel buttons (**2/3**) or the rotary knob **6** 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 amplifier will return to normal operation once 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 DIM Using this setting, you can set the display to switch off automatically after 1-5 seconds. The standard setting is "dim off". When the display is off, a single dim LED will be lit in the lower right corner.	
BALANCE Using this function, you can change the left/right balance in 6 1dB steps.	
TEMPERATURE This menu option shows the current operating temperature of the amplifier.	
HOME THEATRE BYPASS INPUT Using the home theatre bypass function, you can setup an input to use a fixed volume setting. Choose the desired input or "Disabled" to use all inputs as regular inputs.	
HOME THEATRE BYPASS LEVEL Set the fixed level to use for the home theatre bypass input (if enabled).	

MENU FUNCTIONS

SETTINGS

DISPLAY SHOWS

GAPLESS PLAYBACK

With gapless playback off, the streamer will insert small breaks between tracks.

Gapless playback
On

NETWORK STATUS

This will show if either LAN (wired Ethernet) or WiFi (wireless network) is connected. If both are available, the wired connection is used.

Network status
Not connected

STREAM FIRMWARE

Firmware version currently installed. This can be updated over the network.

Stream firmware
04.03.68

SOFTWARE VERSION

This can be updated through the RS-232 port.

Software version
1.0.0

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.

WiFi signal level
84%

FIRMWARE UPDATE

Press the ARROW UP button to check, if a firmware update is available. If it is, you can install it by pressing the ARROW DOWN button. The update takes a few minutes - progress is shown on the display. It will stay at "0%" while the update is downloaded. **DO NOT** switch off the power while the streamer is updating.

Firmware update
Press UP to check

FACTORY RESET

Press the ARROW UP button to reset all settings to factory default. When the reset is complete, the amplifier will switch off. During the next power-up cycle, the amplifier will reboot a couple of times.

Factory reset
Press UP to reset

SCAN WIFI NETWORK

If you want to connect to a WiFi network, and have a supported WiFi dongle installed in the top USB A socket, you can scan for available networks. Press the ARROW UP **G** button to scan. After the scan, you can browse through networks using the ARROW UP and ARROW DOWN **G** 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 (STANDBY) of the remote **B**.

To enter the password of the network, browse through letters and numbers using the ARROW UP and ARROW DOWN buttons **G**.

To move to the next character, press the ARROW RIGHT button **H**.

When you have selected the final character, do not press the ARROW RIGHT button, but press the centre button (STANDBY) **B** of the remote to enter the password. If the connection fails, you can enter the password again.

Scan WiFi network
Press UP to scan

SPECIFICATIONS

	AAVIK U-188	AAVIK U-288	AAVIK U-588
LINE INPUT	Maximum input 4.5V RMS (Line 1) Maximum input 6.5V RMS (Line 2) Input impedance 10kohm	Maximum input 4.5V RMS Maximum input 6.5V RMS (Line 2) Input impedance 10kohm	Maximum input 4.5V RMS Maximum input 6.5V RMS (Line 2) Input impedance 10kohm
DIGITAL INPUTS	BNC S/P-DIF: PCM 24-bit 44-192kHz and MQA TOSLINK optical: PCM 24-bit 44-192kHz and MQA USB UAC 2: PCM 32-bit 44-384kHz, MQA, DSD64, DSD128	BNC S/P-DIF: PCM 24-bit 44-192kHz and MQA TOSLINK optical: PCM 24-bit 44-192kHz and MQA USB UAC 2: PCM 32-bit 44-384kHz, MQA, DSD64, DSD128	BNC S/P-DIF: PCM 24-bit 44-192kHz and MQA TOSLINK optical: PCM 24-bit 44-192kHz and MQA USB UAC 2: PCM 32-bit 44-384kHz, MQA, DSD64, DSD128
PREAMP OUTPUT	1 pair of RCA outputs	1 pair of RCA outputs	1 pair of RCA outputs
MAX OUTPUT	7,5Vrms	7,5Vrms	7,5Vrms
DISTORTION, LINE STAGE	<0,005% (THD at 1kHz, 1V input)	<0,005% (THD at 1kHz, 1V input)	<0,005% (THD at 1kHz, 1V input)
OUTPUT IMPEDANCE	50 ohms	50 ohms	50 ohms
VOLUME CONTROL	76 1dB steps	76 1dB steps	76 1dB steps
SPEAKER OUTPUT	2 x 300W 8 ohm 2 x 600W 4 ohm	2 x 300W 8 ohm 2 x 600W 4 ohm	2 x 300W 8 ohm 2 x 600W 4 ohm
DISTORTION (THD+N)	<0,0028% (1W, 1kHz, 8 ohm)	<0,0028% (1W, 1kHz, 8 ohm)	<0,0028% (1W, 1kHz, 8 ohm)
IMD	<0,0008% (10W, 8 ohm)	<0,0008% (10W, 8 ohm)	<0,0008% (10W, 8 ohm)
TIM	<0,002% (10W, 8 ohm)	<0,002% (10W, 8 ohm)	<0,002% (10W, 8 ohm)
STREAMING	UPnP AV 1.0 DLNA 1.5 Spotify Connect Tidal Connect	UPnP AV 1.0 DLNA 1.5 Spotify Connect Tidal Connect	UPnP AV 1.0 DLNA 1.5 Spotify Connect Tidal Connect

	AAVIK U-188	AAVIK U-288	AAVIK U-588
AAVIK NOISE REDUCTION	Active Tesla Coils: 36 Active Square Tesla Coils: 72 Dither circuitry: 3 Anti Areal Resonance Coils: 4	Active Tesla Coils: 72 Active Square Tesla Coils: 144 Dither circuitry: 6 Anti Areal Resonance Coils: 8	Active Tesla Coils: 108 Active Square Tesla Coils: 216 Dither circuitry: 9 Anti Areal Resonance Coils: 8
POWER CONSUMPTION	Standby: <1W Idle: <30W	Standby: <1W Idle: <30W	Standby: <1W Idle: <30W
INPUT VOLTAGE	100-240 V	100-240 V	100-240 V
MAX CURRENT	10 A	10 A	10 A
ENCLOSURE IP RATE	IP20	IP20	IP20
MAX OPERATING TEMPERATURE	40 Degrees Celsius	40 Degrees Celsius	40 Degrees Celsius
DIMENSIONS	440 x 430 x 116mm (WxDxH)	440 x 430 x 116mm (WxDxH)	440 x 430 x 116mm (WxDxH)
WEIGHT	22,8kg	22,8kg	22,8kg



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

info@audiogroupdenmark.com

AUDIOGROUPDENMARK.COM