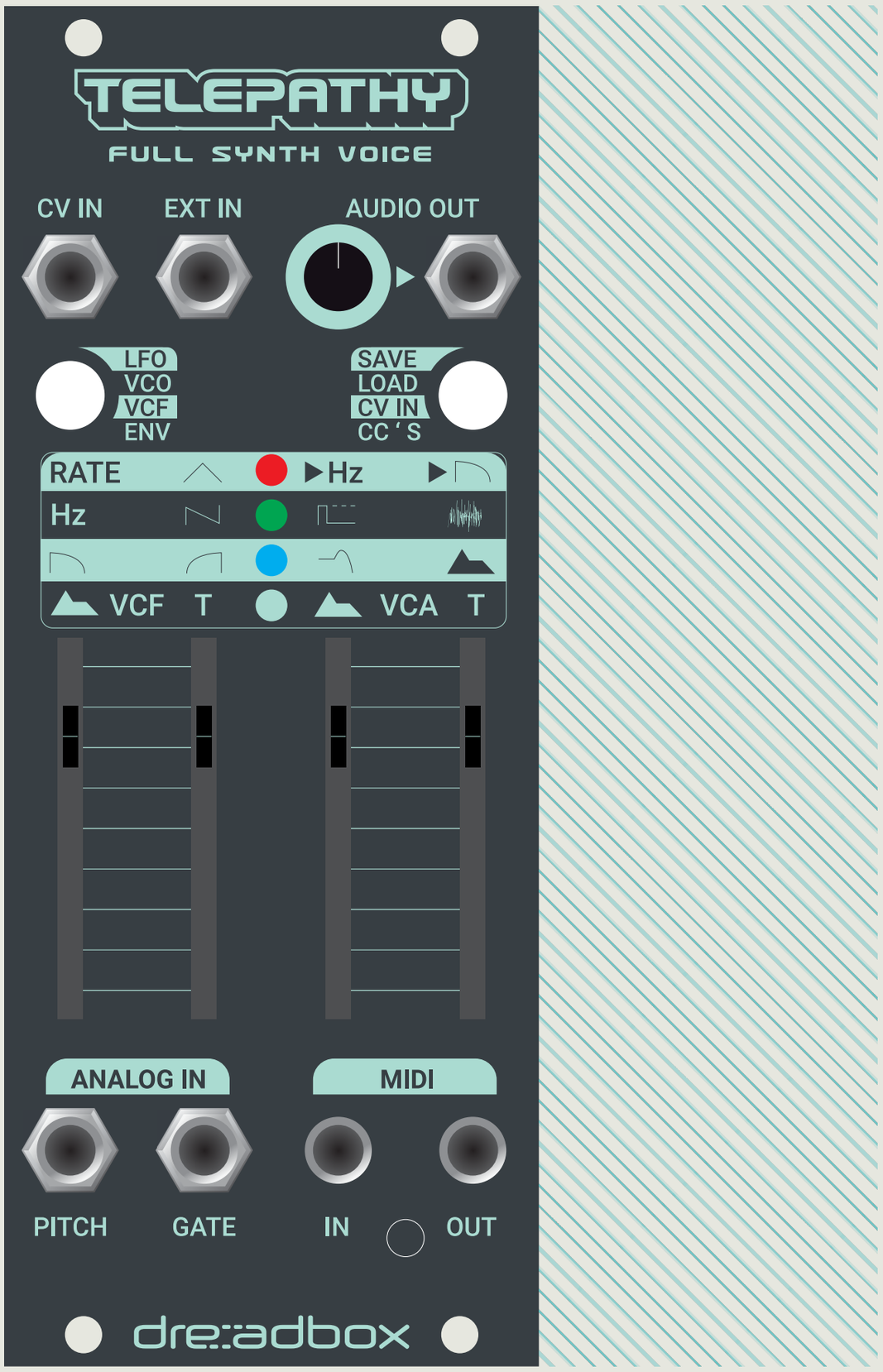
dreadbox

manual

telepathy



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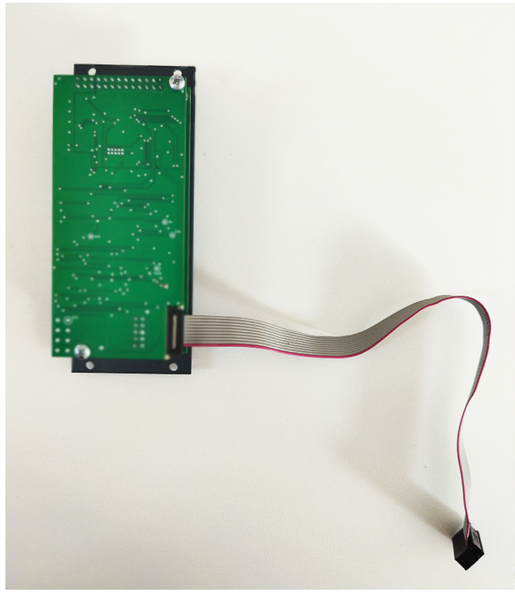
warranty

Dreadbox warrants this product to be free of defects in materials or construction for one year from the date of purchase.
Proof of purchase is necessary when the warranty claim is made.
Malfunctions resulting from improper power supply voltages, backward or faulty cable connection, abuse of the product or any other causes determined by Dreadbox to be the fault of the user, are not covered by this warranty (normal service rates will be applied).
All defective products will be replaced or repaired at the discretion of Dreadbox.
Products must be returned directly to Dreadbox with the customer paying the shipping costs.
Dreadbox implies and accepts no responsibility for harm to a person or apparatus through the operation of this product.

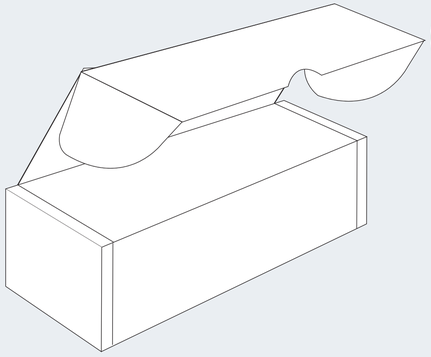
Please contact support@dreadbox-fx.com for the return to manufacturer authorization, or for any other technical questions or concerns.

installation

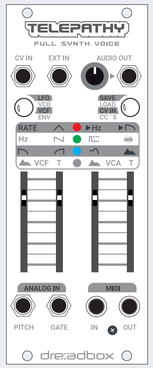


Always turn off your Eurorack system before installing the Telepathy module. Telepathy has a Power consumption of 107mA of +12V and 24mA of -12V. The module's ribbon power cable is attached to the module via a header for extra protection when mounting. The red line should always be on the bottom side of the module as shown on the photo to prevent any damage.

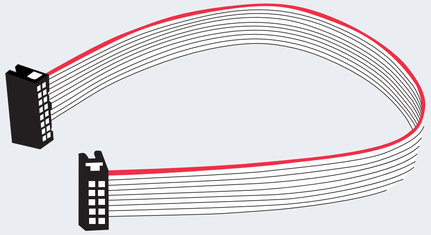
Package contents



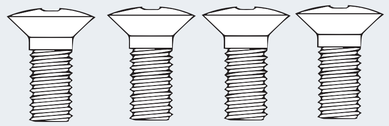
IN the box you will find:



The Telepathy module

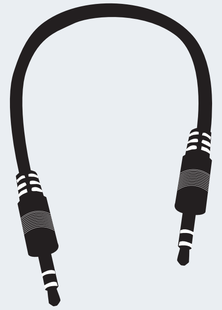


A 10 Pin to 16 Pin Ribbon cable
PLEASE NOTE: ***The red stripe should always be on the bottom side of the module***



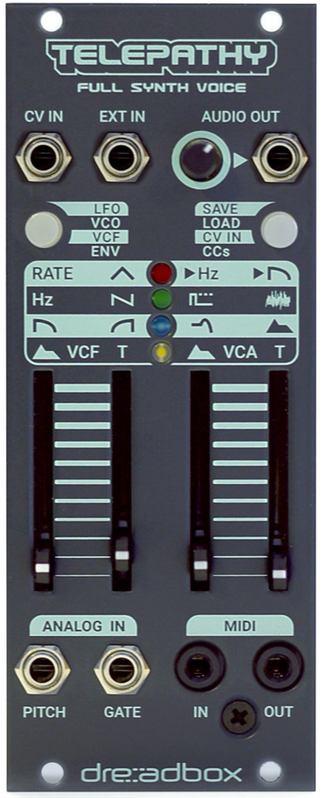
4 x M3 X 6 screws.

