⊚ MASCHINE MIKRO

NI

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NATIVE INSTRUMENTS

Table of Contents

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 ↑2.1, Basic Operation, ↑2.2, Groups, and ↑2.4.3, Pattern Operations, respectively.

- Chapter ↑2.8, Miscellaneous 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 ↑2.8, Miscellaneous.

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 ↑2.1, Basic Operation, ↑2.2, Groups, and ↑2.4.3, Pattern Operations, 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 Browser area	VIEW button + pad 13.	
Hide/view Control Lane	VIEW button + pad 14.	You can record modulation of parameters on the Sound/pad level, and on the Group level. There are more advanced options for modulation. See the relevant chapters of your controller's manual for more in-depth information.

Function	Controller Element / Action	Note
Hide/view Mixer	SHIFT + VIEW	Toggles between the Arranger and Mixer view.
Load (Project)	1. Press the BROWSE button.	
	2. Press F1 to open the FILTER tab.	
	3. Use F3 (USER) to select whether to search the user library or the NI Library for content.	
	4. Use the Arrow buttons (◄ and ► next to NAV) to navigate to the FILE-TYPE page.	
	5. Turn the Control encoder until the menu reads PROJECT.	
	6. Use the Arrow buttons (◄ and ► next to NAV) to navigate to the PRODUCT page. If needed, refine your search with the Browser as explained in chapter "The Browser on the Hardware" of your controller's manual.	
	7. Press F2 (LIST) to open the results list.	
	8. Turn the Control encoder until you find the desired Project.	
	9. Press the Control encoder to load the Project.	
	10. Select whether to save your previous Project with buttons F1-F3.	

Function	Controller Element / Action	Note
Metronome, adjust volume of	1. Press SHIFT + GRID to enter the REC. MODE screen. 2. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 1/4: METRONOME LEVEL. 3. Turn the Control encoder to adjust the metronome level. 4. Press GRID again to leave the REC. MODE screen.	
Metronome, toggle on/off	SHIFT + PLAY (METRONOME)	
Pan (Master)	1. Press ENTER to open the parameter pages. 2. Press F1 (MASTER) to open the Master page. 3. Press NAV + F2 to open the channel parameters. 4. While still holding NAV, use the Control encoder to select the Output tab (OUT). 5. Release NAV. 6. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 3/6: PAN. 7. Use the Control encoder to change the parameter value.	
Paste	SHIFT + pad 12	This function pastes the previously copied Events from the clipboard into the selected Pattern.
Play	PLAY (METRONOME) button	Hitting the PLAY (METRONOME) button again will stop playback.

Function	Controller Element / Action	Note
Quantization, toggle on/off	1. Press SHIFT + GRID to enter the REC. MODE screen. 2. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 4/4: QUANTIZE MODE. 3. Turn the Control encoder to toggle quantization on/off. 4. Press GRID again to leave the REC. MODE screen.	
Record	1. Press the REC button to arm for recording. 2. Press the PLAY (METRONOME) button to start recording. 3. Press the REC 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	Counts off a beat then starts recording. You can change the Count-in properties in the REC. MODE screen via SHIFT + GRID.
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 button	Restarts playback from the beginning of the loop range.
Save Project	SHIFT + SAMPLING	
Stop	Press PLAY (METRONOME) during playback	

Function	Controller Element / Action	Note
Swing (Master)	1. Press MAIN to enter Control mode. 2. Press F2 (SWING) to select the Swing tab. 3. Use the Control encoder to change the parameter value.	You can fine-adjust the parameter value by additionally holding SHIFT while turning the Control encoder.
Tempo/BPM, change	1. Press MAIN to enter Control mode. 2. Press F3 to select the Tune/Tempo tab. 3. Use the Control encoder to change the parameter value.	You can fine-adjust the parameter value by additionally holding SHIFT while turning the Control encoder.
Tempo/BPM, change (tap tempo)	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)	1. Press MAIN to enter Control mode. 2. Press F1 (VOLUME) to select the Volume tab. 3. Use the Control encoder to change the parameter value.	You can fine-adjust the parameter value by additionally holding SHIFT while turning the Control encoder.

