SPACE INVADERS

COMPATIBLE WITH:
PUSH
LAUNCHPAD
MASCHINE JAM

ARCADE SERIES

ISOTONIK
STUDIOS

SPACE INVADERS

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…

Space Invaders is a rotating pulse generator designed specifically for triggering drum machines and is inspired by the classic arcade game. The device is fully compatible and controllable with 8x8 grid based controllers (Push, Launchpad and Machine Jam)
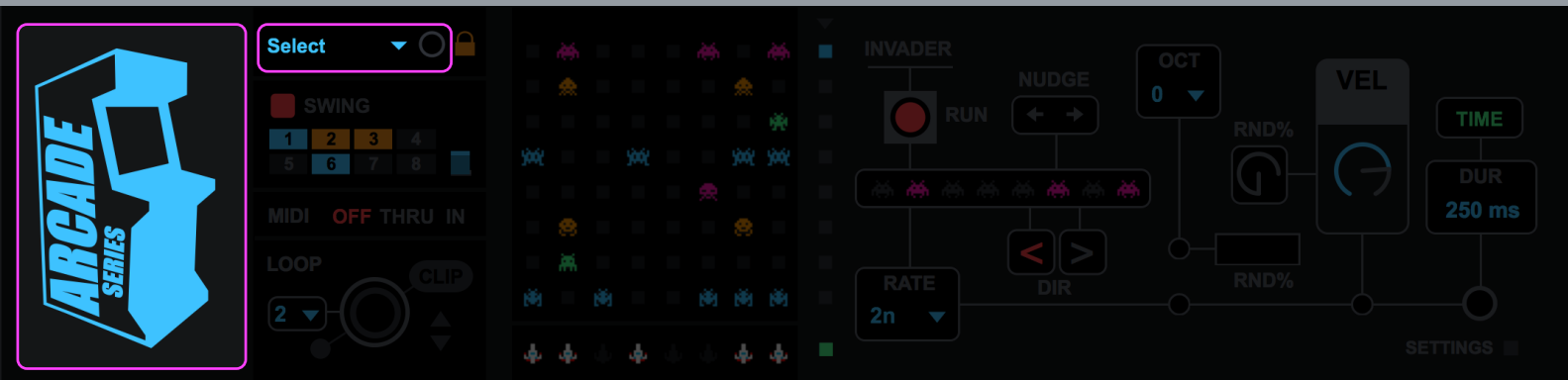
GLOBAL SETTINGS

Control Surface Active

When the control surface is selected in the menu, the arcade activator button will become active turning blue taking control of the control surface's 8x8 pad grid. Switching tracks, devices or modes in Live will resume usual behaviour until selecting this device again. Switching the activate button off will resume usual behaviour of the control surface whilst keeping the device running in the background.

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. Each supported control surface has its own dedicated Space Invaders device.
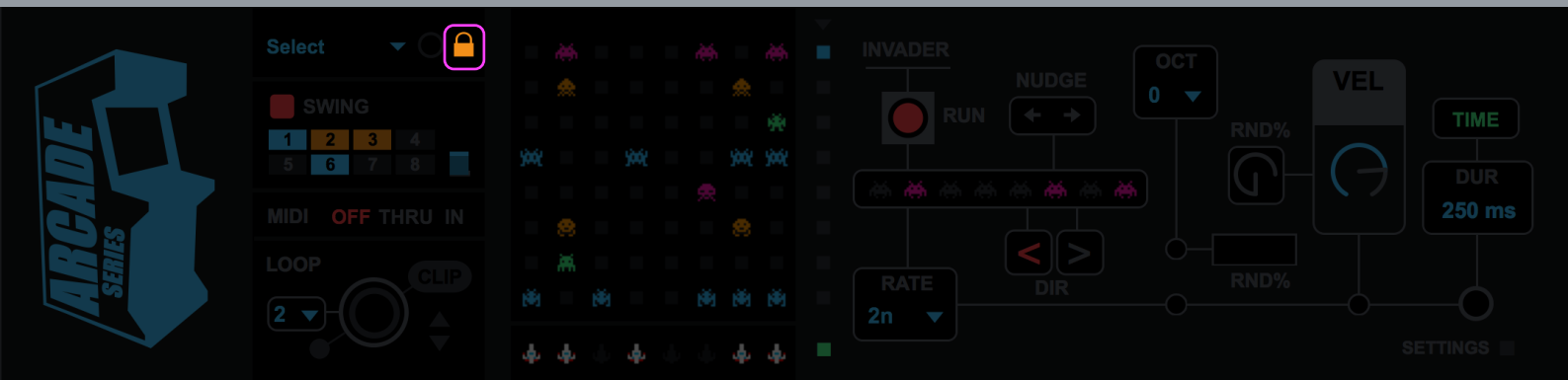
GLOBAL SETTINGS

Activating the device lock will lock the control surface to the device. This means that switching track or device selection will not affect the 8x8 pad grid which will still display and control Space Invaders. This allows you to have multiple control surfaces being used with multiple Arcade devices.

