

© MASCHINE

Hardware Control Reference



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Special thanks to the Beta Test Team, who were invaluable not just in tracking down bugs, but in making this a better product.

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1 Introduction

Welcome to the MASCHINE Hardware Control Reference! This document provides you with a comprehensive collection of controller actions and shortcuts to get you acquainted with MASCHINE's essential controller workflows. The document is structured as follows:

- Chapter [↑2, Control Reference](#) is the main part of this document. It provides you with instructions on how to perform essential MASCHINE tasks from your controller. All workflows are sorted in subchapters according to their association with areas of MASCHINE's software user interface; e.g., information on loading Groups, muting Sounds/pads, or editing Events in MASCHINE's Pattern Editor you'll find in sections 2.2, 2.3, and 2.4.4, respectively.
- Chapter 3 is a quick reference to the controls available on the computer keyboard.
- At the end of this document, an overarching index provides alphabetical access to all the workflows listed in chapters [↑2, Control Reference](#) and 3.

Labeling On Your Controller

Since its initial release, the labels of the MASCHINE MK2 controller have been revised. The instructions in this document will only refer to the 2nd generation controller labels. If you have a 1st generation MASCHINE MK2 controller, please use the table below to reference the equivalent labels of the 1st and 2nd generation controllers.

MASCHINE MK2 Controller 1st Generation	MASCHINE MK2 Controller 2nd Generation
BROWSE (MODULES) button	BROWSE button
SAMPLING (EDIT) button	SAMPLING button
AUTO WR. button	AUTO button
RESTART button	RESTART (LOOP) button
PLAY (METRONOME)	PLAY (METRO) button
REC (COUNT IN) button	REC (COUNT-IN) button
GRID button	GRID (REC MODE) button

MASCHINE MK2 Controller 1st Generation	MASCHINE MK2 Controller 2nd Generation
NAVIGATE button	NAVIGATE (MIX) button
COMPARE pad 3	STEP UNDO pad 3
SPLIT pad 4	STEP REDO pad 4

Document Conventions

This section introduces you to the signage and text highlighting used in this document. The following formatting is used:

- Text appearing in (drop-down) menus (such as *Open...*, *Save as...* etc.) and paths to locations on your hard disk or other storage devices is printed in *italics*.
 - Text appearing elsewhere in NI software user interfaces (labels of buttons, controls, text next to checkboxes etc.) is printed in blue. Whenever you see this formatting applied, you will find the same text appearing somewhere on the screen.
 - Text appearing on labels of the MASCHINE controller is printed in orange. Whenever you see this formatting applied, you will find the same text on the controller.
 - Text appearing on displays of the MASCHINE controller is printed in light grey. Whenever you see this formatting applied, you will find the same text on a controller display.
 - Important names and concepts are printed in **bold**.
 - References to keys on your computer's keyboard you'll find put in square brackets (e.g., "Press [Shift] + [Return]").
- ▶ Single instructions are introduced by this play button type arrow.
- Results of actions are introduced by this smaller arrow.

2 Control Reference

The following subchapters contain tables with pure controller workflows to get you acquainted with controlling MASCHINE without using your computer's mouse or monitor. All workflows are sorted in subchapters according to their association with areas of MASCHINE's software user interface; e.g., information on loading Groups, muting Sounds/pads, or editing Events in MASCHINE's Pattern Editor you'll find in sections 2.2, 2.3, and 2.4.4, respectively.

2.1 Basic Operation

The entries in this section refer to general settings and actions, some of which you can also access from the Header of MASCHINE's software user interface or from the Windows / Mac OS X menu bars.



The Header in the MASCHINE software.

Function	Controller Element / Action	Note
Choke all playing notes	SHIFT + MUTE	
Clear	SHIFT + pad 9	This function empties the active Pattern or the Events selected.
Copy	SHIFT + pad 11	This function copies all Events of the selected Pattern (or individual Events if selected) to the clipboard.
Hide/view Mixer	SHIFT + NAVIGATE (MIX)	Toggles between Arrange view and Mix view.

Function	Controller Element / Action	Note
Load (Project)	<ol style="list-style-type: none"> 1. Press the BROWSE button. 2. Use Buttons 1 and 2 to set the file type to PROJECTS. 3. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to open the PRODUCT selector. 4. Use Knob 1 to select a product category, and narrow down your selection using Knobs 2 and 3. 5. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to open the TYPES selector. 6. Use Knob 1 to select a Type, and narrow down your selection using Knobs 2 and 3. 7. Use Knob 5 to scroll through the list. 8. Press Button 8 (LOAD) to load a Project. 	
Metronome, adjust volume of	<ol style="list-style-type: none"> 1. Press SHIFT + GRID (REC MODE) to enter the REC. MODE screen. 2. Turn Knob 1 to adjust the metronome's volume. 3. Press GRID (REC MODE) again to leave the REC. MODE screen. 	
Metronome, toggle on/off	SHIFT + PLAY (METRO)	

