Scarlett 2i2

User Guide

Focusrite®

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OVERVIEW

Introduction

Thank you for purchasing this Third Generation Scarlett 2i2, one of the family of Focusrite professional computer audio interfaces incorporating high quality Focusrite analogue preamps. You now have a simple and compact solution for routing high quality audio to and from your computer and you will also be able to download some exciting new software plug-ins once you've registered the product.

In developing the Third Generation series of Scarlett interfaces, we have made further improvements to both performance and features. Audio specifications have been upgraded throughout the unit to give you greater dynamic range and even lower noise and distortion; additionally, the mic preamp now accepts higher input levels.

An important enhancement is the inclusion of Focusrite's AIR function. Individually selectable on each channel, AIR subtly modifies the preamp's frequency response to model the sonic characteristics of our classic transformer-based ISA microphone preamps. When recording with good quality microphones, you will notice an enhanced clarity and definition in the important mid to high frequency range, just where it is most needed for vocals and many acoustic instruments.

We have also enhanced the Direct Monitor feature found on previous Scarletts: now you can monitor as you record in either mono or stereo, with zero latency. Third Generation Scarlett interfaces are class compliant on macOS: this means they are plug-and-play, so no need to install a driver if you are a Mac user.

This User Guide provides a detailed explanation of the hardware to help you achieve a thorough understanding of the product's operational features. We recommend both users who are new to computer-based recording, as well as more experienced users, take the time to read through the User Guide so you are fully aware of all the possibilities the Scarlett 2i2 and accompanying software has to offer. If the main User Guide sections do not provide the information you need, be sure to consult support.focusrite.com, which contains a comprehensive collection of answers to common technical support queries.

Features

The Scarlett 2i2 hardware interface provides the means for connecting microphones, musical instruments or line level audio signals to a computer running macOS or Windows. The signals at the physical inputs can be routed to your audio recording software / digital audio workstation (referred to throughout this user guide as the "DAW") at up to 24-bit, 192 kHz resolution; similarly, the DAW's monitor or recorded output will appear at the unit's physical outputs.

The physical outputs can be connected to an amplifier and speakers, powered monitors, headphones, analogue mixer or any other analogue audio equipment you wish to use.

Box Contents

Along with your Scarlett 2i2 you should find:

- USB cable, Type 'A' to Type 'C'
- Getting Started Information (printed inside the box lid)
- Important Safety Information

System requirements

The easiest way to check your computer's operating system (OS) is compatible with your Scarlett is to use our Help Centre's compatibility articles:

support.focusrite.com/hc/categories/200693655

As new OS versions become available over time, you can continue to check for further compatibility information by searching our Help Centre at support.focusrite.com.

GETTING STARTED

With the Third Generation, Scarlett interfaces introduce a new, faster way of getting up and running, using the Scarlett Quick Start tool. All you need to do is connect your Scarlett 2i2 to your computer. Once connected, you will see the device is recognised by your PC or Mac and the Quick Start tool will guide you through the process from there.

> **IMPORTANT**: The Scarlett 2i2 has a single USB 2.0 Type C port (on the rear panel): connect it to your computer using the USB cable provided. Note that Scarlett 2i2 is a USB 2.0 device, and thus the USB connection requires a USB 2.0+ compliant port on your computer.
>
> The Scarlett 2i2 does not need a separate power supply; It gets its power from your computer via the USB connection. However, we recommend when using a laptop, the laptop is powered using its AC adaptor, as otherwise the battery will drain faster than when powering from the laptop alone.

Your computer will initially treat your Scarlett as a Mass Storage Device (MSD), and during its first connection, the Scarlett will be in "Easy Start mode".

Quick Start Tool

We have tried to make registering your Scarlett 2i2 as simple as possible. The steps are designed to be self explanatory, but we have described each step below, so you can see how they should appear on either a PC or a Mac.
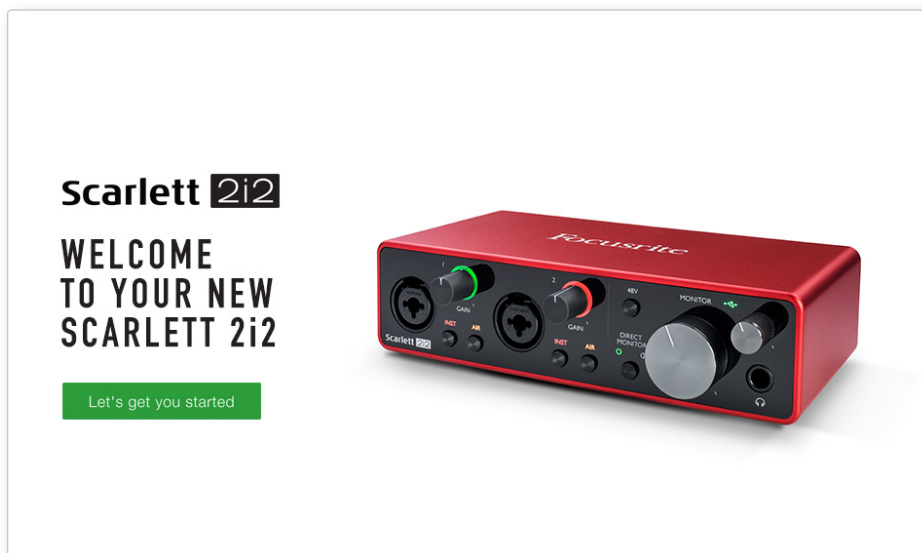
Mac users only:

On connecting your Scarlett 2i2 to your Mac, a Scarlett icon will appear on the desktop:

Double-click on the icon to open the Finder window shown below:
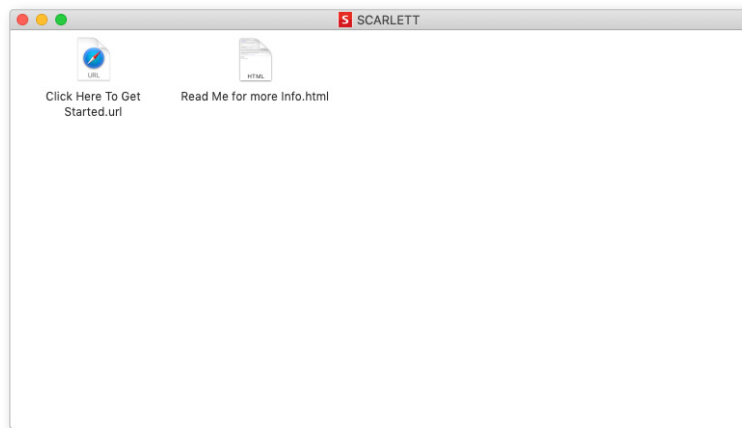
Double-click on the "Click Here to Get Started.url" icon. This will redirect you to the Focusrite website, where we recommend you register your device:

Click on "Let's get you started", and you'll see a form which will be partly prefilled for you automatically. When you submit the form, you'll see options to go straight to the downloads to get the software for your Scarlett, or to follow a step by step setup guide based on how you want to use your Scarlett.

Once you have installed the Focusrite Control software to set up and configure your interface, the Scarlett will be switched out of Easy Start mode so it no longer appears as a Mass Storage Device when connected to your computer.

Your OS should switch the computer's default audio inputs and outputs to the Scarlett. To verify this, go to `System Preferences > Sound`, and ensure the input and output are set to `Scarlett 2i2`.

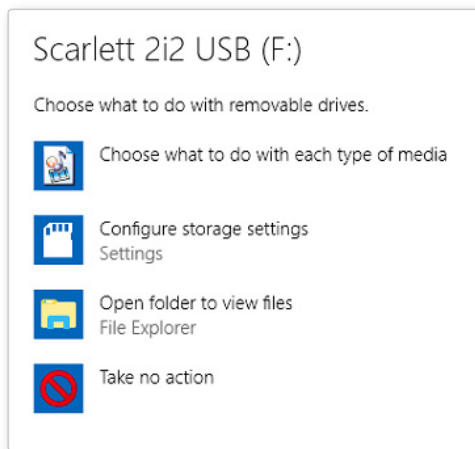For detailed setup options on a Mac, open `Applications > Utilities > Audio MIDI Setup.`

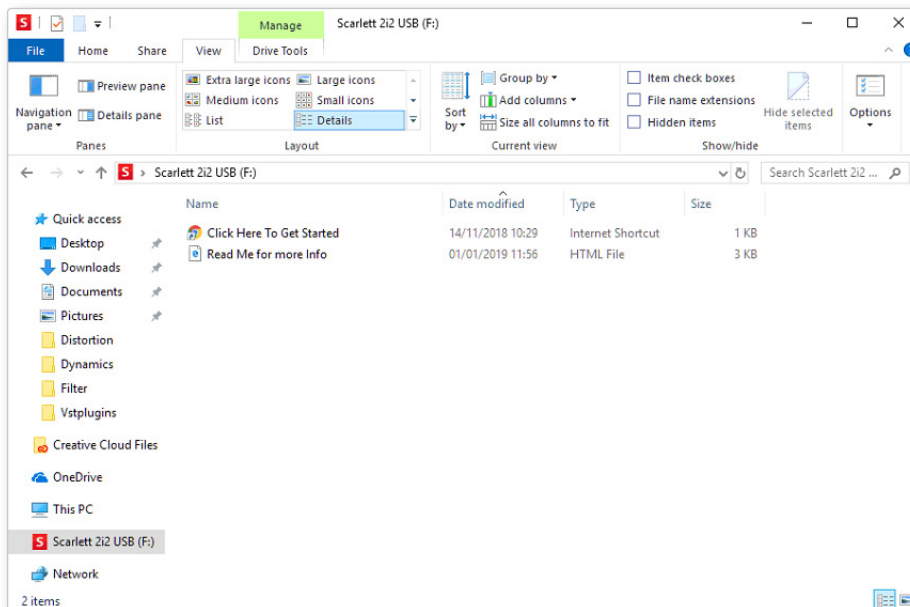On connecting your Scarlett 2i2 to your PC, a Scarlett icon will appear on the desktop:
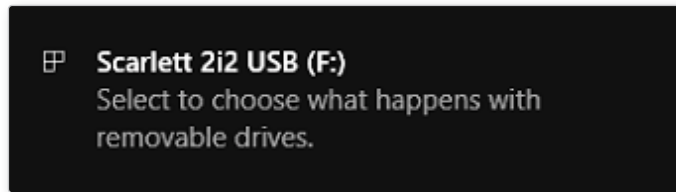
(Note that the drive letter may be something other than F:, depending other devices connected to your PC).
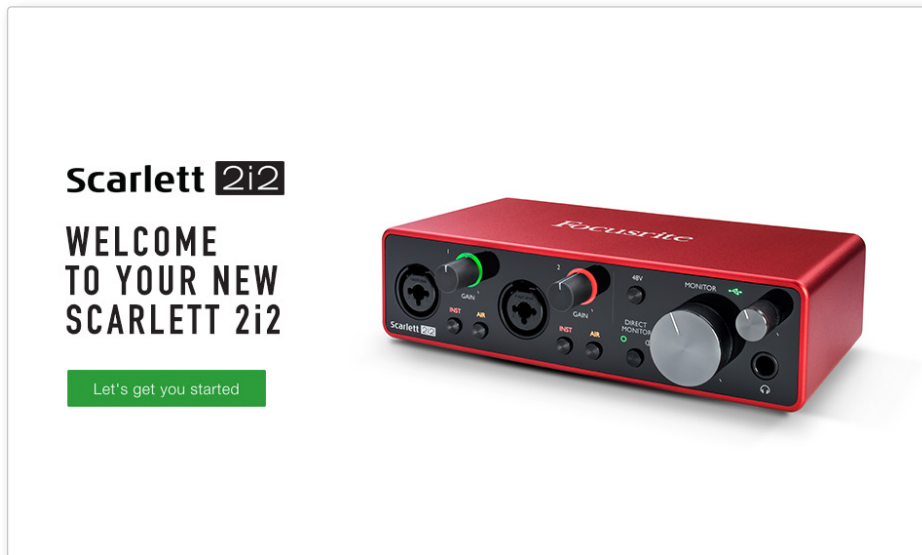
Double-click on the pop-up message to open the dialogue box shown below:

Double-click on "Open folder to view files": this will open an Explorer window:

Double-click "Click Here to Get Started". This will redirect you to the Focusrite website, where we recommend you register your device:

Click on "Let's get you started", and you'll see a form which will be partly prefilled for you automatically. When you submit the form, you'll see options to go straight to the downloads to get the software for your Scarlett, or to follow a step by step setup guide based on how you want to use your Scarlett.

Once you have installed the Focusrite Control software to set up and configure your interface, the Scarlett will be switched out of Easy Start mode so it no longer appears as a Mass Storage Device when connected to your computer.

Your OS should switch the computer's default audio inputs and outputs to be the Scarlett. To verify this, right click on the Sound icon on the taskbar and select **Sound Settings**, and set the Scarlett as the Input and Output Device.

All users:

Note that a second file - "More Info & FAQs" - is also available during the initial set-up process. This file contains some additional information about the Focusrite Quick Start tool which you may find helpful if you have any issues with the procedure.

Once registered, you will have immediate access to the following resources:

- Focusrite Control (Mac and Windows versions available) - see NOTE below
- Multi-language User Guides

You can find the licence codes and links for the optional bundled software in your Focusrite account. To find out what bundled software is included with Scarlett 3rd generation, please visit our website:

focusrite.com/scarlett

NOTE: Installing Focusrite Control will also install the correct driver for your device. Focusrite Control is available to download at any time, even without registering: see "Manual Registration" below.

Manual Registration

If you decide to register your Scarlet at a later date you can do so at:

customer.focusrite.com/register

You will need to enter the Serial Number manually: this number can be found on the base of the interface itself, and also on the barcode label on the side of the box.

We recommend you download and install our Focusrite Control application, as this will disable Easy Start mode and unlock the full potential of the interface. Initially, when in Easy Start mode, the interface will function at sample rates up to 48 kHz. Once Focusrite Control is installed on your computer, you can work at sample rates up to 192 kHz.

If you decide not to download and install Focusrite Control immediately, it can be downloaded at any time from:

customer.focusrite.com/support/downloads

To force your Scarlett out of Easy Start mode without first registering it, connect it to your computer and press and hold the **48V** button for five seconds. This will ensure your Scarlett has full functionality. Please bear in mind that should you wish to register your Scarlett after taking this action, you will need to so manually, as explained above.

Audio Setup in your DAW

The Scarlett 2i2 is compatible with any Windows-based DAW that supports ASIO or WDM and any Mac-based DAW that uses Core Audio. After following the Getting Started procedure described above, you can start using the Scarlett 2i2 with the DAW of your choice.

To allow you to get started if you do not already have a DAW application installed on your computer, both Pro Tools | First and Ableton Live Lite are included; these will be available to you once you've registered your Scarlett 2i2. If you need help installing either DAW, please visit our Getting Started pages at focusrite.com/get-started, where Getting Started videos are available.