Nb. this feature only works with Arcade devices and has not been tested with other Max for Live devices that make use of a control surfaces 8x8 grid matrix.
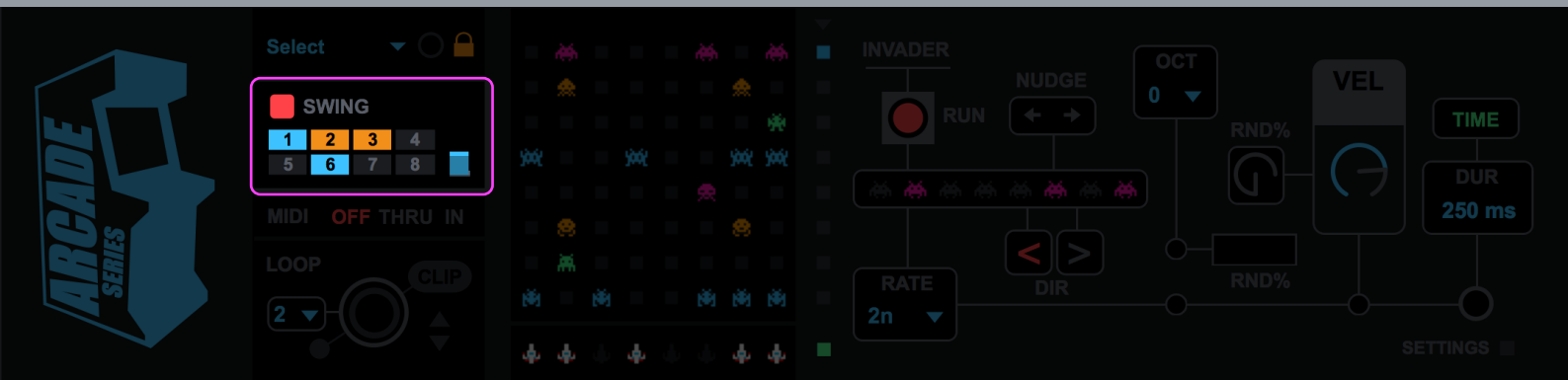
GLOBAL SETTINGS

Swing

The swing panel provides a quick and easy way to control the swing settings of all 8 sequencer engines of Space Invaders. Use the top power button (red) to activate/deactivate swing globally. Then use the individual power buttons (blue) to activate/deactivate swing for each sequencer engine 1-8. Use the bottom slider to choose how much swing is applied. All the way left results in no swing, all the way right results in maximum swing.

Swing is only applied to sequencer engines which have rate settings of 8th, 16th or 32nd notes. If a sequencer is not set to any of these rate values, swing for that sequencer will be bypassed and the individual power button will turn orange.
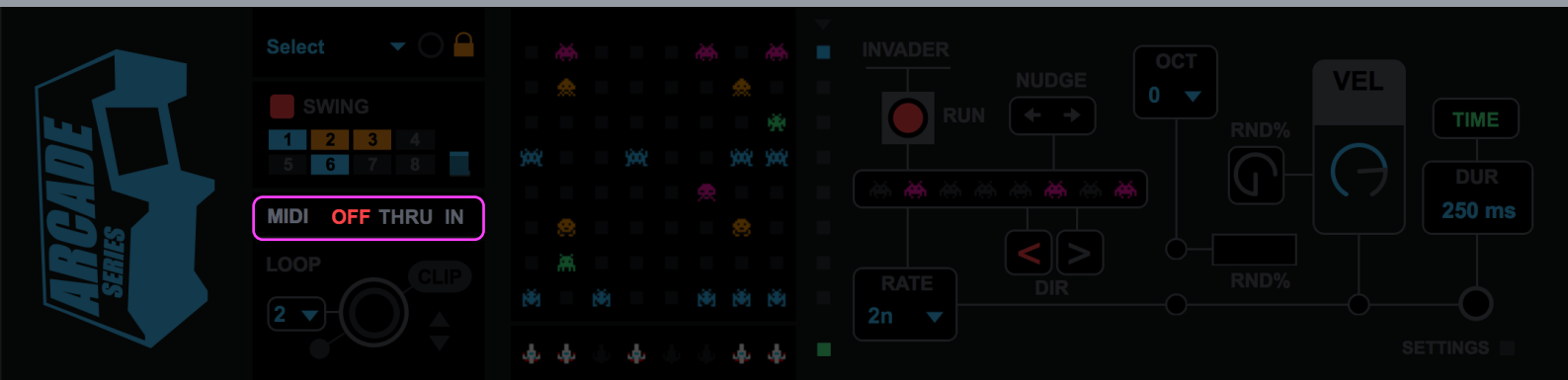
GLOBAL SETTINGS

