

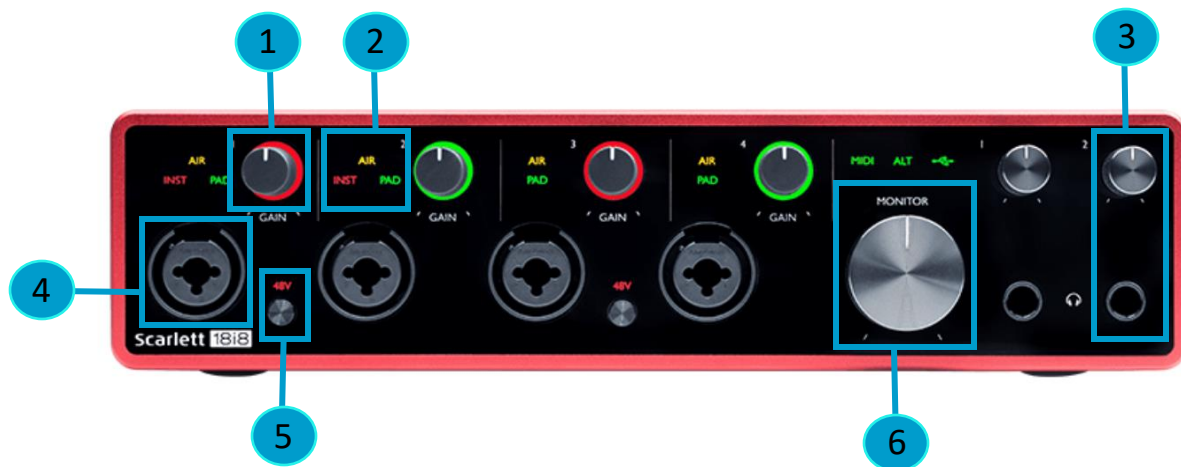
Recording Studio User Guide



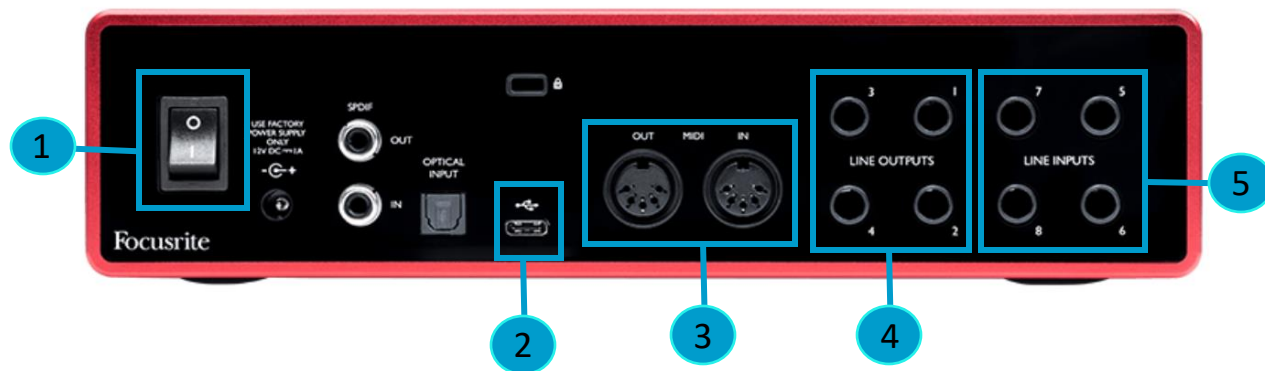
Focusrite Scarlett 18i8 USB Audio Interface and Focusrite Control



The Interface



1. **Gain Dial:** Use this to adjust the input level of each channel. Check sound at its loudest level to ensure there is no clipping.
2. **Mode Indicator:** Illuminated icons AIR, INST, PAD reflect the input settings in Focusrite Control.
3. **Headphone Jack:** Independent ¼" headphone jack and volume dial
4. **Input jack:** Channels 1-2 support XLR/TRS/TS and Channels 3-4 support XLR/TRS
5. **48V Phantom Power:** for using with condenser microphones or the In-line preamps.
6. **Monitor Volume:** This dial controls the volume level of the speaker/monitor output.



1. **ON/OFF Switch**
2. **USB-C Port:** Connect the device to the computer with the appropriate USB cable
3. **MIDI In/Out:** To connect non-USB MIDI devices
4. **Output Jacks:** To connect speaker monitors (Channels 1 and 2 only)
5. **Line Inputs:** For connecting instruments via TS or TRS cables like guitar, bass or keyboards or mixers

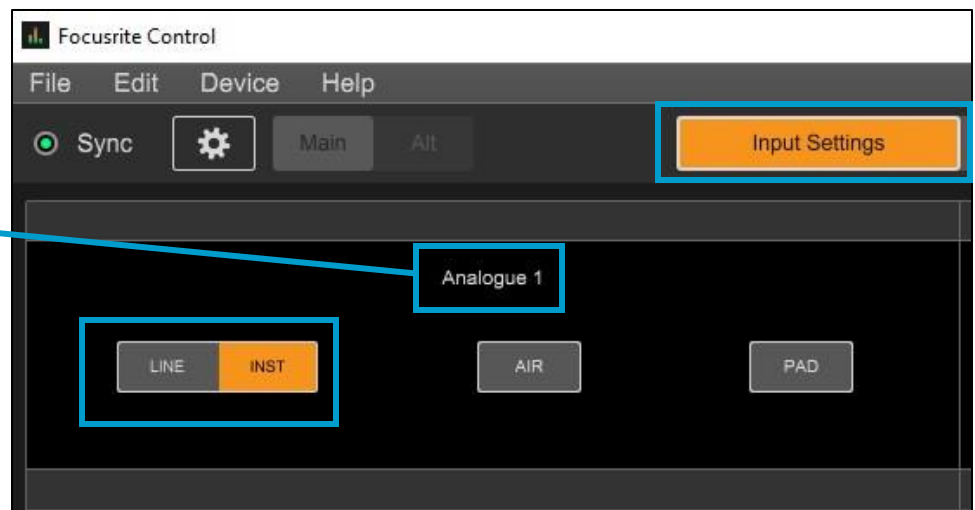
Focusrite Control



This is the application icon you can find on the computer desktop.

- The Focusrite Scarlett 18i8 USB Audio Interface works in tandem with a software called Focusrite Control. It allows you to customize your input and output settings.
- Please consider [reading the manual beforehand](#).

Input Setting: Channels 1-4



1. Channels 1 & 2

- These accept **all** input types--XLR/TRS/TS.
- If an XLR cable is plugged in, LINE and INST settings in Focusrite Control will have no effect.
- If you are connecting a **Guitar or Bass via TS cable**, make sure to select **INST**.
- If you are connecting a **Keyboard or Mixer via TRS cable**, make sure to select **LINE**.

2. Channels 3 & 4

- These accept **only** XLR/TRS inputs
- **Do not connect instruments via TS cable** to these ports, instead use Channels 1-2 or 5-8.
- If an XLR cable is plugged in, Line and Inst settings set in Focusrite Control will have no effect.

Channel Features

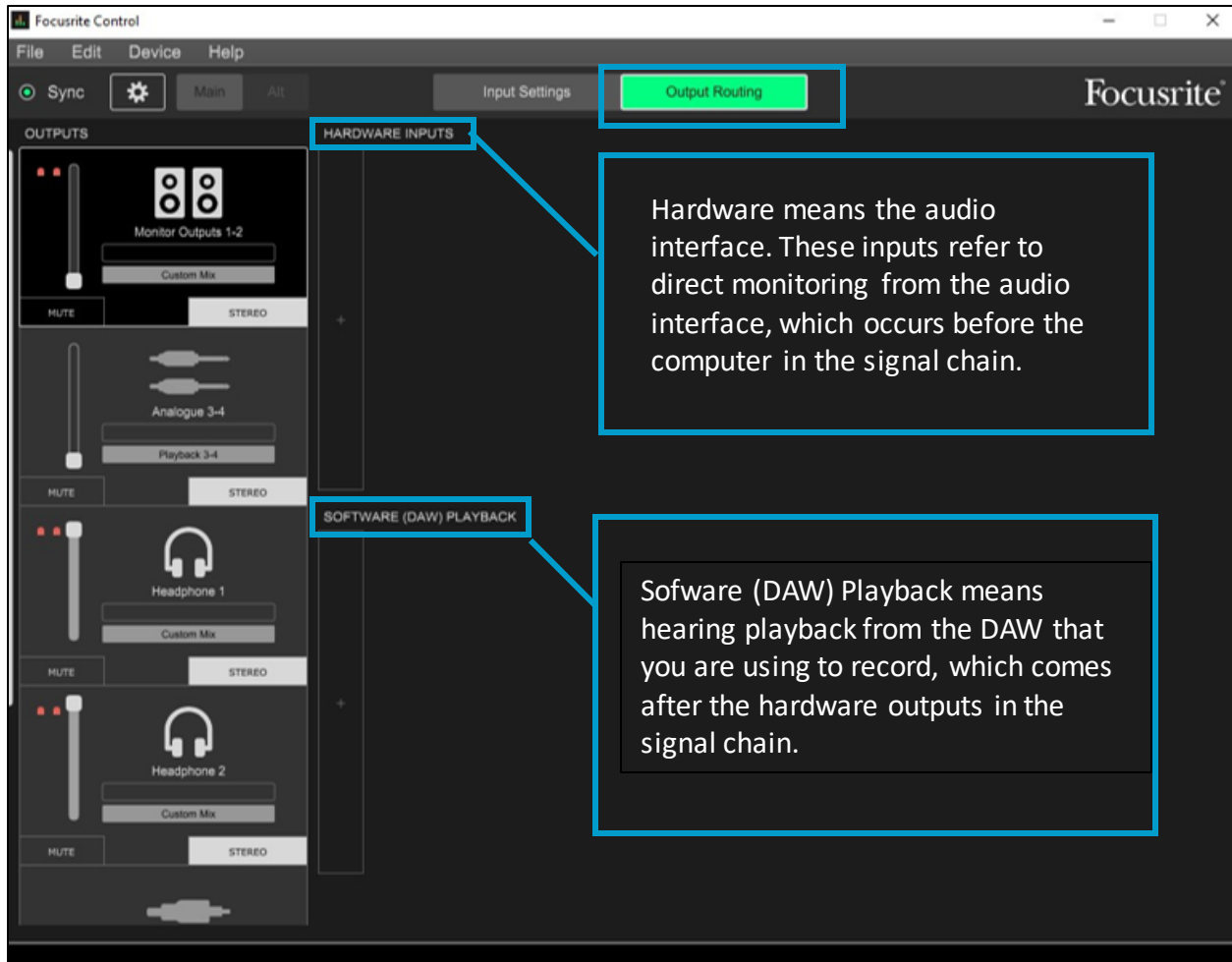


AIR is a digital preamp that adds some high-end frequencies and a volume boost to the sound.

PAD very simply reduces gain by 10dB for instruments with an output level that is too loud.

- If an XLR cable is plugged into Channels 1-4, selecting **LINE** or **INST** will have no effect.
- **LINE** is for balanced, line level instruments like electric keyboards and mixers (often in stereo/two channels)
- **INST** is for unbalanced instruments like guitar or bass that connect with a ¼" TS cable.

Output Routing



- When you enable monitoring from both sources (Hardware and Software) you will hear audio from both sources simultaneously, which gives a doubling effect.
- Depending on your recording context, you will want to use one or the other, either Hardware or Software playback.
- Focusrite gives you the ability to choose between these options with the click of your mouse.

Adding Output Channels

To hear the microphones or instruments from a particular channel, you need to manually add those channels to our output configuration. For example, if you have a mic plugged into Input 1 on the audio interface, you need to select Input 1 from either Hardware Inputs or Software (DAW) Playback.