Operating instructions for Pro Tools | First and Ableton Live Lite are beyond the scope of this User Guide, but both applications include a full set of Help files. Instructions are also available at avid.com and ableton.com respectively.
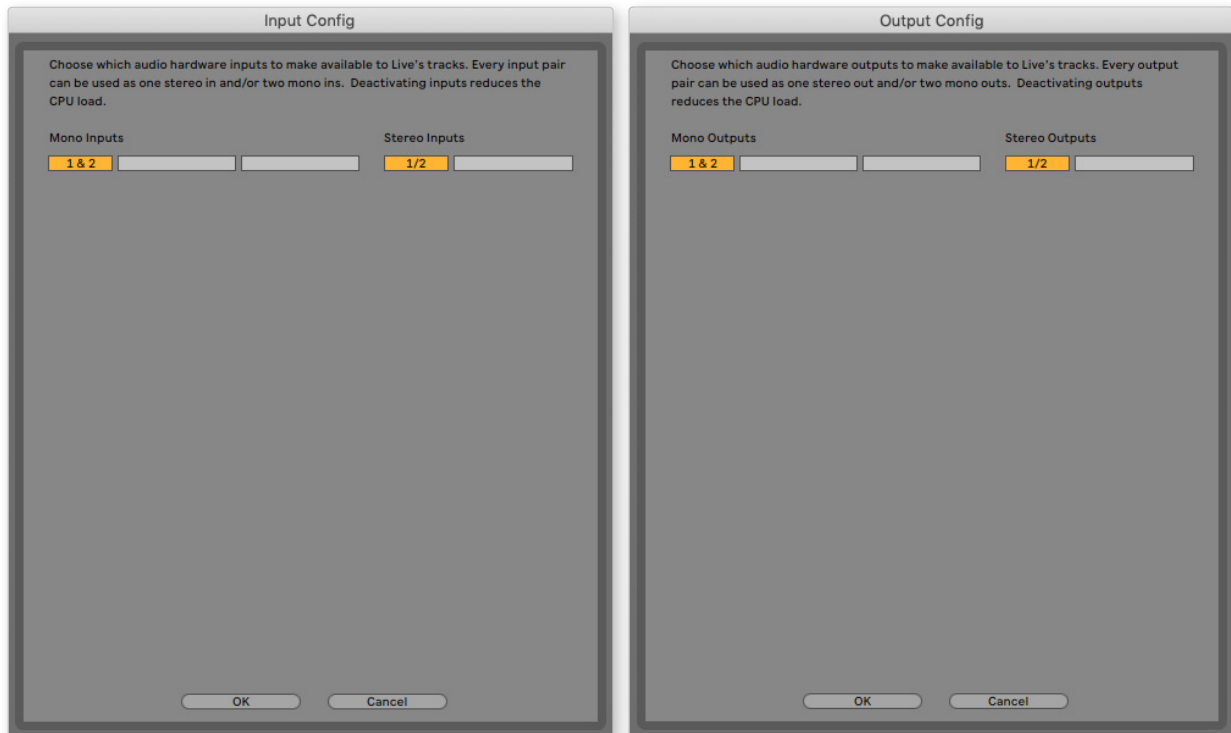
Please note - your DAW may not automatically select the Scarlett 2i2 as its default I/O device. You must manually select **Focusrite USB ASIO** as the driver on your DAW's Audio Setup* page. Please refer to your DAW's documentation (or Help files) if you are unsure where to select the ASIO or Core Audio driver. The example below shows the correct configuration in the Ableton Live Lite **Preferences** panel (Windows version shown).
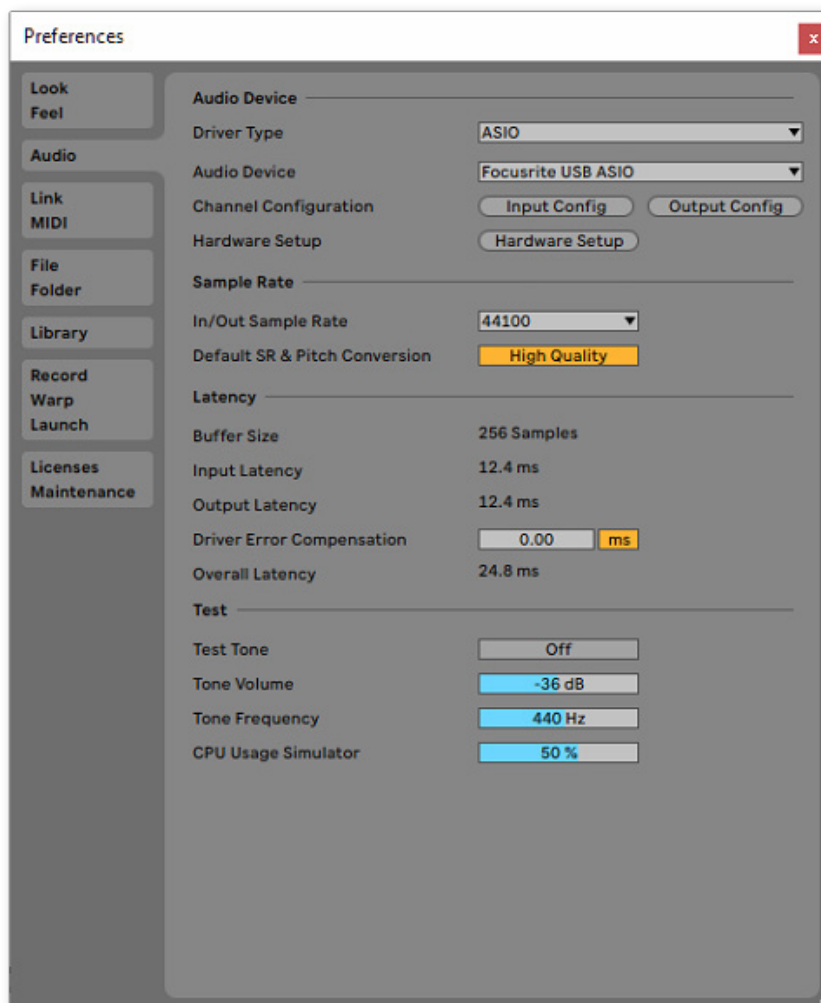
* Typical names. Terminology may differ between DAWs

Once the Scarlett 2i2 is set as the preferred Audio Device* in your DAW, Inputs 1 & 2 and Outputs 1 & 2 will appear in your DAW's Audio I/O preferences. Depending on your DAW, you may need to enable certain inputs or outputs before use.

The two screenshots below show Inputs 1 & 2 and Outputs 1 & 2 enabled Input and Output Config in Ableton Live Lite's Audio Preferences.

