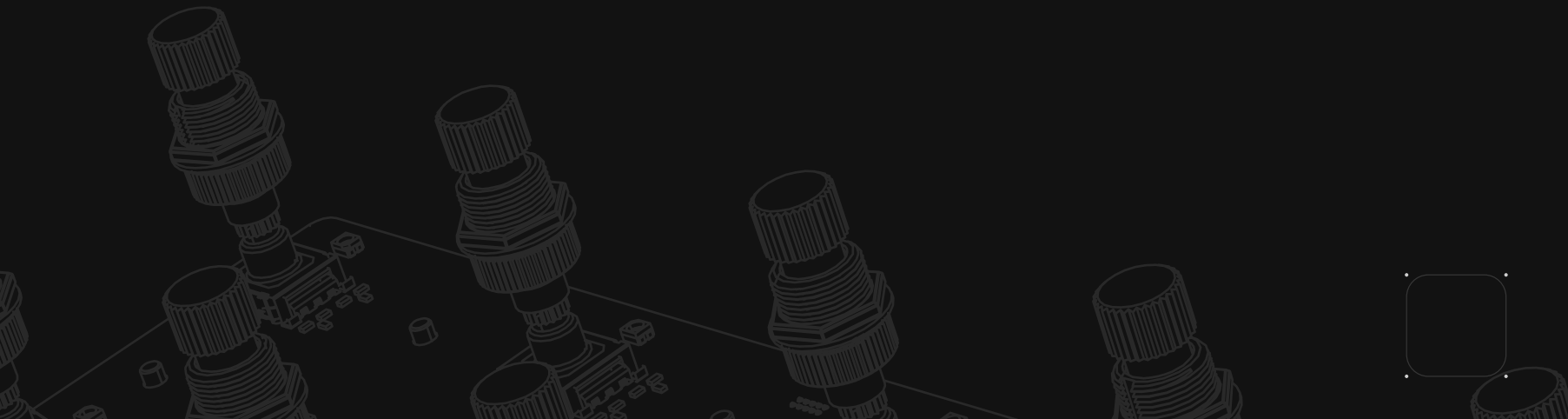




# Quad Cortex

## Product

## Documentation





# Introduction

Quad Cortex is the most powerful floor modeler on the planet. Boasting 2GHz of DSP power from its quad SHARC architecture, running complex signal chains, and even processing multiple instruments is a breeze. Navigate the device with its gorgeous 7" multi-touch display and proprietary stomp + rotary actuators, and discover how intuitive and quick every function is.





# Turning On/Off

To turn Quad Cortex on, connect the power cable to the input on the back and wait for it to power up.

To turn Quad Cortex off, tap and hold the power button or remove the power cable from the back.





# I/O & Dashboard

The Dashboard gives you an overview of Quad Cortex's I/O. To access it, swipe down from the top of the display. Inactive inputs are grey; active inputs are white. Plug something in and see a grey input instantly change to white.

SEE A VIDEO

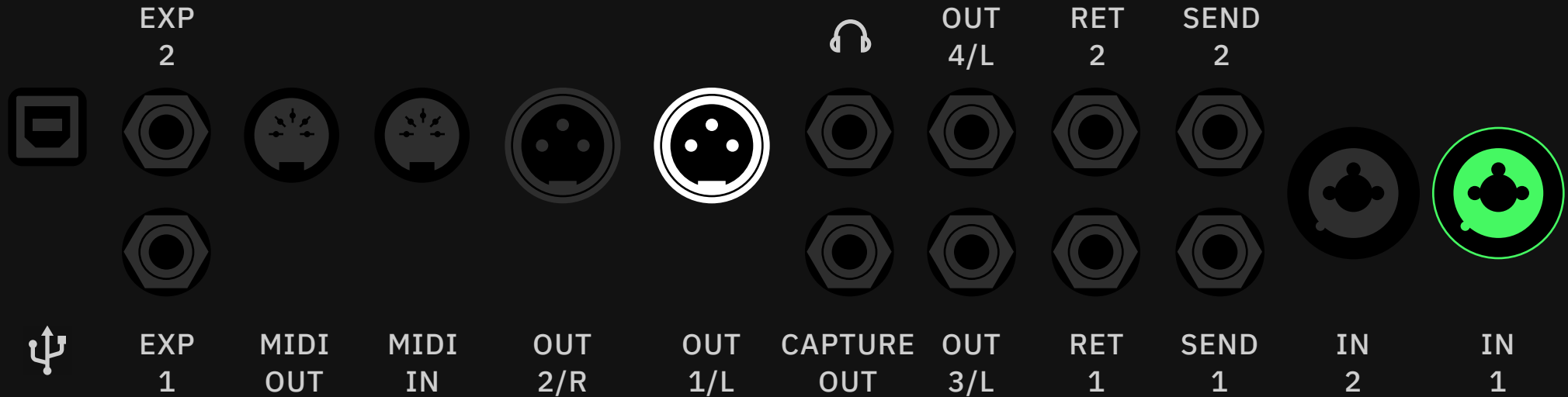
[I/O Settings](#)