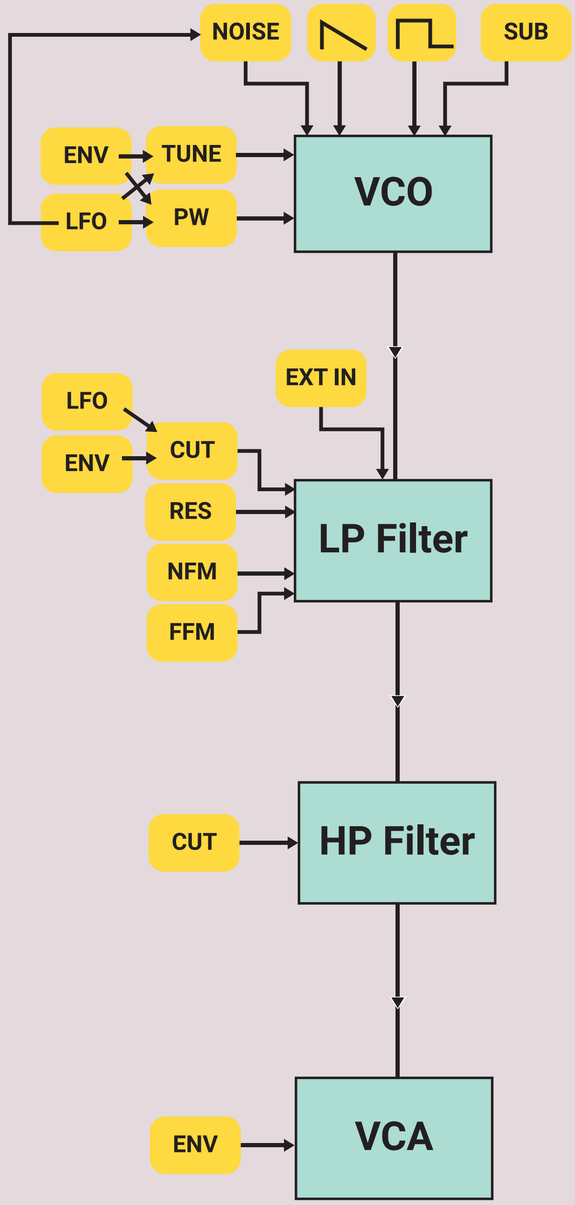
A 3,5 mm to DIN5 MIDI adapter (type A).
This cable is used to transfer MIDI data to the Telepathy module from an external MIDI device. You can also transfer data with a 3,5 mm stereo jack if the MIDI device allows it and supports it.
The jack converter is an **A** type.



A 3,5 mm stereo jack.
This cable is used to chain multiple Telepathy modules together. To achieve this, send the MIDI OUT to the MIDI IN of the next Telepathy.

signal path


TELEPATHY
FULL SYNTH VOICE
CV IN
EXT IN
AUDIO OUT
LFO
VCO
VCF
ENV
SAVE
LOAD
CV IN
CCs
RATE
Hz
Hz
VCF T
VCA T
ANALOG IN
MIDI
PITCH
GATE
IN
OUT
dre::adbox


NOISE
SUB
ENV
TUNE
LFO
PW
VCO
EXT IN
LFO
ENV
CUT
RES
NFM
FFM
LP Filter
CUT
HP Filter
ENV
VCA

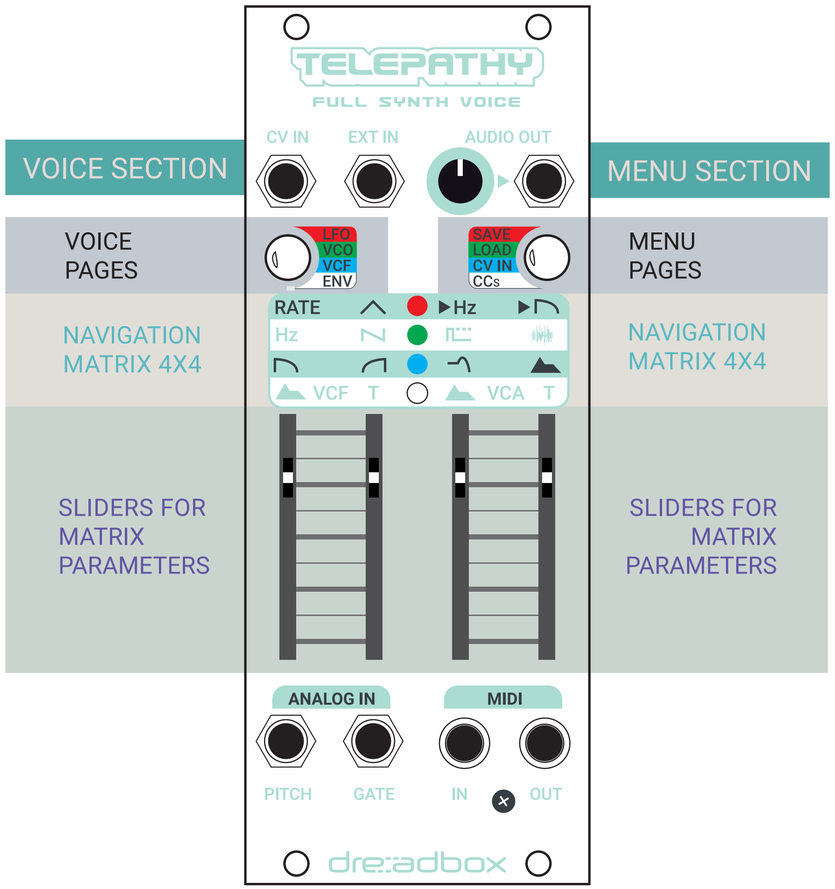
telepathy

Telepathy is a **Full Voice Analog Synthesizer module** with deep modulation options due to its multi-destination LFO and Envelope. From bass to lead sounds, to drums and drones, Telepathy has broad and versatile sound design capabilities.
It has a full analog path (Classic Dreadbox VCO, 4-pole low pass filter/2-pole high pass filter, VCA) that is digitally controlled for more precision over its parameters. This results in the familiar warm, present and distinct Dreadbox sound.
Telepathy has an intuitive parameter navigation matrix, with multicoloured LED indication.

overview

It is also capable of saving and recalling up to 16 presets and there is a Full MIDI implementation for CCs and Program Changes for all the parameters.
The possibilities expand even more, when **connecting two or more Telepathy modules** together. This results in a Polyphonic Multitimbral synthesizer that opens up a new sonic world.
With lots of useful and musical features integrated into a compact size (10hp), and also its skiff friendly design, Telepathy is a great addition to a smaller or a larger eurorack system.

Telepathy consists of **two main sections** to navigate its menu.



panel controls

Telepathy uses a simple yet very effective control matrix to navigate through its multiple parameters and affect the sound. It always follows a top down approach.