Using the MIDI panel, it is possible to route MIDI data coming from a clip or control surface in and out of the device:

OFF = Any MIDI data coming into the device from a clip or control surface is terminated at the input stage of the device having no effect on it.

THRU = Any MIDI data coming into the device from a clip or control surface is sent to the output stage along with any MIDI data generated by the device.

IN = Any MIDI notes coming into the device will change the root note of the selected scale (C - B) Octaves are ignored as these are specific to each ball sequencer engine.
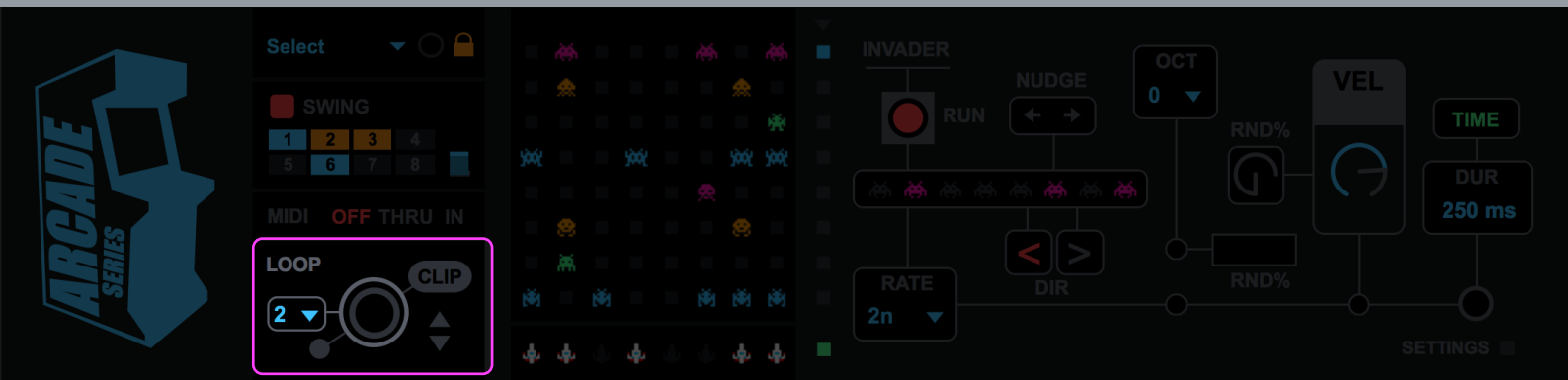
GLOBAL SETTINGS

Looper

The MIDI looper allows for real-time capture of all note data being generated by the device. This can be useful for capturing elements to be used in composition or to loop segments in live performance.

Length = determines the length of the next recorded loop 1/2/4/8 bars are available. These options are related to the time signature settings in the current Live set, so if the time signature is set to 3/4 a setting of 1 bar in the looper will record a single bar in 3/4.

Record/Playback = press to start recording a loop. The looper will wait until the next bar to begin recording and turn red. Once a loop has recorded (at the current length) the loop will automatically playback turning green. This means the device is now outputting the recorded MIDI loop and not the internal device sequencer system which will run silent in the background. Press the record/playback button again to record a new loop, this will immediately continue playback of the internal device sequencer system, bypass the previously recorded loop and wait for the next

GLOBAL SETTINGS

Looper

Stop = at anytime stop can be pressed which will either stop recording a loop or stop playback of a recorded loop and return to the internal device sequencer system.

Create Clip = Any loop that has been recorded is stored in a temporary buffer and can be exported as a MIDI clip on the track containing the device. Pressing this button will create a clip in the selected clip slot.