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)	1. Press and hold DUPLICATE + GROUP, so that the display reads DU-PLICATE GROUP. 2. Tap the pad corresponding to the Group you want to copy. 3. Tap the pad corresponding to 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 F1 (+ EVNT) while holding the DU-PLICATE button to activate this function.
Load (Group)	1. Press the BROWSE button. 2. Press F1 to open the FILTER tab. 3. Use F3 (USER) to select whether to search the user library or the NI Library for content. 4. Use the Arrow buttons (◄ and ► next to NAV) to navigate to the FILE-TYPE page. 5. Turn the Control encoder until the menu reads GROUP. 6. Use the Arrow buttons (◄ and ► next to NAV) to navigate to the PROD-UCT page. If needed, refine your search with the Browser as explained in chapter "The Browser on the Hardware" of your controller's manual. 7. Press F2 (LIST) to open the results list. 8. Turn the Control encoder until you find the desired entry. 9. Select whether or not to load the Group including its associated Patterns. 10. Press the Control encoder to load the Group.	

Function	Controller Element / Action	Note
Mute (Group)	1. Press and hold MUTE + GROUP, so that the display reads MUTE GROUP. 2. Press the pad corresponding to the Group you want to mute.	
Pan (Group)	1. Press ENTER to open the parameter pages. 2. Press F2 (GROUP) to open the Group page. 3. Press NAV + F2 to open the channel parameters. 4. While still holding NAV, use the Control encoder to select the Output tab (OUT). 5. Release NAV. 6. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 4/4: PAN. 7. Use the Control encoder to change the parameter value.	
Pitch (Group)	1. Press MAIN to enter Control mode. 2. Press F3 to select the Tune/Tempo tab. 3. Press and hold GROUP + the pad corresponding to the Group you want to change the pitch for. 4. Use the Control encoder to change the parameter value.	You can fine-adjust the parameter value by additionally holding SHIFT while turning the Control encoder.

Function	Controller Element / Action	Note
Reset Group	1. Press ENTER to open the parameter pages. 2. Press and hold GROUP + SHIFT + ERASE. 3. Tap the pad corresponding to the Group you want to delete.	
Select (Group)	Press GROUP + the pad corresponding to the Group you want to select.	
Solo (Group)	1. Press and hold SOLO + GROUP, so that the display reads SOLO GROUP. 2. Tap the pad corresponding to the Group you want to solo.	When unsoloing a Group, all other Groups are unmuted, regardless of whether they were muted before or not.
Swing (Group)	1. Press MAIN to enter Control mode. 2. Press F2 (SWING) to select the Swing tab. 3. Press and hold GROUP.+ the pad corresponding to the Group you want to change the parameter value for. 4. Use the Control encoder to change the parameter value.	You can fine-adjust the parameter value by additionally holding SHIFT while turning the Control encoder.
Volume (Group)	1. Press MAIN to enter Control mode. 2. Press F1 (VOLUME) to select the Volume tab. 3. Press and hold GROUP.+ the pad corresponding to the Group you want to change the parameter value for. 4. Use the Control encoder to change the parameter value.	You can fine-adjust the parameter value by additionally holding SHIFT while turning the Control encoder.

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	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 the Arrow buttons (◄ and ► next to NAV) to navigate to page 5/6: BASE KEY. 4. Use the Control encoder to shift the base key of the Sound slot / pad.	
Copy/paste (Sound)	1. Press and hold DUPLICATE + GROUP, so that the display reads DU-PLICATE SOUND. 2. Tap the pad 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 F1 (+ EVNT) while holding the DU-PLICATE button to activate this func-tion.
Keyboard mode / Piano Roll	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 F1 (KEYBD) to switch to Key-board mode. 4. The PAD MODE button stays dim lit until Keyboard mode is deactivat-ed.	When activating Keyboard mode, the selected Sound gets spread out chro-matically across all 16 pads, and you can play it like a piano. SHIFT + PAD MODE is also shortcut to toggle between the Keyboard mode / Piano Roll and playing Sounds.