The screenshot shows the Focusrite Control software interface with the 'Output Routing' tab selected. The interface is divided into several sections: 'OUTPUTS' on the left, 'HARDWARE INPUTS' in the center, and 'SOFTWARE (DAW) PLAYBACK' at the bottom. The 'OUTPUTS' section includes 'Monitor Outputs 1-2', 'Analogue 3-4', and two 'Headphone' outputs. The 'HARDWARE INPUTS' section has a vertical list of inputs with a '+' button. The 'SOFTWARE (DAW) PLAYBACK' section also has a vertical list of inputs with a '+' button. On the right, there are configuration tables for 'Analogue', 'S/PDIF', and 'ADAT' outputs, each with a 3x3 grid of input selections. Two blue callout boxes with arrows provide instructions: one for hardware inputs and one for software playback inputs.

Hardware Inputs Annotation:

- Add hardware inputs to be sent to playback by clicking on the + button.
- Select the inputs you are using by clicking on the corresponding number.

Software (DAW) Playback Annotation:

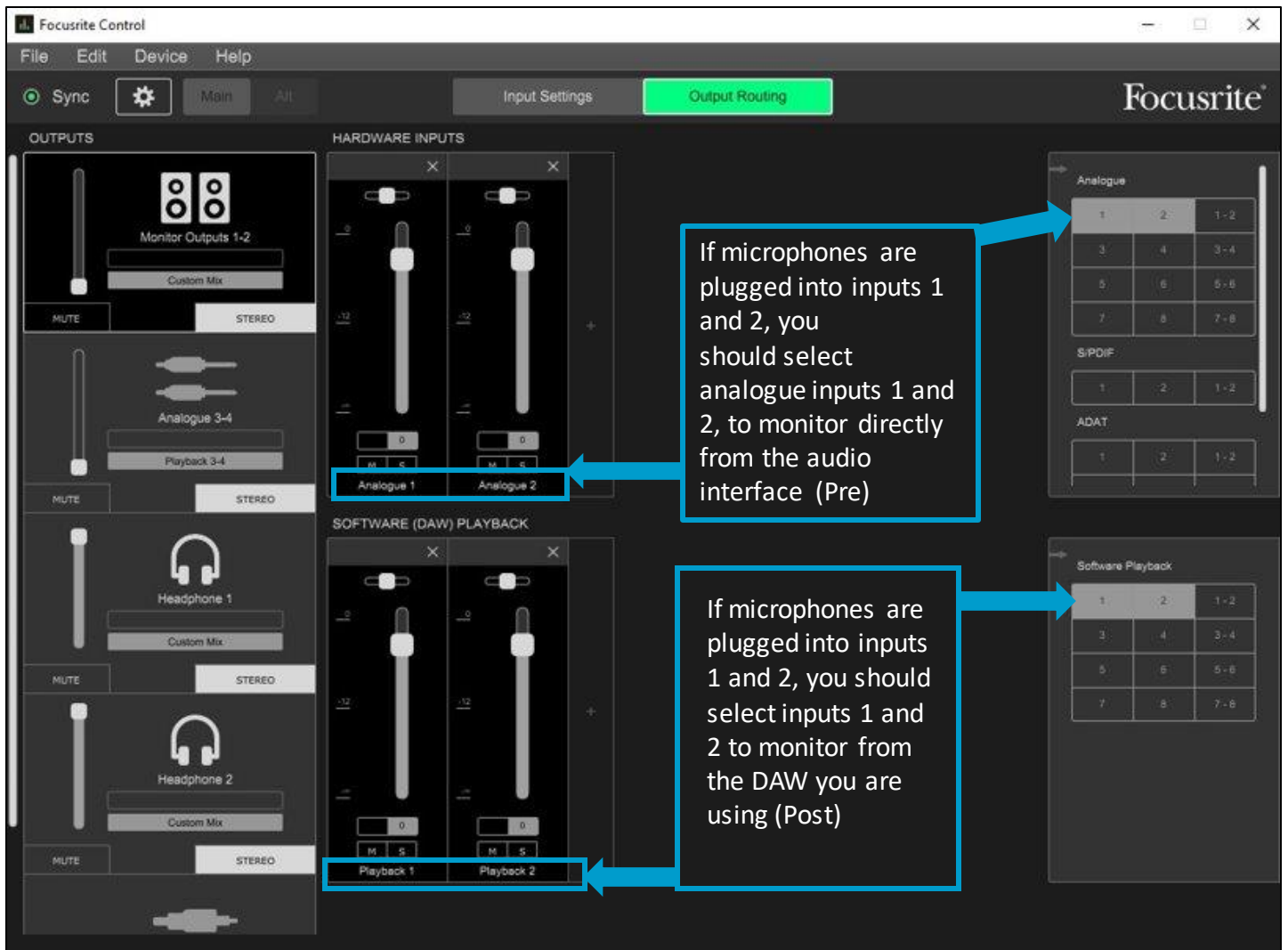
- Add software inputs to be sent to playback by clicking on the + button.
- Select the inputs you are using by clicking on the corresponding number.

1	2	1-2
3	4	3-4
5	6	5-6
7	8	7-8

1	2	1-2

1	2	1-2

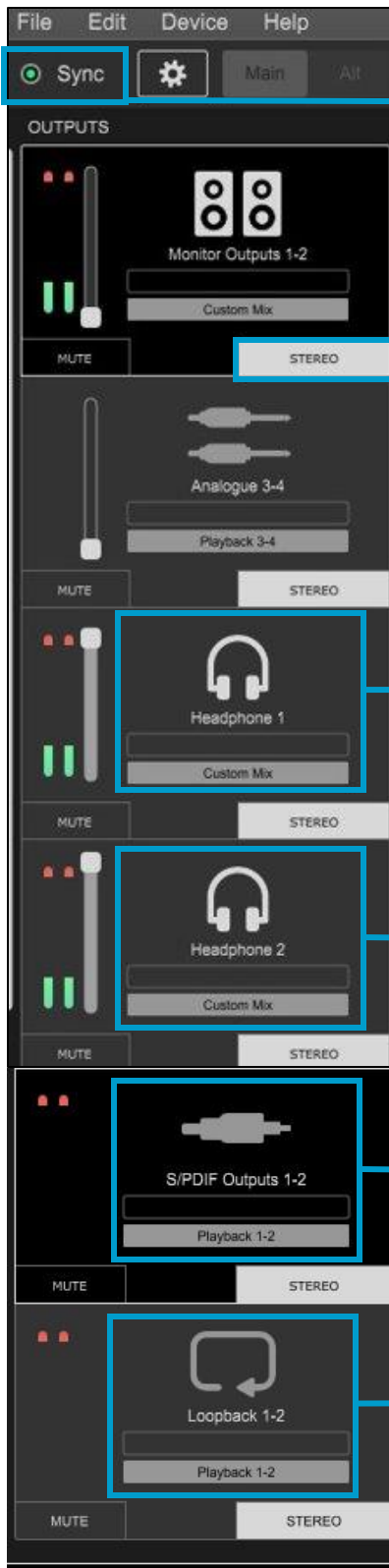
1	2	1-2
3	4	3-4
5	6	5-6
7	8	7-8



- Generally, you will only want to monitor from a single source. Monitoring from two sources simultaneously can give a doubling sound that inaccurately represent what is being recorded.
- Important Note: If you are using MIDI instruments or audio effects in the DAW, you will need to monitor from the Software Playback to hear them, since all those elements exist virtually in the DAW.

The Output Control Panel

The output control panel allows you to switch between the configurations of each output



The green light indicates that Focusrite Control is connected to the Scarlett 18i8.

This controls outputs 1-2, your primary outputs for speak monitors. This should always be set to **stereo**.

This controls auxiliary outputs 3-4 which you will likely never need to use. These outputs are only used if there are output devices plugged into outputs 3-4.

This controls headphone output 1 on the audio interface. This should generally be to set to **Custom Mix and Stereo**.

This controls headphone output 2 on the audio interface. This should generally be to set to Custom Mix and Stereo.

S/PDIF is an optical output that is not used by the library. If you are aware of this kind of output and intend to use it, you probably don't need this user guide.

Activating Loopback enables recording audio from other applications on your computer, like your internet browser or Zoom. **Loopback uses virtual inputs 11 and 12.**

Loopback

Loopback allows the user to record audio directly from the computer, such as from apps, web browsers, or from sites like YouTube. The Scarlett 18i8 uses **channels 11 and 12** for loopback. These are **virtual inputs** that have no physical counterpart on the audio interface itself.

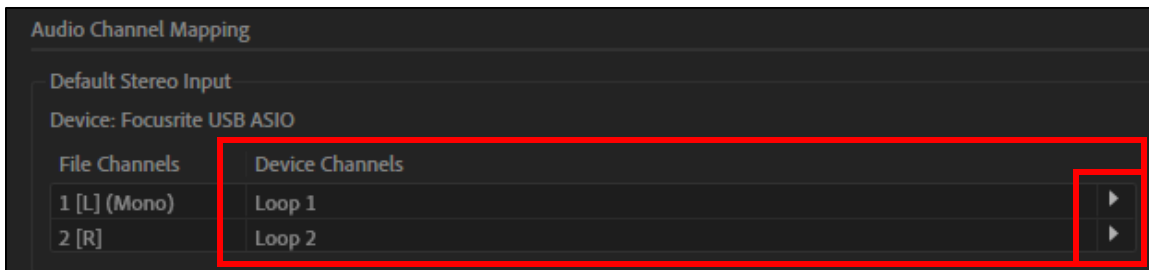
You will have to enable channels 11 and 12 in audio preferences of whichever DAW you are using, and then select those channels in your input configuration. Loopback must also be selected and unmuted in Focusrite Control.

Important Note: You **must mute** the loopback tracks in your DAW or else you will create terrible feedback which can damage your ears or equipment. Before playing back your recording, remember to **disarm your track**, and go back to Focusrite Control and **mute Loopback**.

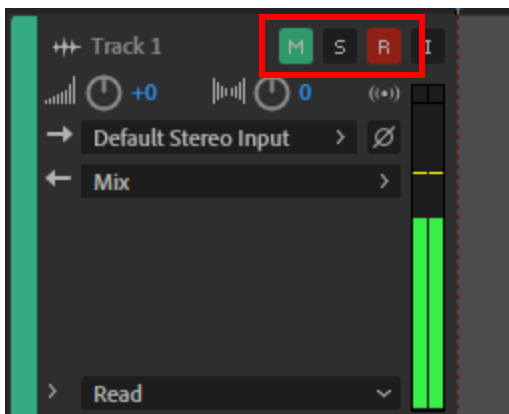
Because of the risk of forgetting to mute/unmute or reconfigure channels for playback please only do Loopback recording via Headphone monitoring. This means you should either turn off power to the speakers or mute the speakers in Focusrite Control.

Loopback In Audition

In Reaper, the virtual inputs **Channels 11 and 12** will display as **Loop 1 and Loop 2** in the audio channel configurations. **Go to Edit→Preferences→Audio Channel Mapping** and under Device Channels, select **Loop 1** and **Loop 2** by clicking on the pointers at the far right of the menu.



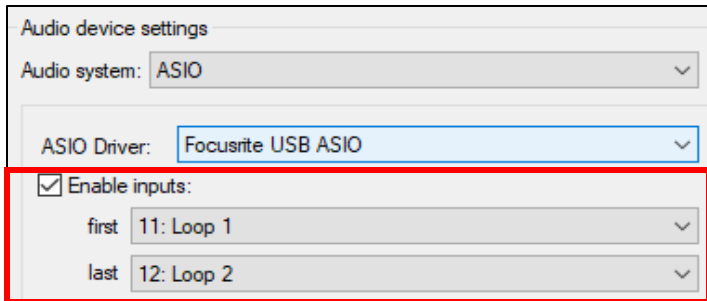
In a new **Multitrack** session, mute a **stereo track** to prevent feedback, and **arm** the track. Click record and then play the source audio.