Clip slot navigation = use the up/down arrows to navigate clip slots on the track containing the device. Clips can only be created by the device in empty clip slots!
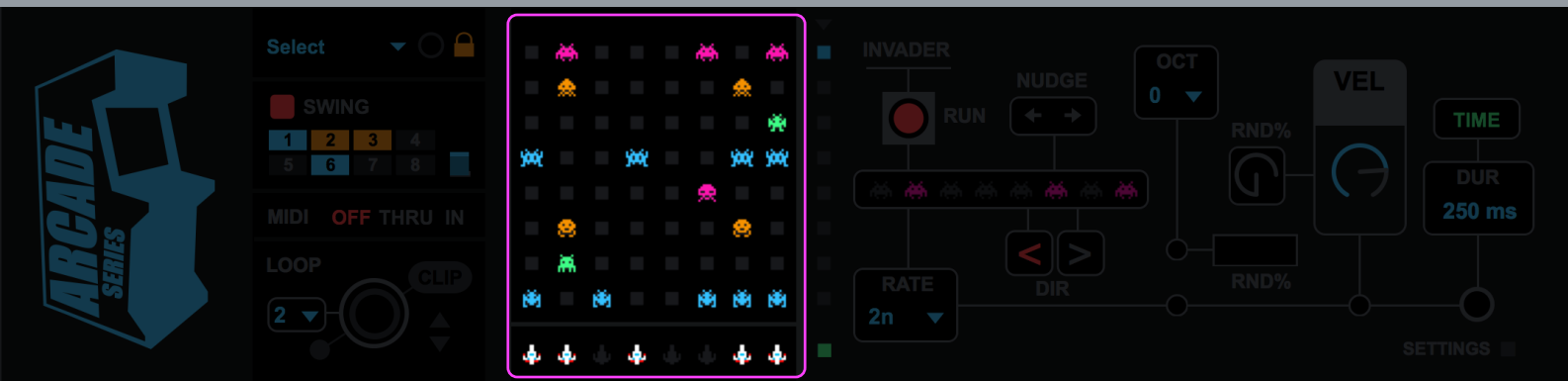
GRID INTERFACE

Grid User Interface

The grid interface is the primary way to interact with Space Invaders. Both control surface 8x8 button grids and mouse clicks can be used to control the UI.

Independent patterns/rows of 'Invaders' are set up in the separate invader engines to the right. These patterns can be static or moving from left to right and have their own parameters which effect note generation.

Lazers are triggered by the ships at the bottom of the grid. Once turned on, each ship will fire a single lazer at a user specified rate (in the settings panel). When a laser hits an invader, a note is triggered. The lazer cycle is repeated until the ship is turned off. Clicking anywhere on the 8x8 grid starts/re-starts a lazer to fire from that location.

GRID INTERFACE

Although working in a 8x8 grid may seem limited, the unique way that Space Invaders works by rotating both the trigger and the step pattern allows for more complex rhythms that change over time.
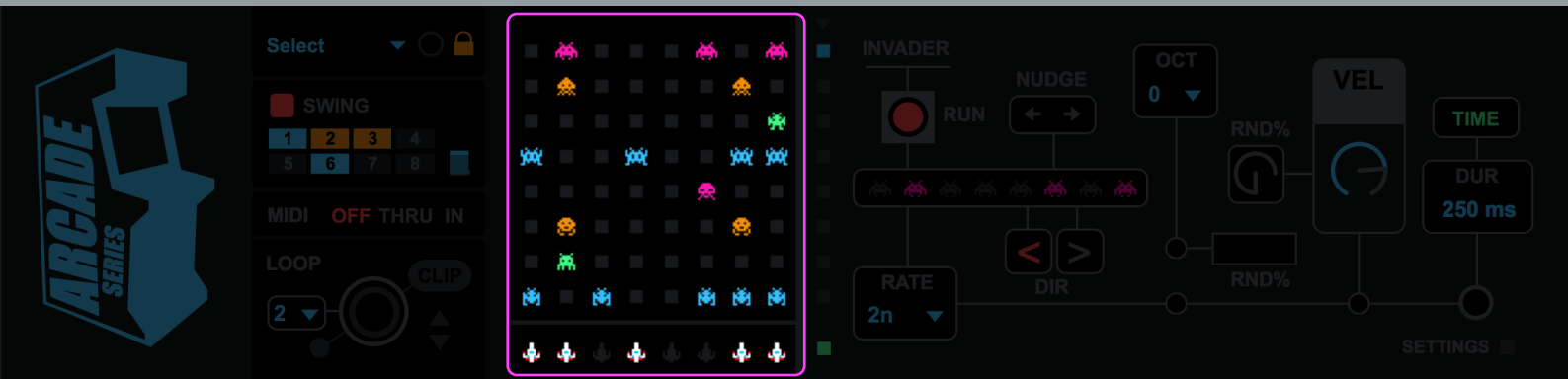
INVADER ENGINES

Engine Selector

In the default (blue) mode, this panel allows you to select an Invader Engine for editing.