SECTIONS

The two buttons on the panel indicate and control the two main sections of the module.
These are the **Voice Section** on the left and the **Menu Section** on the right. Each section has its own functions called **Pages**. Pressing the left or the right button enters the corresponding Pages.

PAGES

Each Section consists of 4 Pages. On the Voice Section you will find the **LFO, VCO, VCF, ENV** and on the Menu Section the **SAVE, LOAD, CV IN, CCs**.

MATRIX

Each of the four Pages corresponds to one of the four rows of the matrix on the panel. Each Page is assigned to a different LED color for easier distinction (Red, Green, Blue, White).

Pressing the button that corresponds to one of the sections you can cycle through the different Pages **(Matrix rows).**
When a Page is chosen, the sliders are used to affect the different parameters according to their current position **(Matrix columns).**

SHIFT FUNCTION

To control additional functions of the Pages **hold down** the Voice Button. These are called shifted functions that affect additional sonic parameters.

patch points

CV IN: Accepts any external CV signal rated at ±5 Volts. Through the **CV IN** Menu Page, you can assign all the main parameters by setting each independent modulation amount.

EXT IN: Accepts any audio signal. This signal gets mixed with the Oscillator at the input of the LP Filter. In this way the **LP Filter**, **HP Filter** **VCA** and their modulations can be used to alter the behavior of the external audio.

AUDIO OUT: Mono Audio OUT with level control.

PITCH: 1V/oct analog input that affects the pitch of the internal Oscillator.

GATE: It accepts Gate signals.

MIDI IN: TRS MIDI Type A input.

MIDI OUT: TRS MIDI Type A output that acts both as Through and Output.

	Slider 1	Slider 2	Slider 3	Slider 4
LFO	**LFO Rate**	**LFO Wave**	**LFO→Pitch Amount**	**LFO→ Cutoff Amount**
Shifted	Fade IN	Free/Key/Track/BPM/ BPM Key	LFO→PW Amount	LFO→Noise Amount
VCO	**Tune**	**Waveshape**	**PW**	**Noise Level**
Shifted	±12 Semi Quantized/Full Range Unquantized	LFO→Wave Amount	EG→PW Amount	VCO Level
VCF	**Cutoff**	**HPF**	**Resonance**	**EG→Cutoff Amount**
Shifted	Tracking	FFM Amount	NFM Amount	EG→Pitch Amount
ENV	**VCF EG Shape**	**VCF EG Time**	**VCA EG Shape**	**VCA EG Time**
Shifted	VCF Sustain	VCF EG Loop	VCA Sustain	Drone State

SHIFT= press and hold down the Voice button

voice section

By pressing the Voice Button we enter the **Voice Pages** and adjust the parameters of the matrix with the four sliders.
The **Voice Section** consists of four Pages. The **LFO, VCO, VCF, ENV**. Each Page corresponds to a line on the matrix and is indicated by a specific LED colour.
Pressing the Voice Button cycles between the four Pages.

VOICE PAGES

PAGE 1 - LFO (RED LED)

Slider1 **LFO RATE:** It controls the rate of the **L**ow **F**requency **O**scillator. It ranges from 40 seconds when the slider is all the way down, to 110Hz for subtle audio rate modulation.

Slider2 **LFO WAVE:** Depending on the position of the slider, the LFO can have the following shapes: Triangle → SAW → Ramp → Square→ Stepped Random. (Schema 1)

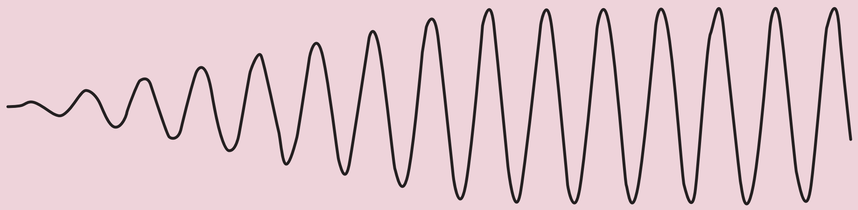
Schema 1

Slider3 **LFO PITCH AMT:** It adjusts the LFO modulation amount of the VCO pitch.

Slider4 **LFO CUTOFF AMT:** It adjusts the LFO modulation amount of the LP Filter Cutoff Frequency.

LFO SHIFT PAGE: *(Can be accessed by holding the Voice Page Button while adjusting the sliders values).*

Slider1 **LFO FADE IN:** This refers to the time it takes for the LFO to start modulating, after the played note. Ranges from 1ms to 5 sec. (Schema 2)



Schema 2

Slider2 **LFO MODES**

Free: Running freely without being affected by the played note.
Key sync: The LFO waveform always resets to its beginning when a new note is played.
Key track: LFO cycle speeds up according to the Pitch of the played note.

BPM sync: The LFO rate tracks the MIDI clock, independent of the played note. The LFO rate works in divisions of 1, 2, 3, 4, 6, 8, 12, 16, 24, 32.
BPM key sync: The LFO rate tracks the MIDI clock and its waveform is reset to its beginning whenever a new note is played.

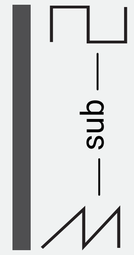
Slider3 **LFO PW AMT:** It adjusts the LFO modulation amount of the VCO square wave pulsewidth.

Slider4 **LFO Noise Amount:** Adjusts the LFO modulation amount of the Noise level.

PAGE 2 - VCO (GREEN LED)

Slider1 **Tune:** It adjusts the pitch of the oscillator. Default range -12st to +12st. Can be further adjusted with the shift function.

Slider2 **Waveshape:** It adjusts the shape of the oscillator wave. (Schema 3)
From Sawtooth→ Sawtooth+Sub blend
→ Sub OSC (square) → Square/Sub blend→ Square



Schema 3

Slider3 **PW:** It changes the PW of the square wave.

Slider4 **Noise Level:** It adjusts the volume of the noise source.

***VCO SHIFT PAGE**: (It can be accessed by holding the Voice Page Button while adjusting the sliders value).*

Slider1 **TUNINGS:**

- ±12st Quantized
- Full range Unquantized values (8 octaves)

Slider2 **LFO WAVE Amount:** It adjusts the LFO modulation amount of the VCO wave.

Slider3 **EG PW Amount:** It adjusts the EG modulation amount of the VCO pulse width.

Slider4 **VCO LEVEL**: It adjusts the volume of the Oscillator. The default VCO level is at the middle of the slider. When increasing the slider value it boosts the signal and drives the filter.

PAGE 3 - VCF (BLUE LED)

Slider1 **Cutoff:** It sets the Cutoff Frequency of the low pass filter.

Slider2 **HPF:** It sets the Cutoff Frequency of the high-pass filter.

Slider3 **Resonance:** It sets the amount of resonance. In max settings the filter will self oscillate.

Slider4 **EG Cutoff Amount:** It adjusts the EG modulation amount of the LP Filter Cutoff.

***VCF SHIFT PAGE:** (Can be accessed by holding the Voice Page Button while adjusting the sliders value).*

Slider1 **Tracking:** It adjusts the key tracking amount of the LP Filter Cutoff. Higher notes will result in higher frequencies on the LP Filter Cutoff.

Slider2 **FFM:** It adjusts the amount of VCO triangle wave (FM) modulating the LP Filter Cutoff.

Slider3 **NFM:** It adjusts the amount of Noise (FM) modulating the LP Filter Cutoff.

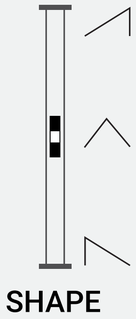
Slider4 **EG PITCH AMOUNT:** It adjusts the EG modulation amount on the pitch of the VCO.

