

# Nemo

..the Storyboard guide

**Nemo** is a high-end hardware MIDI step sequencer, adding portability to the highly acclaimed functionality and user friendliness of the genoQs Octopus. It is in many ways an Octopus in disguise, and one that feels equally well in a backpack or on your lap!

It features the same **sequencing lighthouse features** that Octopus users have enjoyed for years, including polyphonic steps, self-modulating and cross-modulating sequences, freely editable musical scales, various runtime directions, full-scale MIDI recording, and much more!

Nemo's tactile and visual feedback is a **physical experience** so typical for musical instruments. Music is about your body as music is being felt, heard and played with Nemo. And the numbers behind it all.. no display? Well, do you really care? Computers love them. We love **light, color, and most of all music!**

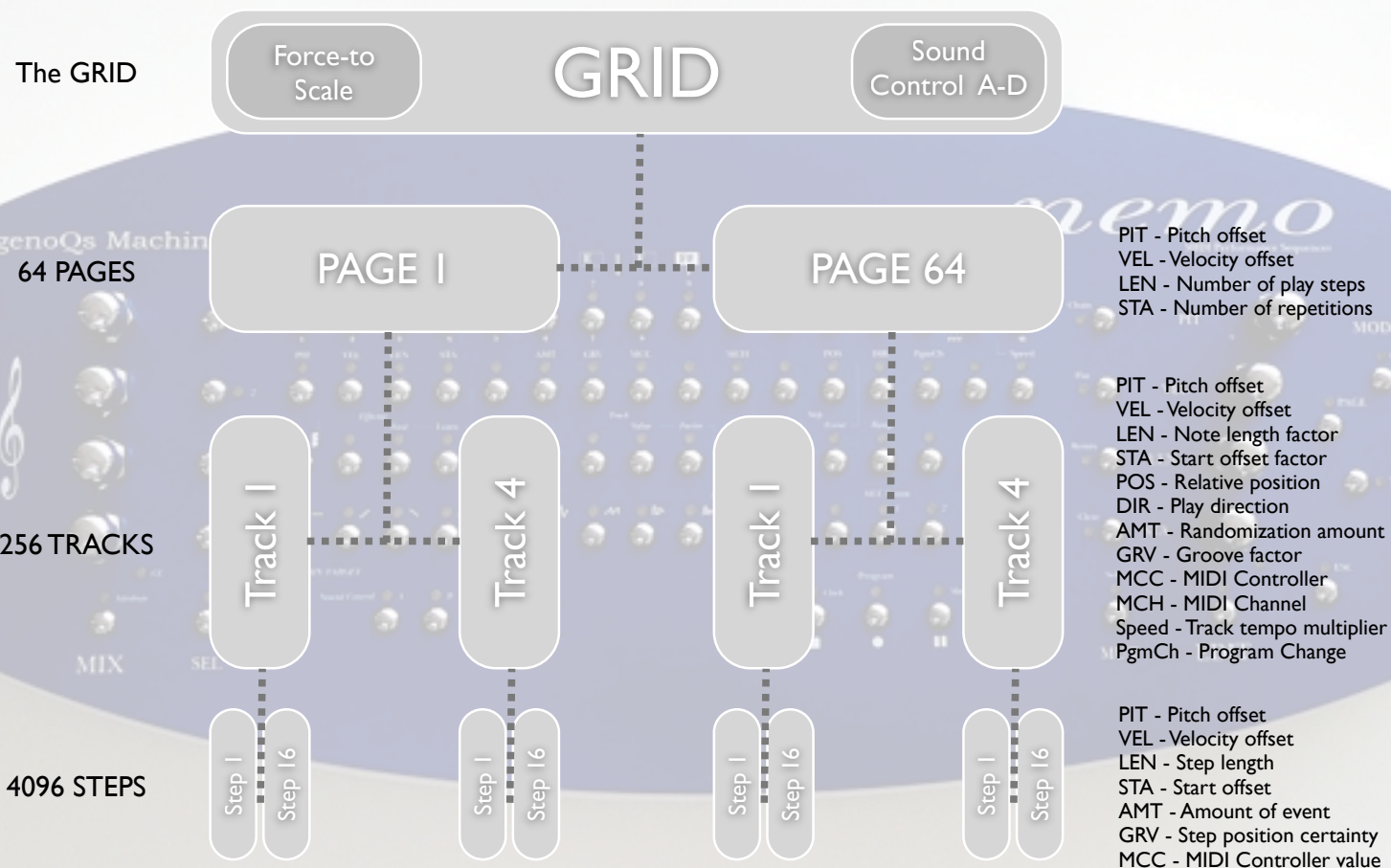