Function	Controller Element / Action	Note
Pan (Master)	<ol style="list-style-type: none"> 1. Press CONTROL to enter Control mode. 2. Press Button 1 (MASTER) to open the Master page. 3. Make sure CHANNEL on Button 5 is selected. 4. Use Buttons 7 and 8 to select the OUTPUT tab. 5. Use Knob 3 (PAN) to change the parameter value. 	You can fine-adjust the parameter value by additionally holding SHIFT while turning the Knob.
Paste	SHIFT + pad 12	This function pastes the previously copied Events from the clipboard into the selected Pattern.
Play	PLAY (METRO) button	Hitting the PLAY (METRO) button again will stop playback.
Quantization, toggle on/off	<ol style="list-style-type: none"> 1. Press and hold SHIFT + GRID (REC MODE) to enter the REC. MODE screen. 2. Use Knob 4 (QUANTIZE) to activate/deactivate quantization. 	
Record	<ol style="list-style-type: none"> 1. Press the REC (COUNT-IN) button to arm for recording. 2. Press the PLAY (METRO) button to start recording. 3. Press the REC (COUNT-IN) button again to stop recording. Playback of the track continues. 	This is the usual Overdub mode, where Events are added to the ones recorded when you play the pads. If you press ERASE + REC , Replace mode gets activated, in which Events ahead of the marker are replaced by the ones you play in real-time. Replace mode stays active until the playhead wraps around the loop range.
Record (with Count-in)	SHIFT + REC (COUNT-IN)	Counts off a beat then starts recording. You can change the Count-in properties in the REC. MODE screen via SHIFT + GRID (REC MODE) .

Function	Controller Element / Action	Note
Redo	SHIFT + pad 2	This function redoes any action previously performed in MASCHINE. As opposed to this, SHIFT + pad 4 redoes individual steps in the Pattern Editor.
Restart Loop Selection	RESTART (LOOP) button	Restarts playback from the beginning of the loop range.
Save Project	SHIFT + ALL	
Stop	Press PLAY (METRO) during playback	
Swing (Master)	<ol style="list-style-type: none"> 1. Make sure the SWING button is lit. 2. Turn the Control encoder to change the parameter value. 	You can fine-adjust the parameter value by pressing the Control encoder while turning it.
Tempo/BPM, change	<ol style="list-style-type: none"> 1. Make sure the TEMPO button is lit. 2. Use the Control encoder to change the tempo/BPM of your Project. 	You can fine-adjust the parameter value by pressing the Control encoder while turning it.
Tempo/BPM, change (tap tempo)	<ol style="list-style-type: none"> 1. Press and hold SHIFT. 2. Tap the NOTE REPEAT button to determine the tempo of a sample or track. The Project tempo will be changed accordingly. 	E.g., tap along to the beat of a sample to set the tempo of your Project to that of the sample.
Undo	SHIFT + pad 1	This function undoes any action previously performed in MASCHINE. As opposed to this, SHIFT + pad 3 undoes individual steps in the Pattern Editor.
Volume (Master)	<ol style="list-style-type: none"> 1. Make sure the VOLUME button is lit. 2. Use the Control encoder to change the parameter value. 	You can fine-adjust the parameter value by pressing the Control encoder while turning it.

2.2 Groups

This section contains Group-related controller workflows.



The Groups section on the software side of MASCHINE.

Function	Controller Element / Action	Note
Copy/paste (Group)	<ol style="list-style-type: none"> 1. Press and hold the DUPLICATE button. 2. Tap the button of the Group you want to copy. 3. Tap the button of the Group you want to paste the Group's content to. 	You can copy and paste Groups with or without their Pattern content. To copy a Group including its Patterns' content, press Button 2 (+ EVNT) while holding the DUPLICATE button to activate this function.
Load (Group)	<ol style="list-style-type: none"> 1. Press the BROWSE button. 2. Use Buttons 1 and 2 to set the file type to „GROUPS.“ 3. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to open the PRODUCT selector. 4. Use Knob 1 to select a product category, and narrow down your selection using Knobs 2 and 3. 5. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to open the TYPES selector. 6. Use Knob 1 to select a Type, and narrow down your selection using Knobs 2 and 3. 7. Use Knob 5 to scroll through the list. 8. Press Button 8 (LOAD) to load a Group. 	
Mute (Group)	MUTE + Group button (A-H)	

Function	Controller Element / Action	Note
Pan (Group)	<ol style="list-style-type: none"> 1. Press CONTROL to enter Control mode. 2. Press Button 2 (GROUP) to open the Group page. 3. Make sure CHANNEL on Button 5 is selected. 4. Use Buttons 7 and 8 to select the OUTPUT tab. 5. Use Knob 3 (PAN) to change the parameter value. 	You can fine-adjust the parameter value by additionally holding SHIFT while turning the Knob.
Pitch (Group)	<ol style="list-style-type: none"> 1. Make sure the TEMPO button is lit. 2. Press and hold the button of the Group (button A-H) you want to change the pitch of. 3. Use the Control encoder to change the parameter value. 	You can fine-adjust the parameter value by pressing the Control encoder while turning it.
Reset Group	<ol style="list-style-type: none"> 1. Press and hold SHIFT + ERASE. 2. Press the button of the Group (button A-H) you want to delete. 	
Select (Group)	Group buttons A-H	
Solo (Group)	SOLO + Group button (A-H)	When unsoloing a Group, all other Groups are unmuted, regardless of whether they were muted before or not.

Function	Controller Element / Action	Note
Swing (Group)	<ol style="list-style-type: none">1. Make sure the SWING button is lit.2. Press and hold the button of the Group (button A-H) you want to change the Swing parameter value for.3. Turn the Control encoder to change the parameter value.	You can fine-adjust the parameter value by pressing the Control encoder while turning it.
Volume (Group)	<ol style="list-style-type: none">1. Make sure the VOLUME button is lit.2. Press and hold the button of the Group (button A-H) you want to adjust the volume for.3. Use the Control encoder to adjust the volume.	

2.3 Sounds (Pads)

This section contains Sound (pad)-related controller workflows. The MASCHINE Sound slots on the software side correspond to the 16 pads on your controller.



The Sound slots on the software side of MASCHINE.