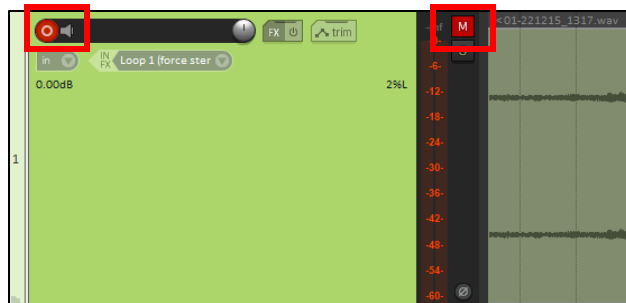


Loopback In Reaper

In Reaper, the virtual inputs **Channels 11 and 12** will display as **Loop1 and Loop 2** in the Audio Device configurations. First, select Focusrite USB ASIO as the Driver, then go to **Options → Preferences → Device** and under inputs, for **first**, select **11: Loop 1** and for **last**, select **12: Loop 2**.

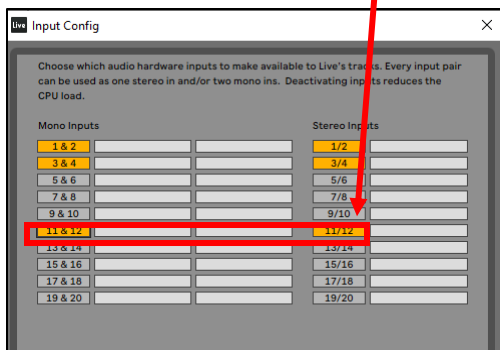
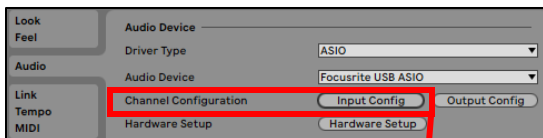


In your track, make sure to **arm** AND **mute** the track before recording. Hit record and then play the source audio.



Loopback in Ableton Live

In Ableton, you will have to enable **Channels 11 and 12** in input configurations. Go to **Options→Preferences→Audio→Input Config** and click on **11&12**.



Once your channels are configured, send channels 11 & 12 to an audio track in your Ableton project, remembering to **arm** the track, but **mute** it as well.

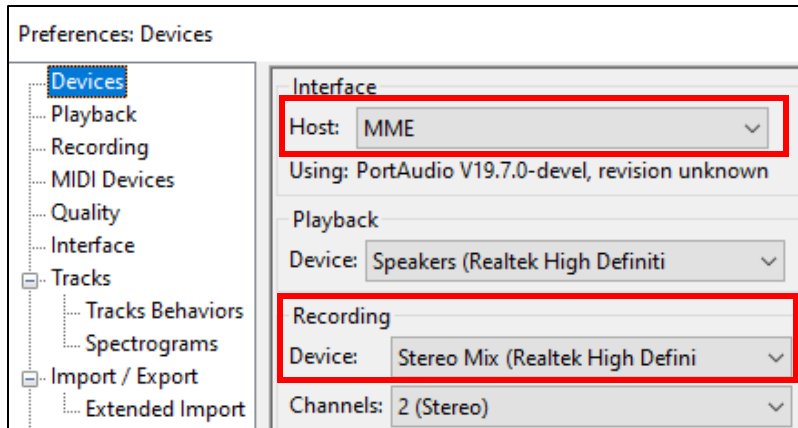




Loopback In Audacity

Audacity is capable of loopback recording without using the audio interface.




Go to **Edit→Preferences→Devices** and for **Host**, select **MME** or **Windows DirectSound** and for **Recording**, select **Stereo Mix**. Click record and any audio playing from applications within your computer will be recorded into a new stereo track.




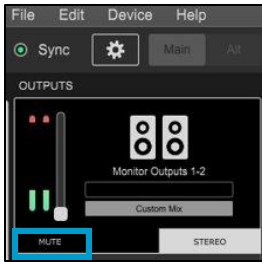

Troubleshooting

Problem: Cannot hear or receive input from the mic/instrument

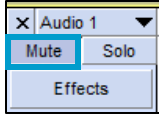
Things to check on the Audio Interface:

Is the monitor volume or gain turned down?	
Does the mic require phantom power, but phantom power is not activated? Are you using the Cloudlifter or Fethead? These both require phantom power.	
Is the audio interface plugged into a power source, turned on, and connected to the computer via USB-C?	


Things to check in Focusrite Control:

Is Focusrite Control open on your computer?	 <p>Find this icon on your desktop and click to open.</p>
Is the monitor output (Speakers or headphones) muted in Focusrite Control?	
Have you selected the corresponding output channels in Focusrite Control? (see page 6-7)	

Things to check in Audacity:

Did you set up your audio device preferences correctly?	Go to Options → Preferences → Devices Check that you have selected the correct playback and recording devices.
Have you enabled software playthrough in Audacity preferences?	Go to Edit → Preferences → Recording and check the box that says Software playthrough of input . See Audacity Quick Start Guide , page 2
Is your track muted?	
Have you tried rebooting the DAW, making sure the audio interface is plugged in first.	Save any changes, quit Audacity, connect the audio interface to the computer, and then restart Audacity. Check your audio device setup in Preferences .

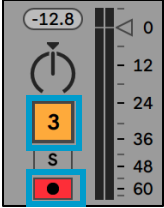
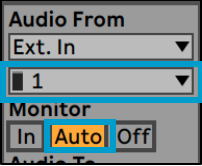
Things to check in Reaper:

Did you set up your audio device preferences correctly?	Go to Options → Preferences → Devices For Driver, select Focusrite USB AISO
Is your track armed? Is your track muted?	
Have you set up your channel configuration correctly?	Go to Options → Preferences → Devices Check that the input range (first and last) uses Channels 1-8 and the output range is 1-2.
Are you using a Mac? Have you given Reaper permission to use the Microphone?	Go to System Preferences → Security & Privacy → Microphone , find Reaper and tick the box to give the app access.

Things to check in Adobe Audition:

Did you set up your audio device preferences correctly?	Go to Edit → Preferences → Devices
Are you monitoring through Software in Focusrite Control? Have you enabled the Monitor Input Button?	
Is your track armed? Is your track muted?	

Things to check in Ableton Live:

<p>Did you set up your audio device preferences correctly?</p>	<p>Go to Options → Preferences → Audio Device See <i>Audacity Quick Start Guide</i>, page 2</p>
<p>Is your track armed? Or is your track muted?</p>	
<p>Have you set up your channel configuration correctly? You have to tell Ableton which input on the interface goes where by selecting that channel from the dropdown menu.</p> <p>Is your monitor set to Auto?</p>	 <p>Go to Options → Preferences → Devices See <i>Audacity Quick Start Guide</i>, page 3</p>

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Audacity Quick Start Guide

Audacity is a free and easy-to-use DAW that is excellent for beginners and for simple recording projects. Audacity is suited to single-track recording, meaning, only one input can be recorded at a time.

1. Open Focusrite Control



OUTPUTS

Monitor Outputs 1-2
Custom Mix
MUTE STEREO

Analogue 3-4
Playback 3-4
MUTE STEREO

Headphone 1
Custom Mix
MUTE STEREO

Headphone 2
Custom Mix
MUTE STEREO

HARDWARE INPUTS

SOFTWARE (DAW) PLAYBACK

0.0 0
M S
Playback 1

Output Routing

Analogue

1	2	1-2
3	4	3-4
5	6	5-6
7	8	7-8

S/PDIF

1	2	1-2
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ADAT

1	2	1-2
---	---	-----

Software Playback

1	2	1-2
3	4	3-4
5	6	5-6
7	8	7-8

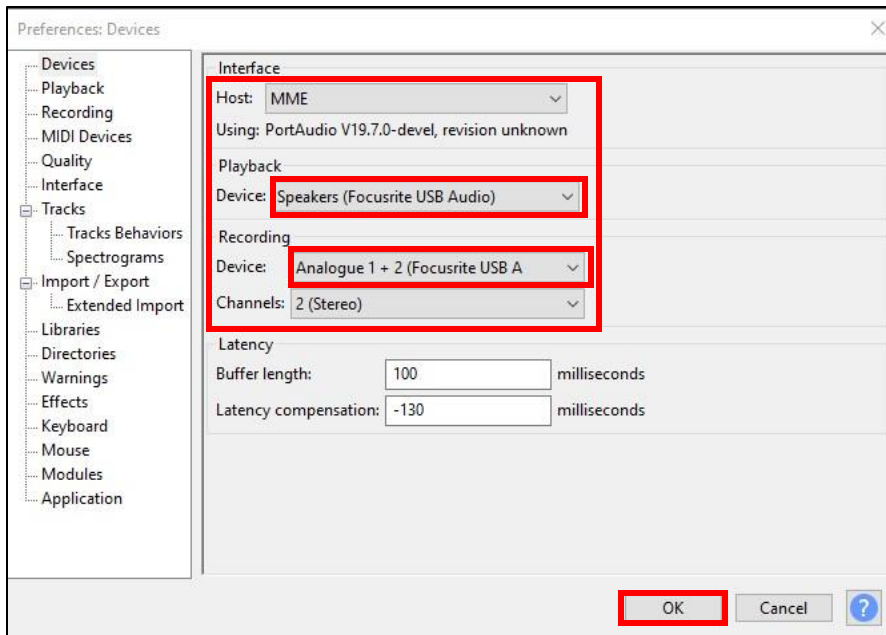
Select your monitor outputs (headphones or speakers), and make sure that the outputs you select are **unmuted**.

From **Output Routing**, choose **Software (DAW) Playback** and select the same channels you are using on the audio interface. Add channels by clicking on the +

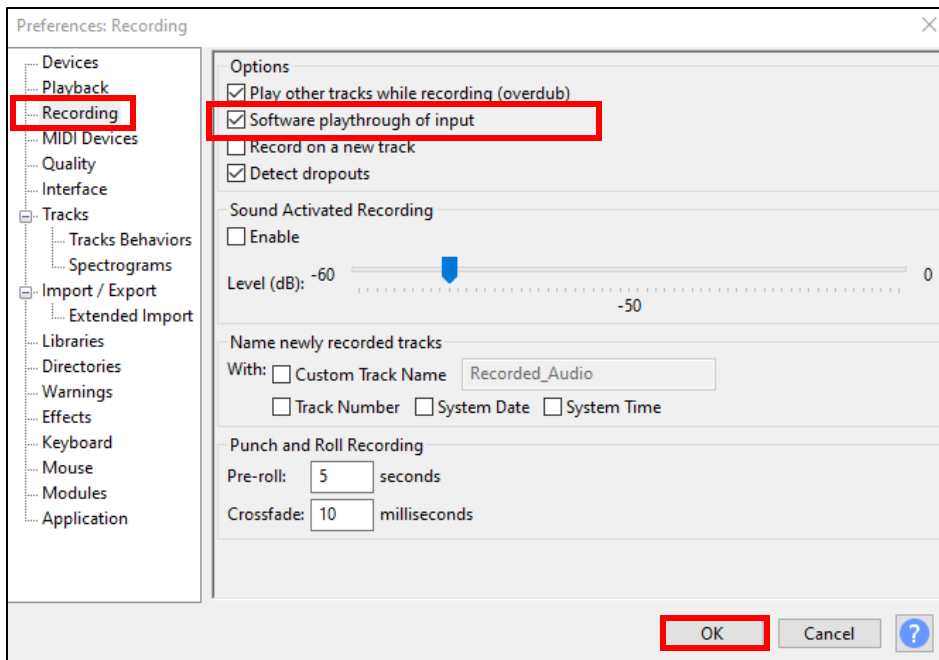
The audio setup pictured above is for monitoring from **Headphone 1** which is listening to **Input 1** on the audio interface. Speaker monitors are muted.

2. Open Audacity

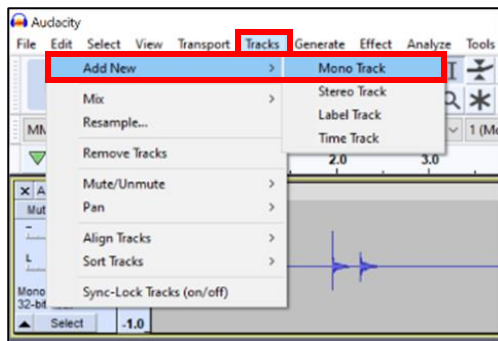
3. Audio Device Setup: Go to **Edit → Preferences → Devices** and select **Focusrite USB Audio** for **Playback** and **Recording**, and then click **OK**.



