

# FLAME

## AUTOMIX RECORDER



# MANUAL

Version 1.00

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# 1. Short description

The "AUTOMIX" module is a compact three-channel mixer for audio or CV sources (inverted) in the voltage range of + -5v (audio modular level).

The mix level of each track can be adjusted and recorded using the track's mix pot. The recording time per track is over one minute. The playback speed is also adjustable. The recorded track is played by pressing the Play button once (one shot) or by a longer press in the loop.

In addition, the 3 inputs can be separately switched to + 6db audio via the rear slide switch (for external line level sources).

All three tracks have a common reset input.

The track data remains permanently stored (battery-backed memory).

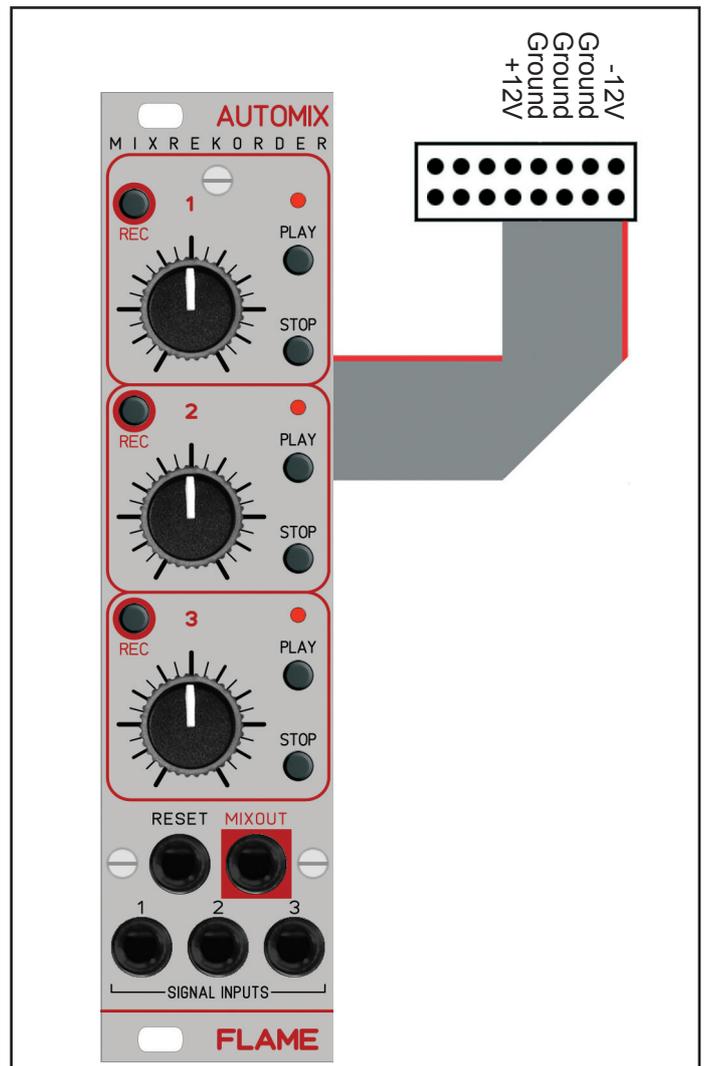
# 2. Hardware / Connections

## 2.1 Connection to the modular system (Doepfer bus)

The module is delivered with a connected ribbon cable for the Doepfer bus. The red lead marks -12 volt. Connecting the module please note the right polarity!

If the module is poled accidentally wrong safety diodes avoid the immediate destruction of the module but further damages cannot be expected.

So please pay attention: Check the connection various times before switching on!