Operation/Function	Controller Element / Action	Note
Load (Sample)	1. Press the BROWSE button. 2. Press F1 to open the FILTER tab. 3. Use F3 (USER) to select whether to search the user library or the NI Library for content. 4. Use the Arrow buttons (◄ and ►) next to NAV) to navigate to the FILE-TYPE page. 5. Turn the Control encoder until the menu reads SAMPLE. 6. Use the Arrow buttons (◄ and ►) next to NAV) to navigate to PRODUCT page. If needed, refine your search with the Browser as explained in chapter "The Browser on the Hardware," of your controller's manual. 7. Press F2 (LIST) to open the results list. 8. Turn the Control encoder until you find the desired entry. 9. Press the Control encoder to load the Sample.	The term Sample in MASCHINE refers to an audio file without any previously stored MASCHINE parameters (compare "Load Sound" entry below). You can activate the PREHEAR function with Display Button 7 so that the next item highlighted in the list will automatically be played.

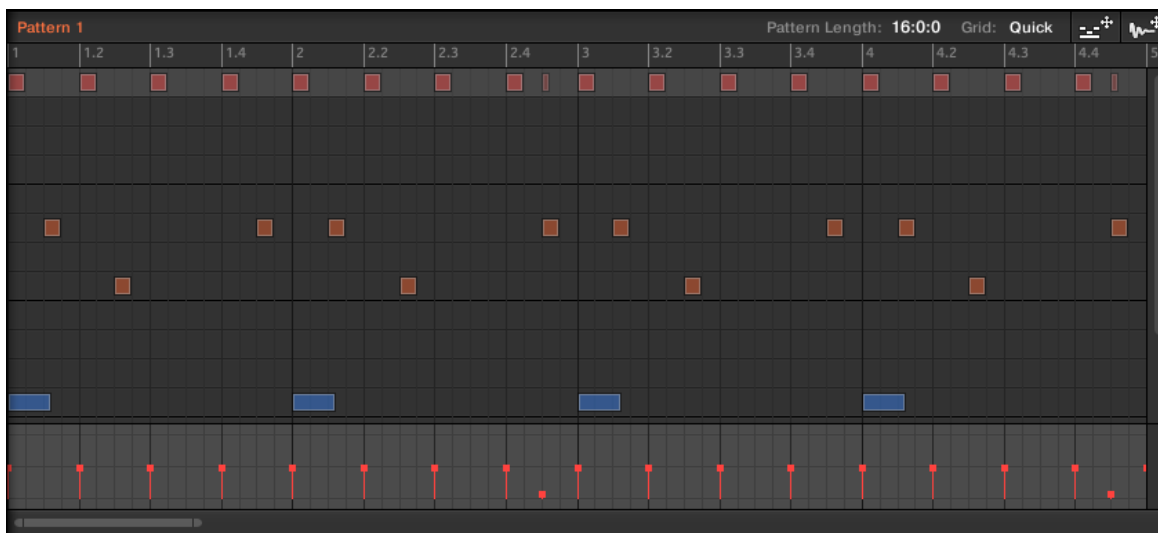| Operation/Function	Controller Element / Action	Note
Load (Sound)	1. Press the BROWSE button. 2. Press F1 to open the FILTER tab. 3. Use F3 (USER) to select whether to search the user library or the NI Library for content. 4. Use the Arrow buttons (◄ and ► next to NAV) to navigate to the FILE-TYPE page. 5. Turn the Control encoder until the menu reads SOUND. 6. Use the Arrow buttons (◄ and ► next to NAV) to navigate to the PRODUCT page. If needed, refine your search with the Browser as explained in chapter "The Browser on the Hardware," of your controller's manual. 7. Press F2 (LIST) to open the results list. 8. Turn the Control encoder until you find the desired entry. 9. Press the Control encoder to load the Sound.	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).
Mute (Sound)	1. Press and hold MUTE + GROUP, so that the display reads MUTE SOUND. 2. Tap the pad you want to mute.	
Note Repeat	1. Press and hold the NOTE REPEAT button. 2. Press and hold the pad of the Sound you want to use Note Repeat on.	When pressing NOTE REPEAT, there are three quantization presets for quick access beneath buttons F1 to F3. You can change their individual parameter values on pages 1/3 to 3/3 in the lower portion of the display.

