

UNITY AMPLIFIER

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





CAUTION:
Max. ambient temperature: 40°C

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 to 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 device.

8. Unplug this device 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 the device horizontally, and on a suitable table or rack if more components are stacked. Make sure the hottest device (usually an amplifier) is on top.
11. All servicing work should be performed by qualified personnel.
12. Servicing is required in the event of any damage to the device, such as; damage to the power cord or plug, exposure to rain or moisture, foreign objects inside the device, liquid spilled on it, its unusual operation or mechanical damage if it has been dropped.

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

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

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

3. Only connect the device to the power supply specified on its enclosure, or in the operating instructions. The primary method of isolating the device from the mains is to remove the mains plug. The device must be installed in a manner that makes disconnection possible.

4. If you detect any abnormal odor or smoke from the device, immediately turn it off and unplug its power cord from the wall outlet. Contact your dealer and do not reconnect the device.



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 Danish design aesthetics go hand in hand with authentic musical performance.

We are confident that you will find great emotional satisfaction in the unique musical experience that Aavik provides, and that the sensation of being close to the music will be yours to experience.

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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.

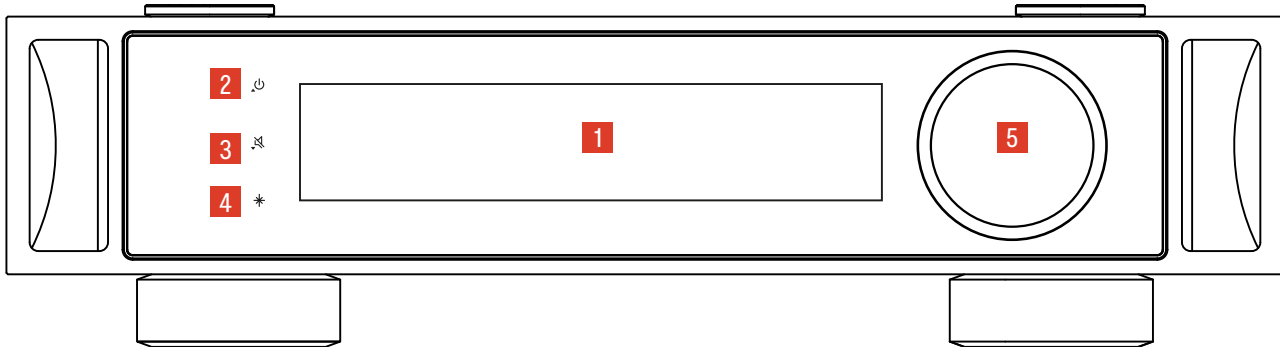
The heart that beats like no other

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 noise. 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.

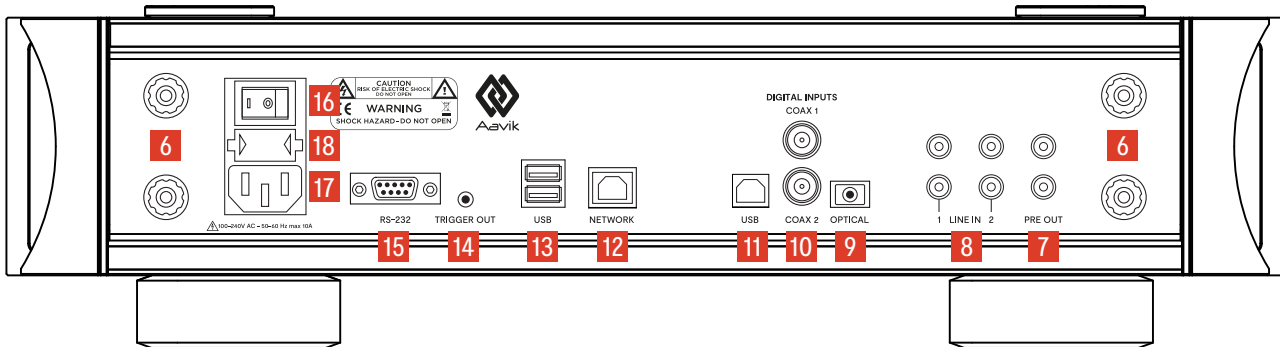




BUTTONS ON THE FRONT OF THE AMPLIFIER



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). When the built-in streamer is engaged, the display information changes to metadata.