IO Settings **Input 1**

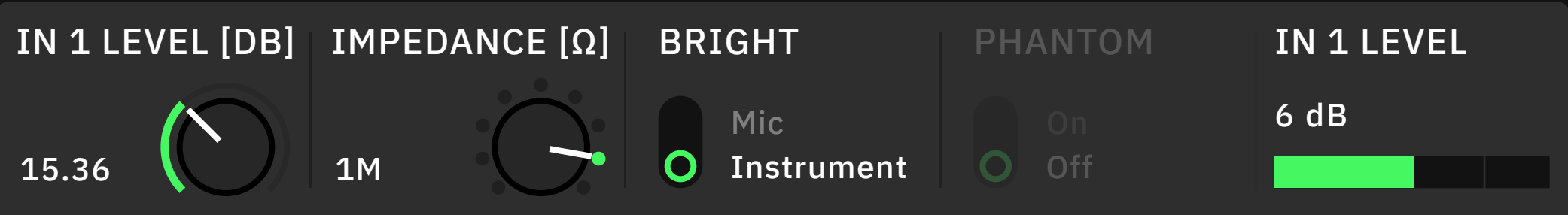
✓ Done

EXP 2    EXP 1    MIDI OUT    MIDI IN    OUT 2/R    OUT 1/L    CAPTURE OUT    OUT 4/L    OUT 3/L    RET 2    RET 1    SEND 2    SEND 1    IN 2    IN 1



**IN 1 LEVEL [DB]**    **IMPEDANCE [Ω]**    **BRIGHT**    **PHANTOM**    **IN 1 LEVEL**

15.36    1M    Mic / Instrument    On / Off    6 dB





# Quad Cortex

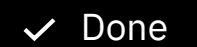
## features:

- Dual Combo Inputs: TS, TRS, and XLR, variable impedance and level controls, built-in microphone preamps, and phantom power supplies.
- Dual effects-loops: ideal for embedding external mono or stereo effects into your signal chain. These double-up as additional input/output jacks.
- 1/4" Output jacks: two mono, balanced (TRS) outputs provide pristine sound quality and optimal noise performance.
- XLR Output jacks: two mono, balanced XLR output jacks
- Headphone Output: ideal for quiet practicing.
- MIDI In, Out/Thru: receive and send MIDI messages to automate switching and control of every parameter in Quad Cortex, and control other units.
- Dual Expression Inputs: connect up to two expression pedals. They can be assigned to control wahs, volume, as well as pitch-shifting algorithms.
- USB: Ultra-low latency audio transmission, firmware updates, MIDI, and more.
- Capture Out: Used for our biomimetic AI technology, Neural Capture.

 **Quad Cortex features:**

Tapping any I/O device on the Dashboard displays a menu that shows further information and allows you to control its parameters. Adjust parameters by using the multi-touch display or by rotating the corresponding footswitch for rotary controls.

Input devices can have their impedance changed, 48v enabled, and their type toggled between mic & instrument. Input gain can also be adjusted. Output devices each have an optional ground lift and a level control independent of the Quad Cortex's master volume. Expression pedals can be calibrated via the Dashboard too.

Press  at the top-right to close the Dashboard.





# Modes

Quad Cortex features three modes to give ultimate control over features and footswitch customization: Stomp Mode, Scene Mode, and Preset Mode. Switch between them by tapping the name of the mode currently active at the top-right of the display or press the furthest-right footswitches on the bottom two rows together.

SEE A VIDEO

Changing modes using switches

Changing modes using screen

**3A Beast lead**



**3A Beast lead**



**3A Beast lead**





 **Modes** **STOMP**

Stomp Mode allows you to assign and activate any block in a rig to a footswitch, just like you would with an analog pedalboard. Use the up & down footswitches to navigate through Presets.

 **SCENE**

Scene Mode allows you to specify a footswitch to activate and control the settings of any number of blocks in a rig. Footswitch A could toggle a drive pedal through an amp & cabsim for a heavy rhythm tone; Footswitch B could toggle an overdrive and stereo reverb and delay for a beautifully saturated lead tone. Use the up & down footswitches to navigate through Presets.

