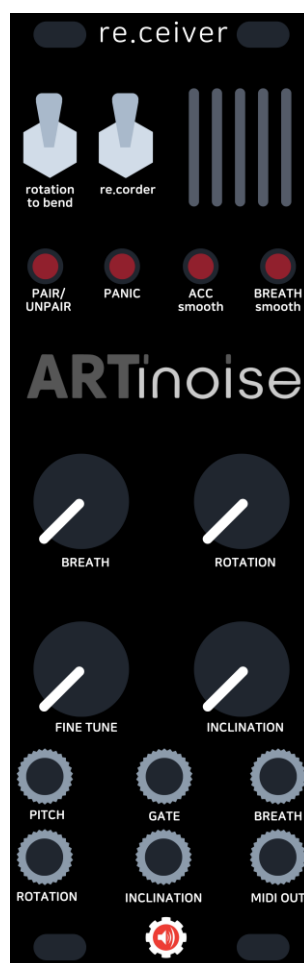


soundmachines

ARTinoise

ARTinoise re.ceiver

User Manual



Rev.1 – May 2024

CONTACTS

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INTRODUCTION

The ARTinoise re.ceiver is a module that transforms Bluetooth MIDI in CV/GATE signals and into traditional MIDI via the 3.5" output jack.

Use it to play your modular synthesizers with a re.corder, unlocking ultra-expressive breath control, inclination and rotation CV outputs.

At the same time, you can also use the supplied 3.5" TRS jack to MIDI adapter cable to send MIDI messages and drive your hardware analog and digital synths!

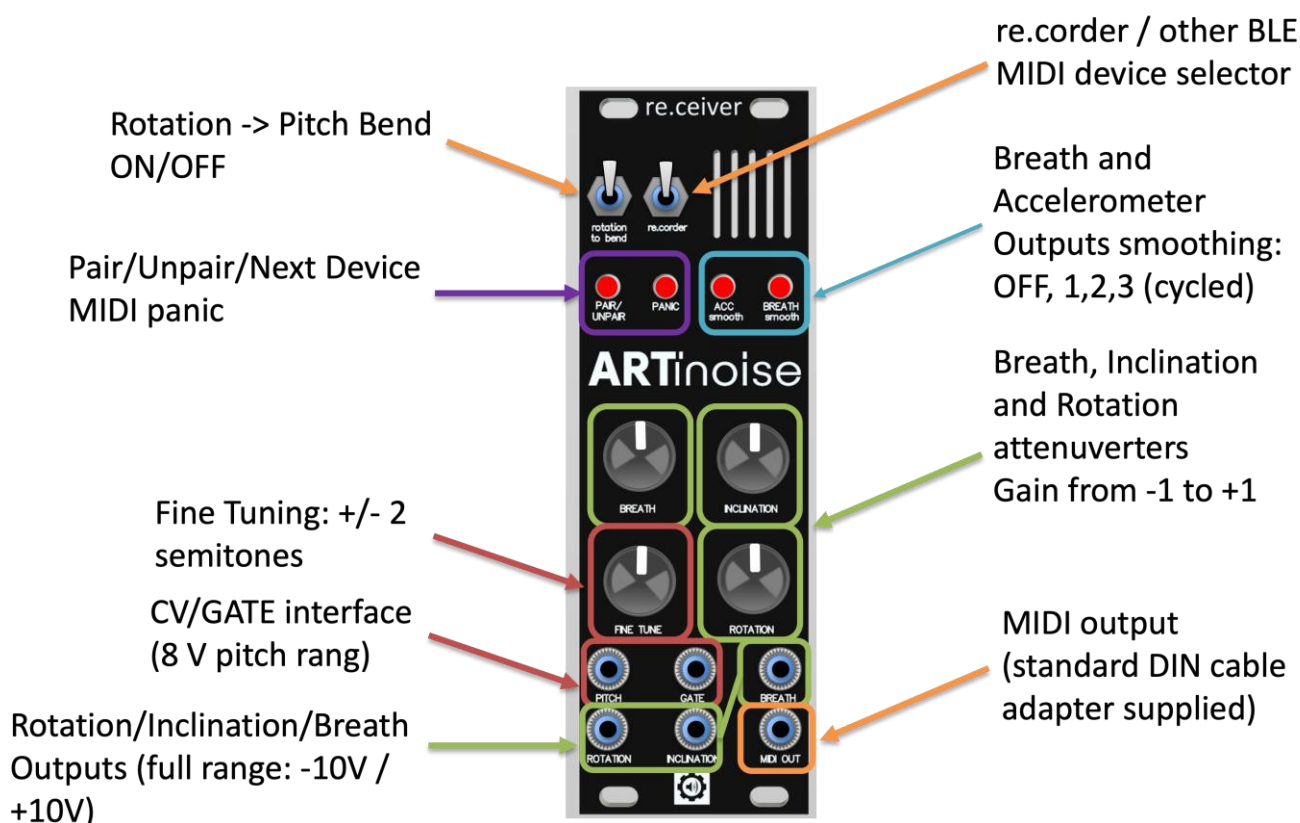
The re.ceiver, in its Kickstarter edition or in the Standalone version, is mounted in a 3D printed plastic enclosure with a 12v DC jack (5.5mm / 2.1mm, center positive).