When in input selection mode, the source can be changed upon rotating the knob and/or pressing the up/down buttons. The display will indicate settings changed (see “MENU FUNCTIONS” on page 12).

2 STANDBY

Press the standby button to either engage or disengage the amplifier's standby mode. When this mode is active, the front panel's lower left corner will show a single dim LED dot. Upon switching it on from the standby mode, the amplifier will have its outputs muted, while a red dot line illuminated on its display will progress prior to having it fully operational.

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

When the amplifier is in input selection mode or its main menu is active, the standby button on the front panel is used as an up arrow.

3 MUTE

When pressed briefly, the mute button will mute the amplifier's speaker outputs. The display will show "Mute" instead of the volume setting. If the streamer component is engaged, a mute symbol will be displayed in front of the top line text. During headphone playback, the volume setting can be changed without disengaging the mute. When it is turned off, the volume will return to the previous "speaker" level.

When the amplifier is in input selection mode or its main menu is active, the mute button on the front panel is used as a down arrow.

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

Speaker outputs on the amplifier's rear accept speaker cables terminated with spade connectors and 4mm banana plugs.

To connect speaker wires terminated with spades, loosen the isolation knob on a speaker terminal, then insert the spade between them, and finally tighten the isolation knob to secure the spade.

To connect speaker wires terminated with banana plugs, insert each banana plug into the empty center of its corresponding terminal.

7 PRE OUT

The amplifier features a set of preamplifier outputs that can be used to connect an active subwoofer, a standalone power amplifier or a headphone amplifier.

8 LINE INPUT

The amplifier features two single-ended (RCA) line-level inputs.

9 TOSLINK OPTICAL INPUT

The DAC module of the amplifier features one optical S/PDIF (TOSLINK) input, which supports PCM data up to 24-bit/192kHz and MQA.

10 BNC DIGITAL INPUT

The DAC module of the amplifier features two coaxial S/PDIF (BNC) inputs, which support PCM data up to 24-bit/192kHz and MQA.

11 USB TYPE-B INPUT

The DAC module of the amplifier features one asynchronous UAC2 USB input, which supports PCM data up to 32-bit/384kHz, MQA and DSD up to 5.6MHz (DSD128) processed either natively or via DoP encoding.

12 NETWORK

The streamer module of the amplifier features one Ethernet 100BASE-TX network input.

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

13 USB TYPE-A INPUT

The streamer module of the amplifier is equipped with two USB Type-A 2.0 sockets to connect a WiFi dongle and external data storage up to 2TB (i.e. a USB flash drive).

14 TRIGGER OUTPUT

The amplifier features one DC trigger output to power on together with it a standalone power amplifier, subwoofer and other equipment. When the amplifier is powered on and not in the standby mode, its trigger output supplies 12VDC at up to 50mA.

15 RS-232 SOFTWARE UPDATE PORT

The RS-232 terminal on the amplifier's rear panel is used to update its software. Please visit the Audio Group Denmark homepage to check the most recent software version.

16 POWER ON/OFF SWITCH

Toggle the switch to either put the amplifier in standby mode or turn it off completely. The amplifier in standby mode draws less than 1W of power, and less than 30W when it is on and idling.

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 compartment for a 10A slow-blow fuse.

REMOTE

B **STANDBY**, Press this button to either engage or disengage the amplifier's standby mode.

C **INV**, This button inverts the signal phase during digital playback and remains inactive when the device is used only as an analog amplifier. The letter 'I' visible on the display indicates when the inverted mode is active.

The 'INV' button 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, the display shows the letter "i".

E **MENU**, Use this button to enter and return from the menu. Use the ARROW RIGHT/LEFT buttons to cycle through the menu, and the ARROW UP/DOWN buttons to change a setting. Please see "MENU FUNCTIONS" (page 10) for details.

F **i**, Use this button to information about the device or current audio playback.

G **ARROW UP/ARROW DOWN**, Press these buttons to increase/decrease the volume level

H **ARROW RIGHT/LEFT**, Press these buttons to switch inputs and navigate through the menu.

I **VOLUME DOWN**, Press this button to decrease the volume level.

J **MUTE**, Press this button to either mute or reactivate the outputs of the amplifier. "Mute" shown on the display indicates disengaged outputs.

K **VOLUME UP**, Press this button to increase the volume level.

A **AMP**, Press this button to engage the amplifier's power amp mode.

