High Definition Media Interfaces

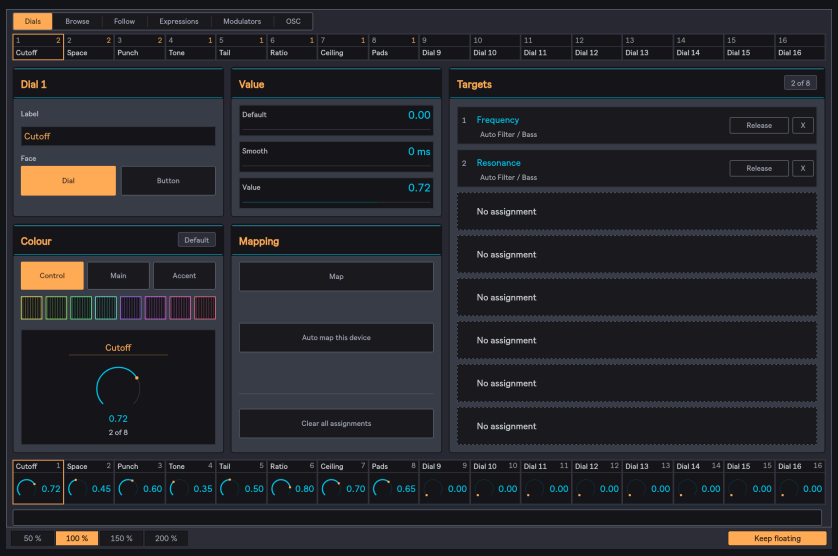
by hosting

OSControl

USER MANUAL · MAX FOR LIVE AUDIO EFFECT

Sixteen dials that each move up to eight of the parameters Live makes available in your Set, with ranges, curves, eight modulators and OSC.





Pictures in this manual are computer-made drawings of the device, not screenshots from Live. Your Live theme, zoom and controller change how it looks. HDMI is not affiliated with the companies named in this manual. Their names are used only to say what works with the device. Support: support@hidef.tools

User manual for OSControl, a Max for Live audio effect for Ableton Live 12.

Install `OSControl - hidef.tools by hosting.amxd` from your download.

OSControl gives you sixteen dials. Each dial can move up to eight parameters in your Live Set, each with its own range, curve and steps. Eight modulators can move the dials for you. Other apps can move them over OSC, and OSControl sends their values back out.

OSControl works with the parameters Live makes available.

Face and column

The face shows dials 1 to 8 or 9 to 16. Drag a dial's value or name to change it. Shift-drag for fine control. Double-click to return to the default.

The top row changes page, starts Quick map, clears mappings and turns all modulation on or off.

Each dial has two small screens. One shows its name. The other shows how many targets it has, or that a target is missing.

The small button under each dial reads Dial or Button. It switches that dial between a dial face and a button face, the same as the Dial and Button choice in the Canvas Dials tab. Its mappings and modulation routes stay as they are. When a dial becomes a button, its value changes to off or on.

The Instance screen shows the OSC instance name.



The face, with dials 1 to 8, and the right column.

COLUMN CONTROL	WHAT IT DOES
Matrix	Applies a complete modulation setup. Clear matrix removes its routes.
Name	Sets the OSC instance name. Press Return to apply.
In / Out	Sets the OSC receive and feedback ports. Press Return to apply.
Lock / Device	Lock keeps Browse and Follow on the current device. Device lets them follow your selection in Live (see Which device OSControl follows).
Spread / Stack	Starts Quick map across free dials, or into the free target lanes of the selected dial. Press the lit mode again to stop.
Set / Remote	Chooses how OSControl moves targets (see Recording).
Canvas	Opens the larger view.

Sidechain panel

The thin Sidechain strip at the left edge of the device opens a side panel. The device expands to the right while the panel is open and shrinks back when it closes.

The panel has two halves.

Sidechain chooses another track or input as the audio that fires One-shots.