**Nemo at a glance:** \*90+ Tactile switches and 9 endless encoders for interactive access \*93 LEDs (tri-color) used to display both numeric and quantitative data \*64 pages (i.e. "patterns") \*4 tracks per page, 16 steps each \*4 concurrent pages, i.e. 16 concurrent tracks \*Page tracks freely chain-able to structures of up to 64 steps

**..and more:** \*Per track velocity, pitch, length and start factors, MIDI channel and CC \*Clock multiplier per track \*Individual runtime directions per track \*Polyphonic steps for chords or multi-trigger \*Step events for track self modulation \*Cross modulation of tracks \*MIDI note and CC recording and playback per track

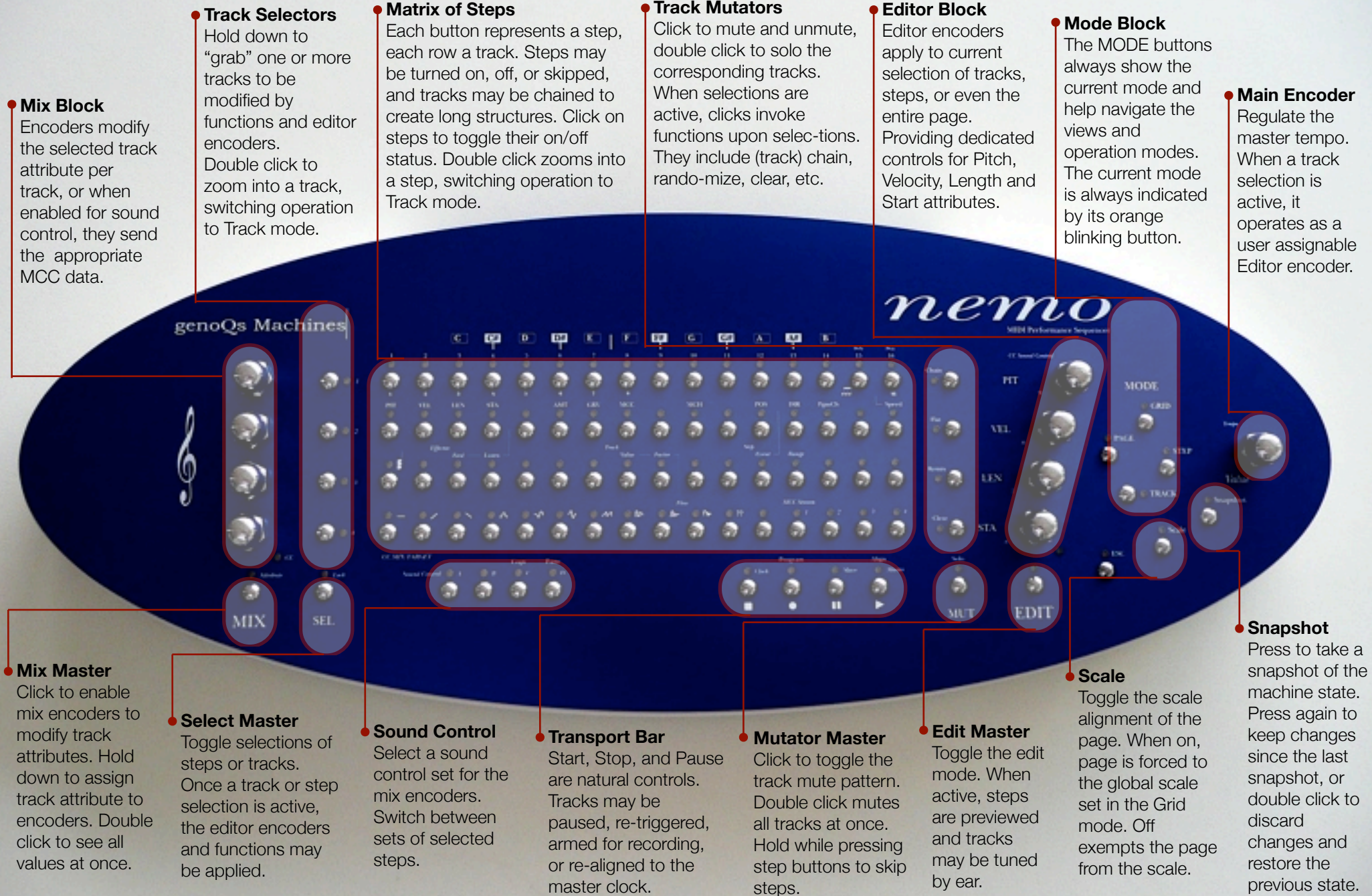
**The sequencing overlord:** \*32 MIDI channels via 2 dedicated MIDI ports \*MIDI input may be used to trigger and transpose pages \*Polyphonic sequences, steps may carry chords of up to 7 notes \*Chord strum \*MIDI clock master or slave \*OS upgrade via MIDI sysex \*Full state save to flash \*MIDI Sysex data dump capability for external archiving