To hear playback *while* you are recording you need to enable software playthrough. From the same **Preferences Menu**, go to **Recording** and check the box **Software playthrough of input**, and click **OK**.



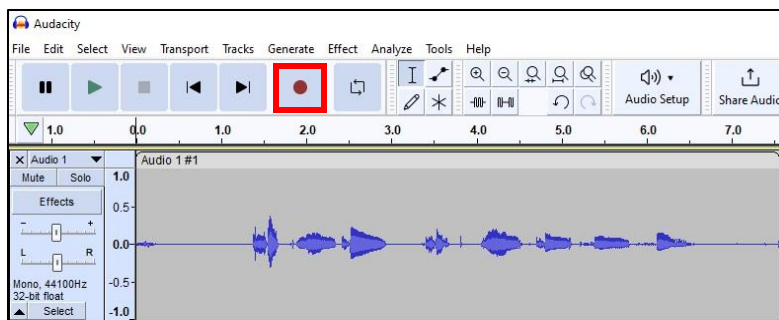
4. Insert a new track: Go to **Tracks** → **Add New** and select **Mono** or **Stereo**



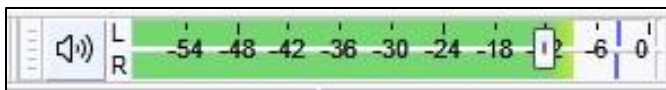
5. Use the transport bar to **record**, **stop**, and **playback** your recording.



6. Hit record to test your microphone input level. You should see a waveform appear.



7. Playback your test recording and observe the **playback level meter**. This should be "in the green" with a peak volume level of less than -6dB.



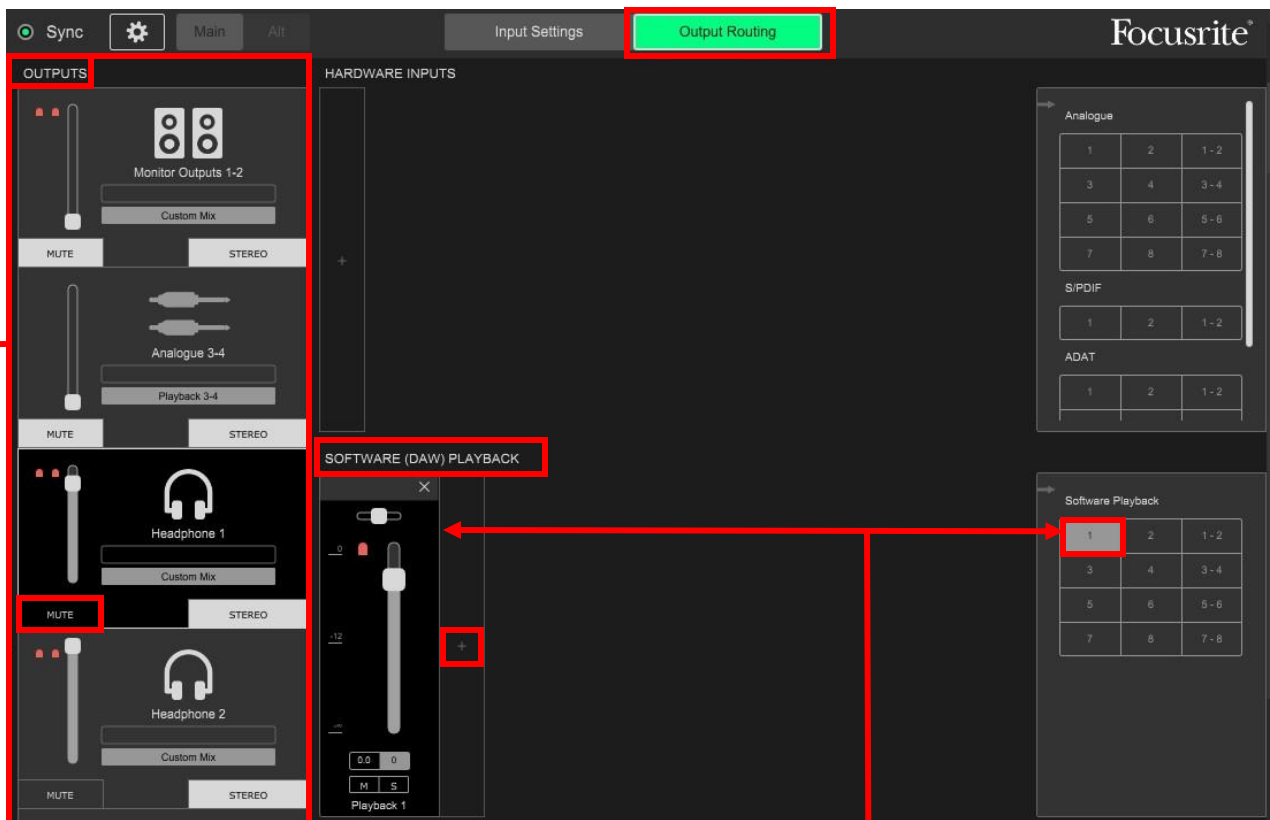
You are all set. Make sure to save your work to an external drive or cloud storage provider. **Save your work often.**



Ableton Live 11 Quick Start Guide

Ableton Live is a powerful and versatile software designed for music projects, especially for electronic music and software instruments. It has an expansive collection containing thousands of virtual instruments and audio effects to take your creativity to the next level.

1. Open Focusrite Control



Select your monitor outputs (headphones or speakers), and make sure that the outputs you select are **unmuted**.

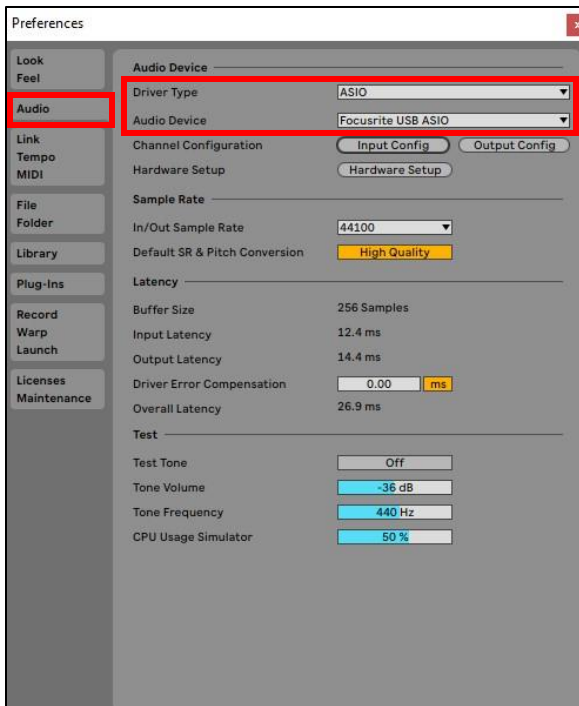
From **Output Routing**, choose **Software (DAW) Playback** and select the same channels you are using on the audio interface. Add channels by clicking on the **+**

The audio setup pictured above is for monitoring from **Headphone 1** which is listening to **Input 1** on the audio interface. Speaker monitors are muted.

2. Open Ableton Live




3. Audio Device Setup: Go to **Options** → **Preferences** → **Audio**



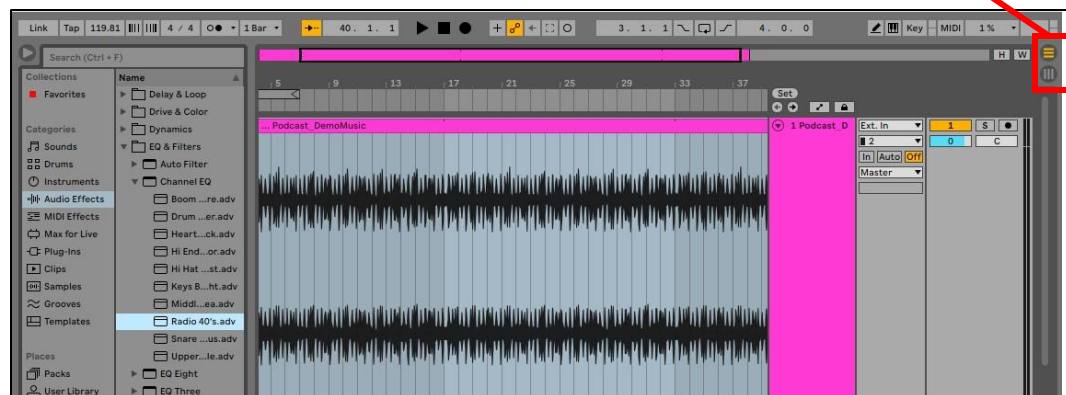
In the audio tab, for **Driver Type**, select **ASIO**; for Audio Device, select **Focusrite USB ASIO**.

Ableton Live offers two different views for recording: **Session View** and **Arrangement View**. Each view shares the same set of tracks. Session view is comprised of **clips**, where multiple melodies, loops, and ideas can be stored and looped within a single track. Arrangement view is where you can record these ideas to a traditional linear recording format, where multiple tracks can be arranged and mixed.

You can toggle between these two views by using the **Tab** key, or by clicking  on the top right-hand corner.



Clips



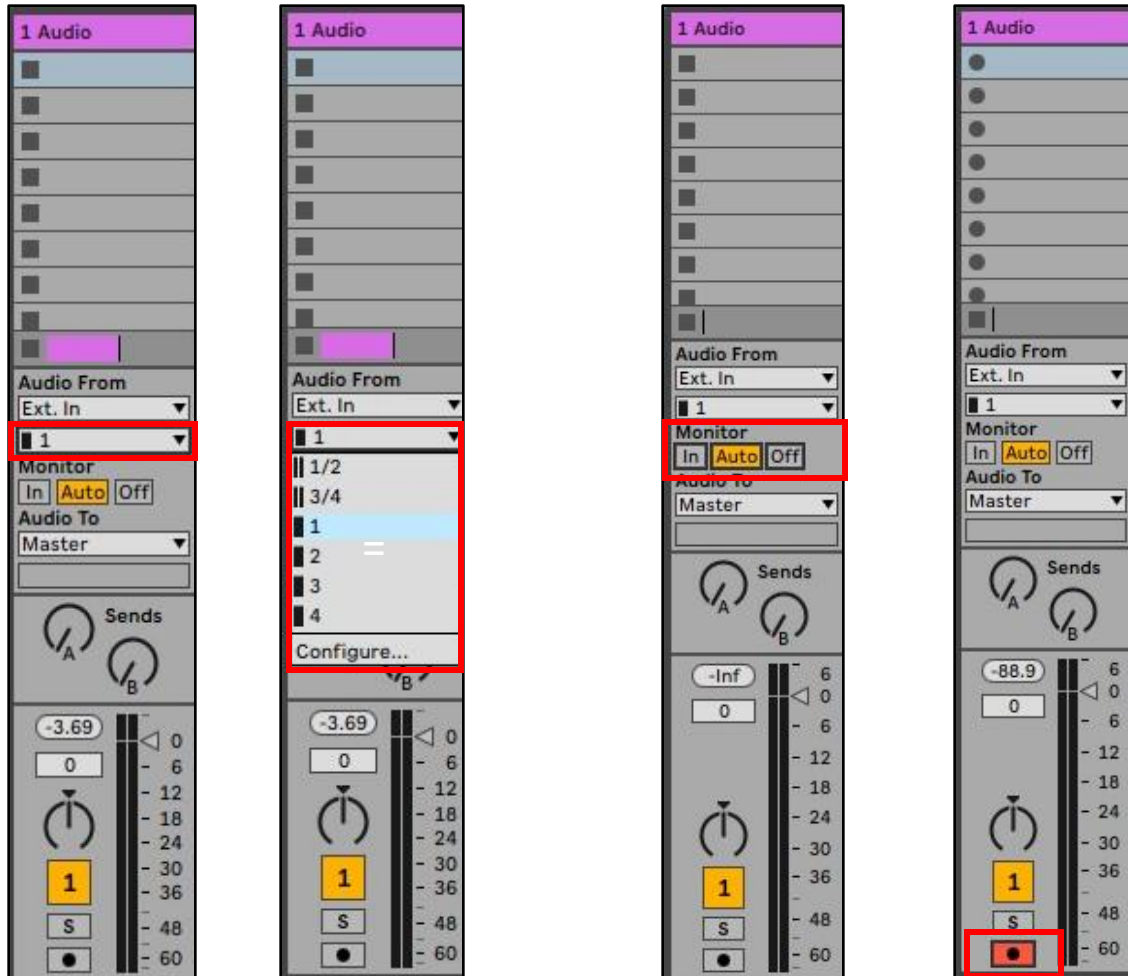
Arrangement View

Session View

4. Live will automatically setup a new project with two MIDI tracks and two audio tracks. If you need to create additional audio tracks, from the main menu, go to **Create→Insert Audio Track** (Ctrl+T).