If 'settings' is clicked (the settings/cog symbol) the panel instead shows which of the invader engines are running (red) and which are static (grey).
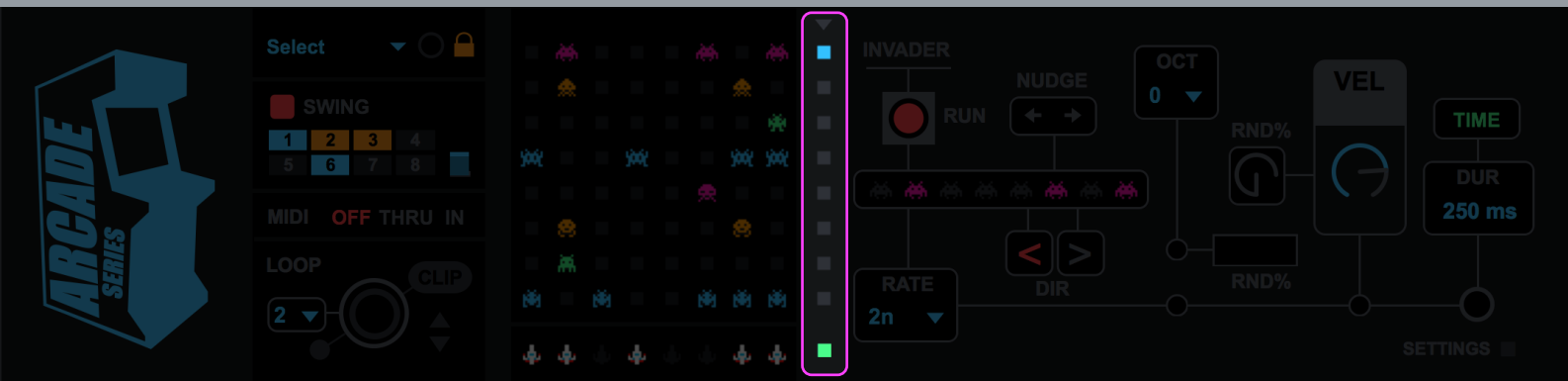
With settings still selected, the grid UI will now allow editing of invader patterns directly on the 8x8 grid instead of triggering lazers.

Presets

Select a preset to get started.

Expand (Green Button)

Click to expand/collapse the sequencer/global controls.

INVADER ENGINES

Each of the 8 invader engines have their own dedicated settings allowing for varied and complex note generation.

Run = *if 'on' the selected pattern will move at a specified rate and direction.*

Pattern = *use this panel to create a pattern for the selected engine. Engines need to be stopped to allow editing!*

Nudge = *shift an invader engine one step left or right.*

Direction = *set the direction an invader patter will move in.*

Rate = *set the rate at which an invader patter will run in (synchronised to Live's BPM). Both invaders and lazers can have their own independent rate which effects the chance of them hitting and generating notes.*
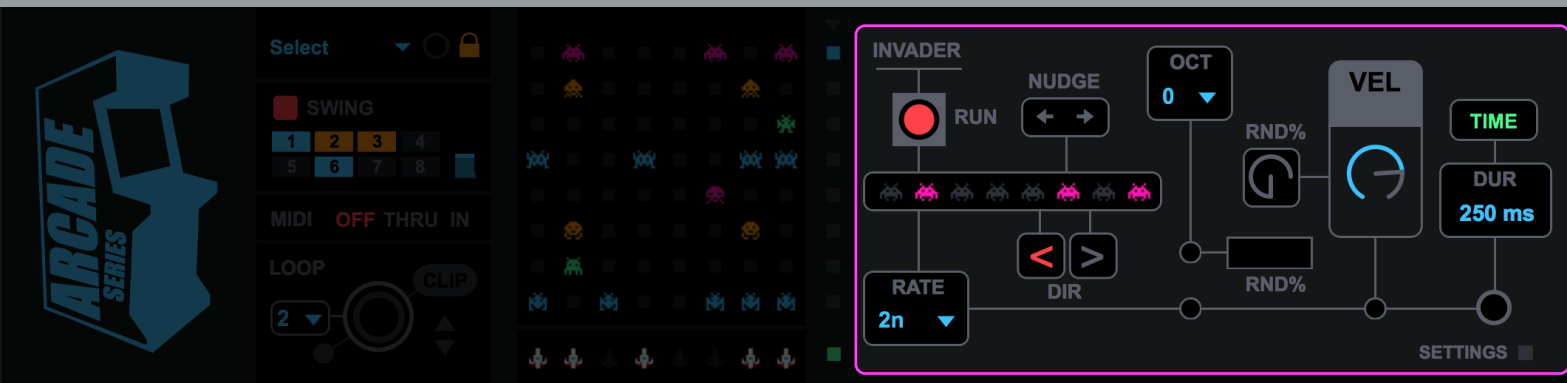
INVADER ENGINES