# Nemo hierarchy of objects and related attributes



**Nemo object model:** The master Nemo object is the GRID, which contains PAGES, each of them containing TRACKS, which are made up of STEPS. Each of these objects is associated with attributes and functions that can operate upon them. The diagram depicts at a high level the Octopus hierarchy of objects and their related attributes.

# Nemo - PAGE mode



**Mix Block**  
Encoders modify the selected track attribute per track, or when enabled for sound control, they send the appropriate MCC data.

**Track Selectors**  
Hold down to “grab” one or more tracks to be modified by functions and editor encoders. Double click to zoom into a track, switching operation to Track mode.

**Matrix of Steps**  
Each button represents a step, each row a track. Steps may be turned on, off, or skipped, and tracks may be chained to create long structures. Click on steps to toggle their on/off status. Double click zooms into a step, switching operation to Track mode.

**Track Mutators**  
Click to mute and unmute, double click to solo the corresponding tracks. When selections are active, clicks invoke functions upon selections. They include (track) chain, randomize, clear, etc.

**Editor Block**  
Editor encoders apply to current selection of tracks, steps, or even the entire page. Providing dedicated controls for Pitch, Velocity, Length and Start attributes.

**Mode Block**  
The MODE buttons always show the current mode and help navigate the views and operation modes. The current mode is always indicated by its orange blinking button.

**Main Encoder**  
Regulate the master tempo. When a track selection is active, it operates as a user assignable Editor encoder.

**Mix Master**  
Click to enable mix encoders to modify track attributes. Hold down to assign track attribute to encoders. Double click to see all values at once.

**Select Master**  
Toggle selections of steps or tracks. Once a track or step selection is active, the editor encoders and functions may be applied.

**Sound Control**  
Select a sound control set for the mix encoders. Switch between sets of selected steps.

**Transport Bar**  
Start, Stop, and Pause are natural controls. Tracks may be paused, re-triggered, armed for recording, or re-aligned to the master clock.

**Mutator Master**  
Click to toggle the track mute pattern. Double click mutes all tracks at once. Hold while pressing step buttons to skip steps.

**Edit Master**  
Toggle the edit mode. When active, steps are previewed and tracks may be tuned by ear.

**Scale**  
Toggle the scale alignment of the page. When on, page is forced to the global scale set in the Grid mode. Off exempts the page from the scale.

**Snapshot**  
Press to take a snapshot of the machine state. Press again to keep changes since the last snapshot, or double click to discard changes and restore the previous state.

# Nemo - TRACK mode

## Mix Block

Click of the encoders selects the track to be edited into the display.

## Track Selectors

Blinking LED indicates the currently selected track. Click to select a different track into the display.

## Value Display

Display and enter track attribute or factor values such as pitch, velocity, length, start, amount, groove, CC, channel, position offset, play direction, program change and track clock multiplier.