Operation/Function	Controller Element / Action	Note
Base key shifting	<ol style="list-style-type: none"> 1. Press the pad of the Sound you want to alter the base key of. 2. Press and hold the PAD MODE button. 3. Use Knobs 5 and 6 (OCT- and OCT+) or Knobs 7 and 8 (SEMI- and SEMI+) to change the base key in octave steps or semi tone steps, respectively. 	
Copy/paste (Sound)	<ol style="list-style-type: none"> 1. Press and hold the DUPLICATE button. 2. Tap the pad of the Sound you want to copy. 3. Tap the pad you want to paste the Sound to. 	You can copy and paste Sounds with or without their recorded Events. To copy a Sound including its recorded Events, press Button 2 (+ EVNT) while holding the DUPLICATE button to activate this function.

Operation/Function	Controller Element / Action	Note
Keyboard mode / Piano Roll	<ol style="list-style-type: none"> 1. Hit the pad of the Sound you want to enter the Keyboard mode / Piano Roll with. 2. Press and hold the PAD MODE button. 3. Press Button 2 (KEYBOARD) to switch to Keyboard mode. 4. The PAD MODE button stays dim lit until Keyboard mode is deactivated. 	<p>When activating Keyboard mode, the selected Sound gets spread out chromatically across all 16 pads, and you can play it like a piano.</p> <p>SHIFT + PAD MODE is also shortcut to toggle between the Keyboard mode / Piano Roll and playing Sounds.</p>
Load (Sample)	<ol style="list-style-type: none"> 1. Press the BROWSE button. 2. Use Buttons 1 and 2 to set the file type to SAMPLES. 3. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to open the PRODUCT selector. 4. Use Knob 1 to select a product category, and narrow down your selection using Knobs 2 and 3. 5. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to open the TYPES selector. 6. Use Knob 1 to select a Type, and narrow down your selection using Knobs 2 and 3. 7. Use Knob 5 to scroll through the list. 8. Press Button 8 (LOAD) to load a Sample. 	<p>The term Sample in MASCHINE refers to an audio file without any previously stored MASCHINE parameters (compare "Load Sound" entry below).</p> <p>You can activate the PREHEAR function with Button 7 so that the next item highlighted in the list will automatically be played.</p>

Operation/Function	Controller Element / Action	Note
Load (Sound)	<ol style="list-style-type: none"> 1. Press the BROWSE button. 2. Use Buttons 1 and 2 to set the file type to SOUNDS. 3. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to open the PRODUCT selector. 4. Use Knob 1 to select a product category, and narrow down your selection using Knobs 2 and 3. 5. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to open the TYPES selector. 6. Use Knob 1 to select a Type, and narrow down your selection using Knobs 2 and 3. 7. Use Knob 5 to scroll through the list. 8. Press Button 8 (LOAD) to load a Sound. 	<p>The term Sound in MASCHINE refers to the entirety of a (previously saved) Sound slot with audio material and parameter settings. All this information is stored in a MASCHINE Sound file (.mxsnd).</p>
Mute (Sound)	MUTE + pad (1-16)	
Note Repeat	<ol style="list-style-type: none"> 1. Press and hold the NOTE REPEAT button. 2. Press and hold the pad of the Sound you want to use Note Repeat on. 	<p>When pressing NOTE REPEAT, there are four quantization settings for quick access on the right display. These settings are accessible via Buttons 5-8, and you can change their individual values with Knobs 4-6.</p>

Operation/Function	Controller Element / Action	Note
One-shot mode, activate	<ol style="list-style-type: none"> 1. Press CONTROL to enter Control mode. 2. Press Button 3 (SOUND) to select the Sound page. 3. Press Button 6 (PLUG-IN) to enter the Plug-in pages (if not already active). 4. Use Buttons 7 and 8 to select the Sampler Plug-in (1. SAMPLER). 5. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to navigate to page 2/6 of the Sampler module's parameter pages. 6. Use Knob 4 (TYPE) to set the Sound setting to ONESHOT. 	<p>One-shot mode is only applicable if a Sample is loaded to your Sound slot (as opposed to an instrument).</p> <p>In One-shot mode, the full Sample will play once that you hit the corresponding pad.</p> <p>For information on using envelopes (AHD/ADSR mode) in a Sound slot, refer to your controller's manual.</p>
Pad Link groups	<ol style="list-style-type: none"> 1. Press the pad you want to assign to a Pad Link group. 2. Press and hold the PAD MODE button. 3. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to navigate to page 1/2 of the parameter pages. 4. Use Knob 3 to assign the pad to one of the available Pad Link groups. 5. Use Knob 4 to set the Pad to Master or Slave mode within the Pad Link group. 6. Add other pads to the Pad Link group. 	<p>Using the Pad Link function, you can have a pad or a group of pads be triggered by another pad. This is a helpful function for layering sounds, e.g., for fattening up Kicks and Snares.</p> <p>A pad set to Master will trigger other pads in the Pad Link group. A pad in Slave mode will be triggered by Master pads but not trigger other pads itself.</p>