Octave = *if the device is set to 'Scale' mode (see settings) note octaves can be transposed.*

Random = *if the device is set to 'Scale' mode (see settings) pitch can be randomised with each trigger.*

**Velocity** = *set the velocity for any notes generated by this invader engine.*

Random = *controls the amount by which the velocity of each note will be randomised.*

Duration Mode = *Toggles the duration mode of notes being generated by this row.*

TIME = *milliseconds*

SYNC = *note divisions synchronised to Live's BPM.*

Note Duration = *Sets the duration of notes generated by this row in either milliseconds or BPM synchronised note divisions.*
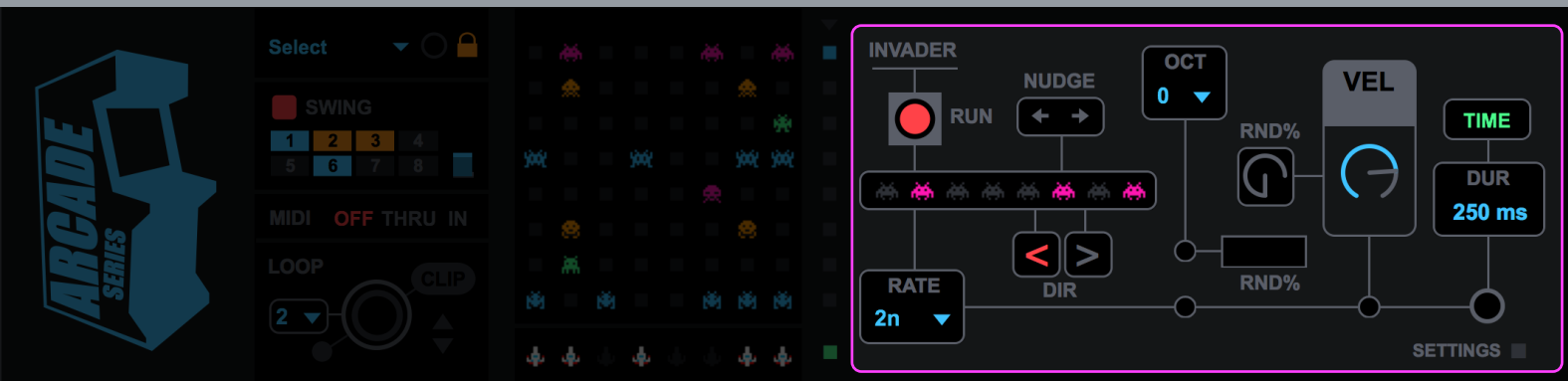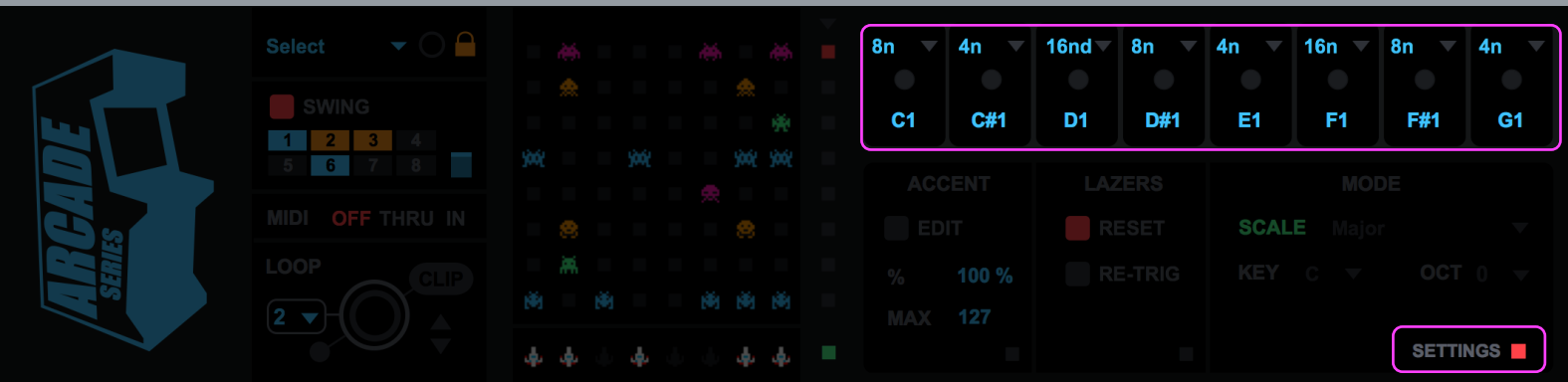
LAZER SETTINGS/GLOBAL

