Revelator io44

USB-C Compatible Audio Interface with Integrated Loopback Mixer and Effects

与USB-C兼容的音频接口，集成回环混音器和效果器

Owner's Manual 用户手册

PreSonus® Baton Rouge • USA
www.presonus.com

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1. Overview 概述

1.1 Introduction 介绍

Thank you for purchasing the Revelator io44 audio interface! Revelator io44 is a powerful recording solution for your home studio and doubles as a perfect audio interface for podcasting—or livestreaming DJ sets and gameplay.
感谢你购买 Revelator io44 音频接口 Revelator io44 是一个强大的录音解决方案，适用于你的家庭工作室，同时也是一个完美的音频接口，适用于播客或现场DJ直播和游戏。

It's designed to deliver polished, professional-sounding results with ease. Once you've registered your Revelator io44 at my.presonus.com, you'll be able to download your drivers, a complimentary copy of Studio One Artist, additional plug-ins, content, and more. It's our gift to you for becoming a PreSonus customer.

它的设计是为了打磨音色，呈现自然专业的音效。一旦你在 my.presonus.com 注册了你的 Revelator io44，就可以下载你的驱动程序、免费拷贝 Studio One Artist、额外的插件、内容等等。你已成为PreSonus的客户，这是我们送给客户的礼物。

We suggest you read this manual to familiarize yourself with the features and applications for your Revelator io44 before trying to connect it to your computer. This will help you to avoid problems during installation and use.

我们建议你，在尝试将 Revelator io44 连接到你的电脑之前，先阅读本手册以熟悉它的功能和应用。这将有助于你在安装和使用过程中避免问题。

Throughout this manual you will find Power User Tips. These tips and tricks will help you to become a Revelator io44 expert—as well as help you to better understand audio terminology, so you can get the most from your purchase and get the best sound quality possible.

在这本手册中，你会发现 "强大的用户提示"。这些提示和技巧将帮助你成为 Revelator io44 的专家，并帮助你更好地理解音频术语，这样才物有所值，并可以获得最佳的音质。

Thanks for joining the PreSonus family. We're glad you're here.

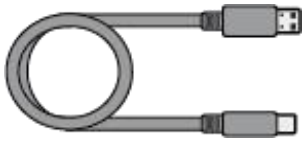
谢谢你加入PreSonus大家庭。我们很高兴你在这里。

1.2 What's in the box? 包装里有什么？

Your Revelator io44 package contains: 你的Revelator io44都包括：

Revelator io44 USB audio interface

Revelator io44 USB 音频接口



1M USB-C-to-USB-A Cable. Use this to connect your Revelator io44 to a USB port on your computer or a powered USB hub.

1M USB-C转USB-A电缆。用它来连接你的Revelator io44和你电脑上的USB端口或供电的USB集线器。

Quick Start Guide. Use this as a handy reference guide to your hardware features while you familiarize yourself with your new interface.

快速入门指南。当你熟悉自己的新接口时，可以把它作为硬件功能的参考指南。


PreSonus Health, Safety, and Compliance Guide. Legal language to cure your insomnia.

请了解 PreSonus 健康、安全和合规指南，这些法律语言可以治愈失眠症。

Warranty/Registration Card. 保修/注册卡。

1.2.1 What is in your MyPreSonus account 你的MyPreSonus账户里有什么？

There's more to your Revelator io44 than what comes in the box! Let's take a moment to register your Revelator io44 and download the digital products that come with it. These include:

你的 Revelator io44 除了包装盒里的东西外，还有更多的东西! 花点时间来注册你的 Revelator io44，并下载它所附带的数字产品。这些产品包括：

- Universal Control. Unlock the StudioLive inside your Revelator io44 with Universal Control. This installation package also includes your audio driver controls that you will need to use advanced Revelator io44 features.

通用控制。用 Universal Control 解锁你的Revelator io44里面的StudioLive。这个安装包还包括你的音频驱动控制，是你需要使用到的Revelator io44的先进功能。

- Studio One Artist. Studio One Artist is our award-winning recording and production software. It's also designed to be intuitive and easy to use, so whether you're a seasoned professional or just starting out, Studio One Artist has the tools you need to make a great recording.

Studio One Artist. 是我们屡获殊荣的录音和制作软件。它的设计直观，易于使用，无论你是一个经验丰富的专业人士还是刚刚开始的初学者，Studio One Artist 有你需要创作绝佳录音的工具。

- Studio Magic Bundle. Over $1000 USD worth of plug-ins, sounds, and more; Studio Magic supercharges your Studio One Artist experience!

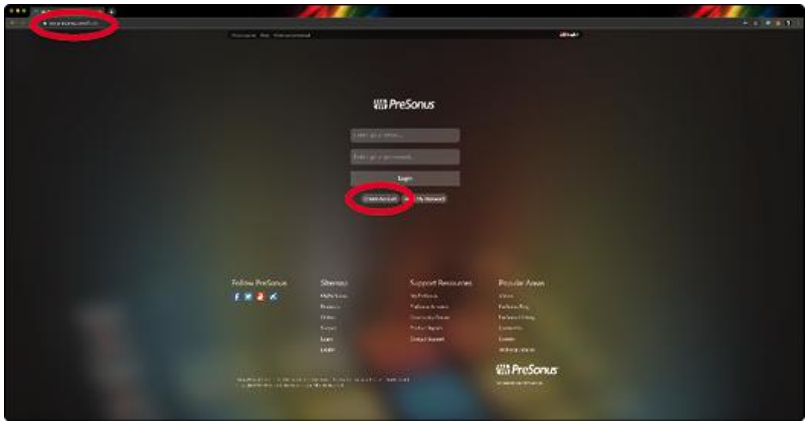
Studio Magic Bundle。这是价值超过1000美金的插件、音效，还有更多；Studio Magic为你体验 Studio One Artist 提供了超强的动力!

Step 1: Register Revelator io44

第一步：注册Revelator io44

To download your digital products, you must first create a MyPreSonus account. This account lets you manage all your PreSonus product registrations, provides curated educational content, and is the portal to all tech support and service inquiries. Let's get started!

要下载你的数字产品，首先你必须创建一个 MyPreSonus 账户。这个账户可以让你管理所有 PreSonus 产品的注册，提供精选的教育内容，并且是所有技术支持和服务咨询的入口。让我们开始吧!

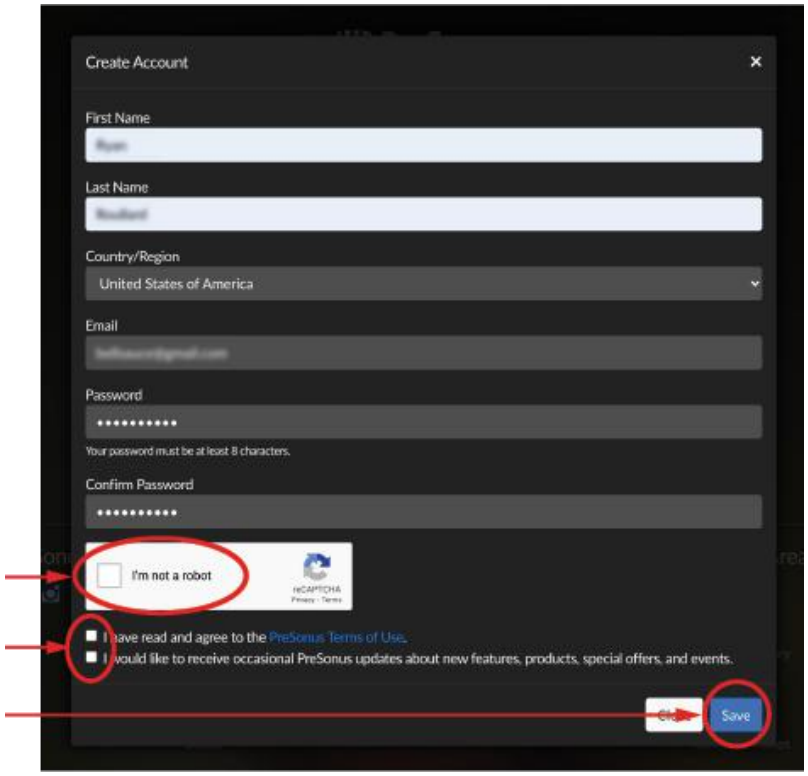


In your Internet browser of choice, visit my.presonus.com and click “Create Account.”

在你选择的互联网浏览器中，访问 my.presonus.com 并点击 "创建账户"。

Power User Tip:*If you already have a MyPreSonus account, please log in and skip to step 5*

高级用户提示：*如果您已经有了MyPreSonus帐户，请登录后跳到第5步。.*

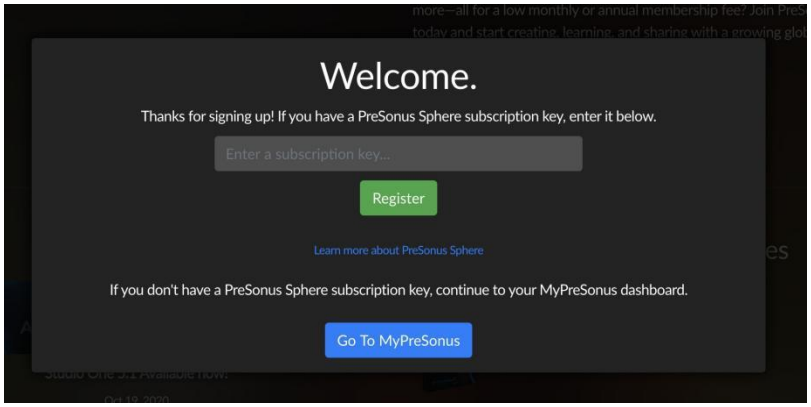


Fill in the form with the required information. Make sure to verify that you are, in fact, human and agree to our PreSonus Terms of Use. If you’d like to receive occasional emails about promotions and new video content, check that box now as well.

Click “Save.”

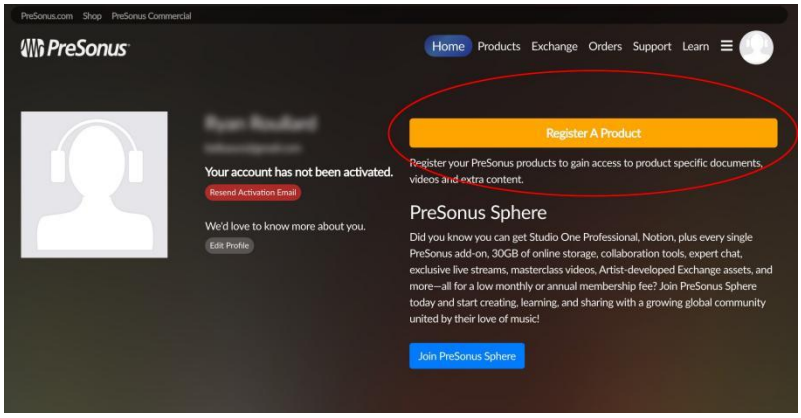
在表格中填写所需信息。请务必验证你的身份，并同意我们的PreSonus使用条款。如果你想不定期收到有关促销和新视频内容的电子邮件，也请在方框勾选该选项。

点击 "保存"。



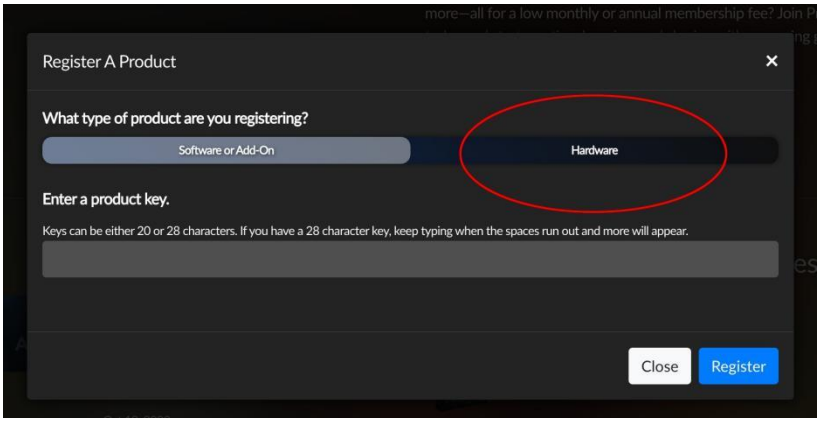
Click “Go to MyPreSonus” to log into your shiny new MyPreSonus account.

点击 "进入MyPreSonus"，登录你全新 MyPreSonus 账户



Click “Register a Product.”

点击 "注册一个产品"。



In the pop-up menu, click on the Hardware tab.

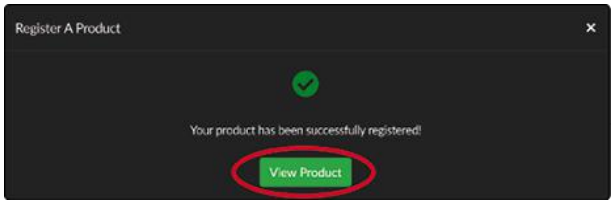
Select your purchase date and enter your Revelator io44 Serial Number. You can find your serial number on the bottom of your interface as well as on your Quick Start Guide.

Click Register.

在弹出的菜单中，点击“Hardware”标签。

选择你的购买日期并输入你的Revelator io44序列号。你可以在你的界面底部以及快速入门指南上找到你的序列号。

点击“注册”。

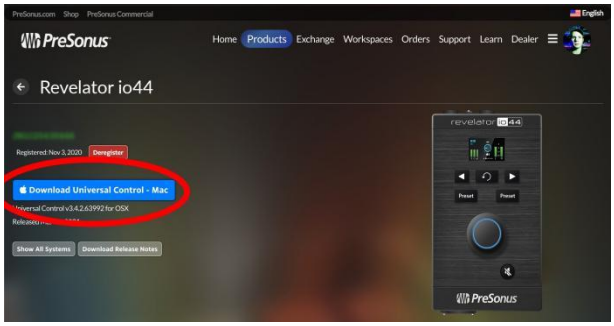


Click View Product to download your companion software.

点击 "查看产品"，下载你的配套软件。

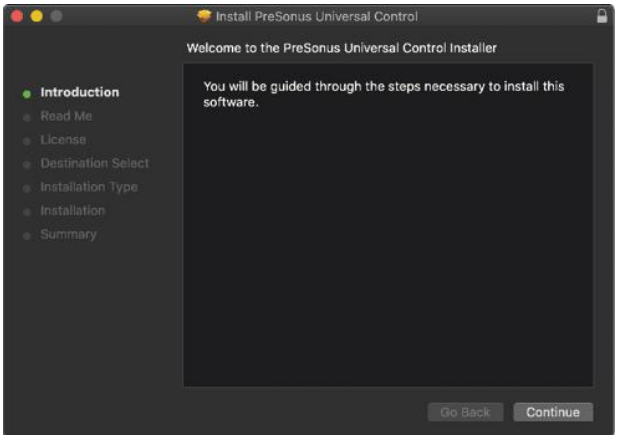
Step 2: Download and Install Universal Control

第2步：下载并安装通用控制



From the Revelator io44 product listing in MyPreSonus, click the “Download Universal Control” button at the top. MyPreSonus will scan your computer and present the correct installer for your operating system.

从 MyPreSonus的Revelator io44产品列表中，点击顶部的 "Download Universal Control "按钮。MyPreSonus 将扫描你的电脑并为你的操作系统呈现正确的安装程序。



Locate the Universal Control installer in your Downloads folder. Double click to open it.

在你的下载文件夹中，找到Universal Control的安装程序。双击来打开它。

Follow the onscreen instructions to install Universal Control.

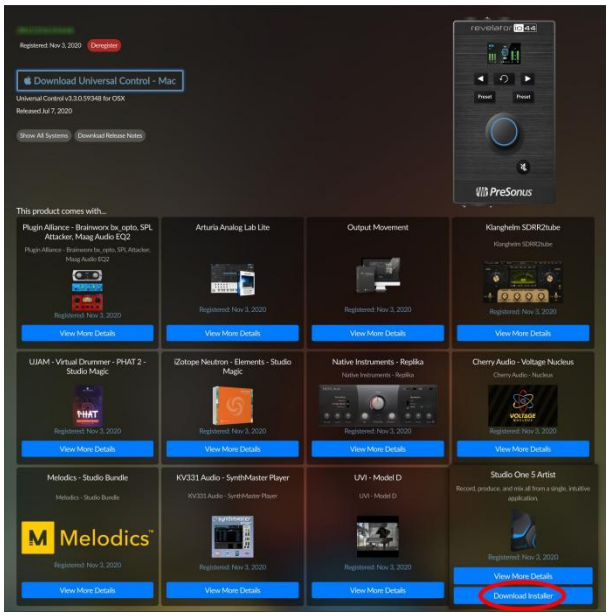
按照屏幕上的指示来安装通用控制。

See the *Universal Control* section for information and use instructions for all the advanced features available.

有关所有高级功能的信息和使用说明，请*参见Universal Control 部分*。

1.2.2 Step 3: Download and Install Studio One Artist (Optional)

第3步：下载并安装 Studio One Artist（可选）



From the Revelator io44 product listing in MyPreSonus, locate Studio One Artist from the product listing. Quick links to every digital product that comes with your Revelator io44 will be listed here. Click the “Download Installer” button at the bottom of the Studio One Artist listing. MyPreSonus will scan your computer and present the correct installer for your operating system.

在 MyPreSonus 的 Revelator io44 产品列表中，从产品列表中找到 Studio One Artist。这里列出了与你的 Revelator io44 配套的每个数字产品的快速链接。点击Studio One Artist 列表底部的 "下载安装程序 "按钮。MyPreSonus将扫描你的电脑并为你的操作系统提供正确的安装程序。

Power User Tip: *You may be prompted to enter your My.PreSonus user account information. Clicking “Remem- ber Credentials” will allow you to have immediate access to any content you purchase from shop.presonus.com.*

高级用户提示：你可能会被提示输入你的 My.PreSonus 用户账户信息。点击 "Remem- ber Credentials "将允许你立即访问你从 shop.presonus.com 购买的任何内容。

Studio One Artist comes bundled with an array of demo and tutorial materials, instruments, loops, and samples. The first time you launch Studio One Artist, you will be prompted to install its companion content. Select the content you wish to add and click “Install.” The content will automatically begin to download and install from your My.PreSonus user account.

Studio One Artist 捆绑了一系列的演示和教程材料、乐器、反复循环音色采样。当你第一次启动 Studio One Artist 时，你会被提示安装它的配套设备。选择你想添加的内容，点击 "安装"。这些内容将从你的 My.PreSonus 账户中自动开始下载和安装。

Power User Tip: *To select only a portion of the available content, click on “Show Packages.” From here you can customize your content installation.*

高级用户提示：*只选择一部分可用的内容，请点击 "Show Packages"。从这里你可以定制你的内容安装。*

See the *Studio One Artist Quick Start Guide* for help getting started recording and mixing in Studio One Artist.

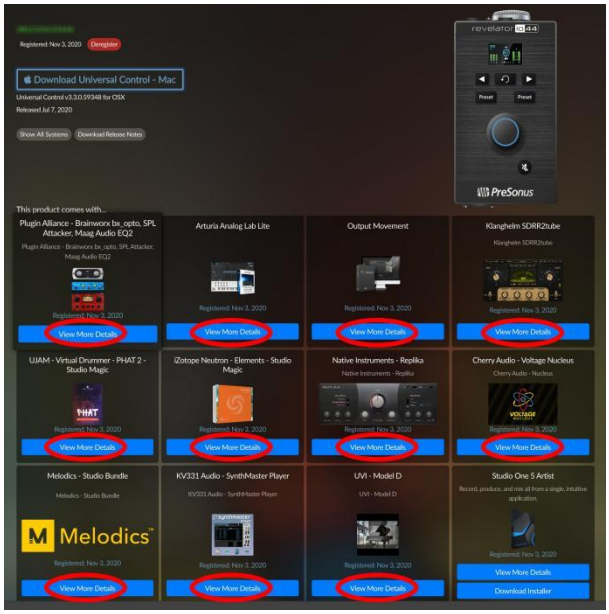
请参阅 Studio One Artist 快速入门指南，了解如何在 Studio One Artist 中开始录音和混音。

Step 4: Download and Install Studio Magic (Optional)

第四步：下载并安装Studio Magic（可选）

From the Revelator io44 product listing in MyPreSonus, you will also find a complete list with links to all the Studio Magic products that came with your Revelator io44 registration. Click on the “View More Details” button below any product you’d like to install.

在 MyPreSonus 的 Revelator io44 产品列表中，你还会发现一个完整的列表，其中有 Revelator io44 注册时附带的所有 Studio Magic 产品的链接。点击任何你想安装的产品下面的 "View More Details " 按钮。



Studio Magic software is developed by many different manufacturers, so MyPreSonus will send you to their respective websites for download and installation.

Studio Magic 软件是由许多不同的制造商开发的，所以 MyPreSonus 会把你送到他们各自的网站上进行下载和安装。

2. Connections and Controls 连接与控制

2.1 Control Panel 控制面板

Multipurpose Encoder Knob. This is a lot more than a simple volume knob! It's also a button, and can be used to control many features of your Revelator io44:
多用途编码器旋钮。这不仅仅是一个简单的音量旋钮! 它也是一个按钮，可以用来控制你的Revelator io44的许多功能：

- From the Home screen, press it to cycle through Headphone volume, Main volume, and Monitor Blend. Rotate to edit the selected option.

在主屏幕上，按它可以在耳机音量、主音量和监听混合之间循环。转动它来编辑所选的选项。

- From the Channel screen, press to cycle through +48v, Gain, and High-pass filter options. Rotate to edit the selected option.

在 "Channel" 屏幕上，按它可以在+48v、增益和高通滤波器选项之间循环。旋转以编辑所选的选项。

Channel Select Buttons. Press to display information about Channel 1, Headset, or Line in connections on the screen.

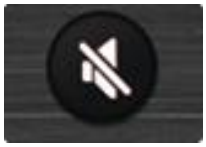
频道选择按钮。按这个键可以在屏幕上显示有关Channel1、耳机或线路连接的信息。

Back Button. Returns display on screen to default Home view.

返回键：将屏幕上的显示返回到默认的主视图。

Preset Selectors. Cycles through presets for Channel 1 and the Headset in, respectively. Press to cycle through Presets; press and hold to bypass Presets.

预置选择器。分别在Channel 1和耳机输入的预置中循环。按下可循环浏览的预置；按住可绕过预置。



Mute. Enables/Disables the Main Outs. Has no effect on Headphone Out.

静音。启用/停用主输出。对耳机输出没有影响。

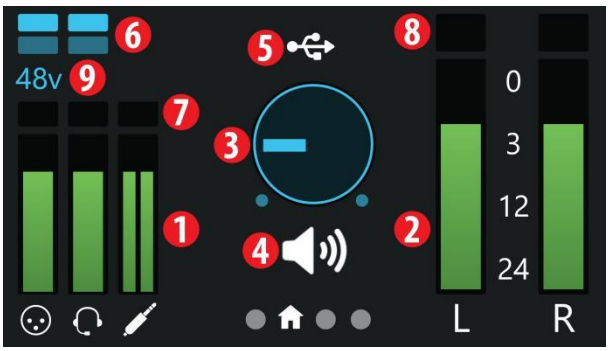
The Screen 屏幕

The screen displays metering, preset selection, and other important information.

The following information is displayed on Revelator io44's Home screen. This is the default screen you'll see when you first use Revelator io44.

该屏幕显示仪表、预置选择和其他重要信息。

以下信息显示在 Revelator io44 的主屏幕上。这是你第一次使用 Revelator io44 时，将看到的默认屏幕。



1. **Input Meters**. These meters indicate the input level of the analog inputs on your Revelator io44. The red Clip indicator will light when your input signal reaches -0.5 dBFS. At this level, the signal will begin to overload the analog-to-digital converters and exhibit signs of clipping. Use the gain controls to keep the signal below this level.

输入仪表。这些仪表显示了Revelator io44 的模拟输入的输入电平。当你的输入信号达到-0.5dBFS时，红色的削波指示灯将亮起。在这个电平上，信号将开始超过模数转换器的负荷，出现削波的迹象。使用增益控制来保持信号低于这个电平。

2. **Output Meters.** These meters indicate the signal level received from the first two driver returns (Main Left/Right). These meters display the signal level before the main output level control.

输出仪表。这些仪表显示了从前两个驱动器返回（主左/右）接收的信号电平。这些仪表显示的是主输出电平控制之前的信号电平。

3. **Output Volume/Blend.** This indicates output volume of the currently-selected output (Headphones or Mains) just like a volume knob—as well as Monitor Blend.

输出音量/混合。这表示当前选择的输出（耳机或主机）的输出音量，就像一个音量旋钮，以及监听混合。

4. **Encoder status.** Lets you know if the Encoder Knob is controlling Headphone output level, Main output level, or monitor Blend (direct vs. hardware.)

