

ALMØ5I ‘With Mixer’ – Operation Manual

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I INTRODUCTION

The 'With Mixer' is a companion expander for the ALM [Stem Ripper](#), adding a full-featured 8-channel stereo mixer with per-channel level and gain control, stereo panning, dual stereo aux sends, and mute and solo controls.

An easy-to-use graphical interface provides visual monitoring of all eight input channels and the stereo mix output, along with precise control of all mix parameters. Mix parameters can also be controlled via CV or an external MIDI controller connected to the powered USB host port, providing hands-on control and making the With Mixer well suited to live performance. Complete mixer setups can be saved and recalled, while the display also shows the Stem Ripper's recording status and elapsed time.

The final stereo mix is available from the stereo output jacks and is simultaneously recorded to the Stem Ripper's SD card alongside the individual, unprocessed input stems.

Together, the 'Stem Ripper With Mixer' pair provides a modern multitrack stereo mixing and recording setup for your Eurorack system in just 16HP.

2 FEATURE LIST

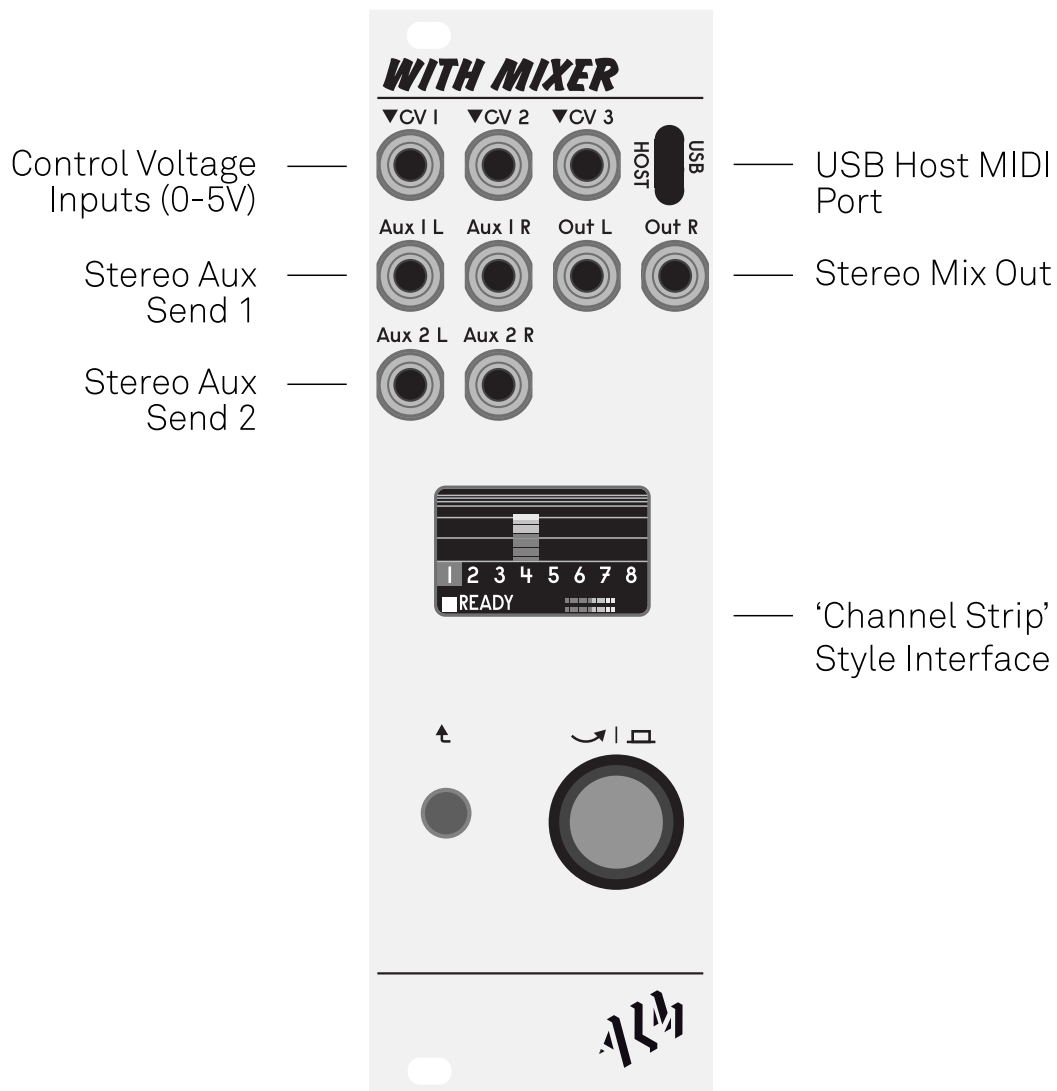
- Enhances the Stem Ripper adding 8 channel stereo mixing with aux sends, mix output and recording.
- Full colour High res easy to use GUI.
- USB Host MIDI controller support for more hands-on mixing.
- Visual Stem Ripper status monitoring.
- 3 assignable CV inputs with AXON expander support for up to 7 CV inputs.
- Save and recall up to 8 full mixes.
- All setting stored across power cycles.
- Skiff friendly with reverse power protection.
- 2 Year Warranty.
- Made in England.