## Attribute Selector

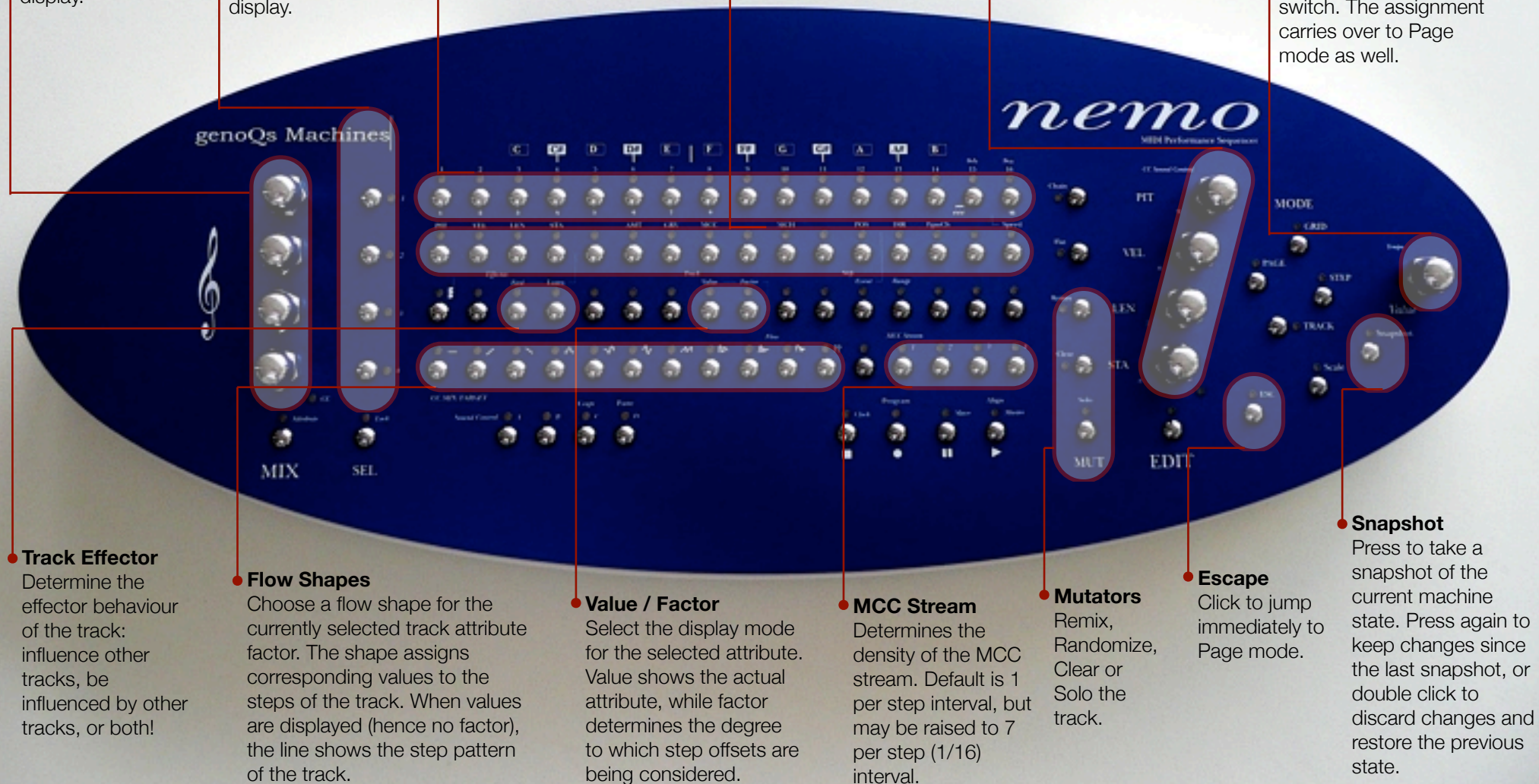
Click to select the attribute whose value is displayed and edited in the value row and using the main encoder.

## Editor Block

Editor encoders apply to the current track, providing dedicated controls for Pitch, Velocity, Length and Start attributes and factors.

## Main Encoder

The main encoder modifies the value of attributes or factors, as selected from the attribute selector and the Value / Factor switch. The assignment carries over to Page mode as well.



## Track Effector

Determine the effector behaviour of the track: influence other tracks, be influenced by other tracks, or both!

## Flow Shapes

Choose a flow shape for the currently selected track attribute or factor. The shape assigns corresponding values to the steps of the track. When values are displayed (hence no factor), the line shows the step pattern of the track.

