

# CRAZY8 BEATS

## USER'S MANUAL

APRIL 23 2018

# 1.1 FEATURES

Hybrid digital (MIDI) and analogue (Trigger/CV) Sequencer  
All-in-one desktop and 40HP Eurorack module

- 8 MIDI tracks on 2 ports
- 8 Analog Trigger outputs
- 16 illuminated Pads
- 71 LEDs
- 0-5V Accent/CV output per step
- MIDI velocity, CC, per step.
- Trigger Input/Output to sync Crazy8Beats to other devices
- MIDI input to receive MIDI clock and setup parameters
- MIDI Clock sent on both ports
- 16 patterns per track
- Live recording of patterns with undo
- Up to 16 steps per pattern
- Different length, rate and direction per track (Polyrhythms)
- Patterns can be changed individually per track or all at once
- Up to 16 patterns can be chained to create a song
- 4 play modes per track (forward, reverse, ping-pong, random)
- Copy, Paste, Clearing of patterns
- 8 Levels of Swing per track
- Crazy feature enables probability and live remixing of patterns
- Drill effect (AKA ratcheting) with variable rate and programmable pattern

# 1.2 GLOBAL FUNCTIONS

- Play/Stop

Used to start and stop the sequencer

- Tools

Press the TOOLS <| button to activate or deactivate the tools menu. More details on the tools in chapter 4.

- Tempo change:



Change the tempo incrementally by holding TEMPO and rolling the data wheel. Clockwise increases the tempo, Counter-Clockwise decreases it. There are 64 tempo increments displayed on the 64 step LEDs

tempo

You can also tap the tempo at any time simply by tapping the TEMPO button

- Change selected Track

Roll the encoder to select any track 1-8. The Pads briefly light up to indicate which track is selected



- Change Modes

Press the encoder down to jump between PLAY and EDIT modes described in chapter 2 & 37.

# 2 PLAY MODE

Play Mode is like a playlist editor where we can choose which pattern a track is currently playing, and chain patterns to create a song.

## 2.1 Mute/Un-mute Tracks Individually or all at once

Press and hold **encoder** for at least a second. Now the top row of pads 1-8 will light up to show the enabled tracks. Now you can mute or un-mute tracks 1 through 8 by pressing the respective top pads. Hold **shift** at the same time to enable/disable all tracks at once



*This information is automatically stored in EEPROM memory and loaded at startup*

## 2.2 Change Patterns

Press any of the pads to change the pattern of the selected track.

Hold **shift** to change all tracks to a same pattern.



A Solid lit pad indicates the current pattern of the selected Track, flickering pads indicate the tracks that are currently being triggered.



*The current pattern of each track is automatically stored in EEPROM memory and loaded at startup*

## 2.3 Chain Patterns

### 2.3.1 Activate/Deactivate Pattern Chain Mode

Press **rec** to toggle pattern chain mode on & off at any time  
When **rec** is lit, Crazy8Beats will chain patterns to make songs.

*Tip: Rec has a different function in edit mode!*

### 2.3.2 Pattern Chain Slots

The chain slots are the building blocks for our song playlist.  
The patterns to be played are stored in up to 16 slots that can be individually enabled or disabled.

To enable or disable a slot hold **rec** and press any pad.

When the sequencer is playing and **rec** is lit, the pad corresponding to the slot that is currently being played will flicker.



*This chain slots are automatically stored in EEPROM memory and loaded at startup*

## 2.4 Skip or “Jump” to Step

Hold **skip** then press any pad to temporarily jump the sequencer to that step. When you release skip the sequencer will resume at the expected step

*Tip: Skip has a different function in edit mode!*

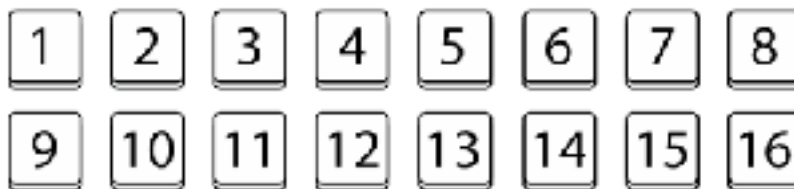
# 3 EDIT MODE

Here we can edit the content of the patterns

## 3.1 Enable & Disable Steps

Press any **pad** to enable or disable an individual step.

