osmose ce - user manual

for osmose 49 ce and osmose 61 ce

english version

EXPRESSIVE E

Osmose CE Manual v0.98 | state Apr 27th, 2026

introduction

congratulations

and thank you for purchasing Osmose CE!

Osmose CE (Controller Edition) is a next-generation MIDI/MPE controller, designed for unparalleled expressive control over hardware and software synthesizers. It features Expressive E's patented keybed mechanism, enabling polyphonic pressure, aftertouch, and note bending for an organic and responsive playing experience.

Paired with Ctrl-E, its intuitive companion app, Osmose CE gives you access to a curated selection of expressive sounds, powered by industry-leading sound engines and Expressive E's own virtual instruments. Dive into hundreds of expertly crafted presets, designed by the Expressive E sound design team, ready to play right out of the box.

disclaimer

Osmose is a constantly evolving product, so the information contained in this manual is subject to change without notice and does not represent a commitment on the part of Expressive E.

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WARNING	• TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DO NOT PLACE OBJECTS FILLED WITH LIQUIDS ON THIS APPARATUS. • OPERATING VOLTAGE: USB POWER DELIVERY 5V DC, MINIMUM CURRENT 3.0A, SUPPLIED BY POWER SUPPLY CONSIDERED ES1/PS2 PER 62368-1. MODEL CERTIFIED UP TO 35ºC. • DO NOT ATTEMPT TO OPEN, REPAIR THE UNIT, OR REPLACE PARTS WITHIN IT (EXCEPT WHEN THE PRODUCT'S MANUAL PROVIDES SPECIFIC INSTRUCTIONS DIRECTING YOU TO DO SO; OR OUR AFTER SALES SERVICE HAS AUTHORIZED YOU FORMALLY).

• Never use or store the unit in places that are subject to high levels of vibration or extreme temperature (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or humidity (e.g., baths, washrooms, on wet floors) or rain; or dust.
• Whenever you suspect the possibility of lightning in your area, or when there is a gas leak nearby, or when unused for long periods of time, pull the plug on the power cord out of the outlet.
• Do not use this apparatus close to magnetic fields.
• Never climb on top of, nor place heavy objects on the unit.
• Do not insert a finger or hand in any gaps on the instrument. Never insert or drop paper, metallic, or other objects into the gaps on the panel or keyboard. This could cause physical injury to you or others, damage to the instrument or other property, or operational failure. Expressive E cannot be held responsible for damage caused by improper use or modifications to the instrument, or data that is lost or destroyed.
• Only use attachments/accessories specified by the manufacturer. The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the unit.
• Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards!
• Never handle the power cord or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit.
• This unit, in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level, or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should immediately stop using the unit, and consult an audiologist or an ENT doctor.
• In households with small children, an adult should provide supervision until the child is capable of following all the rules essential for the safe operation of the unit.
• A sound peak occurs on the stereo output of the instrument when it's being toggled on/off. You may want to turn down the volume on all speakers and headphones before doing so.

• To avoid scratches or damage, never use sharp objects on the body or screen of the instrument. Do not apply any pressure to the LCD screen.
• Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords.
• Before cleaning the unit, turn off the power and unplug the power cord from the outlet. When cleaning, use a soft and dry cloth. Do not use gasoline, alcohol, acetone, turpentine or any other organic solutions; do not use a liquid cleaner, spray or cloth that's too wet.
• The total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through.
• When one of the following problems occurs, immediately turn off the power switch and disconnect the electric plug from the outlet. Then have the device inspected by Expressive E service personnel.

- The power cord or plug becomes frayed or damaged.
- It emits unusual smells or smoke.
- The instrument has been exposed to rain or moisture.
- The instrument has been dropped.
- Some objects have been dropped into the instrument.
- Liquid has been spilled onto the instrument.
- There is a sudden loss of sound during the use of the instrument.

• Do not attempt to open, repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so, or our after-sales service authorizes you).

IMPORTANT NOTICE TO CONSUMERS
This product has been manufactured according to strict specifications and voltage requirements applicable in the country where it is intended to be used. If you have purchased this product via the internet, through mail order, and/or via a telephone sale, you must verify that this product is intended to be used in the country in which you reside.

WARNING: Use of this product in any country other than that for which it is intended could be dangerous and could invalidate the manufacturer's or distributor's warranty. Please also retain your receipt as proof of purchase, otherwise your product may be disqualified from the manufacturer's or distributor's warranty.

SUPPLIER'S DECLARATION OF CONFORMITY (for the USA):
Responsible Party: Expressive SAS
Address: 9-11 Rue de la République, 13002, Marseille, France
Phone: +33 6 84 05 89 29
Equipment Type: MPE/MIDI controller
Model: Osmose CE 49/61
This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Industry Canada Compliance
This Class B digital apparatus complies with Canadian ICES-003
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada

ROHS Compliance

Expressive SAS has conformed, and this product conforms, where applicable, to the European Union's Directive 2011/65/EU on Restrictions of Hazardous Substances (RoHS) as well as the following sections of California law which refer to RoHS, namely sections 25214.10, 25214.10.2, and 58012, Health and Safety Code; Section 42475.2 Public Resources Code.

This device complies with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to the Electromagnetic Compatibility Directive (2014/30/ EU), Low-voltage Directive (2014/35/ EU), RoHS directive (2011/65/EU). This product has been tested and found to comply with the harmonized standards for Information Technology Equipment. These harmonized standards are published under Directives of the Official Journal of the European Union. The integral text of the EU declaration of conformity is available at the following online address: www.expressivee.com

NOTICE REGARDING DISPOSAL

When this 'crossed-out wheeled bin' symbol is displayed on the product, owner's manual, or power supply, it signifies that when you wish to dispose of this product, manual or power supply, you must do so in an approved manner. Do not discard this product, manual or power supply, along with ordinary household waste.

Contact	Technical support
Expressive SAS 11 Rue de la République 13002 Marseille France contact@expressivee.com	www.expressivee.com section 'help' osmose@expressivee.com

overview
before you start

box contents

1x Osmose CE expressive MPE/MIDI controller
1x quick Start Guide sheet with registration code
1x product safety manual. Please read it before using Osmose CE
1x USB C cable

powering your Osmose CE

Osmose CE is delivered without a power supply. If your computer has a USB C port, then this will be enough to transmit both data and power using the cable included in the box. If your USB host device (computer) only has USB 2.0 ports available, or if you wish to use the device standalone, you must provide the power from a USB power supply like a USB C smartphone charger (separately available). Connect it to the dedicated USB C power input on Osmose CE, see rear panel for the correct port. You will then need a separately available USB A to C cable for USB MIDI/data transfer to your USB 2.0 host (computer).
i You may use any kind of USB C charger of up to 100W to power Osmose CE.

keyboard calibration

The rest position of Osmose CE's keys is calibrated while the unit is booting. Please make sure nothing is touching the keys during this step.

maintain the keybed's longevity

The augmented keyboard action's unique playing feel is attained mainly by silicone cylinders below each key. While the material is designed to last numerous years without deteriorating, you will need to ensure that the cylinders can always revert to their uncompressed, idle position after being pressed.

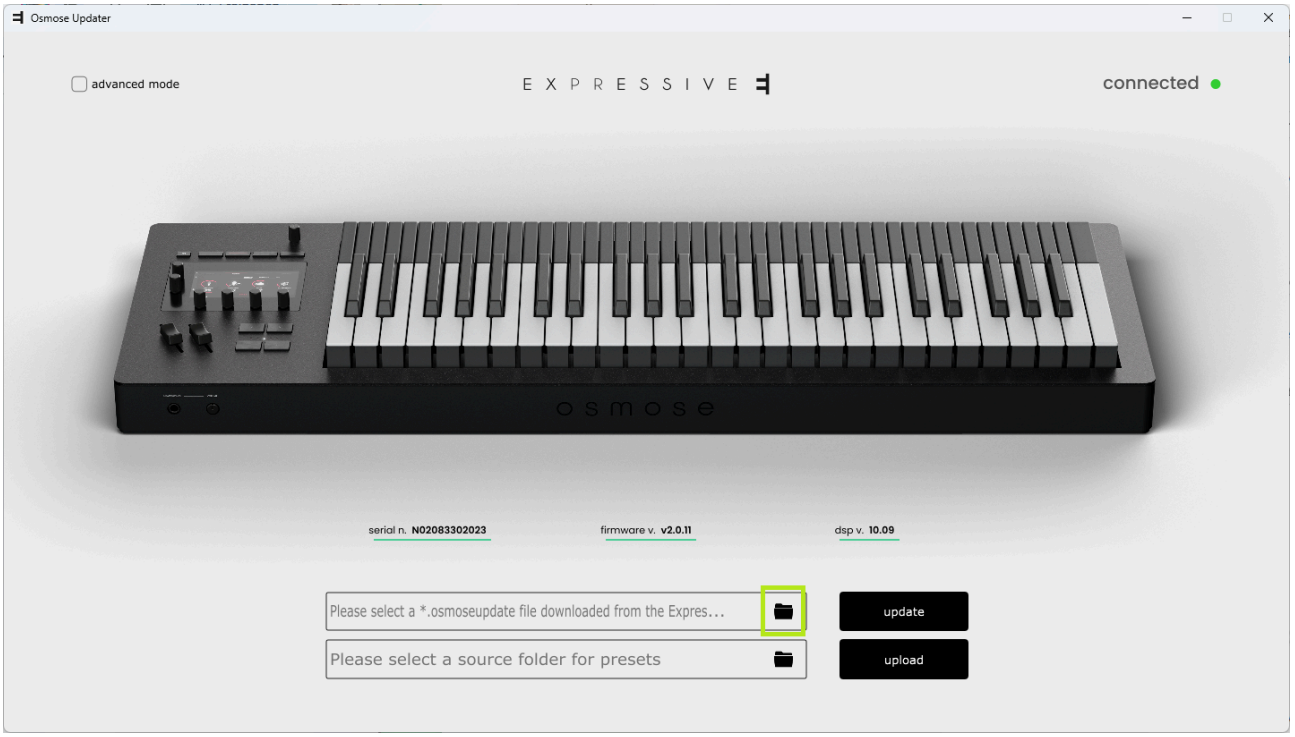
☝ Do not stow away your Osmose in a way that permanently compresses its keys, or you will risk the cylinders underneath losing their elasticity and needing to be replaced.

register your device

In order to get access to all Osmose-related download links like the up-to-date firmware, please enter the serial number from the brown quick start sheet that came with your unit on the product registration page of your Expressive E user account. The serial number is also available in the Settings > info tab on your Osmose CE.

Please contact our commercial support team if your unit has already been registered with another account and the former user forgot to unregister their unit.

firmware update



We always recommend installing the latest available firmware on your device.
The firmware download comes bundled with the application OsmoseUpdater, which is used to back up/restore user data and update Osmose CE's operating system.

The download is available in your customer account after registering your product on our website. For detailed instructions, please refer to this dedicated document:

🔗Osmose firmware update instructions

helpful videos

overview video

To gain an overview of Osmose CE's functions, we recommend watching:

Osmose CE — Overview

DAW control introduction videos

For an introduction to Osmose CE's DAW Control please watch:

daw control with ableton live

daw control with bitwig studio

daw control with cubase

daw control with logic pro

hardware overview

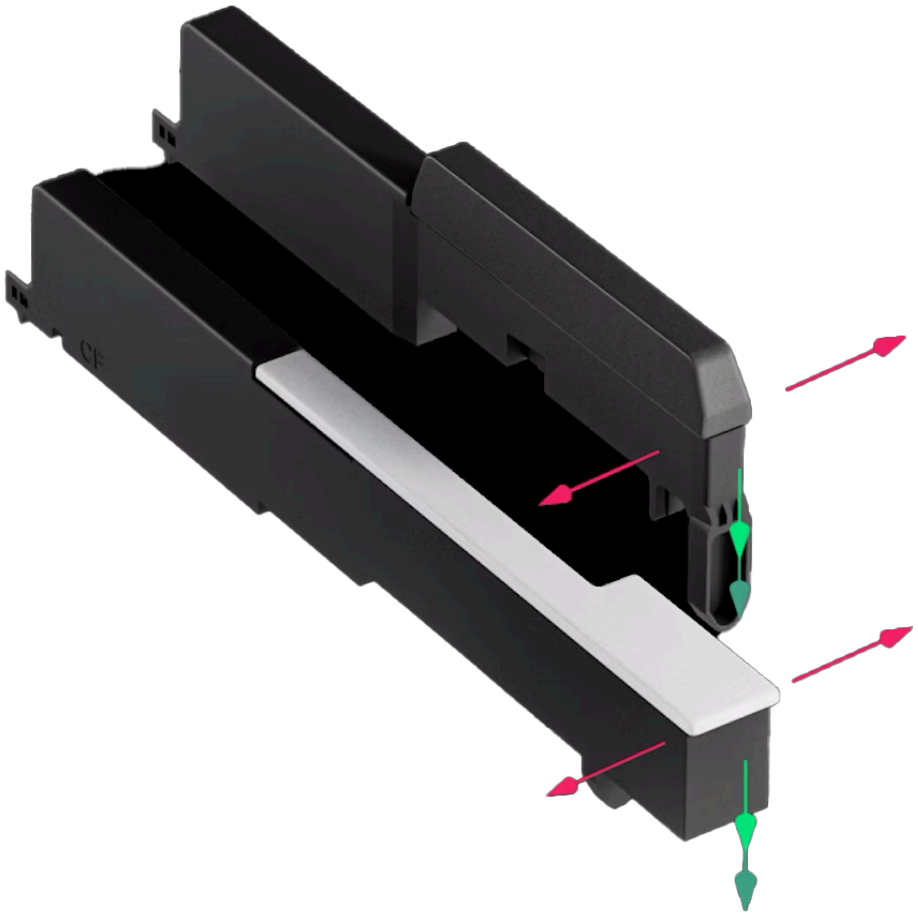
augmented keyboard action

Osmose CE is constantly scanning the position of its keys, offering a seamless connection between every gesture played by the musician and the resulting sound.

☝ The Augmented Keyboard Action on Osmose CE does *not* work as a capacitive surface like a touch screen or touchpad. It does not detect your finger position, but rather the position of its keys in order to always offer progressive pressure feedback, even when playing with your eyes closed.

Three axis motions are taken into account:

- extended polyphonic **pressure**
- hi-resolution polyphonic **aftertouch**
- polyphonic pitch **bending**



rear panel

1 **power switch** - Turns Osmose CE on and off

2 **pedals Inputs** - Two 1/4" TRS jack inputs for continuous control of parameters. Not all pedals are supported, and they need to be calibrated before usage, see pedal calibration.

3 **USB-C MIDI + Power port** - Class-compliant USB for bidirectional MIDI communication with a computer or host. See also connect Osmose CE to your computer.

4 **USB Power port** - USB-C port for power only. Use this port if you're connecting Osmose CE to a device unable to provide bus power via the MIDI+Power connector. For example, a computer without USB-C ports.

5 **MIDI DIN IN/OUT**- Standard 5-pin connectors for communication with MIDI devices.

front panel

6 **volume knob** - controls the master output volume of your DAW.

7 **main control Interface** - access to all of Osmose CE's parameters, see main control interface.

8 **preset Buttons (< and >)** - select the previous and next preset. The black labels above indicate shift functions when Osmose CE is set to DAW control. If used with Ctrl-E, these buttons will select the previous or next instrument preset.

9 **octave Buttons (- and +)** transpose the keyboard up or down in octaves. The LEDs indicate the current keyboard transposition state. The black labels below indicate shift functions when Osmose CE is set to DAW control.

10 **modulation slider** - The modulation slider works like a standard modulation wheel and sends MIDI CC1 by default. Its assignment can be changed in the controllers tab.

11 **pitch Bend slider** - This spring-centered pitch bend slider controls the global pitch bend.

osmose ce midi ports

When you connect Osmose CE to your computer, three USB MIDI ports will appear:

1) usb port

macOS: 'Osmose CE 49 play' *(Port 1)* or **'Osmose CE 61 play'** *(Port 1)*
Windows: 'MIDIIN1' *(Osmose CE 49)* or **MIDIIN1'** *(Osmose CE 61)*
This port sends Osmose CE's MIDI performance data over USB, according to the chosen MIDI configuration. Use this port when you want to send MIDI performance data from Osmose CE over USB.

2) din port

macOS: 'Osmose CE 49 din' *(Port 2)* or **'Osmose CE 61 din'** *(Port 2)*
Windows: 'MIDIIN2' *(Osmose CE 49)* or **MIDIIN2'** *(Osmose CE 61)*
This port sends Osmose CE's MIDI performance data to the physical MIDI DIN output, according to the chosen MIDI configuration. Use this port when you want to send MIDI performance data from Osmose CE through the DIN output. See midi i/o to configure the din ports.

3) daw control port

macOS: 'Osmose CE 49 daw control' *(Port 3)* or **'Osmose CE 61 daw control'** *(Port 3)*
Windows: 'MIDIIN3' *(Osmose CE 49)* or **MIDIIN3'** *(Osmose CE 61)*

The 3rd port, 'daw control', is only for internal communication between Osmose CE control surface functions, DAWs and Ctrl-E. It should not be used for hardware and software synths, as it does not send, or receive, midi note information.

control interface overview

main control interface

The left side of Osmose CE features an interactive graphical interface through which you control the instrument's features. Navigation is organized around two groups of controls: five buttons (**1** -**2**) above the display , and six clickable encoders (**A** - **B** - **4** - **5** -

6 - **7**) around the display. Their functions change depending on the current screen.

1) **m Button** (**shift**) **- (1)**

The **m** button has two main uses: it can either be pressed once, or held down to access secondary functions.

- In **External MIDI** mode, pressing **m** returns to the **Main Menu**.
- In **DAW Control** mode, pressing **m** opens the **Transport Panel**. Holding **m** activates **shift** and gives access to secondary functions when used in combination with other controls.

2 - **MENU Buttons** - access one of the four menus of a mode **- (2)**

3 - Clickable encoders - (A, B, 4, 5, 6, 7)

The clickable encoders are used to navigate and control parameters within the current menu.

Each encoder can be turned, pressed, or both, depending on the current screen and the available function.

The icons displayed next to each encoder indicate the available actions:

- **Arrows** indicate that the encoder can be turned. For example, **encoder A**.
- A **colored dot** indicates that the encoder can be pressed.

- When both icons are displayed, the encoder can be both turned and pressed. For example, **encoders 4**, **5**, **6**, and **7**.
- When no icon is displayed, the encoder has no active function in the current context. For example, **encoder B**.

The exact function of each encoder depends on the selected menu or screen.

navigation principles

1) tab navigation

To scroll through tabs in a menu, turn the Encoder A in the upper left corner.

2) parameter navigation

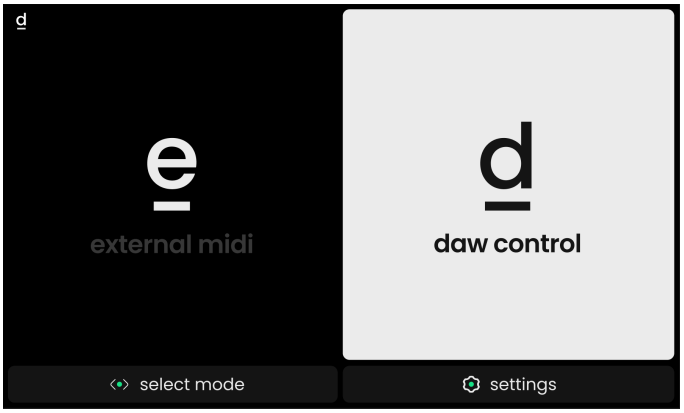
If more than 4 parameters are available in a tab, turn the Encoder B to scroll through available parameters.

At the bottom of the screen, the icons pictured below indicate the number of total parameters in the tab:

main menu

main menu overview

The **Main Menu Screen** appears when Osmose CE starts up. It is the main entry point for choosing how you want to use the instrument.



