



MAZE MANUAL

LIVESTOCK ELECTRONICS
THANKS YOU
FOR YOUR PURCHASE





"AT LEAST NOW WE KNOW WHY THEY CALL IT THE MILKY WAY"

A long, long time ago, before the world of today existed... There was a cow that spontaneously started to shoot milk because it got so frightened from being alone in space. Strangely enough this ended up being our galaxy, a big maze linking all the pieces together!

Maze is a routing and mixing matrix module. It allows you to create your own touchpad of patch presets. Each routing has been equipped with a VCA and inverter, so it can be used for signal distribution and attenuversion.

Morphing speed between presets can be changed and routings can be muted. Selecting presets is also possible via CV or triggers. This can even be done while setting routings, which allows for recording of routing creation!

The signal path is entirely analog and it is even possible to link Maze modules together to increase your matrix.

Special thanks to the people who gave feedback and feature requests (you know who you are), could not have made this without you!

SETUP

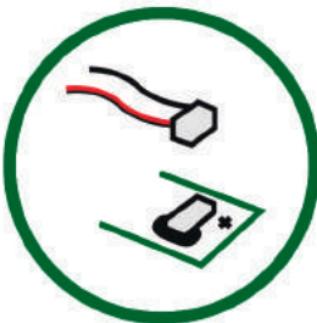
Turn power off before connecting the module!

Use the ribbon cable to connect the module to your busboard. Make sure the red line of the ribbon cable is connected to -12V of the busboard and -12V of the module.

BUSBOARD

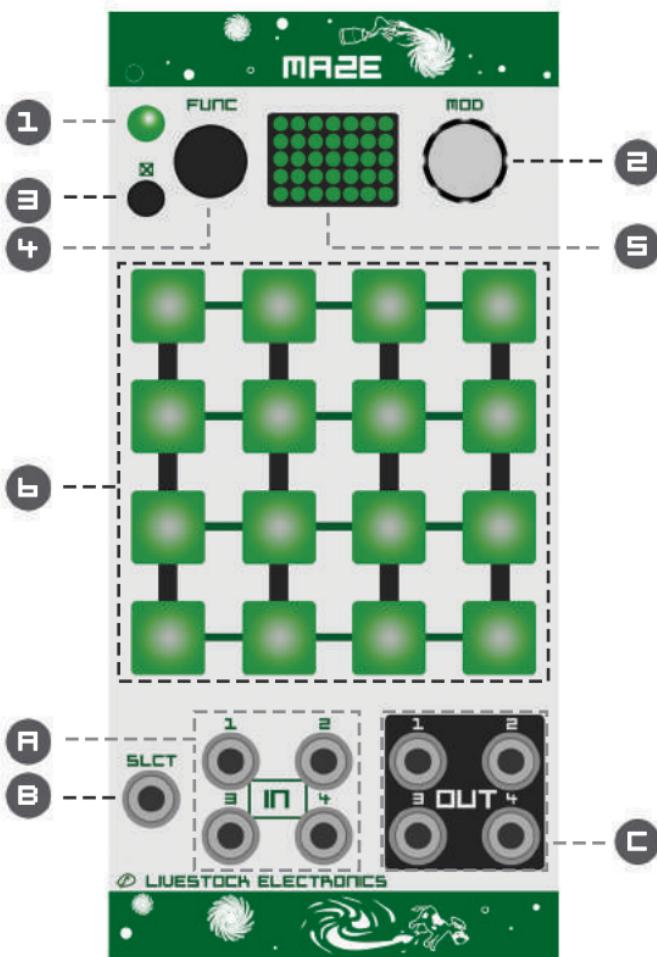


MODULE



SPECIFICATIONS

Format	3U (Eurorack)
Width	12 HP
Depth	43mm
Height	25mm
Weight	165g
Power consumption	200mA @ +12V 70mA @ -12V



- 1 Indicator LED
- 2 Encoder with push button
- 3 Mute window button
- 4 Function button
- 5 Screen
- b Push button matrix
- F 4x Inputs
- B Select input
- C 4x Outputs



INTRODUCTION

Maze is designed to route, attenuate, invert, morph and mix CV/audio from each of the four inputs to any of the four outputs.

Routing settings can be saved to six banks with 16 save slots each. Presets in these save slots can be triggered by hand, or via different CV sources and algorithms.