3 TECHNICAL SPECIFICATIONS

- Size: 8HP
- Power: +12V 45mA / -12V 35mA
- Depth: 32mm (approx)

4 CORE OPERATION

4.1 Panel Layout



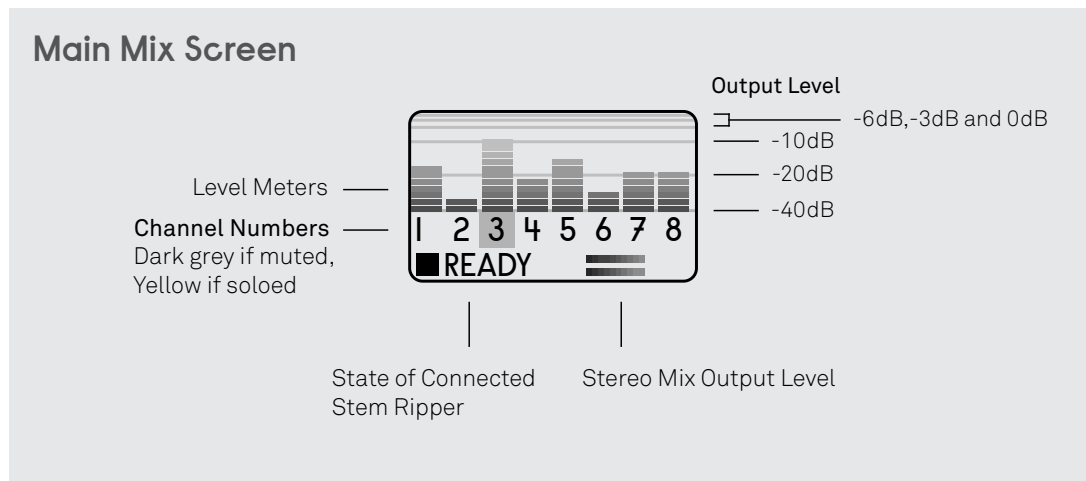
4.2 Installation

With both the Stem Ripper and With Mixer unpowered, plug the With Mixer directly into the right side of the Stem Ripper via its edge connector. Both modules still require their own 10-pin power connection to function.

If the With Mixer displays 'UPDATE SR' along the bottom of the display it means the Stem Ripper isn't connected, isn't powered or most likely is running an outdated firmware and requires an update to support With Mixer. Please refer to the [Stem Ripper manual](#) and support pages for more information.

4.3 Overview Screen

The main screen of the With Mixer displays a row of numbered vertical meters, each indicating the output level of the 8 numbered input channels of the Stem Ripper. The grey horizontal lines represent dB (decibel) levels of approx 0db, -3db, -6db then -10db, -20db and -40db from top to bottom. In the lower right, 2 additional horizontal meters display the stereo mix levels, and the state of the connected Stem Ripper is displayed along the lower left.



Turning the *Encoder* will scroll through each of the channels with the active channel indicated by a blue square around its channel number. Channel numbers will be displayed in dark grey if muted or yellow if soloed. Pressing the *Encoder* on the selected channel will enter its associated screen where various channel parameters can be edited (see [Editing a Channel](#) below). Pressing the back button will take you back to the main Overview Screen.

The text along the bottom left indicates if the Stem Ripper is ready to record: if the module displays 'READY' then recording can begin at any time. If 'NO CARD' is displayed, an SD card is either not present or formatted incorrectly. Follow the troubleshooting steps in the Stem Ripper manual for details on formatting. Once a Stem Ripper recording has started, With Mixer displays a timer indicating the length of the current active recording (elapsed time).

4.4 Editing a Channel

Pressing the *Encoder* will enter the edit menu for the selected channel, where the following channel parameters can be adjusted.

Level: Sets the level of the channel, with a range from -60dB attenuation to +12dB of gain.

Pan: Pans the signal to the left or right in the main mix and Aux sends (Ranges L100 to R100).