编码器状态。让你了解编码器旋钮是否在控制耳机输出电平、主输出电平或监听混合（直接与硬件）。输出电平，或监听混合（直接与硬件）。

5. **USB Status indicator**. Confirms that Revelator io44 is connected via USB and functioning normally.

USB状态指示灯。确认 Revelator io44 通过 USB 连接并正常工作。

6. **Preset indicators**. These lights indicate the preset selection of both channels. If presets are bypassed, both will be dark.

预置指示灯。这些灯表示两个通道的预置选择。如果预置被绕过，两个都会变暗。

7. **Input Clip indicator**. Lights red when the incoming signal is too loud for the converter, causing distortion.

输入剪辑指示灯。当输入的信号对转换器来说太大，导致中断时亮起红色。

8. **Output Clip indicator**. Lights red when the outgoing signal is too loud.

输出剪辑指示灯。当输出的信号过大时亮红灯。

9. **+48v indicator**. Informs you if +48v power has been activated—required for most condenser microphones.

+48v指示灯。通知你+48v电源是否已被激活--大多数电容式微型麦克风需要。

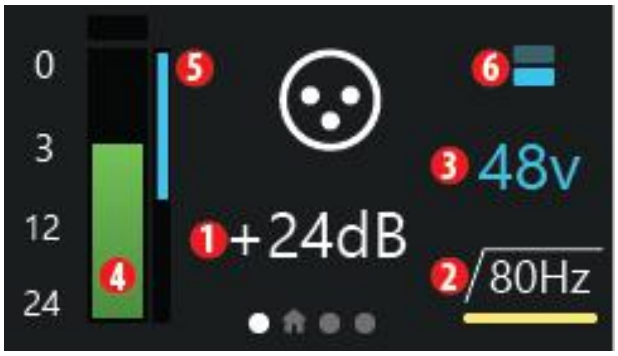
WARNING: Phantom power is only required for condenser microphones and can severely damage some dynamic mics, especially ribbon mics. Therefore, switch phantom power off when it is not required. Consult the user documentation that came with your microphone before engaging phantom power.

警告：只有电容式麦克风才需要幻象电源，而且会严重损坏一些动态麦克风，特别是带状麦克风。因此，在不需要幻象电源时，请将其关闭。在使用幻象电源之前，请查阅您的话筒所附带的用户文件。在使用幻象电源之前，请查阅您的麦克风附带的用户文件。

XLR connector wiring for phantom power: 幻象电源的XLR连接器接线：
Pin 1 = GND Pin 2 = +48V Pin 3 = +48V

The following information is displayed on Revelator io44's Channel screens. Press the Channel Select Buttons (< or >) to bring it up. There are three separate screens for Mic/Inst (the combo input), the Headset, and the Line In channels. Press the Back button to return to the Home screen.

以下信息显示在 Revelator io44 的频道屏幕上。按通道选择按钮（<或>）来调出它。有三个独立的屏幕分别显示麦克风/输入（组合输入）、头戴式设备和线路输入频道。按 "返回" 按钮返回到主屏幕。



From the Channel screen, the Encoder Knob can be pressed to cycle through the following options:
在 "Channel" 屏幕上，可以按编码器旋钮通过以下选项中循环：

1. **Gain**. Rotate the Encoder to turn input Gain up or down. Use this to bring your connected instrument or microphone signals up or down to suitable recording levels. Avoid aforementioned clipping.

增益。转动编码器，将输入增益调高或调低。用它来使你连接的乐器或话筒信号上升或下降到合适的录音水平。避免前述的削波。

2. **High-pass filter 80Hz.** Rotate the Encoder to turn the High-pass filter on and off. This can be used to cut low-end rumble and other unwanted low frequencies from your recordings.

高通滤波器80Hz。转动编码器来打开或关闭高通滤波器。这可以用来削减录音中的隆隆声和其他不需要的低频。

3. **+48v Phantom Power.** Rotate the Encoder to enable/disable +48v power for attached condenser microphones.

+48v幻象电源。旋转编码器来启用/禁用+48v电源，用于连接电容式麦克风。

Other information on the Channel screen includes:

频道屏幕上的其他信息包括：

4. **Input Meter**. This meter indicates the input level of the selected channel on your Revelator io44, just like on the Home screen.

输入表。这个表显示你的 Revelator io44 上所选频道的输入电平，就像在主屏幕上一样。

5. **Gain reduction meter.** If you're running any compression or limiting via Revelator io44's DSP (Digital Signal Processing), the amount of gain reduction being applied will be indicated by this blue meter.

增益降低表。如果你正在通过 Revelator io44 的DSP（数字信号处理）运行任何压缩或限制，正在应用的增益降低量将在这个蓝色仪表中显示。

6. **Preset indicators.** These lights indicate the preset selection of the currently-selected channel, including none.

预置指示灯。这些灯表示当前所选频道的预置选择，包括没有预置。

Note that there is no option for +48v on the Headset and Line In Channels, and no high-pass filter option on the Line In channel. This is normal.

请注意，在耳机和线路输入频道上没有+48v的选项，在线路输入通道上也没有高通滤波器选项。这是正常的。

2.1.1 Front Panel 前面板

Mic/Inst input. Channel 1 of your Revelator io44 interface is equipped with a combo jack. This convenient connector accepts either a ¼-inch TS connection for high-impedence instrument sources like guitars and basses, or an XLR connector for professional microphones. The XLR connection's XMAX-L solid-state microphone preamp is optimized for bus power.

话筒/录音机输入。Revelator io44 接口的Channel 1配备了一个组合插孔。这个方便的接口可以接受一个¼英寸的TS连接，用于吉他和贝司等高阻抗乐器源，或用于专业麦克风的XLR连接器。该 XLR连接的XMAX-L固态麦克风前置放大器对总线电源进行了优化。

Please note: As with any audio input device, plugging in a microphone or an instrument, or turning phantom power on or off, will create a momentary spike in the audio output. Because of this, we highly recommend that you turn down the channel trim before changing connections or turning phantom power on or off. This simple step will add years to life of your audio equipment.

请注意：与任何音频输入设备一样，插入麦克风或乐器，或打开或关闭幻象电源，将在音频输出中产生一个瞬间的峰值。因此，我们强烈建议你在改变连接或打开或关闭幻象电源之前，调低通道修剪。或关闭。这个简单的步骤将使你的音频设备的寿命延长几年。

Headset connection. This 1/8-inch TRRS Headset connection is both a mono input for the headset microphone and a stereo output for your headphones.

耳机连接。这个1/8英寸TRRS耳机连接既是耳机麦克风的单声道输入，又是耳机的立体声输出。

Line In. This 1/8-inch TRS input is suitable for line-level stereo sources like DJ mixers, mobile devices, synthesizers, and more.

线路输入。这个1/8英寸TRS输入适用于线级立体声源，如DJ调音台、移动设备、合成器等等。

2.1.2 Back Panel 后面板

Kensington Lock. Connect this port to a Kensington lock to prevent theft.
Kensington锁。将此端口连接到Kensington锁，以防止盗窃。

USB-C Port. Use this port to connect your Revelator io44 to your computer. While the Revelator io44 connects using USB-C, it is fully compatible with USB 2.0 and 3.0 connections. Use the USB-C to A cable that came with your Revelator io44 if your computer has a USB-A connection rather than a USB-C connection.

USB-C端口。使用这个端口将你的 Revelator io44 连接到你的电脑上。虽然 Revelator io44使用USB-C连接，但它与USB 2.0和3.0连接完全兼容。如果你的电脑是USB-A连接而不是USB-C连接，请使用 Revelator io44 附带的 USB-C 转 A 线。

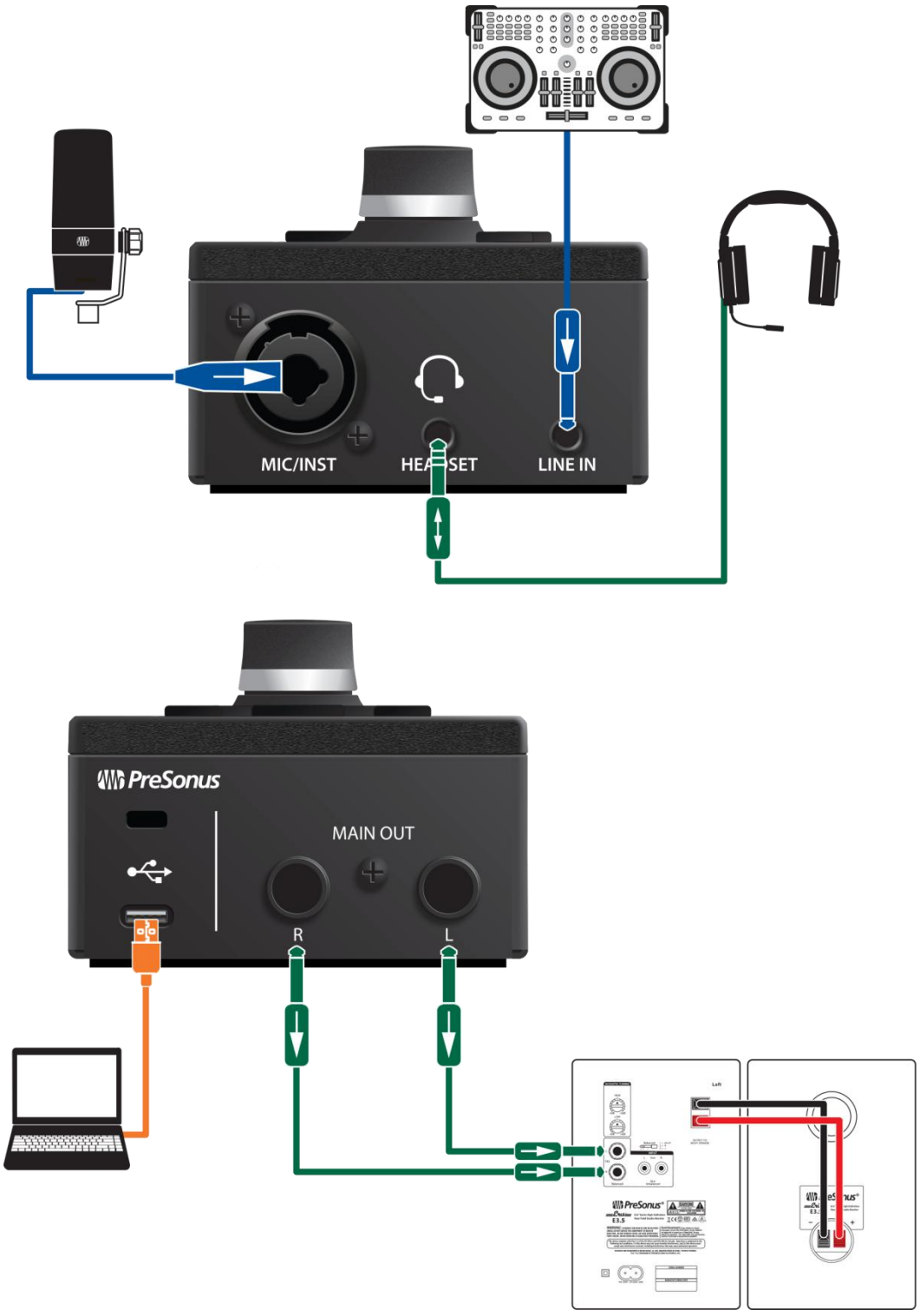
Please note: The Revelator io44 is backward compatible with USB 2.0 and USB 3.0 speed connections. USB 1.1 is not supported.

请注意：Revelator io44 向后兼容 USB 2.0和USB 3.0速度连接。不支持 USB 1.1。

Main Outs. These are the Main outputs for the Revelator io44. The output level of the Main outputs is controlled by the Main level control on the front of the unit. Playback streams 1 and 2 are routed to these outputs.

主输出。这些是 Revelator io44 的主输出。主输出的输出电平由设备前面的主电平控制来控制。播放数据流1和2被路由到这些输出。

2.1.3 Connection Diagram 连接图



Standalone controls 独立运行的控制

While many of the features available for your Revelator io44 can be found in Universal Control, critical controls are available right at your fingertips. Most of these settings can be changed from Universal Control to customize your Revelator io44 to your application and needs.

The most important thing to remember is that the Multipurpose Encoder on your Revelator io44 can be used for nearly everything! From either the Home or Channel screen, pressing the Encoder will cycle through the available options, and rotating it will adjust the parameters.

虽然你的Revelator io44许多功能都可以在Universal Control 中找到，但关键的控制在你的掌握中。大部分设置都可以从Universal Control中改变，可以根据你的应用和需要，自定义你自己 Revelator io44。

最重要的是！你的 Revelator io44 上的多用途编码器几乎可以用来做任何事情，在主屏幕或频道屏幕上，按下编码器将循环播放可用的选项，旋转它将调整参数。

From the Home screen you can: 在主屏幕上，你可以：

- Adjust your Headphone volume 调整你的耳机音量
- Adjust your Main Out volume 调整你的主输出音量
- Blend your mix between your input signal and the playback from your computer 混合你的输入信号和你的电脑播放的混合信号

And from the Channel screens you can: 并且你能够在频道屏幕上：

Channel 1: 频道1：

- Set your mic level 设置你的麦克风电平
- Toggle +48v phantom power 切换+48v幻象电源
- Toggle the 80Hz High-pass filter 切换80Hz高通滤波器
- Toggle Presets 切换预置

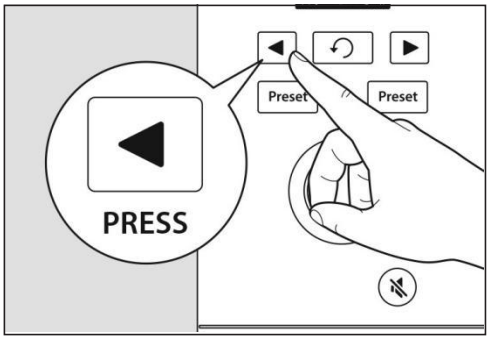
Headset: 耳机：

- Set your mic level 设置你的麦克风电平
- Toggle the 80Hz High-pass filter 切换80Hz高通滤波器
- Toggle Presets 切换预置

Line In: 线路输入：

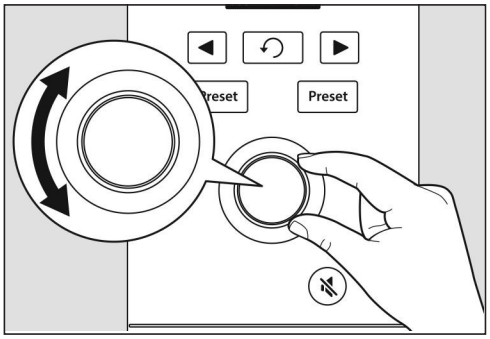
- Set your input level 设置你的输入电平

2.1.4 Setting the Input Level 设置输入电平



To set Channel 1's mic input level, press the Channel select button until you've selected Channel 1. Next, press the encoder to cycle through the available options. A yellow underline will indicate the currently-selected option. Once you've selected the Gain setting—it's shown below the Channel indicator number and measured in dB (decibels)—turn the Encoder to set the desired gain level.

设置Channel1的麦克风输入电平，按下通道选择按钮，直到你选择了Channel1。接下来，按编码器循环查看可用的选项。一个黄颜色的下划线将表示当前所选的选项。一旦你选择了增益设置--它显示在通道指示器数字的下面，以dB（分贝）为单位--转动编码器来设置所需的增益电平。



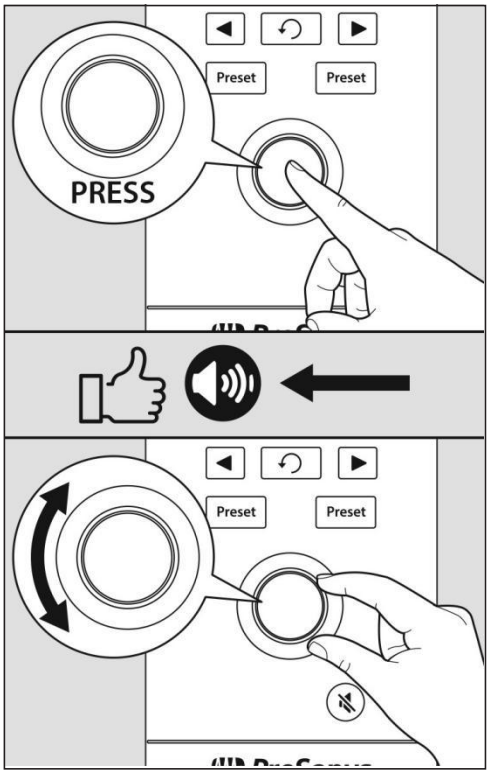
To set the input level for the Headset and Line inputs, select their Channels and repeat the above. Note that the Line In has no option other than input level.

设置耳机和线路输入的输入电平，请选择它们的频道并重复上述操作。注意，线路输入除了输入电平外没有其他选项。

Power User Tip: *If your input level is too loud, the clip indicator will display in red above the input level meter. This means that your input signal is clipping, and will begin to sound distorted. If your input signal clips, it will overload the analog-to-digital converters and cause digital distortion. Digital distortion sounds terrible, and cannot be undone if recorded. Because of this, it's important to keep your eye on this indicator while you're setting your levels. Check out the Resources section for other recording tips.*

电源用户提示：*如果你的输入电平太高，剪辑指示灯会在输入电平表上方显示为红色。这意味着你的输入信号正在削波，并将开始出现失真。如果你的输入信号被夹断，它将使模数转换器过载，并导致数字失真。数字失真听起来很糟糕，而且如果录制的话，是无法恢复的。正因为如此，当你设置电平时，一定要注意这个指标。查看资源部分，了解其他录音技巧。*

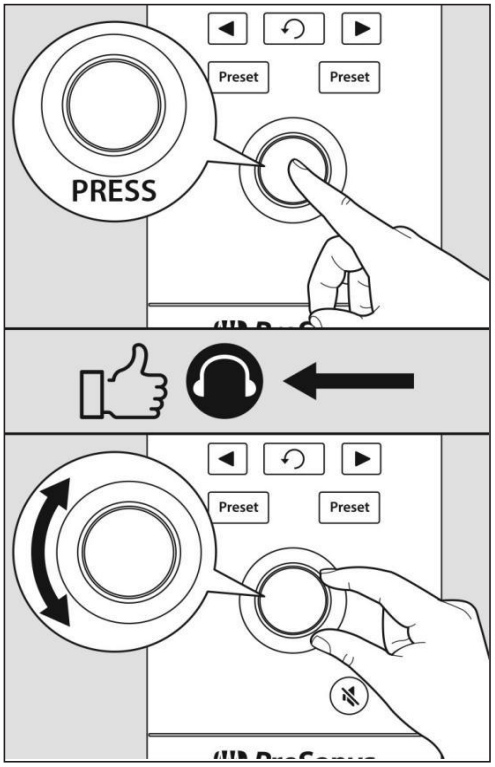
2.1.5 Setting Main Output level 设置主输出电平



By default, the Encoder knob on your Revelator io44 controls the output level of your Main Outputs—the outputs you have your speakers connected to. From the home screen, press the Encoder repeatedly until the speaker icon appears below the Volume indicator. Then rotate the Encoder to set the desired Main output level.

默认情况下，Revelator io44 上的编码器旋钮控制主输出的输出电平--你的扬声器连接的输出。在主屏幕上，反复按编码器，直到扬声器图标出现在音量指示灯下面。然后旋转编码器来设置所需的主输出电平。

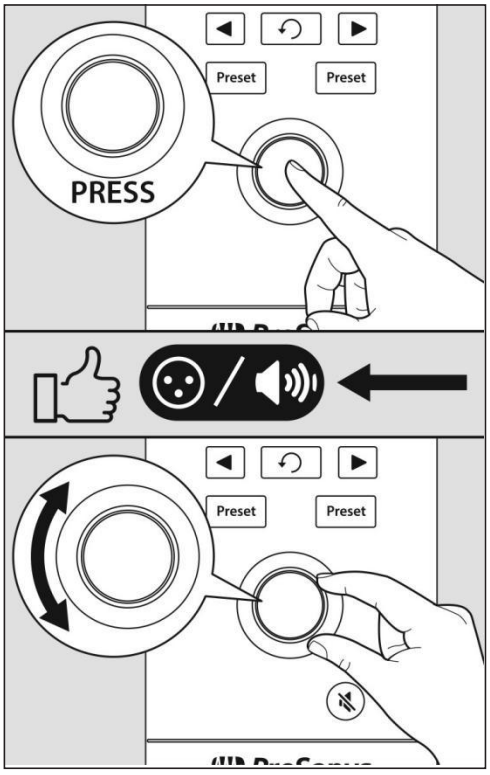
2.1.6 Setting Headphone level 设置耳机电平



From the home screen, press the Encoder repeatedly until the headphone icon appears below the Volume indicator. Then rotate the Encoder to set the desired Headphone output level.

在主屏幕上，反复按编码器，直到音量指示器下面出现耳机图标。然后旋转编码器来设置所需的耳机输出电平。

2.1.7 Setting Monitor blend 设置监听混合



Revelator io44 provides an easy way to create a blend between your input signal and the playback from your computer. This lets you listen to your performance in real-time without any latency (delay).

Revelator io44 提供了一个简单的方法，在你的输入信号和你的电脑播放之间建立一个混合。这让你可以实时聆听你的表演，而没有任何延迟（延时）。

From the home screen, press the Encoder repeatedly until the XLR/speaker icon appears below the Volume indicator. Then rotate the Encoder to set the desired monitor Blend balance.

在主屏幕上，反复按编码器，直到XLR/扬声器图标出现在音量指示灯下面。然后旋转编码器来设置所需的显示器混合平衡。

Turning the knob to the left will increase the level of the input signal relative to the playback from your computer. Turning it to the right will increase the level of the playback from your computer relative to the input signal.

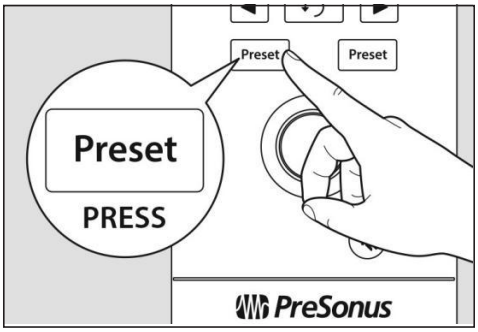
向左旋转旋钮将增加相对于电脑播放的输入信号的电平。向右转将增加相对于输入信号而言的电脑播放电平。

Power User Tip: *Universal Control lets you create a custom mix between your input signals, main computer playback, and both stereo loopback audio channels. So when you're ready to dial in your headphone mix, go to the Mixing and Loopback Audio section to learn more!*

用户提示：Universal Control *可以让你在输入信号、主电脑播放和两个立体声回环音频通道之间创建一个自定义的混音。因此，当你准备好拨入你的耳机混音时，请到* ***混音和回环音频*** *部分了解更多信息。*

Selecting Preset

选择预置



EQ and compression are the secret behind the professional broadcast studio sound we all know so well. Your Revelator io44 has you covered with 8 easy-to-use, professionally crafted processing and effects presets. These presets are designed to give you great-sounding results with no audio engineering experience required!

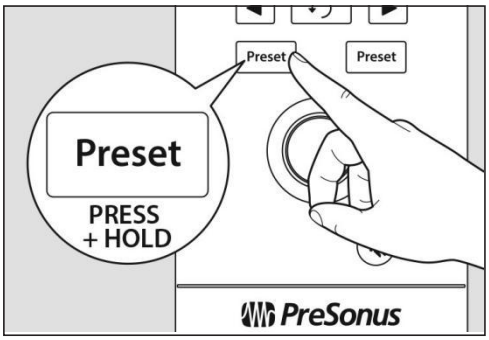
EQ和压缩是我们所熟知的专业广播工作室声音背后的秘诀。你的Revelator io44为你提供了8个易于使用、专业的处理和效果预置。这些预置的目的是为你提供良好的音效，而不需要音频工程经验！

The first two presets can be accessed right from the Preset buttons on your Revelator io44. To cycle through them, press the Mic/Inst or Headset Preset buttons repeatedly. The Mic/Inst default presets are "Broadcast" and "Vocal." Headset default presets are "Broadcast HS" and "Vintage Channel". "HS" denotes Headset.

前两个预设可以通过 Revelator io44 上的预置按钮直接进入。要循环使用它们，请重复按下麦克风/安装或耳机预置按钮。麦克风/设备的默认预置是 "广播" 和 "人声"。耳机 默认预置为 "Broadcast HS" 和 "Vintage Channel"。"HS" 表示耳机。

Power User Tip: *But wait! There's more! No really, there are a lot more. Open up Universal Control to access the other presets. You'll also find an additional 12 preset slots (6 per channel) to create your own. You can choose any two of these 12 total presets to be accessible directly from the Preset buttons on your Revelator io44. See Presets and Scenes for information on creating and storing presets.*

用户提示：这里*真的还有很多很多！打开 Universal Control来访问其他预置。你还会发现一个额外的12个预置槽（每个 Channel 里有 6个）来创建你自己的预设。你可以选择这12个预置中的任何两个，直接从你的 Revelator io44的预置按钮上访问。有关创建和存储预置的信息，请参见预置和场景。*



By default, the sound you hear in your headphones will be the sound that is recorded. If you'd like to use presets for monitoring purposes only, you can open up Universal Control and change that setting. See the section on *Mixing and Loopback Audio* to learn how.

