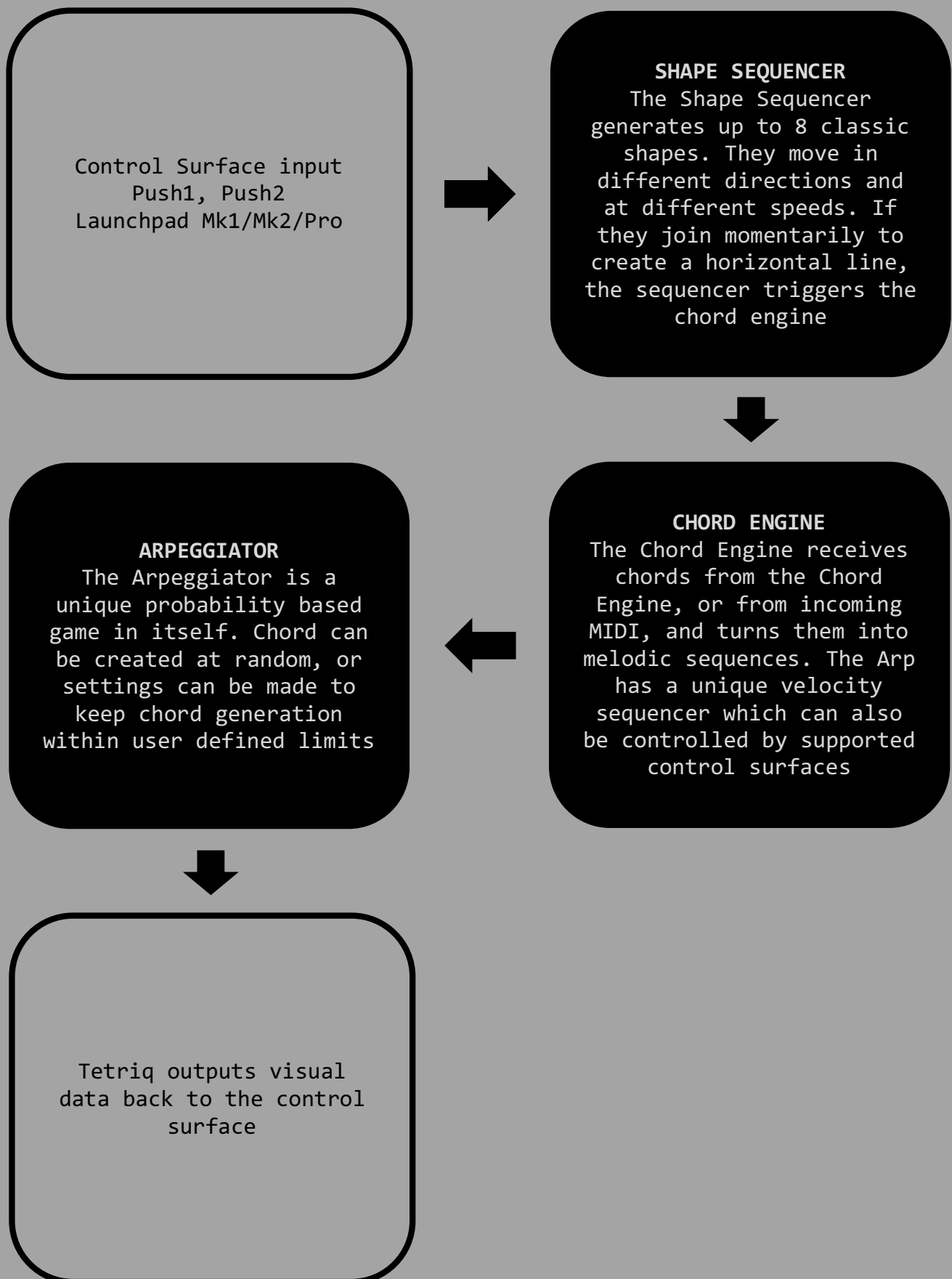# ISOTONIK
STUDIOS

ARCADE SERIES

TETRIQ

'Tetriq' is a **chord sequencer and arpeggiator.** Inspired by the **classic puzzle** game Tetris, Tetriq uses the **original shapes to create generative sequences creating complex chord structures and hypnotic melodic patterns.**

The Arcade Series is a collection of generative sequencers that can be used on their own or integrated with Ableton supported controllers. Designed and created by Ableton Certified Trainer Mark Towers each device takes its inspiration from the hours spent in front of flickering screens down the local Arcade…

Control Surface input
Push1, Push2
Launchpad Mk1/Mk2/Pro

SHAPE SEQUENCER
The Shape Sequencer generates up to 8 classic shapes. They move in different directions and at different speeds. If they join momentarily to create a horizontal line, the sequencer triggers the chord engine

CHORD ENGINE
The Chord Engine receives chords from the Chord Engine, or from incoming MIDI, and turns them into melodic sequences. The Arp has a unique velocity sequencer which can also be controlled by supported control surfaces

ARPEGGIATOR
The Arpeggiator is a unique probability based game in itself. Chord can be created at random, or settings can be made to keep chord generation within user defined limits

Tetriq outputs visual data back to the control surface

GLOBAL CONTROLS

❶ Control Surface Active

When the control surface is selected in the menu, this activator button will become active taking control of the control surface's 8x8 pad grid. Switching tracks or modes in Live will resume usual behavior until returning to the track containing Tetriq. Switching the activate button off will resume usual behavior of the control surface whilst keeping the device running in the background.