Mute: Cuts the channel from the main mix, Aux 1, and Aux 2 (if set to post-fader, see below).

Solo: Solos the channel in the main mix, Aux 1, and Aux 2 (if set to post-fader, see below).

Aux 1: Sets the level of the signal at the Aux 1 outputs, with a range from -60dB attenuation to +12dB of gain.

Aux 2: Sets the level of the signal at the Aux 2 outputs, with a range from -60dB attenuation to +12dB of gain.

Aux 2 Pre/Post: Selects between pre-fader and post-fader operation for Aux 2. Pre-fader ignores channel Level, Mute and Solo settings on the Aux 2 outputs so it can be used as a stereo headphone cue or monitor mix bus.

To exit the edit screen and return to the mix Overview Screen, press the back button.

To quickly edit the same parameter on a different audio channel, hold the back button and turn the *Encoder* left or right until the desired channel is reached (shown in the bottom left).

To quickly reset the current parameter to its default value, double click the *Encoder*.

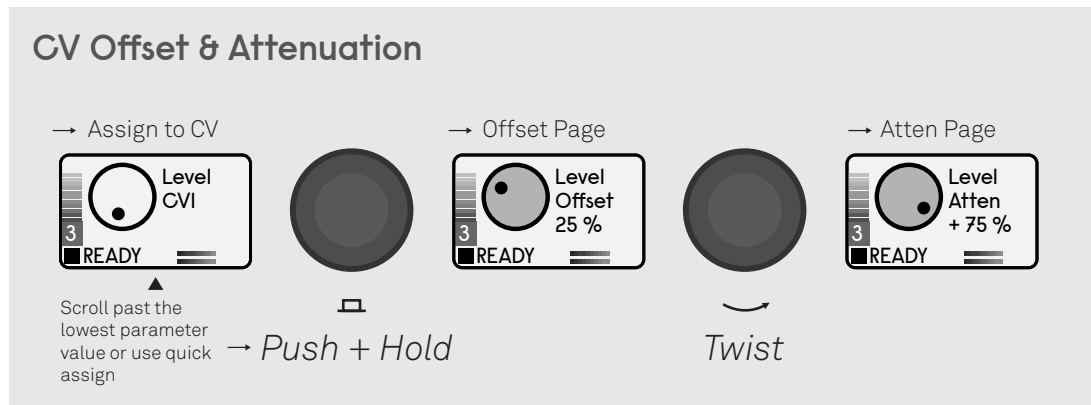
Parameter settings and adjustments above are reflected in both the With Mixer physical jack outputs (Aux sends and stereo output) and the stereo mixdown tracks of the Stem Ripper recording (if active).

NOTE: Individual stems are still always recorded without any of the above adjustments applied.

4.5 Assigning CV

Scrolling past the lowest value of a channel parameter or holding the back button and scrolling anticlockwise will assign CV control to the selected parameter (See 'Mod Visible' in [Global Settings](#) to customise this functionality).

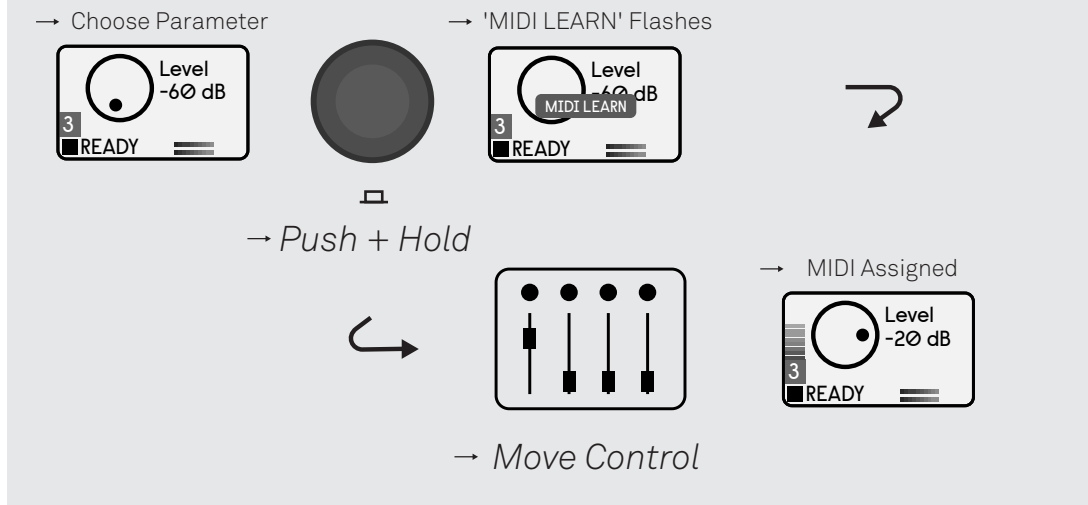
Each assignment includes its own digital attenuation and offset settings for scaling the incoming modulation per parameter. To adjust this, hold the *Encoder* for >1 second with the assignment selected. (To exit press the back button).



