UNITY AMPLIFIER

USER GUIDE | AAVIK U-301

Rev.1.0 ENG



Aavik

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Safety instructions

1. Read and retain these instructions.

2. Follow all warnings and guidelines.

3. Clean the amplifier with a dry, lint-free cloth. For deeper cleaning, unplug it and use a damp cloth. Avoid chemical solvents or cleaners.

4. Do not place near heat sources like radiators, stoves, or heat-producing equipment.

5. Protect the power cord from damage, especially at plugs, outlets, and exit points.

6. Unplug during lightning storms or extended periods of non-use.

7. Do not modify the polarized or grounding plug.

8. Place the device horizontally on a stable surface. If stacking, keep the hottest component (e.g., an amplifier) on top.

9. Only qualified personnel should perform servicing.

10. Servicing is required if the device shows damage, such as:
Exposure to moisture or foreign objects
Liquid spills
Unusual operation, physical damage, or being dropped.

11. Keep liquids and objects away from the device's openings. Avoid dripping or splashing; do not place liquid-filled items (e.g., vases) on it.

12. Use in moderate climates and domestic settings only.

13. Connect only to the specified power supply. Ensure the mains plug is easily accessible for quick disconnection.

14. If smoke or abnormal odors occur, turn off the device, unplug it, and contact your dealer.

WARNING:

- To reduce fire or shock risk, do not expose the amplifier to rain or moisture.

- The lightning symbol in a triangle alerts users to potentially hazardous voltage inside the device.

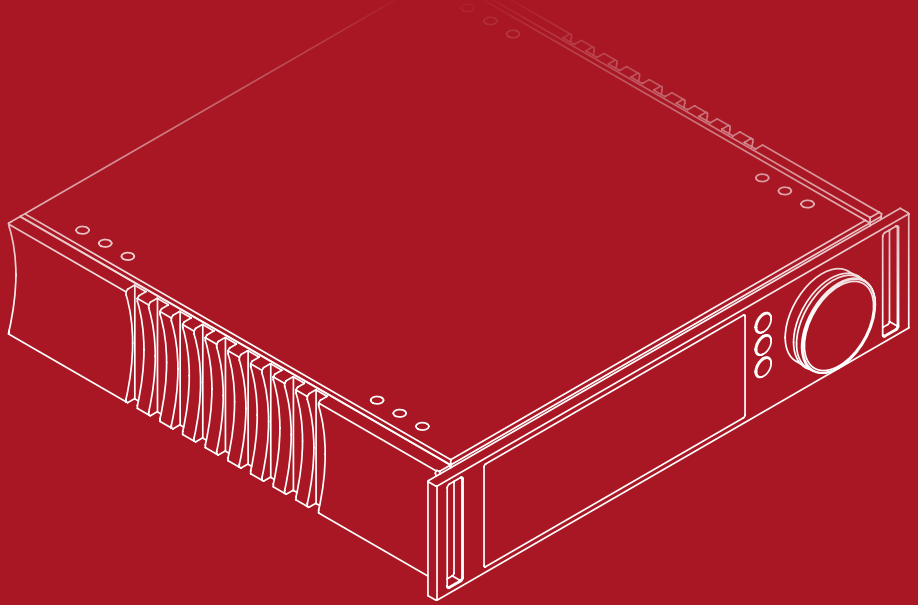
- Do not remove the cover or back panel. There are no user-serviceable parts inside. Refer servicing to qualified personnel.



CAUTION:
Max. ambient temperature: 40°C

The power cord must comply with local safety regulations.

The device must be connected to a grounded outlet.