Each output channel can be set to attenuate or attenuvert. Setting the output channel to attenuation allows you to turn gain down more and is generally better for audio. Attenuversion allows you to invert and is generally better for CV.

Three main modes:

- **SAVE MODE** : allows you to select created presets, and adjust parameters of the SLCT input CV sources.
- **ROUTE MODE** : allows you to adjust routings within the selected preset, and adjust morphing speed.
- **MUTE MODE** : allows you to mute routings.

Two extra modes:

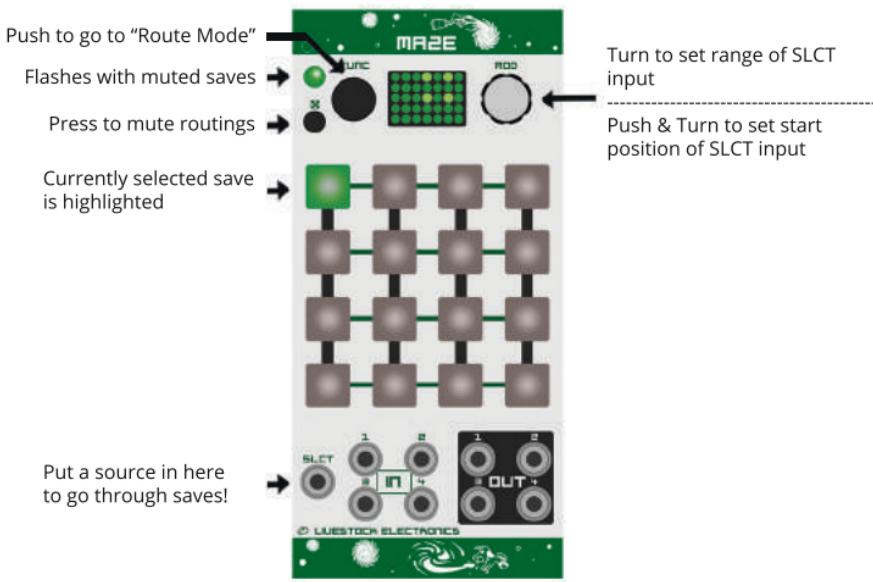
- **PREVIEW/COPY MODE** : allows you to preview preset settings, and copy a preset to a different slot.
- **SETTINGS MODE** : allows you to change the module to your liking.

SAVE MODE

Maze starts up in **SAVE MODE**. Here you can select a save slot to create your routing preset in, and change the SLCT input parameters.

This mode is indicated with a dot animation on screen.

To switch between **SAVE MODE** and **ROUTE MODE** use the FUNC button!



ROUTE MODE

Here you can adjust the routings in the selected preset. When inputs are sent to the same output they will be mixed.

Change the morph speed here if you want routings to morph whenever they change values.

This mode is indicated with a wave animation on screen.

Push to go to "Save Mode"

Cyan when morphing is on

Press to mute routings
Or undo routing changes

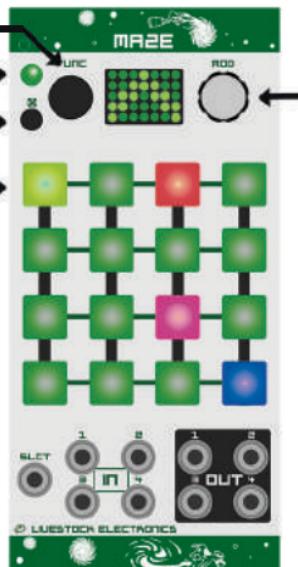
Inputs are in rows, outputs
are in columns (green and
black stripes on panel).

Routing gain and direction
are indicated with RGB
colors.

From Blue to Green is
normal attenuation,
Blue to Red is inverted
attenuation.

Blue is ∞ .