Depending on the current setup, one or two operating modes may be displayed:

External MIDI

Use this mode to play and control hardware or software synthesizers via MIDI, using Osmose CE's MIDI controller features. See external midi mode for more information.

DAW Control

This mode appears only when Osmose CE is connected to a compatible DAW. It is designed to make Osmose CE feel naturally integrated into your DAW, with additional features such as transport control, navigation, macro controls, and deep integration with Ctrl-E, the included plugin for expressive MPE sounds.

See daw control mode for more information.

From the main menu screen, you can also access settings, where you can adjust system-wide preferences such as global tuning, pedal calibration, firmware information, screen brightness, and more.

external midi mode

Osmose CE is an expressive MIDI controller that can breathe life into any hardware or software you have. Use external MIDI mode to either connect via USB to a host (computer), or to an external synth via the din ports.

External MIDI mode settings are independent from DAW Control mode settings. Changes made in External MIDI mode do not affect your DAW Control setup, and vice versa. If you want to use DAW Control with Ableton Live, Bitwig Studio, Cubase, or Logic Pro, refer to the corresponding daw Control mode section.

☝ Please be aware that some synthesizers, plugins, or DAWs may not support MPE, the protocol used for per-note expressive control. When MPE is not supported, Osmose CE can still provide an expressive playing experience through classic MIDI, with global expressive control, or through Multi-channel mode when available. For more information, see the sections below.

introduction to external midi mode

midi port reminder

As explained in the osmose ce midi ports section, use the **“Play” USB MIDI port** when you want to send Osmose CE’s MIDI performance data over USB:

macOS: ‘Osmose CE 49 Play’ *(Port 1)* or **‘Osmose CE 61 Play’** *(Port 1)*
Windows: ‘MIDIIN1’ *(Osmose CE 49)* or **MIDIIN1’** *(Osmose CE 61)*

Use the **DIN port** when you want to send Osmose CE’s MIDI performance data through the physical MIDI DIN output:

macOS: ‘Osmose CE 49 din’ *(Port 2)* or **‘Osmose CE 61 din’** *(Port 2)*
Windows: ‘MIDIIN2’ *(Osmose CE 49)* or **MIDIIN2’** *(Osmose CE 61)*

a word on mpe

Osmose CE is part of a family of MIDI Polyphonic Expression (MPE) instruments and controllers that strive to tear down the expressive restrictions of common electronic instruments. When starting to control external instruments from Osmose CE, it's useful to understand the way legacy MIDI communication is set up and how the MPE extension builds upon this.

In a classic MIDI environment, all MIDI messages that belong to a sound are sent on one single MIDI channel. Any modulations (such as pitch bend or changes in timbre) are sent per channel and thus affect all notes of that sound in the exact same way. If other MIDI channels are used, then this is commonly done to address a separate instrument or track of a multitimbral sound engine, e.g. in a hardware workstation or in your DAW.

MPE is an official extension to the MIDI standard where multiple MIDI channels are used to control the same sound. One channel is retained for global messages (master channel), but every single note that is played is granted its own MIDI channel. This way, per-channel modulation can be applied to each note individually, giving you much more control over your polyphonic performance.

backward compatibility

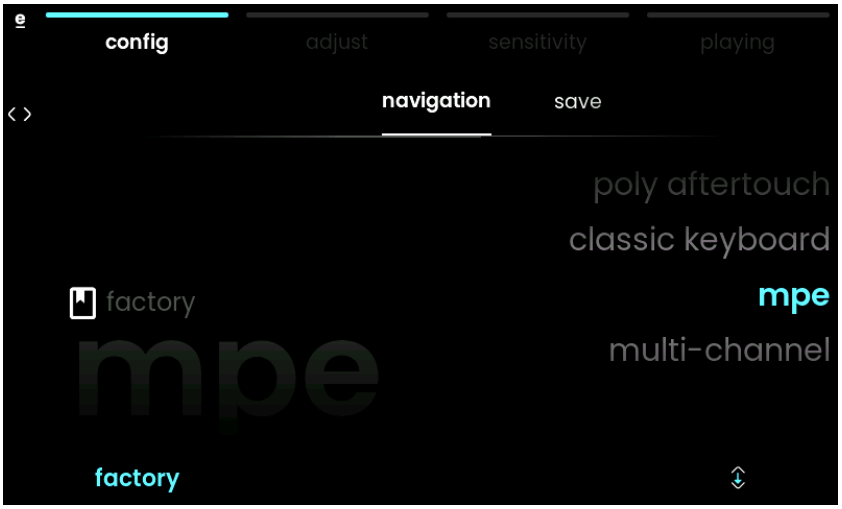
Even if the external software or hardware instrument that you hook up to Osmose CE doesn't support MPE, you can still intuitively shape their sound directly via the keys of Osmose CE's Augmented Keyboard Action. Pressure and Aftertouch motion axes can continuously control any parameter inside the synth on a global basis. Bending can perform a pitch bend of all the notes you play as a whole.

In a non-MPE context, this global value of a motion axis will affect all the notes you play in the same manner, just as if you would move a knob or a fader on a standard MIDI controller. Osmose CE lets you define whether the global value sent by a motion axis is calculated as an average of the individual values of all keys pressed, or whether it is derived from the pressure or bending you apply to a specific single key (highest note, most pressed down, etc.).

i Monophonic lines on external synths can always be played expressively from Osmose CE. This is because for monophonic sounds, there's always one dedicated channel per voice, even in a legacy monochannel setup.

For concrete examples, watch these dedicated video examples:
Osmose CE — Overview

config menu



The **config** menu gives you access to **External MIDI configuration presets** designed to help Osmose CE communicate with a wide range of hardware and software synthesizers.

In the **factory** filter, you will find standard MIDI configurations for common use cases, such as **classic keyboard**, **poly aftertouch**, **multi-channel**, or **MPE**. These configurations define how Osmose CE sends MIDI data.

You can also create your own configurations for specific instruments or setups. Custom configurations can be saved and will appear in the **user** filter.

navigation tab

Turn Encoder 4 or use the Preset buttons to step through the different External MIDI configurations. You need to push the Encoder to actually load a configuration.

If you have saved your own External MIDI config presets, you can turn Encoder 1 below the screen to show only factory configs, user configs or all.

i External MIDI configurations can be fine-tuned via the adjust and sensitivity menus.

Let's take a closer look at the main factory configurations available in the **config** menu.

mpe

Is the default for controlling MPE-compatible software and hardware.
It sends MIDI messages according to the MIDI Polyphonic Expression standard.
The Pressure axis sends Velocity (MPE Strike) and Channel Pressure (MPE Pressure).
The Aftertouch sends CC74 (MPE Timbre, also called MPE Slide because it's the parameter that other MPE controllers often address with a sliding movement along the Y axis on the playing surface).
Note Bending sends pitch-bend messages (MPE Glide). MIDI channel 1 is reserved for global messages, and channels 2 to 16 are used to transmit one voice each.

classic keyboard

Is the best choice for full backward compatibility. It sends MIDI messages like a legacy MIDI keyboard would do. The 'Note On' threshold in the sensitivity menu is moved down further along the key travel to mimic traditional keyboard actions. The Pressure axis only sends Velocity, and the Aftertouch axis sends Channel Pressure, commonly called (mono) aftertouch. Note Bending is deactivated. All messages are sent on MIDI channel 1.

poly aftertouch

is perfect for controlling software and hardware synths that offer polyphonic aftertouch. It behaves just like the Classic Keyboard configuration but sends Polyphonic Aftertouch instead of Channel Pressure to the Aftertouch axis.

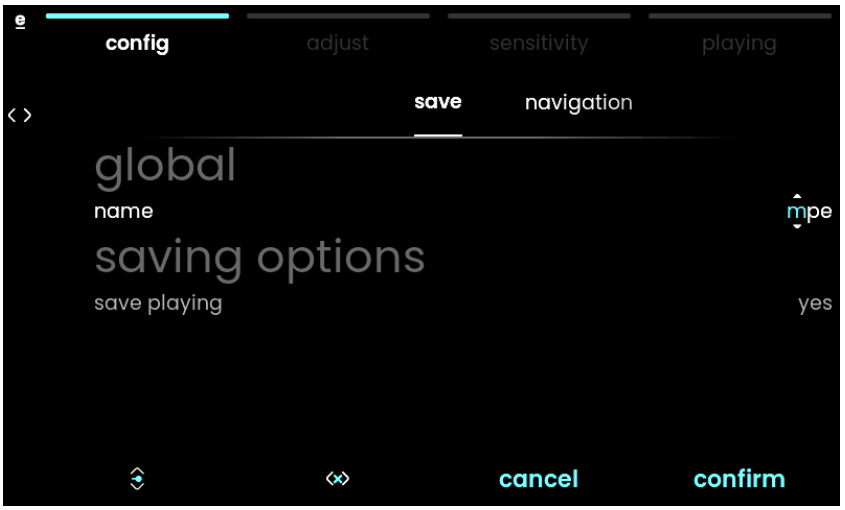
multi-channel

Is useful for imitating the advantages of MPE with non-compatible software and hardware. For this, multiple instances of the same plugin or sound should be dialed up on the external device, each responding to a single MIDI channel.
The Multi-Channel configuration behaves just like the MPE configuration, where one MIDI channel is used to transmit one voice each, but lacks a channel for global messages. To compensate for the lack of a global channel, global messages like CC1 (modulation slider) are sent as copies on every active channel.

save tab

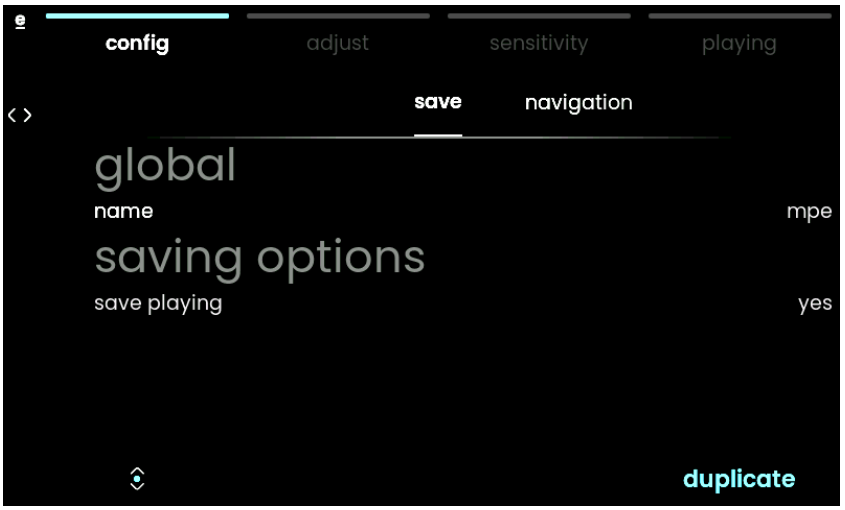
The save tab allows you to save your own External MIDI config presets. When saving a MIDI configuration preset, it will include all changes made in the adjust menu and

sensitivity menu of External MIDI mode. If you activate the ‘save playing’ option, you will also include the press glide or arp settings from the playing menu in the preset file.



To save a preset, use encoder A to find the save tab. ‘Name‘ will be highlighted already, so push Encoder 1 to enter a name. Turning Encoder 1 will cycle through letters, while Encoder 2 will scroll to the next or previous letter. Then choose to save the playing option or not.

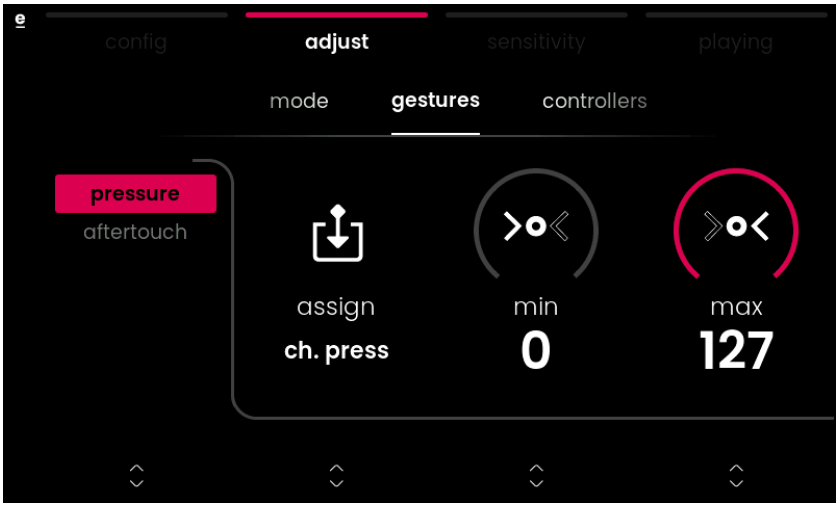
If you use the ‘save’ button and a preset with the same name already exists on Osmose CE, it will prompt you to confirm overwriting it. Choosing ‘duplicate’ will avoid overwriting by adding a number at the end of the name of the midi configuration preset.



Once saved, your own External MIDI config presets will show up in the navigation tab of the config menu.

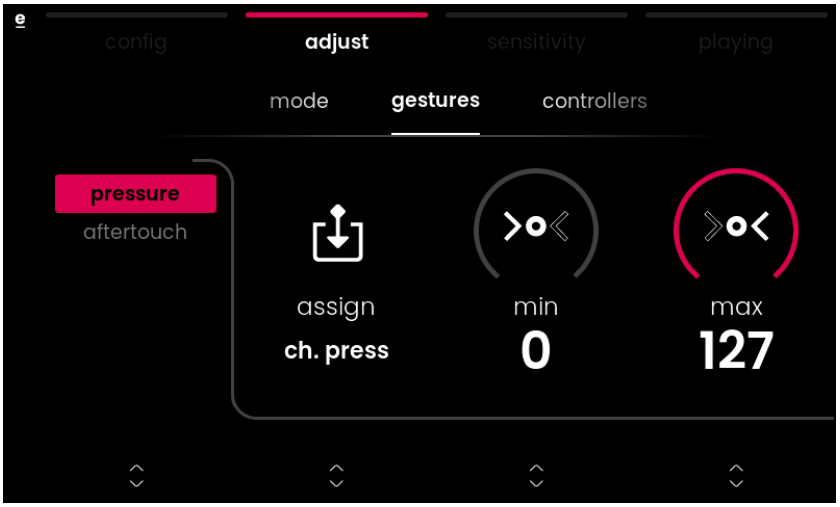
adjust menu

The adjust menu lets you determine the MIDI channel(s) used, as well as which MIDI message is sent by which key axis motion or controller.



gestures tab : set what MIDI message is sent by the pressure and aftertouch axes
controllers tab : set what MIDI message is sent by the mod slider and the two pedals
mode tab : choose the MIDI configuration and MIDI channel(s) used

gestures tab



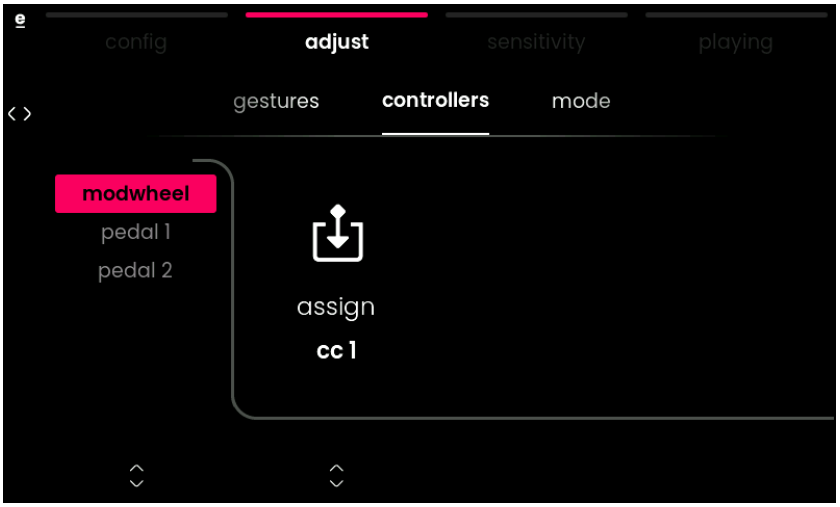
This tab sets what is sent by the pressure and aftertouch axes. First, select pressure or aftertouch with Value Encoder 1, then change its parameters with Encoders 2 to 4:

assign selects the MIDI message sent for the axis motion selected on the left.
min sets the minimum value
max sets the maximum value

activation defines how the value of an axis motion is calculated for scenarios where only one value is sent for the entire keybed instead of per note. The parameter is only displayed if a mono-channel configuration like 'classic keyboard' or 'poly aftertouch' has been selected in the config menu. Options are:

- maximum: the most-pressed key defines the value
- minimum: the least-pressed key defines the value
- last note: the key you pressed last defines the value
- first note: the 'oldest' key that is still held defines the value
- average: the value sent is calculated as an average of all pressed keys

controllers tab



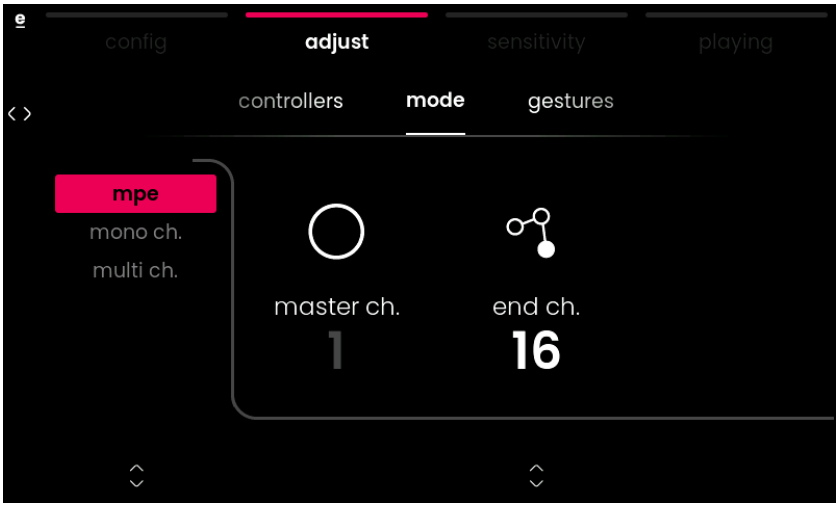
This tab defines what is sent by the mod slider and the two pedals.
First, select the controller with Encoder 1, then change its parameters with Encoder 2:

assign selects the MIDI message sent by the controller on the left

min sets the minimum value

max sets the maximum value

mode tab



This tab allows you to determine the general MIDI mode and how MIDI messages are distributed across MIDI channel(s) within that mode. It is used to refine the configuration you choose within the config menu when the external software or hardware you wish to control requires it. Find possible adjustments below:

mpe
Lets you define the end channel for the 'mpe' configuration. The master channel for global messages must remain 1 as per the MPE specification, but the end channel parameter allows you to reduce the channels used for transferring single notes, e.g. when your target device only has limited polyphony.
i Example: When setting the end channel to 13, notes are distributed in a round-robin pattern across channels 2 to 13, resulting in 12 voices of MPE polyphony.

mono ch.
Lets you define the single channel on which notes are sent for legacy MIDI configurations like the 'classic keyboard' and 'poly aftertouch' configuration.

multi ch.
Lets you define the start and end channel for the 'multi-channel' configuration.
i Example: When selecting start channel 4 and end channel 9, notes will be sent in a round-robin pattern across channels 4, 5, 6, 7, 8, and 9, leaving you with 6 notes polyphony.

setup examples

monophonic synth

To control a monophonic synthesizer, such as a Sub Phatty, start by connecting Osmose CE's DIN output to Sub Phatty's DIN input with a MIDI cable. Go to the config menu and load the 'classic keyboard' configuration. Ensure that mono ch. is set to '1', both on Osmose CE and on the Sub Phatty. Then, go to the midi i/o tab in settings, and check that the din mode is set to 1/3. Adjust **Press/Velocity**, **Aftertouch** settings in the sensitivity menu to adapt Osmose CE's response to the connected synth.

To go further, enable **Bending** in the sensitivity menu. This lets you play vibrato and pitch bends directly from the lateral movements of Osmose CE's keys.