## Value / Factor

Select the display mode for the selected attribute. Value shows the actual attribute, while factor determines the degree to which step offsets are being considered.

## MCC Stream

Determines the density of the MCC stream. Default is 1 per step interval, but may be raised to 7 per step (1/16) interval.

## Mutators

Remix, Randomize, Clear or Solo the track.

## Escape

Click to jump immediately to Page mode.

## Snapshot

Press to take a snapshot of the current machine state. Press again to keep changes since the last snapshot, or double click to discard changes and restore the previous state.

# Nemo - STEP mode

## Value Display

Row is used to display and enter track attribute or factor values such as pitch, velocity, length, start, amount, groove, CC, channel, position offset, play direction, program change and track clock multiplier.

## Attribute Selector

Click to select the attribute whose value is displayed and edited in the value row and using the main encoder.

## Editor Block

Editor encoders apply to the current step, providing dedicated controls for the Pitch, Velocity, Length and Start attributes.

## Main Encoder

The main encoder modifies the value of the attribute selected from the attribute selector and the Value / Factor switch.



## Chord Editor

Click to switch view to the notes played by the step. In chord view notes may be added or removed from the chord.

## Step Selector

Indicates the position of step in the row by a blinking LED. Click on any button to switch view to the appropriate step of the same track.

## Value Editor

Click to switch view to the attribute values for selected step attributes.

## Step Event Control

Switch view to step event controls, where the event is defined in terms of the modified attribute and the range of the event operation.