 **PRESET**

Preset Mode gives you instant access to 8 virtual rigs - one on each footswitch. Scene Mode allows you to toggle the parameters of any number of blocks in 1 rig. Preset Mode will enable you to have eight completely different rigs. Use the up & down footswitches to navigate through banks of Presets in your Setlist.



# Building & editing a rig

We call the screen where you can add blocks to build a virtual rig, “The Grid”. The Grid has four rows of 8 block spaces.

SEE A VIDEO

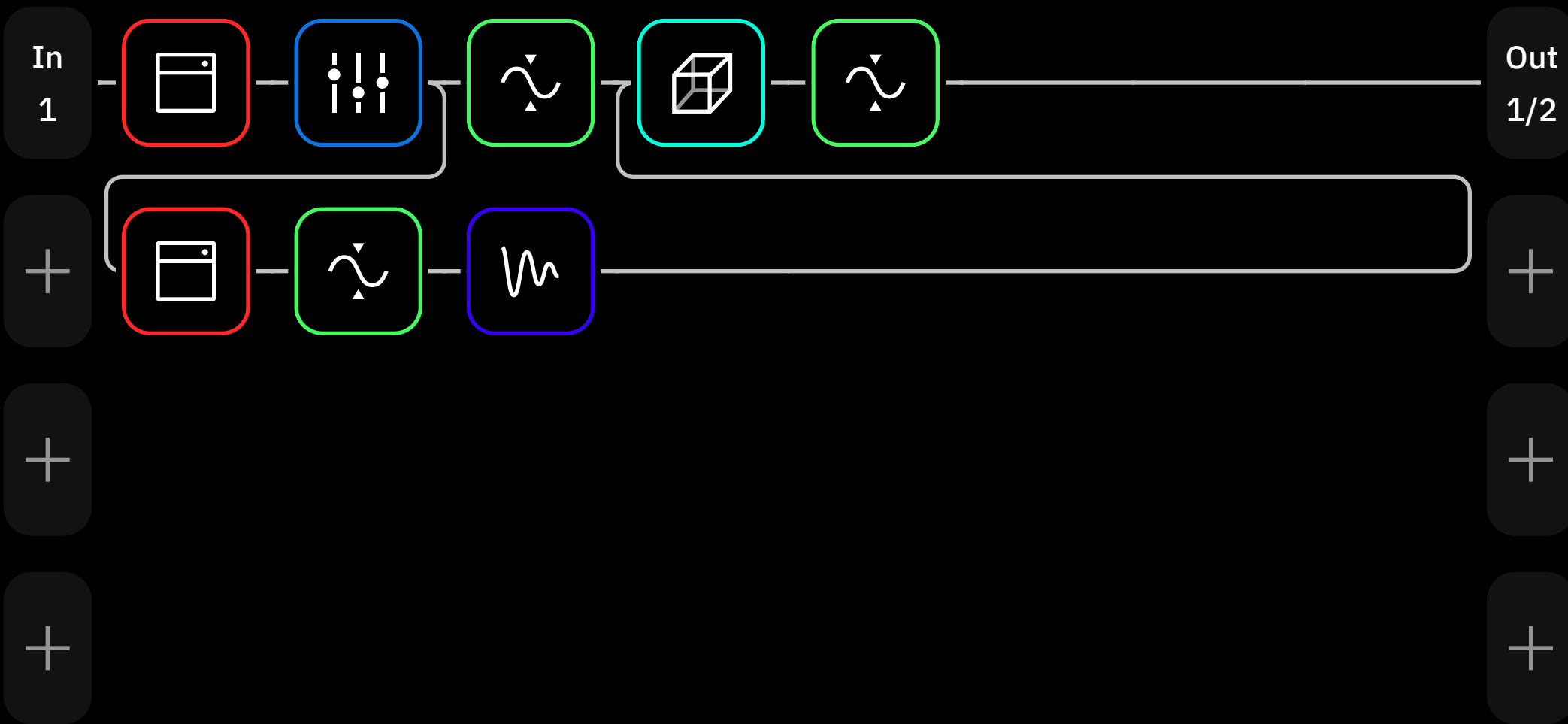
Building a rig




# 3A Beast lead

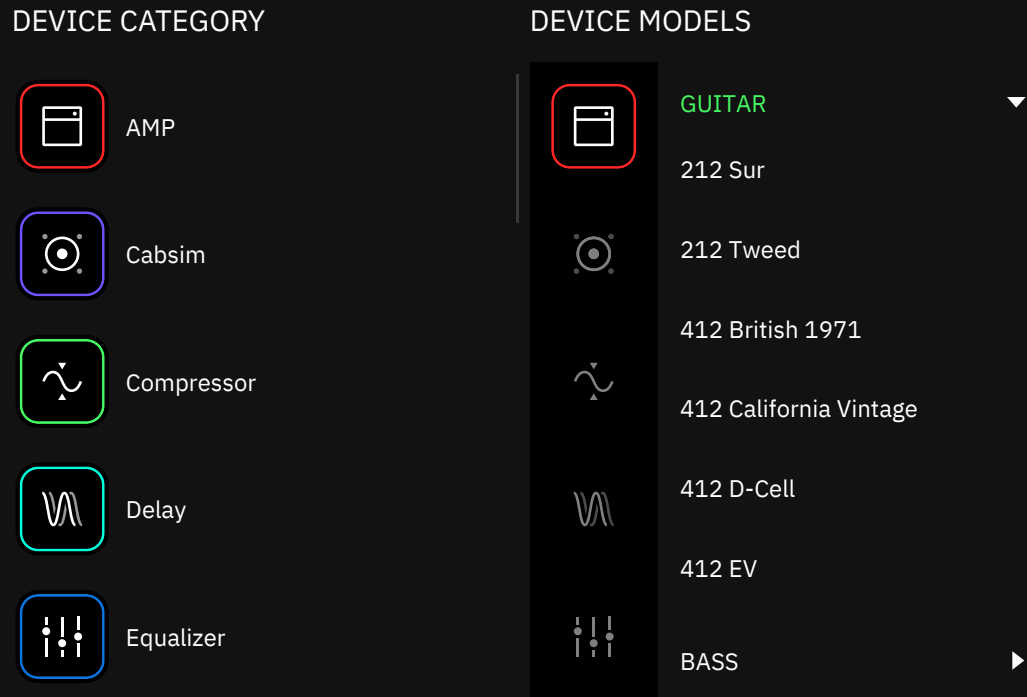


PRESET



## Building & editing a rig

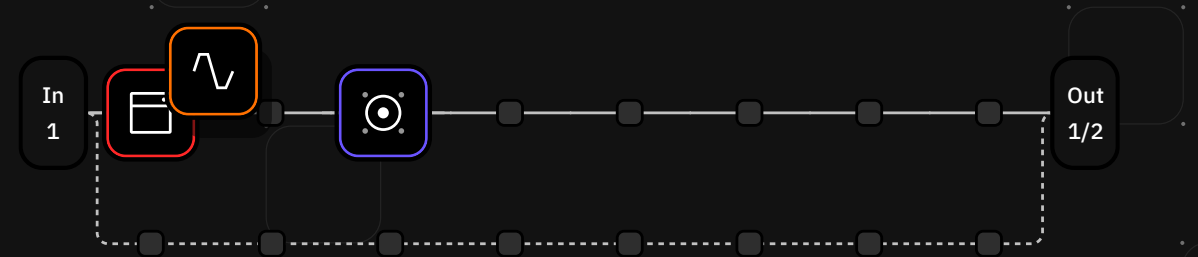
- Start by tapping  on The Grid to add your first block; this will open the device categories list.



Scroll down by swiping with your finger and tap a device category to display its devices.

Tap a device in the list to add it to The Grid. You can also tap the device category's icon to go back to the category list.

- Build a virtual rig from left to right. While it's important to remember how you might approach building a signal chain with analog components, dragging-and-dropping a block after you've added it to The Grid is effortless.




If you add an amp and cab first but need to add an overdrive pedal in front after, repositioning everything is as simple as dragging-and-dropping the blocks into the order you require.

## Building & editing a rig

- Once you have added a block to The Grid, tap it to open its menu.



From here, several controls are available to you. Footswitches will light up and correspond to any rotary controls on the block you've added. Parameters such as gain can be controlled either by rotating the footswitch or interacting with the multi-touch display.

- When a block menu is open, you can tap the contextual button  to reveal further options. From here, you can tap "Change device" to replace the block with another. "Reset to defaults" to reset the device's parameters.

"Set parameters as defaults" to always use these settings when you add this device to a rig, or "Remove device from the grid" to remove it from The Grid entirely. Expression pedal controls are also available here.