Watch this example : Osmose CE — Overview

polyphonic aftertouch synth

If you wish to control a monophonic synthesizer, like a Prophet-6, connect a MIDI DIN cable from Osmose CE's DIN output to Prophet-6's DIN input. Open the config menu and load the 'poly aftertouch' configuration. Next, head to the mode tab in the adjust menu and make sure 'multi ch.' is selected. Set 'start ch' to '1' and end channel to '6'. Head to the midi i/o tab in settings and select 1/3 on DIN mode. Go to Prophet 6's settings and verify it receives MIDI on the same channels you are sending out. Customize press/velocity, aftertouch and bending to taste. To get the correct response you may need to swap the assignments of 'channel pressure' and 'aftertouch' in the adjust menu.

"Super Synth"

To create a 'Super Synth' to control with your Osmose CE. Start by loading in several instrument plugins in your DAW. Either the same plugin, or combine different plugins and patches so each of your fingers has its own 'voice'. For a polyphony of 6, create 6 tracks, and add the instrument plugins you want to them. Assign track 1 to MIDI channel 1 etc, so each track corresponds to a unique MIDI channel. Press menu button 1 to open the config menu**,** and load the factory 'multi-channel' configuration. Continue to the mode tab in the adjust menu, and set 'start ch.' to '1' and the 'end ch' to '6'.

i You may use software synths that are monophonic, polyphonic or combinations of the two for your 'Super Synth'.

Watch this example : MPE: Demystified - creative tutorial #8

orchestral library

For orchestral libraries that don't support MPE, you can still set them up for per-note expression. Let's say we want 8 voices to control. Load in 8 orchestral library plugin instances in your DAW and select your preferred sound for each. Give each instance a unique midi channel. Channel 1 for Instance 1, channel 2 for Instance 2 and so on. Finally, set channel 8 for Instance 8, and load up the factory 'multi-channel' config on Osmose CE. Go to the mode tab in the adjust menu. Here, choose '1' for the 'start ch', and '8' for the 'end ch' so the channel count corresponds.

Go to the gestures tab, ensure 'pressure' is assigned to 'ch press', and set 'max' to 40. Next, highlight 'aftertouch' by scrolling encoder 1, and adjust 'min' to 41. This means once a key travels past a value of '40', the aftertouch takes over when the value is '41' or higher. We encourage you to experiment with these two values, as each library offers a slightly different response. The value numbers must always be adjacent to each other For example, a 'channel pressure max' value of '63' means the 'aftertouch min' value should be '64'.

Watch this example : Osmose CE — Overview

external MPE synth / sound module

In the case of playing an external MPE synth, connect a DIN cable from Osmose CE`s DIN output port to the MIDI in port. Verify that the synth you want to control is set to 'MPE mode'. Let's say you would like to use a GS Music E7, which has 7 voices. Head to the config menu and change the MIDI config setting to 'MPE'. With MPE, channel 1 is always reserved as the master channel, so individual voices start on channel 2. Go to the mode tab in the adjust menu, and set 'end ch' to '8'. Continue to the midi i/o tab in settings, and set DIN mode to 1/3. Check the midi channel settings on your E7 to be sure they correspond to channels 2-8.

Watch this example : MPE: Demystified - creative tutorial #8

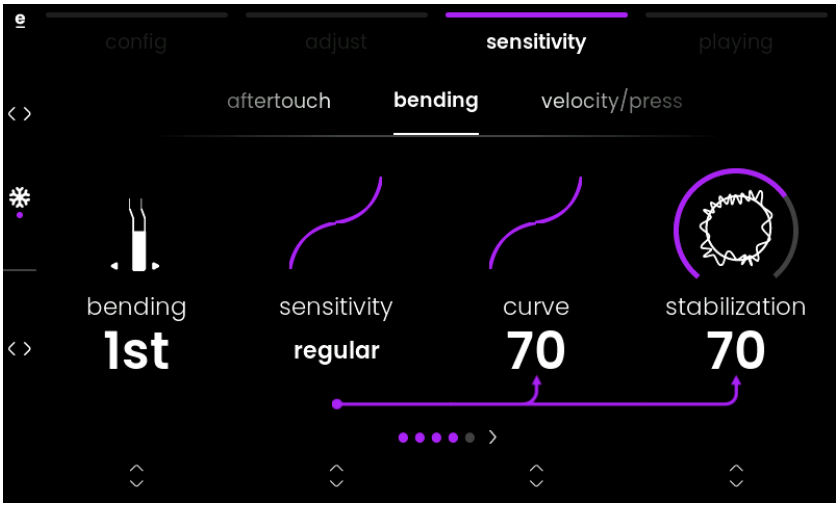
i When you are happy with your setup, and all settings are correct, you can name and save your MIDI config to quickly recall it later.

sensitivity menu

The Sensitivity menu lets you customize the keybed sensitivity for bending, velocity/press, and aftertouch. These parameters are always saved in the midi config presets you create. You will still need to manually save the midi config preset again if you make any changes you would like to keep.

Watch a video overview of the Sensitivity menu here : Osmose CE — Overview

bending tab



bending sets the range of bending when wiggling the key sideways.

i When MPE is used, the bending value is shown as a number of semitones. It works together with the 'mpe bend range', see the workflow tab chapter for more information.

In **Mono**, **Poly Aftertouch**, and **Multi-channel** modes, the bending value is shown as a ratio of the pitch bend range set on the preset, plugin, or synth you are controlling.

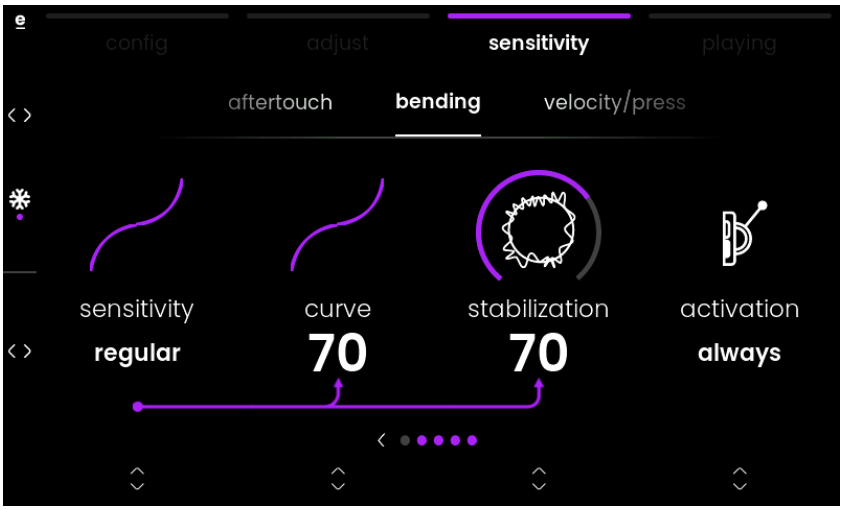
For example, if the connected synth is set to a pitch bend range of **±2 semitones**, a bending value of **1** lets Osmose CE use the full **±2 semitone** range. A value of **1/2** uses half of that range, resulting in **±1 semitone**.

☝️This allows you to use Osmose CE's **lateral key movements** to control **pitch bend** on **non-MPE instruments**. In non-MPE setups, this pitch bend is global: it affects all currently played notes in the same way.

sensitivity adjusts how sensitive the per-key bending is.

curve finetune the curve of the bend.

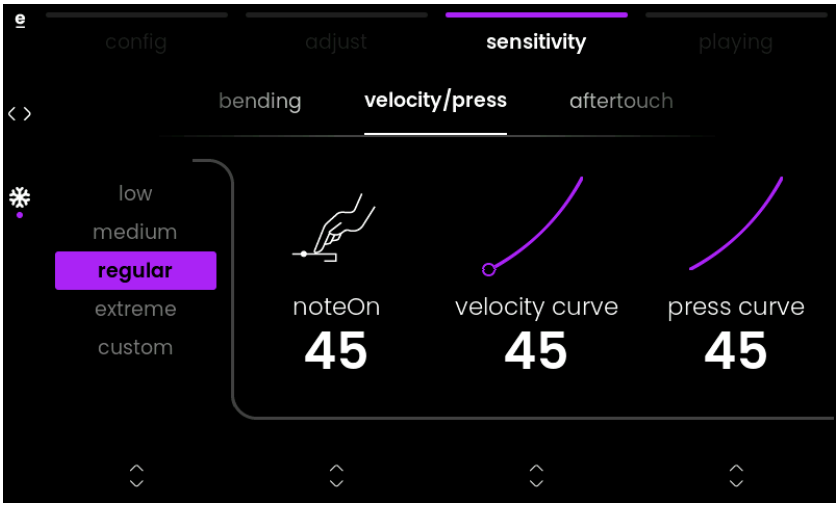
stabilization stabilizes the bending during the first few milliseconds. Higher values will make the stabilization more rigid.



activation defines how bending will be applied when the keys are played. To see the activation parameter, use Encoder B to scroll right. Then turn Encoder 4 to select activation type. Depending on your choice, bending is applied:

- always: per-key bending on all notes
- never: per-key bending is disabled
- to oldest note: the 'oldest' key that is still held defines the value
- to last note: the key you pressed last defines the value
- to lowest note: the key with the lowest note
- to highest note: the key with the highest note

velocity/press tab



The ‘velocity/press’ tab governs the first vertical dimension of the keys. Encoder 1 lets you choose from a list of sub presets (low, medium, regular extreme, custom). These offer control over the following parameters at once:

noteOn defines at which point of the downward key travel a note is triggered, which is called the ‘note on’ threshold.
💡If you find yourself triggering notes unintentionally, we recommend increasing the ‘noteOn’ threshold value. This will bring you more and more towards a classic keybed feel, where notes are only triggered when you push a key right down to the bottom. On the other hand, if you’re eager to experiment with triggering notes using only light keytaps, then a very low ‘noteOn’ threshold value will let you do exactly that.

velocity curve adjusts the response curve of the keybed velocity. Applies only to MIDI.

press curve adjusts the response curve of the pressure dimension. Applies only to MPE.

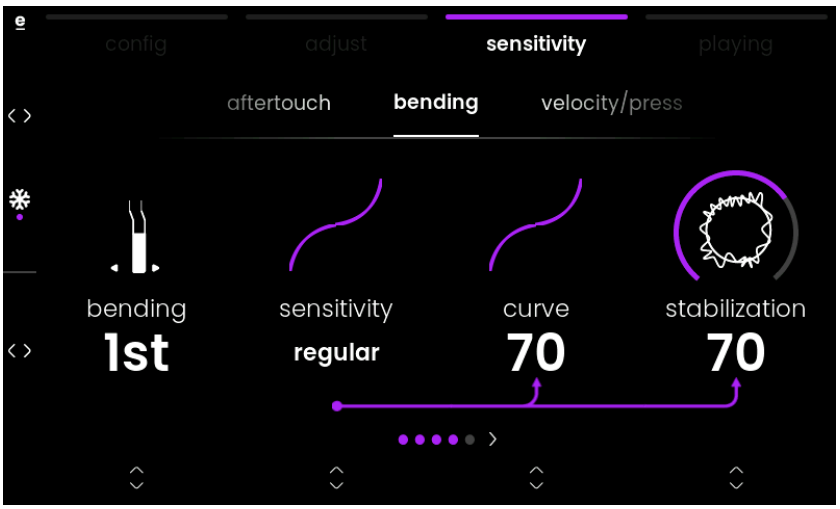
i If you change any of these three parameters, the sub preset will switch to ‘custom’.

aftertouch tab

The aftertouch begins where the pressure axis motion is at the maximum. Aftertouch is the second part of the vertical key travel, following a clearly detectable pressure point. The first parameter of this tab suggests quick presets for the aftertouch sensitivity **curve**, which can also be finely adjusted by turning Encoder 2.

💡The more notes you play at once, the harder it will become to push fully into the keys' aftertouch without bending the notes' pitch unintentionally. In this case you might prefer to have a sensitive aftertouch that doesn't require lots of force to activate. On the other hand, if a preset triggers a special sound aspect upon entering the aftertouch, e.g. automatic ratcheting of a plucked sound, and you wish to have a clearer separation, it will help to dial down the aftertouch curve.

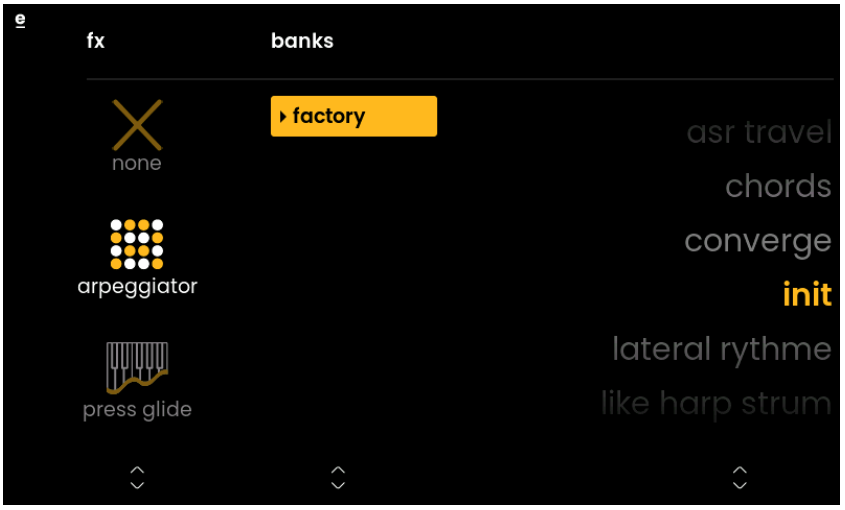
freezing sensitivity settings



Push encoder A (❄️) to freeze your current sensitivity settings across all midi config presets you load in. The snowflake icon next to the encoder will turn purple when freeze

is engaged. Push encoder A again to unfreeze.

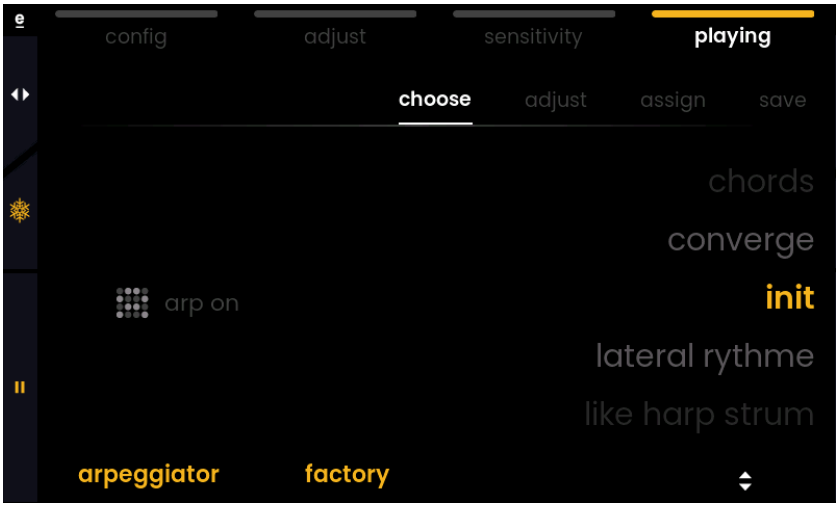
playing menu: introduction



The Playing menu gives access to features that use Osmose CE's continuous expressive controls to expand the creative possibilities of your playing.

After accessing the Playing menu with the fourth Menu button, turn Encoder 1 to choose either Pressure Glide, the expressive arpeggiator, or no playing feature at all.

expressive arpeggiator



Arpeggiators usually trigger all notes with the same intensity, often resulting in a somewhat mechanical, monotonous sound. Osmose CE's MPE arpeggiator takes advantage of the fact that the instrument knows the exact position of each key at every given time. When playing the arpeggiator pattern, Osmose CE continues to take into account all three axis motions of the augmented keyboard action keys: Pressure,

Aftertouch, and Bending. It means that you can highlight single notes within your arpeggiator sequence just by pressing them differently from the others.

choose tab : load an arpeggiator preset

adjust tab : set the arpeggiator parameters

assign tab : let gestures and controllers modulate arpeggiator parameters

save tab : save the current arp settings as an arp preset

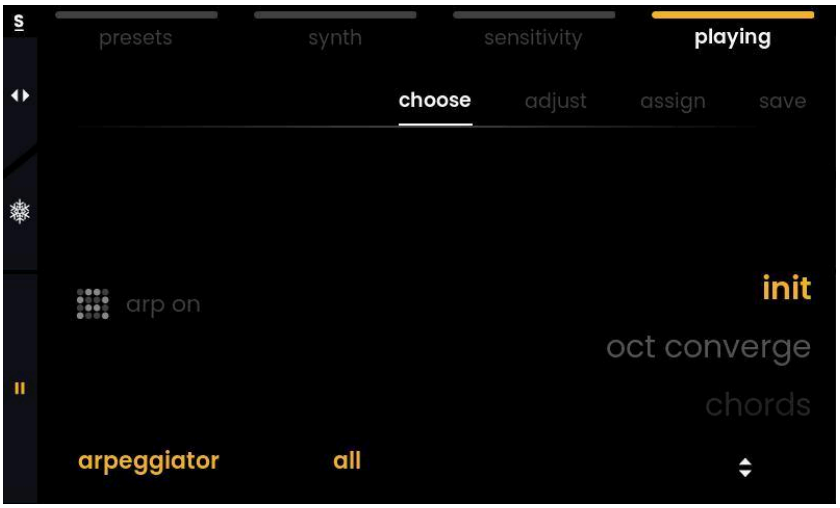
⏯ You can start or pause the Arpeggiator with a click on Encoder B.

i Since an arpeggiator typically plays monophonic lines that don't require the 'polyphonic' aspect of MIDI Polyphonic Expression that much. Osmose CE's arpeggiator can actually sound very lively with non-MPE, legacy instruments as well. Just bear in mind that as soon as notes are overlapping in a non-MPE context, parameters like pitch bend will stay global and affect all sounding notes at once.

i When using the arpeggiator with non-MPE MIDI config presets, MIDI Velocity is derived from the Pressure position of a key: A slightly pressed key will send minimal MIDI velocity and a key that is pressed to the maximum of the Pressure key travel (no need to enter Aftertouch) will send maximum velocity.

i To adapt the velocity values sent by the arpeggiator, you need to change the *press* curve in the sensitivity menu, *not* the velocity curve. This controls the velocity of manually triggered keys only.

choose tab

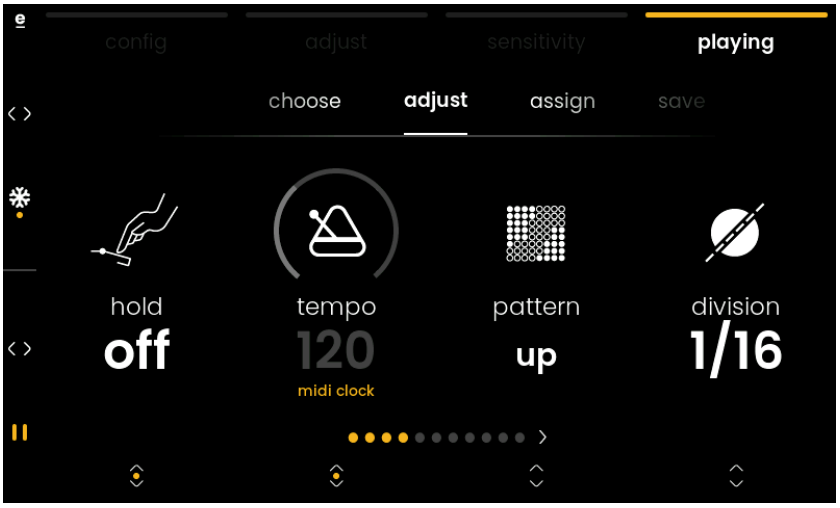


The first tab of the arpeggiator is the 'choose' tab, giving access to the arpeggiator

presets. The currently loaded arp preset is highlighted in yellow. Turn Encoder 4 to select another preset. With Encoder 2, you can filter between the factory arp presets and your own user arp presets.

