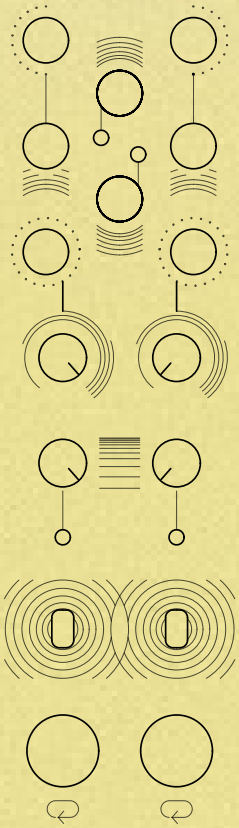

Thererec manual // v 1.0

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1. Thanks!

Thank you for purchasing Thererec,

We all encountered music accidentally, we can't remember when, but at some point, by knocking on a table or beating a pen on a sheet, we all made music. It's something primitive that flows out of our body and it's totally unlearned, but that's the way it goes. You can do it because of a fear or because you are bored and hungry, but, at some point your body will start to express your feelings in a musical way.

That's one of the simplest things in life but maybe one of the hardest to replicate in electronic music, especially if you are into modulars. That's why we invented Thererec, we just wanted to bring back expressivity in music.
One simple movement with immediate feedback: move your fingers, listen and connect yourself to the enviroment.
Your body will do the rest.

a special thanks goes to:

All the costumers who believed in our products and let us made a job out of a passion, our families, partners and friends that support us daily.

Ciao,

Andrea and Emanuele.

2. The concept

A theremin into a tape recorder?

Yes! The name speaks for itself: Thererec is a mutant beast:, half a Theremin and half a tape recorder.

Half a Theremin. At its core there are two precision proximity sensors, they track your fingers movements and translate them into voltages. That's why can be compared to how a Theremin works. You play the..AIR!

Connect its outputs to whatever you want and listen to your movements Your system will now became something to interact with in a blink of an eye.

Half a tape recorder. Since most of the coolest things happen by accident we tought it could be useful to have something to record your fingers movement and that's where the tape machines come to play.
As with reel to reel recorders, not only you can impress your movements into some kind of memory but also change its playback speed making it super slow or very fast (we are talking about audio rate fast!), then play it in a loop or triggered from outside to stay in time with your main clock. Thererec is a movement sampling machine!

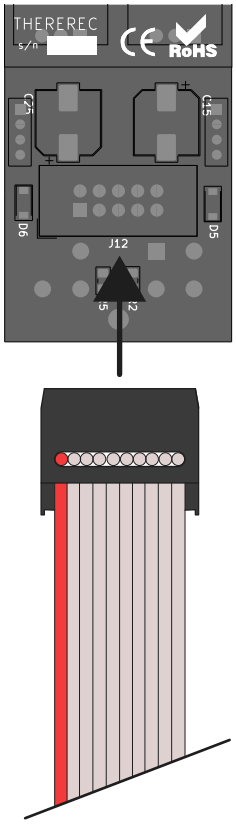
It's all about speed! It can sound too simple but that's true Indeed. With Thererec, you'll find it's just a matter of how close and how quick you move your fingers. Your movements can be a trigger, an envelope a modulation or even a preparated keyboard. Then loop it and they can be a rythmic sequence made of short bursts, an LFO ore even a strange sounding low audio oscillator.

You can record till 30 seconds on each channel and change playback speed from extremely slow to audio rate (also via external CV).
Reproduction can be looped or triggered manually or with an external trigger.
Each channel has also an attenuator potentiometer to scale the CV output and a EOC gate output which emit a gate every time the loop finish or when you manually trigger it.

2.1. Main features. Thererec has two identical channels and each one is composed by:

- a proximity sensor.
- A range knob to scale the maximum output voltage.
- A speed control that let's you control the playback speed of the recorded movment.
- External gate inputs for trigger/retrigger the sampled gesture.
- A gate out CV that fires whenever a recorded movement comes to an end (end of cycle)
- A loop button that alows to record, loop, save and erase your movements.

3. Getting Started



3.1 Hooking up the module. Make sure your system is turned off, then connect the module to the power bus using the ten to sixteen IDC cable provided. The red line on the cable corresponds to the -12V power rail. On the back of the module a thick white line indicates where the -12V rail is located on the IDC connector.
Before powering up make sure to have completely installed the module by using the four panel screws provided. Devices must stay firm inside their case. Make sure the back is not touching other objects inside the case. The exposed electronics may cause shortcuts when coming into contact with other electronic surfaces or objects.

3.2. Dimensions.
6Hp

3.3. Power Consumption.
+12V: 90mA
-12V: 15mA
+5V: 0mA

3.4. Safety Instructions

- Do not power up your system before the module is completely installed
- Never use or power up the module with the back panel exposed
- If you ever see sparks coming from the module or its circuit or see or smell fumes while the module is turned on, please turn off the power supply immediately. Exposure to erroneous voltages, currents, or shortcuts can damage the device in a few seconds
- Never turn the module on if there is water inside or on the case
- Never turn the module on if any external tools or objects have fallen inside the case
- Never use the module in environments with temperatures below 0°C or over 50°C degrees. In case of long exposure to unwanted temperatures let the device rest at an acceptable temperature for at least 30 minutes or until cooled down before powering up
- The front panel may warm up because of continued usage. A temperature of up to 30°C is acceptable for use and functioning.