4.6 Assigning MIDI Control

Mixer features a powered USB-C host port which allows external MIDI controllers to be connected. With your controller connected, navigate to the channel parameter you would like to control, then hold the *Encoder* down for ~2 seconds, and the screen will flash the message 'MIDI LEARN'. Move the physical control on your MIDI controller and the control should be automatically assigned. Once assigned, the virtual control on screen will move in response to the MIDI controller. Multiple controls can be assigned to a single parameter. To remove an assigned control, repeat the assignment process.

Assigning MIDI Controller



Assignments are saved across power cycles. All MIDI assignments can be cleared by powering on the device with the *Encoder* held down.

Ensure your case's power supply has plenty of extra headroom to power the external MIDI controller. Assume a headroom of double the quoted current requirement of the controller. Basic controllers usually pull 100-250mA, more complex controllers with many LEDs, bright displays, motorised faders etc can reach as much as 500mA. Also ensure you use a quality thick USB-C cable which is rated for the power requirements. Failure to meet these requirements will cause your system not to function as expected.

NOTE: Even with a separate dedicated USB power supply and filtering some (not all) USB controllers may insert small low level amounts of noise into the mix. If this is the case, a USB isolater can be used when connecting to the controller.

For more information on supported MIDI controllers please see Appendix [USB Controllers](#).

4.7 Global Settings

To access the Global Settings page press the back button while on the main Overview Screen. Press again to exit. The following settings are accessible:

Main Output: Set main output level (-60dB to +12dB).

Save Mix: Save the current mix settings for all channels to one of 8 slots.

Load Mix: Load previously saved mix settings from one of 8 slots.

Reset Mix: Reset all parameters for all channels to their default value.

Mod Visible: Determines if CV assignments are displayed past the lowest value of parameters. When set to 'Off' CV can only be assigned by highlighting a parameter then holding the back button and turning the encoder anticlockwise.

5 LIMITED WARRANTY

From the date of manufacture this device is guaranteed for a period of 2 years against any manufacturing or material defects. Any such defects will be repaired or replaced at the discretion of ALM. This does not apply to:

- Physical damage arising from mistreatment (i.e. dropping, submerging etc).
- Damage caused by incorrect power connections.
- Overexposure to heat or direct sunlight.
- Damage caused by inappropriate or mis-use including physical 'modding'.
- Use of incorrect or unofficial firmware.

No responsibility is implied or accepted for harm to person or apparatus caused through operation of this product. By using this product you agree to these terms

6 SUPPORT

For the latest news, additional info, downloads and firmware updates please visit the ALM website at busycircuits.com and follow @busycircuits on YouTube and Instagram.

Questions? Email help@busycircuits.com.

7 APPENDIX

7.1 Factory Reset

Power on the With Mixer with both the *Encoder* and back button held down to perform a full factory reset.

Power on with only the *Encoder* held down (not the back button) to clear all MIDI assignments.

7.2 Firmware Update

Connect the (unpowered) With Mixer to your computer using a USB-C cable. Power the module on with the black back button held down. The With Mixer should display 'Update Mode' and an 'SB Mixer' external drive will appear on your computer. The firmware update file can then be copied onto the drive. The With Mixer's standard display will appear when the update has completed. Any 'device disappeared' type operating system errors can be ignored as long as the With Mixer itself reports the update is complete.

7.3 USB Controllers

The following USB controllers are found to introduce very little or no noise into the mix:

- **AKAI MIDIMIX**
- **Korg nanoKONTROL 2**
- **KENTON Killamix mini**
- **SubZero MiniControl**

The following add some low level noise (assuming base -80dB noise floor):

- **Novation Launch Control XL Mk2** -66dB
- **Intech Studio Controller** -75dB

If you experience noise when a USB controller is connected, check your system has plenty of available power and that you are using a high quality USB cable rated for your power usage.

A USB Isolator ('ADUM3160' based - [for example](#)) can also help to avoid any noise from the controller.

'Composite' type USB controllers or controllers which provide more than a single virtual mini cables may not be supported. This currently includes;

- **Auturia Beat Step Pro**
- **Multiple Intech Controllers**

If you have issues please visit <https://busycircuits.com/support>.