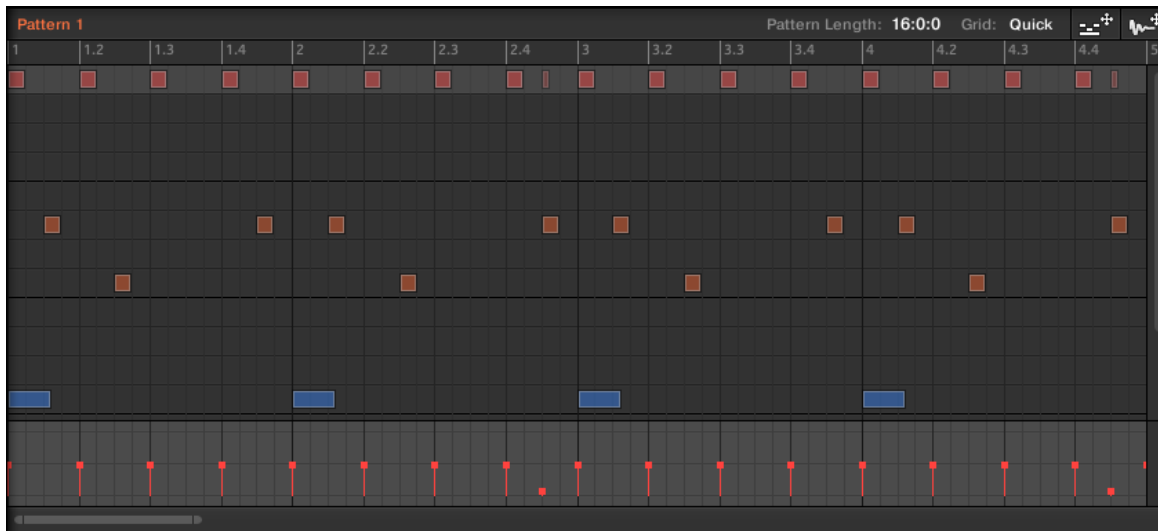
Operation/Function	Controller Element / Action	Note
Pan (Sound)	<ol style="list-style-type: none"> 1. Press CONTROL to enter Control mode. 2. Press Button 3 (SOUND) to open the Group page. 3. Make sure CHANNEL on Button 5 is selected. 4. Use Buttons 7 and 8 to select the OUTPUT tab. 5. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to navigate to page 1/3 of the parameter pages. 6. Use Knob 4 (PAN) to change the parameter value. 	<p>You can fine-adjust the parameter value by additionally holding SHIFT while turning the Knob.</p>
Parameters (Sound)	<ol style="list-style-type: none"> 1. Press CONTROL to enter Control mode. 2. Press Button 3 (SOUND) to select the Sound page. 3. Press Button 6 (PLUG-IN) to enter the Plug-in pages (if not already active). 4. Use Buttons 7 and 8 to select the Sampler Plug-in (1. SAMPLER). 5. All changeable parameters of the Sound are shown on the lower half of the displays. 6. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to navigate through the parameter pages of the Sampler module. 7. Use Knobs 1-8 to change the parameter values. 	<p>The Sampler parameters offer various ways to shape your Sounds individually.</p>

Operation/Function	Controller Element / Action	Note
Pitch (Sound)	<ol style="list-style-type: none"> 1. Make sure the TEMPO button is lit. 2. Press and hold the pad of the Sound (1-16) you want to adjust the pitch of. 3. Use the Control encoder to adjust the pitch. 	You can fine-adjust the parameter value by pressing the Control encoder while turning it.
Reset Sound	<ol style="list-style-type: none"> 1. Press and hold SHIFT button + ERASE button. 2. Press the pad of the Sound (1-16) you want to delete. 	
Select Sound	Press one of the pads 1-16.	
Select Sound silently	Press SELECT button + one of the pads 1-16.	Focuses on the desired Sound/pad without playing its content.
Solo (Sound)	SOLO + pad (1-16).	Note: When unsoloing a Sound/pad, all other Sounds/pads will be activated, also the ones that were muted prior to soloing.
Swing (Sound)	<ol style="list-style-type: none"> 1. Make sure the SWING button is lit. 2. Press and hold the pad of the Sound you want to change the Swing parameter value for. 3. Turn the Control encoder to change the parameter value. 	You can fine-adjust the parameter value by pressing the Control encoder while turning it.

Operation/Function	Controller Element / Action	Note
Velocity, fix	<ol style="list-style-type: none"> 1. Press and hold the PAD MODE button. 2. Press Button 4 (FIXED VEL). 	Sets all pads to a fixed velocity. The underlying velocity value can be set on parameter page 2/2 in the lower portion of the screen while holding PAD MODE depressed.
Volume (Sound)	<ol style="list-style-type: none"> 1. Make sure the VOLUME button is lit. 2. Press and hold the pad of the Sound you want to adjust the Volume of. 3. Use the Control encoder to adjust the volume. 	You can fine-adjust the parameter value by pressing the Control encoder while turning it.

2.4 Pattern Editor

This section contains controller workflows related to MASCHINE's Pattern Editor. This includes: Pattern Editor navigation, Pattern Grid settings, Pattern operations, Event operations, and modulation.



The Pattern Editor on the software side of MASCHINE.

2.4.1 Pattern Editor Navigation

Function	Controller Element / Action	Note
Scroll (Pattern Editor)	<ol style="list-style-type: none"> 1. Press and hold the NAVIGATE (MIX) button. 2. Use Knob 4 (SCROLL) to scroll left and right in the Pattern Editor. 	
Zoom (Pattern Editor)	<ol style="list-style-type: none"> 1. Press and hold the NAVIGATE (MIX) button. 2. Use Knob 3 (ZOOM) to zoom in and out in the Pattern Editor. 	

2.4.2 Grid Settings

Grid settings are relevant for the triggering behavior of Scenes, for shortening and lengthening of Patterns, and for the division of the Quantization Grid.