The settings panel allows for control of each lazer's rate and note triggering.

Settings = Click to view the global settings.

Rate = set the rate at which a lazer will run (synchronised to Live's BPM). Both invaders and lazers can have their own independent rate which effects the chance of them hitting and generating notes.

Note = set the pitch of the note to be triggered by lazers 1-8. If in 'Scale' mode the pitch value changes to a slider and is scaled to fit within a user selected scale.

LAZER SETTINGS/GLOBAL

Accent

Edit = if turned 'on' the 8x8 UI grid can be used to add/remove accent triggers. This is also applied if using a control surface.
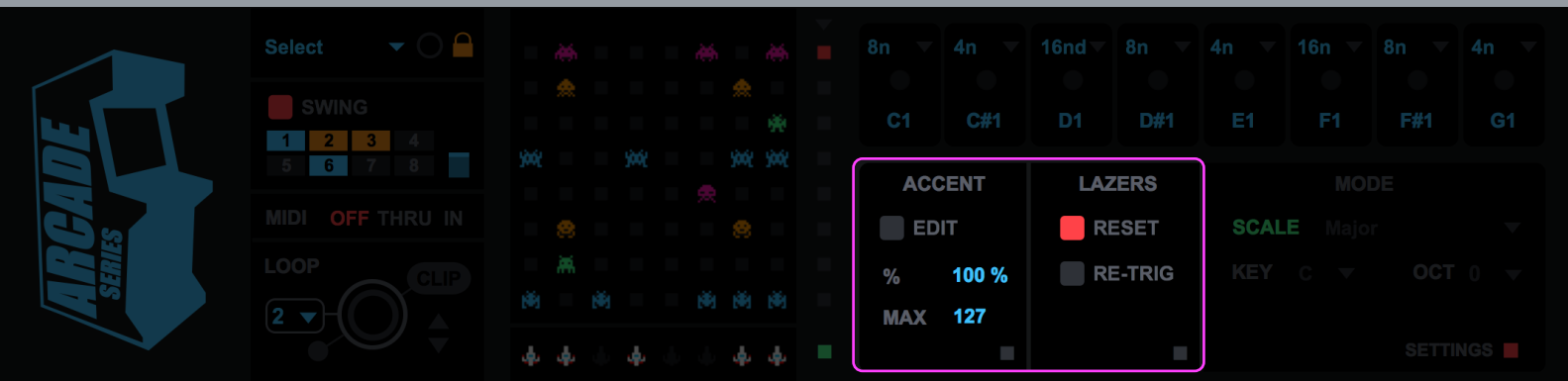
Accent Amount (%) = select the amount of accent applied to the velocity of accent notes.

Accent Max = Set an upper limit for the accent applied to accent notes.

Reset

On = Sequences will begin at their initial starting point following a stop/start in Live.

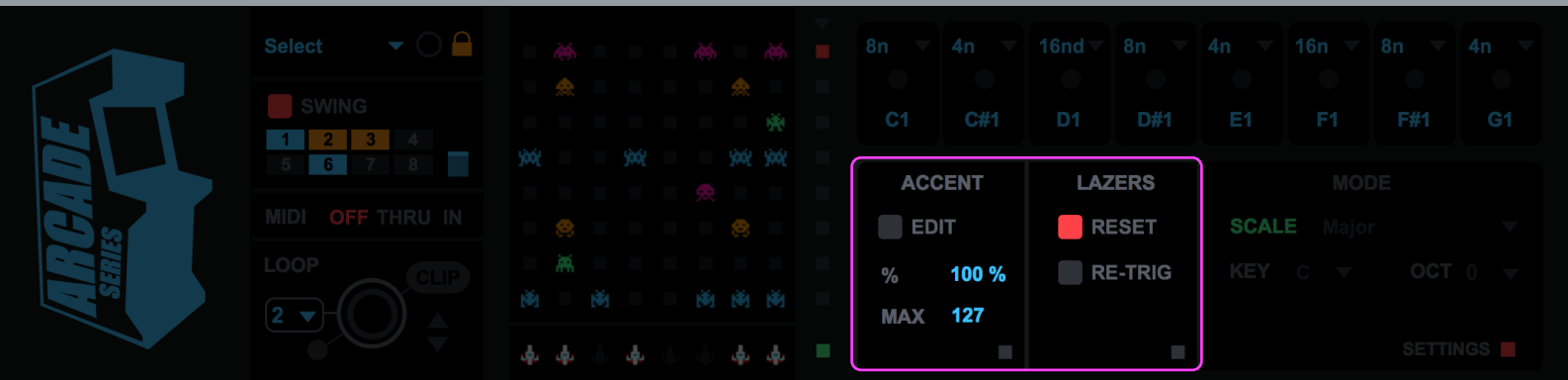**Off** = Sequences will resume from their last location following a stop/start in Live.