默认情况下，你在耳机中听到的声音将是被记录的声音。如果你想把预置只用于监听，你可以打开 Universal Control，改变这个设置。请参阅 "混合和回传音频 " 一节，了解如何操作。

To bypass the presets, just press and hold the Preset button for the desired Channel. The Preset indicators on Revelator io44's screen will go dark.

要绕过预置，只需按住所需Channel的预置按钮。Revelator io44 屏幕上的预置指示灯会变暗。

Power User Tip: *Bypass the presets when you want a clean sound with no effects—great for processing your recording later, or when you want to monitor through plug-ins inside your favorite recording application.*

用户提示：*当你想要一个没有效果的干净声音时，可以绕过预设，这对以后处理你的录音很有好处，或者当你想在你最喜欢的录音应用程序中通过插件进行监听。*

For more on presets, check out the *Presets and Scenes* section.

关于预置的更多信息，请查看预置和场景部分。

3. Universal Control

The Revelator io44 is so much more than a great-sounding USB interface—and the secret to its advanced features and mixing capability is unlocked with Universal Control.

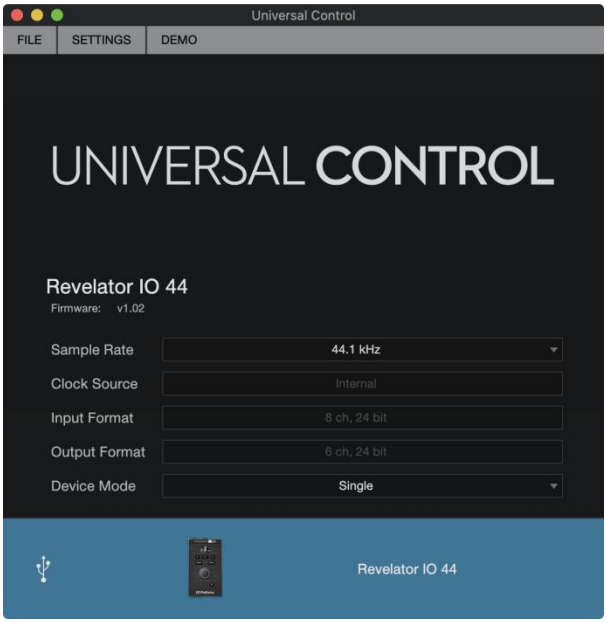
Revelator io44 不仅仅是一个好听的USB音频接口--它的强大功能和混音能力的秘密，被 Universal Control 解锁。

Before proceeding, please make sure you have followed the instructions in *the Overview section* and have downloaded and installed Universal Control.
在继续使用之前，请确认你已经按照*"概述" 部分*的指示，下载并安装了Universal Control。

3.1 The Launch Window 启动窗口

Get ready for lift off! When Universal Control is launched, you will see the Launch window. From this window, you can manage all the driver settings for your Revelator io44.

准备好开始! 当Universal Control启动时，你会看到 "启动窗口"。在这个窗口，你可以管理你的 Revelator io44 的所有驱动设置。



Sample Rate. Changes the sample rate. You can set the sample rate to 44.1, 48, 88.2, or 96 kHz. (With Multi Mode on macOS, the sample rate is limited to 44.1 and 48 kHz.) A higher sample rate will increase the fidelity of the recording, but will also increase the file size and the amount of system resources necessary to process the audio.
采样率。改变采样率。你可以将采样率设置为44.1、48、88.2或96kHz。(较高的采样率将提高录音的保真度，但也会增加文件大小和处理音频所需的系统资源。

***Power User Tip**: For most applications, leaving this setting on 48 kHz will yield the best results with the least amount of hassle.*

***用户提示:** 对于大多数应用来说，把这个设置放在 48kHz 上会产生最好的结果，而且麻烦最少。*

Block Size (Windows only). Sets the buffer size. From this menu, you can set the buffer size from 64 to 8,192 samples. Lowering the buffer size will lower latency, which is the amount of time it takes for your audio to go from Revelator io44 to the computer and back to your ears; however, this will also increase

performance demands on your computer. In general, you will want to set the buffer size as low as your system can safely support. If you begin to hear pops, clicks, or distortion in your audio path, try raising the buffer size. When adjusting the block size, the Safe mode will automatically change to provide the best performance.

块大小（仅限 Windows）。设置缓冲区的大小。从这个菜单中，你可以设置64到8192个样本的缓冲区大小。降低缓冲区大小会降低延迟，也就是你的音频从 Revelator io44 到电脑再到你的耳朵所需的时间；但是，这也会增加对电脑性能的需求。一般来说，你想把缓冲区的大小设置到你的系统可以安全支持的最低限度。如果你开始听到音频路径中的爆音、咔嗒声或失真，请尝试提高缓冲区大小。当调整块大小时，安全模式将自动改变，以提供最佳性能。

Power User Tip: *Your Revelator io44 features built-in zero-latency monitoring so you can leave your Block Size high and the performance demands on your computer low. In general, you can use the default block size, but if you're using an older computer that is having trouble keeping up, go ahead and raise this setting. Experiment to find what works best for you!*

用户提示：*你的 Revelator io44 具有内置的零延迟监听功能，所以你可以让你的块大小保持在较高的水平，而对你的计算机的性能要求较低。一般来说，你可以使用默认的区块大小，但如果你使用的是一台老式计算机，恐怕难以跟上，请继续提高这一设置。尝试一下，找到最适合你的方法。*

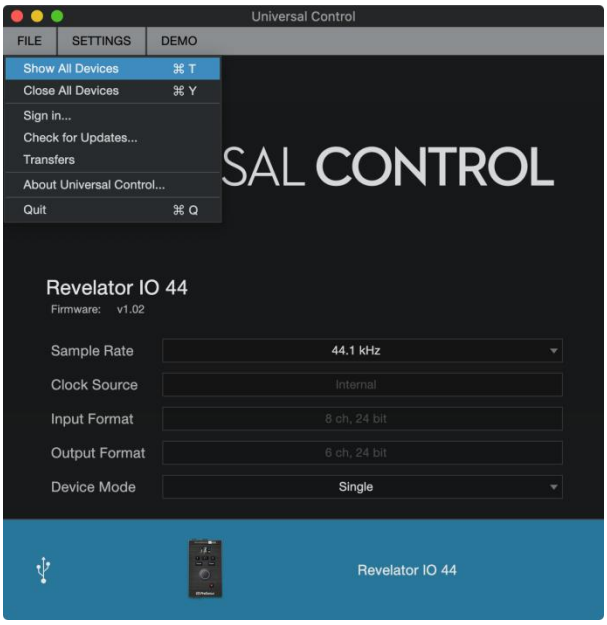
Device Mode (macOS only). By default, your Revelator io44 presents itself as a single audio interface with 8 inputs and 6 outputs. But when you're ready to use the Loopback audio streams to record or route audio to multiple applications at the same time (like the output of a Skype call to the audio input of your Facebook Live stream), that's where Multi Mode comes in. In this mode, your Revelator io44 will show up as 3 different devices on your computer: Revelator IO 44, Revelator IO 44 Stream Mix A, and Revelator IO 44 Stream Mix B. Each of these devices has 2 inputs and 2 outputs. This is great for applications like Skype that only allow you to use the first two inputs and outputs of any audio interface. PreSonus recommends that you use Multi mode for the best experience. Note that in Multi mode, sample rate options are limited to 44.1 kHz or 48 kHz. For more information on how loopback audio works and how to use it for your podcasts, streams, and more, see the *Mixing and Loopback Audio* section.

设备模式（仅限MacOS）。默认情况下，你的 Revelator io44 呈现为一个具有8个输入和6个输出的单一音频接口。但是，当你准备使用 Loopback 音频流来录制或将音频同时发送到多个应用程序（如Skype通话的输出到Facebook直播流的音频输入），这就是多模式的作用。在这种模式下，你的 Revelator io44 将在你的电脑上显示为三个不同的设备。Revelator io44, Revelator io44 Stream Mix A, 和 Revelator io44 Stream Mix B。这些设备中的每一个都有2个输入和2个输出。这对于像Skype，只允许你使用任意音频接口的前两个输入和输出的应用程序是非常好的。PreSonus 建议你使用Multi模式以获得最佳体验。请注意，在多重模式下，采样率选项被限制在 44.1kHz或48kHz。关于回环音频如何工作以及如何将其用于播客、流媒体等方面的更多信息，请参见混合和回环音频部分。

***Power User Tip** (for Windows Users): On Windows, Revelator io44 is always in Single Mode. If you are using WDM for applications like Skype, your Web Browser, etc., look for the Revelator IO 44 name in respective applications' audio setup menus. If you are using ASIO for applications like Studio One and other DAWs, look for "PreSonus DSP USB" in respective applications' audio setup menus.*

***用户提示（Windows用户）：** 在 Windows上，Revelator io44总是处于单模式。如果你在 Skype、网络浏览器等应用中使用 WDM，请在各自应用的音频设置菜单中寻找 Revelator io44的名字。如果你在 Studio One 和其他 DAW等应用程序中使用ASIO，请在各自的应用程序的音频设置菜单中寻找 "PreSonus DSP USB"。*

3.2 Launch Window Menu Items 启动窗口菜单项



- **File Menu**. Manages devices connected to Universal Control.

文件菜单。管理装置连接到Universal Control的设备。

- **Show All Devices.** Launches all control windows for all supported devices connected to your computer.

显示所有设备。启动所有支持的设备的控制窗口，这些设备连接到你的电脑上。

- **Close All Devices.** Closes all open control windows.

关闭所有设备。关闭所有打开的控制窗口。

- **Sign Out**.Signs out of your My.PreSonus user account.

退出。退出你的My.PreSonus用户帐户。

- **Check for Updates** Connects to your My.PreSonus user account to check for updates for Universal Control.

检查更新连接到你的My.PreSonus帐户，检查通用控制的更新。

- **Transfers**. Displays recent downloads from your My.PreSonus user account.

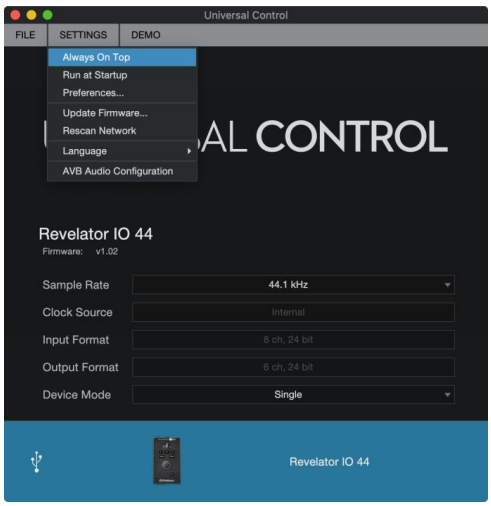
传输。显示最近从你的 My.PreSonus 帐户中的下载。

- **About Universal Control.** Displays version and build date information.

关于 Universal Control。显示版本和构建日期信息。

- **Quit**. Quits the Universal Control application and all hardware control windows.

退出。退出Universal Control应用程序和所有硬件控制窗口。



- **Settings Menu**. Provide customization options to personalize your Universal Control experience.

设置菜单。提供定制选项，以个性化你的Universal Control 体验。

- **Always on Top**. Keeps the Universal Control Launch window on top whether it is the currently active application or not.

始终在顶部。保持Universal Control启动窗口在顶部，无论它是否是当前活动的应用程序。

- **Run at Startup.** Launches Universal Control automatically when your computer boots.

在启动时运行。当你的计算机启动时，自动启动 Universal Control。

- **Preferences**. Sets language and appearance options (see below).

首选项。设置语言和外观选项（见下文）。

- **Rescan Network**. Scans your computer's connections for all supported PreSonus products.

重新扫描网络。为支持所有 PreSonus 产品扫描你计算机的连接。

- **Language**. Sets the language (English, French, German, Korean, Simplified Chinese, or Spanish).

语言。设置语言（英语、法语、德语、韩语、简体中文或西班牙语）。

Power User Tip: *The Launch Window will inform you when a new firmware update is available for your Revelator io44 —or other PreSonus hardware!*

用户提示：*当你的 Revelator io44或其他 PreSonus 硬件有新的固件更新时，启动窗口会通知你！*

3.3 Using Your Revelator io44 with Popular Applications 在热门的应用程序中，使用你的 Revelator io44

If you've never used an audio interface, your computer and every application on it are currently sourcing audio from the built-in microphone and routing audio out to the onboard sound card. To use Revelator io44 with any application that can access audio inputs or outputs or both, you must first set up your computer to use Revelator io44 as an audio interface.

如果你从来没有使用过音频接口，你的电脑和上面的每一个应用程序目前都是从内置的麦克风中获取音频，并将音频路由到板载声卡上。要将Revelator io44可以访问任何音频输入或输出或两者的应用程序一起使用，首先你必须将你的电脑设置为以 Revelator io44作为一个音频接口使用。

This section will take you through some of the most common use cases. If you are using an application not listed in this section, you'll need to check with the documentation that came with it.

本节将带你了解一些最常见的使用情况。如果你使用的应用程序没有在本节中列出，你将需要检查其附带的文档。

3.3.1 Using Revelator io44 for System Audio 将Revelator io44用于系统音频

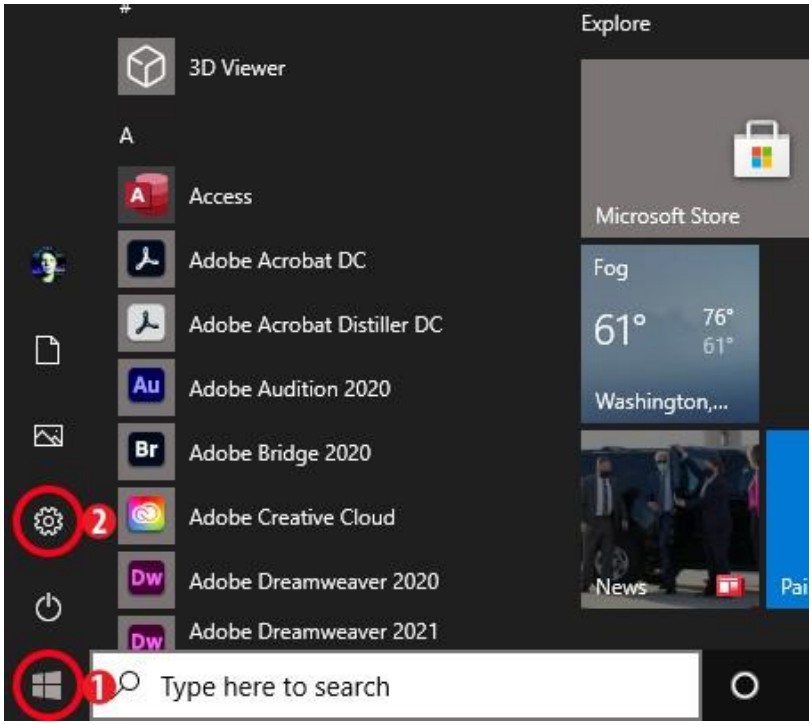
The easiest way to make your Revelator io44 seen by just about any application on your computer is to set it up as the default sound source for your computer. Not only will this prompt most video conferencing and streaming applications to look for Revelator io44, it will also set your default Internet browser to use Revelator io44 as well.

最简单的方法是将Revelator io44设置为计算机的默认声源，这样计算机上的任何应用程序都能看到它。不仅可以促使大多数视频会议和流媒体应用程序寻找Revelator io44，还可以将你的默认互联网浏览器设置为使用Revelator io44。

Power User Tip: *Setting your as the default sound card for your system will also route music streaming applications like Spotify and Apple Music to the headphone output on your new interface. If you do not want to use your interface this way, it is best to configure as the audio I/O only for the applications for which you want to use it.*

用户提示：*将你的接口设置为系统的默认声卡，也会将 Spotify和Apple Music等音乐流媒体应用路由到你的新接口的耳机输出上。如果你不想这样使用你的接口，最好为你想使用的应用程序，配置为音频输入/输出。*

3.3.2 Windows

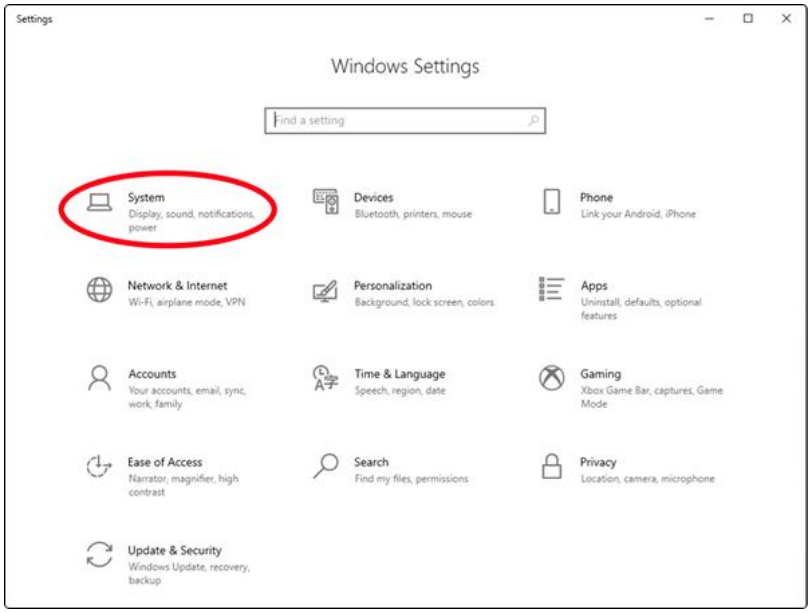


1. Click on start icon in lower left corner.

点击左下角“开始”标识

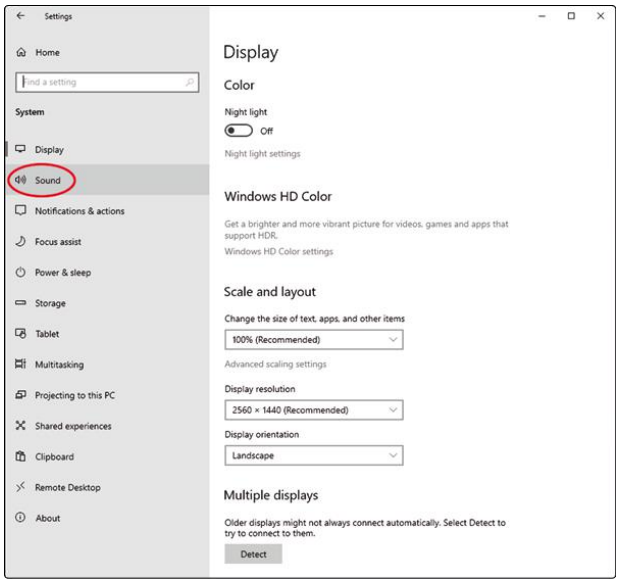
2. Click on Settings gear icon.

点击“设置”齿轮图标



3. Click on System.

单击“System”

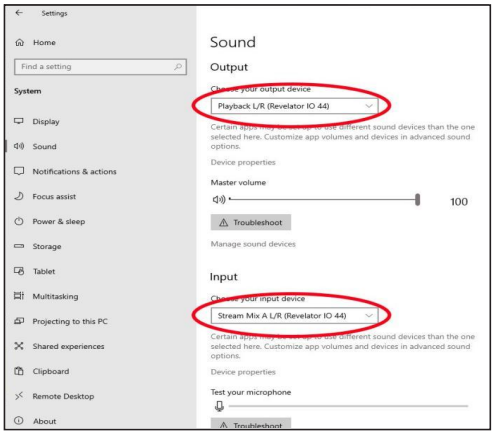


4. Click on Sound.

点击“Sound”

5. Click on “Choose your Output Device” and choose Playback L/R(Revelator IO 44).

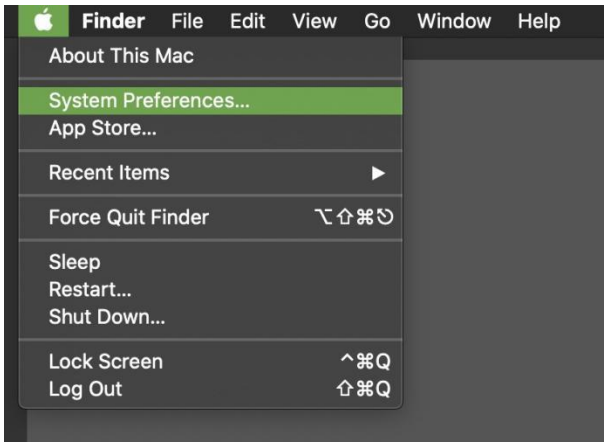
点击 "选择你的输出设备"，选择Playback L/R(Revelator io44)。



6. Click on “Choose your input device” and choose Stream Mix A L/R (Revelator IO 44). Your Revelator io44 is ready to use!

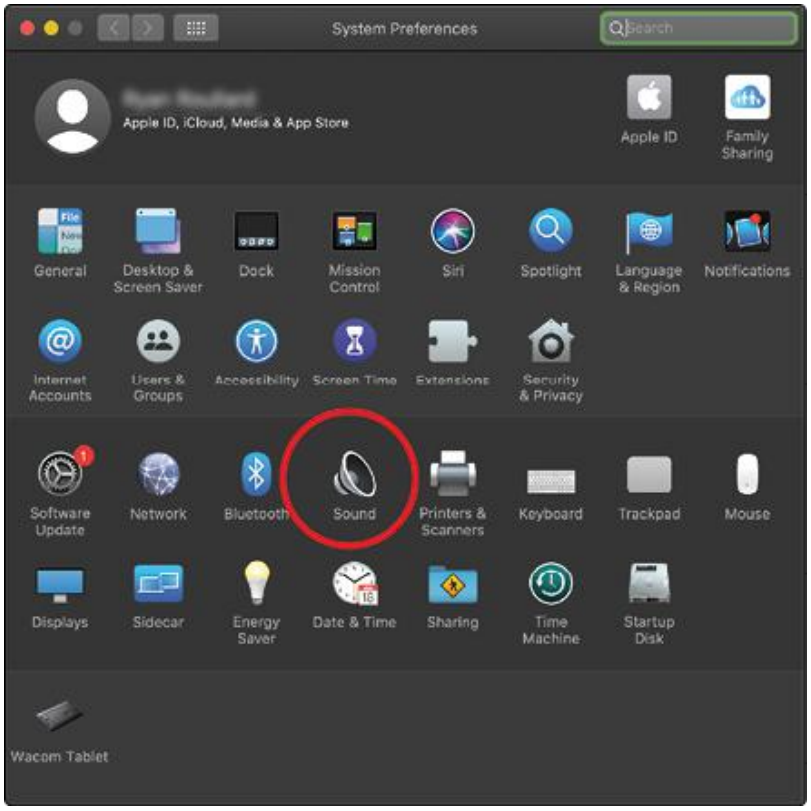
点击 "选择你的输入设备"，选择Stream Mix A L/R (Revelator io44)。你的Revelator io44已经可以使用了!