To instantly enable or disable all steps of the pattern, hold **shift** first then press any **pad**.



## 3.2 Live Recording Patterns

Press **rec** to arm the recorder. Now you can play the tracks using the pads. The recording is automatically quantized to the nearest step.

To clear a recording hold **shift** and press the **pad** corresponding to the track you wish to erase. To clear all tracks at once hold **shift** and press **rec**

## 3.3 Setting Accent/Velocity/CC per Step

Depending on how the track is set up (see settings section) each step can send MIDI velocity, CC or both.

An equivalent Analog voltage is automatically sent out of accent jacks too.

You can set the accent amount in coarse and fine increments:

To set the accent value of a step hold a pad and turn the rotary encoder. The top row of step LEDs indicates the coarse value (16 steps)

To fine-tune the accent, hold shift while turning the rotary encoder.

The finer increments are displayed on the second row of step LEDs.

## 3.4 Skip Steps

You can shorten patterns by skipping up to 15 steps.

Hold **skip** and press any pad to set the step to skip (lit pad=skipping step)

Tip: Skip has a different function in play mode!

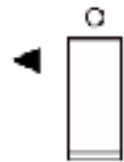
# 4 TOOLS

There are 8 tools to manipulate our beat

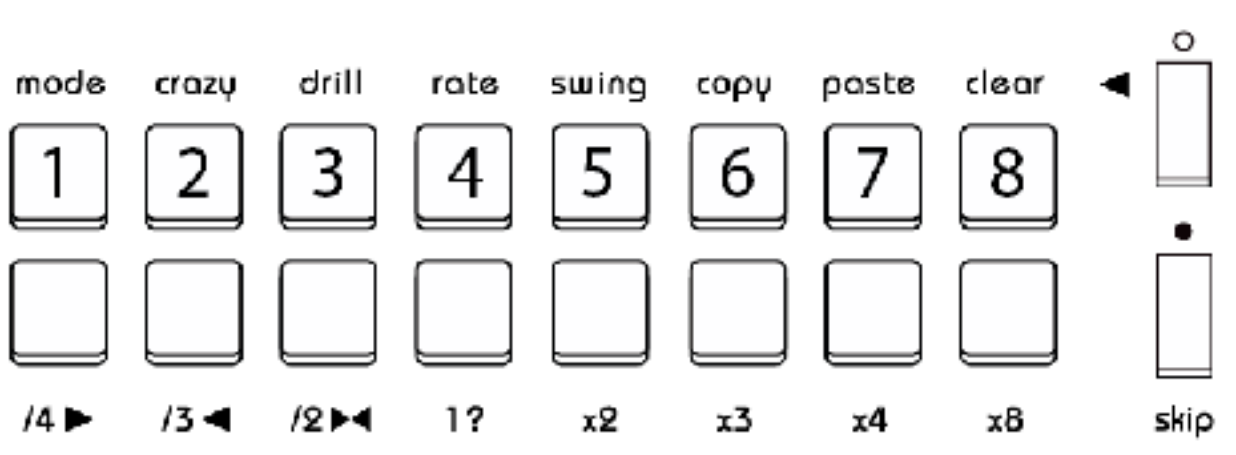


## 4.1 Enable Toolbar

Press the tool button to enable the toolbar. It can be enabled in either modes and will override the 16 pads.