❷ Control Surface Select Menu

Select the correct control surface from the menu as per the device version (Push1, Push2 etc.) If needed, pressing the button to the right will refresh the menu with all currently connected control surfaces.

❸ Device Lock

Activating the device lock will lock the control surface to the device. This means that switching track will not affect the 8x8 pad grid which will still display and control Tetriq. This allows you to have multiple control surfaces being used with multiple Arcade devices.
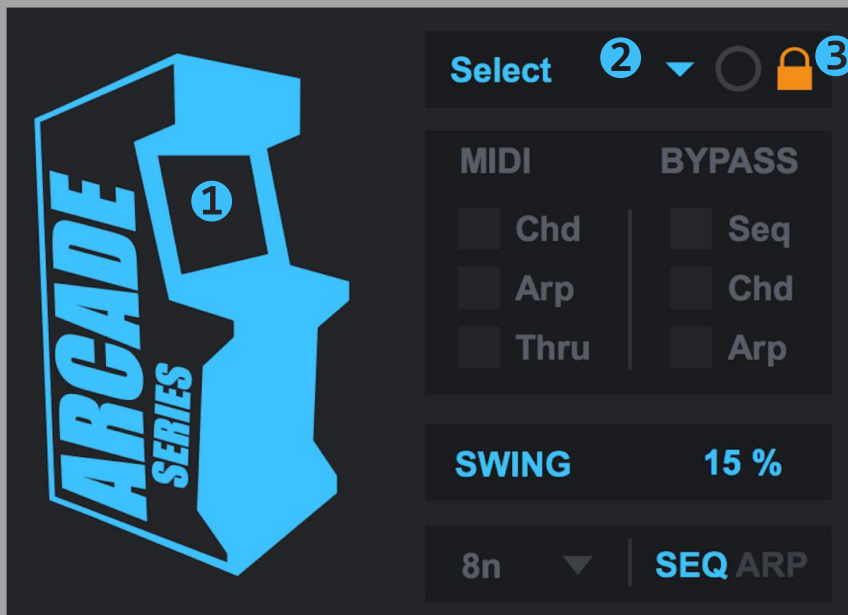
MIDI & BYPASS SETTINGS

The shape sequencer, chord engine and arpeggiator can all be bypassed independently. Bypassing specific modules and routing MIDI notes into the device allows for a customised MIDI signal flow. Send your own chords into the arpeggiator or use the chord engine to turn single notes into chords with probability functions.

❶ **Chord**

When active, incoming MIDI notes will be routed to the chord engine. Single notes will turn into chords. The same probability features of the chord engine will be applied to the newly generated chord. When active, the chord sequencer will be disabled.

❷ **Arp**

When active, incoming MIDI notes will be routed to the arpeggiator. Incoming MIDI notes can exclusively control the arp by bypassing the shape sequencer/chord engine or they can be mixed with the internally generate notes. Bypassing the sequencer and the chord engine completely allows for any external chords to be sent into the arpeggiator.

❸ **Thru**

When active, incoming MIDI notes will pass directly through the device.

❹ **Bypass**

The shape sequencer, chord engine and arpeggiator can all be bypassed independently. Bypassing specific modules and routing MIDI notes into the device allows for a customised MIDI signal flow.

❺ **Swing**

Swing can be activated by pressing the swing button and increasing the amount. Swing is applied to the arpeggiator only. If the rate of the arpeggiator is changed, swing is adjusted to match.

❻ **Seq/Arp**

Use this switch to toggle a control surface's 8x8 grid to display and control the shape sequencer or arpeggiator controls on the grid. This switch can also be controlled by the control surface (shift on Push 1, Push 2 and User/User 2 on Launchpad)

❼ **Chord Interval**

Set minimum interval between generate chords.
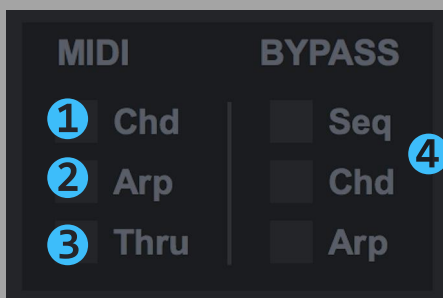
GRID UI
Use a control surface or a mouse to trigger the main grid interface

❶
Display Screen

This screen displays active shapes being generated by the sequencer. When a full horizontal line is created by shapes, the chord engine will generate a chord to feed into the arpeggiator. As well as using a control surface to trigger and position shapes, mouse clicks in this area can also be used.

❷
Chord Display

Displays the name of the current chord.

❸
Module Selector

Use this to switch between the 3 different editing screens for the Shape Sequencer, Chord Engine and Arpeggiator.

❹
Reset

If clicked, reset will clear all currently active shapes in the sequencer and stop the currently held chord from playing.