Operation/Function	Controller Element / Action	Note
One-shot mode, activate	1. Press ENTER to open the parameter pages. 2. Press NAV + F3 to open the plug-in parameters. 3. While still holding NAV, use the Control encoder to select the Pitch/Envelope tab (PITCH / ENVELOPE). 4. Release NAV, and press F3 (SOUND) to open the Sound page. 5. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 4/4: TYPE. 6. Use the Control encoder to change the setting to ONESHOT.	One-shot mode is only applicable if a Sample is loaded to your Sound slot (as opposed to an instrument). In One-shot mode, the full Sample will play once that you hit the corresponding pad. For information on using envelopes (AHD/ADSR mode) in a Sound slot, refer to your controller's manual.
Pad Link groups	1. Press the pad you want to assign to a Pad Link group. 2. Press and hold the PAD MODE button. 3. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 3/6: LINK GROUP. 4. Use the Control encoder to assign the pad to one of the available Pad Link groups. 5. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 4/6: LINK MODE. 6. Use the Control encoder to set the pad to Master or Slave mode within the Pad Link group. 7. Add other pads to the Pad Link group.	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. 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.

Operation/Function	Controller Element / Action	Note
Pan (Sound)	1. Press ENTER to open the parameter pages. 2. Press F3 (SOUND) to open the Sound page. 3. Press NAV + F2 to open the channel parameters. 4. While still holding NAV, use the Control encoder to select the Output tab (OUT). 5. Release NAV. 6. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 4/5: PAN. 7. Use the Control encoder to change the parameter value.	You can fine-adjust the parameter value by additionally holding SHIFT while turning the Control Encoder.
Pitch (Sound)	1. Press MAIN to enter Control mode. 2. Press F3 to select the Tune/Tempo tab. 3. Press and hold the pad you want to change the pitch of. 4. Use the Control encoder to change the parameter value.	You can fine-adjust the parameter value by additionally holding SHIFT while turning the Control encoder.
Reset Sound	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.

Operation/Function	Controller Element / Action	Note
Solo (Sound)	1. Press and hold SOLO + GROUP, so that the display reads SOLO SOUND. 2. Tap the pad you want to solo.	Note: When unsoloing a Sound/pad, all other Sounds/pads will be activated, also the ones that were muted prior to soloing.
Swing (Sound)	1. Press MAIN to enter Control mode. 2. Press F2 (SWING) to select the Swing tab. 3. Press and hold the pad you want to change the parameter value for. 4. Use the Control encoder to change the parameter value.	You can fine-adjust the parameter value by additionally holding SHIFT while turning the Control encoder knob.
Velocity, fix	1. Press and hold the PAD MODE button. 2. Press F3 (FIXED VEL).	Sets all pads to a fixed velocity. The underlying velocity value can be set on parameter page 6/6 in the lower portion of the PAD MODE screen.
Volume (Sound)	1. Press MAIN to enter Control mode. 2. Press F1 (VOLUME) to select the Volume tab. 3. Press and hold the pad you want to change the parameter value for. 4. Use the Control encoder to change the parameter value.	You can fine-adjust the parameter value by additionally holding SHIFT while turning the VOLUME knob.

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)	1. Press and hold the VIEW button. 2. Press F2 to select the Pattern Editor. 3. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 2/2: SCROLL. 4. While still holding VIEW, use the Control encoder to scroll left and right in the Pattern Editor.	
Zoom (Pattern Editor)	1. Press and hold the VIEW button. 2. Press F2 to select the Pattern Editor. 3. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 1/2: ZOOM. 4. While still holding VIEW, use the Control encoder 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	1. Press and hold the GRID button. 2. Press F2 (PAT) to enter the Pattern Length setting page. 3. Use the Control encoder to select the Pattern Length resolution you want to set for the Pattern.	This setting determines the increments in which you can shorten and lengthen Patterns. Changing the Pattern length: PATTERN button + Control encoder. This is **not** the quantization grid setting. See "Step Grid resolution" entry below for info on setting the division of the quantization grid.
Perform Grid division	1. Press and hold the GRID button. 2. Press F1 (PERF) to enter the Perform Grid setting page. 3. Use the Control encoder to select the Perform Grid division you want to set.	This setting determines after how many beats of a bar a Scene becomes active when triggering it.
Step Grid resolution (Step Grid and Quantization Grid division)	1. Press and hold the GRID button. 2. Press F3 (STEP) to enter the Step Grid setting page. 3. Use the Control encoder to select the Step Grid resolution you want to set for the Pattern Editor.	Here you adjust the division of the Grid for working in Step mode and the division of the Quantization Grid.