💡 To discover the arp presets and their interactions, we suggest loading a polyphonic flute or brass sound, or another preset with a rather short attack and release. It will be a good start to understanding how your gestures can modulate the arpeggiator.
💡 Press encoder A (❄️) to enable Freeze and keep your current arpeggiator settings when switching between MIDI configuration presets.

adjust tab



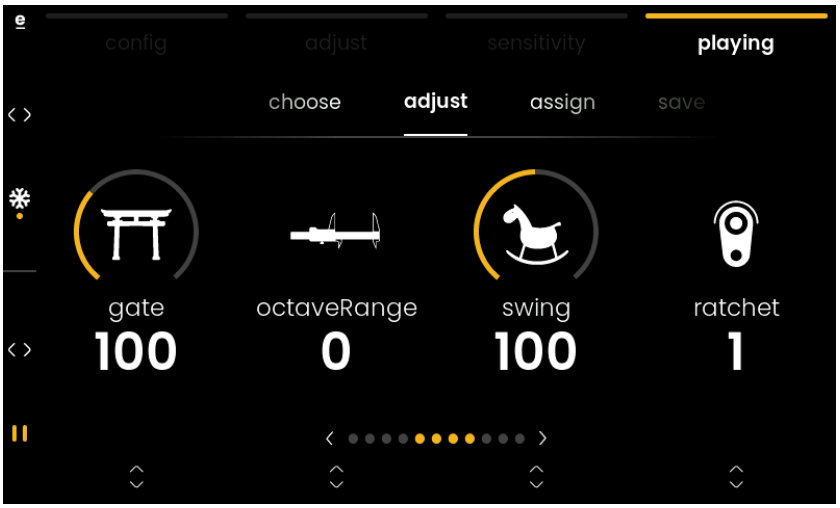
The ‘adjust’ tab contains all the arpeggiator parameters:

hold will ensure the notes you press will continue to be triggered even when you let go of the keys. It will remember the maximum pressure applied per key. The note sequence will only be reset when you have fully released all keys and then press a new key.

tempo defines the beats per minute. Pressing the Value Encoder below will switch between synching to an external MIDI clock and using the internal clock. Attention: Osmose CE is not capable of sending its own internal clock.

pattern lets you choose in which order the notes are played back.

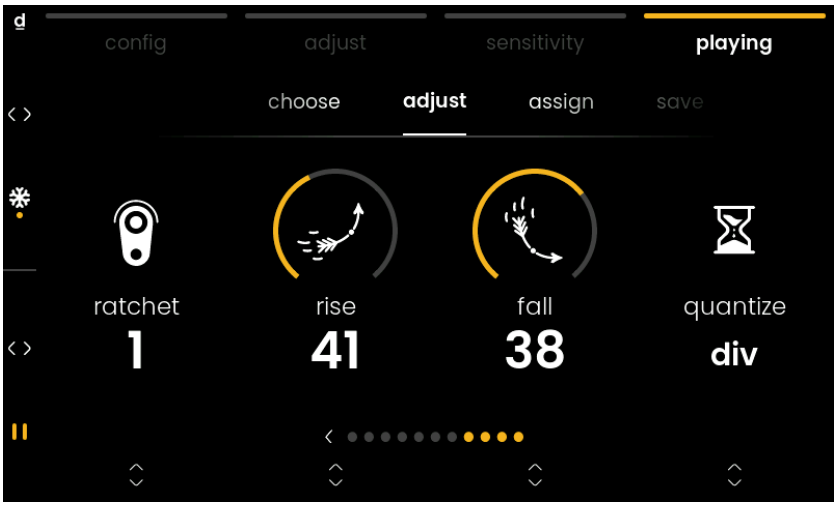
division defines the note value of one arpeggiator step. It selects a division of the tempo that determines the speed at which the notes are played.



gate determines the length of the notes as a percentage of the duration of one note according to the arpeggio speed.

octave range lets you add multiple octaves above the notes played.

swing allows shifting every second arpeggiator step in time. 100 equals an even playback of all steps. Values above 100 will introduce more and more swing, until, eventually, every second step is joined with the next step.



ratchet will introduce multiple triggers during one arpeggiator step.

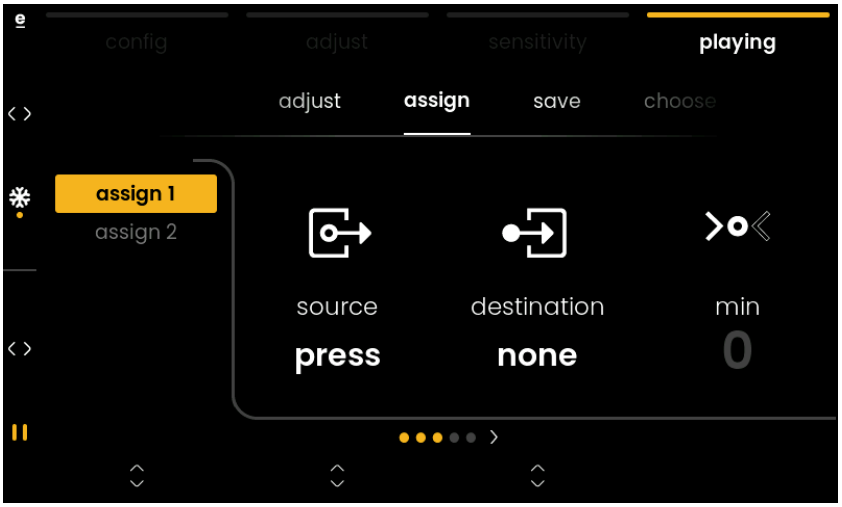
rise & fall will add some inertia to parameter changes, smoothing out fast increases or decreases in value.

quantize will quantize your notes according to divisions or beats, or turn off.

i When an arpeggiator parameter is controlled by a gesture via a controller (see assign tab), its value will be grayed out and the modulation source appears in yellow below

the parameter. In the picture above, aftertouch controls the gate, and press controls the ratchet parameter.

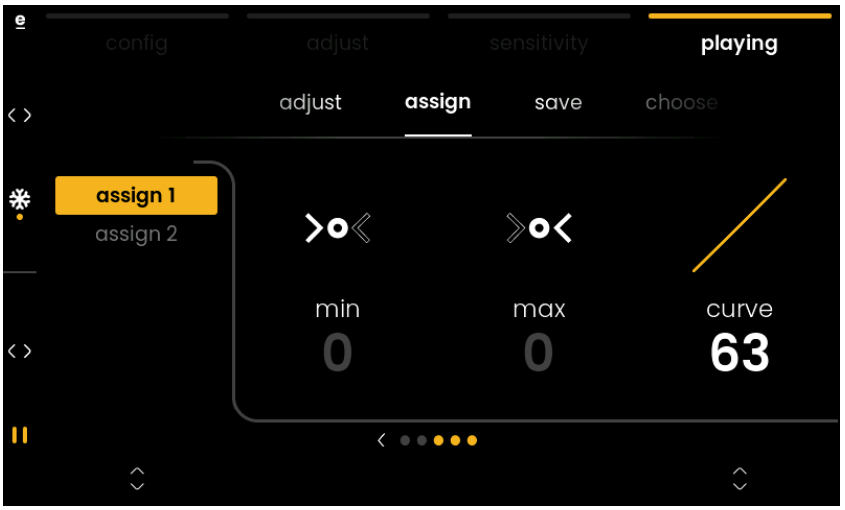
assign tab



The programmed behavior of a sound preset when it comes to Pressure, Aftertouch, and Bending is also kept when using the Arpeggiator: When you bend individual notes, their pitch will continue to change, and if a sound becomes louder and brighter when pressing it further, then the same will also happen when the Arpeggiator is active. Additionally, the way you press individual notes on the keybed can influence the arpeggiator parameters for that specific note. The 'assign' tab lets you set up the parameter mapping for this. Two 'assign' slots are available with the following set of parameters:

source selects a motion axis of the key or a controller that will affect the destination parameter. Here, bending to the left and bending to the right are available as separate sources. When using the mod slider or expression pedals as modulation sources, parameter changes will be global (not per-note).

destination selects the arpeggiator parameter that will be modulated. This includes all parameters listed in the adjust tab.

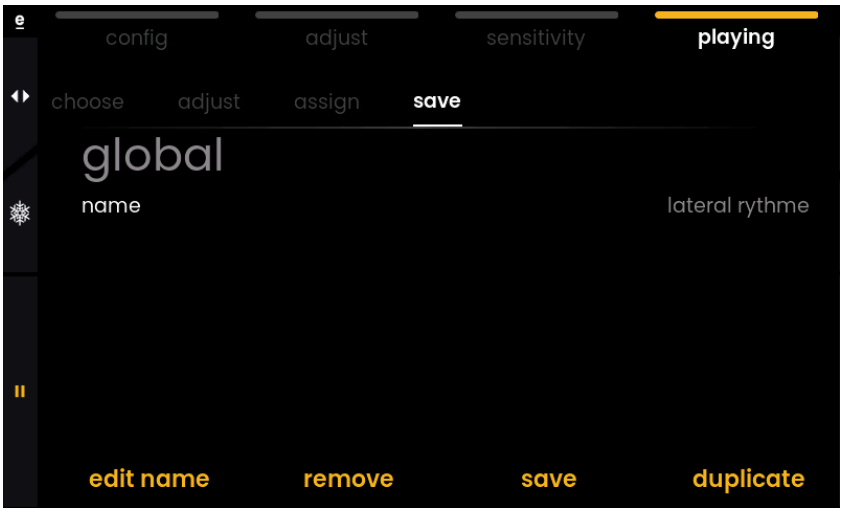


min sets the minimum value sent.

max sets the maximum value sent.

curve changes how resulting values are distributed when the source value goes from min to max. A linear response means values have equal ranges along the curve. If min is set to 1 and max is set to 2, then 2 is already selected when the source control is at 51% (MIDI value 64).

save tab



The ‘save’ tab of the MPE arpeggiator allows you to save the current settings of the arpeggiator as an arpeggiator preset that will then show up in the choose tab.

To give your arpeggiator a custom name, press Encoder 1 while the line ‘name’ is selected. Scroll through characters by turning the same encoder. Turn Encoder 2 to move the cursor. Once you’re done, validate by pressing Encoder 4.

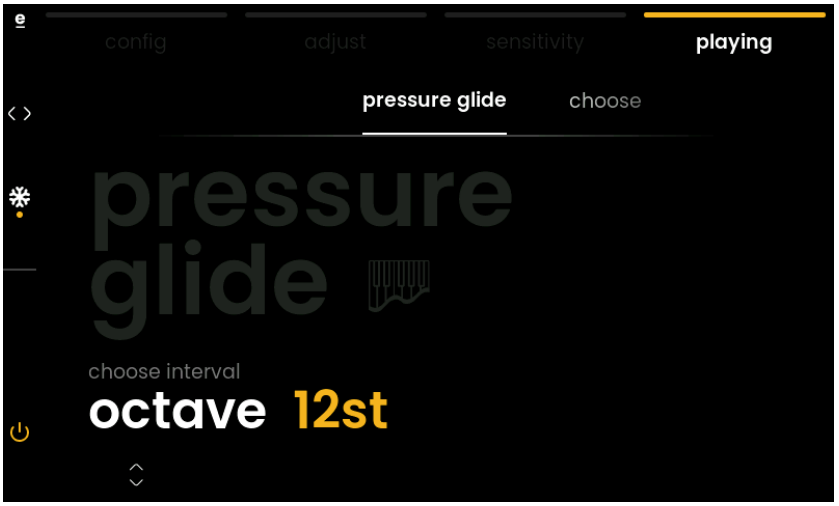
You can delete an arpeggiator preset by clicking Encoder 2 below ‘remove‘ and confirming it.

pressure glide

The Pressure Glide feature lets you define a pitch interval within which two key presses are interpreted as a legato line instead of polyphonic playing.

Unlike regular portamento, which makes the pitch glide to a new note within a fixed amount of portamento time, Pressure Glide reacts to the pressure ratio between the two notes. The pitch will dynamically glide between the notes in real-time, reacting to how you distribute pressure between them. You will need to release the first note completely to make the pitch arrive at the second note.

Feel free to watch the dedicated section on Pressure Glide in osmose’s quick start video to better understand how Pressure Glide works.



i Important note: when intending to play chords with Pressure Glide activated:
Two notes pressed simultaneously within the interval that you have set will always be joined into one pitch. For instance, with a pressure glide interval of 2 semitones, you can play chords with stacked thirds or wider voicings, but as soon as you play seconds, you will end up with one note with an averaged pitch instead of two discrete notes.

i When Osmose CE is in DAW Control mode and Pressure Glide is selected in the playing menu, you can activate or deactivate Pressure Glide by pressing the Mode button to open the DAW transport screen. Once opened, press and hold the Mode button and push Encoder 3.

daw control mode

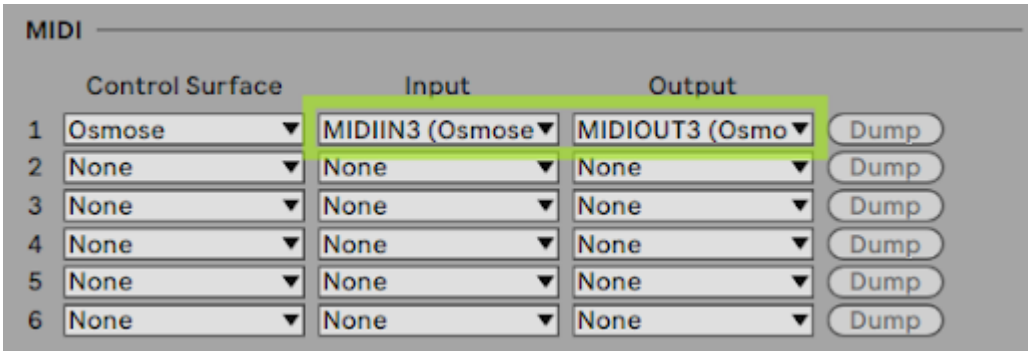
setting up your daw

ableton live

1) ableton live setup

Ableton Live already includes the necessary scripts for DAW Control. Please download the latest version of Live and update it before continuing. Once completed, we recommend checking the settings below to ensure smooth operation:

In Ableton Live's Settings -> MIDI Control Surfaces, it should look as follows:



Under inputs, for USB MIDI Port 1 of Osmose CE, be sure to activate Track and MPE:

In macOS, Port 1 is labeled 'play' and port 3 is labeled 'Osmose CE daw control'.

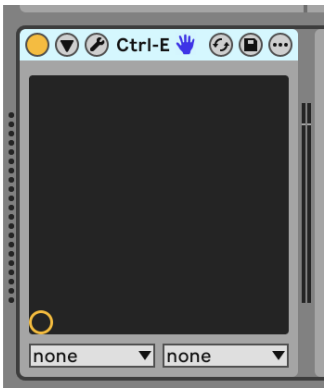
i If 'takeover mode' in Ableton is configured to 'none', go to Settings > Controllers and choose 'pickup'.

For your track's MIDI input, select the Osmose CE port 1 (play port) listed below:

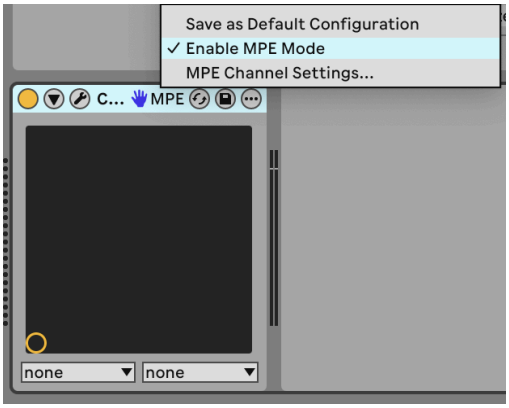
2) enable mpe for ctrl-e

To make sure Ctrl-E works correctly in Ableton Live, the plugin should be recognized as an **MPE-enabled** device. This should normally be enabled automatically. If you experience any issue with MPE playback or expression, you can check it manually:

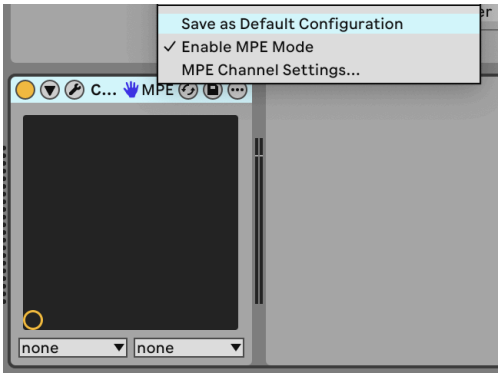
1. Right-click the Ctrl-E device title bar in Ableton Live, where the plugin name appears.



2. Make sure **Enable MPE Mode** is checked.



3. Then select **Save as Default Configuration** so Ableton Live remembers this setting for future Ctrl-E instances.



bitwig studio

1) daw control script installation

The Osmose CE DAW Control script is included natively in **Bitwig Studio 6.0.6** and later. No separate installation is required.

If you are using **Bitwig Studio 5.2.3** or later and cannot upgrade to the latest version, use the Bitwig script installer available from your Expressive E user account.

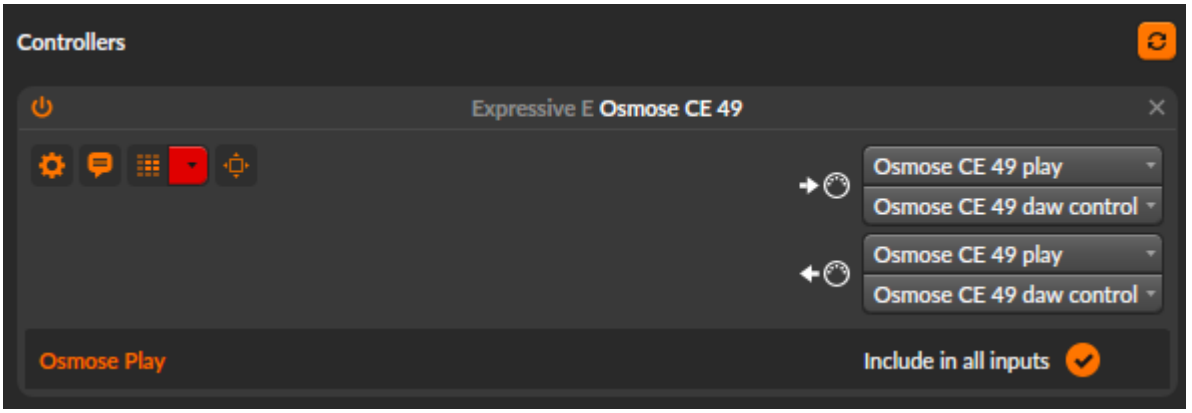
To download it, log in to your Expressive E account, go to My Products, find your Osmose CE, and download the DAW scripts for your operating system. Once downloaded, unzip the files and run the Bitwig script installer. Make sure Bitwig Studio is closed before installing.

After installation, open Bitwig Studio and verify that the settings below are correct.

2) recommended settings

If not mounted automatically, in Settings -> Controllers, click 'add controller', vendor Expressive E, and select your CE model. Then select USB MIDI Port 1 of Osmose CE for the first line for both input and output, and USB MIDI Port 3 for the second line.

In macOS, port 1 is labeled 'play' and port 3 'daw control':



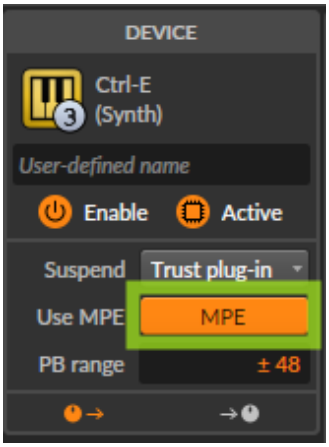
i If ‘takeover mode’ in Bitwig is configured to ‘immediate’, go to Settings > Controllers and choose ‘catch’.