Now that the toolbar is active, select a tool by pressing pads 1 through 8

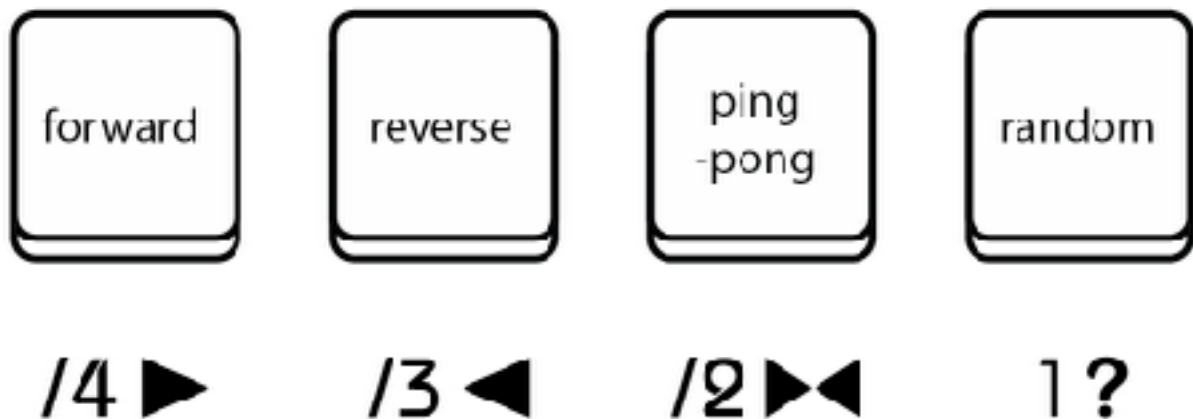


The bottom row of 8 pads apply the tools to tracks 1 to 8 respectively see the next sections for details.



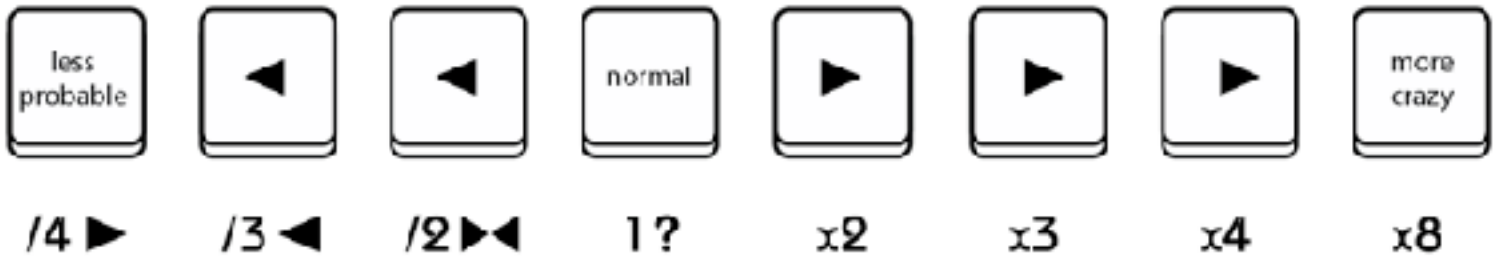
## 4.2 Play Modes (Direction)

Each track can play in 4 directions. Press bottom pads 1 through 4 to change modes of the selected track.  
Hold shift to change the mode of all tracks at once.



## 4.3 Crazy

The crazy function can either adds some randomness or improvisation to your pattern.



1-4 reduce the probability of the step being triggered.

Pad 5 is normal, the pattern is unaffected

Pads 6 to 8 enable remixing of your patterns.

As you dial up the crazy, the sequencer is more and more likely to play snippets of other patterns at random.

Press lower pads 1 to 8 to input the crazy amount of the selected track.

Hold shift to apply that amount to all tracks at once

## 4.4 Drill

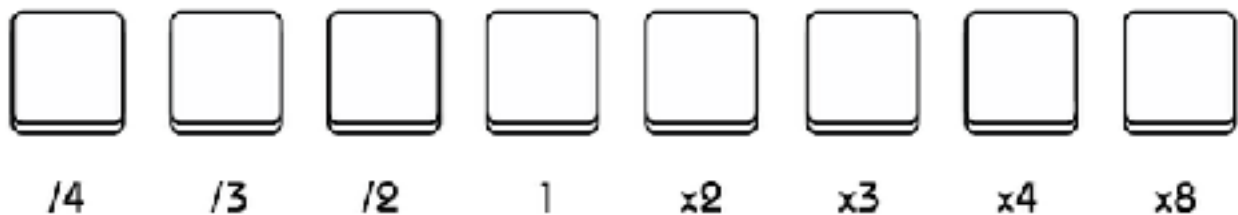
Hold Drill to program on which steps the drill will work by toggling bottom pads on or off. Release Drill to confirm.

Hold a bottom pad to rapidly repeat the corresponding track for a drill effect. The rotary encoder sets the repeat rate

## 4.5 Rate

Each track can run at different speeds. Press a lower pad to change the speed of the selected track.