- Try building a rig with an overdrive pedal, an amp, and a cab. After adding the blocks, tap them to customize their controls.
- The mode you select gives you further customization options. In Scene Mode, you can specify the scene for which you want to set the parameters. Try changing a parameter in Scene A, then move

**GAIN**



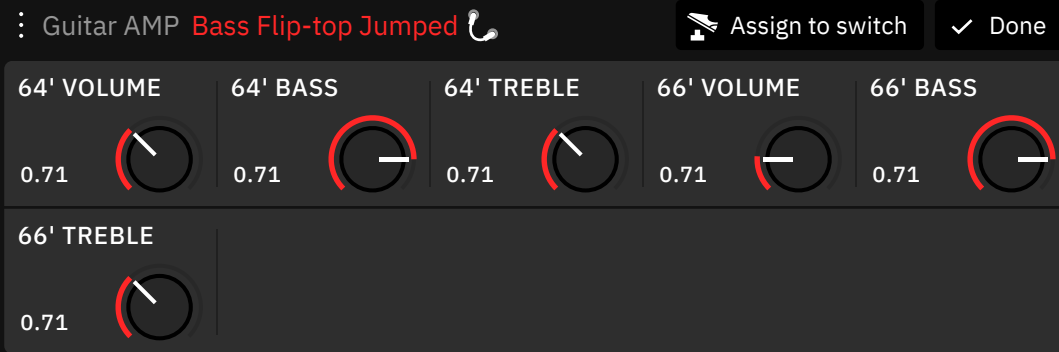
**0.33**



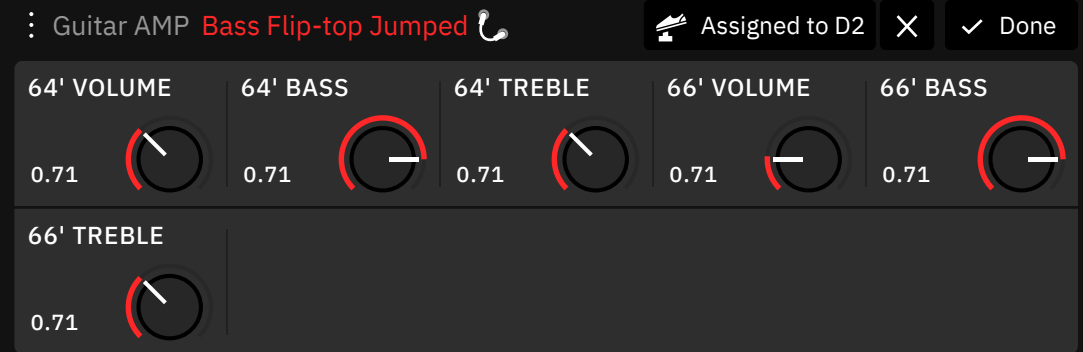
to Scene B by tapping the arrow to the right of "Scene A" and tap "bypass" to bypass the block entirely, then press "Done". Now when you press Footswitch A or Footswitch B, Quad

Cortex will navigate between these two scenes.

## Building & editing a rig




- In Stomp Mode, blocks get assigned to footswitches in the order they were added to The Grid. You can assign a block to any footswitch by opening its menu and tapping the “Assigned to [Footswitch]” button.



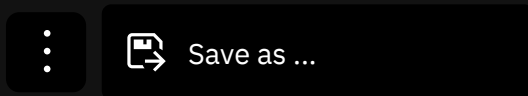
Tapping the [X] button next to the “Assigned to” button will result in the block having no footswitch assigned to it. Unassigning a block from a footswitch is useful for blocks such as the Cabsim, which you may not want to toggle with a footswitch in your rig.



# Saving a Preset

To save a rig as a Preset, click the  icon at the top-right corner.

You can also use the contextual menu at the top-right and tap “Save as...” to save a rig as a new Preset.



“Save as...” is helpful if you have modified a Preset and want to save your changes as a new Preset, as tapping the save icon will overwrite the active Preset with your modifications.



In the save menu, you can name your Preset as well as assign it tags. Tags on Cortex Cloud can filter Presets. You are also able to define the Setlist where you would like to save the Preset.