CONTROL	WHAT IT DOES
External	Turns the sidechain on or off. With External off, or no source chosen, the trigger listens to the track's own audio.
Source chooser	Picks the track or input to listen to.
Mix	Sets how much of the source the trigger hears, compared with the track's own audio. It only matters while External is on.
SC Gain	Adds level.
SC Filter (Type, Freq, Res)	Lets the trigger listen to only part of the sound.

MIDI In, below Sidechain, chooses where the device's MIDI notes come from and which channel it listens to. All takes every channel.

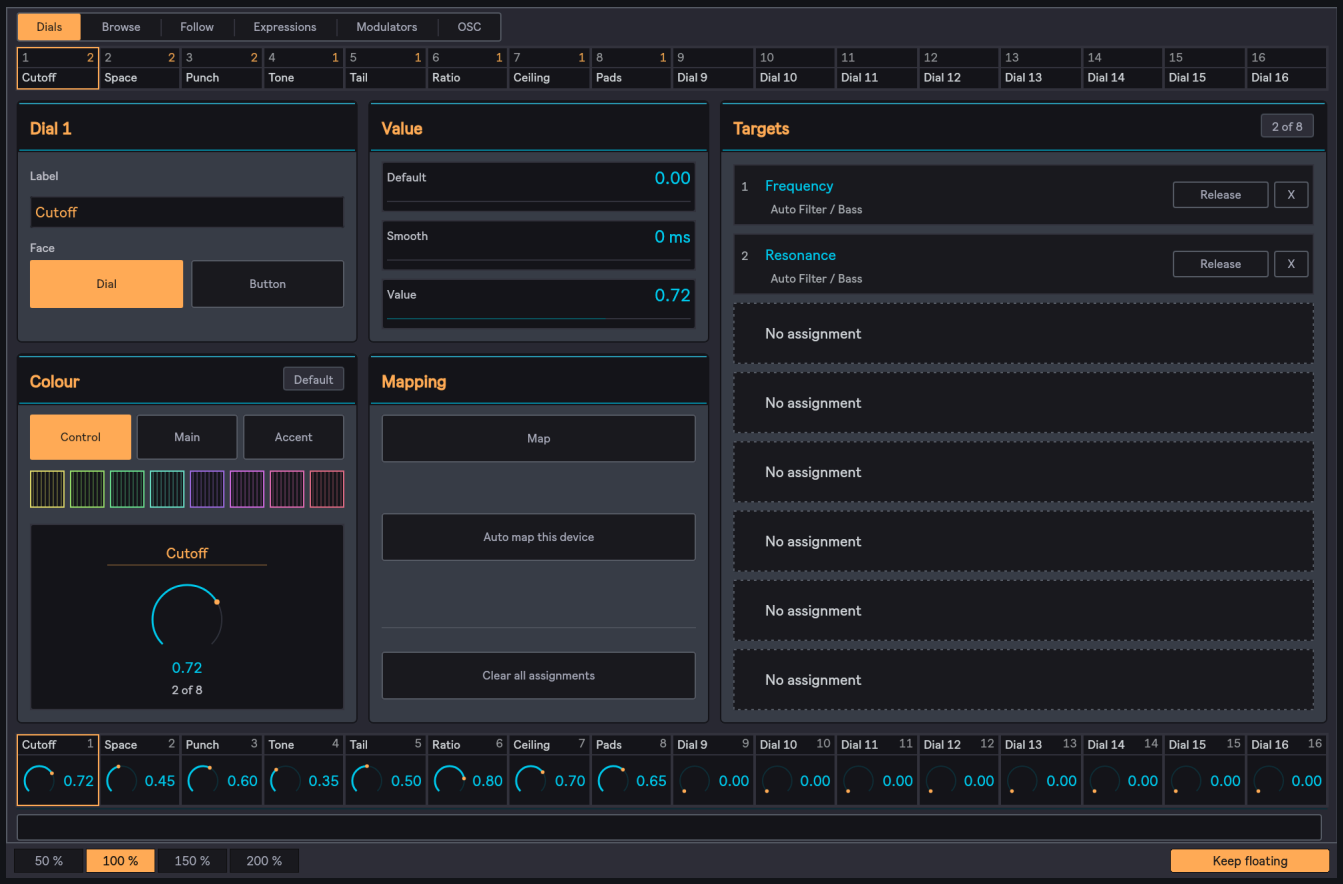
The strip has two dots. The lower one lights while the trigger hears a level over the Threshold. The upper one flashes as each note arrives.