2.4.3 Pattern Operations

Function	Controller Element / Action	Note
Copy/paste (Pattern)	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. 4. Tap the pad corresponding to the Pattern slot you want to copy the Pattern to.	
Delete Pattern	1. Press and hold the ERASE button + the PATTERN button. 2. Tap the pad corresponding to the Pattern you want to delete.	
Double Pattern	1. Press and hold the PATTERN button. 2. Press F1 (DBL).	
Pattern length	1. Press and hold the PATTERN button. 2. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 1/2: LENGTH. 3. While still holding PATTERN, use the Control encoder 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 ↑2.4.1, Pattern Editor Navigation.
Select Pattern	PATTERN button + pad 1-16	
Select Pattern Bank	SHIFT + PATTERN + Arrow buttons (◄ and ► next to NAV)	

Function	Controller Element / Action	Note
Skip one bar backwards	Skip Backward button in TRANS-PORT 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)	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	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.	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 ↑2.4.1, Pattern Editor Navigation) 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.
Quantize Events	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 ↑2.4.1, Pattern Editor Navigation.
Quantize Events (50%)	1. Select the Event(s) you want to quantize. 2. Press SHIFT + pad 6.	Quantizing at 50% moves the selected Events half the way to the next Step Grid. To adjust the Quantization Grid division, see the "Step Grid setting" entry in ↑2.4.1, Pattern Editor Navigation.

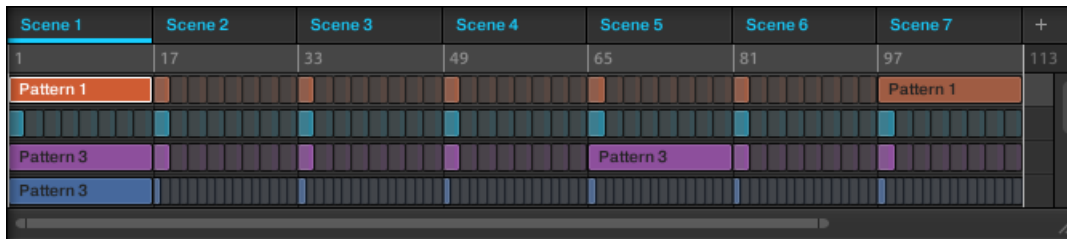| Function	Controller Element / Action	Note
Select all Events of a Sound/ pad in the current Pattern	Press SELECT + a pad to select all events linked to that pad.	In Keyboard mode, only the Events which are on the note you are pressing are selected.
Transpose Events (by octave)	1. Select the Event(s) 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 semitone)	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, record	1. Press ENTER to open the parameter pages. 2. Press F3 (SOUND) to open the Sound page. (Alternatively, you could select the GROUP page to automate parameter values on the Group level.) 3. Press NAV + F2 to open the channel parameters. 4. While still holding NAV, use the Control encoder to select the Output tab (OUT), and the Arrow buttons (◄ and ► next to NAV) to select the AUDIO parameters. 5. Release NAV. 6. Use the Arrow buttons (◄ and ► next to NAV) to select a parameter for modulation (e.g., LEVEL). 7. While playback is active, press and hold SHIFT, and use the Control encoder to record modulation for the parameter value.	You can record modulation of parameters on the Sound/pad level, and on the Group level. There are more advanced options for modulation. See the relevant chapters of your controller's manual for more in-depth information.
Hide/view Control Lane	VIEW + pad 14.	The Control Lane is where modulation for parameter values is recorded. For more detailed information on modulation, refer to your controller's manual.

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)	1. Press and hold the VIEW button. 2. Press F1 to select the Scene Arranger. 3. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 2/2: SCROLL. 4. While still holding VIEW, use the Control encoder to scroll left and right in the Scene Arranger.	
Zoom (Arranger)	1. Press and hold the VIEW button. 2. Press F1 to select the Scene Arranger. 3. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 1/2: ZOOM. 4. While still holding VIEW, use the Control encoder to zoom in and out in the Scene Arranger.	