3.3.3 macOS

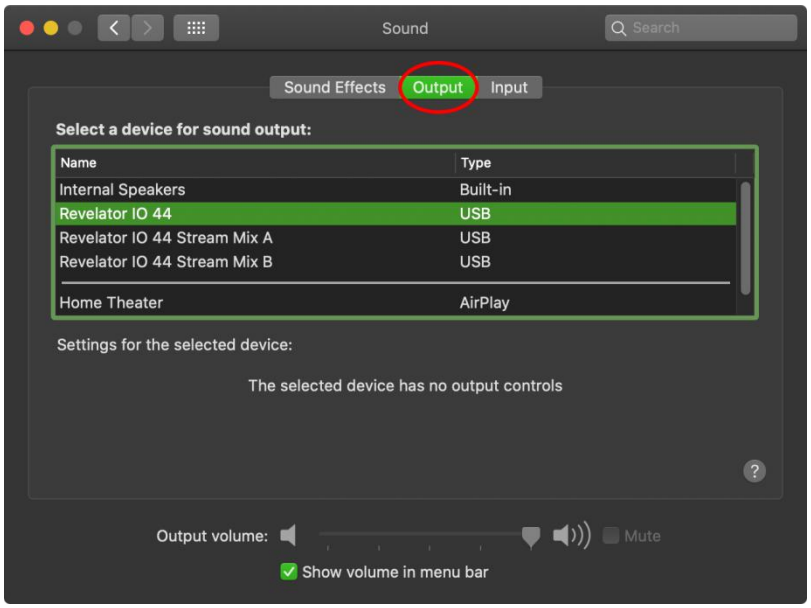


1. From the Apple Menu, go to System Preferences.

从苹果菜单中，进入系统“偏好设置”。

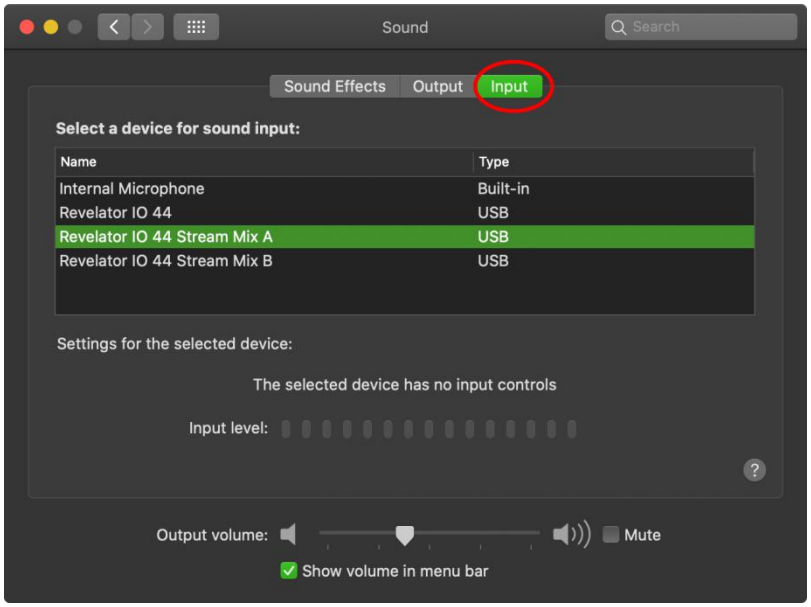


2. Click on Sound. 点击“Sound 声音”



3. Click on the Outputs tab and select Revelator IO44 from the device list. This will route all audio from your computer to the headphone output on your Revelator io44.

点击输出标签，从设备列表中选择 Revelator io44。这将把所有的音频从你的电脑路由到你的 Revelator io44的耳机输出。



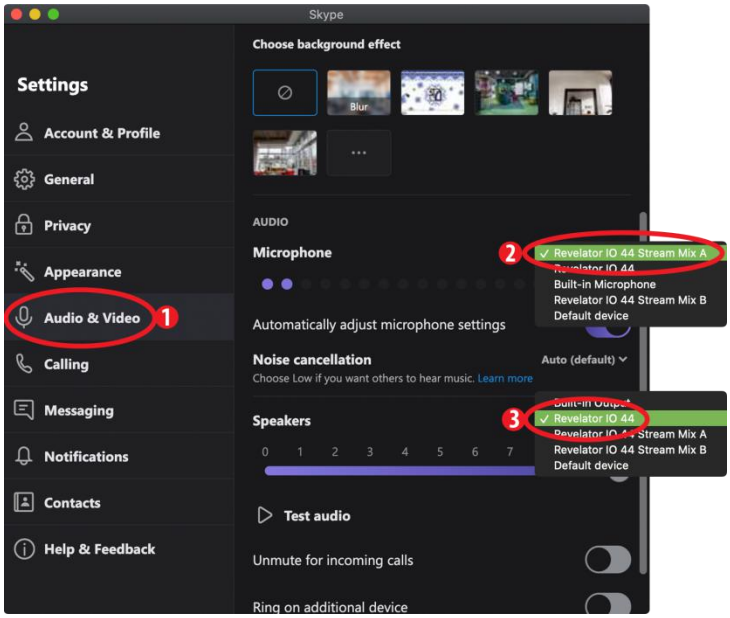
4. Click on the Inputs tab and select Revelator IO 44 Stream Mix A from the device list. This will set your Revelator io44 interface as the input source for your computer.

Your Revelator io44 is ready to use!

点击输入标签，从设备列表中选择 Revelator io44 Stream Mix A。这将把你的 Revelator io44 接口设置为电脑的输入源。

你的 Revelator io44 已经可以使用了!

3.3.4 Using Revelator io44 for Skype 在Skype上使用 Revelator io44



1. From the Skype menu, go to “Audio & Video Settings.”

从Skype菜单中，进入 "音频和视频设置"。

2. Under Microphones, select “Revelator IO 44 Stream Mix A.” This will route the audio from your Revelator io44 to your Skype call. .

在麦克风下，选择 "Revelator io44 Stream Mix A"。这将把你的Revelator io44的音频路由到你的Skype通话中。

3. Under Speakers, select “Revelator IO 44.” This will route the audio from your Skype call to the headphone output on your Revelator io44.

在扬声器下，选择 "Revelator io44"。这将把你的Skype通话的音频路由到Revelator io44的耳机输出。

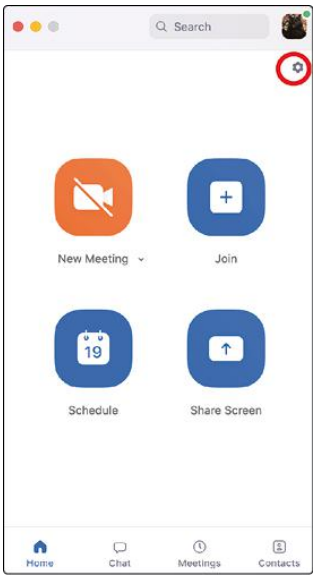
Power User Tip: If you would like to record your Skype call, select Revelator IO 44 Stream Mix A or Revelator IO 44 Stream Mix B from the Speaker menu. See *Mixing and Loopback Audio* for more information on using loopback audio.

用户提示：如果你想录制你的Skype 通话，从扬声器菜单中选择Revelator io44 Stream Mix A 或 Revelator io44 Stream Mix B。有关使用回环音频的更多信息，请参见混合和回环音频。

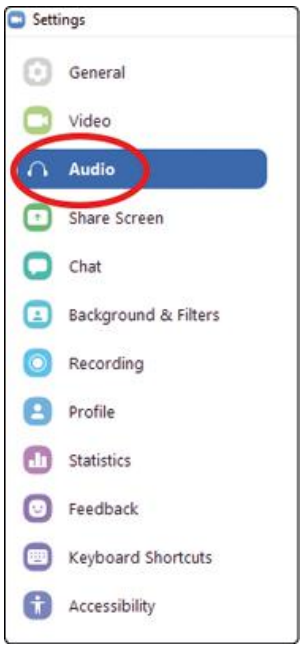
Using Revelator io44 for Zoom 使用 Revelator io44 进行缩放操作

1. Launch Zoom, and click the cog wheel icon to enter Zoom Preferences.

启动 Zoom，并点击右上方“齿轮”标识可进入 Zoom 预设。



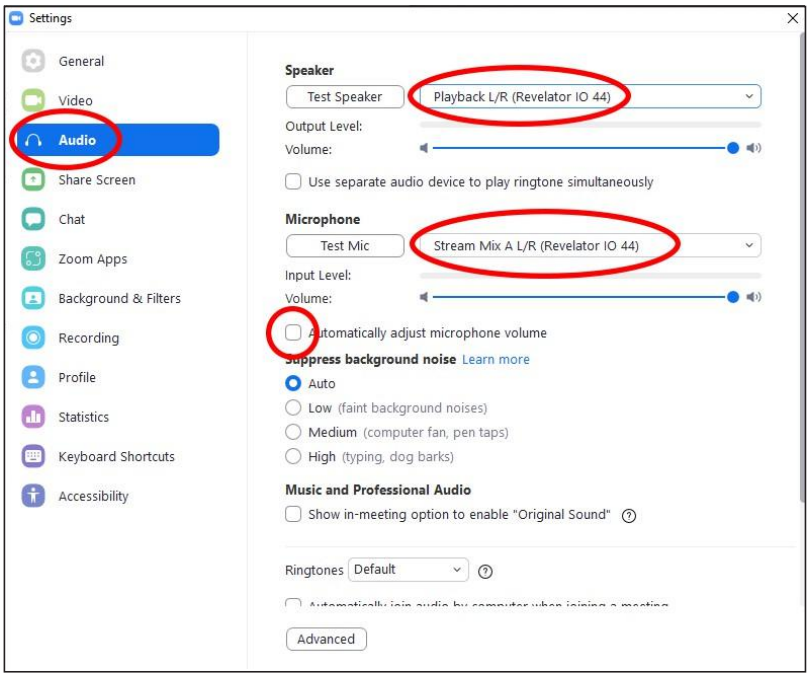
2. Click the “Audio”tab.



点击“Audio”标签

Windows:

- Set Speaker to Playback L/R (Revelator IO 44). 设置扬声器为 L/R 播放 (Revelator io44)
- Set Microphone Stream Mix A L/R (Revelator IO 44). 设置麦克风为Stream Mix A L/R (Revelator IO 44)。
- Uncheck the box marked “Automatically adjust microphone volume” 取消 "自动调整麦克风音量 " 的方框勾选。

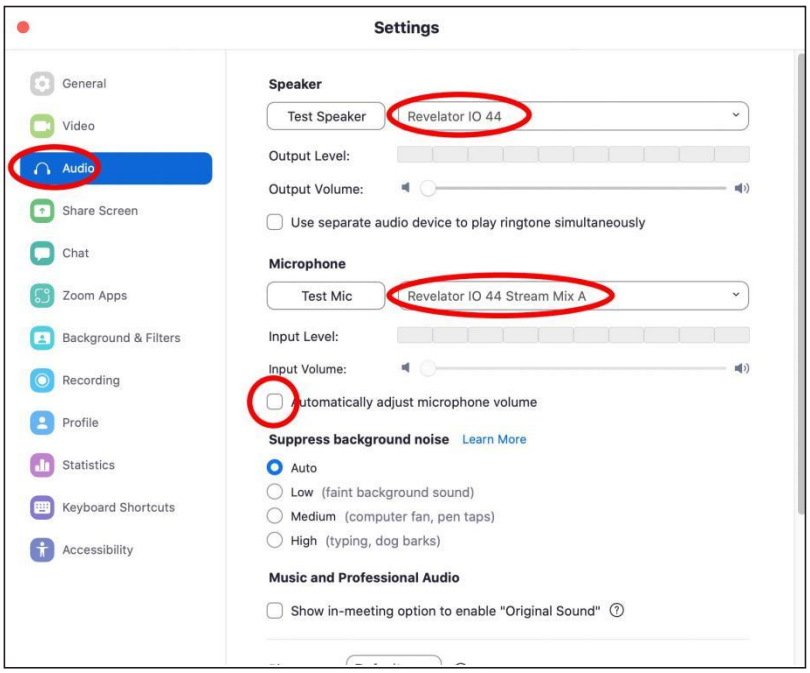


***Power User Tip**: When this option is selected, the sliders in Zoom will not have any effect on the Speaker output or Microphone Input gain, as these are controlled by the Revelator io44 itself—either by the on-board controls and/or through the Universal Control software.*

***用户提示：**当选择该选项时，Zoom中的滑块不会对扬声器输出或麦克风输入增益产生任何影响，因为这些都是由Revelator io44本身控制的--无论是通过板载控制器还是通过 Universal Control软件。*

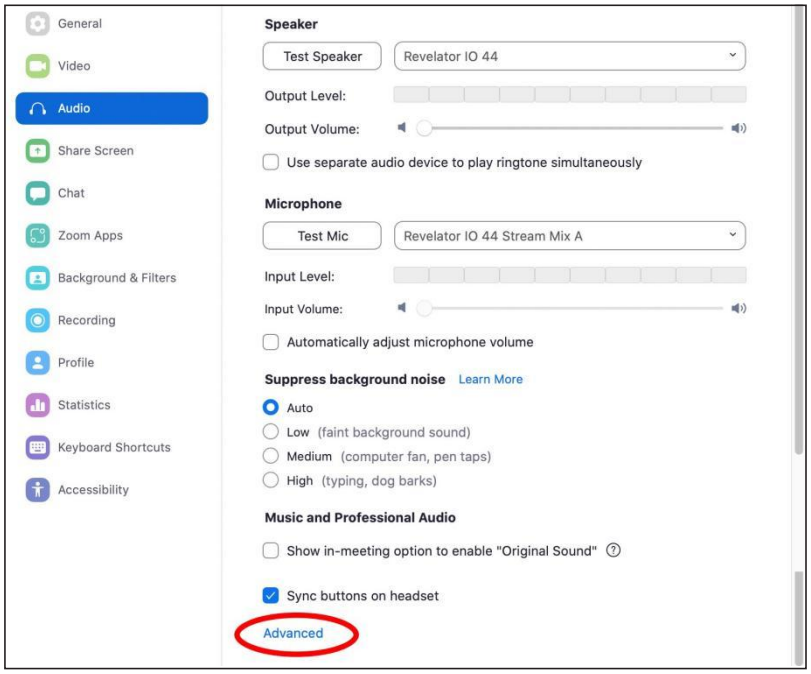
macOS:

- Set Speaker to Revelator IO 44 设置扬声器为Revelator io44
- Set Microphone to Revelator IO 44 Stream Mix A 设置麦克风为Revelator io44 Stream Mix A
- Uncheck the box marked “Automatically adjust microphone volume” 取消勾选 "自动调整麦克风音量 " 的方框



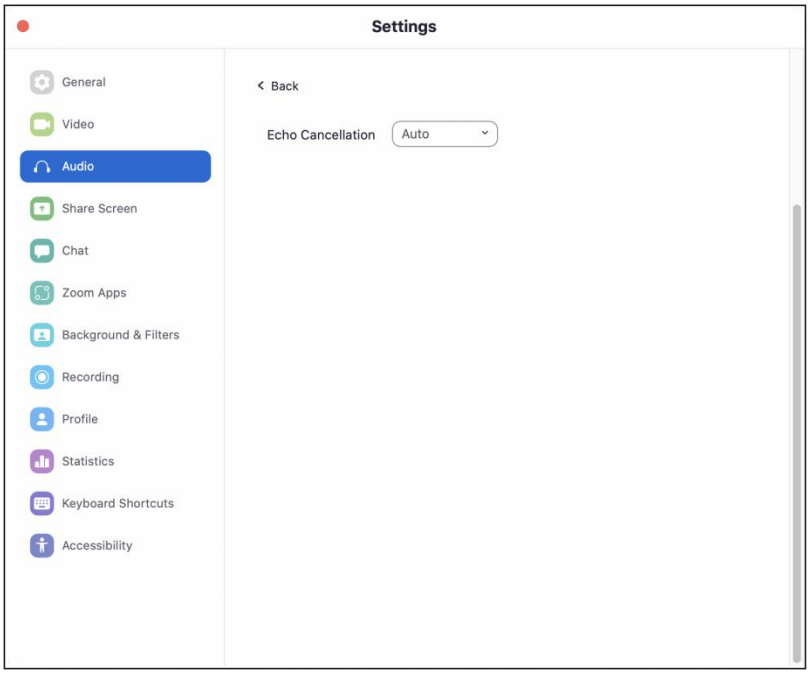
Power User Tip: *When this option is selected, the sliders in Zoom will not have any effect on the Speaker output or Microphone Input gain, as these are controlled by the Revelator io44 itself—either by the on-board controls and/or through the Universal Control software. Mac users will see that the sliders do not move and will snap back to the zero position indicating that these controls in Zoom are disabled.*

用户提示：*当选择这个选项时，Zoom中的滑块不会对扬声器输出或麦克风输入增益产生任何影响，因为这些都是由 Revelator io44本身控制的--无论是通过板载控制器还是通过 Universal Control 软件。Mac用户会看到滑块不会移动，并且会弹回到零的位置，这表明 Zoom中的这些控制被禁用。*



Scroll down and click on Advanced.

向下滚动并点击 "Advanced"。

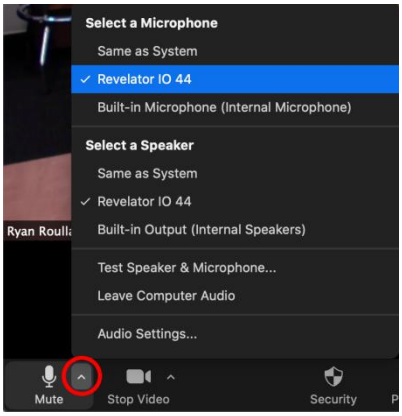


In Zoom's Advanced Audio settings menu, please ensure Echo Cancellation is set to Auto.

If you need to switch your audio device to Revelator io44 while in a meeting, select the arrow next to the Mute Button to select your audio device list.

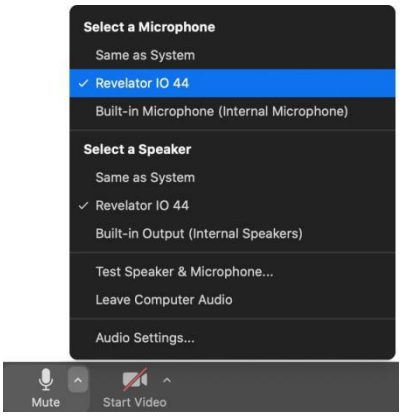
在Zoom的“Advanced Audio”设置菜单中，请确保“Echo Cancellation”被设置为“Auto自动”。

如果你在会议中，需要将你的音频设备切换到Revelator io44，请选择静音按钮旁边的箭头，选择你的音频设备列表。



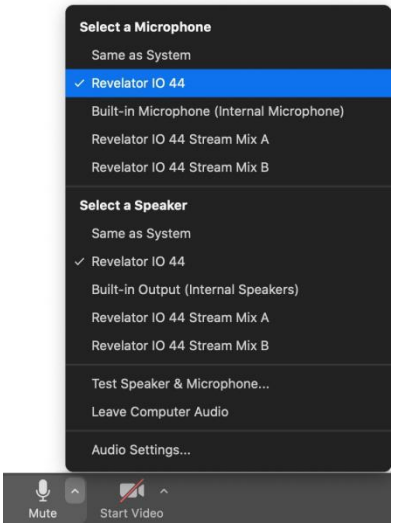
macOS users running Revelator io44 in Single Mode will see Revelator IO 44 appear in Zoom's Microphone and Speaker selections as follows:

在单一模式下运行Revelator io44的macOS用户，将看到Revelator io44出现在Zoom的微型麦克风和扬声器选择中，如下所示。

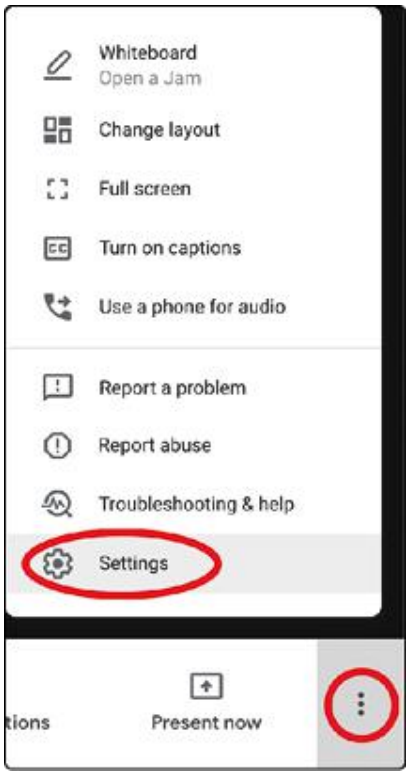


All Windows users and Mac users running Revelator io44 in Multi Mode will see Revelator IO 44 appear in a list similar to this:

所有在多模式下运行Revelator io44 的 Windows 用户和 Mac 用户，将看到Revelator io44的列表中出现类似于此的情况：



3.3.5 Using Revelator io44 for Google Meet 使用 Revelator io44为 Google Meet服务



Open Google Meet, and click on the vertical dots in the lower right corner of the Google Meet window. In the pop-up menu, choose “Settings” by the cog icon.

打开Google Meet，并点击Google Meet窗口右下角的垂直圆点。在弹出的菜单中，选择齿轮图标旁的 "设置"。

Google Meet’s Audio menu will be highlighted by default. If Revelator io44 is not already selected, click the down arrow under Microphone and Speakers and click on “Revelator IO 44.”

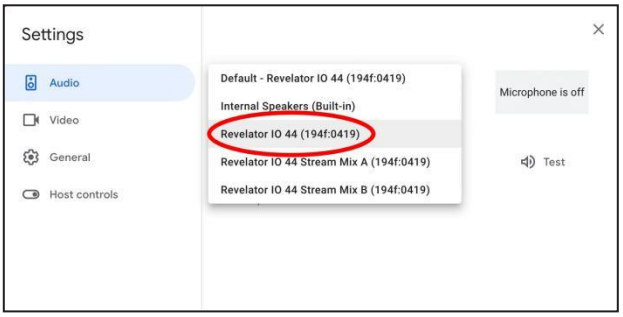
Google Meet 的音频菜单将被默认。如果还没有选择Revelator io44，点击麦克风和扬声器下的向下箭头，然后点击 "Revelator io44"。

Mac Users running Revelator io44 in Single Mode will see one instance of Revelator IO 44 shown as follows:

在单一模式下运行Revelator io44 的Mac用户将看到Revelator io44的一个实例，显示如下。

Windows Users and Mac Users running Revelator io44 in Multi Mode will see multiple instances of Revelator IO 44. This is normal. Click on “Revelator IO 44.”

在多模式运行下的 Revelator io44 的Windows用户和Mac用户，将看到Revelator io44的多个实例。这是正常的。点击 "Revelator io44"。



***Power User Tip**: Google Meet will switch audio devices automatically to the last device connected to your system. There is a chance that the next time you open Google Meet that it may default to a different audio device without notifying you. Be sure to check your audio settings to make sure Revelator io44 is selected. PreSonus has no control over how this device selection works.*

***用户提示：**Google Meet会自动将音频设备切换到最后一个连接到你系统的设备。有可能在你下次打开Google Meet时，它可能会默认为不同的音频设备而不会通知你。请务必检查你的音频设置，以确保 Revelator io44被选中。PreSonus无法控制这种设备的选择方式。*

3.3.6 Using Revelator io44 for OBS 为 OBS使用 Revelator io44

1. Click on Settings under “Controls” . 点击 "控制 "下的设置。

2. Click “Audio.” 点击 "音频"。

3. Under Mic/Auxiliary Audio, select Revelator IO44 Stream Mix A. 在麦克风/辅助音频下，选择 Revelator IO44 Stream Mix A。
4. Under Advanced, set the Monitoring Device to Revelator IO44. This will route the output audio from OBS to the playback channel of the Revelator io44. 在 "Advanced" 下，将监听设备设置为Revelator io44。这将把OBS的输出音频路由到Revelator io44的播放通道。

5. Click Apply. 点击“Apply”

6. Click OK. 点击“OK”

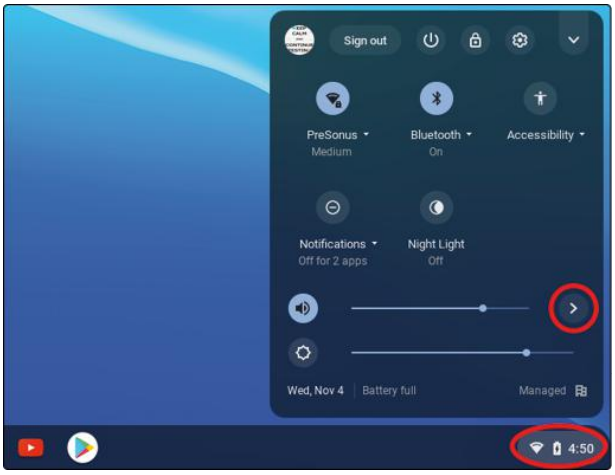
Your Revelator io44 is now set-up for OBS! 你的 Revelator io44 现在已经为OBS设置好了!

3.3.7 Using Revelator io44 on Chromebook 在 Chromebook上使用 Revelator io44

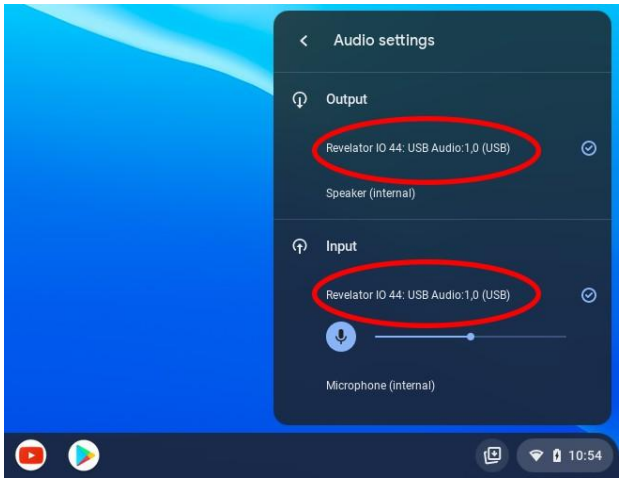
While Chromebooks are compatible with Revelator io44, there is no way to run Universal Control for advanced editing of the settings or effects presets beyond what is directly accessible on the interface itself. That said, Audio setup in Google Chromebooks is very simple.