3) enable mpe for ctrl-e

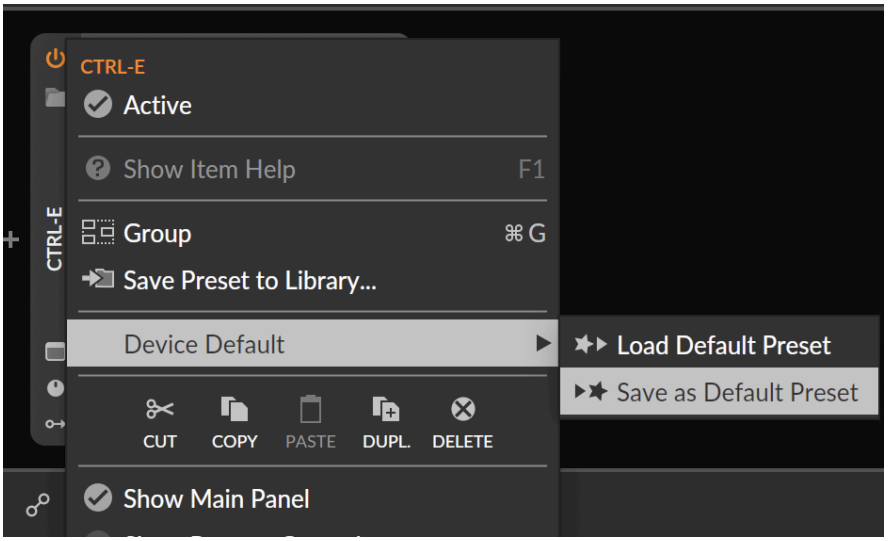
For Ctrl-E to work correctly in Bitwig Studio, **Use MPE must always be enabled** for the plugin. This setting is required for the proper MPE playing experience and for Osmose CE to access the full Ctrl-E browsing controls directly from the keyboard.

To make sure this setting is recalled automatically for future Ctrl-E instances:

1. Select the Ctrl-E plugin device in Bitwig Studio.
2. Make sure **Use MPE** is **enabled** in the device settings.



3. Right-click the **Ctrl-E device header**, where the plugin name appears.
4. Choose **Device Default > Save as Default Preset**.



Bitwig Studio will then recall this configuration automatically each time you load **Ctrl-E**.

cubase

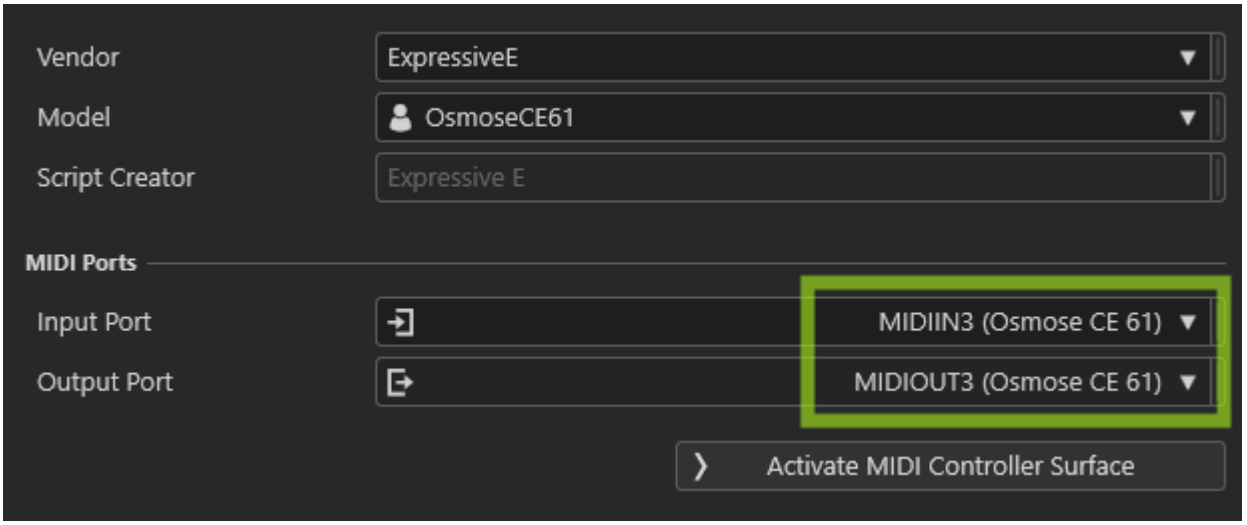
1) daw control script installation

To install the DAW Control script for Cubase, log in to your Expressive E user account and click on 'my products'. If you haven't registered your Osmose CE yet, do this step first. Find your Osmose CE in the 'my products'-page, click the download button. Choose the DAW scripts that are correct for your computer, either mac or windows. Once the scripts are downloaded, unzip them, and install the Cubase script. Follow the on-screen instructions. Ensure Cubase is closed before installing.

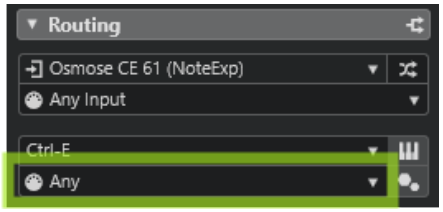
After completion, open up Cubase and verify the settings below are correct.

2) recommended settings

If not working automatically, go to Studio -> MIDI Remote Manage, click 'Add Surface', then select 'ExpressiveE' as Vendor, and choose your Osmose CE model.
Select Port 3 (labeled 'daw control' in macOS) for input and output of the control surface.



For the instrument track, use Note Expression device Osmose CE (USB MIDI Port 1, labeled 'Osmose CE play' in macOS) as input, and be sure to forward *any* MIDI channel to the plugin:



logic pro

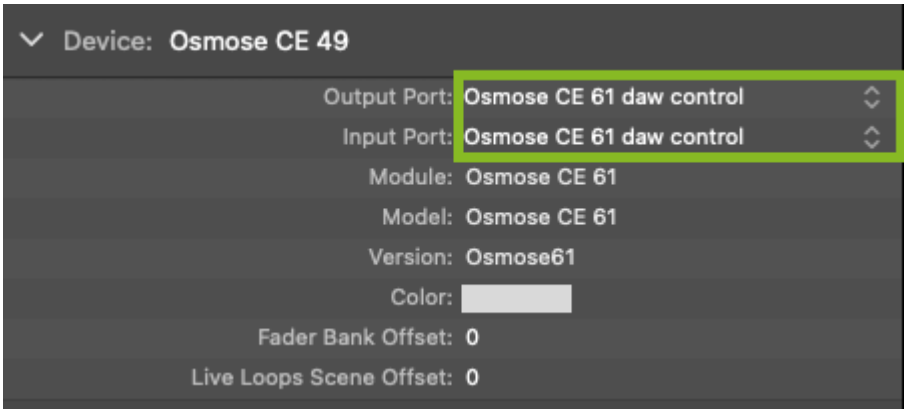
1) daw control script installation

To install the DAW Control script for Logic Pro, log in to your Expressive E user account and click on ‘my products’. If you haven’t registered your Osmose CE yet, do this step first. Find your Osmose CE in the ‘my products’-page, click the download button. Choose the mac DAW scripts. Once the scripts are downloaded, unzip them, and install the Logic Pro script. Follow the on-screen instructions. Ensure Logic Pro is closed before installing.

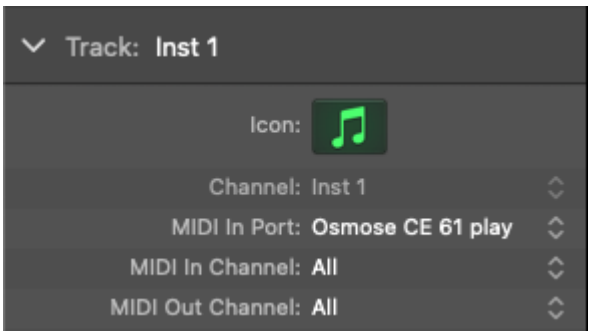
After completion, open up Logic Pro and verify the settings below are correct.

2) recommended settings

If not working automatically, go to Control Surfaces -> Setup and check the Output Port and Input Port of the Osmose CE device. They both need to be set to Port 3 'daw control'.



Select the ‘Osmose CE play‘ port as MIDI In Port for the instrument track that you want Osmose CE to control:



daw control mode overview

DAW Control mode is designed to make Osmose CE feel naturally integrated into your DAW.

DAW Control mode is available for the following DAWs:

- **Ableton Live 12+**
- **Bitwig Studio 6+**
- **Steinberg Cubase 15+**
- **Apple Logic Pro 12+**

DAW Control mode is organized around three main use cases:

1) transport panel and daw integration

It lets you control key DAW functions directly from the instrument, including transport controls and metronome, playhead and loop management, track, scene, and clip navigation, and mix controls for the currently selected track. Additional functions such as undo/redo, tempo, and quantize are also available.

2) on a ctrl-e track

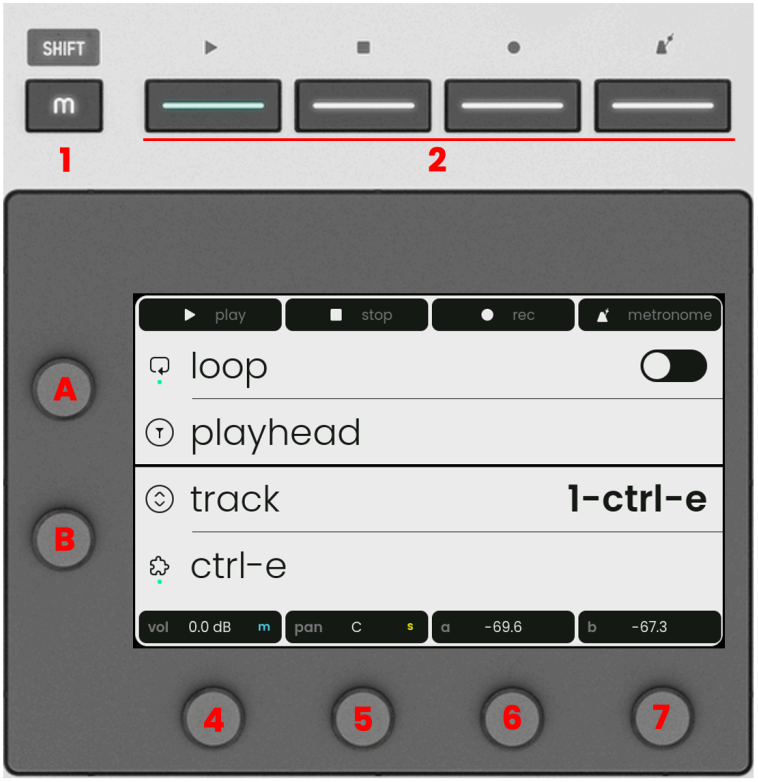
DAW Control mode also enables specific integration with the Ctrl-E plugin. When you select a DAW track running Ctrl-E, Osmose CE detects the plugin, switches to Ctrl-E mode, and automatically configures the required key settings for a plug-and-play MPE experience. From there, Ctrl-E mode lets you navigate deeply through the Ctrl-E browser directly from Osmose CE, so you can explore plugins, banks, tags, and presets without leaving the instrument.

3) on a regular daw track

When you move away from a Ctrl-E track, Osmose CE automatically returns to External MIDI control, allowing you to keep playing regular MIDI instruments and plugins with your saved MIDI configurations.

transport panel and daw integration

opening the transport panel



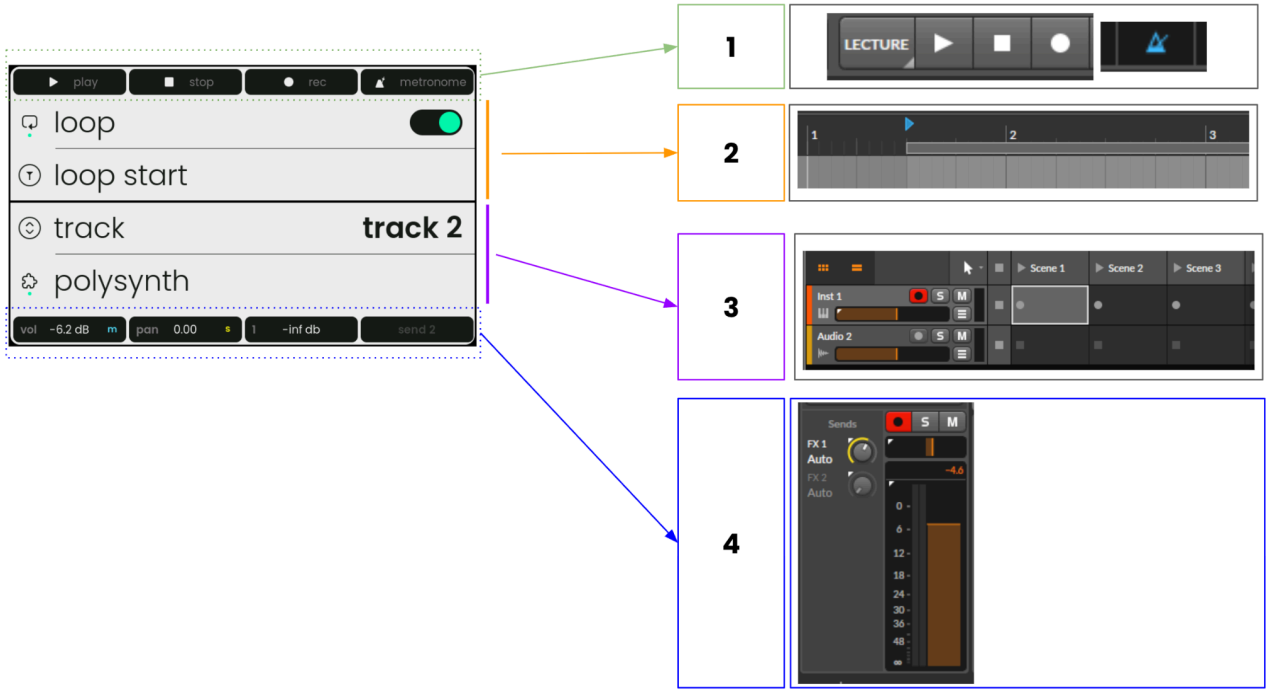
The Transport Panel gives quick access to DAW transport and navigation controls.

In DAW Control mode, press the **m** button (**1**) to open the Transport Panel. Press **m** again to close it and return to the previously selected menu.

The Transport Panel opens as an overlay on top of the current menu (**2**). This means you can access it from any of the four main menus, then return to where you were once it is closed.

💡 You can also hold **m** to access the Transport Panel temporarily. This is useful for quick actions, as releasing **m** brings you back directly to the current menu.

transport panel overview



The Transport Panel is organized into four main groups of functions, giving you quick access to the most useful DAW controls directly from Osmose CE.

group 1 — transport controls

Control the main transport functions of your DAW: Play, Stop, Record, and Metronome.

group 2 — playhead and loop management

Navigate through your project timeline and manage loop-related functions, such as enabling the loop, adjusting its position, or changing its length.

group 3 — track, scene, and clip navigation

Navigate through tracks, scenes, and clips directly from Osmose CE. The available navigation options depend on the DAW you are using, as not all DAWs support scenes or clips.

group 4 — mix controls

Control the mix settings of the currently selected track, including Volume, Pan, Mute, Solo, and Send 1 / Send 2 when available.

1 - playhead and loop management

When the **transport panel** is open, the four buttons above the display control the main transport functions of your DAW.

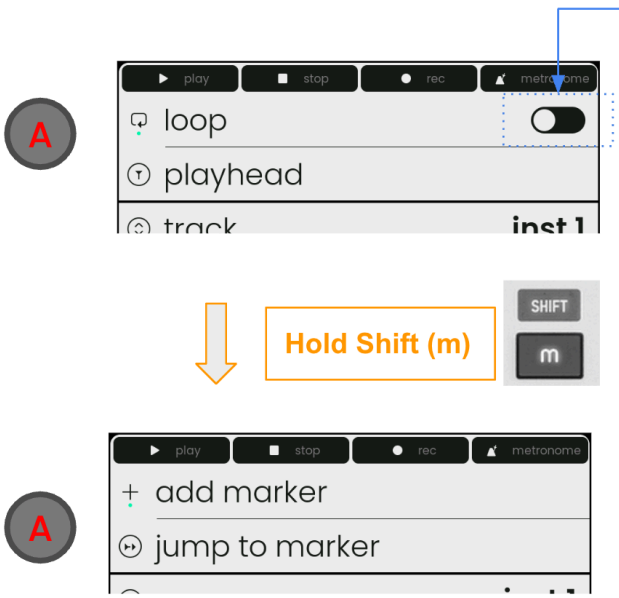
Press **button 1** to start or pause playback.
Press **button 2** to stop playback.
Press **button 3** to start or stop recording.
Press **button 4** to turn the metronome on or off.

The current transport status is shown both on the screen and through the button LEDs, making it easy to see which functions are currently active.

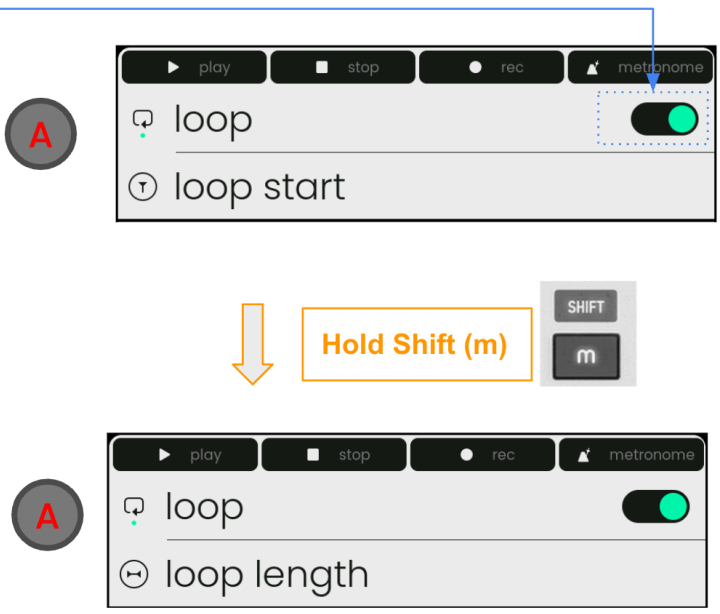
2 - playhead and loop management

When the Transport Panel is open, **encoder A** gives access to playhead, loop, and marker-related controls.

1) when loop is <u>off</u>



2) when loop is <u>on</u>



1) <u>when loop is off</u>

Turn **encoder A** to move the playhead through the timeline.

Press **encoder A** to activate the loop.

Hold **shift (m)** to access additional marker controls: press **encoder A** to add a marker at the current playhead position, or turn **encoder A** to jump between markers.

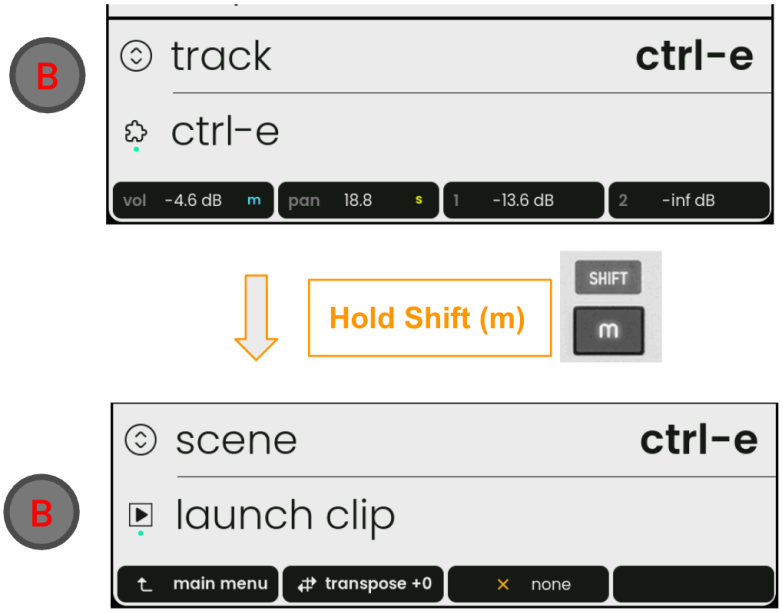
2) <u>when loop is on</u>

Turn **encoder A** to move the loop start position while keeping the same loop length.