Function	Controller Element / Action	Note
Pattern Length resolution	<ol style="list-style-type: none"> 1. Press and hold the GRID (REC MODE) button. 2. Press Button 3 (PATTERN) to enter the Pattern Length setting page. 3. Press the pad corresponding to the Pattern Length resolution you want to set for the Pattern. 	<p>This setting determines the increments in which you can shorten and lengthen Patterns.</p> <p>Changing the Pattern length: PATTERN button + Knob 1.</p> <p>This is not the quantization grid setting. See “Step Grid resolution” entry below for info on setting the division of the quantization grid.</p>
Perform Grid division	<ol style="list-style-type: none"> 1. Press and hold the GRID (REC MODE) button. 2. Press Button 2 (PERFORM) to enter the Perform Grid setting page. 3. Press the pad corresponding to the Perform Grid division you want to set. 	<p>This setting determines after how many beats of a bar a Scene becomes active when triggering it.</p>
Step Grid resolution (Step Grid and Quantization Grid division)	<ol style="list-style-type: none"> 1. Press and hold the GRID (REC MODE) button. 2. Press Button 4 (STEP) to enter the Step Grid resolution setting page. 3. Press the pad corresponding to the Step Grid resolution you want to set for the Pattern Editor. 	<p>Here you adjust the division of the Grid for working in Step mode and the division of the Quantization Grid.</p>

2.4.3 Pattern Operations

Function	Controller Element / Action	Note
Copy/paste (Pattern)	<ol style="list-style-type: none"> 1. Press and hold the DUPLICATE button. 2. Press and hold the PATTERN button. 3. Tap the pad corresponding to the Pattern you want to copy. 3. Tap the pad corresponding to the Pattern Slot you want to copy the Pattern to. 	
Delete Pattern	<ol style="list-style-type: none"> 1. Press and hold the ERASE button + the PATTERN button. 2. Tap the pad corresponding to the Pattern you want to delete. 	
Double Pattern	<ol style="list-style-type: none"> 1. Press and hold the PATTERN button. 2. Press Button 3 (DOUBLE). 	
Pattern length	<ol style="list-style-type: none"> 1. Press and hold the PATTERN button. 2. Use Knob 1 (LENGTH) to lengthen/shorten the selected Pattern. 	The increments in which you can lengthen or shorten Patterns depend on the value set in the Pattern length resolution setting. See also “Pattern Length resolution” in 2.4.2.
Select Pattern	PATTERN button + pad 1-16	Use Buttons 7 and 8 to scroll through the pages of Pattern Banks.
Select Pattern Bank	PATTERN button + Buttons 7 and 8	
Skip one bar backwards	Skip Backward button in TRANSPORT section (◀)	
Skip one bar forward	Skip Forward button in TRANSPORT section (▶)	

2.4.4 Event Operations

An Event is the recorded instance of a Sound in MASCHINE's Pattern Editor.

Function	Controller Element / Action	Note
Copy/paste (Events)	<ol style="list-style-type: none"> 1. Select the Event(s) you want to copy. 2. Press the SHIFT button + pad 11. 3. Select the Sound/pad you want to copy the Event(s) to. 4. Press the SHIFT button + pad 12. 	You can select multiple Events in the Pattern Editor using the [Shift]/[Cmd] key.
Nudge Events	<ol style="list-style-type: none"> 1. Select the Event(s) you want to nudge. 2. Press and hold SHIFT. 3. Press pad 7 or 8 to nudge the selected Event(s) left or right, respectively. 	<p>The increments in which you can nudge an Event are dependent on the NUDGE parameter value from the STEP tab in the GRID screen. (See also 2.4.2) If you want to nudge Events in really small increments, the Step Grid resolution has to be set to OFF, or the NUDGE parameter to STEP/16.</p> <p>Another great way to mess with the groove of a Pattern is by moving Events in Step Editor mode (press STEP to enter): With the SWING button lit, hold the pad representing the Event you want to adjust and use the Control encoder to adjust the Event's starting position.</p>
Quantize Events	<ol style="list-style-type: none"> 1. Select the Event(s) you want to quantize. 2. Press SHIFT + pad 5. 	To adjust the Quantization Grid division, see the "Step Grid resolution" entry in 2.4.2.
Quantize Events (50%)	<ol style="list-style-type: none"> 1. Select the Event(s) you want to quantize. 2. Press SHIFT + pad 6. 	<p>Quantizing at 50% moves the selected Events half the way to the next Step Grid.</p> <p>To adjust the Quantization Grid division, see the "Step Grid setting" entry in 2.4.2.</p>

Function	Controller Element / Action	Note
Select all Events of a Sound/pad in the current Pattern	Press SHIFT + SELECT + a pad to select all events linked to that pad.	In Keyboard mode, only the Events which are on the note you are pressing are selected.
Select individual Events of a Sound/pad in the current Pattern	<ol style="list-style-type: none"> 1. Press and hold the SELECT button. 2. Press Button 2 (EVENTS). 3. Press the pads relating to the events you want to select. 	<p>You can also use Knob 4 (EVENT) to select an individual Event, and Knobs 1 and 2 (START and END) to select a range of Events.</p> <p>For a more in-depth explanation of Event selection from your controller, refer to your controller's manual.</p>
Select all Events of the current Pattern	<ol style="list-style-type: none"> 1. Press and hold the SELECT button. 2. Press Button 2 (EVENTS). 3. Press Button 5 (ALL). 	
Transpose Events (by octave)	<ol style="list-style-type: none"> 1. Select the Event(s) you want to transpose. 2. Press and hold SHIFT. 3. Press pad 15 or 16 to transpose the selected Event(s) up or down by one octave. 	If no Events were selected before transposing, all notes in the Pattern will be transposed. In Keyboard mode the Events of the Pattern in focus will be transposed.
Transpose Events (by semi-tone)	<ol style="list-style-type: none"> 1. Select the Event(s) you want to transpose. 2. Press and hold SHIFT. 3. Press pad 13 or 14 to transpose the selected Event(s) up or down by one half step, respectively. 	If no Events were selected before transposing, all notes in the Pattern will be transposed. In Keyboard mode the Events of the Pattern in focus will be transposed.

