



SPECIALIST
SYNTHESIZERS

dhà

Stereo Mixer Module

User Manual

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Description

The Instruō dhà is a compact yet powerful stereo mixer module designed for seamless integration into Eurorack systems of any size. It features two stereo input channels, with the top channel including a built-in stereo VCA for expressive amplitude modulation and precise audio-tapered level control—all within a small footprint.

dhà also includes rear stereo I/O jacks, making it easy to expand your setup by connecting with other Instruō stereo mixing modules like càrn, cùir, and additional dhà units. Whether used independently or as part of a larger system, dhà delivers clean stereo mixing, flexible routing, and effortless expandability.

Features

- Stereo two-channel mixer
- Stereo two-quadrant VCA
- Audio-tapered level potentiometers
- Back jack connectivity expansion to dhà, càrn, and cùir

Installation

1. Confirm that the Eurorack synthesizer system is powered off.
2. Locate 4 HP of space in your Eurorack synthesizer case.
3. Connect the 10 pin side of the IDC power cable to the 2x5 pin header on the back of the module, confirming that the red stripe on the power cable is connected to -12V.
4. Connect the 16 pin side of the IDC power cable to the 2x8 pin header on your Eurorack power supply, confirming that the red stripe on the power cable is connected to -12V.
5. Mount the Instruō dhà in your Eurorack synthesizer case.
6. Power your Eurorack synthesizer system on.

Note:

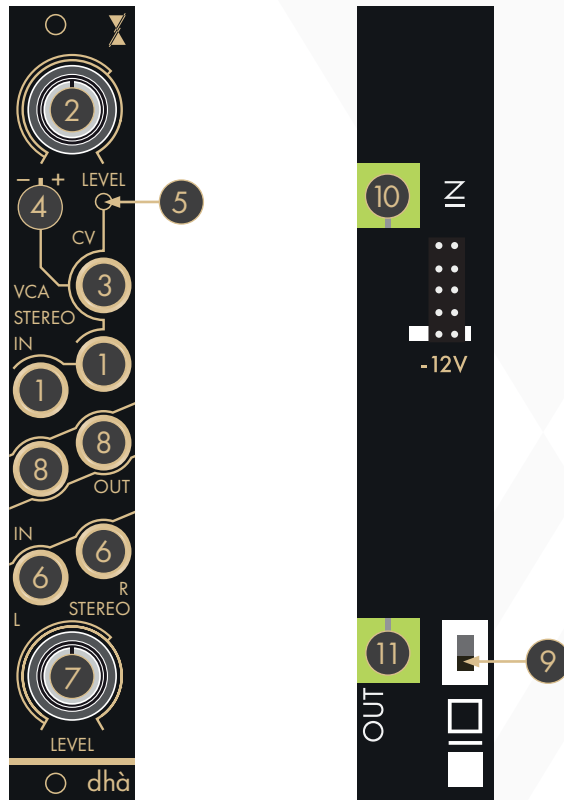
This module has reverse polarity protection.

Inverted installation of the power cable will not damage the module.

Specifications

- Width: 4 HP
- Depth: 27mm
- +12V: 35mA
- -12V: 35mA

dhà | da | (utility) because two is one and one is none



Key

1. Channel 1 Inputs
2. Channel 1 Level Knob
3. Channel 1 Level CV Input
4. Channel 1 Level CV Attenuverter
5. Channel 1 CV Indicator
6. Channel 2 Inputs
7. Channel 2 Level Knob
8. Mixer Outputs
9. Normalling Switch
10. Stereo Input Back Jack
11. Stereo Output Back Jack

Channel 1

Inputs: The **Inputs** provide access to the stereo VCA via two mono input jacks.

- The signal present at the left **Input** normals to the right **Input** if no cable is connected to the right **Input**.

Level Knob: The **Level Knob** sets the amplitude of the stereo VCA.

- Turning the knob clockwise will increase the amplitude of the stereo VCA.
- Turning the knob anticlockwise will decrease the amplitude of the stereo VCA.