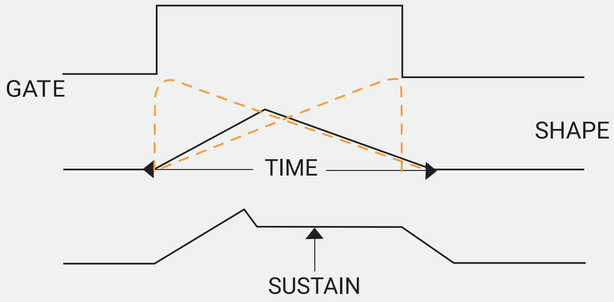
PAGE 4 ENVELOPE (WHITE LED)

The Envelope follows the classic ADSR sound shaping approach over time, but with a twist on the way it gets controlled via a **SHAPE, TIME** and **SUSTAIN control.** (Schema 4)

SHAPE: The **shape** parameter defines the relationship between the attack and decay/release times. It can range from a Sawtooth shape (no attack, only decay) to a triangle shape in the middle of the slider (equal attack and decay), to an inverted sawtooth (only attack, no decay). Of course the Envelope can be further shaped using all the in between positions of the slider.

TIME: **Time** defines the overall duration of the Envelope. It sets the duration of both attack and decay/release times. Increasing its value results in equal amounts of change to the attack and decay/release. Envelope times: 3 ms to 20 sec for a full Envelope cycle.





Schema 4

Slider1 **VCF EG SHAPE:** It adjusts the Shape of the VCF Envelope.
Slider2 **VCF EG TIME:** It adjusts the Time of the VCF Envelope.
Slider3 **VCA EG SHAPE:** It adjusts the Shape of the Envelope applied to the VCA.
Slider4 **VCA EG TIME:** It adjusts the Time of the Envelope applied to the VCA.

ENVELOPE SHIFT PAGE: *(Can be accessed by holding the Voice Page Button while adjusting the sliders values).*

Slider1 **VCF SUSTAIN:** It adjusts the sustain level of the VCF Envelope.
Slider2 **VCF EG LOOP:** It activates or deactivates the looping of the VCF Envelope.
Slider3 **VCA SUSTAIN:** It adjusts the sustain level of the Envelope applied to the VCA.
Slider4 **DRONE STATE:** It activates or deactivates the drone mode. Sets the VCA to open constantly.

EXAMPLE

VOICE SECTION

Press the Voice Button once, to enter the Pages of the Voice Section (LFO, VCO, VCF, ENV).
The red LED light on the first matrix row is on, to indicate that we are now in the first Page, in this case the LFO Page. Move the 1st slider to affect the rate of the LFO.

Press the Voice Button once again to start navigate through the matrix rows. Now the LED light has turned green to indicate that we are in the 2nd matrix row and therefore in the second Page, meaning the VCO Page. Move the 4th slider to alter the noise level. Additionally move the 1st slider to adjust the VCO pitch.

Pressing once again you will be moved to the next row and the sliders will now affect the parameters corresponding to the specific Page.

To RETURN to the LFO Page (1st row), press the Voices Button to cycle through the matrix rows. Note that the LED light color helps to indicate the matrix row. In this case we expect to see it turning red again.

Lastly, let's alter a parameter that is in the shifted menu. While on the LFO Page **press and hold** the Voices Button and move the 1st slider to affect the Fade IN time of the LFO.

	Slider 1	Slider 2	Slider 3	Slider 4
SAVE	Bank	Preset		
Long Press Menu Button to Save the selected Preset.				
LOAD	Bank	Preset		Initial Preset
Long Press Menu Button to Load the selected Preset or Initial Preset.				
CV IN	CV Amount	CV Amount	CV Amount	CV Amount
Voice Button cycles between the main controls of the Voice Pages. Long Press Menu Button to clear all CV Amounts.				
CC	CC IN	CC OUT	PC IN	PC OUT
Press and Hold the Menu Button to engage MIDI Learn. When the Button is released the last played channel will get selected and saved.				

menu section

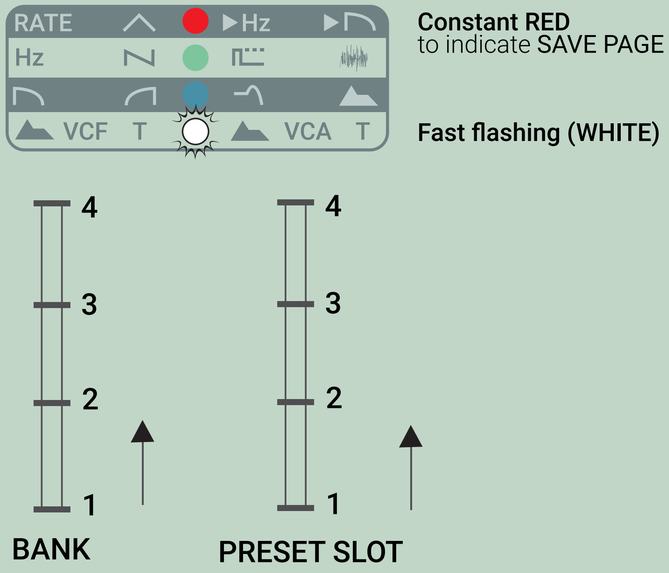
By pressing the Menu Button we enter the MENU PAGES. The procedure of navigating the parameter is identical to the VOICE SECTION. We enter the MENU PAGES by pressing the Menu Button and adjust the parameters of the matrix with the four sliders.
The MENU SECTION consists of four Pages:
The **SAVE, LOAD, CV IN, CCs**. Each Page corresponds to a line on the matrix and is indicated by a specific LED color.
Pressing the Menu Button cycles between the four Pages.

MENU PAGES

PAGE 1 - SAVE (RED LED)

Press the Menu Button once to enter the Save Page. The LED light on the 1st matrix row is red to indicate the current Page (Save). In this Page the Menu Button blinks fast.

The Banks and Preset Slots start at the bottom with both sliders in the minimum position and progressively go to increase Banks and Preset Slots by adjusting the position of the sliders. At the maximum slider Bank and Preset Slot position, Bank 4 / Preset Slot 4, preset will be selected.
A slow flashing of the LED indicates the Bank number.



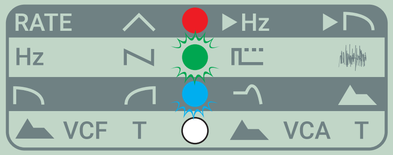
Schema 5

A fast flashing of the LED indicates the Preset Slot number.
When the Bank and Preset Slot position coincide (1,1), (2,2), (3,3), (4,4) then the LED light flashes even faster.

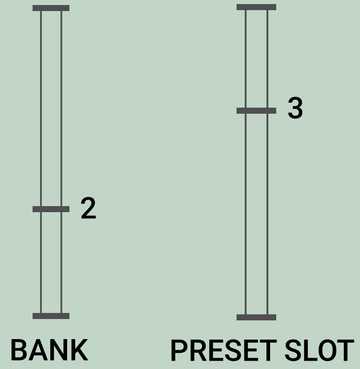
EXAMPLE
We created a sound we want to save.
Press the Menu Button once, the red light is on, to indicate that we are now on the Save Page at the 1st matrix row and also the Menu Button will flash fast.
At the same time you will notice one or more colored LEDs are flashing to indicate the Bank and Preset Slot. Position (Bank 1, Preset Slot 1) is indicated when both the slow and the fast LEDs are flashing and are visible together in the 4th matrix row and the sliders are positioned all the way down. (Schema 5)

Save a preset in Bank 2, Preset Slot 3 (Schema 6)
- Move the slider 1 to the desired position. In this case the second position. **(BLUE LED blinks slowly).**
- Move the slider 2 to the desired position. In this case the 3rd position. **(GREEN LED blinks fast).**
- Press and hold the **Menu Button for one second** to save the preset. The Menu Button will flash in a sequence to confirm the preset got saved.