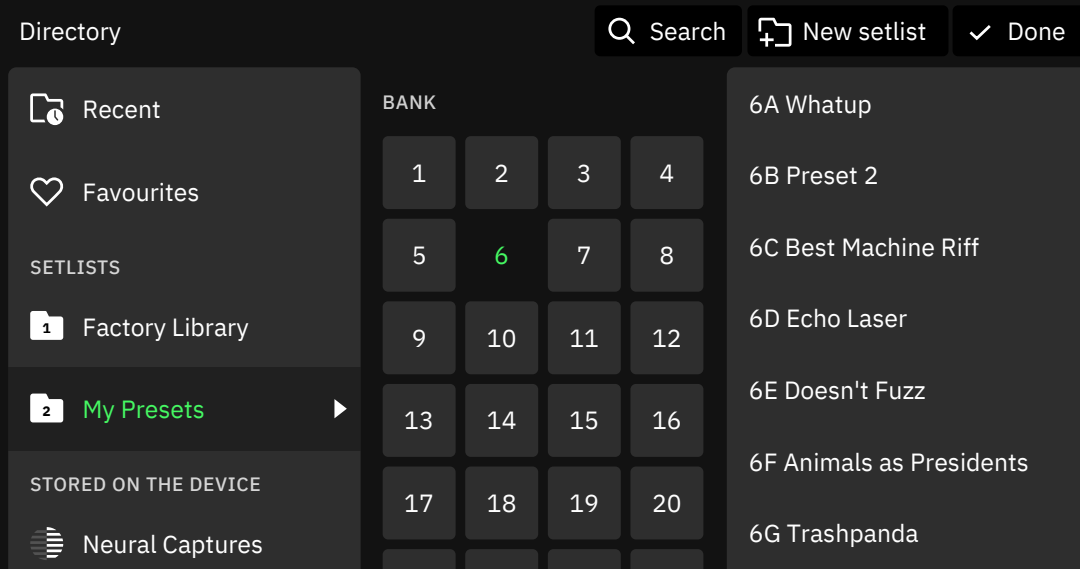
SEE A VIDEO

[Saving a preset](#)



# Setlists

Setlists are Quad Cortex's way of making Presets incredibly easy to use and navigate. A Setlist can contain 32 banks of 8 Presets, and you can create as many Setlists as you like. Setlists allow users to categorize their Presets by band, project, album, or anything else!



To create a new Setlist, tap the active Preset's name at the top of The Grid to open the Directory. Then tap the “New Setlist” button at the top-right corner. Give your Setlist a name, then tap “Create” at the bottom-right corner.

By default, Presets will save in the “My Presets” Setlist. When you save a Preset, you have the option to specify the Setlist where you would like to save the Preset.

Save in **My Presets / 1A** [change](#)

To change the active Setlist, open the Directory, navigate to the Setlist you'd like to activate, then load a Preset in it by tapping one of the banks, then one of the Presets on the right.

SEE A VIDEO

Create a setlist





# Gig View


Gig View allows you to visualize what the footswitches are assigned to instantly. This visualization utilizes the entire screen.

Stomp Mode: Gig View shows you the device assigned to each footswitch.

## STOMP

C  
**Compulsive Drive**

## SCENE

C  
**A little bit more reverb**

## PRESET

C  
**Nice Machine Riff**

Scene Mode: Gig View shows you the scene assigned to each switch. You can change the name of your scenes.

Preset Mode: Gig View shows you the Preset assigned to each footswitch. Tap the active footswitch a second time to show an enlarged view of the current Preset.

Access Gig View by swiping up from the bottom of the screen.

## SEE A VIDEO

[Using footswitches in Gig View](#)

[Using a screen in Gig View](#)

# 11B Beast Lead



STOMP

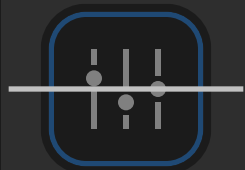


Close



A

Captain  
50 Clean



B

Graphic 6  
Band



C

Compulsi  
ve Drive



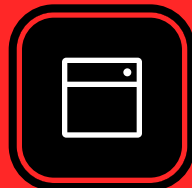
D

Spring



E

Legendar  
y 87



F

British  
900



G

Pitch



H

American  
410



# Routing inputs & outputs

Quad Cortex gives you complete control over the routing of your inputs & outputs. You can even repurpose the two effects loops as additional inputs/outputs to allow for rigs with four instruments and various output customizations.

By default, The Grid will build a signal chain that processes the instrument connected to In 1 and route it out of Out 1 & Out 2. You can tap “In 1” on the left and “Out 1/2” on the right to change the inputs & outputs used. For example, you might want to switch from using a stereo out on Out 1 & Out 2 to a mono out using Out 3.