2.5.2 Scene Operations

Function	Controller Element / Action	Note
Copy/paste (Scene)	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.	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. To have MASCHINE create new Patterns on Scene duplication, see the "Copy and paste Scene (+ create new Patterns)" entry below.
Copy and paste Scene (+ create new Patterns on pasting)	1. Press and hold the DUPLICATE button. 2. Press and hold the SCENE button. 3. Press F1 (+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.	Once the Create New Pattern function is activated, it will stay activated until you deactivate it again. See also "Copy and paste Scene" entry above.
Delete Scene	1. Press and hold ERASE + SCENE. 2. Tap the pad corresponding to the Scene you want to delete.	
Remove Pattern Clip from Scene	1. Press and hold the PATTERN button. 2. Press F3 (REMOVE).	Removes the selected Pattern from its Scene. This function does not erase a Pattern's content.
Select Scene	Press SCENE + the pad corresponding to the Scene you want to select.	
Select Scene Bank	SHIFT + SCENE + Arrow buttons (◄ and ► next to NAV).	

Function	Controller Element / Action	Note
Set Scene loop	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	SCENE button + F1 (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	1. Press ENTER to open the parameter pages.	You can apply effects to the Master, to a Group or to individual pads/Sounds.
	2. Select the Project level you want to apply an effect to — Master, Group, or Sound — by pressing F1 (MASTER), F2 (GROUP) or F3 (SOUND), respectively.	
	3. Press NAV + F3 to open the plug-in parameters.	
	4. While still holding NAV, use the Control encoder to select a free plug-in slot.	
	5. Release NAV.	
	6. Press BROWSE.	
	7. Press F1 to select the Filter.	
	8. Use F3 (USER) to select whether to search the user library or the NI Library for content.	
	9. Use the Arrow buttons (◄ and ► next to NAV) to navigate to the FILE-TYPE page.	
	10. Turn the Control encoder until the menu reads EFFECT.	
	11. Use the Arrow buttons (◄ and ► next to NAV) to navigate to the PRODUCT page. If needed, refine your search with the Browser as explained in chapter "The Browser on the Hardware," of your controller's manual.	
	12. Press F2 (LIST) to open the results list.	
	13. Turn the Control encoder until you find the desired entry.	

Function	Controller Element / Action	Note
	14. Press the Control encoder to load the effect to the plug-in slot.	
Load instrument plug-in (VST/ AU)	1. Tap a pad you want to load an instrument to. 2. Press ENTER to open the parameter pages. 3. Press F3 (SOUND) to select the Sound level. 4. Press NAV + F3 to open the plug-in parameters. 5. While still holding NAV, use the Control encoder to select plug-in slot 1. 6. Release NAV. 7. Press BROWSE. 8. Press F1 to select the FILTER. 9. Use F3 (USER) to select whether to search the user library or the NI Library for content. 10. Use the Arrow buttons (◄ and ► next to NAV) to navigate to the FILE-TYPE page. 11. Turn the Control encoder until the menu reads INSTRUMENT. 12. Use the Arrow buttons (◄ and ► next to NAV) to navigate to the PRODUCT page. If needed, refine your search with the Browser as explained in chapter "The Browser on the Hardware," of your controller's manual. 13. Press F2 (LIST) to open the results list.	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
	14. Turn the Control encoder until you find the desired instrument.	
	15. Press the Control encoder to load the instrument.	
Mute/bypass instrument/effect	1. Press ENTER to open the parameter pages.	
	2. Press SHIFT + NAV.	
	3. Press the pad corresponding to the plug-in slot you want to mute/bypass.	

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	1. Select an empty Sound slot / pad you want to sample to. 2. Press the SAMPLING button. 3. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 1/4: SOURCE. 4. Set the source to EXT. STER. for stereo sampling, or to EXT. MONO for mono sampling using the Control encoder. 5. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 2/4: INPUT. 6. Select your input channels using the Control encoder. 7. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 3/4: MODE. 8. Select DETECT mode using the Control encoder. 9. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 4/4: THRESHOLD. 10. Use the Control encoder to set the recording threshold level. 11. Press F1 (START) to start recording. 12. Press F1 (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)	1. Select an empty Sound slot / pad you want to sample to. 2. Press the SAMPLING button.	For more in-depth information on sampling from the controller, refer to your controller's manual.