Press **encoder A** again to deactivate the loop.

Hold **shift (m)** and turn **encoder A** to adjust the loop length.

3 - track, scene, and clip navigation



When the **transport panel i**s open, **encoder B** gives access to track, scene, and clip navigation.

Turn **encoder B** to navigate between tracks.

Press **encoder B** to open or close the plugin window on the selected track.
This function is not currently available in Ableton Live.

Hold **shift (m)** to access additional scene and clip controls *(only available for Ableton Live and Bitwig Studio)*: turn **encoder B** to navigate between scenes, or press **encoder B** to launch the clip on the selected track

4 -Volume, Pan, Mute, Solo, and Send 1 / Send 2

When the transport panel is open, **encoders 1–4** give access to the mix controls of the currently selected track.

Turn **encoder 1** to adjust the track volume.
Press **encoder 1** to mute or unmute the track.

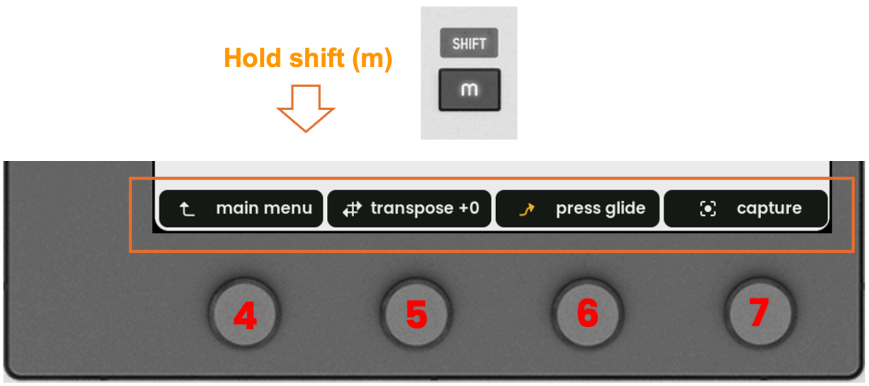
Turn **encoder 2** to adjust the track pan.
Press **encoder 2** to activate or deactivate solo for the track.

Turn **encoder 3** to adjust **send 1**.
Turn **encoder 4** to adjust **send 2**.

☝ The **send 1** and **send 2** controls depend on the routing and send configuration of your DAW project. If the corresponding sends, buses, auxes, or FX channels are not available, these controls may be disabled.

bottom action bar

Holding **shift (m)**, wherever you are in the navigation — on the transport panel or on one of the four main menus — reveals the bottom **action bar**



The action bar gives quick access to global or context-related shortcuts:

1 - main menu - Press **encoder 4** to return to the main menu.

2- transpose - Turn **encoder 5** to transpose the keyboard in semitone steps.

3- playing shortcut - Press **encoder 6** to enable or disable the selected playing feature, either pressure glide or the expressive arpeggiator

4 - capture -Press **encoder 7** to trigger your DAW's MIDI Capture function, when available. MIDI Capture retrieves the notes you have just played, even if you were not recording.

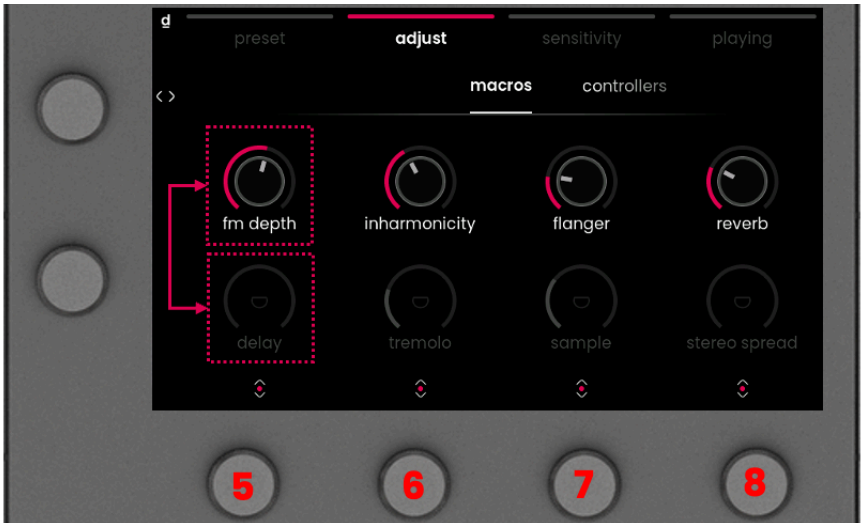
☝This function is available in Ableton Live, Cubase, and Logic Pro. It is not available in Bitwig Studio.

macros

1) controlling your track macros

When DAW Control mode is active, press the second menu button to open the adjust menu. The first tab you see is the macro tab.

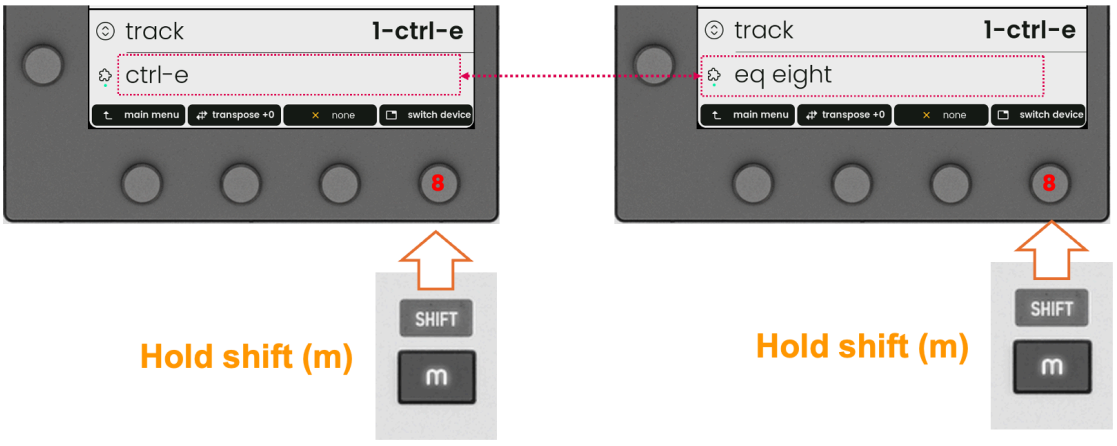
This tab displays eight macros connected to the macros of the track you are currently on. This lets you adjust the selected track's main parameters directly from Osmose CE, without having to reach for the mouse.



Each encoder controls one column, and pressing it toggles between the upper and lower parameter in that column. For example, turn **encoder 5** to adjust the upper parameter in the first column, then press **encoder 5** to switch to the lower parameter in the same column.

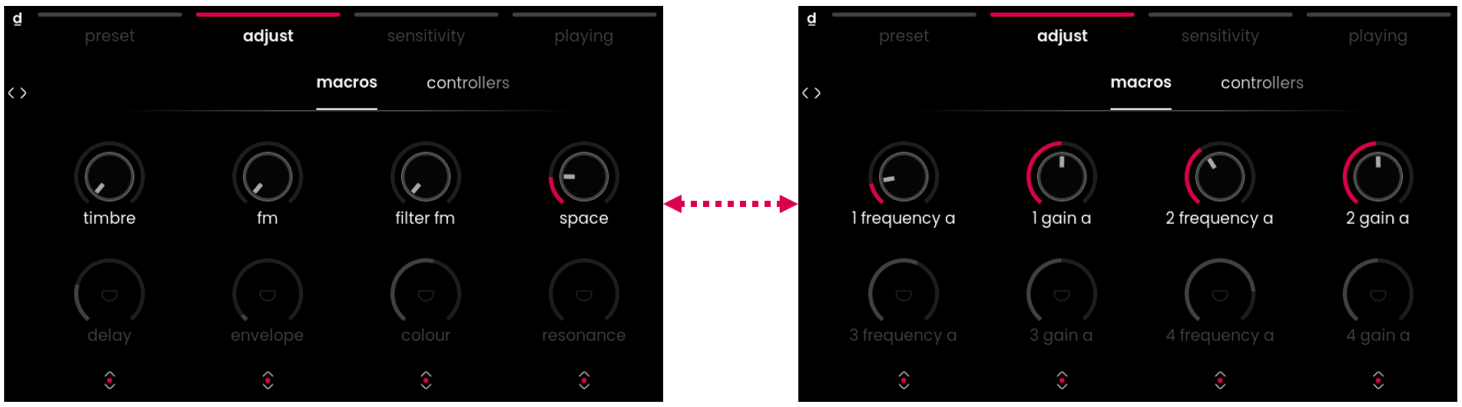
2) <u>switching between track devices</u>

In Ableton Live and Bitwig Studio, you can also switch which device on the selected track is controlled by the macro tab.



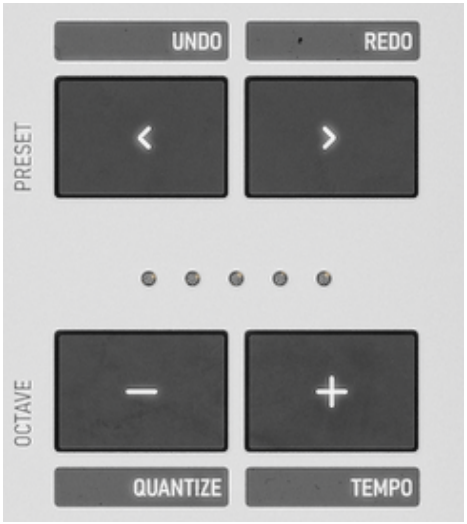
Hold **shift (m)** to reveal the bottom action bar, then turn the encoder **8** below **s**witch device to navigate between the devices on the current track.

For example, if your track contains both a synth plugin and an EQ device, you can use “switch device” to choose whether the eight macro controls adjust the synth or the EQ.



additional functions

Some DAW Control functions are accessed through secondary shortcuts on the main panel. Hold **shift (m)**, wherever you are in the navigation, then use the preset and octave buttons to access the following functions:

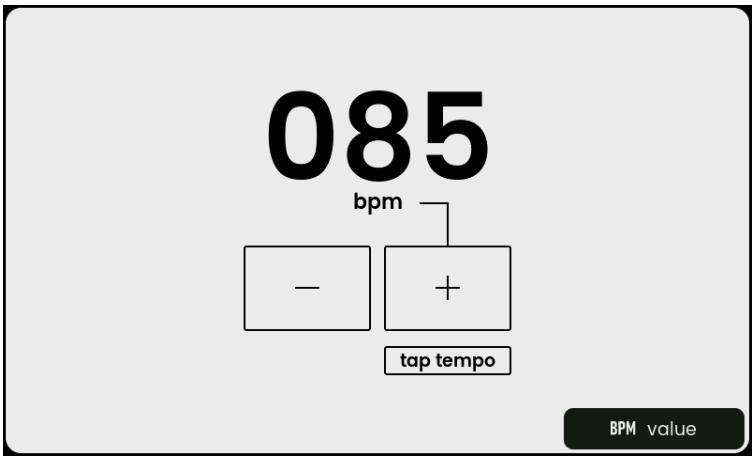


undo - Hold **shift (m)** and press the left **preset** button **(‹)** to undo the last action.

redo - Hold **shift (m)** and press the right **preset** button **(›)** to redo the last action.

quantize - Hold **shift (m)** and press the left **octave** button **(-)** to quantize the current selection according to your DAW settings.

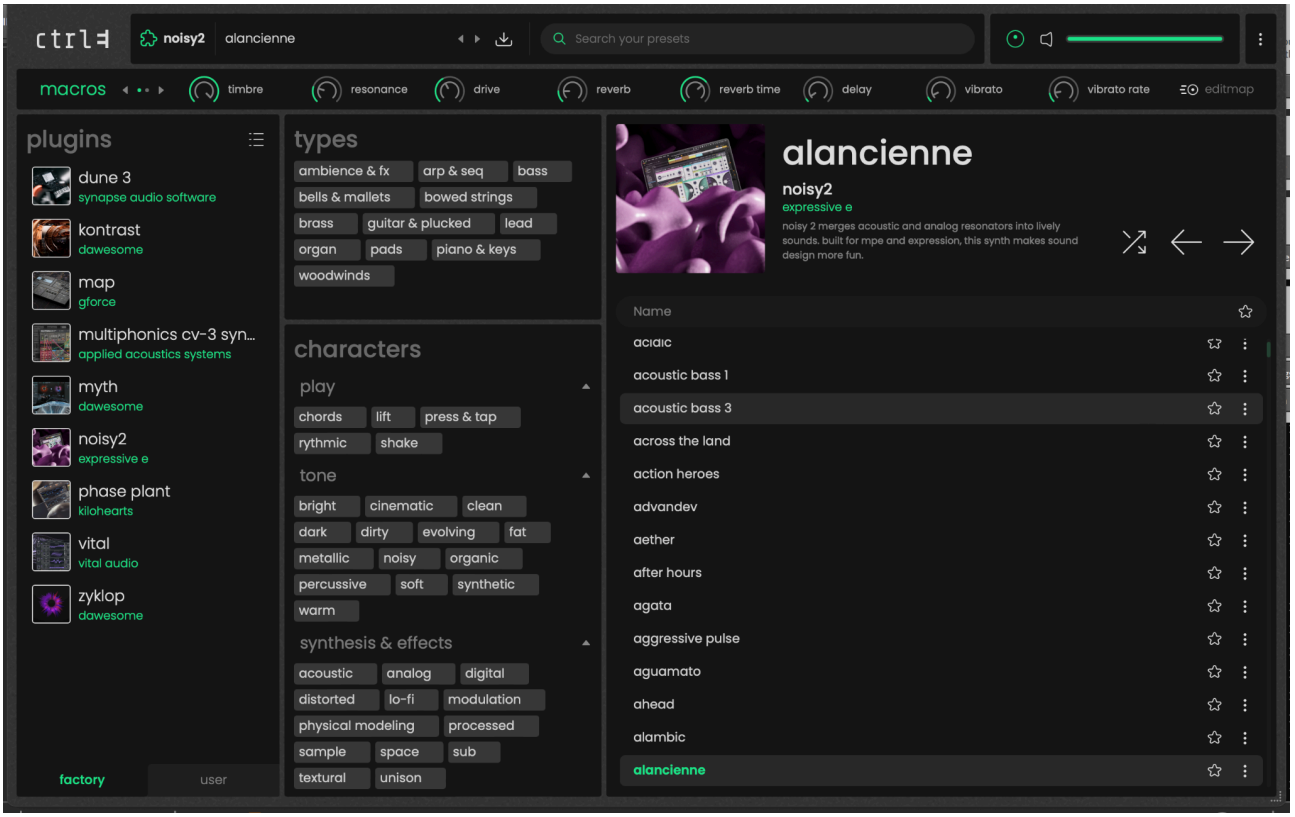
tempo - Hold **shift (m)** and press the right **octave** button **(+)** to open the **tempo** screen.



On the **tempo** screen, turn **encoder 4** to adjust the tempo, or repeatedly press the right **octave** button **(+)** to tap the tempo. Press **shift (m)** or one of the **menu buttons** to exit the screen.

using daw control on a ctrl-e track

ctrl-e integration overview



1) what is ctrl-e?

Osmose CE comes with **Ctrl-E**, Expressive E's software platform for expressive sounds. **Ctrl-E** gives you access to a wide library of **980 MPE-ready presets**, carefully tailored for the Osmose keybed.

To provide this sound library, Ctrl-E includes two full instruments: the powerful and versatile Vital, and the innovative Zyklop by Dawesome. Make sure Vital and Zyklop are properly installed to access the full Ctrl-E sound library.

Ctrl-E also integrates sound engines from renowned synthesizers such as Phase Plant by Kilohearts, Multiphonics by Applied Acoustics Systems, Kontrast and Myth by Dawesome, MAP by GForce, and Noisy 2 by Expressive E.

2) mpe setup requirement

⚠️ For DAWs such as Ableton Live and Bitwig Studio, **MPE must be properly enabled** for **Ctrl-E** to work correctly with Osmose CE.

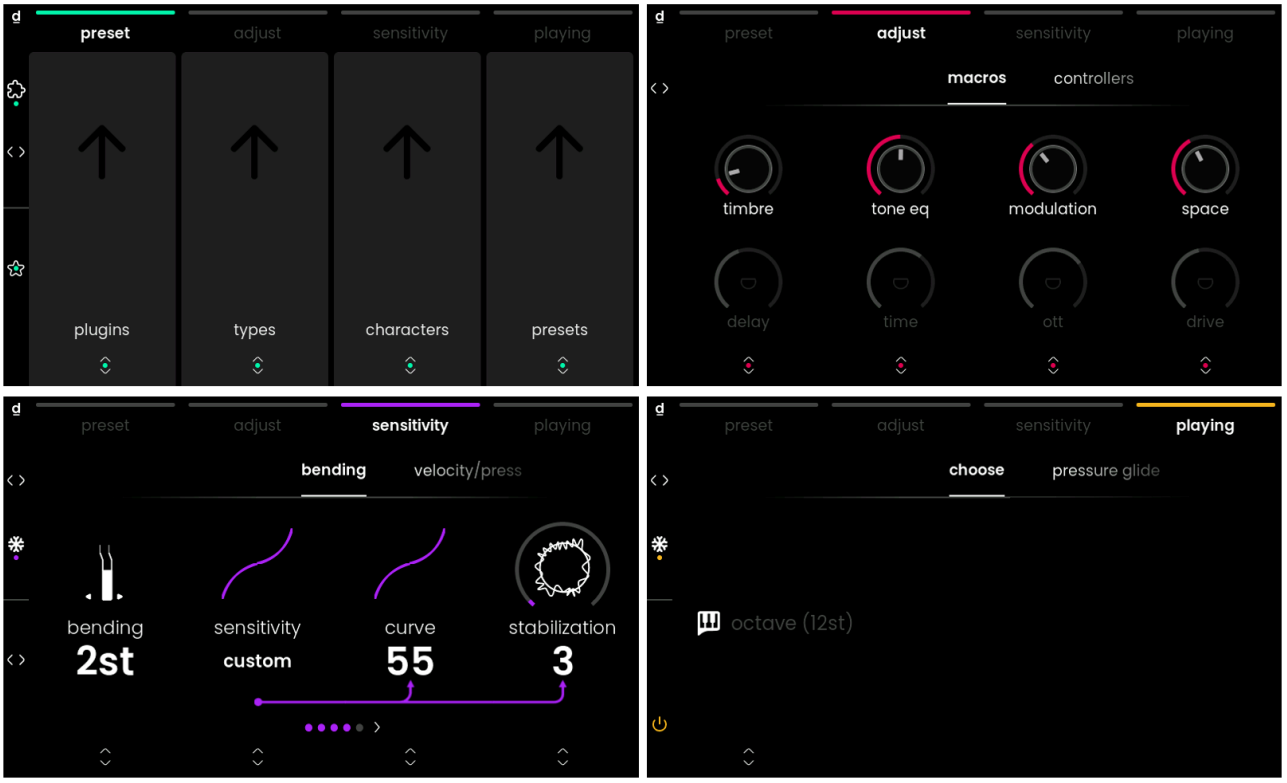
For more information, see the ableton live setup and bitwig studio setup sections.

3) automatic ctrl-e configuration

When DAW Control mode is active and you select a DAW track running Ctrl-E, Osmose CE automatically switches to Ctrl-E mode. This creates a plug-and-play MPE experience by automatically configuring the required internal MPE settings, loading the dedicated Ctrl-E sensitivity setup, and giving you direct access to advanced Ctrl-E browser navigation from Osmose CE's screen.