Hold shift to change the rate of all tracks at once.



## 4.6 Swing

You can add swing to any track using pads 1 to 8.

Hold shift at the same time to apply swing to all tracks at once.

## 4.7 Copy

In copy mode, press a lower pad to copy its corresponding track to the memory clipboard.

Hold shift and press the 6th upper pad (copy) to copy all tracks to the memory clipboard at once.

*Tip: Accents are copied too.*

## 4.8 Paste

In paste mode, press a lower pad to paste its corresponding track from the memory clipboard.

Hold shift and press the 7th upper pad (paste) to paste all tracks from the memory clipboard at once.

*Tip: Accents are pasted too.*

## 4.7 Clear

In clear mode, press a lower pad to clear it.

Hold shift and press the 8th upper pad (clear) to clear all tracks at once.

*Tip: Accents are cleared too.*

# 5 SETTINGS

In settings mode we can set the MIDI note, MIDI channel of each track, and whether a step sends MIDI velocity, MIDI Control Change, both or neither.

Access the settings mode at any time by holding the encoder down for 4 seconds. You can exit the settings mode by press the encoder again.

## 5.2 Setting MIDI Note of a track

Each track outputs the MIDI note of your choice. The default notes are the following:

36 - C2 - Kick  
38 - D2 - Snare  
43 - G2 - Lo Tom  
50 - D3 - Hi Tom  
42 - F#2 - Closed Hat  
46 - A#2 - Open Hat  
39 - D#2 - Clap  
49 - C#3 - Crash

MIDI notes are defined by playing a note into Crazy8Beats via the MIDI input. You can use a MIDI sequencer, keyboard or computer to set the notes. In this example we'll use a MIDI keyboard connected to the Crazy8Beats MIDI input.

- To select the track you wish to configure, press a corresponding pad.

The upper row selects tracks 1 to 8 of MIDI port 1.

The lower row selects tracks 1 to 8 of MIDI port 2.

- Now play a MIDI key on your MIDI keyboard, the selected track will now play this note when triggered.

## 5.3 Enabling Velocity, MIDI CC

Each track can send variable MIDI velocity, or a MIDI CC of your choice, both or neither.

- To select the track you wish to configure, press a corresponding pad.

The upper row selects tracks 1 to 8 of MIDI port 1.

The lower row selects tracks 1 to 8 of MIDI port 2.

- The **play** button enables/disables velocity, indicated by the LED above the button
- The **rec** button enables/disables CC, indicated by the LED above the button

## 5.4 Setting the MIDI CC number of a track

- To select the track you wish to configure, press a corresponding pad.

The upper row selects tracks 1 to 8 of MIDI port 1.

The lower row selects tracks 1 to 8 of MIDI port 2.

- Now a move a fader on your MIDI keyboard to send Crazy8Beats a MIDI CC message, the selected track will now transmit the same CC number when CC is enabled.

## 5.5 Setting the MIDI output channel of each port

- Press any upper pad to select port1 or any lower pad to select port2.
- Now turn the rotary encoder to set the MIDI output channel the top row of step LEDs indicates the channel (1 to 16)

# 6 MIDI SYSEX DUMP/UPLOAD

You can backup and restore entire pattern banks by sending and receiving MIDI SYSEX files to and from a computer via MIDI port 1

- To send a MIDI dump hold **skip** during startup. The SYSEX is automatically sent out of MIDI port 1. The **skip** LED will blink during the transfer.
- To receive a previously saved MIDI dump hold tools <| button on startup. The LED will blink indicating that the unit is ready to receive the file.

Now you can transfer the SYSEX file from a computer. After a

while the unit will restart, and you are ready to enjoy some beats!

## 7 FIRMWARE UPDATES

Crazy8Beats firmware can be updated via MIDI SYSEX. To start the unit in update mode, hold **shift** before pressing the power button to turn the unit on.

All the LEDs will light up indicating that update mode is active. Now send the firmware SYSEX file from your computer.

For a windows pc, we recommend MIDI-OX. It is a free and very useful app! On a mac, we recommend SysEx Librarian. It is also free!

During the transfer all LEDs will blink and the unit will boot into the new operating system when ready.