Input Config	Output Config
Choose which audio hardware inputs to make available to Live's tracks. Every input pair can be used as one stereo in and/or two mono ins. Deactivating inputs reduces the CPU load.	Choose which audio hardware outputs to make available to Live's tracks. Every output pair can be used as one stereo out and/or two mono outs. Deactivating outputs reduces the CPU load.
Mono Inputs Stereo Inputs	Mono Outputs Stereo Outputs
1 & 2 1/2	1 & 2 1/2
OK Cancel	OK Cancel

  * Typical names. Terminology may differ between DAWs.

Examples of Usage

The Scarlett 2i2 is an excellent choice for several different recording and monitoring applications. Some typical configurations are shown below.

Connecting a microphone or instrument
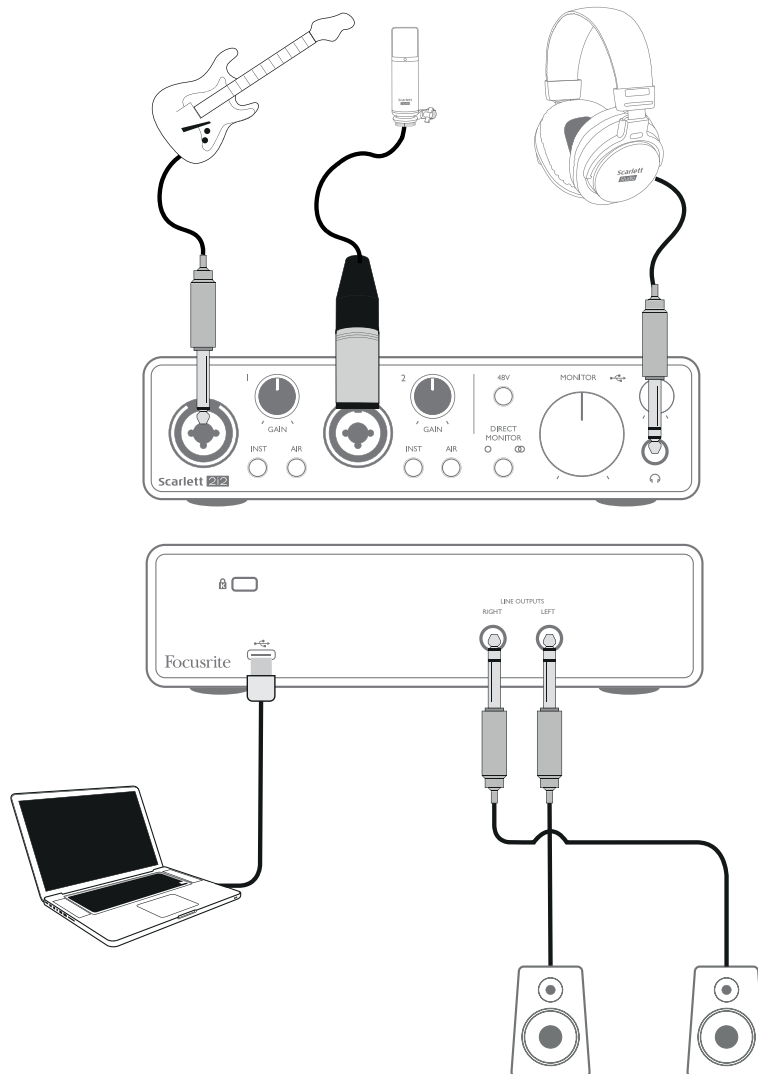
This setup shows the most typical configuration for recording with DAW software on your Mac or PC. You might record guitar through Input 1 and vocals through Input 2 into your DAW, while monitoring the playback from the DAW via headphones (or speakers).

The front panel input sockets are "Combo" type, which accept either an XLR male connector or a ¼" (6.35 mm) jack plug.

The full gain range of the microphone preamplifier is only available to a mic connected via the XLR contacts. If your microphone has an XLR plug on the end of the cable, you can simply plug it in. If it is a "condenser" microphone, you will need to turn on the 48 volt phantom power for it to work. Most modern microphones of other types, e.g., dynamic or ribbon, will not be damaged by the inadvertent application of phantom power, but note some older mics may be; if you have any doubt, please check the specification of your mic to ensure it is safe to use.

If your mic has a jack plug on the end of the cable, it will require an adaptor to make it usable with the XLR part of the Combo connector. Inserting the jack plug will configure the preamp with reduced gain, which is likely to be insufficient for the mic (see below). Mics intended for use with computer sound cards may also require a much lower phantom power voltage, so an adaptor specific to the mic type should be obtained in this case.

The Scarlett 2i2 has no "Mic/line" switch – the Focusrite preamp stage is automatically configured for a microphone when you plug an XLR into the input, and for a line or instrument when you connect a jack plug. Set the **INST** switch ON ('INST' illuminates red) if you are connecting musical instrument, e.g., a guitar in the example, using an ordinary 2-pole (TS) guitar jack. Set the **INST** switch to OFF if you are connecting a line level source such as a keyboard, synthesiser or the balanced output of an external audio mixer via a 3-pole (TRS) jack. Note the Combo connector accepts both TRS and TS types of jack plug.

Using Direct Monitoring

You will frequently hear the term "latency" used in connection with digital audio systems. In the case of the simple DAW recording application described above, latency will be the time it takes for your input signals to pass through your computer and audio software. Latency can be a problem for a performer who wishes to record while monitoring their input signals.