4) menus in ctrl-e mode

When Osmose CE automatically switches to **Ctrl-E mode**, the four main menus are adapted to the Ctrl-E workflow.



preset menu

The preset menu gives you advanced navigation through the Ctrl-E browser directly from Osmose CE. From there, you can explore plugins, types, characters, presets, and more.

adjust menu

The **adjust** menu gives access to two tabs: **macros** and **controllers**.
The **macros** tab lets you control macros directly from Osmose CE.

-> For more information, see the macro tab section.

The **controllers** tab lets you define which MIDI CCs are controlled by the modulation slider, pedal 1, and pedal 2.

-> For more information, see the controllers tab section.

sensitivity menu

The **sensitivity** menu includes the standard sensitivity settings, plus an additional **Ctrl-E sensitivity** tab.

-> For more information, see the sensitivity menu.

playing menu

The **playing** menu remains the same as in **External MIDI** mode.

-> For more information, see the playing menu section.

preset menu

Press the menu button 1 below the play symbol to open the preset menu for Ctrl-E. Here you can use the encoders on your Osmose CE to navigate Ctrl-E:

encoder A scrolls between Ctrl-E's factory and user presets. Push the encoder to open and close Ctrl-E's plugin window in your DAW.

encoder B press to add a preset to your favorites. Long press toggles favorite filtering, and shows only your favorites. Long press Encoder B again to show all presets.

encoder 1 scrolls between plugins inside Ctrl-E. Push to load your currently selected plugin. If you have sound banks installed for the plugin you've chosen, you can long press to show the available banks. Scroll between the banks with the encoder and select a bank, or long press again to return to the list of plugins. When your plugin list is sorted by 'plugin + brand' you can select the header displaying the brand name with the encoder, then long press to hide all plugins.

encoder 2 scrolls between types and subtypes of presets. Push to select. Choosing multiple types is possible. Long press this encoder to reset your current type / subtype selection.

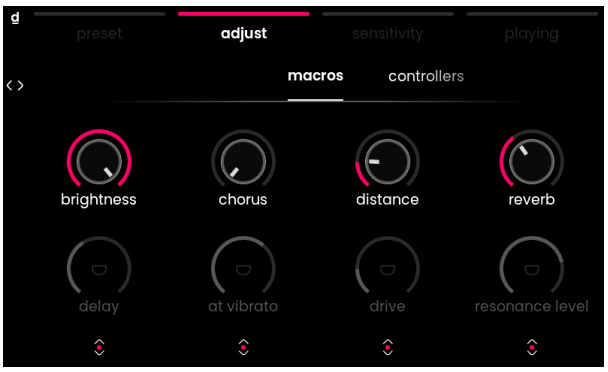
encoder 3 scrolls between characters. Push to select. You may choose more than one character. To reset your current selection, long press this encoder.

encoder 4 scrolls between the presets. Push to confirm and load a preset.
i As you scroll with encoders 1-4, a green square will appear around the section you`re controlling.

When Ctrl-E is active on your current track, you can also use the Previous Preset (<) and Next Preset (>) buttons to browse presets. Long press these buttons to activate ‘shuffle’.

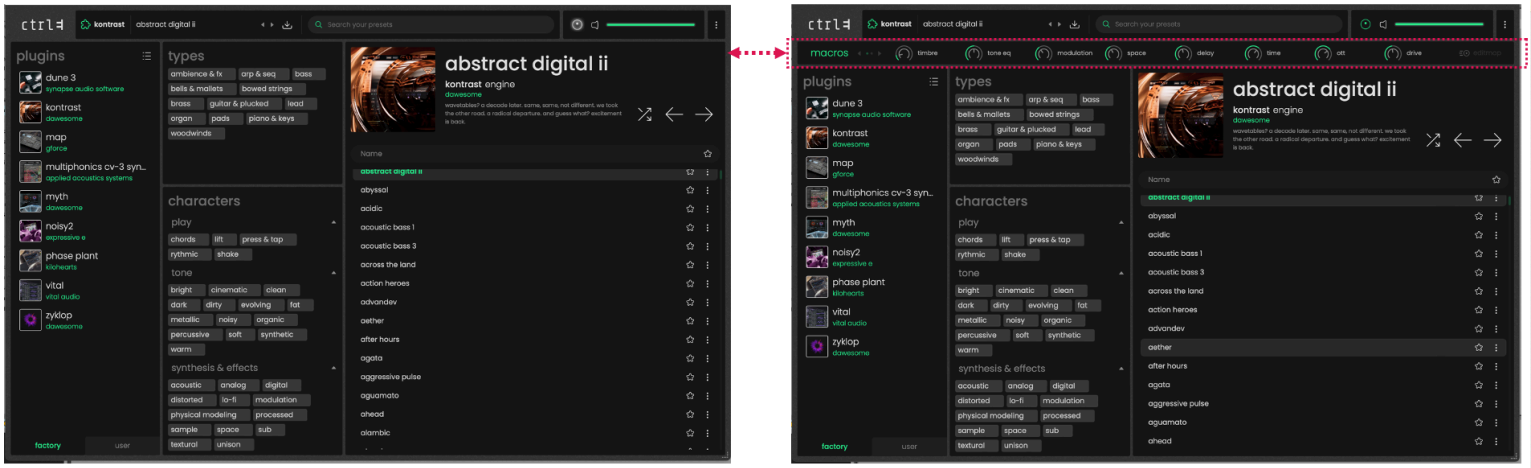
If Ctrl-E is showing the ‘plugin view’, pushing menu button 1 (preset menu) closes the plugin view and returns you to the browser view.

macros menu



Press menu button 2 (adjust menu) to reveal a bank of 8 macros. These allow for quick control of the macros inside Ctrl-E. Scroll encoders 1-4 left or right to adjust the parameters, click to toggle between the top (1-4) and bottom (5-8) macros.

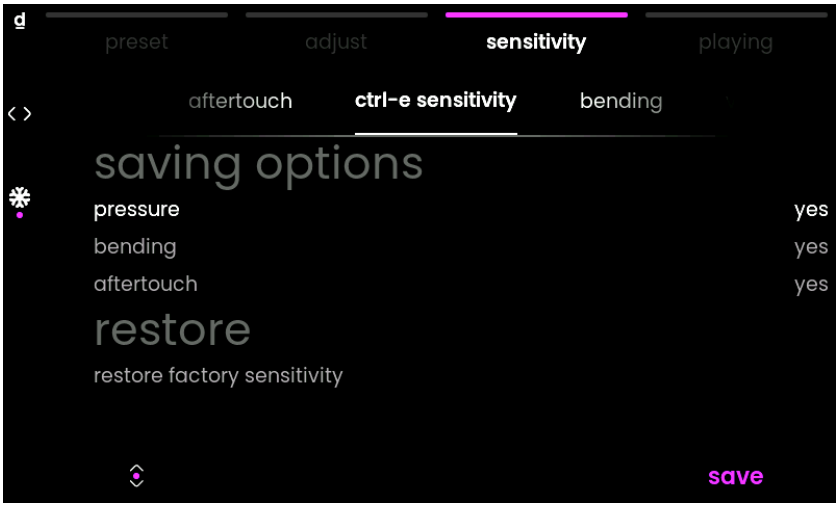
When you are on this macro tab, pressing and re-pressing menu button 2 will show or hide the macro bar in Ctrl-E’s browser view.



Ctrl-E sensitivity menu

As explained earlier, when Ctrl-E mode is active, the sensitivity menu works the same way as in External MIDI mode. For more information, see the External MIDI sensitivity menu section.

However, an additional Ctrl-E sensitivity tab is available. This tab lets you update the default sensitivity settings that are loaded each time you select a Ctrl-E track.



saving options

The saving options define which parts of your current sensitivity setup will be saved.

Set pressure, bending, or aftertouch to yes if you want the current settings of these tabs to be saved in the new default sensitivity setup.

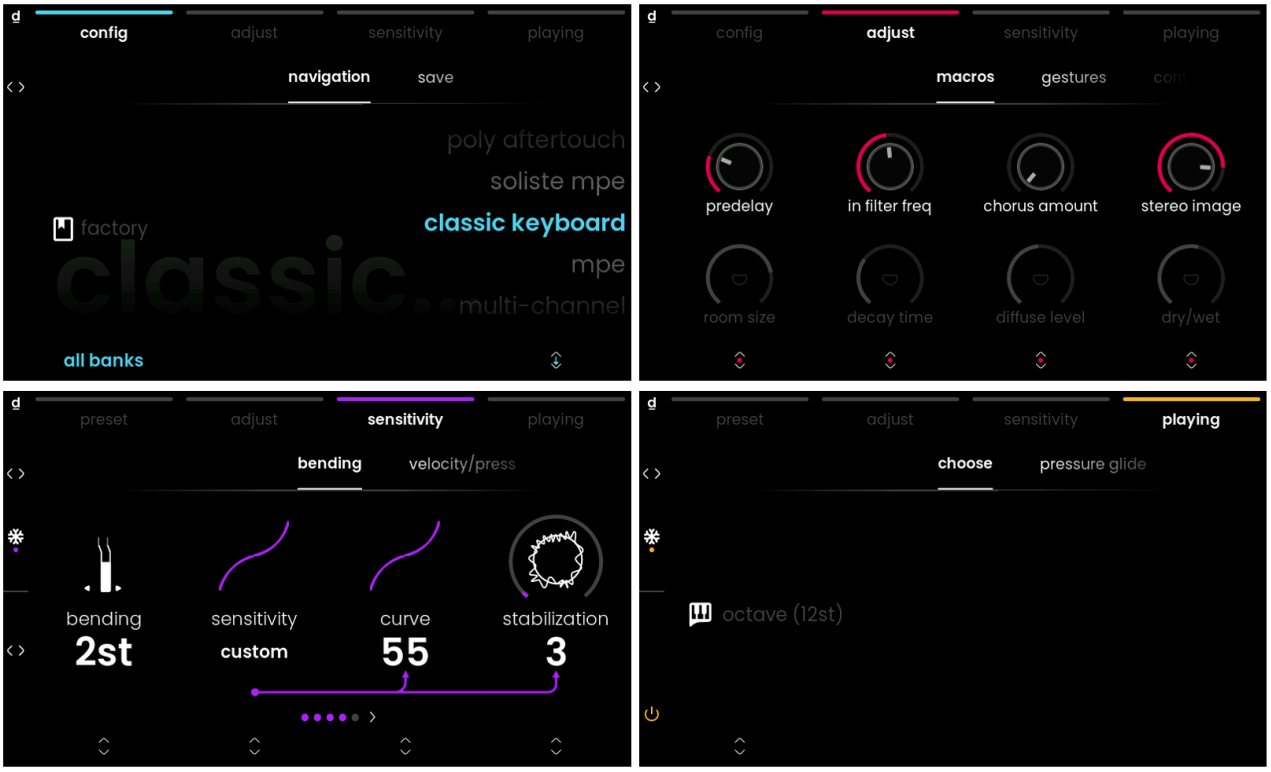
Set an option to no if you want that tab to be ignored during the save operation.

restore

restore factory sensitivity restores the factory default **Ctrl-E sensitivity** settings.

using daw control on a regular track

When you move from a **Ctrl-E** track to another DAW track, Osmose CE automatically switches back to **External MIDI** control.



It also recalls the last **External MIDI** configuration that was active before switching to **Ctrl-E** mode.

This lets you continue using Osmose CE on regular DAW tracks while benefiting from all the features and creative possibilities available in **External MIDI** mode.

For more information, see the **External MIDI Mode** section.

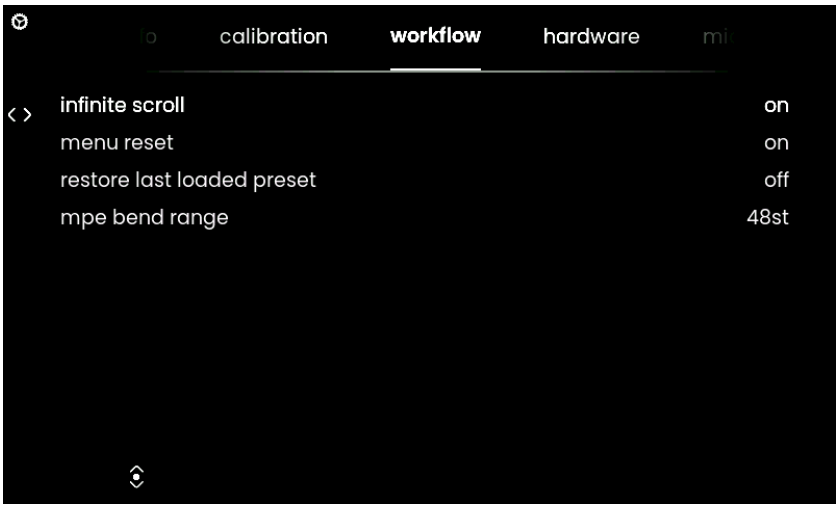
Settings

Settings overview

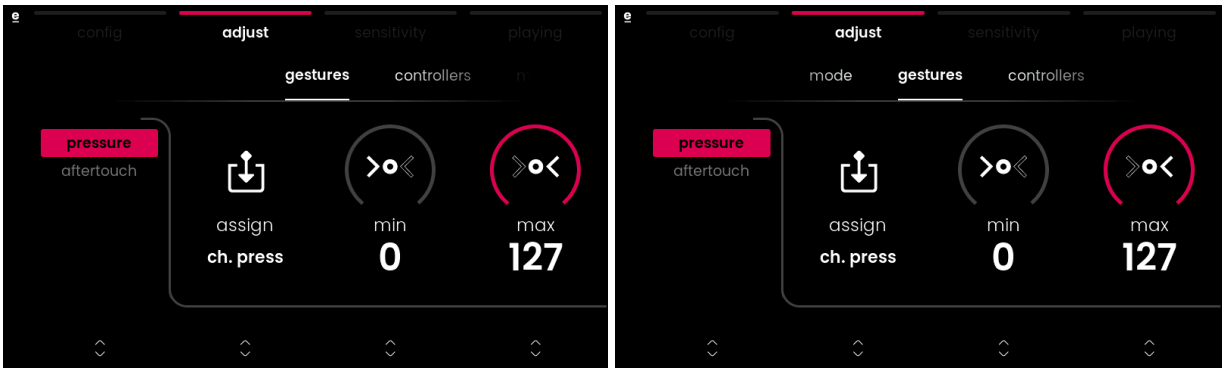
The settings are accessible via the main menu screen. Enter the settings menu by pressing the Mode button, then Encoder 4 below the screen (the one below the on-screen cogwheel (⚙️). If you're currently in DAW Control mode, you can press and hold the Mode button and click Encoder 1 to go to the main menu, and open the settings from there.

To exit the settings menu, press the Mode button. If you've made any changes you will get a confirmation message that your settings have been saved.

workflow tab



infinite scroll - when enabled, you will be able to pass from the first to the last tab of a menu, and vice versa, without the need to scroll through tabs in between. See the first screenshot below with infinite scroll set to off, and the second with infinite scroll enabled.



menu reset - when enabled, upon switching between menus, the navigation will always bring you back to the first tab of a menu instead of showing the tab that you had last accessed within that menu.

restore last loaded preset - when enabled, the last midi config preset that was active on your Osmose CE before shutting down will be recalled when you boot up.

mpe bend range - sets the mpe bend range (in semitones) sent from the Osmose CE. **i i** Please ensure that both your Osmose CE and the instrument you're controlling is set to the same value. In most cases 48 semitones will be correct.

hardware tab

luminosity changes the brightness of the screen.

settings reset resets all the parameters in settings to their default factory values.

clear user presets deletes all midi config presets in the user bank.

clear factory presets deletes all midi config presets in the factory bank.

factory reset resets the Osmose CE firmware to its factory state without any presets installed.

midi i/o tab

Three USB MIDI ports will show up on your USB host device (usually your computer) when Osmose CE is connected: Osmose CE Play, Osmose CE DAW Control and finally the DIN MIDI 5-pin jacks on the back of Osmose CE. The 'midi i/o' tab lets you adjust the routing of the inputs and outputs of Osmose CE's MIDI ports to better suit your needs.
i DAW control mode is not listed in this tab as it is only for MIDI communication with your DAW and ctrl-E. It does not send or receive MIDI note information.

ext clock source selects the MIDI port used as the MIDI clock source for synchronization of the arpeggiator. Available clock sources are:
1/2 usb play (default)
2/2 din

Use Encoder 4 to change the clock source. Choose 1/2 usb play when you are syncing to your DAW. Use 2/2 din when syncing to an external source via the DIN port, such as an MPE-capable synthesizer.

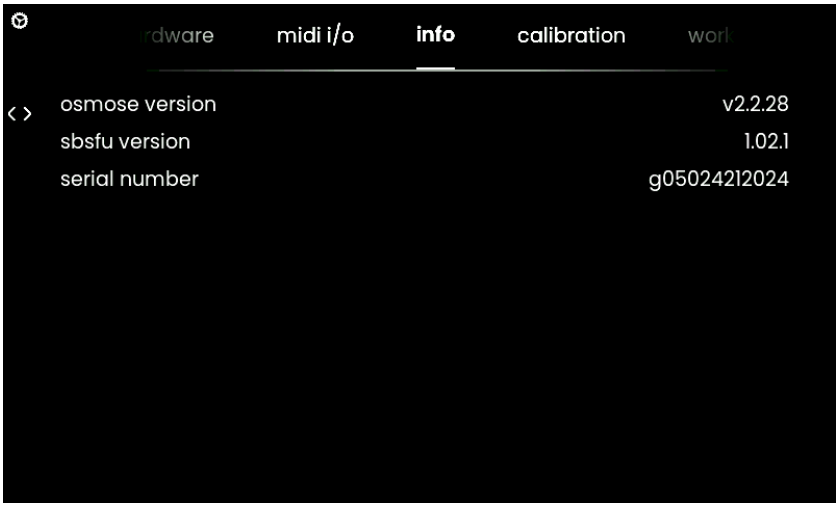
din mode adjusts the behavior of the 5-pin DIN style jacks. The keyboard generated MIDI data as set up in External MIDI mode. It is the same data that is sent on the USB MIDI Port. Scroll down to DIN mode with Encoder 1, then use Encoder 4 to set the mode.

1/3 default (default) : DIN MIDI outputs the keyboard-generated MIDI data as set up in the External MIDI mode (i.e. the same data that is sent on the Osmose CE Play port).

2/3 thru : just like 'default', but additionally, any MIDI data that enters in the DIN MIDI input will be forwarded to the DIN MIDI output as well.