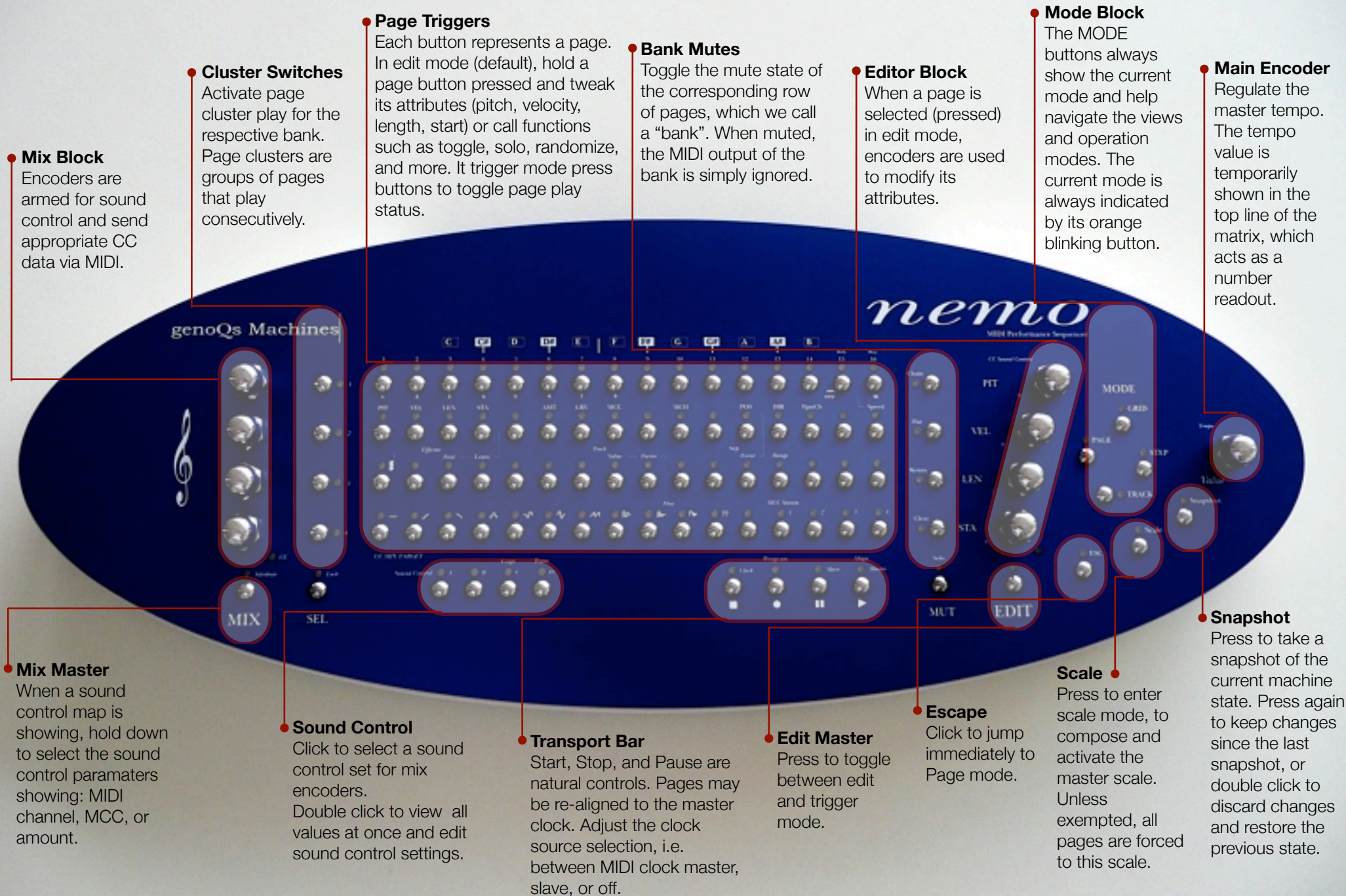
## Escape

Click to jump immediately to Page mode.

## Snapshot

Press to take a snapshot of the machine state. Press again to keep changes since the last snapshot, or double click to discard changes and restore the previous state.

# Nemo - GRID mode



**Mix Block**  
Encoders are armed for sound control and send appropriate CC data via MIDI.

**Cluster Switches**  
Activate page cluster play for the respective bank. Page clusters are groups of pages that play consecutively.

**Page Triggers**  
Each button represents a page. In edit mode (default), hold a page button pressed and tweak its attributes (pitch, velocity, length, start) or call functions such as toggle, solo, randomize, and more. It trigger mode press buttons to toggle page play status.

**Bank Mutes**  
Toggle the mute state of the corresponding row of pages, which we call a "bank". When muted, the MIDI output of the bank is simply ignored.

**Editor Block**  
When a page is selected (pressed) in edit mode, encoders are used to modify its attributes.

**Mode Block**  
The MODE buttons always show the current mode and help navigate the views and operation modes. The current mode is always indicated by its orange blinking button.

**Main Encoder**  
Regulate the master tempo. The tempo value is temporarily shown in the top line of the matrix, which acts as a number readout.

**Mix Master**  
When a sound control map is showing, hold down to select the sound control parameters showing: MIDI channel, MCC, or amount.

**Sound Control**  
Click to select a sound control set for mix encoders. Double click to view all values at once and edit sound control settings.

**Transport Bar**  
Start, Stop, and Pause are natural controls. Pages may be re-aligned to the master clock. Adjust the clock source selection, i.e. between MIDI clock master, slave, or off.