## 2.2 Modul overview

- ① Key RECORD
- ② Mode LED
- ③ Key PLAY
- ④ Key STOP
- ⑤ Pots for Mix or Speed
- ⑥ Trigger input RESET (0/5v)
- ⑦ Audio/CV inputs of tracks 1-3 (+/-5v)
- ⑧ Mix output (+/-5v)

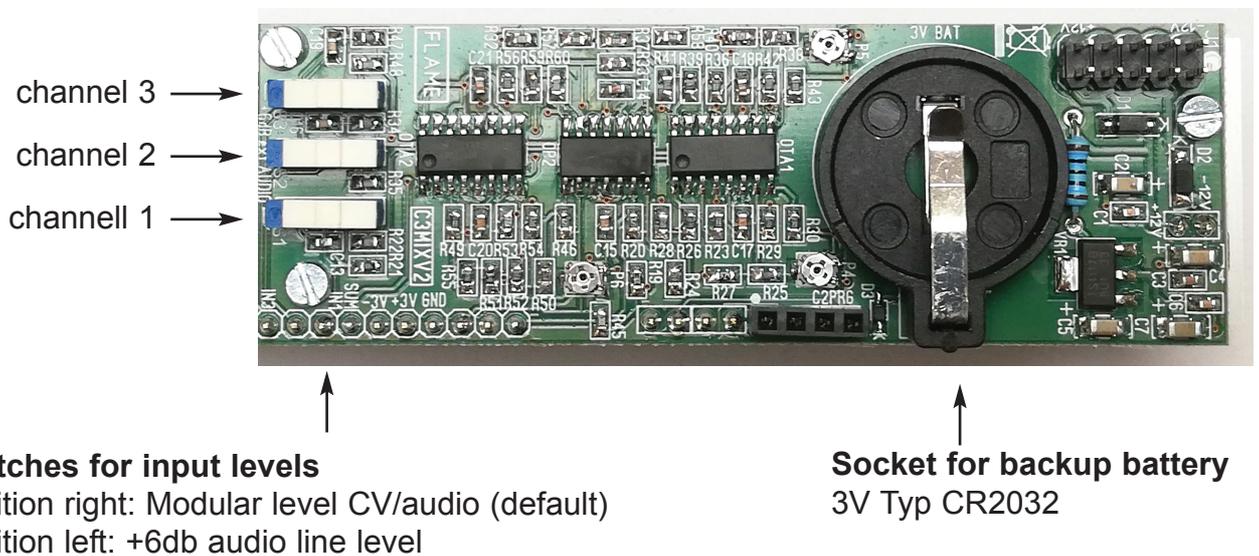


## 2.3 Module backside

At the bottom of the module there are three slide switches for setting the input sensitivity of the three mix inputs. The switch position AUDIO means that the input can be used as an audio input with + 6dB gain for external line level. In this case, the input can not be used as a CV input.

In the other switch position, the module processes levels of +/- 5v (audio or CV modular level).

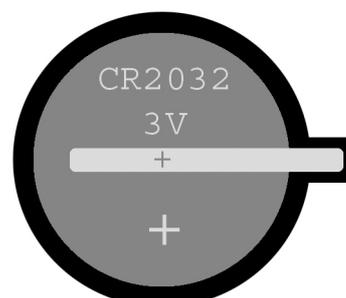
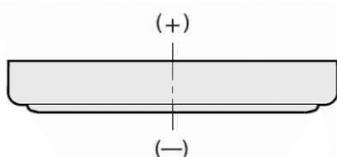
In addition there are the socket for the backup battery of the memory. Please note the information below!



### Insert the backup battery before connecting the unit to your modular rack

The AUTOMIX module uses a standard 3v lithium backup battery, type CR2032. Insert the provided battery or a comparable battery into the battery compartment as shown below. The battery is needed to keep recordings and settings stored when the Eurorack case is turned off.

**Make sure the anode (+) points outwards ! Otherwise you destroy the SRAM !**



## 3. Handling

### 3.1 Manual mix mode (Stop)

After switching on, the module is in STOP mode. All LEDs are off. With the respective slider of the track, you can now adjust the mix level of the applied signal, which is then applied to the MIX output. All three inputs are routed to the MIX output at the set mix level.