No color is off
(only when output channels
are set to attenuation)



No selected routings:

Turn to adjust morph speed
precisely

Push & Turn to adjust morph
speed drastically

With selected routings:

Turn to adjust gain precisely

Push & Turn to adjust gain
drastically

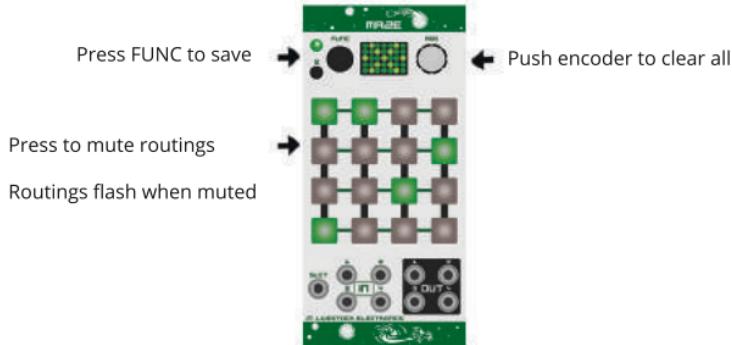
Changing gains:

Select (multiple) routings on
the matrix and adjust the
gain with the knob. Press
FUNC to save settings and
MUTE to undo settings.

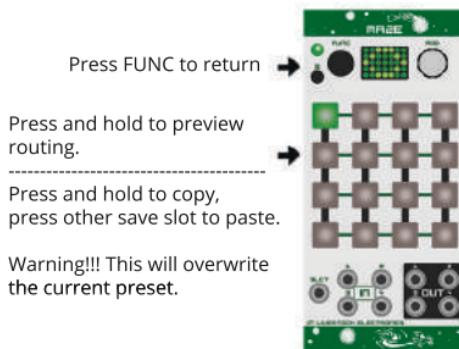
You do not need to hold
routing positions. So use
that hand for something
else!

When holding two routing
positions you can adjust all
the routings in between at
once.

MUTE MODE can be initialised by pressing the MUTE button. It is indicated with a "X" animation.



PREVIEW/COPY MODE can be initialised by holding the MUTE button and pressing the FUNC button. Here you can preview saves without initialising, which is great if you want to see a preset before you hear it. You can also copy/paste saves here, in case you want to create sequences. This mode is indicated with an "EYE" animation.





SEQUENCING

You can sequence created presets by inserting a source in the SLCT input.

There are different sequencing methods to choose from, these can be selected in **SETTINGS**.

Each sequence method has parameters that can be changed using the encoder in **SAME MODE**.

SEQUENCING METHODS

- Continuous : responds to -5 to +5 voltage range, expects voltages from a sequencer, LFO or envelope generator.
- Trigger : responds to a trigger or gate. Will jump to next or previous preset when triggered.
- Random trigger : responds to a trigger or gate. Will jump to random preset when triggered.
- Euclidean : responds to a trigger or gate. Sequencer based on euclidean configurations.

SEQUENCING PARAMETERS

Continuous :

- Encoder without push attenuverts SLCT input.
- Encoder with push adds DC offset to SLCT input.

Trigger :

- Encoder without push sets length of sequence.
- Encoder with push sets start of sequence.
- Pressing a matrix pad will jump to preset.

Set the end to a negative value to reverse the sequence.

Random trigger :

- Encoder without push sets max range of random.
- Encoder with push sets min range of random.
- Pressing a matrix pad will jump to preset.

Euclidean sequencer :

- Encoder without push sets length of sequence.
- Encoder with push sets divisor of sequence.
- Pressing a matrix pad will set start position of Euclidean sequence.

Set the length to zero for continuous sequence based on divisor.

SETTINGS

Go to the **SETTINGS** by holding the FUNC button.

- Banks

Six banks indicated with their own color.

- Deselection Options

Green: Sets to zero
Yellow: Sets to previous
Red: Keeps current

- Morphing multiplier

Green: Fast morphing
Yellow: Quick morphing
Red: Medium morphing
Magenta: Slow morphing

- SLCT input

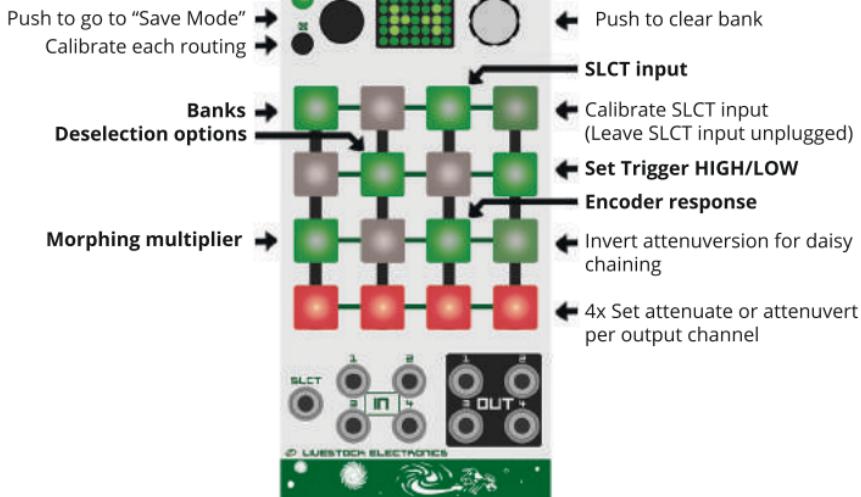
Green: Continuous
Yellow: Trigger
Red: Random
Magenta: Euclidean