The Scarlett 2i2 is fitted with a "Direct Monitoring" option, which overcomes this problem. Setting the front panel **DIRECT MONITOR** control to either MONO ◯ or STEREO ⬤⬤ will route your input signals directly to the Scarlett 2i2's headphone and main monitor outputs. This enables you to hear yourself with zero latency – i.e., in "real time" – along with the computer playback. The input signals to your computer are not affected in any way by this setting.

In MONO mode, Inputs 1 and 2 are routed equally to the two outputs (both the rear panel outputs and headphones) so they both appear in the centre of the stereo image. This is useful when you are recording two separate instruments or an instrument and a vocal, where there is no need for the two signals to be specifically located in the stereo image. Further examples would be an acoustic and an electric guitar, a bass which is both mic'd and DI'd or two separate mics differently positioned on a guitar amplifier.

In STEREO mode, Input 1 is routed to the left output channel and Input 2 to the right. Use this mode if you are recording something inherently stereo in nature. Monitoring in stereo will give you a more accurate impression of the sound stage. Examples are any situation where two microphones are being used to deliberately capture a stereo image such as a pair of overhead drum mics, a single stereo mic recording an orchestra or other ensemble, or the stereo outputs of an electronic source such as a piano, synthesiser or FX unit.

When using Direct Monitoring, ensure your DAW software is not set to route its input (what you are currently recording) to its output. If it is, you will hear yourself "twice", with one signal audibly delayed as an echo.

Monitoring with **DIRECT MONITOR** set to OFF can be useful when using an FX plug-in to your DAW to create a stereo effect which contributes to the live performance. In this way, you will be able to hear exactly what is being recorded, complete with the FX. However, some latency may result, the amount depending on the DAW's buffer size and processing power of the computer.

Connecting Scarlett 2i2 to loudspeakers

You can use the ¼" jack outputs on the rear panel to connect monitor speakers. Active monitors have internal amplifiers with a volume control, and can be connected directly. Passive loudspeakers require a separate amplifier; the rear panel outputs should be connected to the amplifier's inputs.
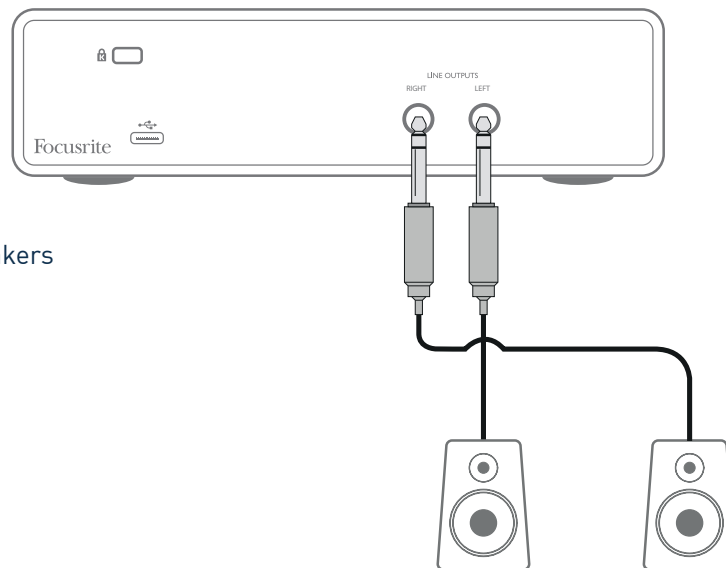
Connecting active speakers
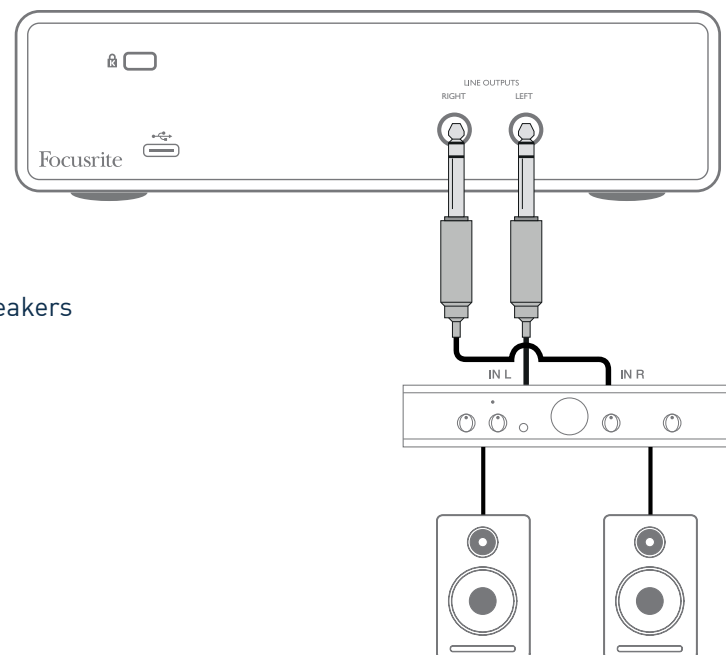
Connecting passive speakers

The line outputs are 3-pole (TRS) ¼" (6.35 mm) jack sockets, and are electronically balanced. Typical consumer (Hi-Fi) amplifiers and small active monitors have unbalanced inputs, either on phono (RCA) sockets, or a 3.5 mm TRS jack plug to connect to a computer. In either case, use a suitable connecting cable with jack plugs at one end.

Professional power amplifiers will generally have balanced inputs; we highly recommend using balanced cables to connect these to the outputs of the Scarlett 2i2.