PRESS THE VOICE BUTTON TO RETURN TO THE VOICE PAGES.



Constant RED
to indicate SAVE PAGE
Fast blinking GREEN (PRESET SLOT)
Slow blinking BLUE (BANK)

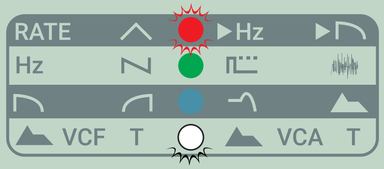


Schema 6

PAGE 2 - LOAD (GREEN LED)

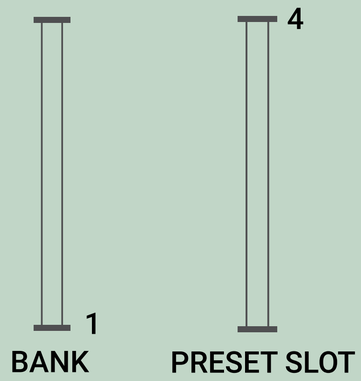
Press the Menu Button to enter the LOAD Page indicated by the GREEN LED .
The same principle as the SAVE process applies when you want to load a preset.

EXAMPLE (Schema 7)
Loading a preset located in Bank 1, Preset Slot 4 (1,4)
Press the Menu Button to enter the LOAD Page indicated by the green LED in row 2 of the matrix and also by a slow flashing on the Menu Button.
Move the slider 1 all the way down to select Bank 1 (slow blinking white LED).
Move the slider 2 all the way up to select Preset Slot 4 (fast blinking red LED)
Press the Menu Button for one second to load the selected preset. The Menu Button will flash in a sequence to confirm the preset got loaded.



Fast blinking RED (PRESET SLOT)
Constant GREEN
to indicate LOAD PAGE

Slow blinking WHITE (BANK)



Schema 7

INITIAL PRESET

There is an initial preset that resets values and can be chosen through the slider 4 in the load Page.

- Move the slider 4 to select the initial preset. All 4 colored LEDs will light up to indicate that the initial preset has been chosen.

(You can cancel the loading of the initial preset at anytime by moving slider 1 or 2 to search for another preset.)

- Press the Menu Button for one second to load the initial preset.

PRESS THE VOICE BUTTON TO RETURN TO THE VOICE PAGES.

PAGE 3 - CV IN (BLUE LED)

Telepathy can accept CV signals, through its assignable CV IN input. In this way, external CV sources can be assigned to modulate Telepathy's parameters.

In CV IN Page (constant blue light and lighted LEDs of both Buttons), all the sliders are used to adjust the amount of CV applied to its parameters. To navigate through the parameters, press the Voice Button. A blinking LED will indicate the Voice Page you have currently selected. Adjust the amount of CV for the desired parameter by moving the sliders.

EXAMPLE

- Connect an external LFO to the CV IN.
- Let's assign the external LFO to modulate the Filter Cutoff and the waveshape of the VCO.

FILTER CUTOFF CV

Press the MENU Button and choose the CV IN Page indicated by the constantly lighted blue LED (3rd matrix row) and the lighted LEDs of both buttons.

- Navigate the Voice Section Pages by pressing the Voice Button and select the VCF Page (3rd matrix row). The blue LED is now flashing to indicate the position of the Voice Pages.
- Adjust the CV IN amount to modulate the LP Filter Cutoff via slider 1.

VCO WAVESHAPE CV

Navigate in the Voice Section to the VCO Page (2nd matrix row, green LED flashing).

Adjust the CV IN amount to modulate the VCO Waveshape according to your own preference with the slider 2.

Press the MENU Button for one second to clear all set CV IN amounts.

PAGE 4 CC (WHITE LED)

In this Page you can control if the module responds or sends MIDI CC values. In the CC Page, move the 1st slider past the middle position so that the module responds to MIDI CC data **(CC IN)**. In order for the Telepathy to send CC values to control other device parameters, use the slider 2 to activate the **CC OUT**. The same applies to Program changes. With the use of the 3rd slider, Telepathy responds to program changes **(PC IN)** and with the use of the forth slider it sends program changes **(PC OUT).**

MIDI CHANNEL SETUP

To change the MIDI channel simply hold the Menu Button for more than one second to engage MIDI learn. While still holding the Menu Button press a note from your MIDI controller or DAW, on any MIDI channel and Telepathy will respond. When the button is released the last played channel will be selected and saved.

CC LIST

1	Pitch LFO Amount
3	Cutoff EG Amount
4	Filter Tracking
7	VCO Level
9	Cutoff LFO Amount
10	Noise Level
11	PW
12	PW LFO Amount
13	Pitch EG Amount
14	Tune
15	Quantized
16	LFO Rate
17	LFO Wave
18	LFO Fade In
19	LFO Mode
20	Wave LFO Amount
21	PW EG Amount
22	Noise LFO Amount
23	FFM Amount
24	NFM Amount
25	VCF EG Wave
26	VCF EG Time
27	VCA EG Wave
28	VCA EG Time
29	VCF EG Sustain
30	VCF EG Loop

31	VCA Sustain
32	Velocity Amount
33	Drone
34	LFO Rate CV Amount
35	LFO Wave CV Amount
36	Pitch LFO Amount CV Amount
37	Cutoff LFO Amount CV Amount
39	Tune CV Amount
40	VCO Wave CV Amount
41	PW CV Amount
42	Noise Level CV Amount
43	Cutoff CV Amount
44	HPF CV Amount
45	Resonance CV Amount
46	Cutoff EG Amount CV Amount
47	VCF EG Wave CV Amount
48	VCF EG Time CV Amount
49	VCA EG Wave CV Amount
50	VCA EG Time CV Amount
70	VCO Wave
71	Resonance
74	Cutoff
81	HPF
120	All Sound Off
123	All Notes Off
	Program Change 1-16 (0-15)

tuning mode

TUNING PAGE

Press the Voice Button to enter the Voice Pages.
While on the Voice Pages **press both buttons** to enter Tuning Mode.
Tuning Page is indicated by a slow flashing on both buttons and a faster flashing on the white LED.
Pressing the Voice Button (left) will exit the Tuning Mode.

FINE TUNE

While on Tuning Page **move the 1st slider** to adjust the fine tune of the oscillator.

AUTOTUNE

While on Tuning Page **press the Menu Button** once to engage the autotune of the module. All LEDs will start flashing.
This will calibrate the scale and tune. Once this process is over the module will return back to the Voice Pages.

ANALOG TUNING (Advanced Tuning)

While on Tuning Page **press and hold the Menu Button** to engage the Analog Tuning.

The analog tune will calibrate the analog tune and scale of the oscillator, all the MIDI notes and also the CV IN offset.

- After entering the Analog Tuning Page both White and Blue LEDs will start flashing to indicate that the module is in the “Waiting for 1 Volt” state and the VCA will open so as the sound is on.
  *Mind that the sound settings will be as the ones already set.

- Disconnect any patches connected to Pitch and CV IN inputs and connect your 1Volt/oct device you want to track to the PITCH patch point.

- Set your 1Volt/oct device to send 1 Volt (one octave higher than the last note your device will output when no change is heard on Telepathy’s oscillator) and press Menu Button once. A flashing on all 4 LEDs will start and then stop.