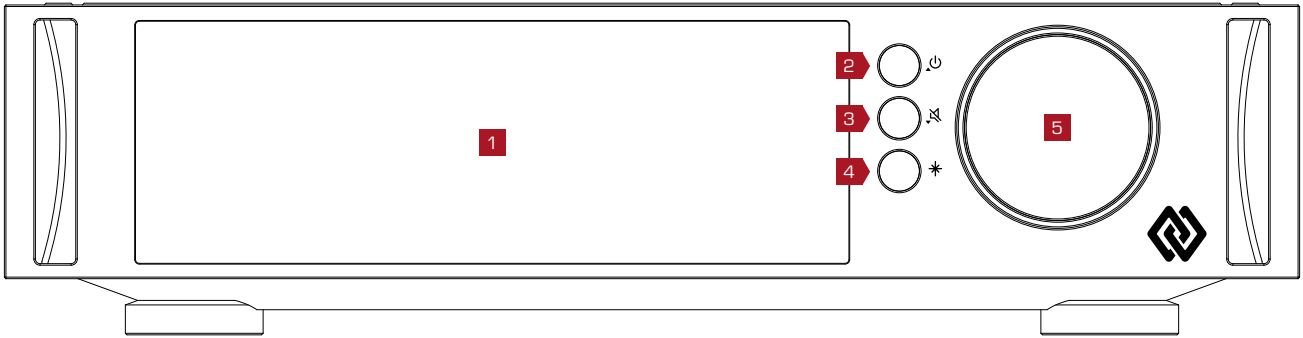
Congratulations

Congratulations on your selection of the Aavik U-301! We are thrilled that you have chosen Aavik as your new piece of electronics, hand crafted in Denmark, ready to lift your performance.

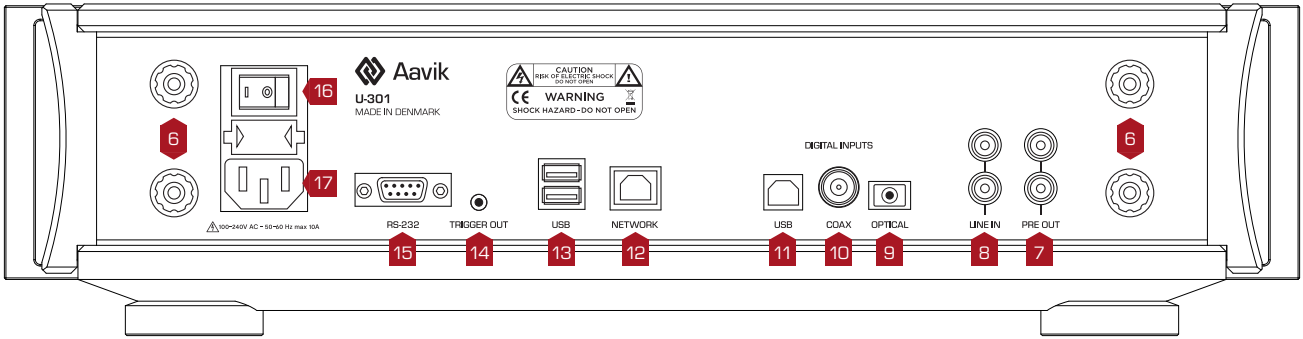
Prepare to be blown away from your music once again and get closer to artist more than ever before.

Functions

BUTTONS ON THE FRONT OF 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”), 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 head-phones, 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.

The button is also used for accessing the menu. See ”MENU FUNCTIONS”.

5 VOLUME CONTROL (ROTATING KNOB)

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

Factory reset

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

1. Switch off the amplifier at the main power switch.
   16
2. Wait 30 seconds.
3. Press and hold the three front panel buttons.
   2 3 4
4. Switch on the amplifier at the main power switch, while still holding the front panel buttons.
   2 3 4 / 16
5. All LED indicators on the front panel will switch on, and stay on.
   1
6. After approx. 8 seconds the LED indicators will switch off again.
   1
7. Release the front panel buttons, and switch off the amplifier using the main power switch.
   2 3 4 / 16

Rear panel functions

6 SPEAKER TERMINALS
The amplifier accepts speaker cables terminated with spade connectors and 4 mm 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 a single-ended, RCA line input.

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 an 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 and DSD64/DSD128 using DoP encoding.

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.

Remote control

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" 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, Used to select the amplifier mode of the remote control.