SHAPE SEQUENCER

The sequencer section controls up to 8 independent shapes that can move around the grid or remain stationary. The purpose of the shapes is to occasionally pass each other and create a full horizontal line which triggers the chord engine and arpeggiator. Each shape can be selected from the original 7 shapes or set to random. Running shapes at different speeds and directions allows for more varied and unpredictable results.

❶
Selector
Use this to select which of the 8 shape instances are being controlled. Any controls on the UI or control surface are routed directly to the currently selected instance (1-8)

❷
Direction
Set the direction of the currently selected shape.

❸
Nudge
Classic nudge control allows you to momentarily shift a shape left or right one space.

❹
Rate
Set the rate at which a shape moves. These rates are synchronised to Live's tempo. Using varied rates across multiple shapes will allow for more unpredictable results.

❺
Interval
Allows for an interval of up to 4 bars from when a shape moves off-screen to when it returns from the opposing end.
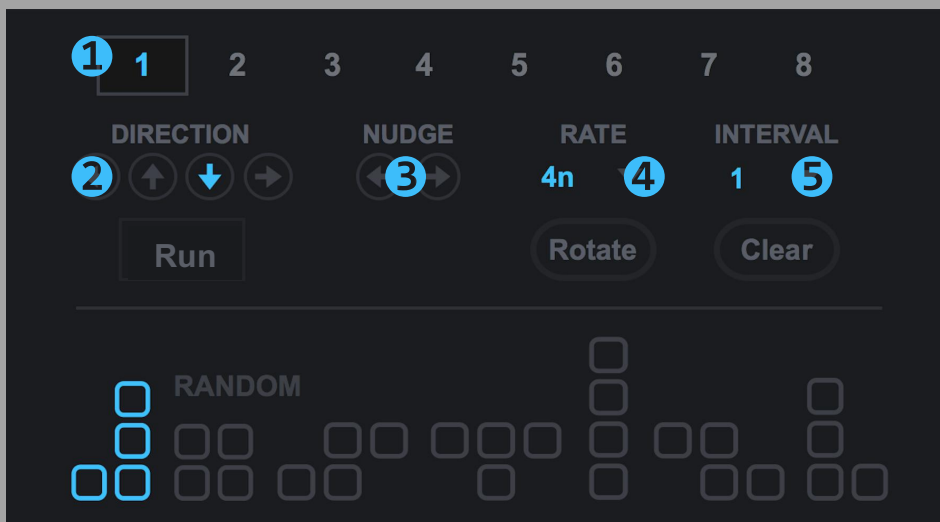
❶ Run

If active the shape will move in sync with Live's tempo at the specified rate and direction. If turned off, the shape will remain stationary but still interacts with passing shapes.

❷ Rotate

Allows for a shape to be rotated.

❸ Clear

Clears the currently selected shape from the display screen and control surface.

❹ Shapes

Select from any of the 7 shapes to be generated. Different shapes means different possibilities of full horizontal lines being generated.

❺ Random

If selected instead of a specified shape, every time a shape for the selected instance is created with either the mouse or the control surface, it will be at random. Clicking random whilst the shape is running will re-generate a new random shape.
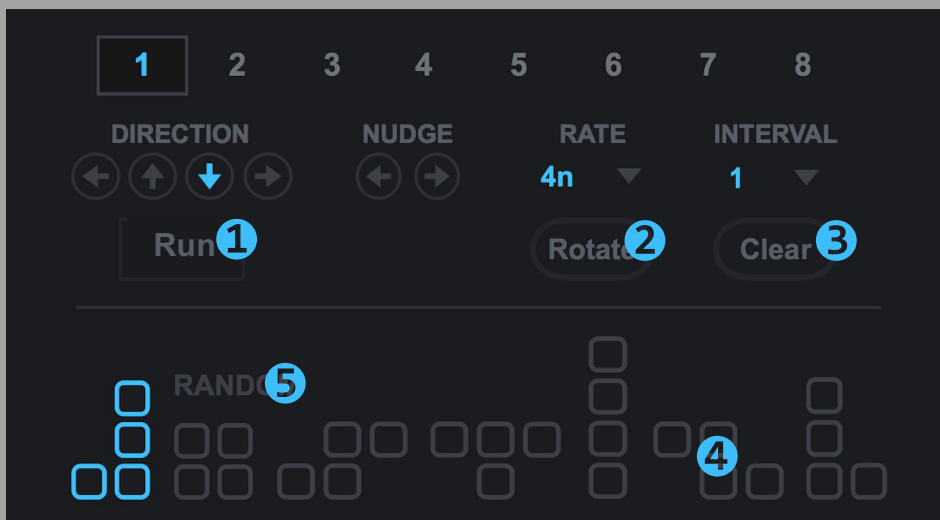
Chord Engine

The chord engine is a probability based chord generator. Various settings can be made to provide some rules for the chords generate but a lot happens behind the scenes. Pick a key to work in and the major scale for that key will be used to pick chords at random. Chords can be generated randomly each whenever triggered by the Shape Sequencer or a sequence of chords can be generated and used repeatedly. Tetriq works out which chords from the scale should be Major or minor. There are probability options to decide whether chords are normal 7ths or any extended chords adding a rich variety to the type of chord created.

❶ **Key**
Select the key in which to generate chords from.

❷ **Oct**
Octaves can be transposed up and down by 4 octaves.