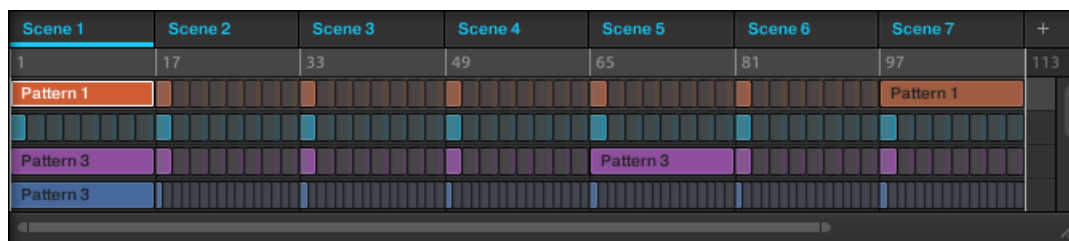
2.4.5 Modulation

In MASCHINE, you can record parameter value changes on the Sound (pad) level and the Group level, and you can even record parameter value changes for plug-ins. This is called modulation, and you can see and edit all recorded modulation in the Control Lane beneath the Pattern Editor.

Function	Controller Element / Action	Note
Modulation, delete	<ol style="list-style-type: none"> 1. Press and hold the ERASE button. 2. Turn the Knob of the parameter you previously recorded modulation to, in order to erase the modulation data. 	
Modulation, record	<ol style="list-style-type: none"> 1. Press CONTROL to enter Control mode. 2. Press PLAY (METRO) to start playback. 3. Press Button 2 (GROUP) or Button 3 (SOUND) to select the Group or Sound/pad you want to modulate parameter values for, respectively. 4. Press and hold AUTO. 5. Any movement of Knobs 1-8 will be recorded to the Control Lane. 	<p>You can record modulation of parameters on the Sound/pad level, and on the Group level.</p> <p>There are more advanced options for modulation. See the relevant chapters of your controller's manual for more in-depth information.</p>
Pin Auto-Write	Press SHIFT + AUTO WR. to pin Auto-Write.	With Auto-Write pinned you can use both hands to record and edit modulation.

2.5 Scene Arranger

This section contains controller workflows related to MASCHINE's Scene Arranger. This includes Arranger navigation and Scene operations.



The Scene Arranger on the software side of MASCHINE.

2.5.1 Arranger Navigation

Function	Controller Element / Action	Note
Scroll (Arranger)	<ol style="list-style-type: none">1. Press and hold the NAVIGATE (MIX) button.2. Use Knob 2 (SCROLL) to scroll left and right in the Arranger.	
Zoom (Arranger)	<ol style="list-style-type: none">1. Press and hold the NAVIGATE (MIX) button.2. Use Knob 1 (ZOOM) to zoom in and out in the Arranger.	

2.5.2 Scene Operations

Function	Controller Element / Action	Note
Copy/paste (Scene)	<ol style="list-style-type: none"> 1. Press and hold the DUPLICATE button. 2. Press and hold the SCENE button. 3. Tap the pad corresponding to the Scene you want to copy. 4. Tap the pad corresponding to the Scene slot you want to paste the Scene to. 	<p>When copying a Scene to a new Scene slot, by default the referenced Patterns will stay the same. Hence, when recording changes to Patterns of the new Scene, the original Scene's Patterns will be altered too.</p> <p>To have MASCHINE create new Patterns on Scene duplication, see the "Copy and paste Scene (+ create new Patterns)" entry below.</p>
Copy and paste Scene (+ create new Patterns on pasting)	<ol style="list-style-type: none"> 1. Press and hold the DUPLICATE button. 2. Press and hold the SCENE button. 3. Press Button 2 (+PAT). 4. Tap the pad corresponding to the Scene you want to copy. 5. Tap the pad corresponding to the Scene slot you want to paste the Scene to. 	<p>Once the Create New Pattern function is activated, it will stay activated until you deactivate it again.</p> <p>See also "Copy and paste Scene" entry above.</p>
Delete Scene	<ol style="list-style-type: none"> 1. Press and hold ERASE + SCENE. 2. Tap the pad corresponding to the Scene you want to delete. 	
Remove Pattern Clip from Scene	<ol style="list-style-type: none"> 1. Press and hold the PATTERN button. 2. Press Button 2 (REMOVE). 	<p>Removes the selected Pattern from its Scene.</p> <p>This function does not erase a Pattern's content.</p>
Select Scene	Press SCENE + the pad corresponding to the Scene you want to select.	
Select Scene Bank	SCENE button + Buttons 7 and 8 (◀ and ▶).	

Function	Controller Element / Action	Note
Set Scene loop	<ol style="list-style-type: none"> 1. Press and hold the SCENE button. 2. Press and hold the pad corresponding to the Scene you want your loop to start with. 3. Tap the pad corresponding to the Scene you want the loop to end with. 	
Set Scene loop to all Scenes	Press SCENE button + Button 2 (ALL).	

2.6 Control Area

This section contains controller workflows related to MASCHINE's Control area.



The Control area on the software side of MASCHINE.