NOTE: You run the risk of creating an audio feedback loop if loudspeakers are active when you are monitoring a microphone! We recommend you always turn off (or turn down) monitoring loudspeakers while recording, and use headphones when overdubbing.

HARDWARE FEATURES

Front Panel
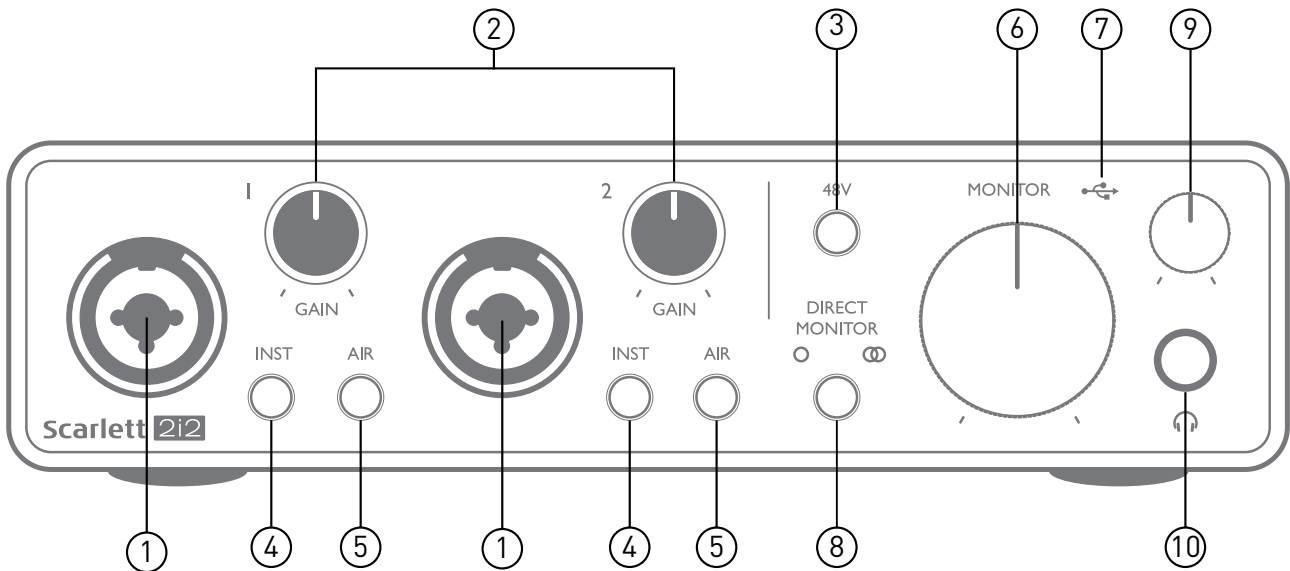
1. Inputs 1 & 2 – "Combo" input sockets - connect microphones, instruments (e.g., guitar), or line level signals here. Combo sockets accept both XLR and ¼" (6.35 mm) jacks. Microphones connect using XLR plugs: instruments and line level signals should be connected via ¼" (6.35 mm) jack plugs of either TS or TRS type. The preamp gain is appropriate for microphones when an XLR plug is inserted, and for higher level signals when a jack plug is inserted. Do not connect anything other than a microphone - e.g., the output of a sound module or FX unit - via an XLR plug, as the signal level will overload the preamp, resulting in distortion; , if phantom power is enabled, you may damage your equipment.

2. **GAIN 1** and **GAIN 2** – adjusts the preamp gain for signals on inputs 1 and 2 respectively. The gain controls have tri-colour LED 'rings' to confirm signal level: green indicates an input level of at least -24 dBFS (i.e., 'signal present'), the ring turns amber at -6 dBFS to indicate the signal is close to clipping, and finally to red at 0 dBFS (digital clipping).

3. **48V** – phantom power switch for mic inputs - enables 48 V phantom power at XLR contacts of both Combo connectors.

4. **INST** – Line/Instrument level switches for each input which alter gain and input impedance to suit either instrument or line level signals. 'INST' illuminates red when Instrument mode is selected. You can also enable INST from Focusrite Control.

5. **AIR** – two switches enabling AIR mode for each input. AIR modifies the frequency response of the input stage to model the classic, transformer-based Focusrite ISA microphone preamps. 'AIR' illuminates yellow when the mode is selected. Note that AIR may also be selected from Focusrite Control.

6. **MONITOR** – main monitor output level control - sets the output level at the main (rear panel) outputs **LEFT** and **RIGHT**.

7. USB LED – a green LED illuminates when the Scarlett is connected and recognised by your computer.

8. **DIRECT MONITOR** – this switch routes the inputs directly to the outputs with three different settings: OFF, MONO and STEREO. When set to OFF, monitoring of input sources is via the DAW; in MONO or STEREO, monitoring is taken directly from the preamp inputs so is free of any latency. The symbols ○ or ◯◯ illuminate green to indicate selection of mono and stereo modes respectively. When Direct Monitor is on, the signal is combined with software playback.

9. ⌓ Headphone level – adjusts the output level at the front panel stereo headphone output.

10. ⌓ Headphone socket – ¼" TRS output jack. If your headphones have a ¼" TRS jack plug, connect them directly; if they have a 3.5 mm TRS "mini jack", use a TRS ¼"-to-3.5 mm jack adaptor. Note that headphones fitted with 4-pole TRRS plugs will not operate correctly.