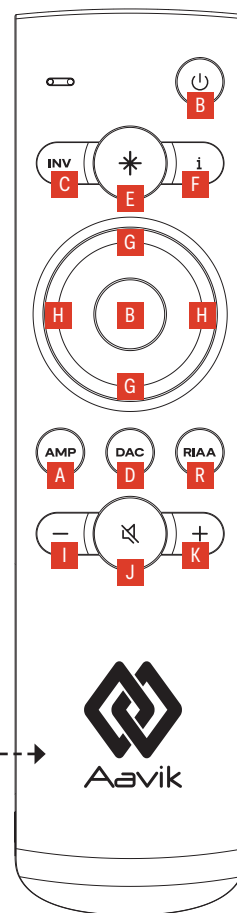
D **DAC**, Press this button to engage the amplifier's streamer DAC mode.

R **RIAA**, Press this button to engage the amplifier's phono stage mode.

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 Avik device is in standby mode. If you have changed any settings, please engage this mode prior to removing a power cord. You can change many settings of the amplifier by using either the front panel or remote control.

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 the current playback information or the display brightness level will be shown.

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

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

Use the ARROW UP/DOWN **G** buttons of the remote, the up/down front panel buttons **(2/ 3)** or the rotary knob **6** to change the settings

In the menu you can cycle through all options in the order listed below using the remote.

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

SETTINGS

DISPLAY BRIGHTNESS

In this submenu, you can set the display brightness to 10, 40, 70 or 100%.

DISPLAY DIM

In this submenu, you can set the display to switch off automatically after 1-5 seconds. The standard display dim setting is "off". The display set in this mode shows a single red LED dot in its lower right corner.

BALANCE

In this submenu, you can change the left/right channel balance in 6 x 1dB steps.

TEMPERATURE

In this submenu, the current operating temperature of the amplifier is displayed.

HOME THEATRE BYPASS INPUT

In this submenu, you can configure a selected analog input to have a fixed volume level. The option "Disabled" sets all analog inputs as regular inputs.

DISPLAY SHOWS

Display brightness
100%

Display dim
Off

Balance
L: 0dB R: 0dB

Temperature
21°C 70°F

Home th. byp. inp.
Disabled

MENU FUNCTIONS

SETTINGS

HOME THEATRE BYPASS LEVEL

In this submenu, you can set the fixed level of the home theatre bypass input if it was previously enabled.

Home th. byp. lev.
-20dB

GAPLESS PLAYBACK

In this submenu, you can turn gapless playback on or off. When the 'off' setting is selected, short breaks will be present between tracks.

Gapless playback
On

PRE OUT MUTE

In this submenu, you can engage or disengage the preamplifier outputs, which are muted by default and should be active to connect i.e. a separate power amplifier, headphone amplifier or active subwoofer.

Pre out mute
On

NETWORK STATUS

In this submenu, you can see if the device is connected to a LAN/WiFi (wired/wireless) network. If both network types are available, then the wired connection is used by default.

Network status
Not connected

STREAM FIRMWARE

In this submenu, you can check the current firmware version installed in the streamer module, and also update it over the network.

Stream firmware
04.03.68

SOFTWARE VERSION

In this submenu, you can check the current software version installed on this device. If necessary, certified Aavik dealerships can update this software via the RS-232 port on the rear panel.

Software version
1.0.0

DISPLAY SHOWS

MENU FUNCTIONS

SETTINGS

WIFI SIGNAL LEVEL

In this submenu, you can check the wireless (WiFi) signal level strength (0-100%). If the streamer module isn't connected to a wireless network, then the display will show the "0%" value.



```
WiFi signal level
84%
```

FIRMWARE UPDATE

In this submenu, press the ARROW UP button to check whether a streamer firmware update is available. If it is, press the ARROW DOWN button to install it. The update procedure takes a few minutes. The progress is shown on the display and will stay at "0%" during downloading of the necessary data. **DO NOT turn off the power while the streamer module is updating.**



```
Firmware update
Press UP to check
```

FACTORY RESET

In this submenu, you can reset all settings to factory defaults by pressing the ARROW UP button. Once the reset is complete, the amplifier will power off. During the next power on, the device will reboot several times to complete the reset procedure.



```
Factory reset
Press UP to reset
```

SCAN WIFI NETWORK

In this submenu, you can scan for available WiFi networks and connect to them if a supported WiFi dongle is installed in the top USB Type-A socket on the device's rear panel. Press the ARROW UP **G** button to scan for available networks, then press the ARROW UP/DOWN **G** buttons to browse through them.