Track Configuration:

Next, you need to route the audio input source to an audio track:



5. Locate the **channel select drop-down menu** and select the input channel you are using on the audio interface.

6. Under **Monitor**, select **Auto**

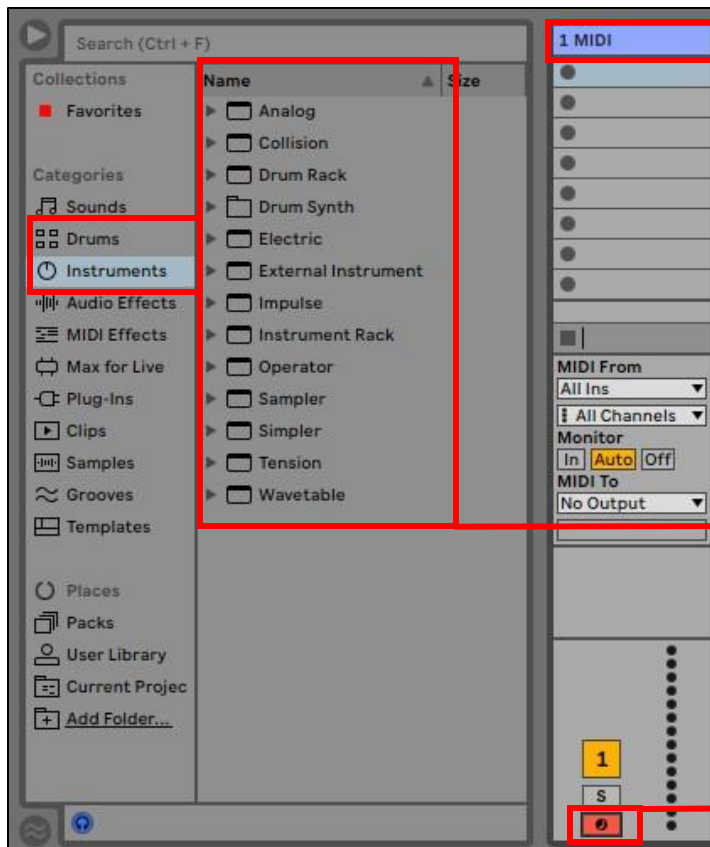
7. Arm your track by clicking the **arm button**

You should now be able to hear input 1 from your monitoring device.

Use the transport bar at the top centre of the screen to **playback, stop** and **record**:



MIDI Setup



To use a MIDI instrument, you must create a MIDI track. From the main menu, go to **Create→ Insert new MIDI track** (Ctrl+shift+T). When the MIDI track is selected, any software instrument you double click on will open in this MIDI track, or you can drag and drop the instrument into the selected track.

Ableton Live offers thousands of MIDI instruments that can be played with various MIDI controllers. These virtual instruments are available from the **Collections** menu, under **instruments** and **drums**.

Make sure to arm your MIDI track to enable the MIDI controller to control the MIDI instrument.

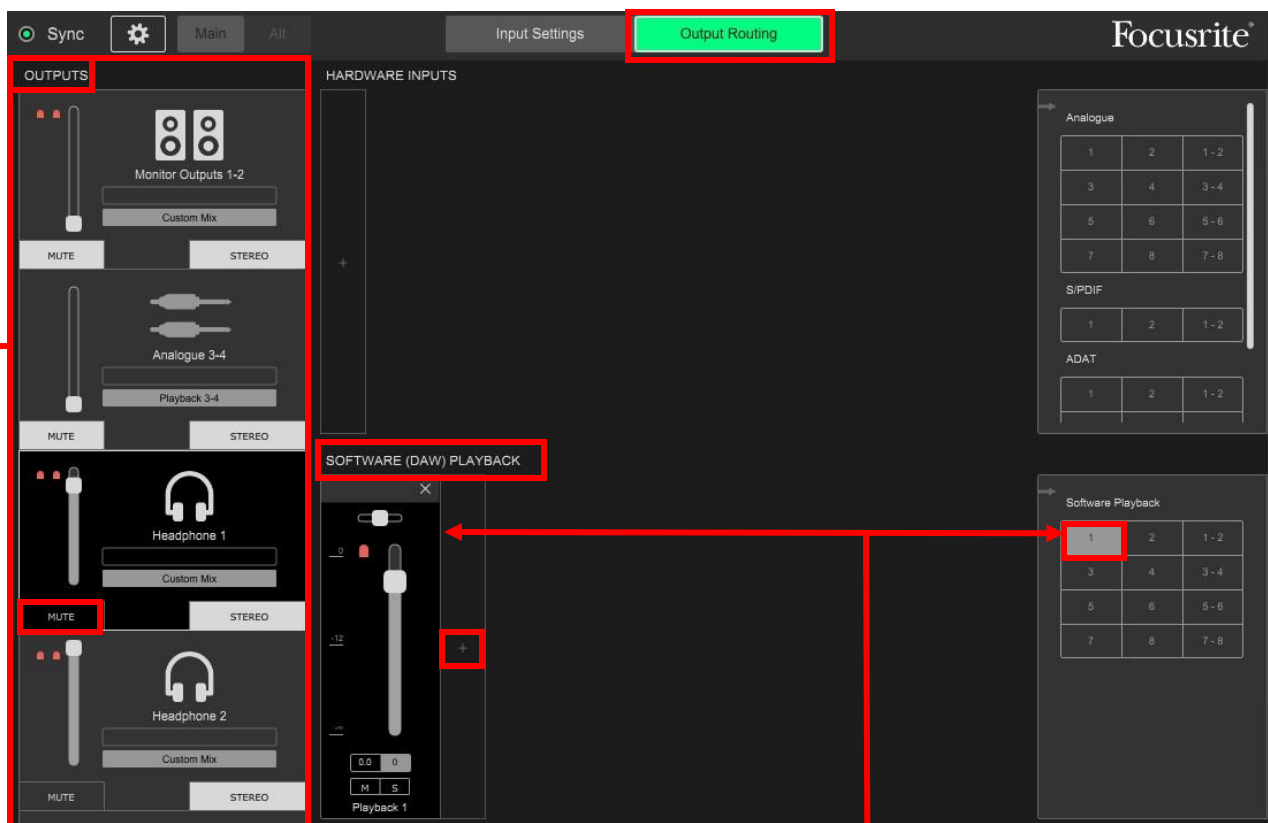
You are all set. Make sure to save your work to an external drive or cloud storage provider. **Save your work often.**



Adobe Audition Quick Start Guide

Adobe Audition is a professional sound editing software especially designed for dialogue editing and audio restoration, making it ideal for podcasting and digitization applications. It also integrates with Adobe Premiere to provide filmmakers an effective workflow for mixing and editing film audio like music, sound effects and dialogue.


1. Open Focusrite Control



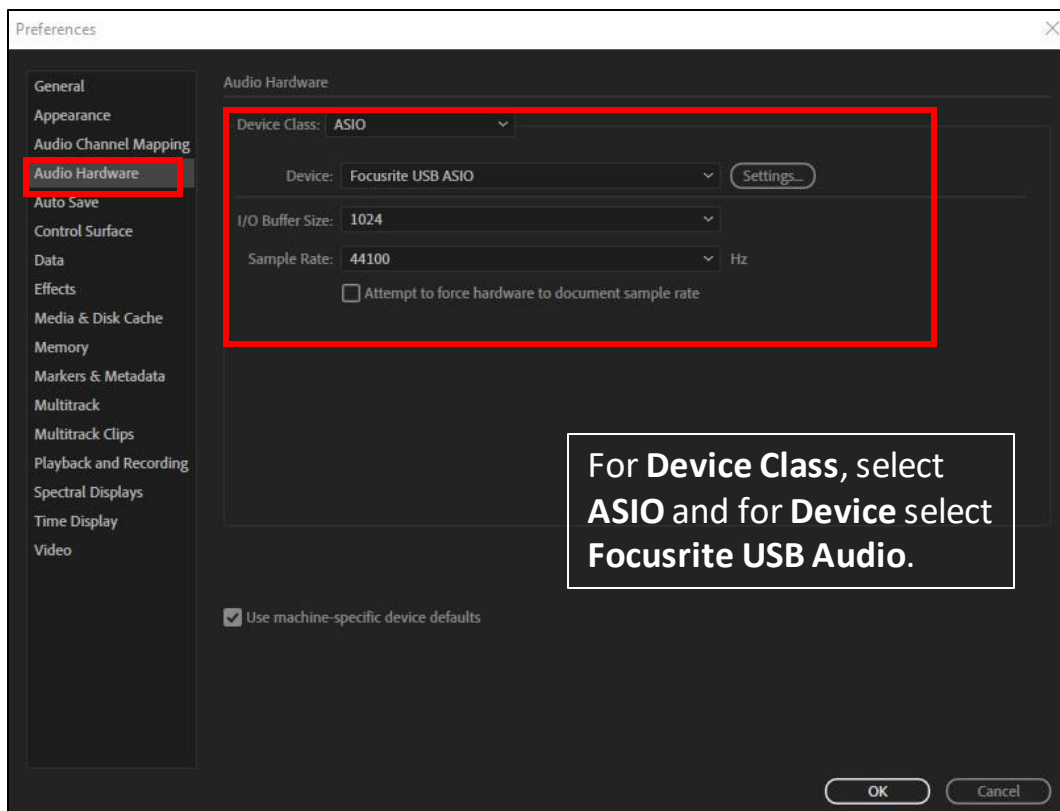
Select your monitor outputs (headphones or speakers), and make sure that the outputs you select are **unmuted**.

From **Output Routing**, choose **Software (DAW) Playback** and select the same channels you are using on the audio interface. Add channels by clicking on the **+**

The audio setup pictured above is for monitoring from **Headphone 1** which is listening to **Input 1** on the audio interface. Speaker monitors are muted.

2. Open Adobe Audition 

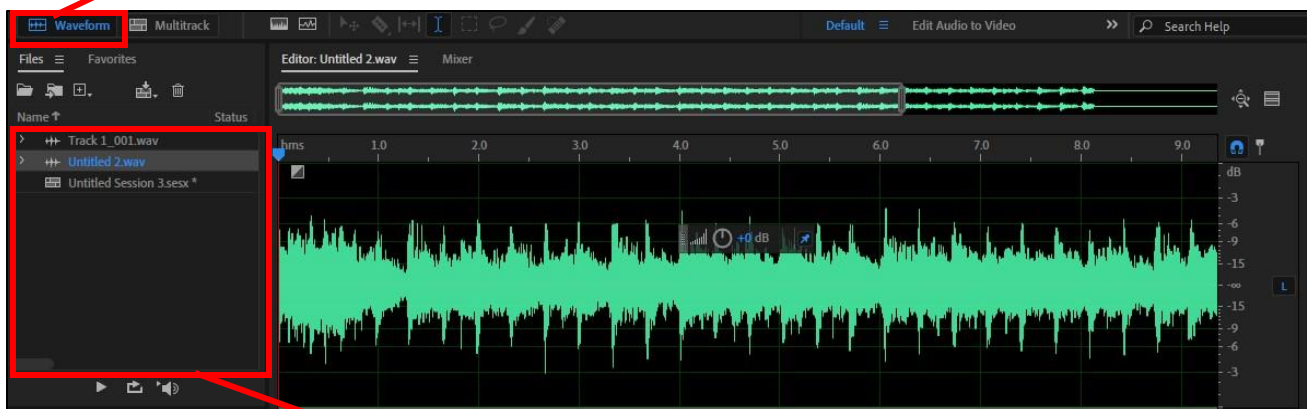
3. Audio Device Setup: Go to **Edit** → **Preferences** → **Audio Hardware**



Adobe Audition offers two different workflows, **Waveform** and **Multitrack**.