❸ **Vel**
Set the velocity of the newly generated chords.

❹ **Repeat**
If active it is possible to set how many chords should be generated and stored as a sequence which will be triggered every time the shape sequencer creates a full horizontal line.

❺ **Unique**
If Repeat is active, selecting Unique will ensure no duplicate chords are generated as part of the sequence.

❻ **SP**
SP stands for 'special' and if activate will allow for two possible special chords to be generated along with the other chords. If an SP1 is generated it generates either the 3rd or the 4th chord from the scale but swaps the major/minor for the chord. If SP2 is generated any root note is created which will be either major or minor.
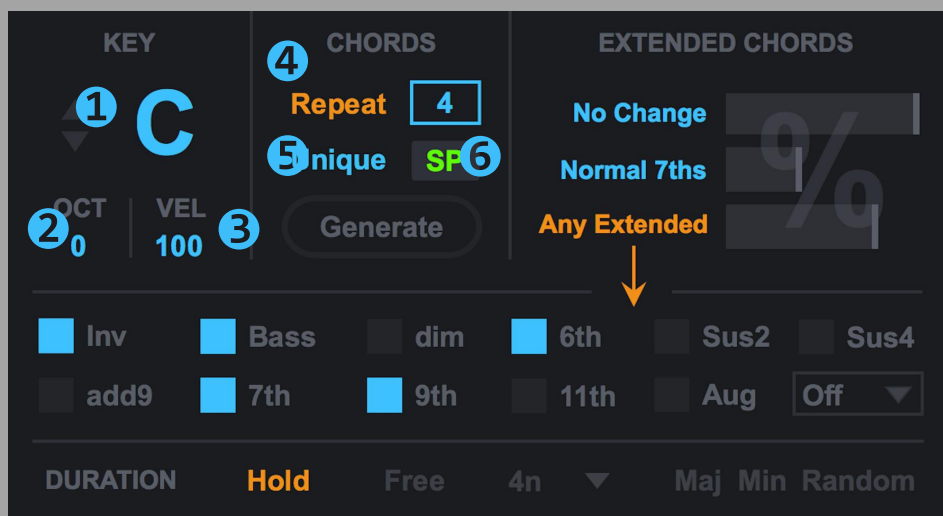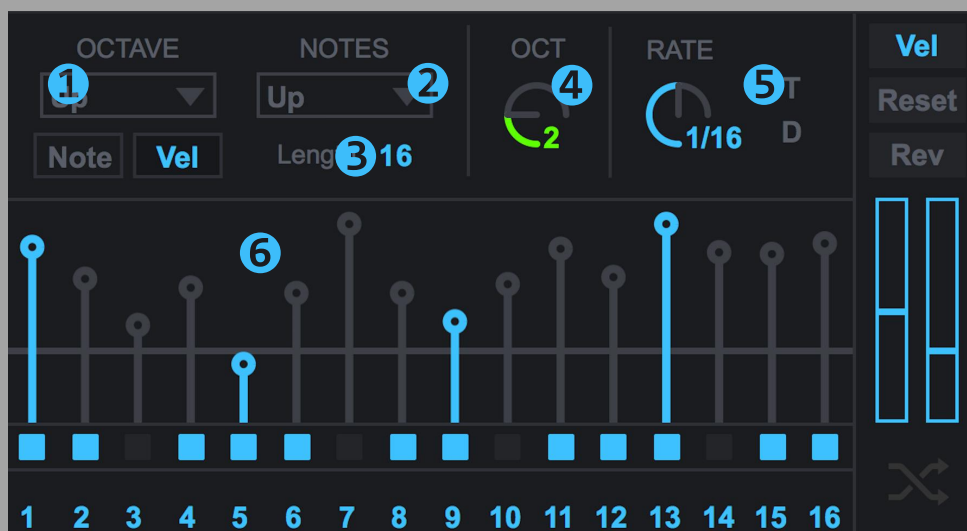
❶ **Generate**

If repeat is active, clicking generate will create a new sequence of chords to be used as the sequencer runs. If repeat is not active, chords are generated whenever the shape sequencer triggers one. Unique is not available without repeat.

❷ **Extended Chords**

Use the probability sliders to select the chance of extended chords being generated. No change will leave the chord unaltered. Normal 7ths will add either a dom7 or maj7 to the chord. Any Extended chord will pick randomly from any of the active options below. If a specific chord is desired such as an 11th, then setting the Any Extended slider to full and the others to to minimum and activating only 11th in the options below would ensure this. There is also a menu with more optional chords to add to the mix.

❸ **Maj/Min/Random**

If MIDI is routed through to the chord engine it is possible to specify whether the chord generated will be major, minor or random.