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

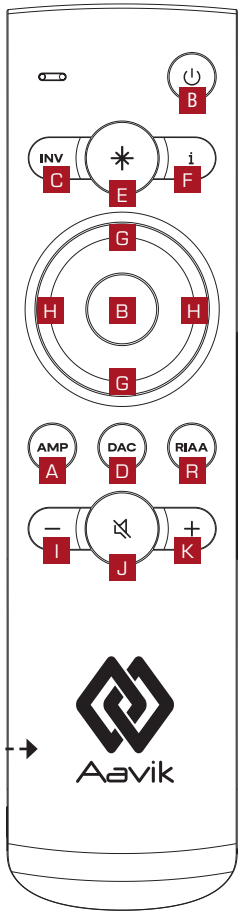
R RIAA *, Used to select the RIAA mode of the remote control.

* The **R**, and **D** buttons are not fuctional on this system. To control your U-301, press the A button A.

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 amplifier 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 5 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 brightness 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.	Display dim Off
BALANCE Using this function, you can change the left/right balance in 6 1dB steps.	Balance L: 0dB R: 0dB
TEMPERATURE This menu option shows the current operating temperature of the power amp.	Temperature 21°C 70°F
HOME THEATRE BYPASS Using the home theatre bypass function, you can setup the line input to use a fixed volume setting. Choose the desired level, or ”Disabled” to use the line input as a regular input.	Home th. bypass Disabled

Menu functions

SETTINGS	DISPLAY SHOWS
GAPLESS PLAYBACK With gapless playback off, the streamer will insert small breaks between tracks.	Gapless playback On
METADATA DISPLAY If you need to display metadata (song titles etc.) in non-European languages, like Chinese and Korean, you can enable extended Unicode support. The standard setting "2 lines, European" supports Latin, Cyrillic and Greek alphabets, and displays the data split over two lines. The settings "1 line, Unicode" and "1 ln, Unicode, rev." display full-height text with wider language support. The two Unicode options differ in the order the information is displayed.	Metadata display 1 line, Unicode Metadata display 2 lines, European Metadata display 1 ln, Unicode, rev.
MAX VOLUME LEVEL Using this setting, you can set a maximum volume level. When using some streaming apps to change the volume setting, it is easy to set it to maximum by accident. This setting changes what "maximum" is, to avoid damage to your ears and speakers.	Max volume level: -20dB
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.	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%

Menu functions

SETTINGS	DISPLAY SHOWS
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. If will stay at "0%" while the update is downloaded. DO NOT switch off the power while the streamer is updating.	
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 E button to scan. After the scan, you can browse through networks using the ARROW UP and ARROW DOWN E 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 G. To enter the password of the network, browse through letters and numbers using the ARROW UP and ARROW DOWN buttons E. To move to the next character, press the ARROW RIGHT button F. When you have selected the final character, do not press the ARROW RIGHT button, but press the centre button (STANDBY) G of the remote to enter the password. If the connection fails, you can enter the password again.	

Specifications

	U-301
LINE INPUT	Maximum input 4.5V RMS 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
PREAMP OUTPUT	1 pair of RCA outputs
MAX OUTPUT	7,5Vrms
DISTORTION, LINE STAGE	<0,005% (THD at 1kHz, 1V input)
OUTPUT IMPEDANCE (PRE OUT)	50 ohms
VOLUME CONTROL	76 1dB steps
SPEAKER OUTPUT	2 x 300W into 8Ω 2 x 600W into 4Ω
DISTORTION (THD+N)	<0.0028% (1W, 1kHz, 8Ω)
IMD	<0.0008% (10W, 8Ω)
TIM	<0.002% (10W, 8Ω)

	U-301
AAVIK NOISE REDUCTION	Gold Anti-Arial Resonance Coils (Gold AARC): 2
STREAMING	UPnP AV 1.0 | DLNA 1.5 | Spotify Connect Tidal Connect | Qobuz Connect | Roon Ready
POWER CONSUMPTION	Standby: <1W Idle: <30W
INPUT VOLTAGE	100-240 V
MAX CURRENT	10 A
DIMENSIONS	Height: 10.8 cm | Width: 41.8 cm | Depth: 43 cm Height: 4.25 in | Width: 16.46 in | Depth: 16.93 in
WEIGHT	10.5 kg / 23.1 lbs



Aavik

Support & Contact

For any questions, technical guidance, or assistance with setup and system optimization, our support team is available to help you achieve the full potential of your system.

Mail: info@audiogroupdenmark.com

audiogroupdenmark.com