If you want to take it out and mount it on your eurorack system you will find the ribbon cable in the box. Simply unscrew the module from the printed case and rehouse it in your rack.

The 3D printed box can be also bought as an accessory on the soundmachines website.

PLEASE NOTE: The re.ceiver can be also used with any other BLE-MIDI devices!

QUICK REFERENCE



CARE AND FEEDING

The ARTinoise re.ceiver can be powered via a 12V DC jack (when inserted into the case) or with an eurorack standard 16 to 10 PIN ribbon cable.

Only positive 12V is used, 50mA current draw.

DC power supply 12Vdc - 5,5mm / 2.1mm center positive



Mind the red stripe! It goes with the "-12V" writing!

SPECIFICATIONS

ARTinoise re.ceiver is a BLE-MIDI interface for the ARTinoise re.corder (and for any other compatible BLE-MIDI device, see below) that allows to control modular synths or any MIDI hardware synthesizer.

Two usage modes: a dedicated re.corder one and a standard MIDI BLE mode.

Both modes use only messages received on MIDI CH 1.

The most important performance index is the latency. By writing both sides of the firmware (re.corder and re.ceiver) we can measure a staggering 5/6 ms. of delay. This will make the delay undetectable even to trained ears.

As with every BLE implementation sending MIDI CLOCK informations is highly discouraged. The re.ceiver will completely ignore those messages but, by disabling any of these messages on your BLE-MIDI device, you can expect even better performances in terms of latency.

The re.corder does not send any of those messages!

MIDI IMPLEMENTATION

The re.ceiver uses the following messages to change its output voltages and send them to the MIDI output jack. All other messages are simply routed to the MIDI output, including SYSEX messages:

NOTE ON, NOTE OFF, CC#1 (ModWheel, to inclination), CC#11 (EXPRESSION, to breath), CC#52 (Inclination), CC#53 (Rotation), CC#5 (Portamento ON/OFF), CC#65 (Portamento Time) and CC#123 (All Notes Off).

Please Note: For re.ceiver(s) shipped after October 2024, **Aftertouch is now supported.**

- For **re.corder** devices: by using the app, users can change the MIDI message associated with the breath control. The re.ceiver will send only Expression or Aftertouch using the "**Breath**" output
- For other BLE-MIDI Devices: If both Expression and Aftertouch are sent concurrently, both signals will be arithmetically summed via the dedicated "**Breath**" output, before the attenuverter.

From the list you can see that the re.ceiver does have some more functions: The portamento works on the PITCH/GATE interface when configured by the external MIDI BLE device (The ARTinoise re.corder does not have this function). It's your responsibility to correctly turn it on and off.

The "**re.corder**" **switch** is to be used when the connected device is a re.corder. This triggers various internal data filtering and, when the "**rotation to bend**" **switch is toggled**, a pitch bending behavior

(the re.corder 'rotation' from counter-clockwise to clockwise will impose a +/- 2 semitones pitch bend). This is will be also sent to the MIDI output.

As the CC resolution is inherently low and the accelerometer responds very directly to the handling of the re.corder, we've put a smoothing algorithm that can be engaged and configured by pressing consecutively the "ACC smooth" button. The same applies to the 'Breath' (CC#11 message).

CONNECTING BLUETOOTH DEVICES

Below the grill, situated on the upper right corner, there are two LEDs:

The BLUE one will start blinking whenever you turn ON any compatible MIDI-BLE device.

The RED one will indicate the detection of the user button pressure and will blink on bad messages or incorrect situations.

Let's now describe the re.corder pairing sequence:

- Turn on the re.ceiver module (or the system where it is mounted).
- Turn on the re.corder (long push on the ROUND button).
- BLUE led start blinking on the re.ceiver.
- Press and keep pressed the ROUND button on the re.corder.
- Press shortly the PAIR button on the re.ceiver.
- The BLUE led will go SOLID (both on re.ceiver and re.corder!) and you can release the ROUND button.
- You are connected!

To connect other devices, for example the KORG NanoKey Studio line, just press the re.ceiver pair button when you see the blue LED blinking. The device will connect immediately. Please note: different devices may behave differently.

To disconnect a device, press shortly the PAIR/UNPAIR, you will see the BLUE LED blinking. If you want to connect the re.ceiver to another (or to the 'next') device, press the button for a longer time (more than 2 sec)

NOTE: You have no way in selecting one out of many active BLE-MIDI devices, so please turn on only the one you want to connect to the re.ceiver!

NOTE: You may want to recalibrate the module (which comes pre-calibrated). There is a multi-turn trimmer on the back and it will change the V/Oct tuning. Do it at your own risk!

REGULATORY

Product: soundmachines/ARTinoise re.ceiver.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This product is made in Italy.



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