❹ **Hold/Free/Rate**

If hold is active, the chord is held until the next chord is triggered. If rate is active, then a user specified length (in note values) can be selected from the menu. Free will use the length of an incoming MIDI note/chord. Hold needs to be deactivated if fixed/free modes are desired.
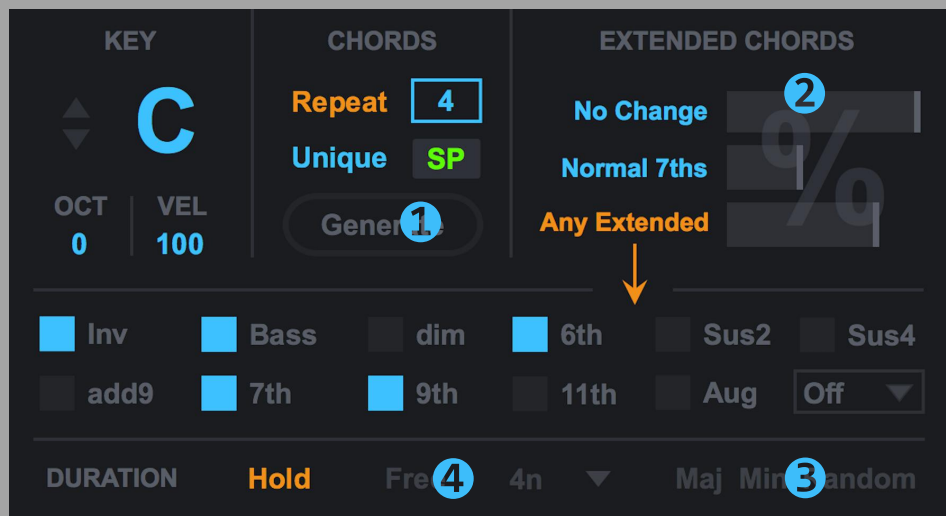
Arpeggiator

The arpeggiator turns the generated chord into a rhythmic sequence and has some special features that differ from regular arps. As the notes of a chord are fed into the arpeggiator they are organised from lowest to highest, what makes this arp so powerful is the option to reorganise the order of the notes using a slider based controller. Up to 16 notes can be fed into the arp to create complex riffs over a range of 4 octaves. The velocity sequencer is the heart of the arp and is particularly powerful when used with instruments that have velocity sensitive controls.

❶ **Octave**
Specify the direction the octaves will move in (if more than 1 octave is selected) Choose from **Up/Down/UpDown/Random**

❷ **Notes**
Specify the direction the notes will move in (unless re-ordered by note sequencer) choose from **Up/Down/UpDown/Random**

❸ **Length**
Set the length the of the velocity sequencer between 1-32. Using for example a 16 step sequencer for velocity can create a more structured rhythm while notes are being generated.

❹ **Oct**
Set the range at which the arp will generate notes. If set to 2 and octave/note direction is set to 'up' notes will be generated firstly in the lowest octave then then the next one up.

❺ **Rate**
Set the rate at which the arpeggiator will run. Triplets and Dotted notes are also available.

❻ **Velocity Sequencer**
Set the velocity for each step of the sequencer. Mute options for each step are also available below. Each slider can be controlled by the touch strip on Push if it is in 'Arp' mode.

❶ Note Order

The numbers display the current ordering of notes being generated by the arp. If a chord contains 4 notes, only the first 4 numbers will light up indicating their activity. Up to 16 notes can be sent into the arp as part of a chord. Dragging up and down on the numbers will re order the notes. This can be particularly useful to repeat notes and create variations of the incoming notes. A second display mode offers a larger slider controller instead of using the numbers, this can be activated by pressing the 'Note/Vel' switch towards the top.

❷ Vel

Activates the velocity sequencer, all notes being generated will use the velocity values set in the sequencer. If de-activated the original velocity of the incoming MIDI will be used, internal or external.

❸ Reset

If active the sequencer will restart each time a new chord is received.

❹ Rev

If active the velocity sequencer will run in reverse.

❺ Velocity Dynamics

The right slider sets a threshold within the velocity sequencer, any velocity values above the threshold will be increased if the left slider is dragged up and any values below threshold will be reduced creating a larger range between the values. Pulling the left slider down instead causes velocity values to be inverted. This can present interesting variations of velocity sequences.

❻ View

Switch the main arp display between the velocity sequencer and the note order controller.

❼ Random

Press to randomise the note order and the settings of the velocity sequencer.
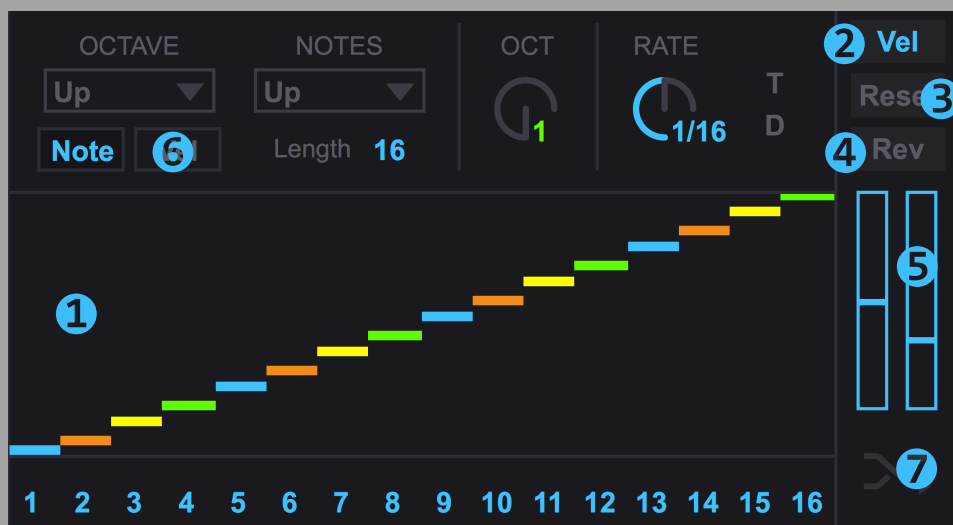
Push 1 Controls

Make sure to load the 'Tetriq(Push1).amxd'. This version has been specially modified to work with Ableton Push 1 for complete hands on control. Once you have selected 'Push' from the control surface menu, you should see a green light next to the menu, if you see a red light, it means the incorrect control surface has been selected for this version of Tetriq.