In  
1

- Input 1
- Input 2
- ↔ Return 1
- ↔ Return 2
- ↔ Return 1/2
- ↔ Next Row
- 🔌 USB
- + Not in use

STEREO

- ↔ Output 1/2
- ↔ Output 3/4
- ↔ Send 1/2

MONO

- 🎧 XLR 1
- 🎧 XLR 2
- Output 3
- Output 4
- ↔ Send 1
- ↔ Send 2
- 🔌 USB
- ↔ Next Row
- + Not in use

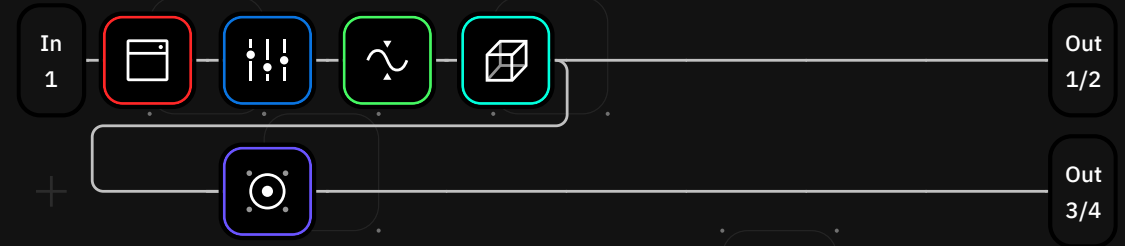
Out  
1/2



# Splitting & mixing signal chains

Routing outputs becomes more flexible when using Splitters.

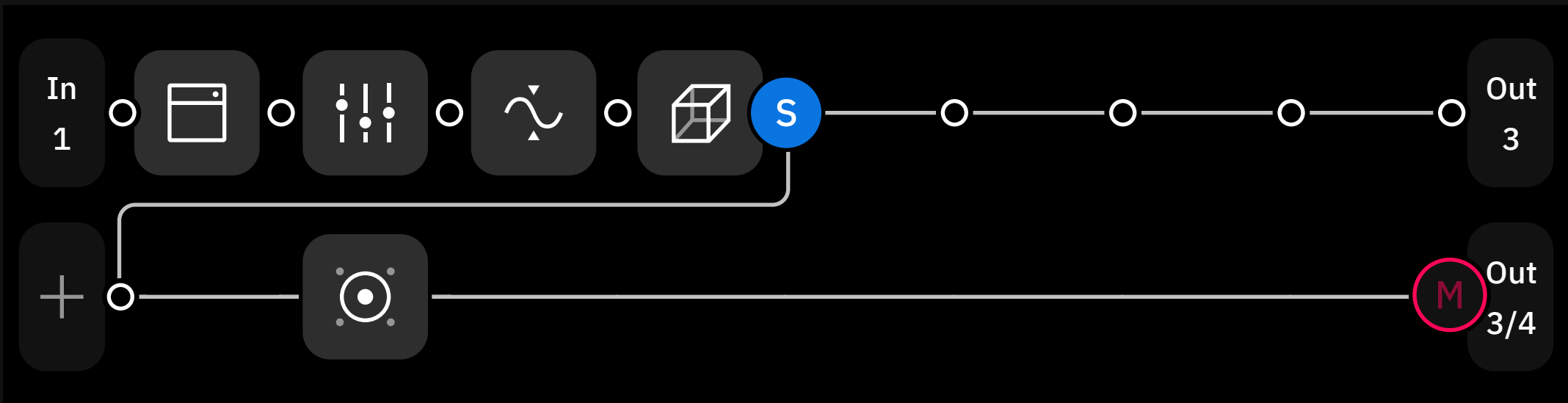
For example, you might want to send a stereo signal with a cabsim to a front of house engineer, but a separate signal without a cabsim to a cabinet on stage.



First, click the + button beneath “Out 1/2” on The Grid and select Out 3. Then press and hold on The Grid to bring up the Splitter menu. Drag-and-drop the Splitter to before the cabsim block and press “Done”. Next, drag-and-drop the Mixer to Out 3 and press “Done”. Your rig’s signal now splits before the cabsim, and Out 3 will send a mono signal through Output 3.

SEE A VIDEO

Splitting



Splitter
⏻ Turn off
✓ Done

TYPE		BALANCE	
<input checked="" type="radio"/>	Balance		
<input type="radio"/>	A/B		
<input type="radio"/>	Crossover		

CROSSOVER FREQUENCY

40 Hz

Invert  
 Regular

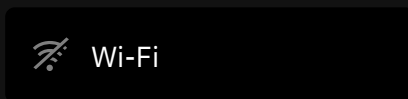


# WiFi updates

Quad Cortex downloads updates wirelessly, negating the need to connect it to a computer with a USB cable. To connect to WiFi, tap the contextual menu at the top-right of The Grid, then tap “Settings”.



From the Settings menu, tap “WiFi”.



Give Quad Cortex a few seconds to scan the available networks, tap the one you want to join, then enter its password using the on-screen keyboard.