- Now the White and Green leds will start flashing to indicate the “Waiting for 4 Volt” state. Send 4 Volts from your keyboard (3 octaves higher than the 1 Volt note) and press the Menu Button again. A flashing on all 4 LEDs will start and stop once more.

- Then Green, White, Blue, will start flashing to indicate the disconnection of the patch from the PITCH input of the module.

- Disconnect and press the Menu Button once more. Now all LEDs will start flashing in a random way to indicate the MIDI Tuning. When autotune is over the sound will stop and it will exit the Tuning Page.

***Note** that if no voltage is applied to “Waiting for 1 Volt” state, it will skip the external CV Tuning and proceed to the MIDI Tuning right away.*

polyphony & multitimbral

Telepathy has the ability to link to other Telepathy modules in-order to achieve polyphony and multitimbrality. Depending on the Internal settings that will be explored further below you can achieve several combinations of behavior between the modules, once you chain them.

CHAIN MODE

To enter Chain Mode follow the steps below:

1. **Press** the Menu Button once.
2. While on the Menu Pages press both Menu & Voice Buttons once to enter the Chain Mode.
3. Chain Mode is indicated by an alternating flashing of the button LEDs.
4. To select the preferable amount of Voices (number of Telepathy modules in the Chain), press as many times the Menu Button of the first module. While pressing the button the alternate flashing appears to the module that is being linked. You can set up to 8 Voices in total.
5. On the Master Telepathy (First module) the four coloured LEDs indicate the number of Voices linked (Linked modules). Linked Voices 1-4 appear through the LEDs from bottom up. Linked Voices from 5-8 appear the same way while LEDs are flashing.
6. Press the Voice Button to exit and save at any time.
7. Mind that, when entering the Chain Mode there is no Voice assigned, so the 1st press of the Menu Button assigns the Master Telepathy, second press assigns the 1st linked Voice and so on.

MAIN LINKING MODES

A. Hard master mode/ Polyphony

1. While in Chain Mode, long pressing the Menu Button will enable or disable the Hard Master mode. This means that the MASTER Telepathy (the unit you set the chain) will transmit all the CCs when loading a preset, to set the sound on every chained unit according to the MASTER one.

This mode is indicated by a confirmation flashing and then a pause on both button LEDs. If the pause is indicated by lighted LEDs then the mode is enabled, if the pause is indicated by dimmed LEDs then the mode is disabled.

1st module (Master)
CC in/CC out, PC in/PC out enabled (send and receive data)
2nd-6th modules (Chained)
Only CC in, PC in enabled (receive data from the Master module but not send data to the others.
In simpler terms, in this mode whatever changes you apply to the sound of the MASTER module, these changes will automatically apply to all the other modules.

B. Independent modules/polyphony - multitimbrality
Once you have created a Chain it’s possible to deactivate both the CC ins / PC ins and CC outs / PC outs of the modules so every Voice is independent and not affected by the others.
Therefore every Voice can be shaped independently but because it's chained to the other Voices it can be played polyphonically.
In this way you can create a Polyphonic and multitimbral synthesizer.

ADDITIONAL INFORMATION:

- When setting up a chain, the MIDI channel, CC and PC settings will be forced on both Master and Chained units.

- The Master unit will force both CC IN and OUT, and PC IN and OUT. The Chained units will only force their CC IN and PC IN, the OUT will stay as previously set.

- These settings can be changed at any moment via the CC Page or else they will return to the previous state if the chain is cleared.

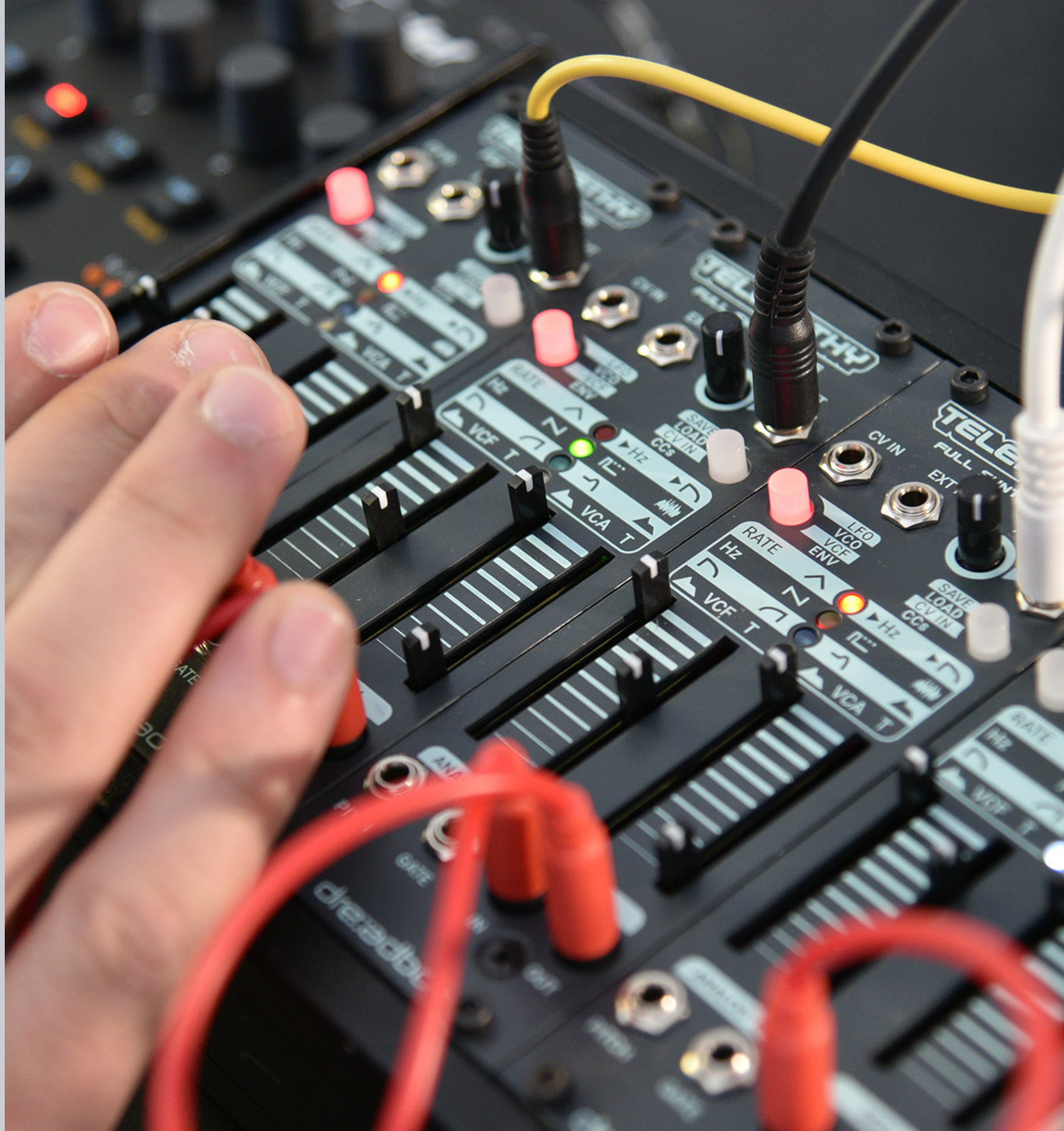
- If you want to correct or make a new chain or any combination, exit and re-enter Chain Mode and start over.

firmware update

BOOTLOADER

Before powering up the device, press and hold the Menu Button to enter update mode. **ALL LEDs are BLINKING.**