虽然Chromebooks 与Revelator io44兼容，但除了界面上可直接访问的内容外，没有办法运行Universal Control来对设置或效果预置进行编辑。也就是说，谷歌Chromebook上的音频设置非常简单。

After connecting the Revelator io44 to your Chromebook, select the taskbar menu in the lower right corner (by the clock) to bring up the system menu.
将Revelator io44 连接到你的Chromebook上后，选择右下角的任务栏菜单（在时钟旁边），就可以将Revelator io44带到你的Chromebook上。选择右下角的任务栏菜单（在时钟旁边）来调出系统菜单。



Select the greater than symbol (>) to the right of the volume slider to enter Audio Settings and select your audio device. The green circle with the check mark indicates your preferred device. If Revelator io44 is not already selected, select it here for both Output and Input.
选择音量滑块右边的大于符号（>），进入音频设置，选择你的音频设备。带有复选标记的绿色圆圈表示你的首选设备。如果还没有选择Revelator io44，请在这里选择它的输出和输入。



3.3.8 Using Revelator io44 with Zoom on Chromebook 在 Chromebook上使用带有 Zoom的 Revelator io44

You can use Revelator io44 on a Chromebook to conduct Zoom meetings.

Chrome does not install an application for Zoom like it does on macOS or Windows. Instead, on Chrome-book, Zoom installs a widget for the Chrome browser, through which you can select your audio device and toggle some advanced audio settings.

1. Launch Zoom and start a Zoom meeting.

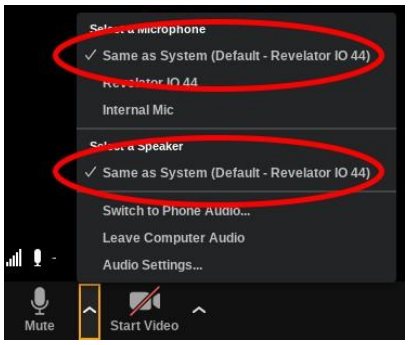
2. Once you are in a Zoom meeting, you can change your audio device by selecting the up arrow next to the microphone icon in the lower left corner of the screen.

你可以在 Chromebook 上使用Revelator io44 来进行 Zoom 会议。

Chrome 并不像在 MacOS 或 Windows 上那样为Zoom安装一个应用程序。相反，在Chrome-book上，Zoom为Chrome浏览器安装了一个小部件，通过它，你可以选择你的音频设备并切换一些音频设置。

1. 启动Zoom并开始一个Zoom会议。

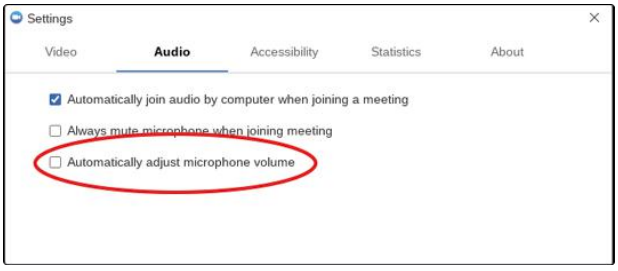
2. 一旦你进入Zoom会议，可以通过选择屏幕左下角的麦克风图标旁边的向上箭头来改变你的音频设备。



3. Select Revelator io44 as your Microphone and Speaker. 选择Revelator io44作为你的麦克风和扬声器。

4. Click on Audio Settings to access the Advanced options menu. 点击音频设置，进入优先选项菜单。

5. Ensure that the box labeled “Automatically adjust microphone volume” is not checked. 确保标有 "自动调整麦克风音量 " 的方框没有被选中。



You can adjust both Input gain and speaker playback volume on the Revelator io44 manually.

There are no other advanced menu options as found in the Mac / Windows versions of Zoom.

你可以手动调整Revelator io44的输入增益和扬声器播放音量。在Mac/Windows版本的Zoom中，

没有其他优先菜单选项。

3.3.9 Using Revelator io44 with Google Meet on Chromebook 在 Chromebook 上使用 Revelator io44和 Google Meet

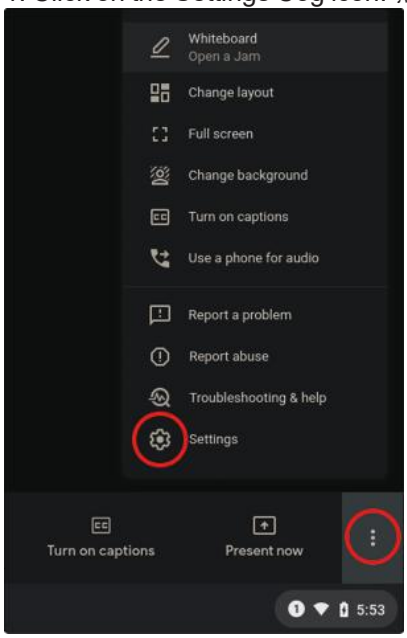
Revelator io44 will work with Google Chromebook for Google Meet.

Revelator io44可以与谷歌Chromebook的Google Meet一起使用。

Open Google Meet and start a meeting. 打开Google Meet并开始一个会议。

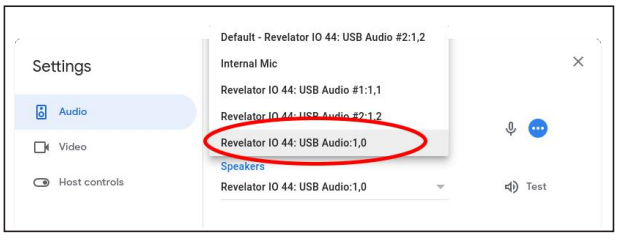
Once you're in a Google Meeting, select the vertical dots in the lower right corner of your Google Meet window to open the Options menu. 一旦你进入谷歌会议，选择谷歌会议窗口右下角的垂直圆点，打开选项菜单。

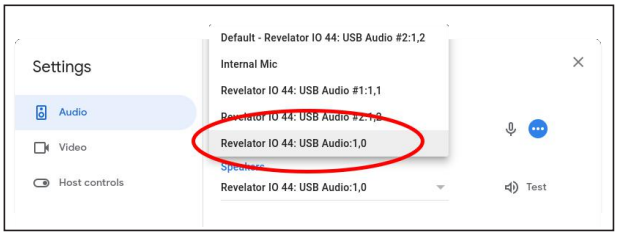
1. Click on the Settings Cog icon. 点击设置“齿轮”图标。



2. Google Meet's Audio menu will be highlighted by default. If Revelator io44 is not already selected, click the down arrow under Microphone and Speakers and click on "Revelator IO 44: USB Audio1,0".

Google Meet 的音频菜单将被默认。如果还没有选择Revelator io44，请点击麦克风和扬声器下面的向下箭头，然后点击 "Revelator IO 44: USB Audio1,0"





Power User Tip: *Google Meet will automatically switch to the last audio device connected to your system. There is a chance that the next time you open Google Meet that it may choose a different audio device without notifying you. Be sure to check your audio settings to make sure Revelator io44 is selected. PreSonus has no control over how this device selection works.*

用户提示：*Google Meet 会自动切换到最后一个连接到你系统的音频设备。有可能在你下次打开Google Meet时，它可能会选择不同的音频设备而不通知你。请务必检查你的音频设置，确保Revelator io44被选中。PreSonus无法控制这种设备的选择方式。*

3.4 Using Revelator io44 with iOS/iPadOS devices 在 iOS/iPadOS设备上使用 Revelator io44

Revelator io44 works when connected directly to iOS/iPadOS devices like iPads, though you should be aware of the following:

Revelator io44在直接连接到iPad 等 iOS/iPadOS 设备时可以工作，不过你应该注意以下几点：

When connected to iPad Pro tablets with USB-C ports, Revelator io44 will function as intended without additional power or direct connect. However, there's no way to charge the iPad while Revelator io44 is connected.

当连接到带有USB-C端口的iPad Pro平板电脑时，Revelator io44 将按原定计划运行，无需额外的电源或直接连接。然而，在Revelator io44连接时，没有办法为iPad 充电。

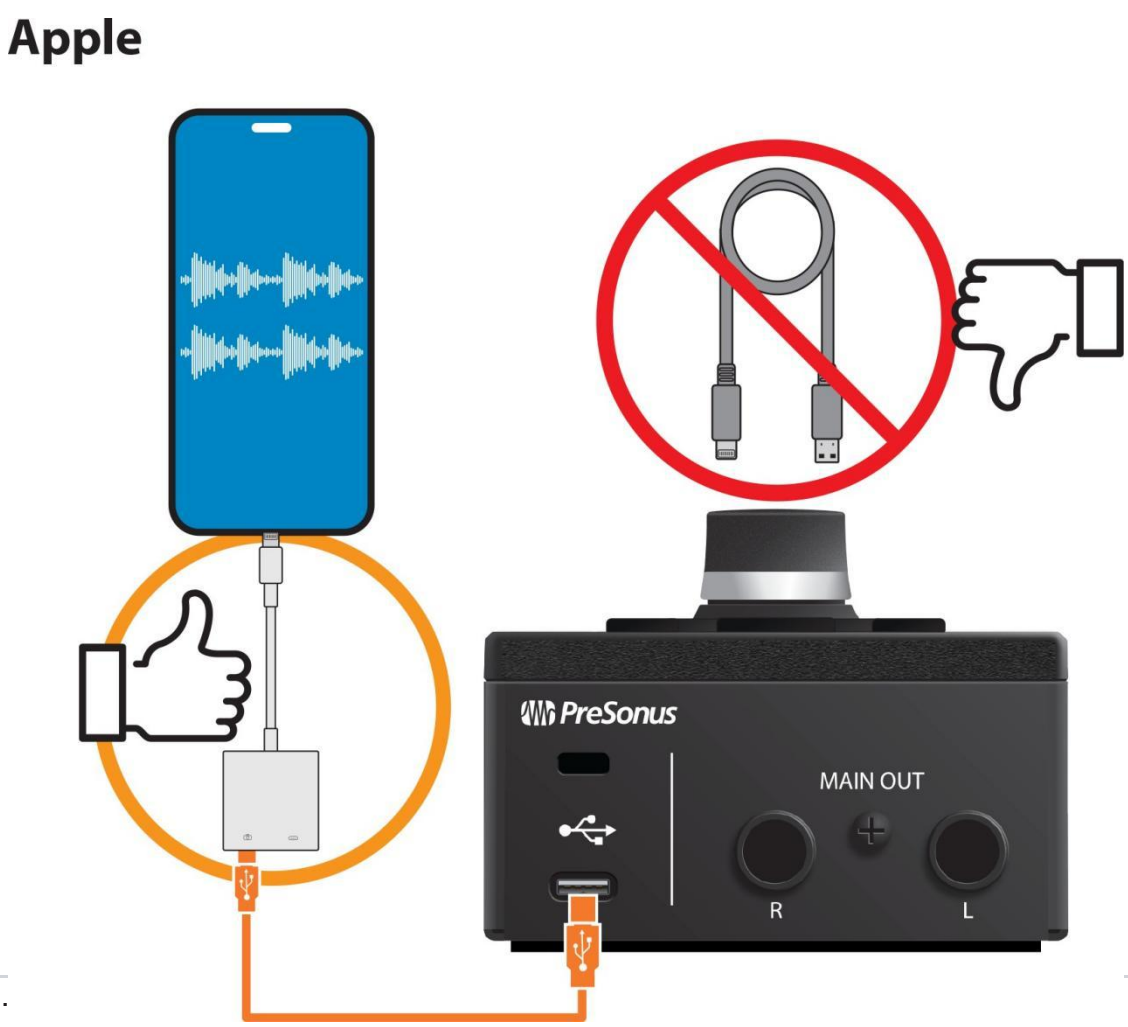
All other iOS devices with Lightning connectors will require the use of the Apple Lightning to USB 3 Cam- era Adapter which features a pass-through for a power cable.

所有其他带有Lightning接口的iOS设备，都需要使用苹果Lightning 转USB 3 Cam- era适配器，该适配器具有电源线的直通功能。

Revelator io44 will not work when connected directly to an iPhone, as it requires additional power.
Revelator io44 直接连接到iPhone上时将无法工作，因为它需要额外的电源。

Note: You must use the Apple Lightning to USB 3 Camera Adapter, not the Lightning to USB cable.

注意：你必须使用苹果Lightning 转USB 3 相机适配器，而不是Lightning 转USB 电缆。



3.5 Using Revelator io44 with Android devices 在安卓设备上使用 Revelator io44

Revelator io44 works great when connected directly to Android devices. If you find your Android device doesn't provide enough power, an externally-powered USB hub can be connected to your Android device to provide additional power to your Revelator io44.

Note that most mobile streaming and social media apps will only receive audio from Input 1 and Headset In, and not the Line Input, but mobile DAWS and other apps that allow you to choose your inputs will let you select Line In.

Revelator io44 直接与安卓设备连接时效果很好。如果你发现你的安卓设备不能提供足够的电力，可以将一个外部供电的USB 集线器连接到你的安卓设备，为你的Revelator io44 提供额外的电力。

请注意，大多数移动流媒体和社交媒体应用程序将只接收来自输入1和耳机输入的音频，而不是线路输入，但移动DAWS和其他允许你选择输入的应用程序会让你选择线路输入。

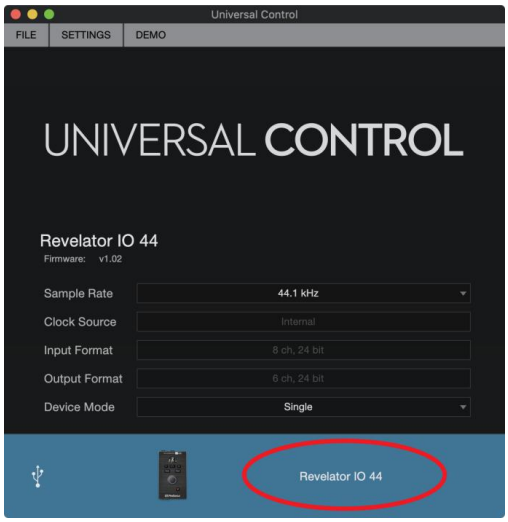
4. Presets and Scenes 预置与场景

4.1 Preset Management 预置管理

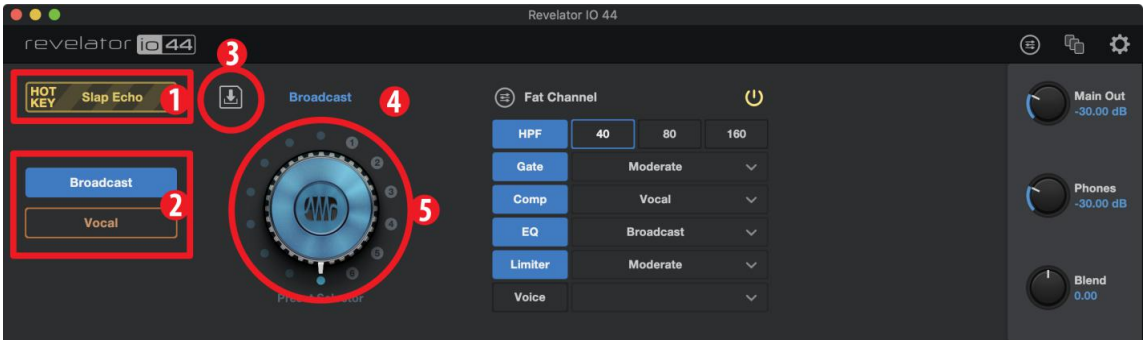
Your Revelator io44's Mic/Inst and Headset channel can each access 2 presets using the Preset buttons... but there are 6 more presets created by PreSonus for you to enjoy—plus another 6 preset slots for you to create custom presets. These presets are all available from Universal Control.

To view the advanced features, click on Revelator io44 from the Device List in the Universal Control launch window.

你的Revelator io44的麦克风/录音和耳机Channel 可以使用预设按钮分别访问2个预置.....这里还有6个由PreSonus创建的预置供你享用，另外还有6个预置槽供你创建自定义预置。这些预置都可以从Universal Control 获得。
要查看优先功能，请在Universal Control启动窗口的设备列表中点击Revelator io44。



In the upper left corner, you will see the Preset Manager. Let's take a quick tour:
在左下角，你会看到预置管理器。我们可以快速浏览一下：



- **Hot Key.** This preset slot lets you store a setting to use on the fly. It overrides the current presets and must be toggled off before you can use the other presets again. This is great when you want to throw a quick effect on your voice. Note that the Hot Key works only with the Mic/Inst In channel.
  Hot Key。这个预置槽可以让你储存一个设置，以便即时使用。它覆盖了当前的预置，当你再次使用其他预置之前，必须切换到关闭。当你想在你的声音上，添加一个快速的效果时，这很重要。请注意，Hot Key 只适用于麦克风/设备输入通道。

- **Preset Slots 1-2.** This corresponds to the two Preset slots on your currently selected channel. These are the presets that are available from the front panel Preset buttons. You can choose to keep the factory presets, or change them as you see fit.

  预置槽 1-2。这与你当前选择的Channel上的两个预置槽相对应。这些是可以从前面板的预置按钮中获得的预置。你可以选择保持出厂时预置，或按你认为合适的方式来改变它们。

- **Save Preset.** Click on this button to save a preset to one of the 6 user slots. Rename it, if you like.

  保存预置。点击这个按钮来保存一个预置到6个用户插槽中的一个。如果你愿意的话，还可以给它重命名。

- **Preset List**. Click on the Preset name to view the Preset drop-down menu. This will let you view every Preset available and quickly select the one you want.

  预置列表。点击预置名称，查看预置下拉菜单。这将让你查看每一个可用的预置，并迅速选择你想要的预置。

- **Preset Selection Knob.** Use your mouse's scroll wheel to turn this knob and audition presets in real-time.

  预置选择旋钮。使用你的鼠标滚轮来转动这个旋钮，实时试听预置。

4.1.1 Factory Presets 出厂时预置

Revelator io44 ships with several presets for both Channel 1 and the Headset Channel. Pick the Presets that work best with your use case and you'll sound great with just a couple clicks!

Revelator io44 为Channel 1和耳机Channel 提供了几种预置。挑选最适合你的预置，只需点击几下，你就会有很不错的声音!

Choose between the following Presets for Channel 1: 在以下Channel 1的预置中进行选择：

- Broadcast 广播
- Vocal 声乐
- Acoustic Guitar 原声吉他
- Electric Guitar 电吉他
- Vintage Channel Vintage 频道
- Slap Echo 回响
- Detuned Vocal 失谐的声音
- Robot 自动操作装置

Choose between the following Presets for the Headset Channel: 为耳机Channel 选择以下预置：

- Broadcast HS 广播耳机
- Big Vocal 大声部
- Bright Vocal 嘹亮的声音
- Smooth Vocal 圆润的声音
- Forward Vocal Forward 声音
- Vocal HS 耳机声音
- Vintage Channel Vintage 频道

- Telephone 电话

4.1.2 Changing Preset Button Slots 改变预置按钮槽

To change one of the presets available from Revelator io44:

改变Revelator io44提供的预置之一：

- Click to select the slot you would like to change. 点击选择你想改变的插槽。
- Select the desired preset using either the Preset selection knob or selecting it from the dropdown menu. 使用预置选择旋钮或从下拉菜单中选择所需的预置 。

Let’s try it!

一起试试吧！

In our example, we’re going to change the “blue” preset from “Broadcast” to “Vintage Channel.”

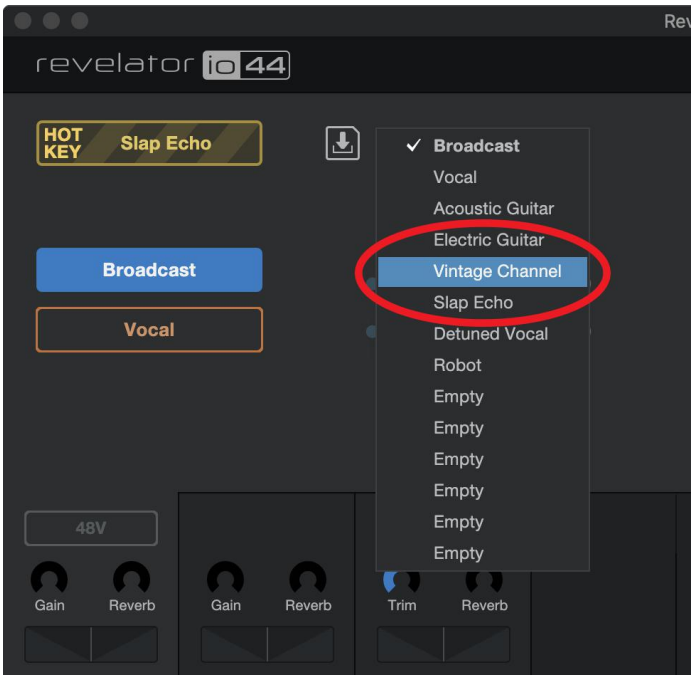
在我们的例子中，我们要把 "blue" 预置从 "Broadcast 广播" 改为 "Vintage Channel"。

From the Preset Slot list, select “Broadcast.”

从预置插槽列表中，选择 "Broadcast 广播"。

Click on the drop-down menu and select "Vintage Channel" from the list.

点击下拉菜单，从列表中选择 "Vintage Channel"。



“Vintage Channel” is now the preset stored in this slot.You're done!

"Vintage Channel " 现在是存储在这个槽中的预置。你已经完成了！

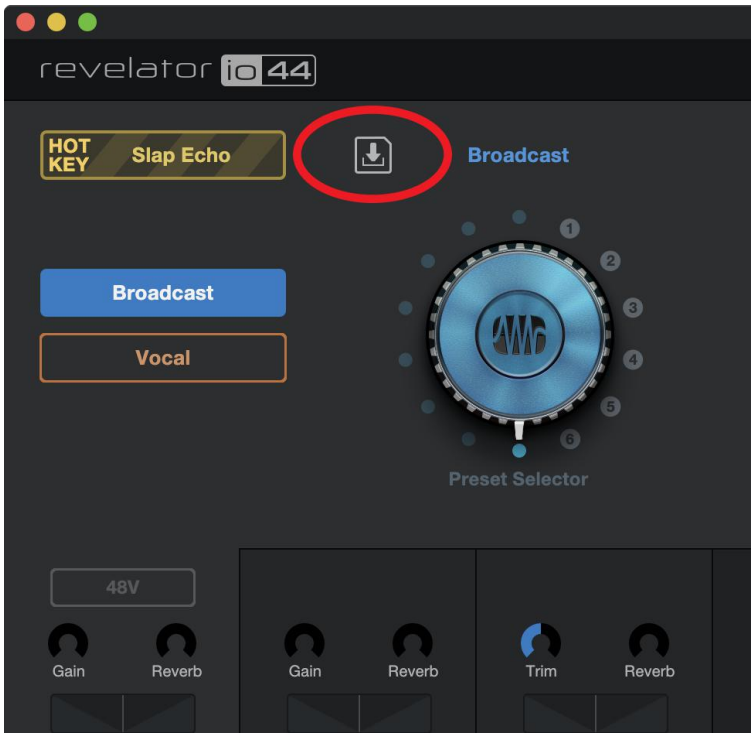
4.1.3 Storing New Presets 储存新的预置

We’re going to get into all the Fat Channel settings later (in the *Fat Channel and Voice Effects section*), but while we’re here, let’s talk about storing new Presets.