3.5. Warranty Policy. Clank offers a two-year period of warranty on each product purchased from our site. During this period all defective or malfunctioning devices will be repaired or even substituted with a new unit. Shipping costs will be refunded by Clank. This service will be applied unless an external damage is proven to have happened. Only Clank is allowed to repair its own products. Any external attempts of repair/ modding will void the warranty. In case of out of warranty damages, devices can also be sent for servicing. In this case shipping costs must be covered by the owner. Requests must be sent by email to the following address: info@clank.eu

DO NOT FORGET:

- *The purchase invoice number always has to be communicated by email when requesting servicing and must subsequently be included inside the shipped box containing the module*
- *Only units shipped with their own packaging will be serviced/repaired*
- *The packaging provided is not meant to be a shipping box itself. When shipping back, put everything inside a larger shipping enclosure*
- *Remember to fill the gaps between the module and its packaging and also between the packaging and the shipping box with some shock absorbing foam/paper*
- *We are not responsible for improper boxing and shipping damages*

4. Panel overview

[1] CV outs. On Thererec first row there are the two CV outputs. One for each channel respectively.

Their voltage range (0-8V) corresponds to what the two proximity sensors see. The closer you get, the higher the voltages.

[2] Gate Outs. When some movement is recorded, those two outputs will emit a gate each time the sampled movement comes to an end (EOC).

When the sensors are used "live" and not in rec mode, they will fire a trigger each time the maximum voltage is reached.
In this way each apex of your movement can double as a rhytmic sequence.

[3] Trigger inputs. Once something is recorded these two inputs can be used to launch the sampled movement.

When in *Loop mode* they will double as *reset input* for the looped sequence.

The two trigger inputs are normalized from left to right. Inserting a cable in the right channel trigger input will break the normalization.

[4] Speed CVs. If a patch cable is inserted here, the playback speed can be altered from outside and the *Speed control* works as an attenuverter for the incoming voltqage.

When on 12 o'clock, the index will be 0, and the playback speed will stay the same of when recorderd.

If turned CW reproduction speed will be increased positively with the CV, while, if turned CCW it will decrease.
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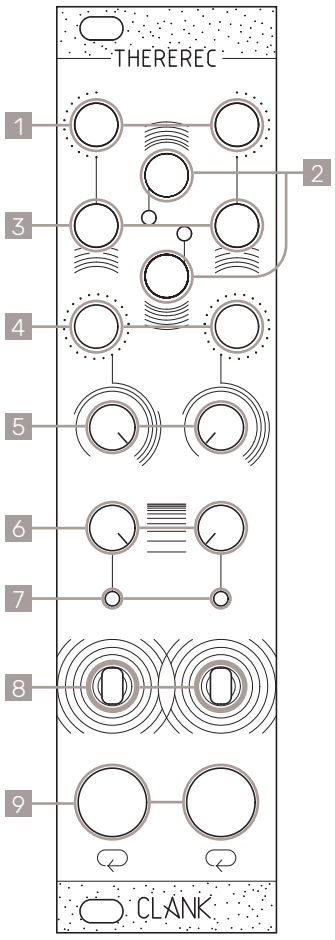
[5] Speed controls. This dial let's you change the playback speed of the recorded movement.

At 12 o'clock the playback speed will be the same of the original recording.
If turned CW the speed will be gradually increased up to low audio rate. Viceversa, if turned CCW it will gradually decrease to very slow speed.



[6] Range controls. Use this dials to scale down the voltage range of the CV outputs. When on maximum, the range will be 0-8V.

[7] Status LEDs. This two LEDs share two kind of informations. with the user:
Their intensity reflects the output voltage on the CV outs.
Their color,instead,indicates the operation mode you are in:

- White LEDs, means the sequence is in *trigger mode*.
- Blue LEDs indicates the *loop mode*,

[8] Proximity sensors. These sensor have a range of about 4-5 cm on their strict perpendicular axis . and it's almost impossible to hit them while playing your modular system.

To experience all the voltage range move your fingers over their axis, while, if you want short bursts of voltage you can move from sides to their center.

[9] Loop buttons. To start recording press the *loop button* once. The channel LED [7] will turn to orange ,meaning the channel is ready to record and is awaiting something in its field to start recording.

As soon as you enter in the sensors range the LEDs will turn red meaning the recording has just started. To stop it just press the loop button [9] again.

To change beetween the two modes of operation hold down the buttons.

To erase the recorded movement double click them.

To save your movement keep on pressed until the two LEDs will turn purple. Now the recorded gesture is saved and each time the module is powered on, it will start with the last recorded movements.