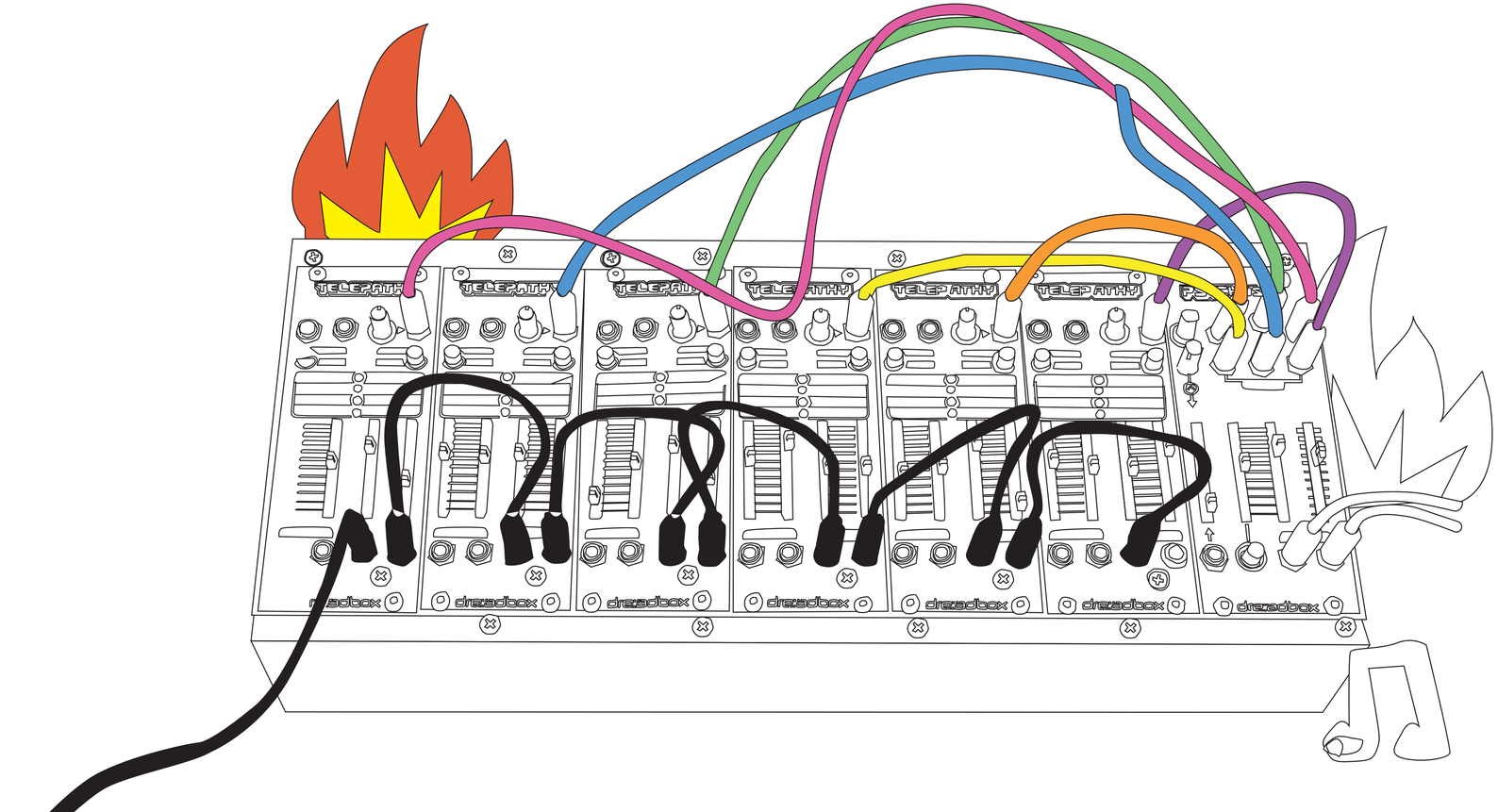
- To upload a firmware update you will need a **computer** and an **application** that can handle MIDI SysEX files like **Bome SendSX** or **SysEx Librarian**.
- Mind that a pause around 2 seconds between the played message is needed.
- While the SysEX messages are transmitted the LEDs alternate from ON to OFF in succession to each uploaded message.
- If an error of any kind occurs while uploading, all LEDs will start blinking in a sequence of 6 times blink and then pause.
- If this error occurs please check again the above settings and restart the process.



TELEPATHY

BUNDLE

MANUAL



A power

Please use only the power supply included in the box to power the unit.
Plug the adapter and open the power switch of the case.
The Green/Red LEDs should light up to indicate that the system is powered.
It is normal for the enclosure to heat up on the bottom side after a while.
Power supply specifications:
15VDC, center positive 5.5mm x 2.1mm barrel, 1.6A

B basic connections

In order to get the advertised 6 Voice multitimbral synth please use the following standard and recommended connections.

CONNECT:

- The MIDI adapter to the MIDI IN of the 1st Telepathy module.
- All the MIDI OUT to the MIDI IN of each Telepathy module with the stereo 3,5mm jacks.
- The ODD numbered telepathy (1st, 3rd and 5th) to the LEFT INPUT of the Phychosis module.
- The EVEN numbered telepathy (2th, 4th and 6th) to the RIGHT INPUT of the Phychosis module.
- Set the Audio Out level of each Telepathy at 50%. If you set it higher, you will cause the Psychosis to overdrive!
- Send the Psychosis Left and Right outputs to a stereo input of a mixer, or to your monitors directly.

If you do not have a STEREO destination, and can only use the system in MONO do the following:
Send ONLY one of the Psychosis outputs to your monitor or mixer, and make sure that the Psychosis Spread is set to MONO and that no LFO is applied on it.

C initial setup

Control mode

There are quite a few ways to use this bundle, from a simple UNISON to a 6 voice polyphonic synth or even a 6 voice multichannel–multitimbral synth.
All these are achieved by setting up the control mode on the master voice and by activating/deactivating the CC and Program Changes on each individual module.
We suggest lots of experimentation with these settings so that you can get the most out of your system.

Tuning and Calibration

All the Telepathies modules used in the bundle are checked and calibrated one by one, on the bundle system. Depending on your environment, recalibration might be needed. In that case check the Telepathy manual for more info on how to calibrate each module.
Additionally, in order to tune their oscillators in respect to each other follow these steps:

1. **Set the Modules into a Unison mode.**
   - Press the MENU button on the 1st module.
   - Then press both MENU and VOICE buttons at the same time to enter the Chain mode.
   - Again press MENU once (the white LED should be lit).
   - Finally press the VOICE button to exit. Now the 6 modules are on a UNISON Play mode.

2. **Turn the CC and Program change on all modules ON. For all of each 6 modules do the following:**
   - Enter the 4th MENU page (the white LED).
   - Set all sliders at 0% and then again at 100%.
   - Press the VOICE button.
   - If you do that on all 6 modules, then CC and program changes will be activated. This allows us to control everything from the 1st module, but keep in mind we should also set the 1st module in a HARD MASTER mode.

3. **Set the 1st module on HARD MASTER.**
   - Press the MENU button.
   - Press both VOICE and MENU buttons.
   - Press and hold the MENU button. If the VOICE LED goes high, then that means that you have the HARD MASTER mode on. If it goes dark, then it's the SOFT MASTER. In the second case press and hold the MENU again until the VOICE goes high. Then press the VOICE button to exit.

4. **Enter the tuning mode on all modules.**
   - Press the VOICE button.
   - Press the VOICE and the MENU button at the same time. Do that on all 6 modules.

5. **Tune everything with respect the 1st module.**
   - Turn the volume on modules 3,4,5,6 down so that only the 1st and 2nd module are audible.
   - Press a key on your keyboard. Then use the 1st slider on the 2nd module to sync the two modules.
   - Turn the volume on the 2nd module down and open the 3rd module volume and follow the same procedure until all modules are in sync.
   - Exit the tuning mode by pressing the VOICE button.