Connecting to a WiFi network can only be done using the remote, NOT through the front panel.

Select the network using the STANDBY button on the remote **B**.

To enter the network password, use the ARROW UP/DOWN buttons **G** to scroll through the letters and numbers

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

When you have selected the final character, press the STANDBY button **B** on the remote to enter the password. If the connection fails, you can enter the password again.



```
Scan WiFi network
Press UP to scan
```

DISPLAY SHOWS

SPECIFICATIONS

LINE	AAVIK U-188	AAVIK U-288	AAVIK U-588
LINE INPUT	Line 1 maximum input: 4.5Vrms Line 2 maximum input: 6.5Vrms Input impedance: 10k Ω	Line 1 maximum input: 4.5Vrms Line 2 maximum input: 6.5Vrms Input impedance: 10k Ω	Line 1 maximum input: 4.5Vrms Line 2 maximum input: 6.5Vrms Input impedance: 10k Ω
DIGITAL INPUTS	BNC S/PDIF: PCM up to 24-bit/192kHz and MQA TOSLINK S/PDIF: PCM up to 24-bit/192kHz and MQA USB UAC2: PCM up to 32-bit/384kHz, MQA and DSD up to 5.6MHz (DSD128)	BNC S/PDIF: PCM up to 24-bit/192kHz and MQA TOSLINK S/PDIF: PCM up to 24-bit/192kHz and MQA USB UAC2: PCM up to 32-bit/384kHz, MQA and DSD up to 5.6MHz (DSD128)	BNC S/PDIF: PCM up to 24-bit/192kHz and MQA TOSLINK S/PDIF: PCM up to 24-bit/192kHz and MQA USB UAC2: PCM up to 32-bit/384kHz, MQA and DSD up to 5.6MHz (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)
VOLUME CONTROL	76 x 1dB steps	76 x 1dB steps	76 x 1dB steps
POWER OUTPUT	2 x 300W into 8 Ω 2 x 600W into 4 Ω	2 x 300W into 8 Ω 2 x 600W into 4 Ω	2 x 300W into 8 Ω 2 x 600W into 4 Ω
DISTORTION (THD+N)	<0.0028% (1W, 1kHz, 8 Ω)	<0.0028% (1W, 1kHz, 8 Ω)	<0.0028% (1W, 1kHz, 8 Ω)
IMD	<0.0008% (10W, 8 Ω)	<0.0008% (10W, 8 Ω)	<0.0008% (10W, 8 Ω)
TIM	<0.002% (10W, 8 Ω)	<0.002% (10W, 8 Ω)	<0.002% (10W, 8 Ω)

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STREAMING	UPnP AV 1.0 DLNA 1.5 Spotify Connect Tidal Connect Qobuz Connect	UPnP AV 1.0 DLNA 1.5 Spotify Connect Tidal Connect Qobuz Connect	UPnP AV 1.0 DLNA 1.5 Spotify Connect Tidal Connect Qobuz Connect
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POWER CONSUMPTION	Standby: <1W Idle: <30W	Standby: <1W Idle: <30W	Standby: <1W Idle: <30W
INPUT VOLTAGE	100-240V AC	100-240V AC	100-240V AC
MAX CURRENT	10A	10A	10A
ENCLOSURE IP RATING	IP20	IP20	IP20
MAX. AMBIENT TEMPERATURE	40°C	40°C	40°C
DIMENSIONS	(W x D x H) 440 x 430 x 116mm	(W x D x H) 440 x 430 x 116mm	(W x D x H) 440 x 430 x 116mm
WEIGHT	22.8kg	22.8kg	22.8kg

AAVIK NOISE REDUCTION	Active Tesla Coils: 36 Active Square Tesla Coils: 72 Dither circuitry: 3 Gold Anti-Arial Resonance Coils (Gold AARC): 4	Active Tesla Coils: 72 Active Square Tesla Coils: 144 Dither circuitry: 6 Gold Anti-Arial Resonance Coils (Gold AARC): 6	Active Tesla Coils: 108 Active Square Tesla Coils: 216 Dither circuitry: 9 Gold Anti-Arial Resonance Coils (Gold AARC): 8
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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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