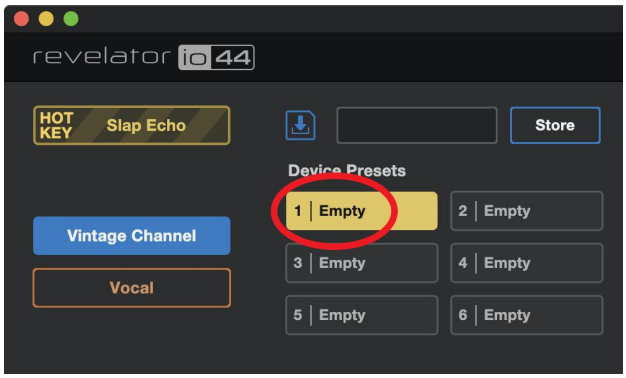
To store a new preset to one of the 6 User Slots:

我们之后打算讨论 Fat Channel 的所有设置（在发声通道和声音效果部分），但在这里，让我们先谈谈存储新的预置。

储存一个新的预置到6个用户槽中的其中一个：

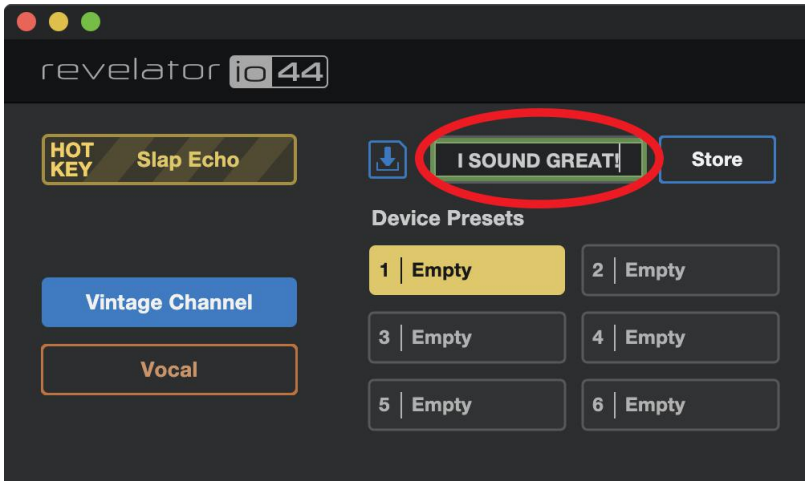


Click on the Save Preset button. 点击保存预置按钮



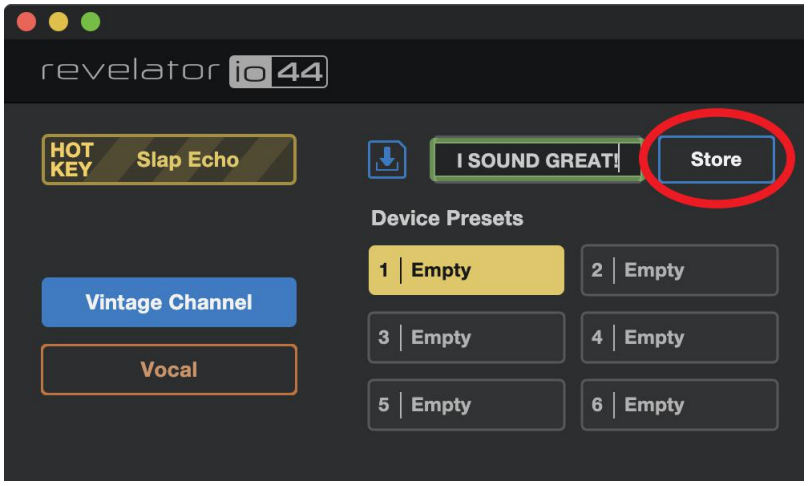
Select the user slot to which you want to store it.

选择你要存储的用户插槽。



Enter the name you'd like to use.

输入你想使用的名称。



Click Store. You're done!

点击储存。这样就做好了！

4.1.4 Exporting/Importing Presets 导出/导入预置

Revelator io44 can save two presets per channel on the hardware unit itself. This is useful for times when you want to use Revelator io44 with a device that doesn't run Universal Control—for example, a Chrome- book, iPad, or a camera with an audio input.

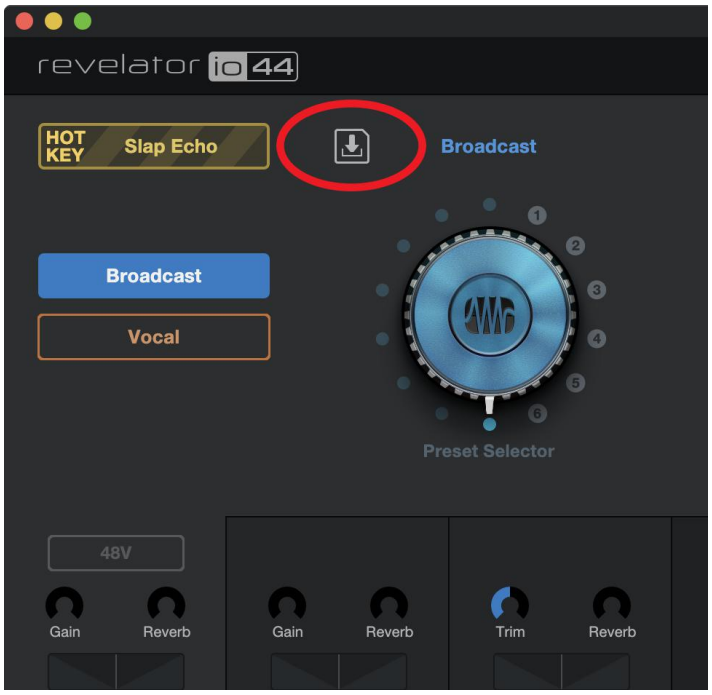
Revelator io44可以在硬件设备上为每个Channel 保存两个预置。当你想一起使用 Revelator io44 与不运行Universal Control 时，这很重要 -- 例如，Chrome-book、iPad 或带有音频输入的相机。

You can Import and Export Presets from Universal Control to Revelator io44 and vice-versa. This way, you can build a wide inventory of presets to use for many different applications—and always make sure you have them ready for whatever task comes your way.

你可以从Universal Control 向 Revelator io44 导入和导出预置，反之亦然。这样，你就可以建立一个广泛的预置清单，用于许多不同的应用程序 -- 并始终确保他们时刻准备，可以应对任何任务的到来。

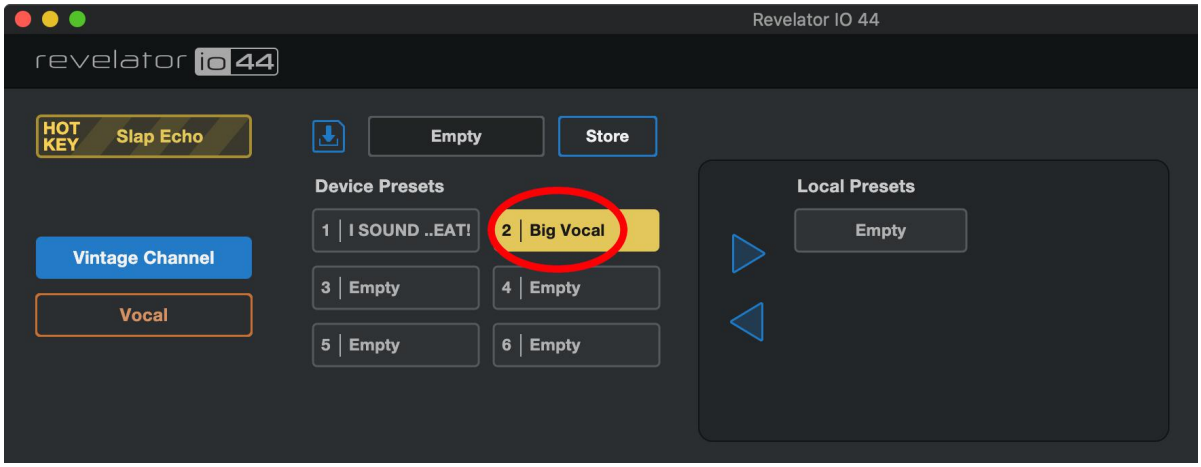
To Export a new preset to one of the 6 User Slots:

要把一个新的预置导出到 6个用户插槽中的其中一个插槽。



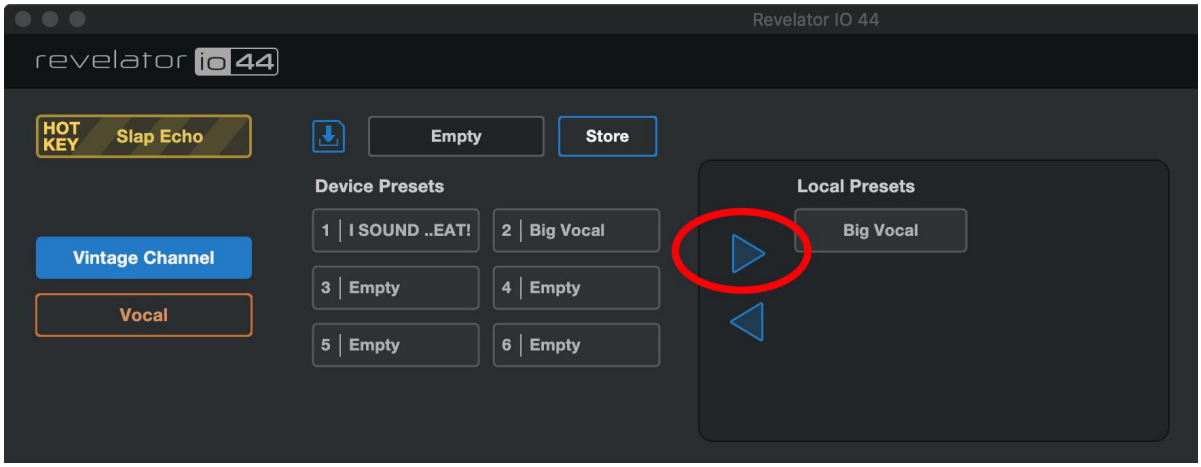
Click on the Save Preset button.

单击 "保存预置" 按钮。



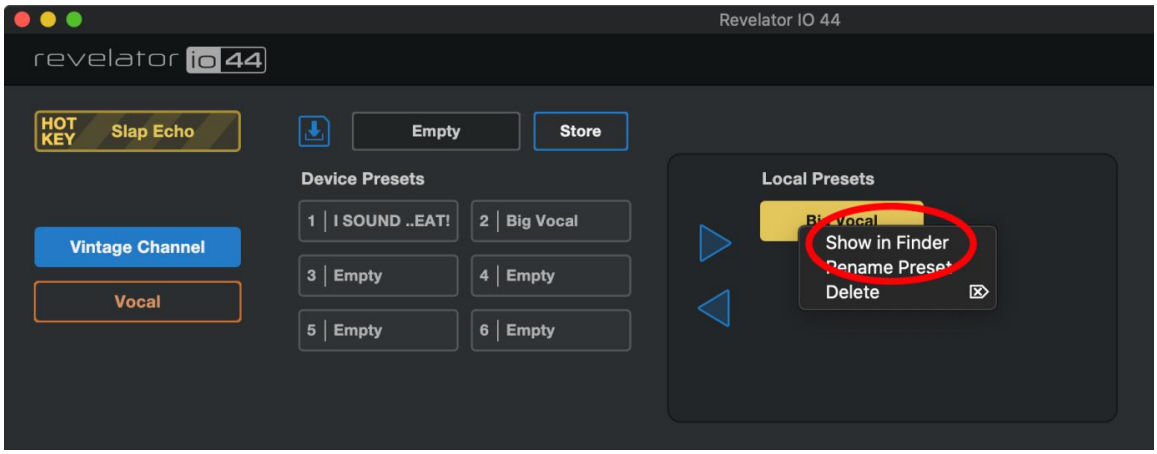
Select the device preset that you want to Export.

选择你想导出的设备预置。



Click on the right arrow to Export the Preset. The Preset will appear in the list.

点击右边的箭头，导出预设。该预设将出现在列表中。

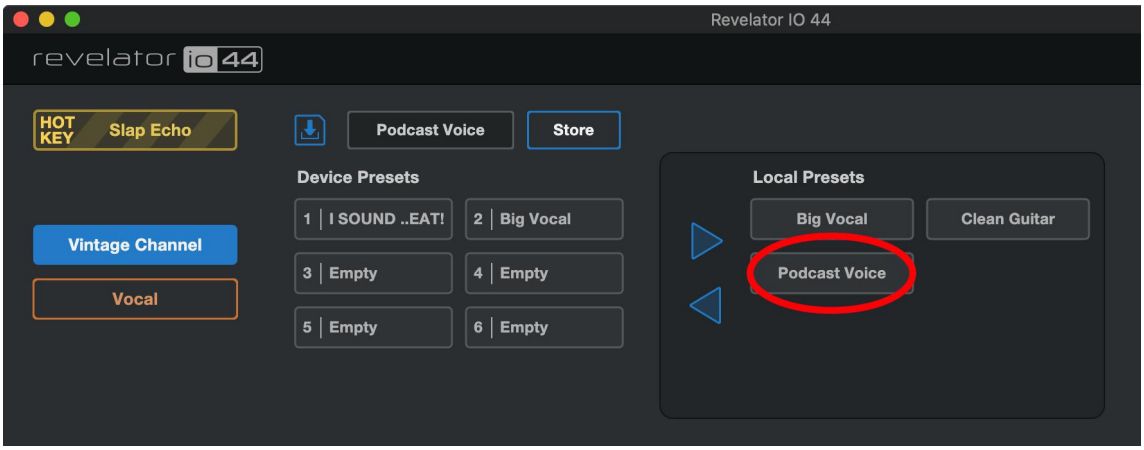


To find where the exported Preset has been stored on your computer, right-click on it and choose Show in Finder (Mac) or Show in Explorer (Windows). Have fun sharing this file with other Revelator io44 users!

要找到导出的预置在你的电脑上的存储位置，右击它并选择在 Finder（Mac）的显示或在资源管理器（Windows）的显示。祝你与其他Revelator io44用户分享这个文件的乐趣!

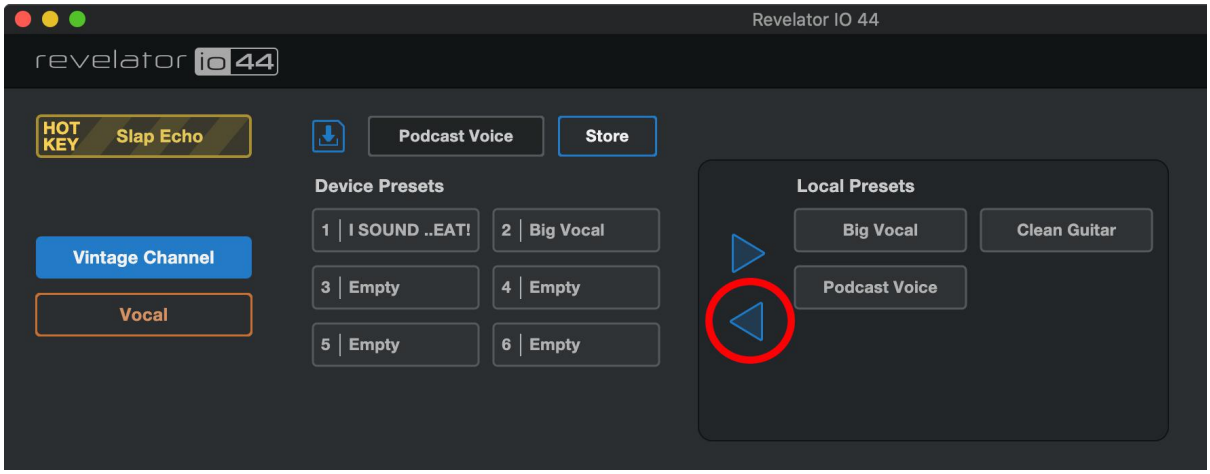
To Import a new preset to one of the 6 User Slots:

要将一个新的预置导入到 6个用户槽之一：



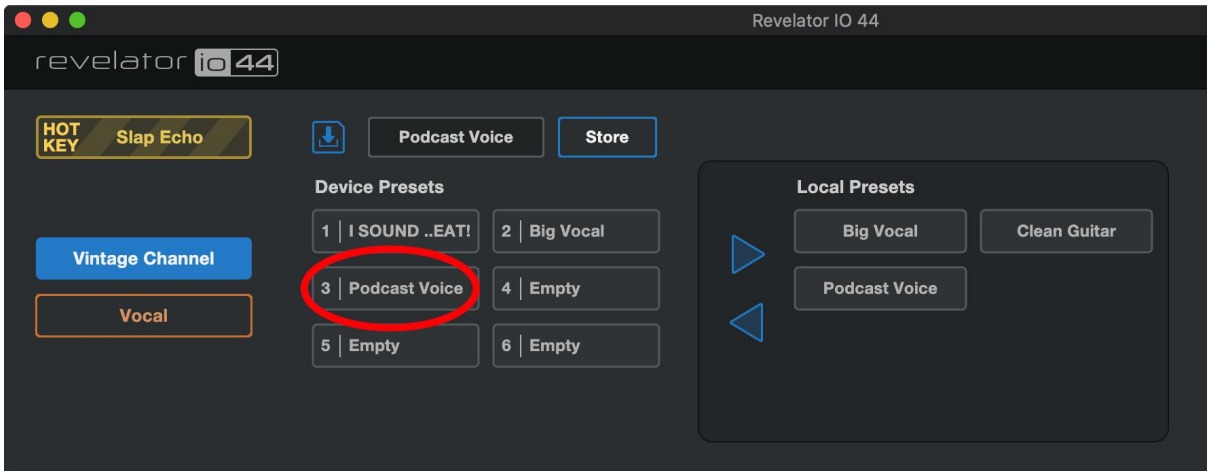
Click on the desired Preset in the Local Presets list.

在本地预置列表中点击所需的预置。



Click on the left arrow to load the Preset into the first Empty Device Preset slot.

点击左边的箭头，将预置值加载到第一个空设备预置槽。



That's it!

Now, if you'd like that new Preset stored in one of the positions available from the Preset buttons on your Revelator io44, follow the instructions in *Presets and Scenes* and customize away!

这就是了!

现在，如果你想把新的预置储存在你的Revelator io44上的预置按钮中的一个位置，请按照预置和场景中的说明进行定制。

4.1.5 Scenes - Save and Recall 场景 - 保存和调用

Scenes allow you to store all of the Revelator io44's settings for recall at a later time. This is useful for if you have various projects that require specific settings—you won't have to set up every little detail of your Revelator io44 every time you change projects! For example, you might have a podcasting setup with a preset for your frequent guest, and also have a setup you like for recording acoustic guitar.

场景允许你存储所有Revelator io44 的设置，以便在以后的时间里调用。如果你有不同的项目需要特定的设置，这是非常有用的—你不必在每次改变项目时，都要设置你的Revelator io44的每一个小细节! 例如，你可能有一个播客设置，有一个预置给你的常客，也有一个你喜欢的设置用于录制原声吉他。

Use Scenes to quickly jump from one configuration to another without having to adjust multiple settings!

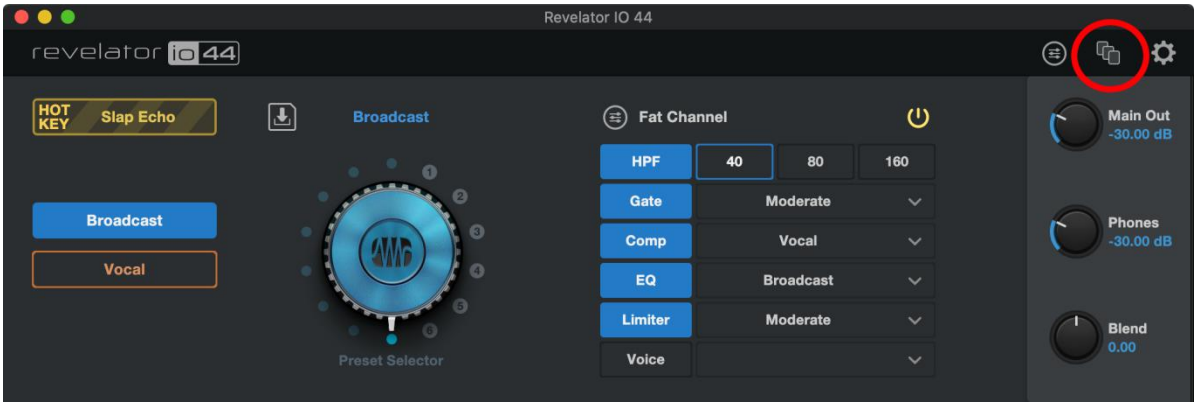
使用场景可以快速地从一个配置跳到另一个配置，而不必调整多个设置!

To store a Scene:

要存储一个场景：

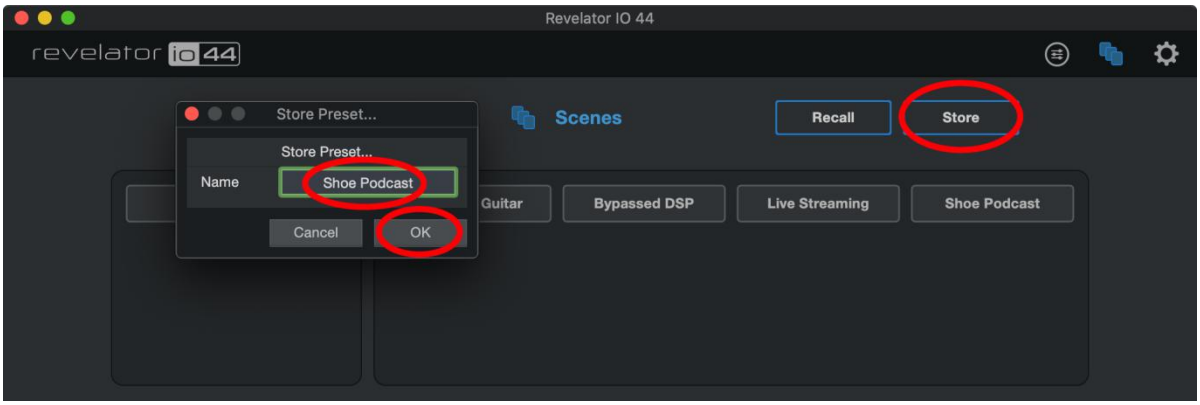
First, set up your Revelator io44 just the way you like it for a particular application before storing the Scene.

首先，在存储场景之前，将你的Revelator io44 设置成你喜欢的特定应用方式。



Click the Scenes menu on the top right of Universal Control.

点击 Universal Control 右上方的 Scenes 菜单。



Click Store and name your Scene. Click OK.

To Recall (load) a Scene, simply click the Scene you want from the Scene List and then click Recall.

To delete a Scene, right-click it in the Scene List and choose Delete.

点击存储并命名你的场景。点击“OK 确定”。

要调用（加载）一个场景，只需从场景列表中点击你想要的场景，然后点击调用。要删除一个场景，在场景列表中右键单击它，然后选择删除。

4.1.6 Sharing Scenes and Presets 分享场景和预置

Exporting a Scene or Preset creates a Scene or Preset file.

To share Presets and Scenes with your friends, all you need to do is send the desired Scene or Preset file to your friend, either via e-mail or a PreSonus Sphere Workspace.

If someone is kind enough to share a Preset or Scene with you, it can be imported to Universal Control simply by placing the file in the correct folder.

Folder locations for sharing and import are listed below. Note that these folders won't be found on your system if you have not Exported Scenes or Presets of your own.

导出场景或预置会创建一个场景或预置文件。

要与你的朋友分享预置和场景，你所需要做的就是通过电子邮件或PreSonus Sphere Workspace将所需的场景或预置文件发送给你的朋友。

如果有人愿意与你分享预置或场景，只需将文件放在正确的文件夹中，就可以将其导入Universal Control中。

共享和导入的文件夹位置列在下面。请注意，如果你没有导出自己的场景或预置，这些文件夹在你的系统中不会被发现。

Windows:

- Scenes are stored in: C:\Users\YOUR_USER_NAME\Documents\PreSonus\Revelator IO\Scene
- Presets are stored in: C:\Users\YOUR_USER_NAME\Documents\PreSonus\Revelator IO\Fat

Windows：

- 场景存储在：C:\Users\YOUR_USER_NAME\Documents\PreSonus\Revelator IO\Scene
- 预置存储在： C:\Users\YOUR_USER_NAME\Documents\PreSonus\Revelator IO\Fat

macOS:

- Scenes are stored in: /Users/YOUR_USER_NAME/Documents/PreSonus/Revelator IO/Scene
- Presets are stored in: /Users/YOUR_USER_NAME/Documents/PreSonus/Revelator IO/Fat

macOS。

- 场景存储在：/Users/YOUR_USER_NAME/Documents/PreSonus/Revelator IO/Scene
- 预置存储在：/Users/YOUR_USER_NAME/Documents/PreSonus/Revelator IO/Fat

5. Fat Channel and Voice Effects Fat Channel和语音效果器

5.1 Fat Channel and Voice FX Fat Channel和语音效果器

The Fat Channel provides essential signal processing tools to sculpt your sound, as well as Voice FX section to warp, distort, and bounce it around. These are the effects that are stored with a preset. A dedicated Reverb processor is also available, but it is important to note that Reverb is not stored with a Preset. More on Reverb below.

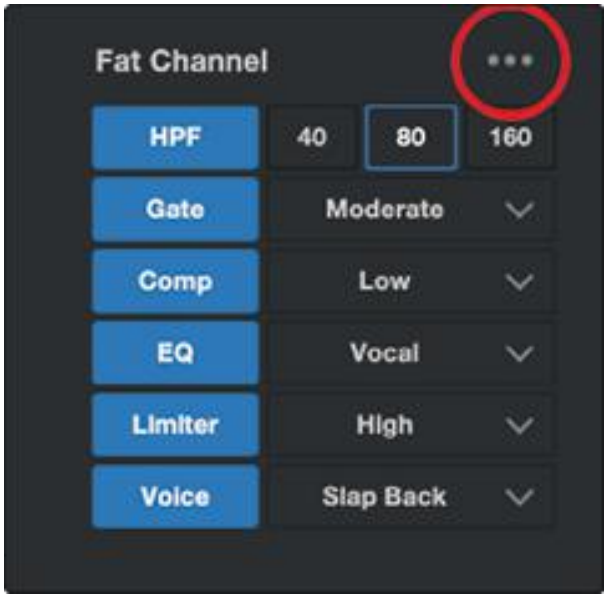
Fat Channel 提供了基本的信号处理工具来塑造你的声音，以及语音特效。这些都是与预置一起存储的效果。一个专门的混响处理器也是可用的，但需要注意的是，混响不能与预置一起存储。下面有更多关于混响的内容。

If you're new to audio processing, the Fat Channel section provides easy-to-use presets for each processor block. This section will go through the controls available as well as provide some useful information on how these processors affect your sound.