D polyphony and multitimbrality

Telepathies have the ability to link to each other in order to achieve polyphony and multitimbrality. Depending on the internal settings—that will be explored further below—you can achieve several combinations of behavior between the modules, once you chain them.

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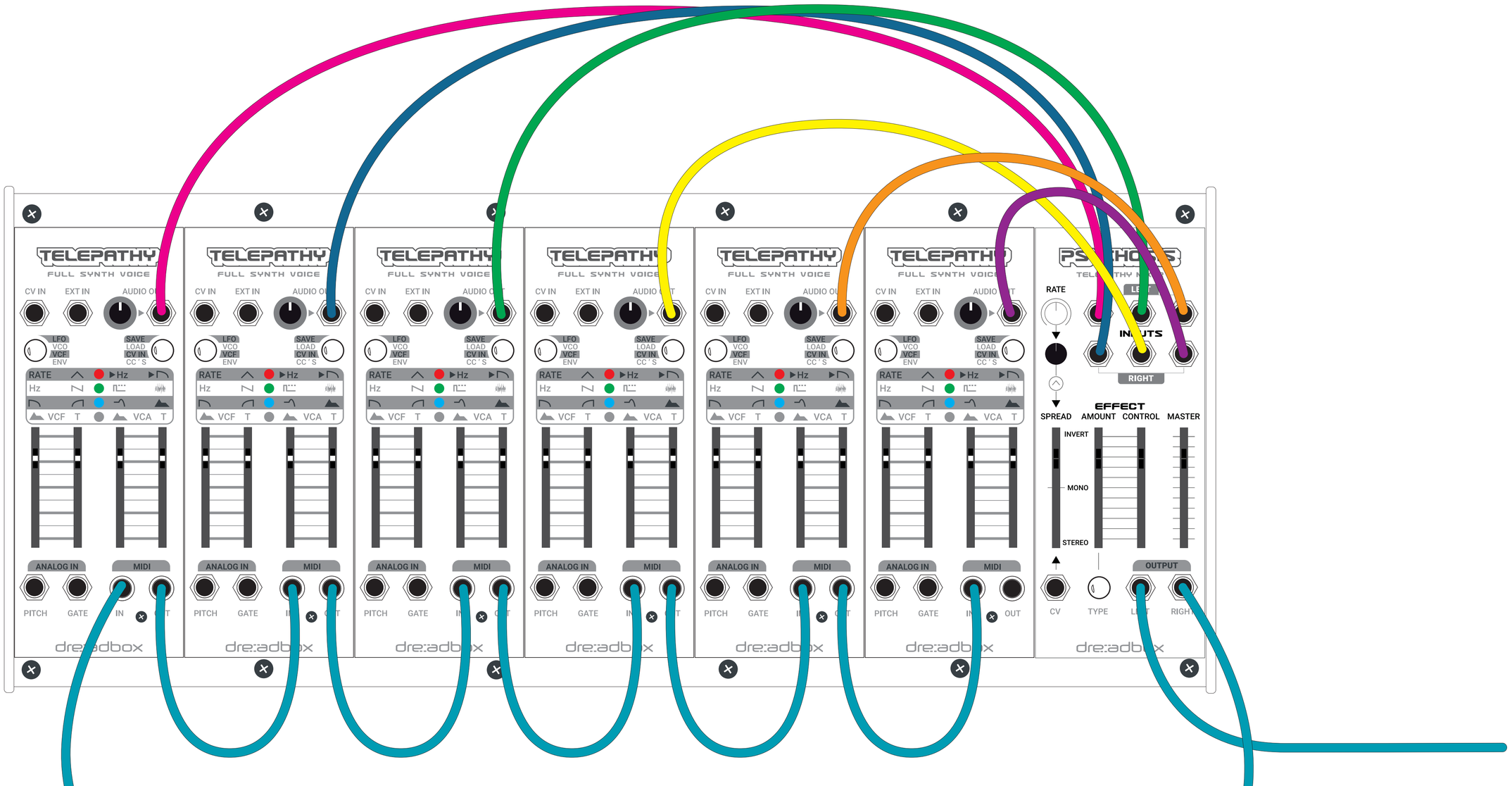
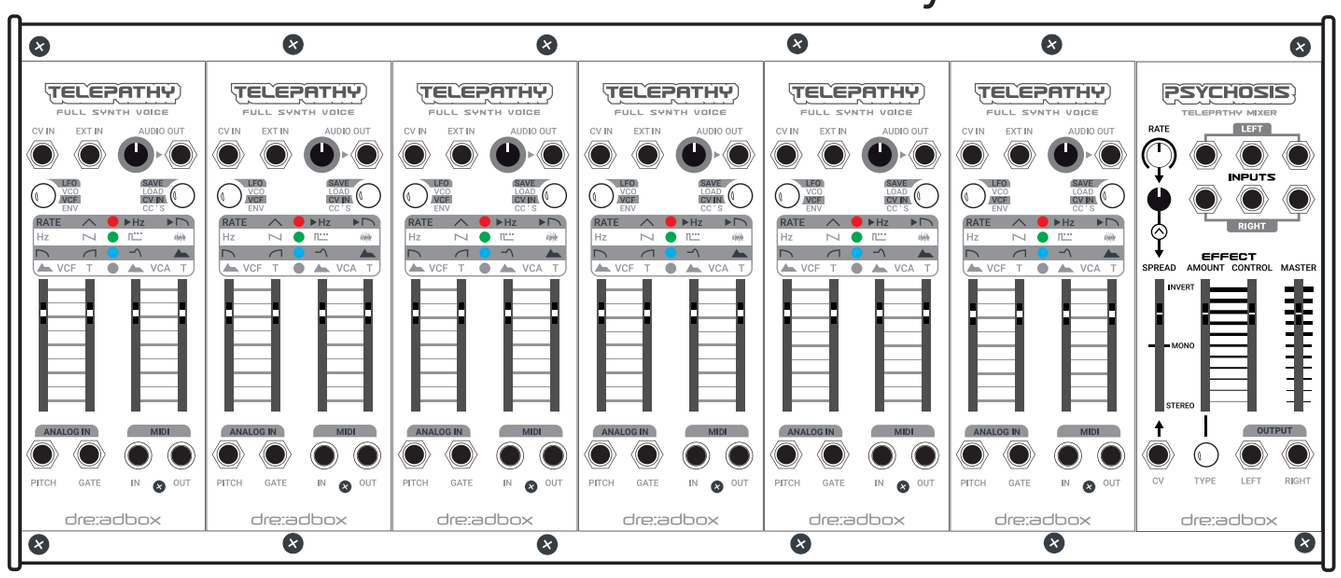
TELEPATHY

BUNDLE



your package includes

The case with all 7 modules fully assembled



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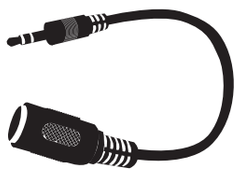
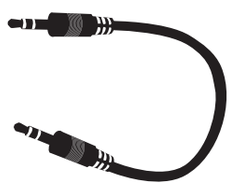


DIN5 to 3,5mm Jack MIDI adapter, used to send midi messages to the Telepathy

4

Extra mounting screws and an HEX Allen key

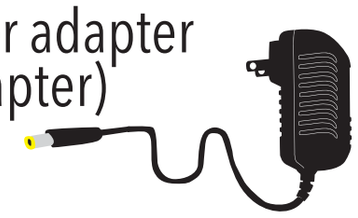
6



Black STEREO cables used to connect MIDI OUT to MIDI IN between the telepathy modules

1

Universal power adapter (UK, US, EU adapter)



6

MONO 3,5mm patch cables