Level CV Input: The **Level CV Input** is a bipolar control voltage input for the **Level** parameter.

- Control voltage is scaled by the **Level CV Attenuverter** and summed with the **Level Knob**.

Level CV Indicator: The **Level CV Attenuverter** determines the depth and polarity of external modulation applied to the level parameter by scaling and/or inverting the control voltage signals present at the **Level CV Input**.

- Turning the knob clockwise from its centre position will increase the depth of amplitude modulation.
- Turning the knob anticlockwise from its centre position will increase the depth of amplitude modulation with inverted polarity.

Level CV Indicator: The **Level CV Indicator** provides LED indication of the signal present at the **Level CV Input**.

- The brightness and colour of the Level Indicator is relative to the amplitude and polarity of the control voltage signal present at the **Level CV Input**. White indicates a positive control voltage signal, while amber indicates a negative control voltage signal.

Channel 2

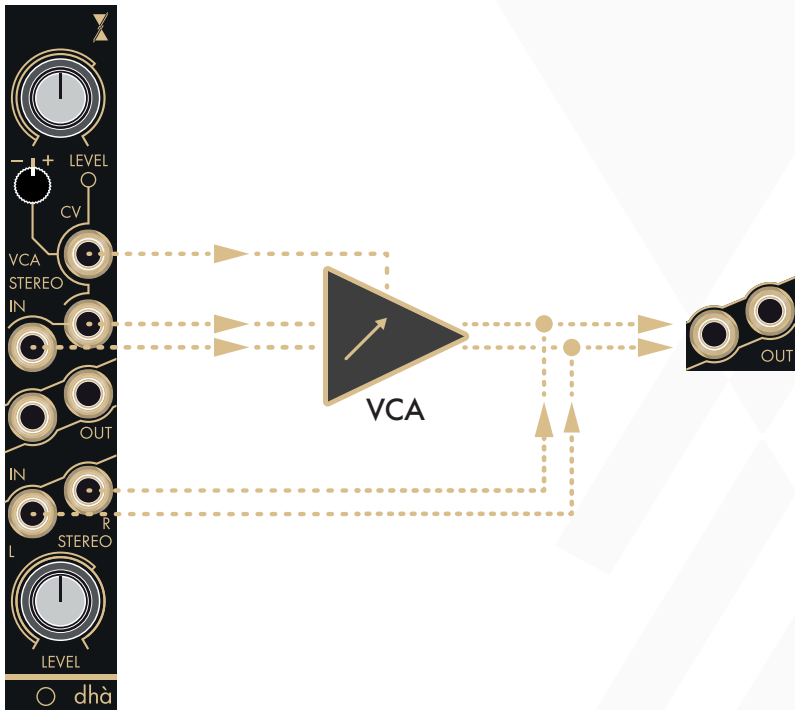
Inputs: The **Inputs** provide access to the second mixer channel of dhà via two mono input jacks.

- The signal present at the left **Input** normals to the right **Input** if no cable is connected to the right **Input**.

Level Knob: The **Level Knob** sets the amplitude of the signals present at the **Inputs**.