LAZER SETTINGS/GLOBAL

Re-trig

On = *Lazers are re-triggered from the selected location with each press/click.*

Off = *Lazer sequences will start and stop (toggle) with each press/ click.*

LAZER SETTINGS/GLOBAL

Scale Mode = If turned on (green sliders), any triggered notes will conform to a specified scale. This is useful if you intend on using the device with tuned instruments. If turned off (blue number boxes) the device will operate in 'drum mode' only triggering the specified note.

Scale = Select a scale for the note output of the device. Any notes being generated will be forced into the selected scale.

Key = Select a root key for the scale to operate in.

Octave Transpose = Transpose the octave of all notes being generated by a specified amount.
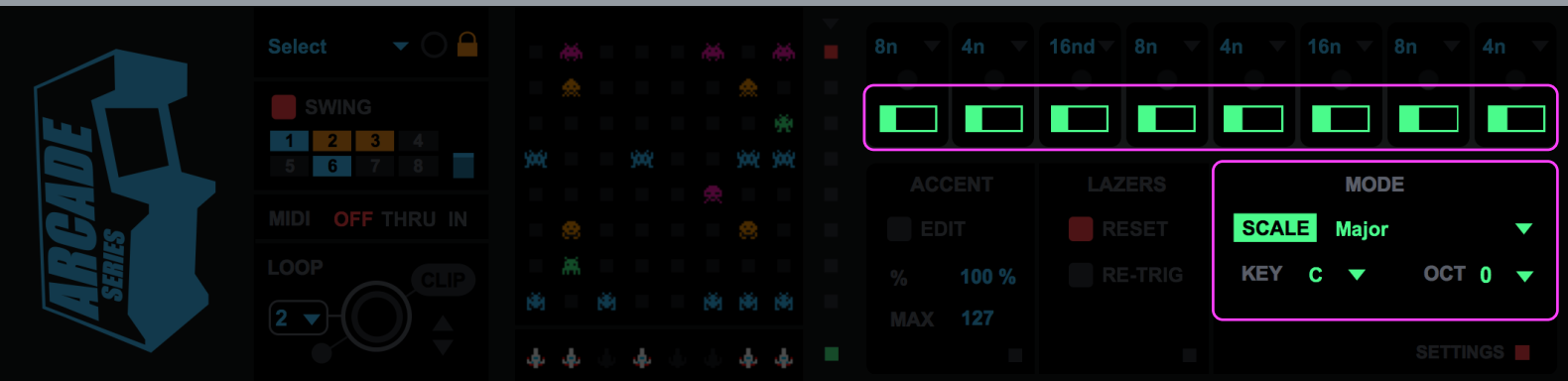
CONTROL SURFACE

Space Invaders is compatible with the following control surfaces:

Push 1, Push 2, Launchpad Mk1, Launchpad Mk2, Launchpad Pro, Maschine Jam

Controls

8x8 Pad Matrix

In default mode, the pads are used to trigger lasers. Lasers can be triggered from any location on the grid. Lasers can be re-triggered or toggled (see global parameters).

*If settings mode is active (**Shift**) the 8x8 pads are used to edit the invader patterns. (Patterns need to be stopped to be edited)*

Scene Launch Buttons

*In default mode, buttons 1-8 are used to select one of the invader engines for editing. If settings is active (**Shift**) the buttons are used to turn on/off an invaders run sequence.*

Shift

(Shift on Push1, Push 2, Launchpad Pro)

(User 2 on Launchpad Mk1, Mk2)

(Select on Maschine Jam)

Please see the video tutorials at:

https://vimeopro.com/isotonikstudios/arcade-series-returns