The Canvas

The Canvas has six tabs: Dials, Browse, Follow, Expressions, Modulators and OSC. Its bottom strip shows all sixteen dials.

The 50, 100, 150 and 200 percent buttons set the Canvas size. You can also drag its corner.

Keep floating keeps the Canvas above Live whichever track you select. It is On every time the device loads, and OSControl does not save it. Turn it Off and the Canvas only shows while this device's track is selected.



The Canvas, Dials tab. Dial 1 (Cutoff) has two targets.

Dials and mapping

Each dial has a label, colour, default value, smoothing time and a dial or button face. Main, Accent and the eight hue choices colour the face dial and its name screen. The Control choice keeps the face in your Live theme's colours.

When you rename a dial, its Live parameter keeps the long name (Dial 1 to Dial 16).

There are four ways to map a dial.

METHOD	HOW
Dials tab	Press Map, then click a Live parameter.
Browse tab	Tick a parameter in the track and device tree.
Follow tab	Tick a parameter on the device you are following.
Auto map	Fills free dials in the device's parameter order. It leaves existing mappings alone.

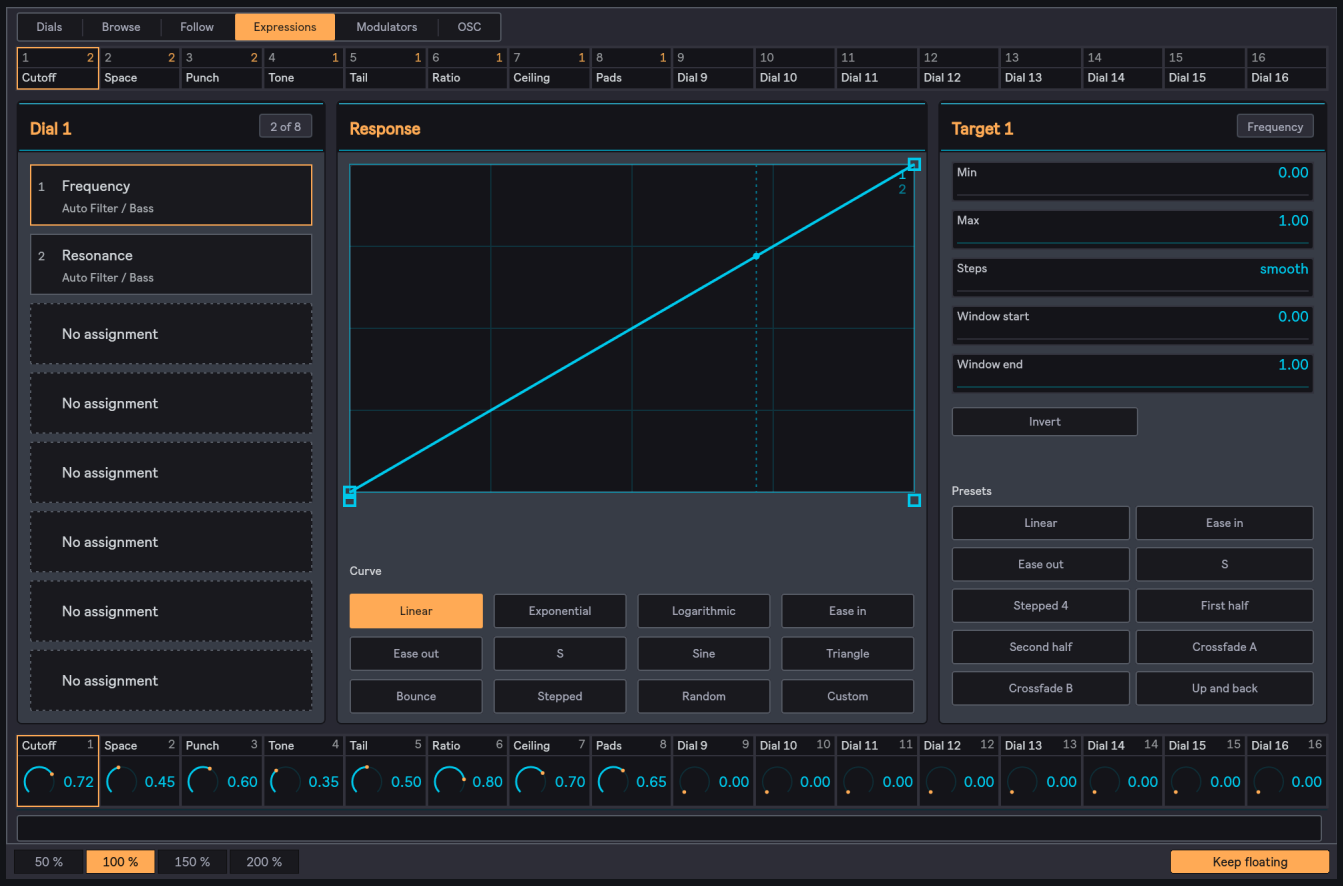
Follow and Auto map work on the device OSControl is following (see Which device OSControl follows).