Mixer

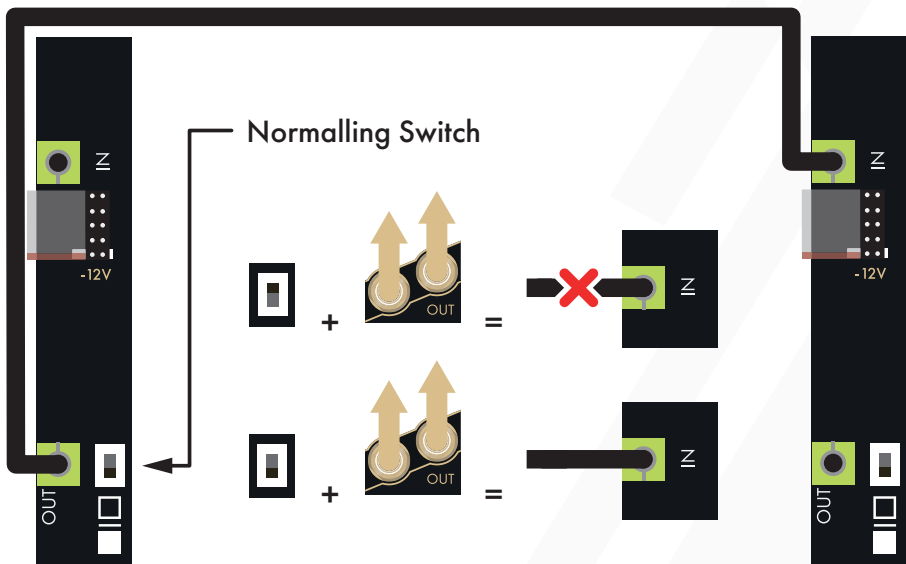
Outputs: The **Outputs** are the summed signal outputs of channel 1 and channel 2.



Normalling

Normalling Switch: The **Normalling Switch** is a switch on the back side of dhà that sets the normalling behavior of the **Outputs** as they apply to the **Stereo Output Back Jack**.

- If the **Normalling Switch** is set to its upward position, the channels are set to Half Normalled. This means that connecting from **Outputs** will break the connection to the **Stereo Output Back Jack**.
- If the **Normalling Switch** is set to its downward position, the channels are set to Normalled. This means that connecting from **Outputs** will maintain the connection to the **Stereo Output Back Jack**.



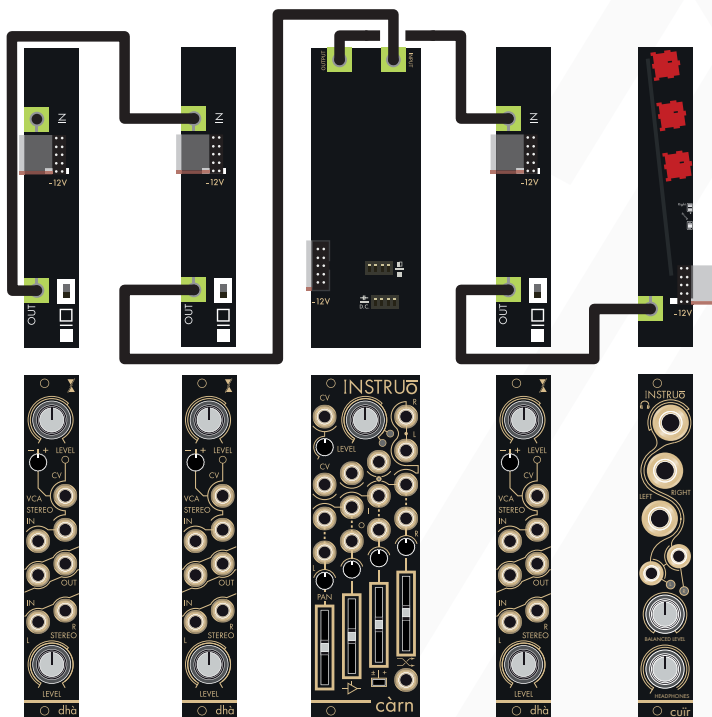
Expansion

Stereo Input Back Jack: The **Stereo Input Back Jack** is an external stereo input positioned on the back of dhà.

- Modular level stereo output jacks mounted on the back of secondary modules like additional dhà or càrn modules can connect to dhà via a 3.5mm stereo cable.
- Inputs are 100K Ω impedance and sum at unity gain with the stereo mix of the **Outputs**.

Stereo Output Back Jack: The **Stereo Output Back Jack** is an external stereo output mounted to the back of dhà.

- Modular level stereo input jacks mounted on the back of secondary modules like additional dhà, càrn, or cuìr modules can connect to dhà via a 3.5mm stereo cable.



CE This device meets the requirements of the following standards: EN55032, EN55103-2, EN61000-3-2, EN61000-3-3, EN62311.