Function	Controller Element / Action	Note
Load effect / effect plug-in	<ol style="list-style-type: none"> 1. Press CONTROL to enter Control mode. 2. Select the Project level you want to apply an effect to — Master, Group, or Sound — by pressing Button 1 (MASTER), 2 (GROUP) or 3 (SOUND), respectively. 3. Use Buttons 7 and 8 to select a free plug-in slot (the display reads (NONE) if no plug-in was loaded before). 4. Press and hold SHIFT. 5. Press BROWSE. 6. Use Knob 1 to set the TYPE Filter to INTERNAL for internal MASCHINE plug-ins or to EXTERNAL for third-party plug-ins. 7. In case of the Sound level, use Knob 2 to set the SUBTYPE filter to EFFECT. For Groups and the Master, there is no SUBTYPE selection. 8. Use Knob 5 to scroll through the list of available effects. 9. Press Button 8 (LOAD) to load the selected effect. 10. Press CONTROL again to return to Control mode. 	You can apply effects to the Master, to a Group or to individual pads/Sounds.
Load instrument plug-in (VST/AU)	<ol style="list-style-type: none"> 1. Press CONTROL to enter Control mode. 2. Press an empty pad that you want to load an instrument to. 3. Press Button 3 (SOUND) to open the Sound pages in MASCHINE. 4. Press and hold SHIFT. 	Only plug-in slot 1 of a Sound can host VST/AU plug-in instruments. The other plug-in slots of a Sound (and also of the Groups and the Master) can only host effects.

Function	Controller Element / Action	Note
	<p>5. Press BROWSE.</p> <p>6. Use Knob 1 to set the TYPE Filter to INTERNAL for internal MASCHINE instruments or to EXTERNAL for third-party instruments.</p> <p>7. Use Knob 2 to set the SUBTYPE filter to INSTR.</p> <p>8. Use Knob 5 to scroll through the list of available instruments.</p> <p>9. Press Button 8 (LOAD) to load the selected instrument.</p> <p>10. Press CONTROL again to return to Control mode.</p>	

Function	Controller Element / Action	Note
Mute/bypass instrument/effect	<ol style="list-style-type: none"> 1. Press CONTROL to enter Control mode. 2. Press Button 1 (MASTER), Button 2 (GROUP), or Button 3 (SOUND) to select the MASCHINE level holding the instrument/effect you want to mute/bypass. 3. Press Button 6 (PLUG-IN) to enter the Plug-in pages (if not already active). 4. Use Buttons 7 and 8 to navigate to the plug-in slot holding the instrument/effect you want to mute/bypass. 5. Press SHIFT + Button 6 (BYPASS) to mute/bypass the selected instrument/effect. 	
Unload instrument/effect	<ol style="list-style-type: none"> 1. Press CONTROL to enter Control mode. 2. Press Button 1 (MASTER), Button 2 (GROUP), or Button 3 (SOUND) to select the MASCHINE level holding the instrument/effect. 3. Press Button 6 (PLUG-IN) to enter the Plug-in pages (if not already active). 4. Use Buttons 7 and 8 to navigate to the plug-in slot holding the instrument/effect you want to unload. 5. Press and hold SHIFT. 6. Press Button 6 (REMOVE) to unload the instrument/effect. 	

2.7 Sampling and Sample Editing

This section contains controller workflows related to Sampling and Sample editing in MASCHINE.

Function	Controller Element / Action	Note
Sample from external source	<ol style="list-style-type: none"> 1. Select an empty Sound slot / pad you want to sample to. 2. Press the SAMPLING button. 3. Press Button 1 (RECORD) to select the recording function. 4. Use Knob 1 (SOURCE) to set the source to EXT. STER. for stereo sampling, or to EXT. MONO for mono sampling. 5. Use Knob 2 (INPUT) to select your input channel(s). 6. Use Knob 3 (MODE) to set the input mode to DETECT. 7. Use Knob 4 (THRESHOLD) to set the recording threshold level. 8. Press Button 5 (START) to start recording. 9. Press Button 5 (STOP) when you want the recording to stop. 	For more in-depth information on sampling from the controller, refer to your controller's manual.
Sample from internal source (resampling)	<ol style="list-style-type: none"> 1. Select an empty Sound slot / pad you want to sample to. 2. Press the SAMPLING button. 3. Press Button 1 (RECORD) to select the recording function. 4. Use Knob 1 (SOURCE) to set the source to INTERNAL. 5. Use Knob 2 (INPUT) to select your input. 6. Use Knob 3 (MODE) to set the input mode to DETECT. 7. Use Knob 4 (THRESHOLD) to set the recording threshold level. 	For more in-depth information on sampling from the controller, refer to your controller's manual.

Function	Controller Element / Action	Note
	<p>8. Press Button 5 (START) to start the recording.</p> <p>9. Press Button 5 (STOP) when you want the recording to stop.</p>	
Sample looping	<ol style="list-style-type: none"> 1. Press the SAMPLING button. 2. Press Button 4 (ZONE) to enter Zone mode. 3. Use the Page buttons (◀ and ▶ beneath the BROWSE and SAMPLING buttons) to navigate to Parameters page 2/5 (LOOP). 4. Use Knob 1 to activate the loop function. 5. Use Knobs 2 (START) and 3 (END) to select the portion of the Sample you want to loop. 6. Use Knob 4 (XFADE) to set a smooth transition in between end and start of the looping range. 	<p>Sample looping does not work when the Sound is in One-shot mode. See entry "Oneshot" from chapter 2.3.</p>