The large dial preview in the Dials tab sets the selected dial. Drag up or right to raise its value, and down or left to lower it. Hold Shift for fine movement. Double-click to restore the default. If the dial has a button face, click the preview to switch it on or off. The Value control beside it sets the same dial.

The first target on an empty dial sets the dial to that target's current value. Later targets follow the dial's current position.

A dial cannot map another OSControl dial.

Each target can have Min, Max, Invert, Steps, a travel Window and a Curve. The Expressions tab shows its response. OSControl marks missing targets. It never moves them to another parameter without telling you.



The Expressions tab draws each target's response.

Quick map

Quick map maps parameters one click after another.

- Spread puts each parameter you click on lane 1 of the next free dial. It starts at the dial selected in the Canvas, or at dial 1. It skips occupied dials, and the face moves to dials 9 to 16 when needed.
- Stack puts each parameter you click into the next free lane of the selected dial, up to eight lanes.

Only the selected column button is lit. Press it again to stop Quick map.

The top-row button says Quick map. It flashes in the colour of the active mode. Press it to stop an active mode. When Quick map is off, press it to restart the last mode you used. It starts with Spread. The Map button of the waiting dial flashes.

Changing page, releasing the active dial or clearing it also stops Quick map.

Quick map turns off when the Set reloads. Press the top-row button to start it again.



Spread (left): dials 1 to 3 are mapped and dial 4 waits. Stack (right): every click lands on the selected dial (Tone).

1. Spread puts each parameter you click on the next free dial, one parameter per dial.
2. The waiting dial shows Learn on its Map button. Mapped dials are skipped, and the face turns to dials 9 to 16 when needed.
3. Stack puts each parameter you click on the selected dial, up to eight targets.
4. The count under the dial goes up with each target: 1 of 8, 2 of 8 and so on.

Modulators

Eight modulators can move the dials through the matrix. Each route has a positive or negative depth. Each modulator is one of these types: LFO, Random, Steps, One-shot or Audio follower.

An LFO can use Sine, Triangle, Saw up, Saw down, Square, Pulse, Smooth random or Sample and hold. Each modulator's small waveform sits right after its name.

Rate, Amount and On are Live parameters, so you can automate and map them. Stop with transport holds the other modulators when Live stops, and also holds a One-shot that transport started.

The Modulators tab shows the scope and the movement of each route.



The Modulators tab: an LFO on dial 1, Random on dial 2 and Steps on dial 3.

1. Type: LFO, Random, Steps, One-shot or Audio follower.
2. Shape: eight LFO shapes, from Sine to Sample and hold.
3. Matrix: apply a complete modulation setup, or clear it.
4. Tilt leans all the modulation left or right at once, each dial in proportion to its routes.
5. Routes: each modulator-to-dial route has its own depth, positive or negative.
6. On, Rate and Amount are Live parameters, so you can automate and map them.