Waveform view allows the user to record or import a single audio track in a **destructive** editing context. This means, that saved changes made in Waveform view are permanent. Files created in Waveform view are stored in the left-hand File Menu, where they can easily be dragged and dropped into a Multitrack session.

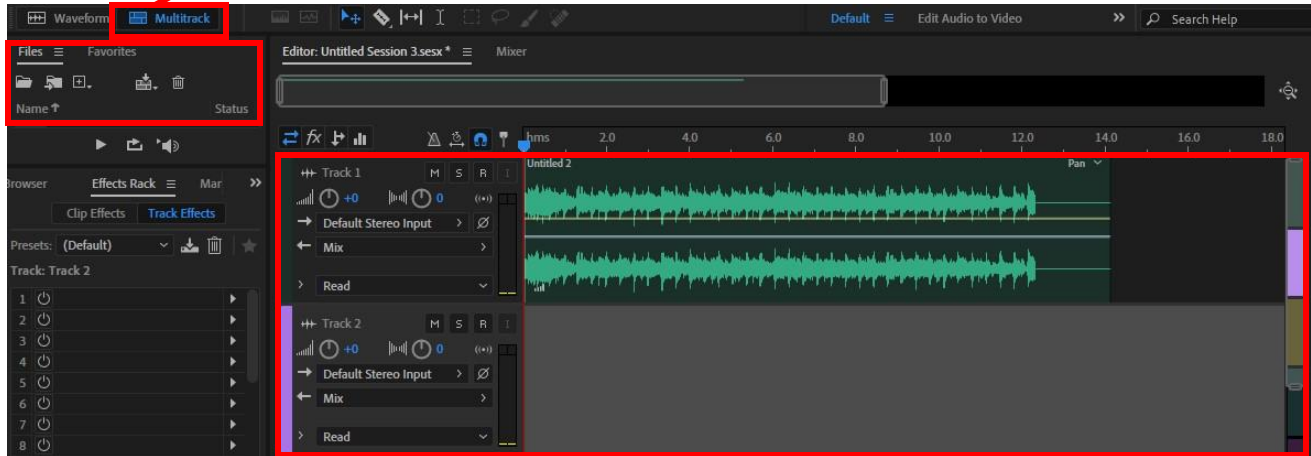
Select Waveform view here, by clicking on **Waveform**.



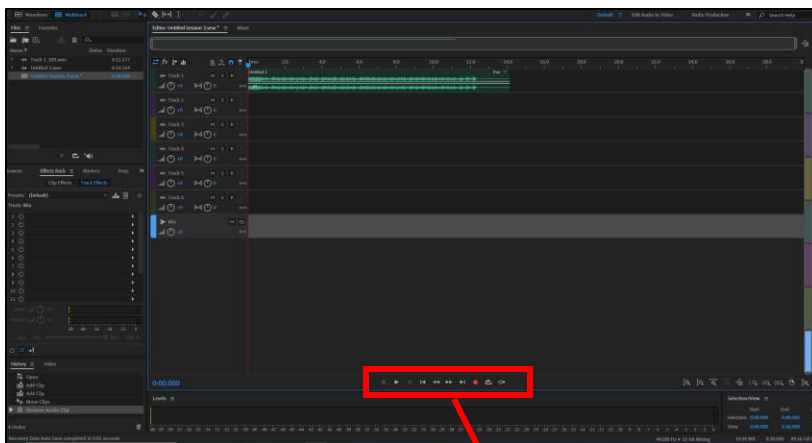
Files created in Waveform view are stored in the audio file menu.

Multitrack view allows the user to record, import and edit multiple tracks in one session. Changes made to audio files in multitrack view are **non-destructive**, meaning changes to audio files are not permanent and can be reverted.

Select Multitrack view by clicking on **Multitrack**



Multitrack view allows multiple tracks to be added to the session. Files created in Waveform view can easily be dragged and dropped into a multitrack session.



Use the transport bar, located at the bottom centre area of the interface, to record, playback and stop.



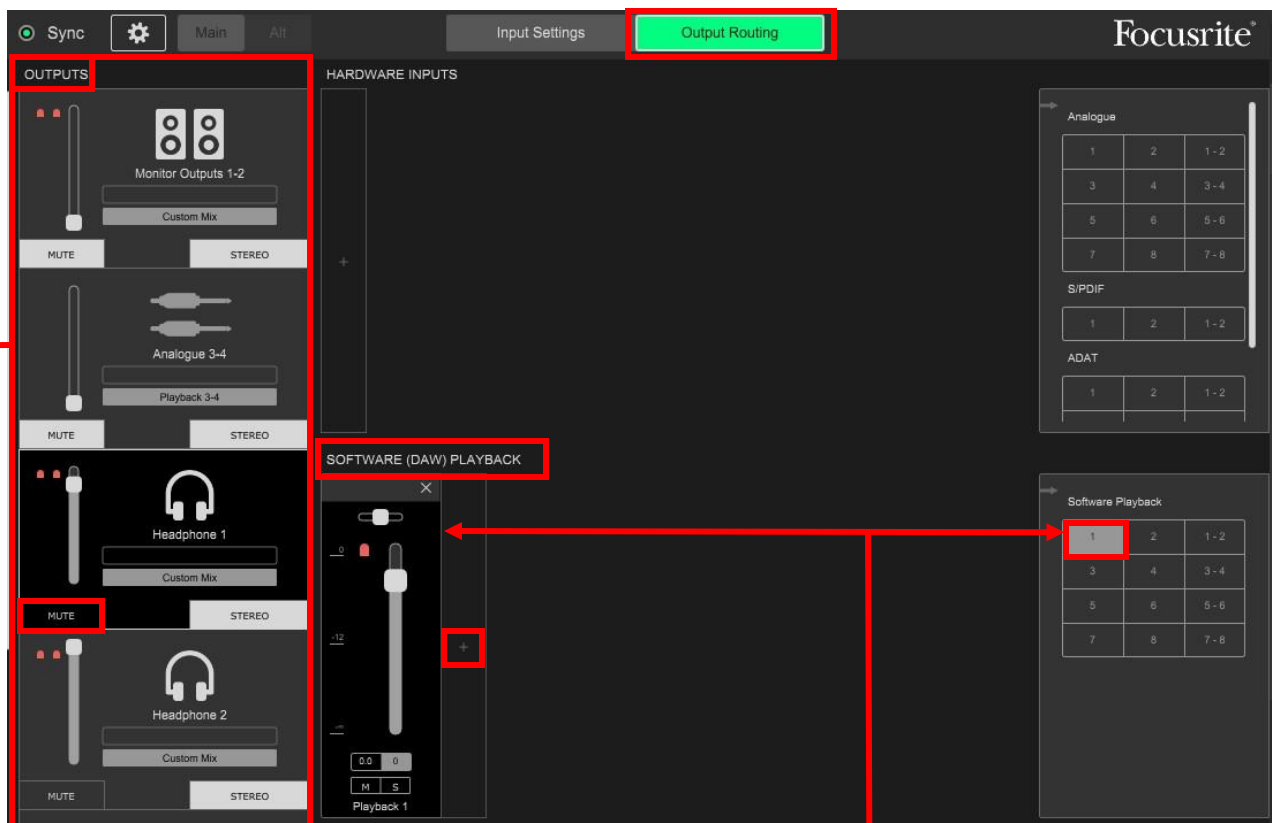
You are all set. Make sure to save your work to an external drive or cloud storage provider. **Save your work often.**



Reaper Quick Start Guide

Reaper is an accessible, low-cost DAW that is as powerful and versatile as any on the market. It is a great step up from Audacity and facilitates music and dialogue-based projects equally. It comes with many built-in effects and tools, and has excellent tutorials available directly on the Reaper website at <https://www.reaper.fm/>

1. Open Focusrite Control



Select your monitor outputs (headphones or speakers), and make sure that the outputs you select are **unmuted**.

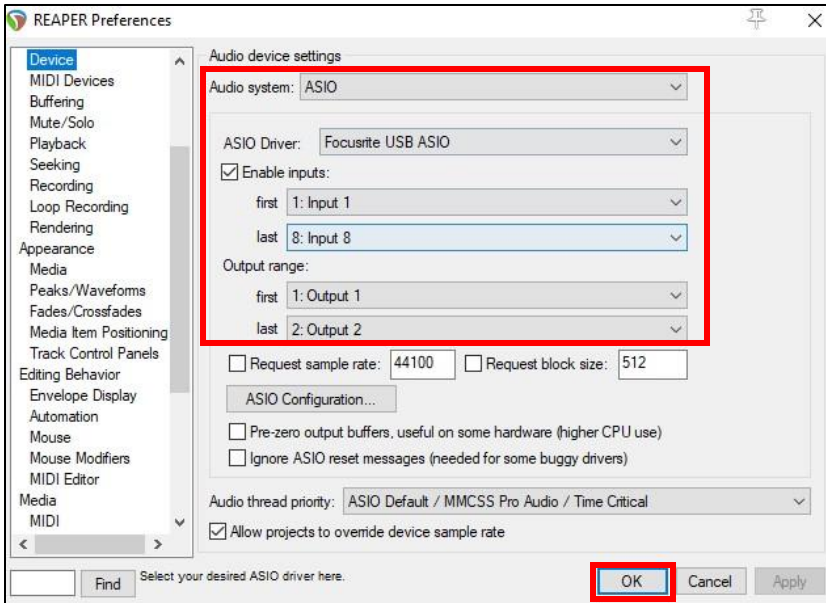
From **Output Routing**, choose **Software (DAW) Playback** and select the same channels you are using on the audio interface. Add channels by clicking on the +

The audio setup pictured above is for monitoring from **Headphone 1** which is listening to **Input 1** on the audio interface. Speaker monitors are muted.

2. Open Reaper



3. Audio Setup: Go to **Options** → **Preferences** → **Devices**



4. Insert a new track

Go to **Track** → **Insert New Track** or use **Ctrl+T** on the keyboard.

A new track will appear. You need to click the **Record Arm/Disarm** button to hear the input signal.

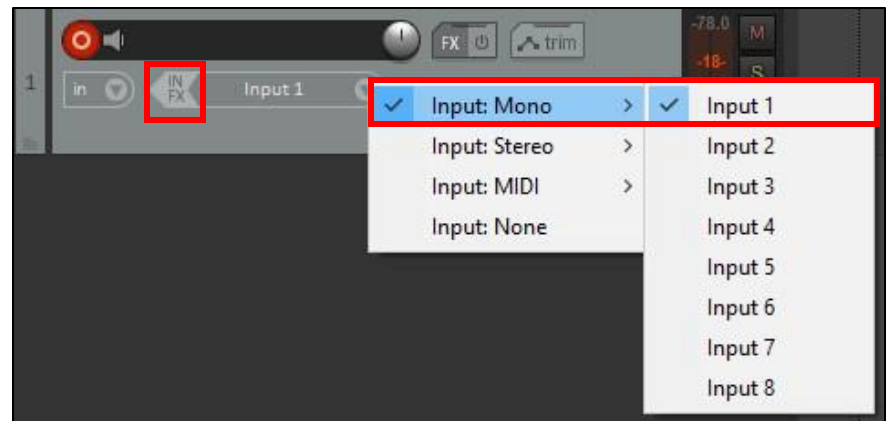


Arming the track will reveal the input menus.