8x8 Pads

❶

In Sequencer mode: Use the pads to generate a shape for the currently selected instance (1-8). Pressing pads after a shape has been generated will re-generate that shape in the new position. If 'Random' is selected for the shape, each new press will trigger a randomly generated shape. The shape sequencer will be displayed on the 8x8 pads.

In Arpeggiator mode: The pads now control the arpeggiator. The top four rows of pads are used to select the velocity steps of the arp (1-32). When a step is selected use scene launch buttons to set velocity for that step (0-127). You can also use the touch strip for more accurate settings.
The bottom four rows control the note order. The middle two rows select which note to control (1-16) and the bottom two rows set the order of that note (1-16).

Shape Instance Select

❷

Use either the top row of track state buttons or the side column of scene launch buttons to select which shape instance should be controlled (1-8).

Note Mode

❸

Pressing note mode toggles between Sequencer and Arp view on Push.

Shift (held down)

❹

- In Arp mode, shift switches the touch strip to control the velocity dynamics slider.
- In Arp mode, shift switches the 32 velocity step select buttons to step mutes, allowing you to mute/unmute specific steps.
- In Shape Sequencer mode, shift switches the arrow buttons to control the direction of the currently selected shape.
- In Shape Sequencer mode, holding shift and pressing any of the 8x8 pads will rotate the currently selected shape.

❺ **Arrow Buttons**

Initially the arrow buttons control the left and right nudge control for the selected shape allowing you shift shapes as they fall. Holding shift switches the arrow buttons so that they control the direction of the currently selected shape.

❻ **Device Controls**

Additional controls can be accessed via the 8 encoders and display screen on Push2. Select the Tetriq device on Push, then press the top button again to see the 6 banks of controls:

Bank 1 – Shape controls for the selected shape instance.
Bank 2 – Chord controls
Bank 3 – Chord controls
Bank 4 – Arpeggiator controls
Bank 5 – Arpeggiator controls

❼ **Touch Strip**

When in Arp mode, the touch strip will control the velocity of the currently selected step of the velocity sequencer. Holding shift switches the touch strip to control the velocity dynamics slider.

Push Controls

Switching between tracks and between session mode and note mode work as normal when using Push to control Tetriq. Some of the regular controls on Push are disabled when using Tetriq.

Push 2 Controls

Make sure to load the 'Tetriq(Push2).amxd'. This version has been specially modified to work with Ableton Push 2 for complete hands on control. Once you have selected 'Push2' from the control surface menu, you should see a green light next to the menu, if you see a red light, it means the incorrect control surface has been selected for this version of Tetriq.

❶
8x8 Pads

In Sequencer mode: Use the pads to generate a shape for the currently selected instance (1-8). Pressing pads after a shape has been generated will re-generate that shape in the new position. If 'Random' is selected for the shape, each new press will trigger a randomly generated shape. The shape sequencer will be displayed on the 8x8 pads.

In Arpeggiator mode: The pads now control the arpeggiator. The top four rows of pads are used to select the velocity steps of the arp (1-32). When a step is selected use scene launch buttons to set velocity for that step (0-127). You can also use the touch strip for more accurate settings.

The bottom four rows control the note order. The middle two rows select which note to control (1-16) and the bottom two rows set the order of that note (1-16).

❷
Shape Instance Select

Use either the top row of track state buttons or the side column of scene launch buttons to select which shape instance should be controlled (1-8).

❸
Note Mode

Pressing note mode toggles between Sequencer and Arp view on Push 2.

❹
Shift (held down)

- In Arp mode, shift switches the touch strip to control the velocity dynamics slider.
- In Arp mode, shift switches the 32 velocity step select buttons to step mutes, allowing you to mute/unmute specific steps.
- In Shape Sequencer mode, shift switches the arrow buttons to control the direction of the currently selected shape.
- In Shape Sequencer mode, holding shift and pressing any of the 8x8 pads will rotate the currently selected shape.

❺
Arrow Buttons

Initially the arrow buttons control the left and right nudge control for the selected shape allowing you shift shapes as they fall. Holding shift switches the arrow buttons so that they control the direction of the currently selected shape.

Device Controls

❻ Additional controls can be accessed via the 8 encoders and display screen on Push2. Select the Tetriq device on Push, then press the top button again to see the 6 banks of controls:

Bank 1 – Shape controls for the selected shape instance.
Bank 2 – Chord controls
Bank 3 – Chord controls
Bank 4 – Arpeggiator controls
Bank 5 – Arpeggiator controls

Touch Strip

❼ When in Arp mode, the touch strip will control the velocity of the currently selected step of the velocity sequencer. Holding shift switches the touch strip to control the velocity dynamics slider.