如果你是音频处理的新手，Fat Channel 部分为每个处理器块提供了易于使用的预置。本节将介绍可用的控制，并提供一些有用的信息，关于这些处理器如何影响你的声音。

Note that Fat Channel processing cannot be used on the Line Inputs when running at sampling rates of 48k and higher.

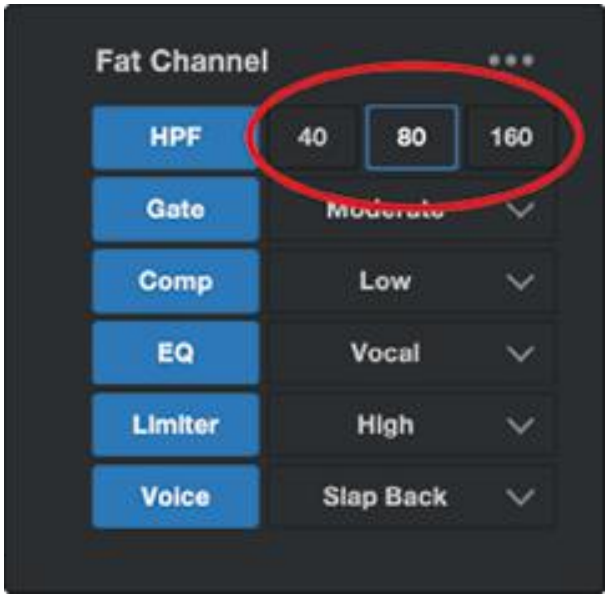
请注意，当采样率为48k 或更高时，Fat Channel 处理器不能用于线路输入。



If you are an advanced user, more granular control is available for each processor. To view every parameter available, click on the Advanced (...) button. For more information, please refer to *Advanced Features and Customization Tools*.

如果你是一个优先用户，可以对每个处理器进行更精细的控制。要查看每一个可用的参数，请点击“Advanced（...）”按钮。想了解更多信息，请参考*优先功能和定制工具*。

High Pass Filter (HPF) 高通滤波器



Also known as a low-end roll-off filter, the High Pass Filter (HPF) lets you cut all frequencies below a specified point, letting the frequencies above that point pass through unchanged. This filter can be handy when you want to reduce the “boominess” or “muddiness” of a vocal and improve the overall clarity. Note that this is a digital high-pass filter that is independent of the hardware high-pass filter discussed in *Connections and Controls.*

Choose between 40 Hz, 80 Hz, and 160 Hz.

高通滤波器（HPF）也被称为低端滚降滤波器，它可以让你切断所有低于指定点的频率，让高于该点的频率不变地通过。当你想减少人声的 "嘈杂"或 "混浊 "并提高整体的清晰度时，这个滤波器就会很方便。请注意，这是一个数字高通滤波器，与连接和控制中讨论的硬件高通滤波器无关。

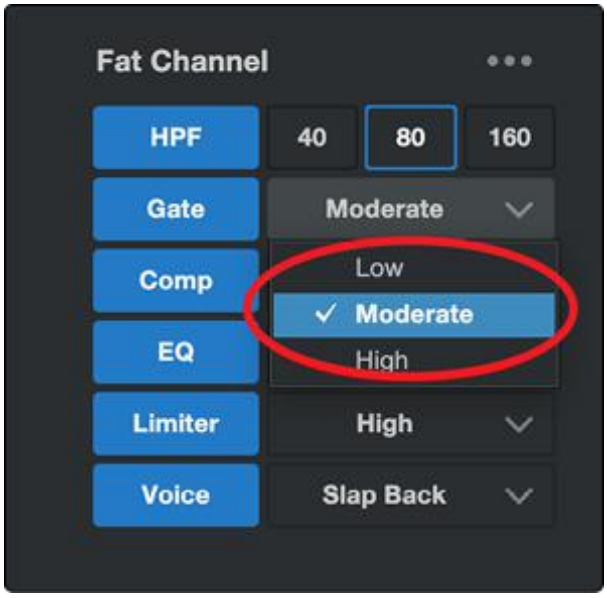
在40 Hz、80 Hz和160 Hz之间选择。

Power User Tip: *When looking at frequency ranges in audio, it's important to know that the smaller the number, the lower the frequency is. The 40 Hz and 80 Hz settings can be especially useful in reducing the "rumble" from a nearby road or any background electrical noise or hum.*

用户提示：*当查看音频的频率范围时，重要的是要知道数字越小，频率越低。40赫兹和80赫兹的设置在减少来自附近道路的"隆隆声"或任何背景"电噪声"或"嗡嗡声"方面特别有用。*

If you would like more granular control, please see *Advanced Features and Customization* for more on advanced High Pass Filter settings. 如果你想进行更细化的控制，*请看优先功能和定制*，了解更多优先高通滤波器设置。

Gate 降噪门



Noise gating is the process of removing unwanted sounds from your audio by cutting (or attenuating) all signals below a set threshold. The gate will remain "open" as long as the signal is louder than the set threshold. Noise gates were originally designed to help eliminate extraneous noise and unwanted artifacts from a recording, such as hiss, rumble, or transients from other instruments in the room. Since hiss and noise are not as loud as the intended audio source (You!), a properly set gate will only allow the intended sound to pass through; the volume of everything else is lowered. Not only will this strip away unwanted artifacts, it will also add definition and clarity to the desired sound.

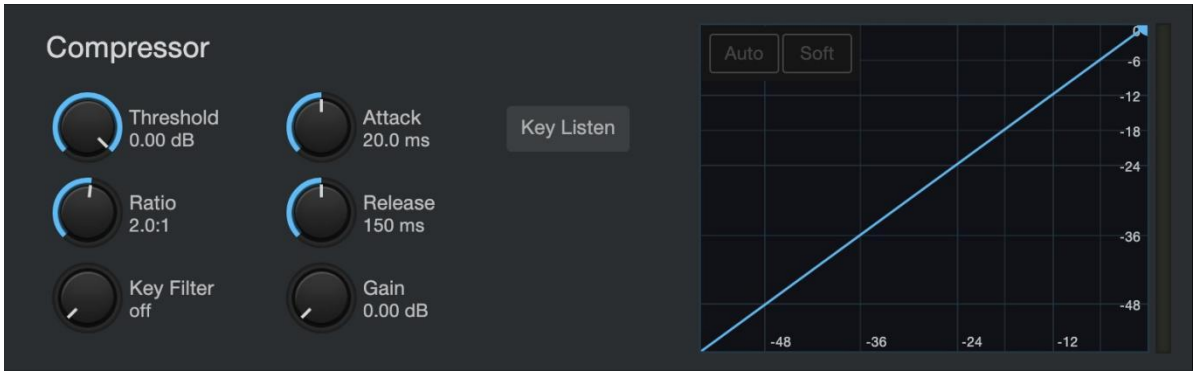
Choose between Low, Moderate, and High. Low will provide the least amount of gating, High will provide the most.

Ready to build your own gate? See *Advanced Features and Customization* for advanced Noise Gate controls.

噪声门是通过切断（或减弱）所有低于设定阈值的信号来去除音频中不需要的声音的过程。只要信号比设定的阈值大，降噪门就会保持 "开放"。噪声门最初的设计是为了帮助消除录音中不相干的噪声和不需要的假象，如嘶嘶声、隆隆声或房间里其他乐器的瞬态。由于嘶嘶声和噪音并不像预期的音源那样响亮（你的！），一个正确设置的降噪门只允许预期的声音通过；其他的声音都被降低了。这不仅可以去除不需要的伪音，还可以增加所需声音的清晰度和明晰度。

在低、中、高之间选择。低将提供极少部分的降噪门控，高将提供大部分的。

Compressor (Comp) 压缩机



Audio signals have very wide peak-to-average signal-level ratios (sometimes referred to as dynamic range) which is the difference between the loudest level and the softest level. This can create problems when you're setting input levels because when enough gain (or volume) is applied to capture the softest level at its best, one cough, laugh, or excited moment can overload the input, resulting in distortion… and not the cool kind.

A compressor works by limiting the dynamic range of an audio source to make it sound more consistent and even. By setting the maximum level, the compressor makes sure that any audio signal that exceeds that volume is reduced to match it.

音频信号具有非常宽的峰值与平均信号电平比（有时称为动态范围），这是最大的电平和最软的电平之间的差异。这在你设置输入电平时可能会产生问题，因为当应用足够的增益（或音量）来捕捉最柔和的电平时，一个咳嗽、笑声或兴奋的瞬间，都会使输入过载，导致失真.....并不是很酷的创作。

压缩器的工作原理是限制音源的动态范围，使其听起来更加一致和均匀。通过设置最大音量，压缩器确保任何超过该音量的音频信号都会被降低到与之匹配。

Choose between Low, Moderate, High, and De-Ess. Low will provide the least amount of compression, High will provide the most. Compression presets optimized for electric guitar, bass guitar, vocals, and acoustic guitar are also available.

Use the De-Ess setting if you notice a lot of "sibilance" in your speech. Sibilance is the pronounced presence of the "s" or "sh" sound. Depending on your accent and speech pattern, it can be more or less pronounced.

在低、中、高和De-Ess之间选择。低将提供最少的压缩量，高将提供最多。也有为电吉他、贝斯、人声和原声吉他优化的压缩预置。

如果你注意到，你讲话中有很多 "咝咝声"，请使用 De-Ess 设置。咝咝声是 "s " 或 "sh " 音的发音预置。根据你的口音和说话方式，它可以更多或更少地被播放。

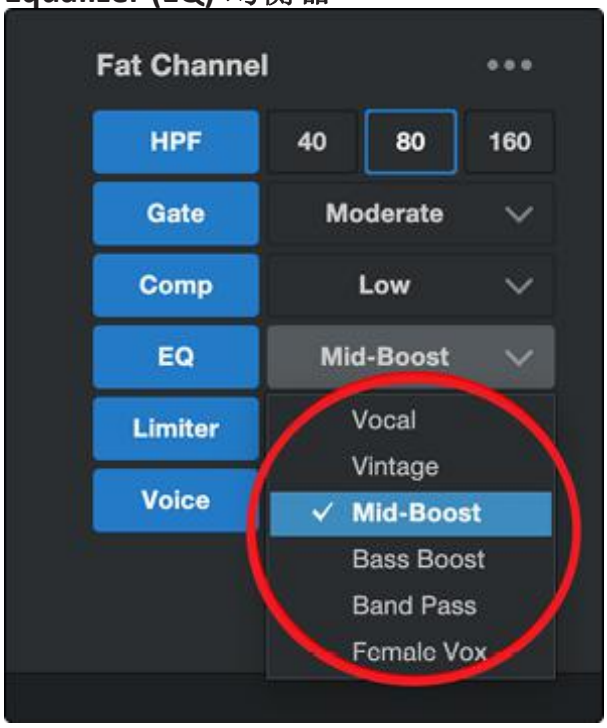
Power User Tip: *While it may be charming in casual speech, sibilance can quickly become distracting because it resonates at a higher frequency that can become grating when heard repeatedly. The goal of a de-esser is not to remove the "s" sound entirely, rather, it's intended purpose is to level it out so that it's even with the rest of the consonants. In other words, you'll still sound like you.*

用户提示：*虽然在随意说话时可能很有魅力，但咝咝声很快就会让人分心，因为它在一个较高的频率上产生共鸣，反复听会让人感到厌烦。去咝咝声的目的不是完全去除 "s "的声音，相反，它的目的是把它拉平，使它与其他辅音保持一致。换句话说，你的声音仍然像你。*

For more advanced compression controls and to learn about the different compressor models onboard your Revelator io44,see *Advanced Features and Customization*.

关于更优先的压缩控制和了解Revelator io44上的不同压缩器型号，*请看优先功能和定制。*

Equalizer (EQ) 均衡器



An equalizer, or EQ, is a filter that allows you to adjust the volume level of a frequency or range of frequencies within an audio signal. In its simplest form, an EQ will let you turn the treble and bass up or down, allowing you to adjust the coloration of your car stereo or your television. In professional audio circles, equalization is a highly sophisticated art that can be used to sculpt the tone of instruments in a mix, counteract anomalies in a room, or just pump up the bass.

Regardless of its application, good equalization is critical to a good sound. When used correctly, an equalizer can provide the impression of nearness or distance, “fatten” or “thin” a sound, and help blend or provide separation between similar sounds in a mix, allowing both to be heard as intended.

均衡器，或称EQ，是一种滤波器，可以让你调整音频信号中某个频率或频率范围的音量大小。在其最简单的形式中，均衡器可以让你把高音和低音调高或调低，让你调整汽车音响或电视的色彩。在专业音频界，均衡是一门非常复杂的艺术，可以用来塑造混音中的乐器音调，抵消房间中的异常现象，或者只是提高低音。

无论其应用如何，好的均衡器对好的声音是至关重要的。如果使用得当，均衡器可以提供近或远的印象，"充满活力的" 或 "微弱的" 声音，并帮助混合或提供混合中类似声音之间的分离，让两者都能被听到的预留。

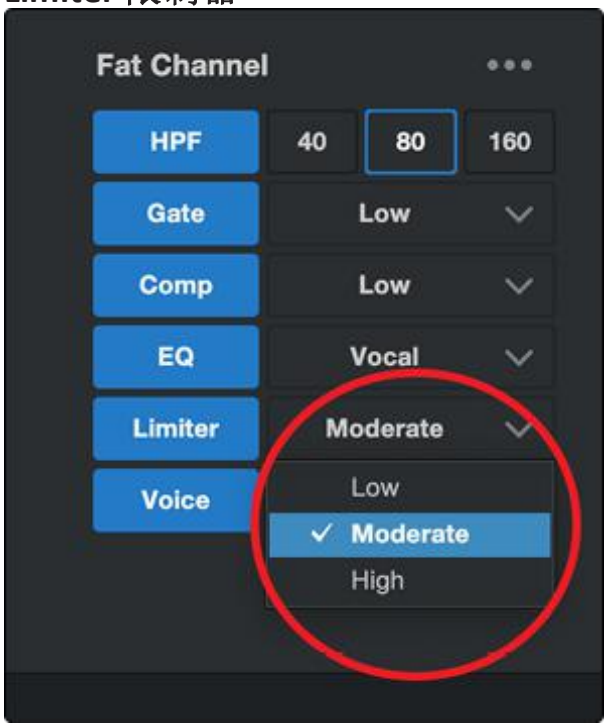
Power User Tip: *The best way to pick the best EQ setting for your voice is to experiment. Everybody’s voice is unique and because EQs are entirely dependent on the frequency of the source, your ears are your best tool in finding the right sound for your voice.*

用户提示：*挑选最适合你的声音的 EQ设置的最好方法是实验。每个人的声音都是独一无二的，由于EQ完全取决于音源的频率，你的耳朵是你找到适合你声音的最好工具。*

Like the Compressor, Revelator io44 offers advanced controls and several EQ models to choose from when you’re ready to dive deeper. See *Advanced Features and Customization* for more on Advanced EQ controls.

与压缩器一样，Revelator io44 提供了优先控制和几种EQ模型，当你准备深入研究时，可以选择。更多关于优先EQ 控制的信息，请参见更多*优先功能控制和定制*。

Limiter 限制器



True to its name, a Limiter sets the upper dynamic range of your signal and prevents the source from exceeding it by “limiting” it to that threshold. If you’re thinking that sounds a lot like what we just told you a compressor does, you’re catching on! A limiter is different from a compressor in a very critical way: Unlike a compressor, which works gradually to reduce the signal, the limiter prevents virtually any increase in gain at the upper end of the dynamic range. In other words, you can try to get as loud as you want, but the limiter is going to stop that volume spike like a brick wall.

Choose between Low, Moderate, and High. Low will provide the least amount of limiting, High will provide the most.

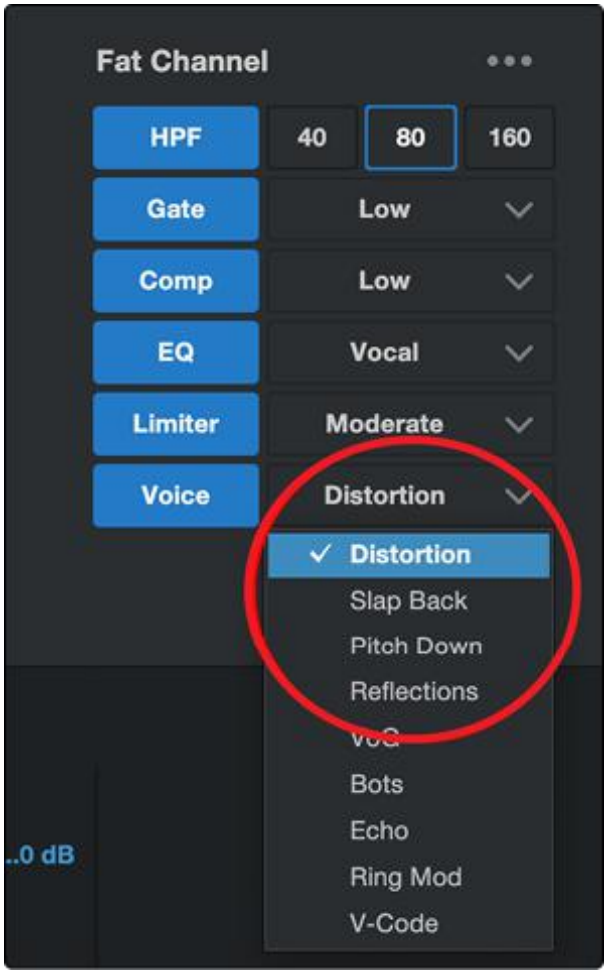
Ready to dial in a customized Limiter setting? See *Advanced Features and Customization* for advanced Limiter controls.

正如它的名字一样，限制器设定了信号的上限动态范围，并通过 "限制" 它的阈值来防止信号源超过这个范围。如果你认为这听起来很像我们刚刚告诉你的压缩器的作用，你就会明白了限制器在一个非常关键的方面与压缩器不同。与压缩器不同的是，压缩器的工作原理是逐步减少信号，而限制器则是防止在动态范围的上端有任何增益的增加。换句话说，你可以尽量提高音量，但限制器会像一堵砖墙一样阻止音量飙升。

在低、中、高之间选择。低将提供最少的限制，高将提供最多的限制。

准备好拨出一个定制的限制器设置了吗？请看优先功能和定制的优先限制器控制。

Voice FX 特效语音



Need an effect for your Sci-Fi podcast? Want to add a little spookiness to your Halloween stream? Voice FX are here to give you fun, fantastical effects for your audio. Expect crazy echoes, distortions, warbles, robot voices, and more.

Don't forget—just because they're called Voice FX, doesn't mean they can only be used on voices... Experiment with different sound sources!

Note: Revelator io44's Voice FX can only be used on one of the two Inputs at a time. You can select Channel 1 or 2 for use with Voice FX from the Settings menu.

Like the rest of the Fat Channel, each Voice Effect has advanced controls. See *Advanced Features and Customization* to find out more.

你的科幻播客需要一个效果？想为你的万圣节流媒体添加一点诡异的效果吗？语音特效在这里为你的音频提供有趣的、梦幻般的效果。期待着狂野、特别的回声、失真、颤音、机器人的声音，这里还有更多更多。

不要忘记一仅仅因为它们被称为语音特效，并不意味着它们只能用在声音上.....

用不同的声源进行实验吧!

注意：Revelator io44 的 Voice FX 一次只能在两个输入中使用一个。你可以在 “Settings” 菜单中选择Channel 1或2 来使用Voice FX。

和其他的Fat Channel 一样，每个声音效果都有优先控制。请看优先功能和定制可以了解更多。

Reverb

Reverberation—or reverb, as it is more commonly known—is perhaps the most widely-used effect in recording. Natural reverb is created by sound waves reflecting off of a surface or many surfaces. For example, when you walk across the wooden stage in a large hall, thousands of reflections are generated almost instantaneously as the sound waves bounce off the floor, walls, and ceilings. These are known as early reflections, and their pattern provides psycho-acoustic indications as to the nature of the space that you are in, even if you can't see it. As each reflection is then reflected off of more surfaces, the complexity of the sound increases, while the reverb slowly decays.

混响

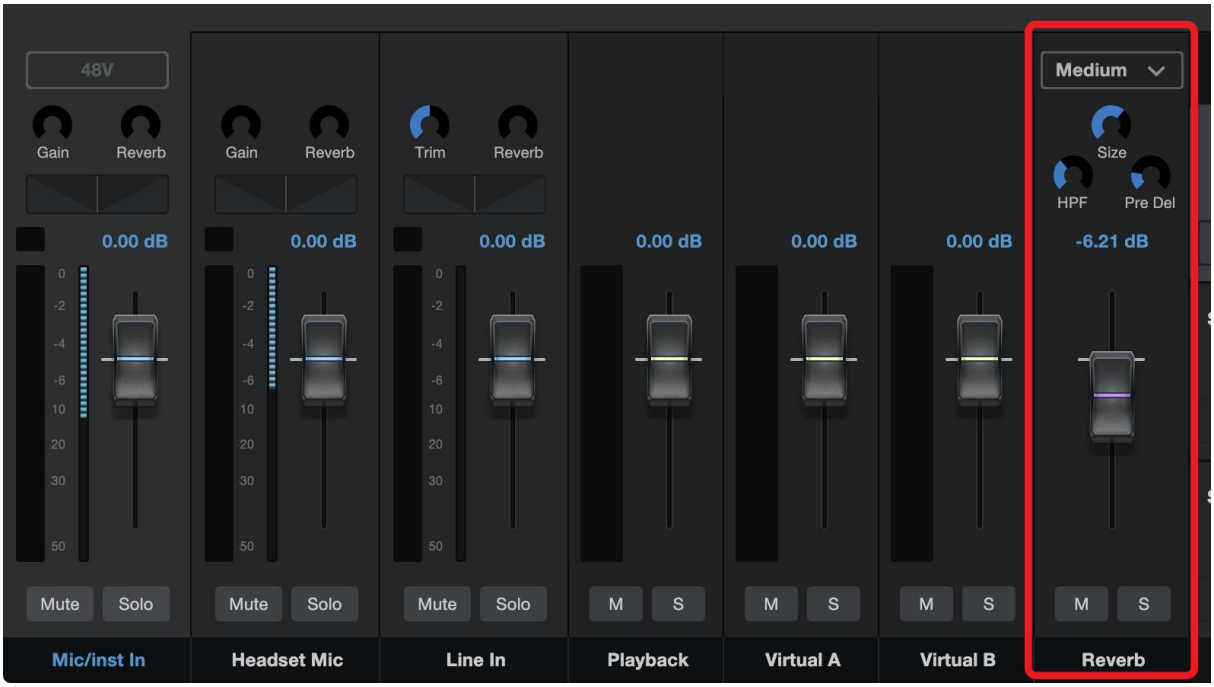
混响—也就是通常所说的混响—可能是录音中使用最广泛的效果。自然混响是由声波在一个或多个表面上的反射产生的。例如，当你走过一个大礼堂的木质舞台时，当声波从地板、墙壁和天花板上反弹时，几乎瞬间就会产生成千上万的反射。这些被称为早期反射，它们的模式为你所处空间的性质提供了心理声学指示，即使你看不到它。当每个反射被更多的表面反射后，声音的复杂性就会增加，同时混响也会慢慢减弱。

The reason for the widespread use of reverb in audio recording is fairly self-evident: Human beings don't live in a vacuum. Because our brains receive cues about the nature of the space around us based partially on audio reflections, a sense of space can make an audio recording sound more natural and, therefore, more pleasing.

The Reverb in Revelator io44 is independent of your presets, so you can use the same Reverb setting on any preset you like.