One-shots

A One-shot is an envelope with five stages, each with a time you set in the One-shot card or by dragging the handles on its picture.

- Attack rises to full.
- Hold stays there.
- Decay falls to the Sustain level.
- Release falls back to zero.

With Attack at its lowest setting, the control reads Rate. The shot is then a simple ramp as long as Rate says (free or synced), with its Rise and Hold fractions. The other stages follow from where it ends.

Attack, Hold, Decay, Sustain, Release, Threshold, Re-arm and Note are Live parameters, so you can automate and map them.

Ways to fire a One-shot

- Press Trigger. It always plays the One-shot, even when Live is stopped.

- Send an OSC message to `/oscontrol/<instance>/mod/<number>/trigger`.
- Turn on Start with transport to start it when Live plays.
- Use the device's own audio. Set Threshold above off. Each time the input rises past it, the shot fires once. Re-arm is the shortest time between two fires.
- Use another track's audio. Open the Sidechain strip at the left edge and turn External on.
- Use a MIDI note that Live sends to the device. By default, every note on fires every One-shot. Note limits a modulator to one note. MIDI In in the Sidechain panel chooses the source and channel.

Audio and MIDI triggers also restart an LFO, Random or Steps modulator that has Retrig on, the same as Trigger does.

Tilt

Tilt sits in the Routes header of the Modulators tab. It leans all the modulation at once.

Drag it left and every modulated dial moves left. Drag it right and they all move right. Each dial moves in proportion to how much it is modulated. A dial with two strong routes moves further than a dial with one light route, and a dial with no routes stays where it is. At 100 percent, a dial moves by the full depth of its routes added together.

Shift-drag for fine control. Double-click to return to 0.

Tilt follows the modulation switch. With modulation off, it does nothing.

Mod Tilt is a Live parameter, so it is saved with the Set and you can automate and map it.

Which device OSControl follows

OSControl follows the device you select in Live. Click a device's title bar and Follow lists its parameters.

If a Control Surface script has appointed a device for hardware control, OSControl follows that device instead. Many scripts appoint the device you select, so the two are often the same.

You do not need a Control Surface script, and there is nothing extra to install.

Live's Remote switch on a MIDI port is a separate setting. A Max for Live device cannot change it, and OSControl does not need it to follow a device.

The device you select

Click a device's title bar. That device is selected on its track. With no Control Surface script, OSControl follows it.

A script's choice

A Control Surface script, such as one for a Push or a Launchkey, can appoint a device for hardware control. If one does, OSControl follows that device. Many scripts appoint the device you select.