Push 2 Controls

Switching between tracks and between session mode and note mode work as normal when using Push 2 to control Tetriq. Some of the regular controls on Push 2 are disabled when using Tetriq.

Launchpad Mk1 Controls

Make sure to load the 'Tetriq(Launchpad Mk1).amxd'. This version has been specially modified to work with Launchpad Mk1 for complete hands on control. Once you have selected 'Launchpad' from the control surface menu, you should see a green light next to the menu, if you see a red light, it means the incorrect control surface has been selected for this version of Tetriq. To use the Launchpad select 'User 2' mode

8x8 Pads

❶ **In Sequencer mode:** Use the pads to generate a shape for the currently selected instance (1-8). Pressing pads after a shape has been generated will re-generate that shape in the new position. If 'Random' is selected for the shape, each new press will trigger a randomly generated shape. The shape sequencer will be displayed on the 8x8 pads.

In Arpeggiator mode: The pads now control the arpeggiator. The top four rows of pads are used to select the velocity steps of the arp (1-32). When a step is selected use scene launch buttons to set velocity for that step (0-127). You can also use the touch strip for more accurate settings.
The bottom four rows control the note order. The middle two rows select which note to control (1-16) and the bottom two rows set the order of that note (1-16).

Shape Instance Select

❷ Use the side column of scene launch buttons to select which shape instance should be controlled (1-8).

User 2 (held down)

❸
- In either mode, holding User 2 button changes the right side buttons (Volume and Pan) to Shape Sequencer/Arp view select switches respectively allowing you to switch between the two different views from the controller.
- In Arp mode, User 2 switches the 32 velocity step select buttons to step mutes, allowing you to mute/unmute specific steps.
- In Shape Sequencer mode, User 2 switches the arrow buttons to control the direction of the currently selected shape.
- In Shape Sequencer mode, holding User 2 and pressing any of the 8x8 pads will rotate the currently selected shape.

Arrow Buttons

❹ Initially the arrow buttons control the left and right nudge control for the selected shape allowing you shift shapes as they fall. Holding shift switches the arrow buttons so that they control the direction of the currently selected shape.

Launchpad Mk1 Controls

Switching between tracks and between different Launchpad modes work as normal when using Launchpad to control Tetriq.
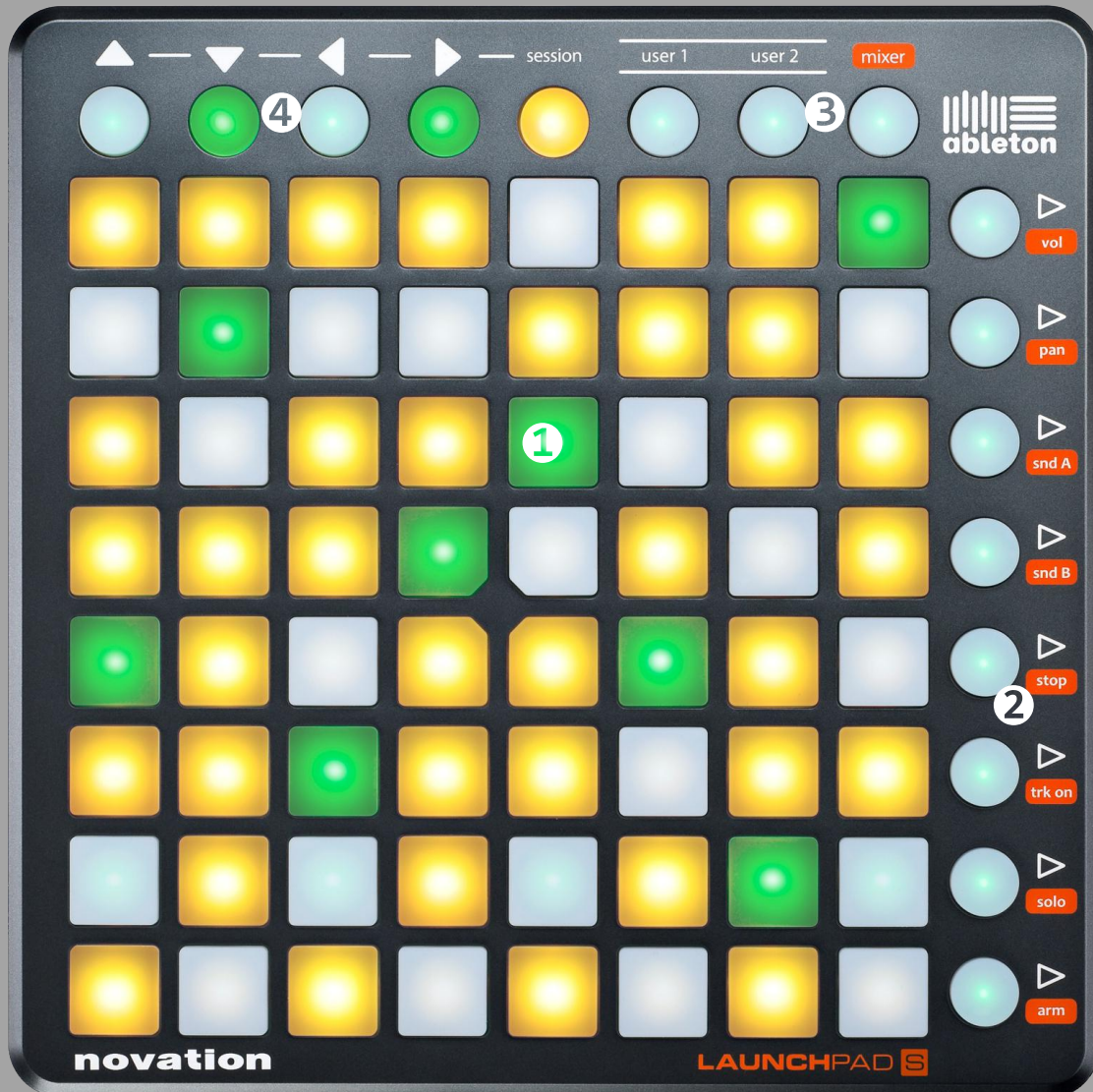
Launchpad Pro Controls