Function	Controller Element / Action	Note
Sample editing	<ol style="list-style-type: none"> 1. Press the SAMPLING button. 2. Press Button 2 (EDIT) to enter Sample Edit mode. 3. Use Knobs 1 (START) and 2 (END) to adjust start and end points of the Sample, and Knobs 5 and 6 to zoom and scroll within the waveform. 4. Navigate through the editing options with Buttons 7 and 8 (e.g., TRUNCATE will erase everything outside the selected START and END range of the Sample). 5. Press Button 8 (APPLY) to apply the changes to the selected sample region. 	Please refer to your controller's manual for more in-depth information on sample editing.
Time stretching / pitch shifting	<ol style="list-style-type: none"> 1. Press the SAMPLING button. 2. Press Button 2 (EDIT) to enter Sample Edit mode. 3. Use Button 5 to navigate to the STRETCH screen. 4. Press Button 7 (SETTINGS) to open the settings panel. 5. Use Knobs 1-8 to enter the desired settings. 6. Press Button 8 (APPLY) to apply time stretching to the sample region. 	Refer to your controller's manual for more in-depth information on time stretching.

2.8 Miscellaneous

Miscellaneous entries, such as adjusting pad sensitivity and display contrast from the controller, you'll find here.

Function	Controller Element / Action	Note
Display brightness	<ol style="list-style-type: none"> 1. Press and hold SHIFT. 2. Press CONTROL to enter the MIDI control mode. 3. Press and hold SHIFT again. 4. Press Button 4 (SETTINGS) to enter the Settings page. 5. Use Knob 1 (BRIGHT.) to adjust the display brightness. 6. Press SHIFT and CONTROL again to leave MIDI mode. 	For more advanced configuration options from the controller, refer to your controller's manual.
Display contrast	<ol style="list-style-type: none"> 1. Press and hold SHIFT. 2. Press CONTROL to enter the MIDI control mode. 3. Press and hold SHIFT again. 4. Press Button 4 (SETTINGS) to enter the Settings page. 5. Use Knobs 3 (CNTR.L.) and 4 (CNTRL.R.) to adjust the contrast for the relevant display. 6. Press SHIFT and CONTROL again to leave MIDI mode. 	For more advanced configuration options from the controller, see your controller's manual.

Function	Controller Element / Action	Note
Driver and firmware version	<ol style="list-style-type: none"> 1. Press and hold SHIFT. 2. Press CONTROL to enter the MIDI control mode. 3. Press and hold SHIFT again. 4. Press Button 4 (SETTINGS) to enter the Settings page. 5. You can find all driver and firmware related information on the right display. 6. Press SHIFT and CONTROL again to leave MIDI mode. 	For more advanced configuration options from the controller, refer to your controller's manual.
Pad sensitivity	<ol style="list-style-type: none"> 1. Press and hold SHIFT. 2. Press CONTROL to enter the MIDI control mode. 3. Press and hold SHIFT again. 4. Press Button 4 (SETTINGS) to enter the Settings page. 5. Use Knob 2 (PADSENS) to adjust the pad sensitivity. 6. Press SHIFT and CONTROL again to leave MIDI mode. 	For more advanced configuration options from the controller, see the MASCHINE MK2 Manual.
Switching MASCHINE instances in plug-in mode	<ol style="list-style-type: none"> 1. Press and hold SHIFT and STEP. 2. Use Knob 5 to scroll through the list of available instances. 3. Load the selected instance using Button 8 (LOAD). 	For more advanced configuration options from the controller, refer to your controller's manual.

3 Computer Keyboard Shortcuts

3.1 Transport

Function	Key(s)
Arm for Recording	[Shift] + [Space]
Metronome, toggle on/off	[M] key
Play/Stop	[Space]
Start Recording with count-in	[Ctrl]/[Cmd] + [Shift] + [Space]

3.2 Navigation

Function	Key(s)
Cycle Pattern Editor tools	[E] key
Multi-select Groups / Sound slots	[Shift] + [Up]/[Down] key
Next/previous Group / Sound slot / Browser list entry	[Down] + [UP] keys
Zoom in Scene Arranger / Pattern Editor	[Ctrl]/[Cmd] + [Up]/[Down] key

3.3 Editing

Function	Key(s)
1/1 note (Pattern Grid resolution)	[1]
1/2 note (Pattern Grid resolution)	[2]
1/4 note (Pattern Grid resolution)	[3]
1/8 note (Pattern Grid resolution)	[4]

Function	Key(s)
1/16 note (Pattern Grid resolution)	[5]
1/32 note (Pattern Grid resolution)	[6]
1/64 note (Pattern Grid resolution)	[7]
1/128 note (Pattern Grid resolution)	[8]
Copy	[Ctrl]/[Cmd] + [C]
Cut	[Ctrl]/[Cmd] + [X]
Delete	[Del]
Duplicate Pattern	[Ctrl]/[Cmd] + [D]
Grid on/off	[0]
Move Events with Grid off	Hold [Ctrl]/[Cmd] while moving Event with the mouse
Nudge Event left	[Alt] + [Left] key
Nudge Event right	[Alt]+ [Right] key
Paste	[Ctrl]/[Cmd] + [V]
Quantize Events	[Alt] + [Q]
Quantize Events (50%)	[Shift] + [Alt] + [Q]
Rename last selected item	[Ctrl]/[Cmd] + [R] key
Select all (also deselect in Sound and Group lists)	[Ctrl]/[Cmd] + [A]
Triplet Version	[Shift] + keys [1]-[7]

3.4 User Interface Options

Function	Key(s)
Full screen mode	[Ctrl]/[Cmd] + F
Mix view	[Tab] key
Show/hide Browser	[F4]
Show/hide Control Lane	[F12]

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