In this manual mode, the module behaves like an ordinary audio / CV mixer with three inputs to a MIX output.

Since the mixer is internally equipped with VCAs, the mix control per channel can be recorded separately for up to one minute and played back later.

**Please note:**

The MIX output invert the input signals, which must be taken into account when using CV.

### 3.2 Record

For beginning the record sequence please push the REC button (blinking LED). You can record the movements of the ruler until you push again the button REC or until up to the maximal record time. Now the record sequence stops and jumps automatically in the Play loop mode (LED on). The sample rate is about 250Hz.

From mode STOP or PLAY you can start a record sequence anytime.  
The maximum recording time per channel is about 1 minute.

**Please note:** not the signal at the inputs is recorded, but only the volume control of the potentiometers!

### 3.3 Play back

After a record sequence the play back of the track starts automatically in loop (LED on). If you are in mode STOP (LED off) then you can start the play back with pushing the button PLAY. Please note the both versions of pushing (short or long):

**ONE SHOT** - Track plays once only: Push the button shortly (< 0,5sec)

**PLAY LOOP** - Track plays in loop: Push the button longer (> 0,5 sec)

**ATTENTION:**

Reset can start the track (or tracks) while Play mode is activated (LED on).

### **3.4 Play back function Speed**

With the ruler you can change the speed of the play back. Turn the pot over the middle position to activate the speed function. In ruler position Zero you have the half speed and in ruler position maximal you have the fourth speed. The original record speed is about ruler middle position.

Please note: After the end of the One shot sequence the function SPEED has no effect.

### **3.5 Reset**

A high impulse on external reset input resets all activated tracks and starts the tracks (like One shot or loop according to the last manual setting).

**ADVICE:**

Reset has no effect while mode RECORD or STOP is activated.

## 4. Appendix

### 4.1. Technical details

#### Connections:

Ribbon cable adapter for Doepfer bus +/-12Volt  
Inputs: 3x Audio/CV (+/-5V), 1/8th inch mono jacks  
1x Reset (0/+5..10V), 1/8th inch mono jack  
Outputs: 1x MIX (+/-5V), 1/8th inch mono jack

#### Control elements:

10 push buttons  
3 knobs for mix and speed  
3 LED's

**Resolutions:** AD/DA converter: 12bit, Sample rate: 250Hz

**Current consumption:** max + 40mA / - 10mA

**Size:** Euro rack format 3U / 6HP 30x128,5x40 mm

### 4.2 Warrenty

Beginning from the date of purchase a 2-year warranty is guaranteed for this device in case of any manufacturing errors or other functional deficiencies during runtime. The warranty does not apply in case of:

- damage caused by misuse
- mechanical damage arising from careless treatment (dropping, vigorous shaking, mishandling, etc)
- damage caused by liquids penetrating the device
- heat damage caused by overexposure to sunlight or heating
- electric damage caused by improper connecting  
(wrong power supply/ jacks/ MIDI connections/ voltage problems).

If you have any complaints please contact your dealer or send an e-mail to:  
[service@flame-instruments.de](mailto:service@flame-instruments.de)

### 4.3 Terms of production

conformity: CE, RoHS, UL

### 4.4 Disposal

The device is produced with RoHS-conformity (subject to the regulations of the European Union) and is free of hazardous substances (like mercury, plumb, cadmium and hexavalent chrome). But electronical scrap is hazardous waste. Please don't add this to consumer waste. For an environment friendly disposal of waste please contact your distributor or specialist dealer.

### 4.3 Support

Updated and additional informations, updates, downloads and more see:  
[www.flame-instruments.de](http://www.flame-instruments.de)

### 4.4 Acknowledgment

For help and assistance big thanks to: Alex4 and Schneiders Büro Berlin, Shawn Cleary (Analogue haven, Los Angeles), Thomas Wagner, Robert Junge, Anne-Kathrin Metzler, Lena Büngrer and Felix Bergleiter.