Function	Controller Element / Action	Note
	3. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 1/4: SOURCE. 4. Set the source to INTERNAL using the Control encoder. 5. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 2/4: INPUT. 6. Select your input channels using the Control encoder. 7. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 3/4: MODE. 8. Select DETECT mode using the Con- trol encoder. 9. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 4/4: THRESHOLD. 10. Use the Control encoder to set the recording threshold level. 11. Press F1 (START) to start record- ing. 12. Press F1 (STOP) when you want the recording to stop.	

Function	Controller Element / Action	Note
Sample looping	1. Press the SAMPLING button. 2. Press NAV + turn the Control encoder to open the ZONE page. 3. While still holding NAV, use the Arrow buttons (◄ and ► next to NAV) to navigate to the LOOP tab. 4. Release NAV. 5. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 1/4 ACTIVE. 6. Use the Control encoder to activate the loop function. 7. Set loop start and end points on pages 2/4 and 3/4. 8. On page 4/4: XFADE, set a crossfade value for the start and end point of the loop to gain a smooth transition in between end and start of the looping range.	Sample looping does not work when the Sound is in One-shot mode. See entry "One-shot" from chapter ↑2.2, Groups.

Function	Controller Element / Action	Note
Sample editing	1. Press the SAMPLING button. 2. Press NAV + turn the Control encoder to open the EDIT page. 3. While still holding NAV, use the Arrow buttons (◄ and ► next to NAV) to activate the SELECTION RANGE setting. 4. Release NAV. 5. Use the Control encoder to navigate to pages 1/2: START and 2/2: END, and set start end points for the selection to be edited. 6. Navigate through the editing options with buttons F1 and F3 (e.g., TRUNC will erase everything outside the selected START and END range of the Sample).	Refer to your controller's manual for more in-depth information on sample editing.
Time stretching / pitch shifting	1. Press the SAMPLING button. 2. Select a sample region as described in the sample editing entry above. 3. Press NAV + turn the Control encoder to open the EDIT page. 4. Release NAV. 5. Navigate through the editing options with buttons F1 and F3 until STRCH comes up. 6. Press F2 to open the time stretch engine's settings page. 7. Use the Arrow buttons (◄ and ► next to NAV) to navigate through the time stretch engine's properties pages, and select the appropriate settings.	Refer to your controller's manual for more in-depth information on time stretching.

Function	Controller Element / Action	Note
	8. Press F3 (APPLY) to apply time stretching to your sample.	

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	1. Press SHIFT + F1 to enter MIDI control mode. 2. Press NAV + F3 to open the SETUP pages. 3. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 1/3 BRIGHTNESS. 4. Use the Control encoder to adjust the display brightness. 5. Press SHIFT + F1 again to leave MIDI mode.	For more advanced configuration options from the controller, refer to your controller's manual.
Display contrast	1. Press SHIFT + F1 to enter MIDI control mode. 2. Press NAV + F3 to open the SETUP pages. 3. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 2/3 CONTRAST. 4. Use the Control encoder to adjust the display's contrast. 5. Press SHIFT + F1 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	1. Press SHIFT + F1 to enter MIDI control mode. 2. Press NAV + F3 to open the SET-UP pages. You can find all driver- and firmware-related information on the display. 3. Press SHIFT + F1 again to leave MIDI mode.	For more advanced configuration options from the controller, refer to your controller's manual.
Pad sensitivity	1. Press SHIFT + F1 to enter MIDI control mode. 2. Press NAV + F3 to open the SET-UP pages. 3. Use the Arrow buttons (◄ and ► next to NAV) to navigate to page 3/3 PAD SENSITIVITY. 4. Use the Control encoder to adjust the pads' sensitivity. 5. Press SHIFT + F1 again to leave MIDI mode.	For more advanced configuration options from the controller, see your controller's manual.
Switching MASCHINE instances in plug-in mode	1. Press and hold SHIFT + F2. 2. Use the Control encoder. to scroll through the list of available instances. 3. Load the selected instance by pressing ENTER.	

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
Mixer view	[Tab] key
Show/hide Browser	[F4]
Show/hide Control Lane	[F12]

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