- Set Trigger HIGH/LOW

Green: Trigger on +5V
Red: Trigger on 0V

- Encoder response

Green: Setting is instant
Red: Cross previous setting first



EXTRA FEATURES SETTINGS MODE

When in **SETTINGS MODE**:

Calibrating SLCT input:

The SLCT input can be calibrated by pressing the "Calibrate SLCT input" button. Maze will calibrate the input. Be sure you leave the SLCT input unplugged while doing this!

Calibrating routings:

Also each routing can be calibrated to have the same amount of gain. Maze is already calibrated when shipped. However if you need to calibrate Maze please read the "Calibration Manual" @ www.livestockelectronics.com/maze

Daisy chaining inputs:

When you add inputs by daisy chaining Maze modules, you will need to set the "Invert attenuversion for daisy chaining" button too. If you don't, the output will be inverted! For each module set this button to either green or red. Work your way up alternating colors, and start with green for the last module. See "Calibration Manual" @ www.livestockelectronics.com/maze

DAISY CHAINING

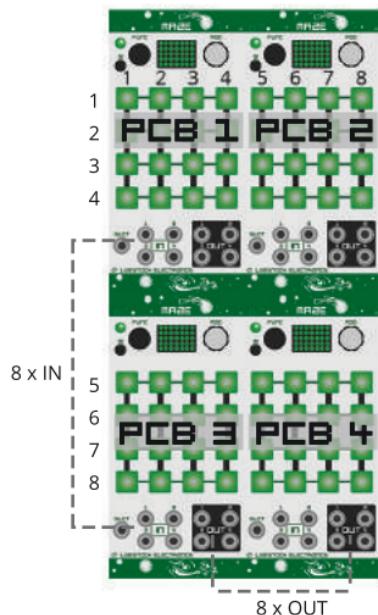
With multiple Maze modules the matrix can be increased. For instance as a 4x4:4, 2x8:4, 2x4:8, 1x8:8, 1x16:4 or 1x4:16 matrix. Links can be broken by inserting cables in the inputs and outputs. When adding inputs remember to set settings too! Read up on this in the previous page!!!

Chaining:

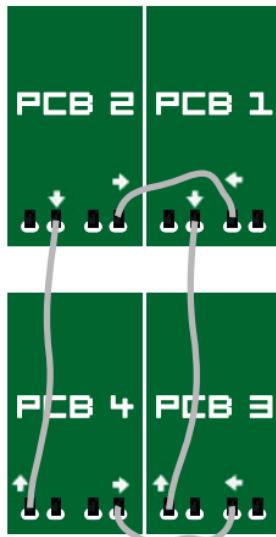
The arrows on the PCB indicate where the inserted cable should go from the specific header. Make sure you do this according to the picture below!

Important: Red line of the cable should match the white print on the PCB!!!

FRONT



BACK



WARRANTY

All Livestock Electronics modules are guaranteed to be tested before shipping. They are also protected to the fullest for incorrect usage. However warranty may be dismissed if damage is caused by incorrect usage. If you have a malfunctioning module please read the Livestock Electronics warranty terms at: livestockelectronics.com/terms



No
water



No
fire



No
physical
damage



Return in
original
box



Two
year
warranty

SUPPORT

Tutorials and other manuals can be found on the module page of the Livestock Electronics website: livestockelectronics.com/maze
For any questions related to: bugs and hardware please send a mail to: info@livestockelectronics.com

DISPOSAL

Livestock Electronics recommends to never throw a module away! If you however wish to dispose of the module: All the modules comply to the EU guidelines and are manufactured ROHS conforming without the use of: lead, mercury, cadmium and chrome. Still disposal in household waste is not recommended and this device should be thrown away according to your local waste management.



now

GO

WIGGLE!