Make sure to load the 'Tetriq(Launchpad_Pro).amxd'. This version has been specially modified to work with Novation Launchpad Pro for complete hands on control. Once you have selected 'Launchpad Pro' from the control surface menu, you should see a green light next to the menu, if you see a red light, it means the incorrect control surface has been selected for this version of Tetriq. To use the Launchpad select 'User' mode, the User button should turn orange when the device is in use. The bottom row of Mixer Buttons function as normal.

❶
8x8 Pads

In Sequencer mode: Use the pads to generate a shape for the currently selected instance (1-8). Pressing pads after a shape has been generated will re-generate that shape in the new position. If 'Random' is selected for the shape, each new press will trigger a randomly generated shape. The shape sequencer will be displayed on the 8x8 pads.

In Arpeggiator mode: The pads now control the arpeggiator. The top four rows of pads are used to select the velocity steps of the arp (1-32). When a step is selected use scene launch buttons to set velocity for that step (0-127). You can also use the touch strip for more accurate settings.

The bottom four rows control the note order. The middle two rows select which note to control (1-16) and the bottom two rows set the order of that note (1-16).

❷
Shape Instance Select

Use the side column of scene launch buttons to select which shape instance should be controlled (1-8).

❸
User Button

Pressing User when using Tetriq toggles between Sequencer and Arp view on Launchpad Pro.

❹
Shift (held down)

- In Arp mode, shift switches the 32 velocity step select buttons to step mutes, allowing you to mute/unmute specific steps.
- In Shape Sequencer mode, shift switches the arrow buttons to control the direction of the currently selected shape.
- In Shape Sequencer mode, holding shift and pressing any of the 8x8 pads will rotate the currently selected shape.

❺
Arrow Buttons

Initially the arrow buttons control the left and right nudge control for the selected shape allowing you shift shapes as they fall. Holding shift switches the arrow buttons so that they control the direction of the currently selected shape.

Launchpad Pro Controls

Switching between tracks and between different modes work as normal when using Launchpad Pro to control Tetriq

Launchpad Mk2 Controls

Make sure to load the 'Tetriq(Launchpad Mk2).amxd'. This version has been specially modified to work with Launchpad Mk2 for complete hands on control. Once you have selected 'Launchpad MK2' from the control surface menu, you should see a green light next to the menu, if you see a red light, it means the incorrect control surface has been selected for this version of Tetriq. To use the Launchpad select 'User 2' mode

❶

8x8 Pads

In Sequencer mode: Use the pads to generate a shape for the currently selected instance (1-8). Pressing pads after a shape has been generated will re-generate that shape in the new position. If 'Random' is selected for the shape, each new press will trigger a randomly generated shape. The shape sequencer will be displayed on the 8x8 pads.

In Arpeggiator mode: The pads now control the arpeggiator. The top four rows of pads are used to select the velocity steps of the arp (1-32). When a step is selected use scene launch buttons to set velocity for that step (0-127). You can also use the touch strip for more accurate settings.

The bottom four rows control the note order. The middle two rows select which note to control (1-16) and the bottom two rows set the order of that note (1-16).

❷

Shape Instance Select

Use the side column of scene launch buttons to select which shape instance should be controlled (1-8).

❸

User 2 (held down)

- In either mode, holding User 2 button changes the right side buttons (Volume and Pan) to Shape Sequencer/Arp view select switches respectively allowing you to switch between the two different views from the controller.
- In Arp mode, User 2 switches the 32 velocity step select buttons to step mutes, allowing you to mute/unmute specific steps.
- In Shape Sequencer mode, User 2 switches the arrow buttons to control the direction of the currently selected shape.
- In Shape Sequencer mode, holding User 2 and pressing any of the 8x8 pads will rotate the currently selected shape.

❹

Arrow Buttons

Initially the arrow buttons control the left and right nudge control for the selected shape allowing you shift shapes as they fall. Holding shift switches the arrow buttons so that they control the direction of the currently selected shape.

Launchpad Mk2 Controls

Switching between tracks and between different Launchpad modes work as
normal when using Launchpad to control Tetriq.