Once you’re connected to WiFi, tap “Device Options” in the Settings menu, then “Device updates”.



The latest update will display here, and you can download it in the background while you use Quad Cortex. You will need to reboot Quad Cortex to finish applying the updates.

SEE A VIDEO

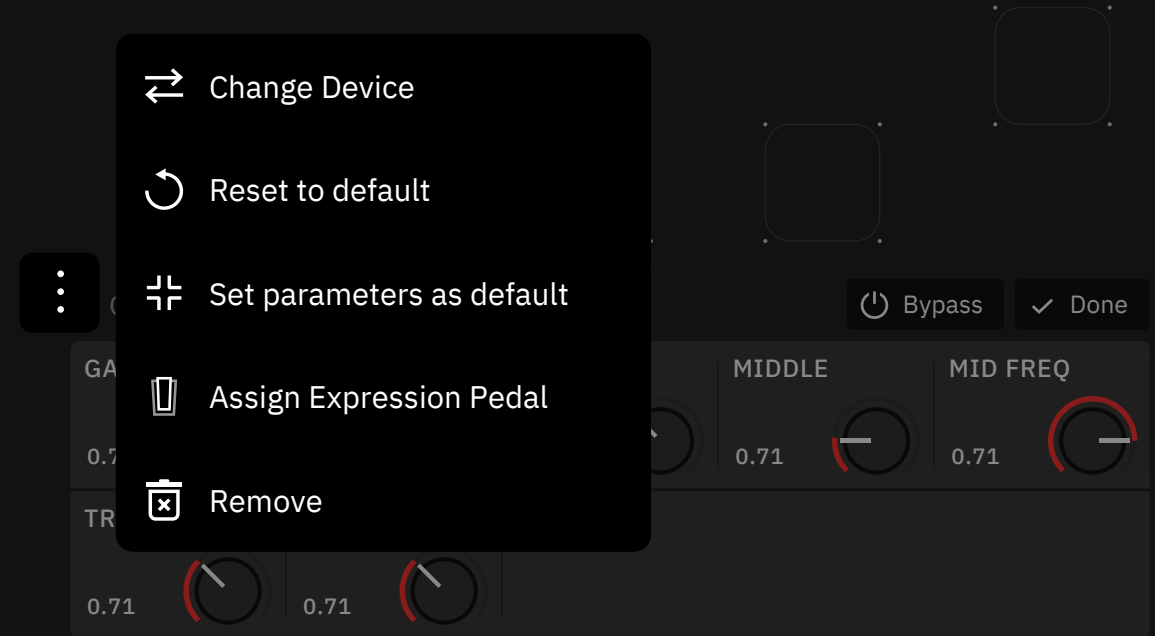




# Assigning expression pedals

You can assign an expression pedal to any device, and it can control multiple parameters at once. To assign an expression pedal, tap a block on The Grid, tap the contextual menu, then tap “Assign Expression Pedal”. Select the expression pedal you want to use to control the block’s parameters.

Use the “Assign” button to assign a parameter to the expression



pedal, and use the [-] button to modify the minimum and maximum values accessible in the pedal’s sweep. Press the “Done” button at the top-right corner when you’re finished.

It’s important to remember to calibrate your expression pedal via the Dashboard.

SEE A VIDEO

[Assigning an expression pedal](#)

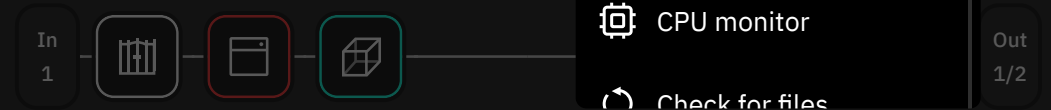


# Creating a Neural Capture



Neural Capture is Quad Cortex's flagship feature. Built using our proprietary biomimetic AI, it can learn and replicate the sonic characteristics of any physical amplifier, cabinet, and overdrive pedal with unprecedented accuracy. To create a Neural Capture you need to be able to mic up a cabinet or use an amplifier with a load box or D.I. Out.

1A Preset na



Start by tapping the contextual menu at the top-right corner of The Grid, then tap “New Neural Capture”. Follow the on-screen instructions regarding how to connect your guitar and your microphone(s)/amplifier D.I. The entire process takes less than 5 minutes, after which your Capture will save to the device.

Captures that you have created as well as Captures downloaded from Cortex Cloud are available as blocks you can add to The Grid under “Neural Captures”.

SEE A VIDEO

Neural Capture wizard



