

# ALYSEUM - EXTRACTOR - User's manual

## 1. Introduction



The general idea behind the **EXTRACTOR** module is to activate its 8 digital outputs in 3 external ways:

1. The voltage of the CV input signal.
2. Or sequentially by a CLK+RST.
3. Or both for a Sample & Hold.

And, it can be controlled by 8 different modes, 4 of which are dual depending on the cabling:

MODE #	CLK / CLK+RST inputs	CV input	CV+RST inputs
1	Dot loop	Dot	
2	Bargraph loop up/down	Bargraph up/down	
3	Dot loop inverted	Dot inverted	
4	Bargraph loop up/down inverted	Bargraph up/down inverted	
5	Pendulum (1 – 2 – 3 ..... 7 – 8 – 7 – 6 ..... 2 – 1 – 2 ..... )		
6	Dot Random (Any-any-any-any.....)		
7	Multiple dot Random (Any-any-any-any.....)		
8			

And, the activation time of the 8 digital outputs can be set to a Trigger or a variable/infinite length Gate.

### **Important - Wichtig - Importanti - belangrijk - Ważne – Σημαντικό**

EXTRACTOR is a module for musicians/technicians who are looking for new ways to generate sound.

EXTRACTOR is mainly an experimental/utility module, and I've made an limited serie.

So, it is sold as is, without support, assistance and video.

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If EXTRACTOR is a success, two other experimental/utility modules could be on the way.

## 2. Hardware

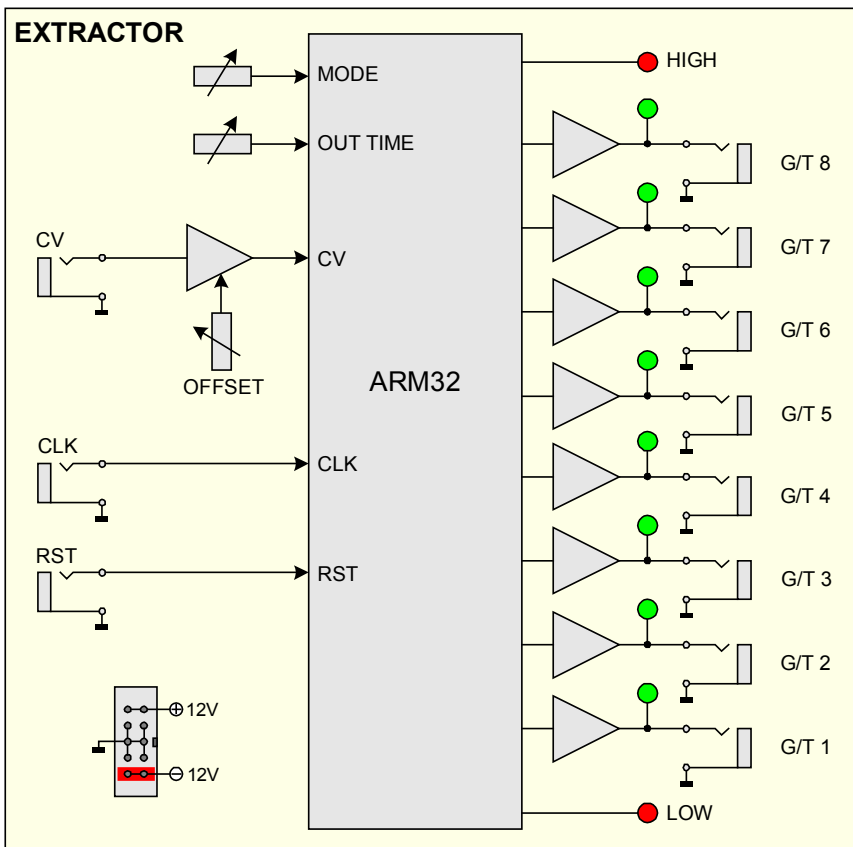
### 2.1. Package Content

- One EXTRACTOR module with Eurorack compliant front panel.
- One plastic bag containing:
  - Two M3 screws + nylon washers
  - One 10/16 pins power ribbon cable.
- Warranty & user manual access card.

### 2.2. Specifications

- Front panel width: 30 mm (6HP)
- Module maximum depth: 26 mm
- Power requirements (Full LED On): +12V= 60mA / -12V= 0,2mA.
- Power supply is fully protected against reverse ribbon cable insertion.