Back Panel
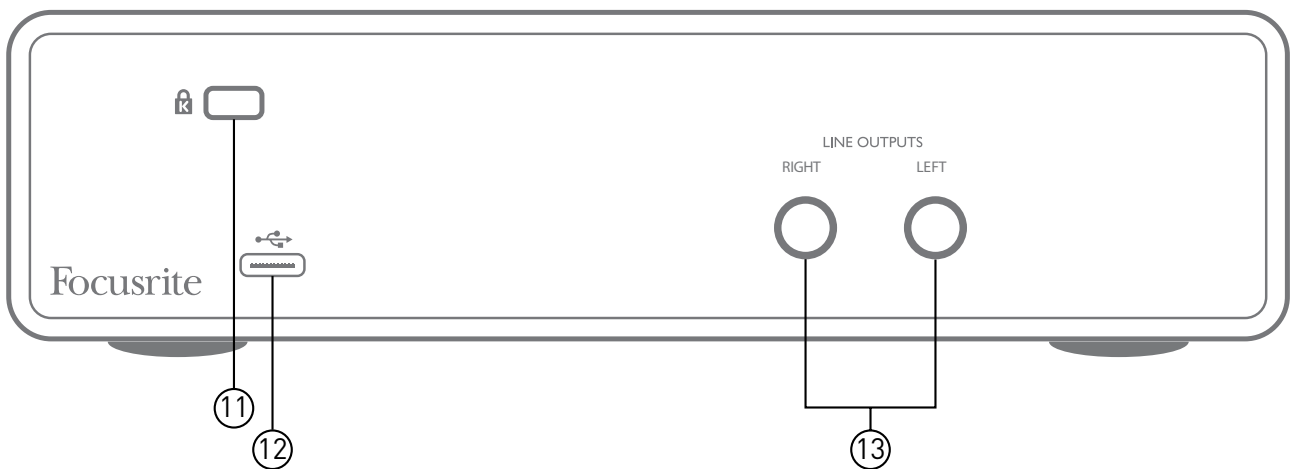
11. **K** (Kensington security lock) – secure your Scarlett 2i2 to a suitable structure if desired.

12. ⟻⟶ **USB** 2.0 port – Type C connector; connect to your computer with cable supplied.

13. **LINE OUTPUTS**: **LEFT** and **RIGHT** – 2 x ¼" (6.35 mm) TRS jack sockets; +10 dBu output level (variable), electronically balanced. Either ¼" TRS (balanced connection) or TS (unbalanced connection) jack plugs can be used.

SPECIFICATIONS

Performance Specifications

All performance figures measured in accordance with the provisions of AES17, as applicable.

Supported sample rates	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Microphone Inputs	
Dynamic Range	111 dB (A-weighted)
Frequency Response	20 Hz to 20 kHz ±0.1 dB
THD+N	<0.0012% (minimum gain, -1 dBFS input with 22 Hz/22 kHz bandpass filter)
Noise EIN	-128 dB (A-weighted)
Maximum Input Level	+9 dBu at minimum gain
Gain Range	56 dB
Input impedance	3 kΩ
Line Inputs	
Dynamic Range	110.5 dB (A-weighted)
Frequency Response	20 Hz to 20 kHz ±0.1 dB
THD+N	<0.002% (minimum gain, -1 dBFS input with 22 Hz/22 kHz bandpass filter)
Maximum Input Level	+22 dBu at minimum gain
Gain Range	56 dB
Input impedance	60 kΩ
Instrument Inputs	
Dynamic Range	110 dB (A-weighted)
Frequency Response	20 Hz to 20 kHz ±0.1 dB
THD+N	<0.03% (minimum gain, -1 dBFS input with 22 Hz/22 kHz bandpass filter)
Maximum Input Level	+12.5 dBu at minimum gain
Gain Range	56 dB
Input impedance	1.5 MΩ
Line Outputs 1 & 2 (balanced)	
Dynamic Range	108.5 dB (A-weighted)
Maximum Output Level	+15.5 dBu; balanced outputs
THD+N Outputs (1-2)	<0.002% (maximum level, -1 dBFS input 1 kHz with 20 Hz/22 kHz bandpass filter)
Output impedance	430 Ω
Headphone Outputs	
Dynamic Range	104 dB (A-weighted)
Maximum Output Level	7 dBu
THD+N	<0.002% (maximum level, -1 dBFS input, 1 kHz, with 20 Hz/22 kHz bandpass filter)
Output impedance	<1 Ω

Physical and Electrical Characteristics

Analogue Inputs	
Connectors	XLR "Combo" type: Mic/Line/Inst (Inputs 1-2) on front panel
Mic/Line switching	Automatic
Line/Instrument switching	2 x front panel switches or via Focusrite Control
Phantom power	Shared 48 V phantom power switch for inputs 1 & 2 (XLR connections only)
AIR function	Front panel switch or via Focusrite Control
Analogue Outputs	
Balanced outputs	2 x ¼" TRS jacks on rear panel
Stereo headphone output	¼" TRS jack on front panel
Main output level control	On front panel
Headphones level control	On front panel
Other I/O	
USB	1 x USB 2.0 Type C connector
Front Panel Indicators	
USB power	LED
Gain Halos	Tri-colour LED rings (with **GAIN** controls)
Phantom power	LED
Instrument mode	2 x LEDs
AIR mode	2 x LEDs
Direct Monitor mode	2 x LEDs
Weight and Dimensions	
W x H x D	175 mm x 47.5 mm x 99 mm 6.89 in x 1.87 in x 3.89 in
Weight	470 g 1.04 lb

TROUBLESHOOTING

For all troubleshooting queries, please visit the Focusrite Help Centre at support.focusrite.com.

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