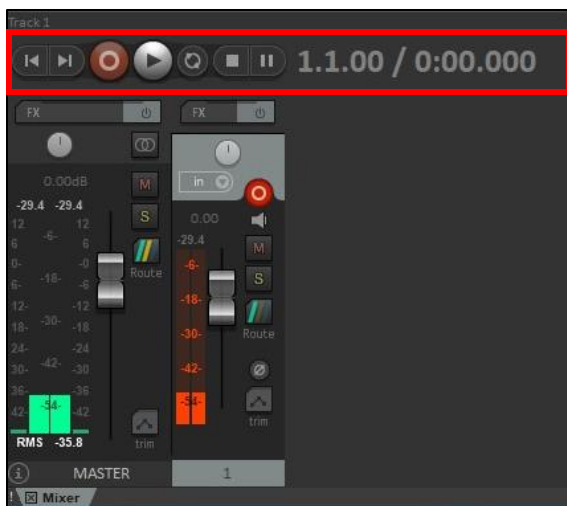
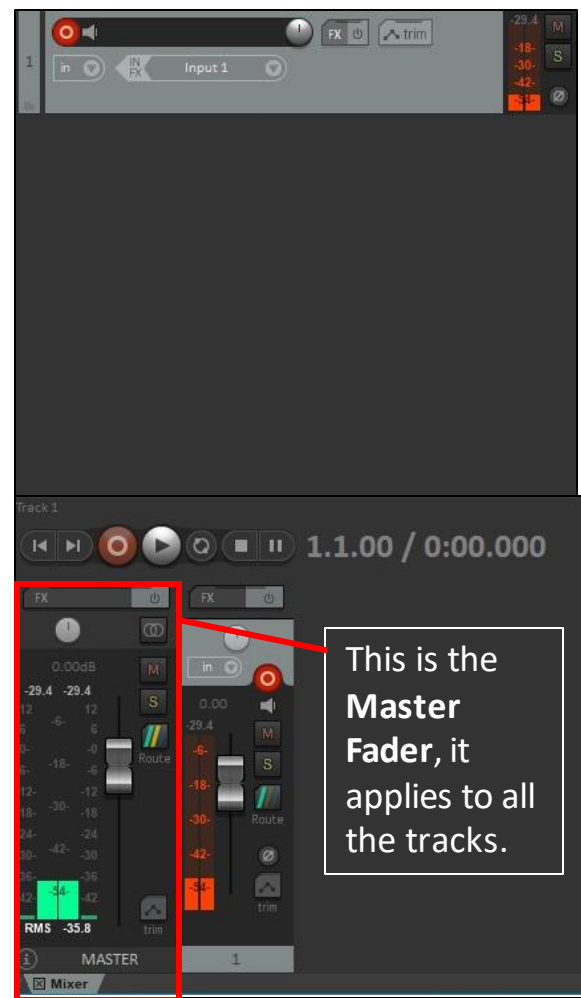
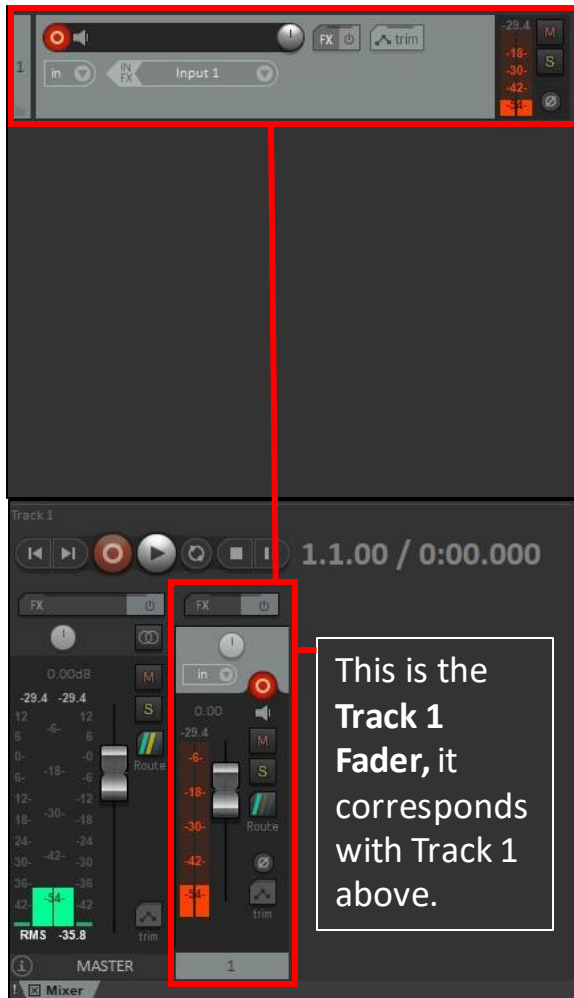
From the **IN/FX** menu select the mono or stereo inputs you are using on the audio interface.

In this example, a single microphone-- a mono channel from Input 1 on the audio interface is being used.



To hear playthrough you will need to click on the speaker icon.





You are all set. Make sure to save your work to an external drive or cloud storage service. **Save your work often.**

SHURE SM7B



- Unidirectional Dynamic Microphone
- Great for dialogue, voice over, podcasting
- Gives that classic broadcasting sound
- Especially good for stronger singing voices or loud instruments
- Low-end frequency response
- Best to speak close to the microphone for best results
- **Requires extra gain** – best paired with the **CL-2 Cloudlifter**
- If using the Cloudlifter, **48v Phantom Power will be required**

RODE NT-5

sound in this direction

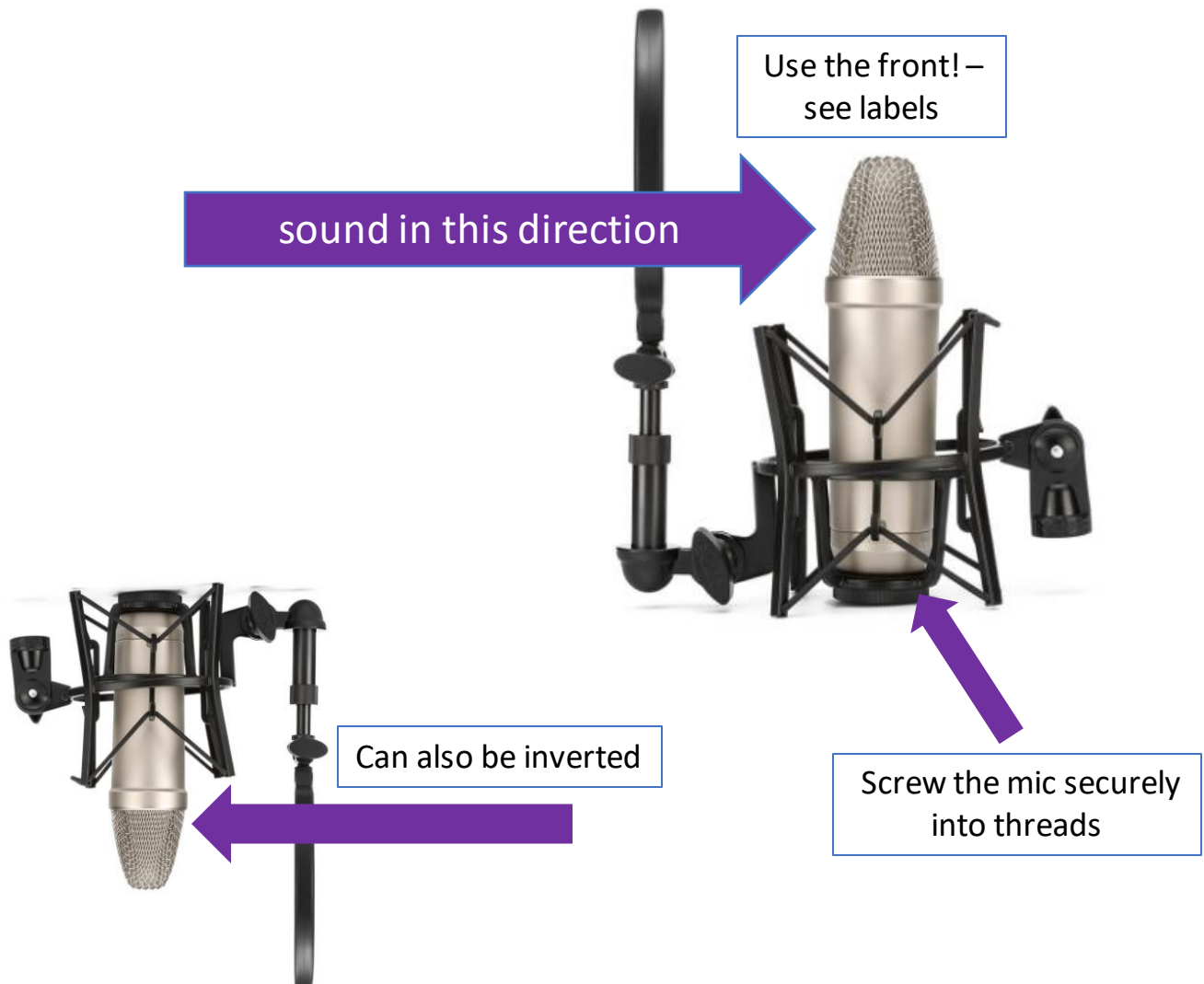


The NT5 is a very responsive microphone. Leave 1-3 feet between the sound source and the microphone for the best results

- Small Diaphragm Condenser
- Sometimes called a "Pencil Mic"
- Great frequency response, especially high frequencies
- Great for acoustic instruments like violin, clarinet, flute, acoustic guitar
- Not good for vocals, unless recording an ensemble from a distance
- **Requires 48V phantom power**
- Use as a pair for stereo recording or room recording
- Place in an XY position for stereo recording



RODE NT1-A



- Large Diaphragm Condenser
- Great frequency response – very sensitive
- Excellent Vocals/Dialogue/Acoustic Instruments/ASMR
- Side Address Microphone – make sure you use the correct side
- **Requires 48v phantom power**
- **The mic and shock mount are hefty, ensure your mic stand is well-balanced has counterweight so it doesn't tip over!**

SHURE SM58



- Unidirectional Dynamic Microphone
- Great all-purpose microphone for vocals or instruments
- Great for beginners because of its simplicity, versatility and durability
- The SM58s in the **Control Room** have **Triton Pre-amps** installed and so require **48v Phantom Power** to work.
- In the Live Room, the SM58 can be paired with the **CL-2 Cloudlifter**