### 2.3. Bloc diagram



## 2.4. Installation

Choose the installation location of your unit carefully:

- Avoid placing it in direct sunlight or close to a source of heat.
- Avoid locations subject to vibrations, excessive dust, heat, cold, moisture or rain.
- Make sure to discharge any built-up static electricity from yourself and your devices before touching or connecting one device to another.

Procedure:

1. Only connect the module to a Eurorack bus board powered by a specified A-100 power supply.
2. Switch OFF, disconnect the Eurorack case from the main power supply by unplugging it from the wall socket!
3. Make absolutely certain that the ribbon cable has the right orientation by connecting the indicated red stripe on the negative 12 Volt side of your Eurorack case bus board.
4. Carefully place the module on an appropriately spaced spot on your Eurorack and fasten it firmly in place with the supplied screws and nylon washers.
5. Reconnect the Eurorack case power cable back into the main power supply and switch the case power on.
6. If it doesn't seem to be working as expected (Initialization LEDs sequence), immediately disconnect the system from the main power supply again. In this case, double-check the connections, making completely sure that the ribbon cable is the right way round where it connects to the module and the bus.

## 3. How to use

### 3.1. Initialization Sequence

1. Turn the Eurorack case power ON.
2. All LEDs flash one by one.
3. The EXTRACTOR module is ready!

### 3.2. Mode selection

Turn the upper potentiometer to select one of the 8 MODES.

Both red LEDs turn ON during 2 seconds.

Please, note that the first 4 modes are double in accordance with the cabling.

MODE #	CLK / CLK+RST inputs	CV input	CV+RST inputs
1	Dot loop	Dot	
2	Bargraph loop up/down	Bargraph up/down	
3	Dot loop inverted	Dot inverted	
4	Bargraph loop up/down inverted	Bargraph up/down inverted	
5	Pendulum (1 – 2 – 3 ..... 7 – 8 – 7 – 6 ..... 2 – 1 – 2 ..... )		
6	Dot Random (Any-any-any-any.....)		
7	Multiple dot Random (Any-any-any-any.....)		
8			S&H

**NB:** By " in accordance with the cabling", we mean that either CLK input CV input is patched. But the module can also react simultaneously to both, which would make for chaotic use or, more prosaically, to a bloody mess 😊.

### 3.3. Outputs Time Adjust

The "TIME" potentiometer is divided into 3 adjustment zones:

- At left limit stop: **TRIGGER** - generate a simple pulse of 1mS.
- between the 2 limit stops: **GATE** - generate an variable pulse between 0,1 and 5 Seconds.
- At right limit stop: **GATE ∞** - generate an endless pulse like - Of course if applicable.

#### How the outputs are updated?

In Trigger and Gate adjust, once the output started a pulse, it will finish that pulse before any other input is considered. This makes sure that a very fast input variation will not induce pulses of unexpected length on the output.

In "Gate" adjust, the output(s) are updated immediately according to the CV, CLK and RST inputs.

**NB:** A pulse on the RST input will always be active immediately, regardless of the time setting.

#### Possible troubleshooting

**None of the outputs is active:** You likely are in "long" or "short" time setting. Switch back to "state" time and (at least) one output should turn ON.

**Whatever level input I provide, the output doesn't change (or change erratically):** Try reducing the CV input level and/or adjust the offset setting. Both red LEDs "↑" and "↓" should both be OFF most of the time.

**Although in "short" or "long" time setting, the output stays ON, there is no pulse:** Try disconnecting the RST input: there likely is a continuous or noisy input RST signal.

**For a "zero" level input signal, the output isn't corresponding to first state:** Try reducing the offset/gain.

Also, there may be a non null clock count: try send a RST signal to reset the clock count.

### 3.4. CV Offset Adjust

Use the bipolar OFFSET adjust for a compatibility with your source (down to -5 Volts)

Note that the sensitivity of the CV input requires a range of 5 Volts. If necessary, adapt the output gain of the CV source to take advantage of the full 8 Digital outputs.

## 4. Miscellaneous

### 4.1. Disclaimer

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### 4.2. Warranty and repair

**ALYSEUM** warrants to you, the original purchaser, that each of its products will be free from defects in materials and workmanship for a period of two years following the date of purchase.

This warranty does not apply to any products which have been repaired or altered by other than **ALYSEUM**, or which have been subject to ESD, moisture, abuse, accident, improper installation or use.

**ALYSEUM** assumes no liability as a consequence of such events under the terms of this Warranty.

Please, consult your dealer for more details or visit our support page on <http://www.alyseum.com/support> before any action.

### 4.3. Special thanks

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