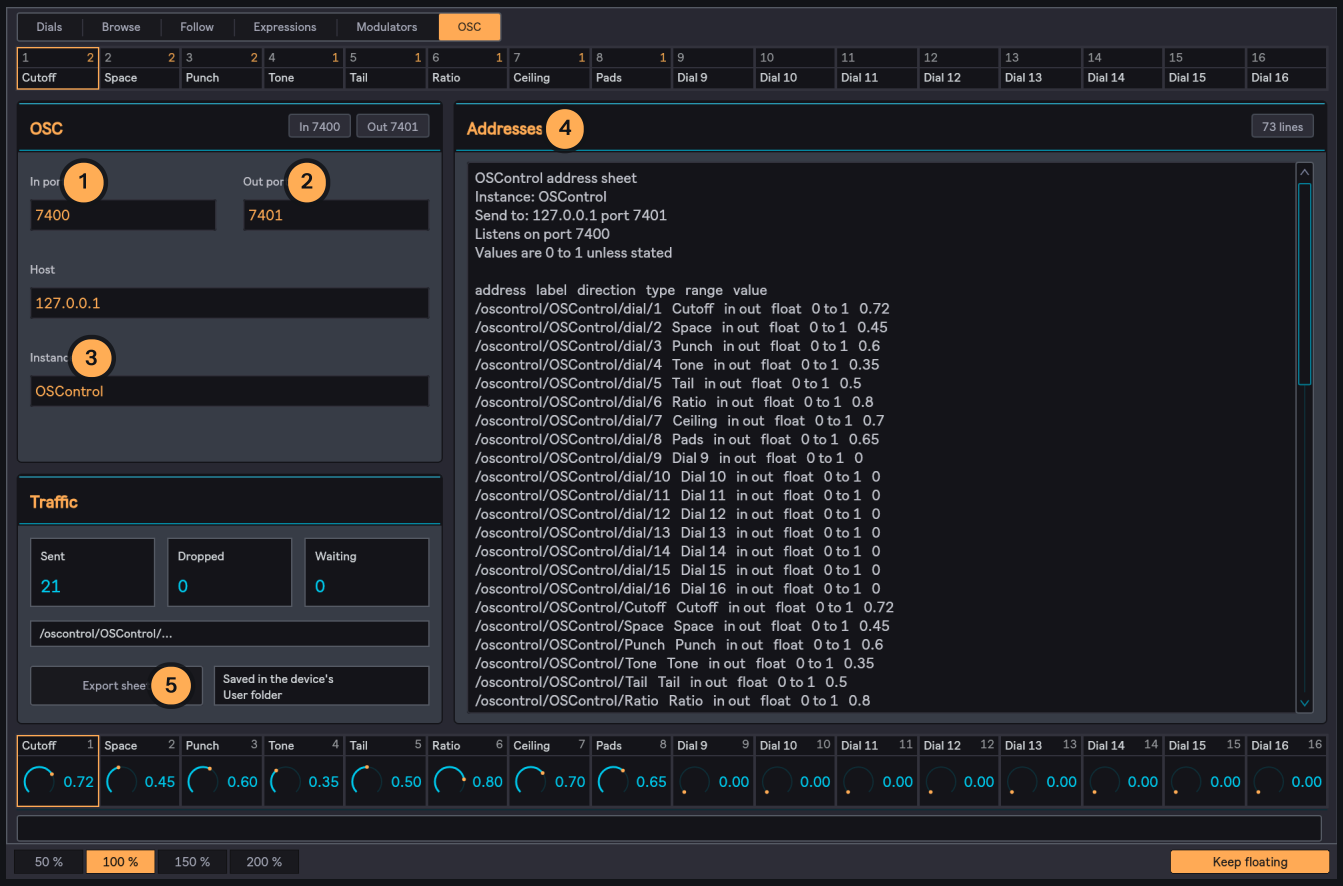
What you need

Nothing extra to install, and no script required. Lock holds the current device while you select others.

OSC and Export

The OSC tab sets the instance name, ports and host. The instance name starts from the track name.

Dial values use addresses such as `/oscontrol/<instance>/dial/1`. Label and modulator addresses are also available.



The Canvas, OSC tab, with its address sheet.

1. In port: OSControl listens here (7400 by default).
2. Out port and Host: where dial values are sent (7401 on this computer by default).
3. Instance: the name in every address. It starts from the track name, and you can change it in the right column.
4. Addresses: for example `/oscontrol/OSControl/dial/1`, a number from 0 to 1.
5. Export sheet writes the address list as text and JSON, for setting up the other app.

Export writes a text file and a JSON file listing the addresses. It looks for a folder to save in, in this order:

1. The existing Presets/HDMI/oscontrol folder in your User Library.
2. The existing HDMI folder in your home folder.
3. The folder beside the device.

Create one of these folders first. The status line shows where the files went, or says why nothing was written.

OSControl shares its dial labels with Control when Control is present.

Recording

Set is the default write mode. It writes each target as if you moved it by hand, so Live can record that target's automation.

Remote moves targets without writing them as hand movements, so Live does not record them and no Undo steps are added. If you want automation, record the dials.

Recording both a dial and its target can make their lanes compete when the Set plays back.

Notices

Ableton and the other companies and apps named in this manual are named only to show what works with OSControl. HDMI is not affiliated with them.

Support: support@hidef.tools