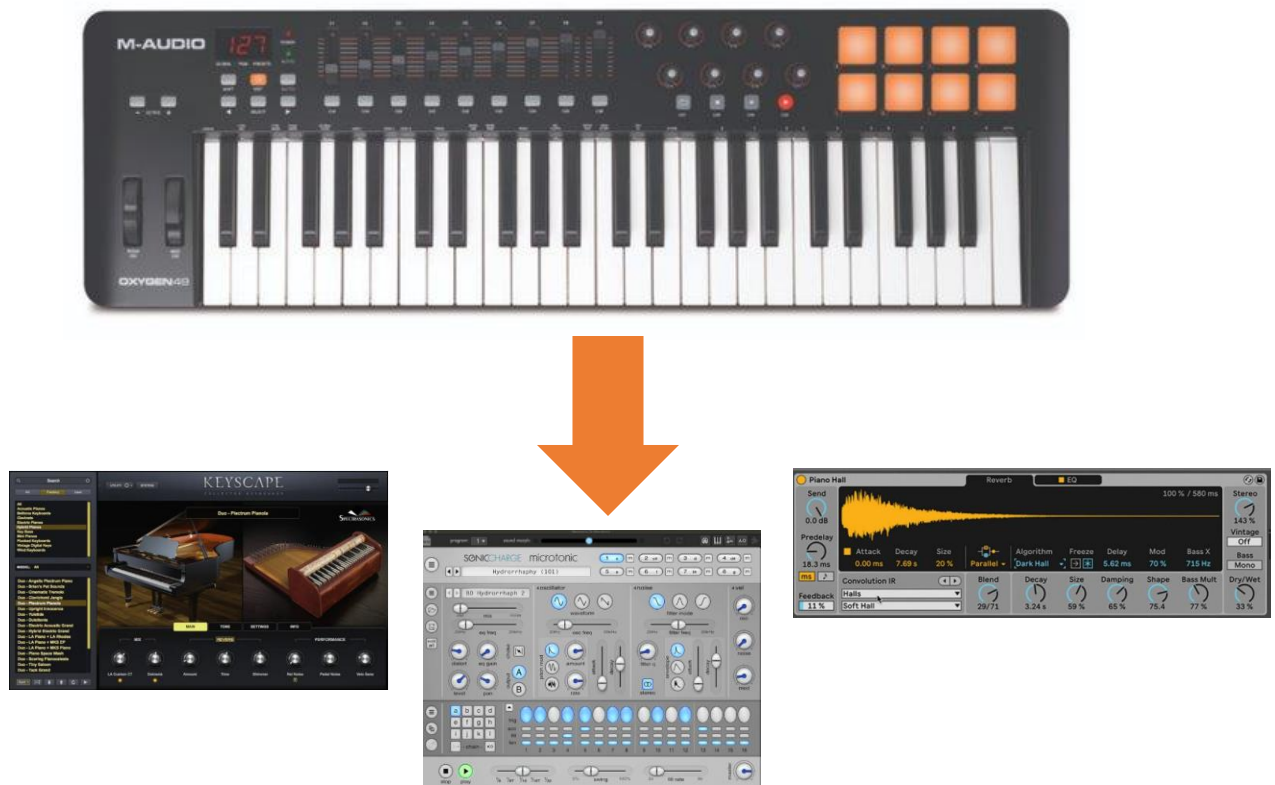
Active DI Box



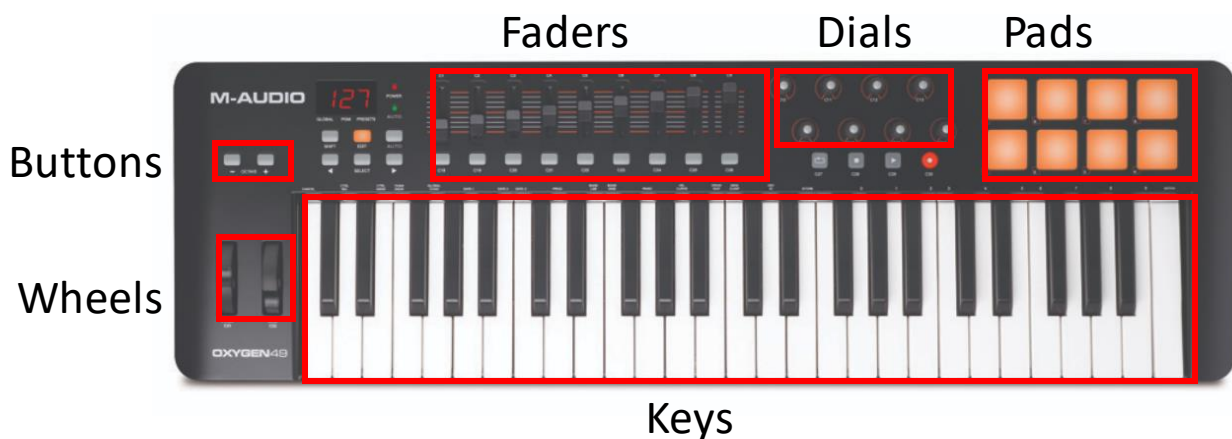
- Boost mic and instrument level inputs to line level
- Generally used for Electric Guitar and Bass Guitar
- Improves the sound and level of your guitar or bass
- Connect the instrument using a TS "Patch" Cable to the input on the front of the DI Box and connect and XLR to the output on the back of the DI Box.



M-Audio MIDI Keyboard



One MIDI controller can play any software instrument



Through MIDI you can assign any function of the software to any type of control on the device – This is called **MIDI Mapping**

Using In-line Preamps

Cloudlifter CL-2 & Triton FetHead

Overview

Dynamic microphones like the SM7B or SM58 sometimes require an additional gain boost to achieve a satisfactory input level. The preamplifiers available can be applied to the microphone signal chain to produce a 25dB gain increase, meaning you can use a much lower gain setting on the audio interface input.

- **Triton Preamps are pre-installed on the SM58s in the Control Room which means these mics require 48v Phantom Power to be switched on.**
- The CL-2 Cloudlifter can be paired with the **SM58 or SM7B** in the Live Room and will require 48v phantom power to work.
- The Cloudlifter and FetHead are designed only to be used with dynamic microphones--the SM7B and SM58. **Do not use these preamplifiers with the RODE NT1A, RODE NT5 or Behringer C1.**

Triton FetHead Preamp

The FetHead Preamplifier is inserted in the signal chain, between the microphone and the audio interface. It is plugged into the XLR output at the base of the microphone. Remember to activate 48v phantom power on the audio interface



Cloudlifter CL-2

The Cloudlifter CL-2 offers two preamp channels that can be inserted between XLR cables in the microphone signal chain before audio interface.

Each channel functions independently of the other, so this device can be used with one or two microphones. Remember to activate 48v phantom power.



Make sure you use the correct channel for each input and output. **Both channels function independently.**

Additional Resources

Cloudlifter CL-2

<https://www.cloudmicrophones.com/cloudlifter-cl-2>

Triton Fethead

<https://www.tritonaudio.com/assets/files/downloads/Triton%20Audio%20-%20FetHead.pdf>

USING THE TALKBACK DEVICE

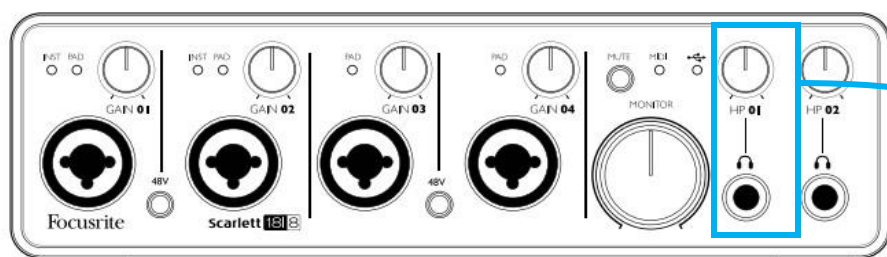
Multiple Headphones and Talkback with the HeadAmp4 Pro

The TalkBack Device functions like an elaborate headphone splitter. It takes an output feed from one of the **Headphone outputs** on the Audio Interface, splits it four ways and insets a talkback microphone into the output signal pathway.

It also allows you to adjust the volume of each headphone output and communicate directly into each set of headphones in the live room.

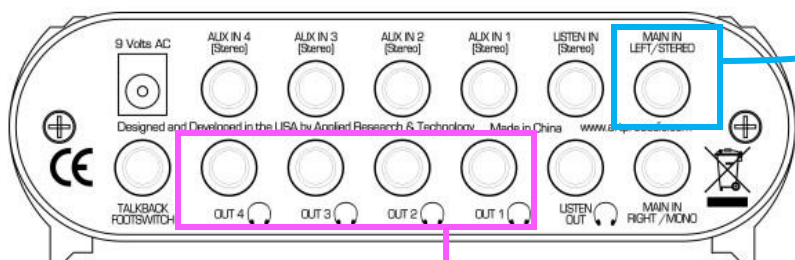
Set up

First connect the Scarlett 18i8 to the HeadAmp4Pro using the 3ft TRS to TRS cable



Connect from the Scarlett **Headphone Jack 2** to Headamp4Pro **Main In Left/Stereo**.

Output volume is controlled first from the Scarlett headphone dial, then by the volume dials on the HeadAmp4Pro.

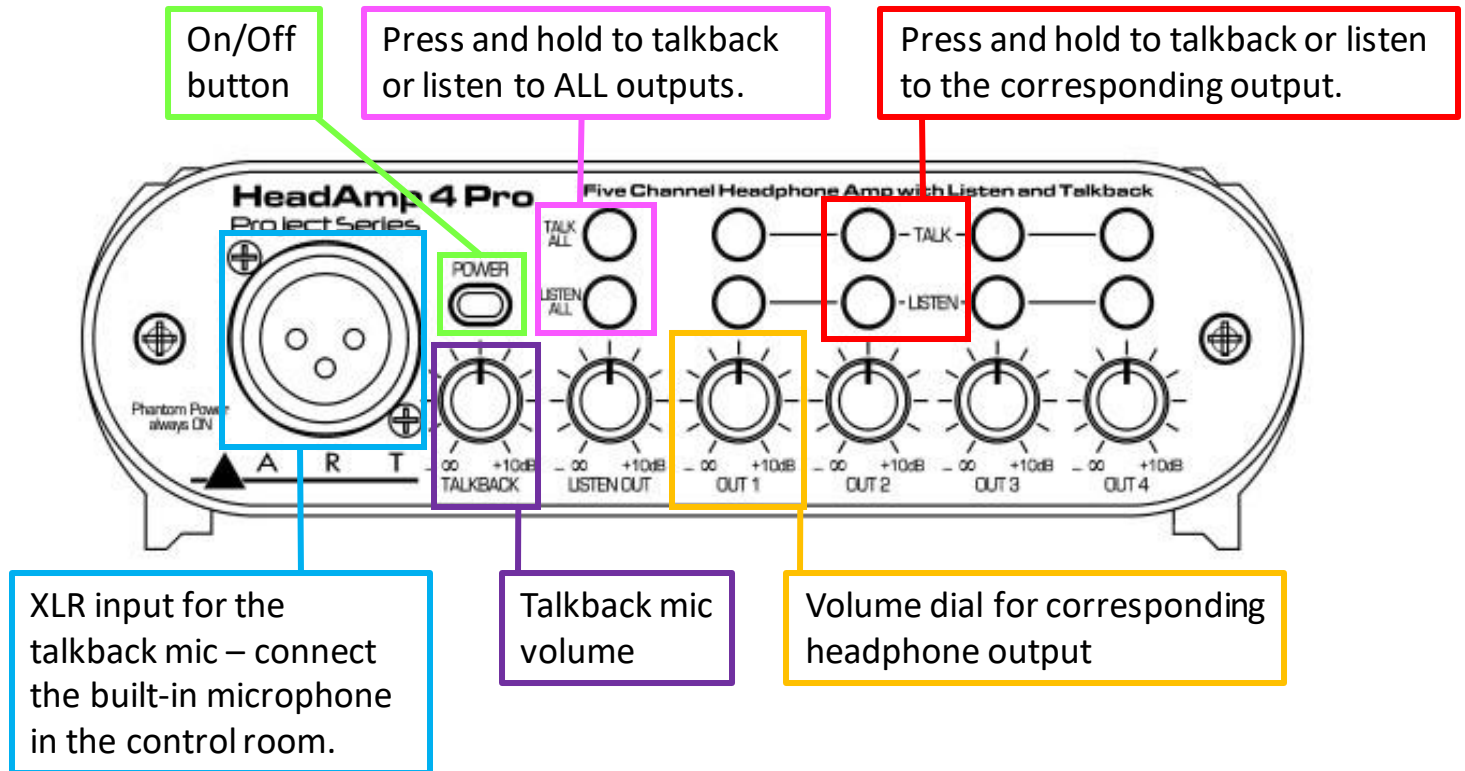


Headphone outputs are already connected to labeled and color-coded cables that are routed to the live room.

Connect headphones to the Headphone inputs in the live room.

Controls

The HeadAmp4Pro allows you to control the volume level of each headphone output independently, as well as to listen to or talkback to individual headphone outputs directly from the control room.



Additional Resources

Read the user manual:

<https://artproaudio.com/framework/uploads/2018/06/HeadAmp4Prp-v103-6-21-18.pdf>