3/3 usb interface : routes the MIDI data present on the USB port to the DIN ports.

info tab

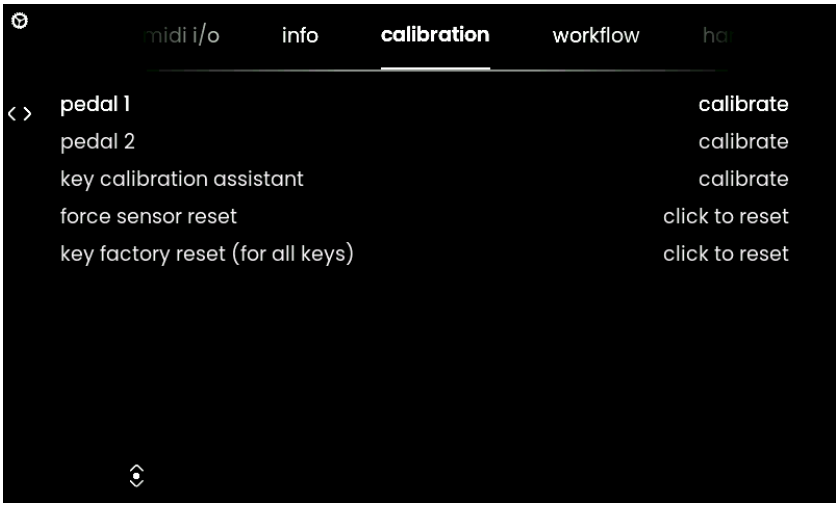


Here you will find information about your Osmose CE.

osmose version displays the version of the operating system running on your Osmose CE.

serial number displays the serial number for your Osmose CE

calibration tab



pedal 1 / pedal 2 launches the calibration of the pedal inputs. For more details, see pedal calibration.

key calibration assistant allows the manual calibration of individual keys by defining their vertical, left, and right maximum positions. The assistant allows you to correct

irregular behavior of single keys.

force sensor reset allows triggering the sensor calibration that usually happens during booting without the need to switch off your unit. It can be useful to troubleshoot or analyze random errors with sensor recognition.

keys factory reset (for all keys) allows resetting all key calibration data to the factory state. This will undo any manual calibration done in the meantime. If you wish to only reset single keys to their factory state, use the key calibration assistant instead.

pedal calibration

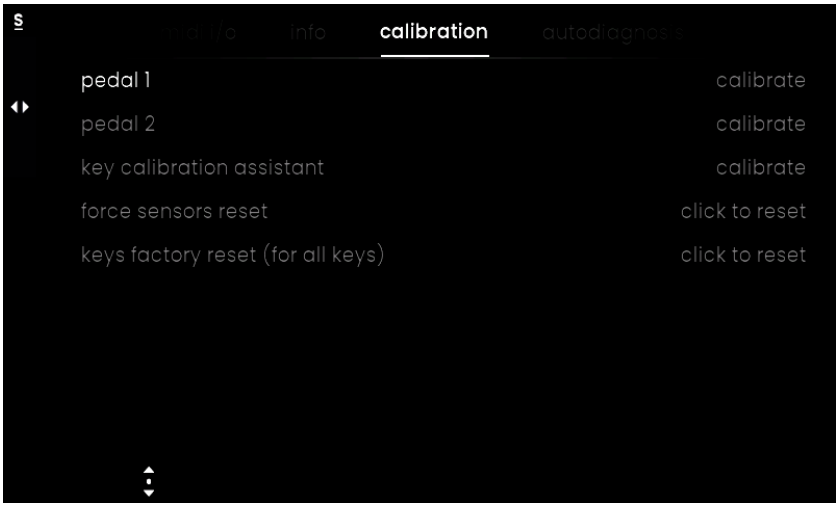
compatibility and recommendations

There is no established electrical norm for pedals in the industry, so only a selection of pedals will work well with Osmose CE. Here are the ones that we found to work fine:

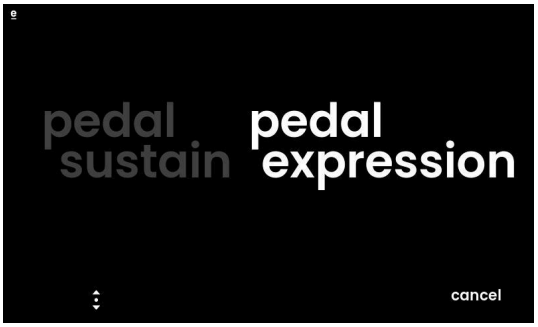
Behringer FC600 [RTS assignment]
Clavia Nord Single Sustain
Dunlop Volume X Mini
Korg XVP-10
Lead Foot LFD-2
Moog EP-3 [mode: other, knob at max.]
M-AUDIO SP-2
M-AUDIO EX-P [mode: other, knob set low]
Nektar NX-P Universal Expression Pedal [switch set to ‘2‘]
Roland DP-10 [Switch]
Yamaha FC3A
Yamaha FC4A
Yamaha FC7

Please don’t hesitate to share a recommendation with us if you find a pedal that works great but isn’t on the list yet.

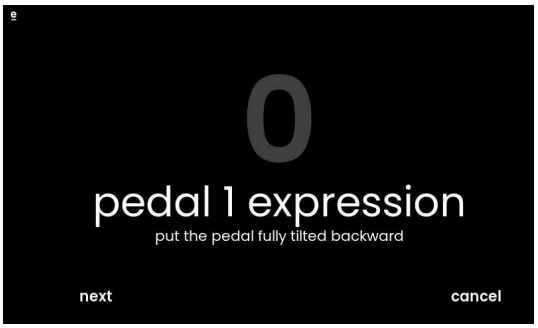
calibration procedure



Turn Encoder 1 to select the pedal input your pedal is connected to, and then click it to start the calibration process.



First, select whether you have connected an on/off switch (pedal sustain) or a continuous or half-damper pedal (pedal expression).



Make sure your pedal is at the minimum position (or not pressed for on/off switches), then press ‘next’.

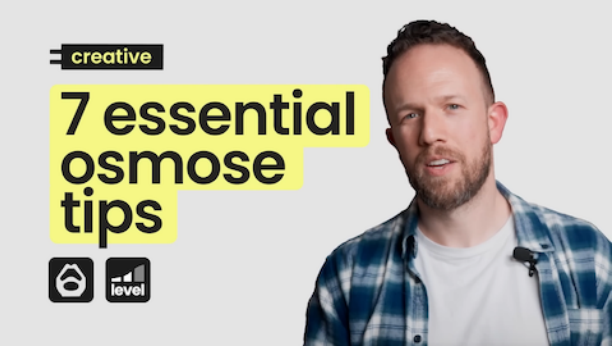
Make sure your pedal is at maximum position (pressed for on/off switches), then press ‘next’.

The last page of the calibration process lets you check whether you are able to go through values from 0 to 127 smoothly. Click on confirm if all is okay.

resources

Here are some videos and links you may find useful for your Osmose CE journey:

Creative tutorials:



7 essential osmose tips - creative tut...

Osmose x MPE soft synths - creative ...

better film scores with osmose - cre...

The Most Expressive Arpeggiator Eve...

Playing techniques:

12 Osmose Tricks with Jordan Rudess

play better leads with osmose - cre...

Links:

The ABC of MPE by Sound on Sound. Here you'll find a great introduction to MPE for musicians. It explains the three new forms of polyphonic expression that MPE controllers add — pressure, horizontal movement for pitch bend/vibrato, and vertical position — and covers the key changes MPE makes: it repurposes MIDI channels as individual notes, which trades multitimbrality for per-note expression.

The MPE Masterclass by MusicRadar. This is a hands-on tutorial going deeper into MPE in practice. It walks through the types of message passed per note, explains polyphonic expression in concrete terms, and shows how to set up and edit MPE inside DAWs like Ableton.

MPE MIDI Polyphonic Expression: Complete Guide 2025 by Pitch Innovations. A clear, modern beginner-friendly guide. It covers MPE's history, DAW support status, and real-world examples of musicians like AR Rahman using the Osmose to demonstrate per-note bends, glides, and dynamics.

MPE: MIDI Polyphonic Expression (Official Spec & Overview) @ MIDI.org. The official home of the MPE standard. A must-bookmark for understanding the specification at the source.

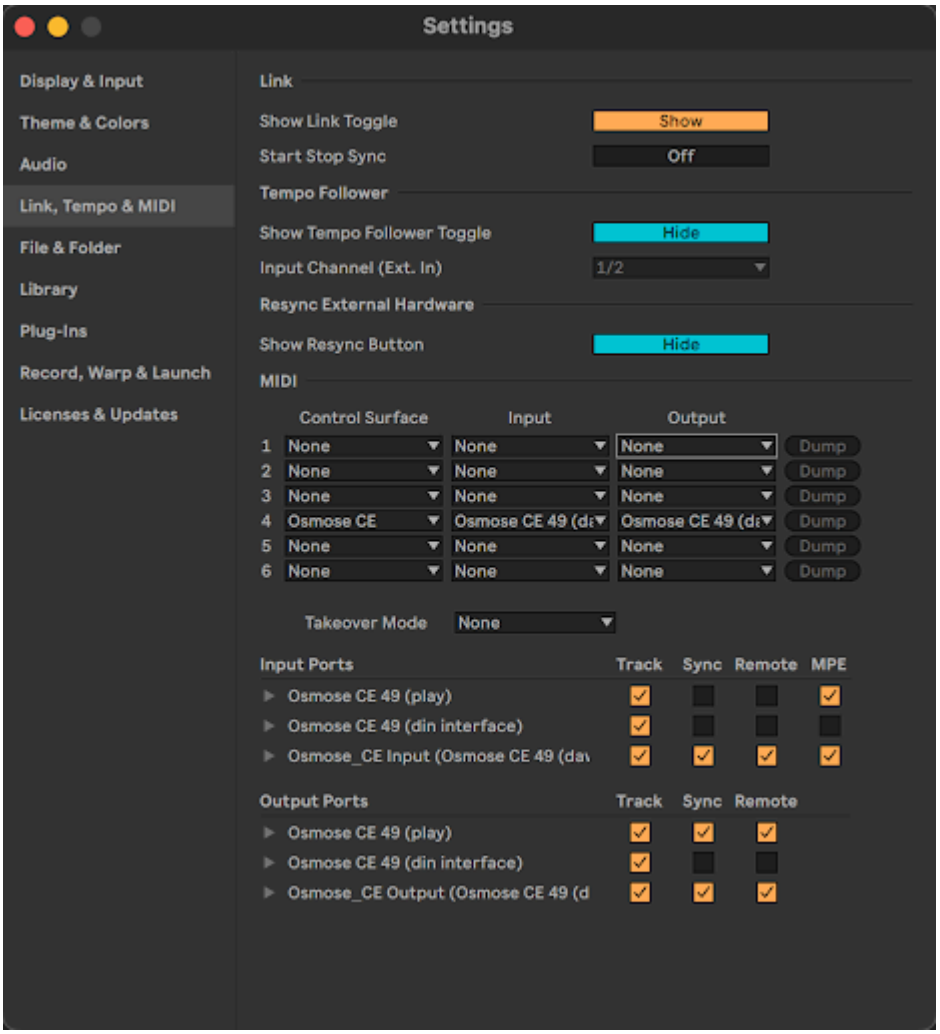
troubleshooting

DAW scripts

ableton live

If you Osmose CE device is not detected automatically, please use the following procedure:

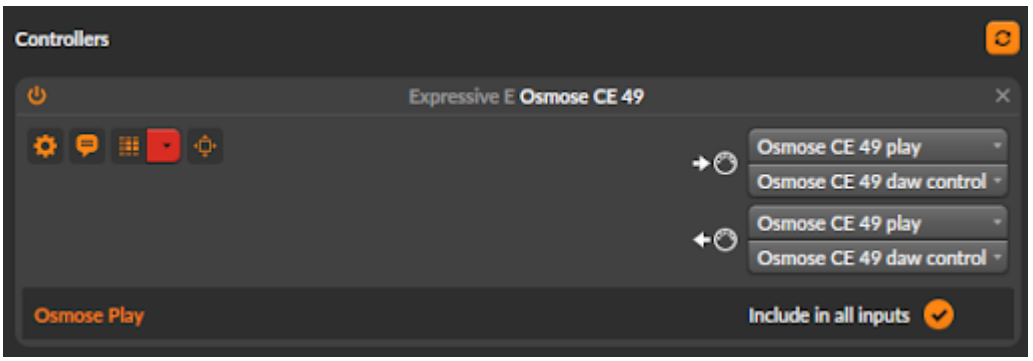
- Power off your **Osmose CE**
- Go to **'Live > Settings... > Link, Tempo & MIDI'**
- In the 'MIDI' section, deactivate communication with unused control surfaces by setting these fields:
    - Control Surface → ***None***
    - Input → ***None***
    - Output → ***None***
- Activate communication with your **Osmose CE** device by setting fields to:
    - Control Surface → ***Osmose CE***
    - Input
        - macOS:
          Osmose CE 49 → ***Osmose CE 49 daw control***
          or Osmose CE 61 → ***Osmose CE 61 daw control***
        - Windows:
          Osmose CE 49 → ***MIDIIN3 (Osmose CE 49)***
          or Osmose CE 61 → ***MIDIIN3 (Osmose CE 61)***
    - Output
        - macOS:
          Osmose CE 49 → ***Osmose CE 49 daw control***
          or Osmose CE 61 → ***Osmose CE 61 daw control***
        - Windows:
          Osmose CE 49 → ***MIDOUT3 (Osmose CE 49)***
          or Osmose CE 61 → ***MIDOUT3 (Osmose CE 61)***



- Power on your **Osmose CE**

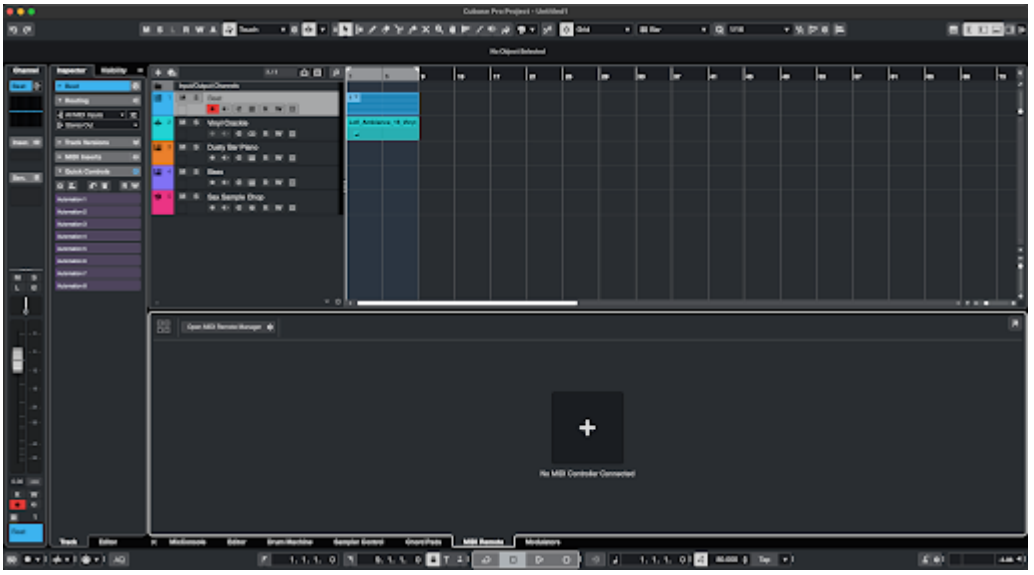
bitwig

Check that the MIDI ports are properly configured in **'Settings > Controllers'** :



cubase

To manually activate **Osmose <-> Cubase** communication for Daw Control mode:

- Go to **'MIDI Remote'** tab
- Click on **'Add a MIDI controller surface' button** (big '+' icon)
- 
- Select the following values from the drop-down menus that appear:
    - Vendor → ***ExpressiveE***
    - Model → ***OsmoseCE49 | OsmoseCE61***
    - MIDI Ports > Input port:
        - macOS:

          Osmose CE 49 → ***Osmose CE 49 daw control***

          Osmose CE 61 → ***Osmose CE 61 daw control***
        - Windows:

          Osmose CE 49 → ***MIDIIN3 (Osmose CE 49)***

          Osmose CE 61 → ***MIDIIN3 (Osmose CE 61)***
    - MIDI Ports > Output port:
        - macOS:

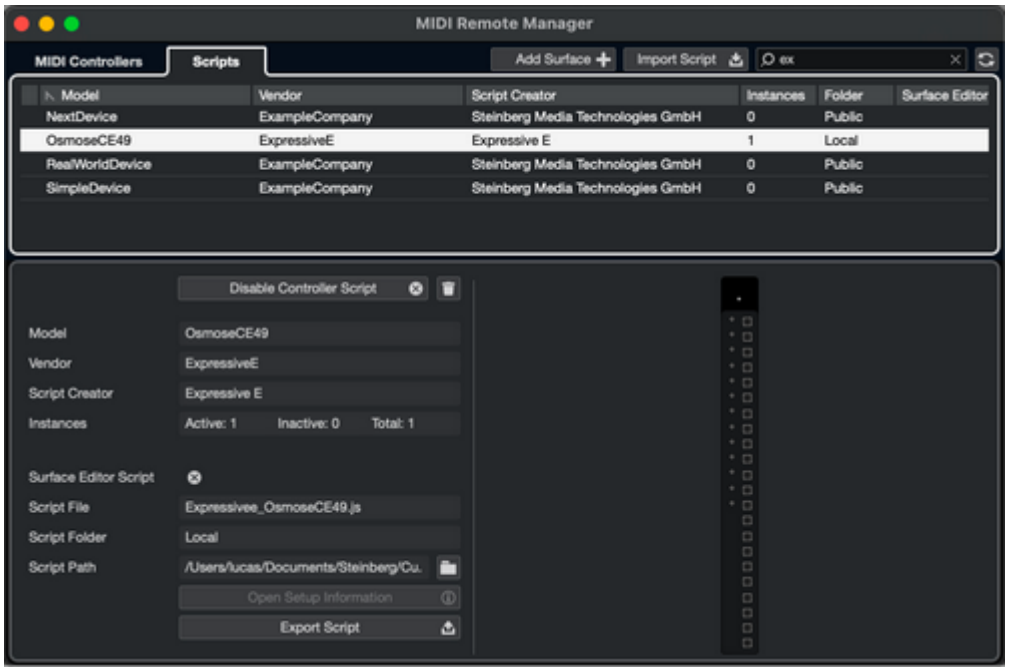
          Osmose CE 49 → ***Osmose CE 49 daw control***
        - Osmose CE 61 → ***Osmose CE 61 daw control***
        - Windows

          Osmose CE 49 → ***MIDOUT3 (Osmose CE 49)***

          Osmose CE 61 → ***MIDOUT3 (Osmose CE 61)***
- Click on **'Activate MIDI controller surface'**

Sometimes, it can also help to reload the script. To do so:

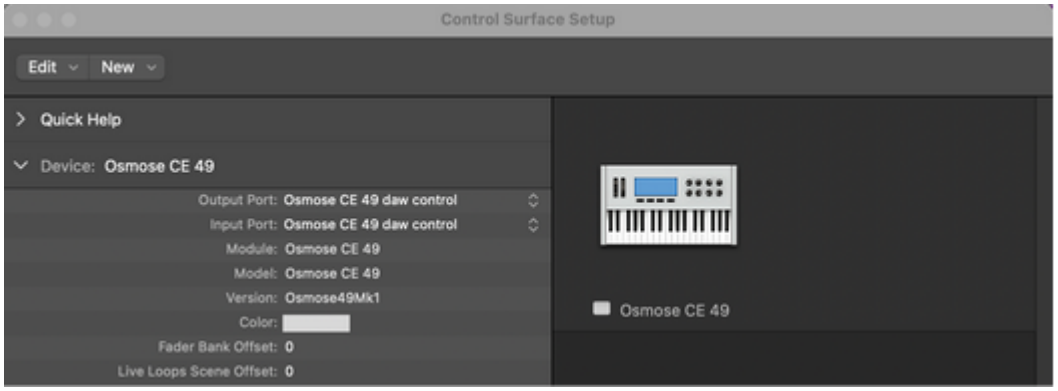
- Go to **'Studio > MIDI Remote Manager'**
- The **'MIDI Remote Manager'** window will open
- Select your **Osmose CE** in **'MIDI Controllers'** tab or the integration script in **'Scripts'** tab
- Click on the **'Reload Scripts'** button ('double arrow' icon at the top-right corner of the window)



logic pro

To manually activate Osmose CE <-> Logic Pro communication for DAW Control mode:

- Go to **'Logic Pro > Control Surfaces > Setup…'**
- The **'Control Surface Setup'** window will open
- If you see your **Osmose CE** in the device list:
    - Click on it and make sure the **'Output port'** and **'Input port'** fields are both set to the ***daw control*** port
- If you do not see your **Osmose CE** in the device list:
    - Click on **'New > Install …'** (do not use the **Scan** function !)
    - Select **Osmose CE** in the device list and click on the **'Add'** button
    - Make sure the **'Output port'** and **'Input port'** fields are both set to ***daw control*** port



- Then, go to **'Control Surfaces > Settings…'** and tick the **Auto** box for your **Osmose CE** device.

Sometimes, it can also help to reload the script. To do so, just click on **'Logic Pro > Control Surfaces > Rebuild Defaults'**

troubleshooting knowledge base

If you encounter technical issues, please start by searching our online knowledgebase for a solution. When still stuck, please submit a ticket to our Osmose tech support team:

🔗 Osmose Online Knowledgebase - Technical Issues