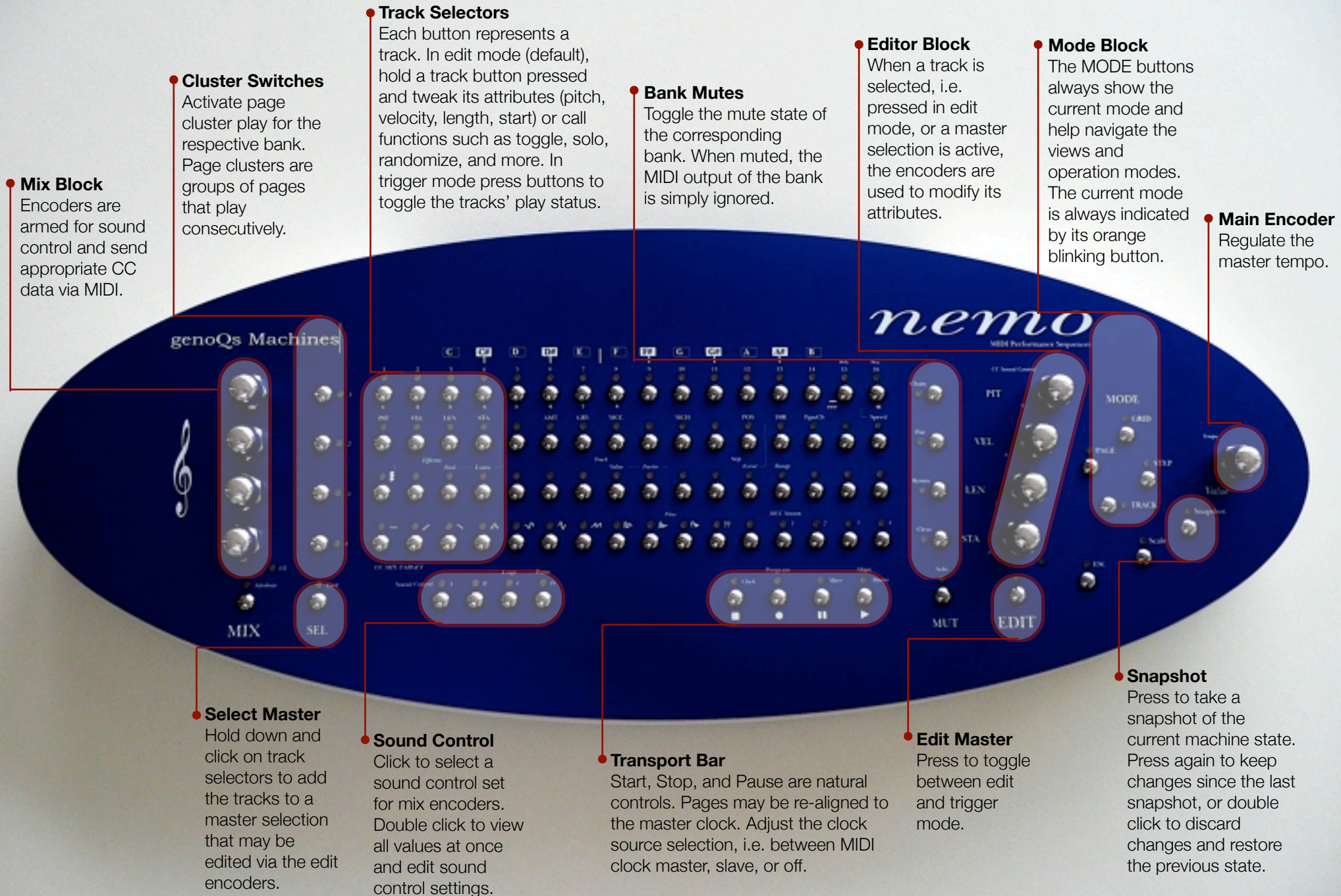
**Edit Master**  
Press to toggle between edit and trigger mode.

**Escape**  
Click to jump immediately to Page mode.

**Scale**  
Press to enter scale mode, to compose and activate the master scale. Unless exempted, all pages are forced to this scale.

**Snapshot**  
Press to take a snapshot of the current machine state. Press again to keep changes since the last snapshot, or double click to discard changes and restore the previous state.

# Nemo - GRID TRACK



**Mix Block**  
Encoders are armed for sound control and send appropriate CC data via MIDI.

**Cluster Switches**  
Activate page cluster play for the respective bank. Page clusters are groups of pages that play consecutively.

**Track Selectors**  
Each button represents a track. In edit mode (default), hold a track button pressed and tweak its attributes (pitch, velocity, length, start) or call functions such as toggle, solo, randomize, and more. In trigger mode press buttons to toggle the tracks' play status.

**Bank Mutes**  
Toggle the mute state of the corresponding bank. When muted, the MIDI output of the bank is simply ignored.

**Editor Block**  
When a track is selected, i.e. pressed in edit mode, or a master selection is active, the encoders are used to modify its attributes.

**Mode Block**  
The MODE buttons always show the current mode and help navigate the views and operation modes. The current mode is always indicated by its orange blinking button.

**Main Encoder**  
Regulate the master tempo.

**Select Master**  
Hold down and click on track selectors to add the tracks to a master selection that may be edited via the edit encoders.

**Sound Control**  
Click to select a sound control set for mix encoders. Double click to view all values at once and edit sound control settings.

**Transport Bar**  
Start, Stop, and Pause are natural controls. Pages may be re-aligned to the master clock. Adjust the clock source selection, i.e. between MIDI clock master, slave, or off.

**Edit Master**  
Press to toggle between edit and trigger mode.

**Snapshot**  
Press to take a snapshot of the current machine state. Press again to keep changes since the last snapshot, or double click to discard changes and restore the previous state.