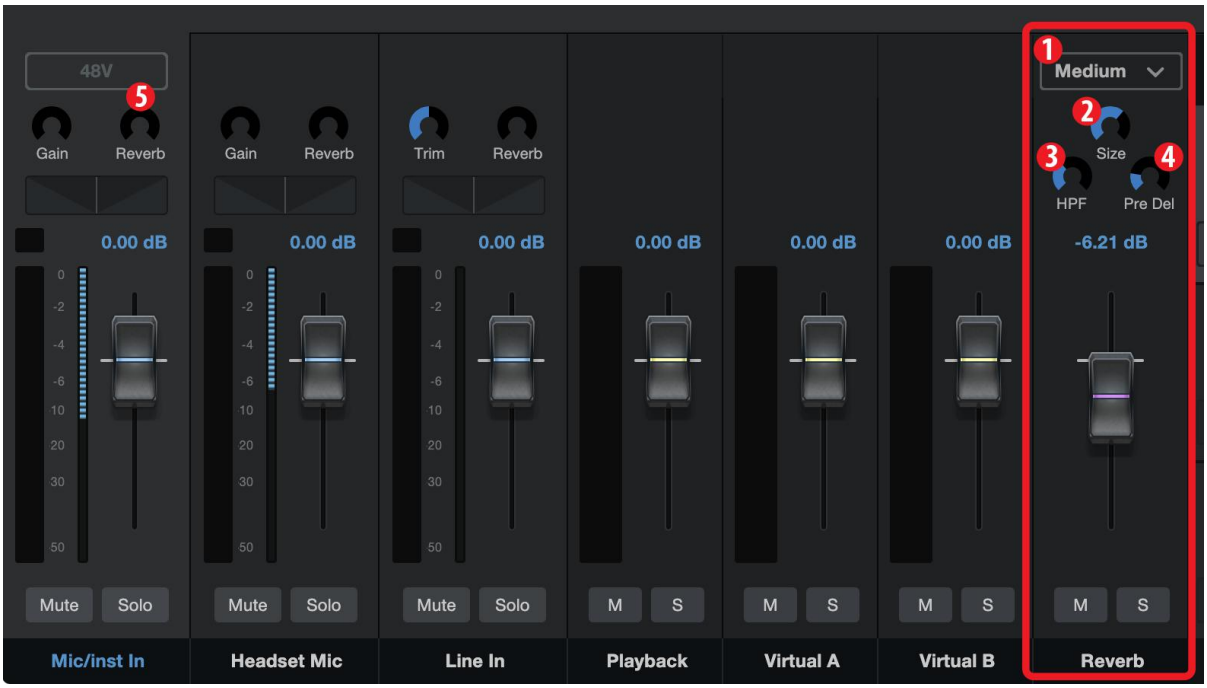
混响在音频录制中广泛使用的原因是不言而喻的。我们并不是生活在真空中。因为人类的大脑主要是根据音频反射来接收关于周围空间性质的提示，所以空间感可以使音频录音听起来更自然，从而更令人愉悦。

Revelator io44 中的混响是独立于预置的，所以你可以在任何你喜欢的预置上使用相同的混响设置。



To adjust the amount of Reverb you hear in your mix, raise or lower the Reverb Fader in the mixer. *See the Mixing and Loopback Audio* section for more information on your Revelator io44 mixer.

要调整你在混音中听到的混响量，可以提高或降低混音器中的混响衰减器。关于Revelator io44调音台的更多信息，请参见混合和回放音频部分。



- **Preset**. Choose between Small, Medium, and Large. These presets emulate room size. In general, the bigger the room size, the more reverberant it will be.
- **Size**. This setting adjusts the length of each reflected sound as well as how often you hear them.
- **HPF (High Pass Filter)**. Like the High Pass Filter in Fat Channel, this setting will cut frequencies in the reverb's output below the threshold you set here.

- **预置。**在小、中、大之间进行选择。这些预置模拟了房间的大小。一般来说，房间尺寸越大，混响就越大。
- **尺寸。**这个设置可以调整每个反射声的长度，以及你听到它们的频率。
- **HPF（高通滤波器）。**像 Fat Channel 中的High Pass Filter（高通滤波器）一样，这个设置将削减混响输出中低于你在这里设置的阈值的频率。

  Power User Tip: *This is especially helpful for bass-rich sound sources (baritone voice, acoustic guitar) as adding too much reverb in low frequencies can muddy your sound.*

  用户提示：*这对富含低音的音源（男中音、原声吉他）特别有帮助，因为在低频添加过多的混响会使你的声音变得混浊。*

- **Pre-Delay.** Pre-Delay is the time (in milliseconds) between the end of the initial sound and the moment when the first reflections become audible.

  预延时。预延迟是指从最初的声音结束到第一个反射时可听得见的时间（以毫秒计）。

  Power User Tip: *Imagine you're on a stage in a large music hall. You stand on the very edge of the stage and shout "Hello world!" toward the center of the hall. There will be a brief pause before you hear the first noticeable reflections of your voice, because the sound waves can travel much further before encountering a surface and bouncing back. Adjusting the pre-delay parameter on a reverb allows you to change the apparent size of the room without having to change the overall Size. This will give your mix a little more transparency by leaving some space between the original sound and its reverb.*

  用户提示：*想象一下，你在一个大型音乐厅的舞台上。你站在舞台的最边缘，朝大厅的中心大喊"世界你好！"。在你听到你的声音的第一个明显的反射之前，会有一个短暂的停顿，因为声波在遇到表面和反弹之前可以走得更远。调整混响器上的预延时参数可以让你改变房间的表面大小，而不必改变整体尺寸。这将使你的混音更有透明度，在原始声音和它的混响之间留下一些空间。*

- **Reverb (Amount)**. To change the amount of Reverb affecting Channels 1 and 2, use the Reverb control at the top of either Channel to dial in the amount to taste.

混响（量）。要改变影响Channel 1和2 的混响量，可以使用任一 Channel 顶部的混响调节器来拨动量。

6. Mixing and Loopback Audio 混合和回环音频

Revelator io44 is equipped with a powerful yet easy-to-use mixer that lets you blend your input signals with three stereo audio streams. These can include playback from a recording application like Studio One, the audio from a Skype call, the sounds from your favorite video game, or all three at the same time.

If you're just starting out and only plan on recording your voice, you won't ever need to use the mixer. However, when you're ready to start adding call-in audio to your podcast or creating more elaborate streams, this mixer will solve a myriad of routing problems and headaches.

Revelator io44's Loopback streams will be listed as "Revelator IO 44 Stream Mix A" and "Revelator IO 44 Stream Mix B" in software configuration menus.

macOS users, please note: All the mixer descriptions in this section assume that you have enabled Multi Mode. This will provide you with the best user experience. If you haven't enabled Multi Mode, please take a step back to the *Universal Control section* and do so now.

Revelator io44 配备了一个强大而易于使用的混音器，让你将输入信号与三个立体声音频流混合。这些可以包括像Studio One这样的录音应用程序的回放，Skype 通话的音频，你最喜欢的视频游戏的声音，或者同时包括这三种。

如果你刚刚开始，只打算录制你的声音，你永远不会需要使用混音器。然而，当你准备开始在你的播客中加入呼入音频或创建更复杂的流媒体时，这个混音器将解决无数的路由问题和让你头疼的问题。

Revelator io44 的回环流在软件配置菜单中会被列为 "Revelator io44 Stream Mix A" 和 "Revelator io44 Stream Mix B"。

macOS 用户请注意：本节中的所有混音器描述都假定你已经启用了多重模式。这将为你提供最佳的用户体验。如果你还没有启用多重模式，请退一步到通用控制部分，现在就启用。

What is Loopback Audio?

Loopback audio is the industry term for routing audio from one application to another. Applications that use audio interfaces, like your Revelator io44, are designed to receive audio from one audio device and send audio to one audio device. This means that most applications can only send to and receive from an audio interface… not from other applications.

This can present a challenge in certain situations. Still wondering why loopback audio is so cool? Here are some great uses:

什么是回环音频？

回环音频是行业术语，用于将音频从一个应用程序路由到另一个。使用音频接口的应用程序，如你的 Revelator io44 被设计为从一个音频设备接收音频，并将音频发送到一个音频设备。这意味着大多数应用程序只能从音频接口发送和接收.....而不是从其他应用程序。

这在某些情况下会带来挑战。还在想为什么回环音频这么酷吗？这里有一些超赞的用途。

- **Make your Podcast guests feel like they're right there in the studio with you.** Not only can you easily record the audio from your Zoom guest, you can combine your mic signal with audio from Studio One—and send the entire mix to Zoom by selecting one of your Revelator io44's loopback devices as the source for Zoom. Your guests hear both your voice and your audio add-ons while you record just their voice!
- **Create super professional screencasts.** Most screen-capture applications let you include your mic OR your system audio. With Revelator io44's mixer and loopback streams, you can create a mix of both your mic and your system sound then use a Revelator io44 loopback device as the source for your screen-capture application.
- **Make a gameplay video.** Just like with making a screencast, loopback audio makes recording gameplay audio and your mic at the same time quick and easy.

Best of all, the Revelator io44's mixer makes it easy to monitor any mix you create, so you can record and stream with confidence, knowing that what you're hearing is exactly what your audience will be listening to as well.

- **让你的播客感觉他们就在你的演播室里。**你不仅可以轻松地录制来自 Zoom 嘉宾的音频，还可以将你的麦克风信号与Studio One的音频结合起来，并通过选择你的Revelator io44的回环设备之一作为Zoom的信号源，将整个混音发送到Zoom。你的客人既能听到你的声音，又能听到你的音频插件，而你只需录下他们的声音即可！

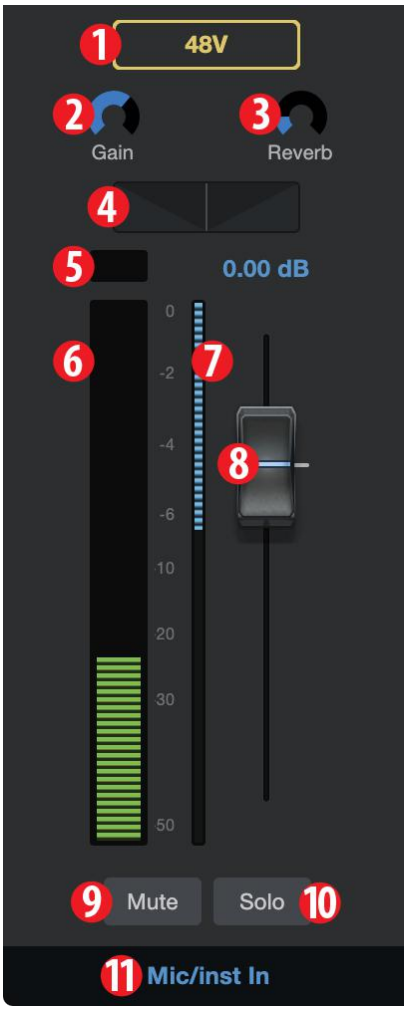
- **创建超级专业的屏幕广播。**大多数屏幕捕捉应用程序让你包括你的麦克风或你的系统音频。有了 Revelator io44 的混合器和回环流，你可以创建一个混合的麦克风和系统声音，然后使用 Revelator io44 回环设备作为屏幕捕捉应用程序的源。

- **制作一个游戏视频。**就像制作截屏一样，回环音频可以同时录制游戏播放音频和你的麦克风，快速而简单。

最重要的是，Revelator io44 的混音器可以轻松监控你创建的任何混音，因此你可以自信地录制，了解你听到的，正是你的听众将会听到的东西。

6.1 Mixer Controls 混频器控制

6.1.1 Microphone Channel Controls 麦克风通道控制



1. **+48v.** Engages/disengages +48v power for use with condenser microphones like the PreSonus PX-1 or M7.
2. **Gain.** Use this control to set the gain for your connected microphone or instrument. Gain can also be set using the Encoder knob on your Revelator io44.
3. **Reverb.** Use this control to set the amount of Reverb applied to the signal. Reverb settings can be set up to taste using the Reverb section. See the *Fat Channel and Voice Effects section* for more on Reverb.
4. **Pan.** This sets the pan position for your signal in every stereo mix. Pan sets the position of the microphone relative to the left and right side of the mix. When the Pan is set to the center position, your microphone will sound equally in both the left and right side of the mix. As you turn it to the right, it will be louder in the right side. As you turn it to the left, it will be louder in the left side.
5. **Clip Light.** This light will illuminate red when the input signal is too loud and clipping. If your input signal clips, it will overload the Revelator io44's analog-to-digital converters, causing digital distortion. This sounds terrible. If you record a signal with digital distortion, there is no undoing it or fixing it. And because of this, it's important to keep your eye on this indicator while you're setting your levels.

1. **+48v.** 启用/关闭+48v电源，用于电容式麦克风，如PreSonus PX-1或M7。

2. **增益**。使用这个控制为你所连接的微型电话或乐器设置增益。增益也可以用Revelator io44上的编码器旋钮来设置。

3. **混响**。使用这个控制器来设置应用于信号的混响量。混响的设置可以用混响部分来设置。关于混响的更多内容，请看Fat Channel和声音效果部分。

4. **平移。**这是为你的信号在每个立体声混音中设置平移位置。泛音设置了麦克风相对于混音的左右两边的位置。当泛音设置为中心位置时，你的麦克风将在混音的左边和右边发出同样的声音。当你把它转到右边时，它在右边的声音会更大。当你把它转到左边时，它在左边的声音会更大。

5. **剪辑灯。**当输入信号太大，并出现削波时，这个灯会亮起红色。如果你的输入信号被剪辑，它将使 Revelator io44 的模数转换器过载，导致数字中断。这听起来很糟糕。如果你录制的信号有数字失调，就无法撤销或修复它。正因为如此，当你设置电平时，一定要注意这个指标。

6. **Channel Meter.** This meter displays the current level of your microphone before the fader level.
7. **Gain Reduction Meter.** This meter displays the amount of gain reduction being applied to your microphone signal by the gate, compressor and/or limiter.
8. **Microphone Channel Fader.** Controls the Overall Level of the Microphone Channel in the currently selected mix.
9. **Mute.** Mutes the signal in every stereo mix.
10. **Solo.** Solos the signal in every stereo mix.
11. **Channel Name.** Double-clicking on “Mic/ Inst In” will let you customize the name of the channel.

6. **Channel 表。**这个表显示你的麦克风在音量控制器电平之前的当前电平。
7. **增益降低表**。这个表显示门、压缩器和/或限制器对你的麦克风信号所施加的增益降低量。
8. **麦克风 Channel 音量控制器**。控制当前选择的混音中的麦克风通道的整体电平。
9. **静音**。将每个立体声混音中的信号静音。
10. **独奏。**在每个立体声混音中对信号进行独奏。
11. **通道名称。**双击 "Mic/Inst In " 可以让你自定义Channel 的名称。

6.1.2 Mixer Channel Controls 混频器通道控制

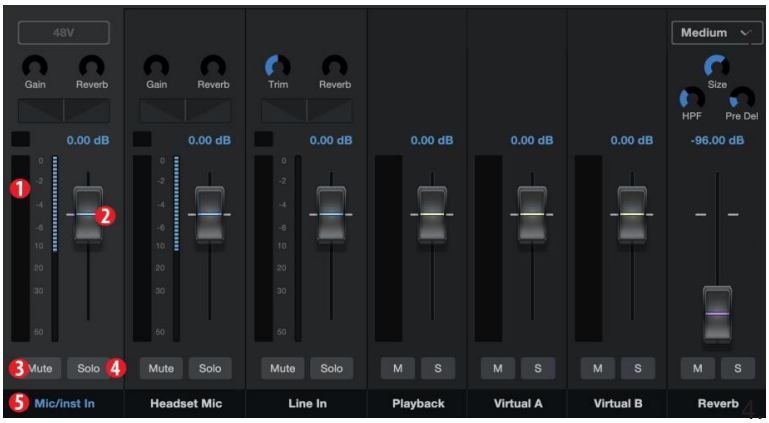
Your Revelator io44 mixer has four Channels:

你的Revelator io44 调音台有四个通道：

- **Playback.** This is the output channel for the Revelator io44 Playback Device in each stereo mix.
- **Virtual A.** This is the output channel for the Revelator io44 Virtual A Device in each stereo mix.
- **Virtual B.** This is the output channel for the Revelator io44 Virtual B Device in each stereo mix.
- **Reverb.** This is the output channel for the Reverb in each stereo mix. The higher you set the fader, the more Reverb you will hear.

- **播放。**这是每个立体声混音中Revelator io44 播放设备的输出通道。
- **虚拟A：**这是每个立体声混音中Revelator io44 虚拟A设备的输出通道。
- **虚拟B：**这是每个立体声混音中Revelator io44 虚拟B设备的输出通道。
- **混响。**这是每个立体声混音中混响的输出通道。你设置的音量控制器越高，你将听到更多的混响。

Each channel has the same controls:



Channel Meter. This meter displays the current level of the channel before the fader (#2) level.

Channel Fader. Controls the Overall Level of the Channel in the currently selected mix.

Mute. Mutes the Channel in your currently-selected mix. Note that the microphone channel Mute is global and mutes the channel across all mixes.

Solo. Solos the Channel in your currently-selected mix. Note that the Input channel Solos are global and solos the channel across the Main Mix mix.

Channel Name. Double-clicking on the default name will let you customize the name of the Channel.

Channel 表。这个表显示了音量孔子其（#2）电平之前的通道的当前电平。

Channel 音量控制器。控制当前选择的混音中的通道的全部电平。

静音。将当前选择的混音中的Channel 静音。注意，麦克风Channel 的静音是全局的，在所有的混音中都是静音的。

独奏。在你当前选择的混音中独奏。注意Channel 输入的独奏是全局性的，并在主混音中独奏该通道。

Channel 名称。双击默认名称可以让你自定义Channel 的名称。

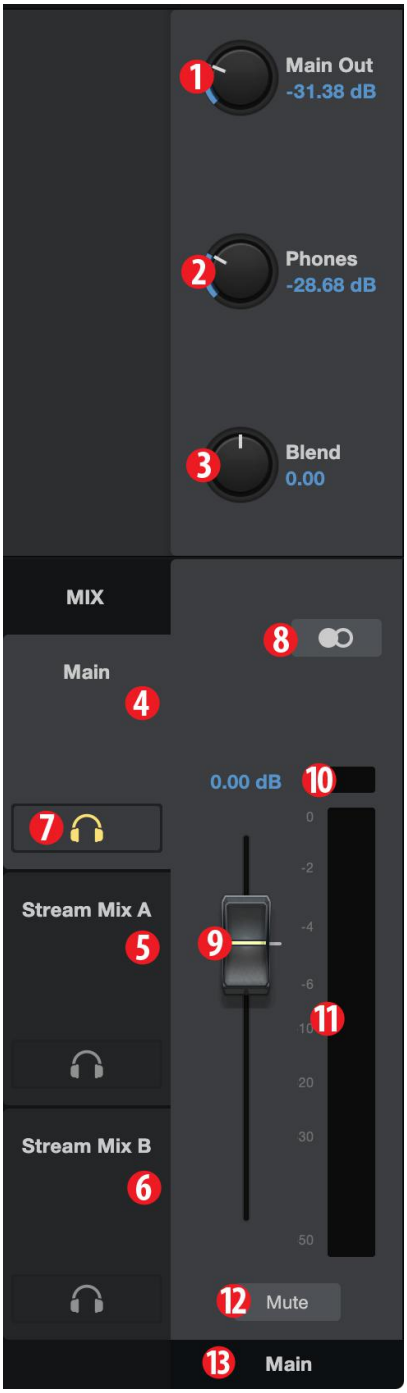
6.1.3 Main Output Controls and Mix Selection 主输出控制和混合选择

Revelator io44 gives you very fine, detailed control over the details of the different mixes that you can send to your Loopback streams and outputs.

The Main Output Controls affect the physical outputs of your Revelator io44, including Main Outputs, Headphones, etc. Anything you can plug a cable into.

Revelator io44 为你提供了对不同混音细节的非常精细的控制，你可以将其发送到回环流和输出。

主输出控制影响你的 Revelator io44 的物理输出，包括主输出、耳机等。任何你可以插入电缆的东西。



1. **Main Out.** Master volume control for your Main outputs (your speakers)
2. **Phones.** Master volume control for your Headphone Output.
3. **Blend.** Control your direct monitoring signal in relation to your software monitoring signal. Left = more direct, right = more from software.
   Revelator io44's Mix Selection Controls let you create four unique mixes to send to four different outputs. This is useful if, for example, you have backing music running during your podcast, but don't want to send the backing music to a guest on your show calling over Skype. You can create custom mixes for Main, Mix A, Mix B, or Mix C.
4. **Main.** Click on this tab to bring up the mix for the Revelator io44 Device.
5. **Stream Mix A.** Click on this tab to bring up the mix for the Revelator io44 Stream Mix A Output stream.
6. **Stream Mix B.** Click on this tab to bring up the mix for the Revelator io44 Stream Mix B Output stream.
7. **Phones Listen.** You can listen to any of the four mixes by clicking on the headphone icon. This will route the selected mix to your headphones instead of the Monitor mix, so you can audition your other mixes.
8. **Mono/Stereo.** Each mix can toggled between mono and stereo. Use the mono control when routing loopback audio to an application that only accepts one input, or when you wish to monitor in mono.
9. **Output Fader.** Sets the overall output level of the currently selected mix.
10. **Mix Clip.** When this light illuminates, your mix is too loud and is "clipping". You can fix this by lowering the overall output level or by lowering each channel in the mix.
11. **Mix Meter.** Displays the overall level of the current mix.
12. **Mute.** Mutes the currently selected mix.
13. **Mix Name.** Each Mix name can be customized by clicking on the default name below the Main output fader.

1.主输出。对主输出（你的扬声器）的主音量控制。

2. 耳机。耳机输出的主音量控制。

3. 混合。控制你的直接监听信号与软件监听信号的关系。左边=更直接，右边=更多来自软件。

Revelator io44 的混合选择控制可以让你创建四个独特的混合，发送到四个不同的输出的混合控制，例如，如果你在播客期间有伴奏音乐，但不想将伴奏音乐发送给通过Skype呼叫的节目嘉宾，这就很有用。你可以为Main、Mix A、Mix B或Mix C创建自定义混音。

4.主音。点击这个标签，调出Revelator io44设备的混音。

5. Stream Mix A。点击这个标签，可以调出Revelator io44 流混合 A 输出流的混音。

6. Stream Mix B。点击这个选项卡，调出 Revel-ator io44 流混合B 输出流的混音。

7. 电话聆听。你可以通过点击耳机图标来收听四个混音中的任何一个。这将把选定的混音路由到你的耳机，而不是监听混音，所以你可以试听你的其他混音。

8. 单声道/立体声。每个混音可以在单声道和立体声之间切换。当把环回音频路由到只接受一个输入的应用程序时，或者当你想用单声道监听时，请使用单声道控制。

9. 输出音量控制器。设置当前选择的混音的整体输出电平。

10. 混合剪辑。当这个灯亮起时，说明你的混音太响了，正在 "削波"。你可以通过降低整体输出电平或降低混音中的每个通道来解决这个问题。

11. 混合仪表。显示当前混音的整体电平。

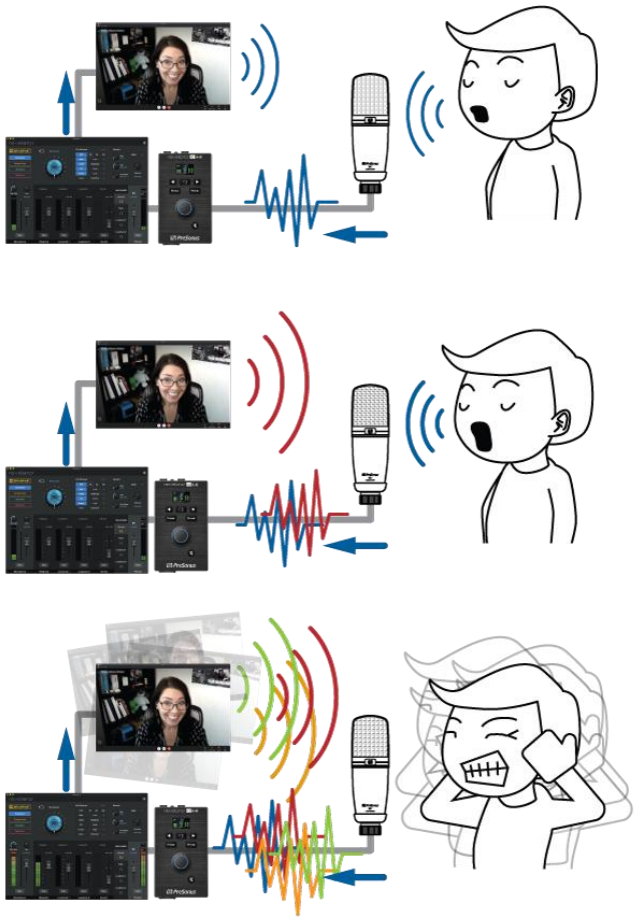
12. Mute（静音）。对当前选择的混音进行静音。

13. 混音名称。每个混音名称可以通过点击主输出音量控制器下面的默认名称进行自定义。

6.1.4 Feedback Loops are Bad 不合适的反馈环路

While loopback audio and the Revelator io44 mixer makes it really easy to mix and record the sound of one piece of software into another, there is also the potential to send the output of a software application back into itself and create what is known as a “feedback loop.”

虽然回环音频和Revelator io44混音器使得混合和录制一个软件的声音到另一个软件变得非常容易，但也有可能将一个软件应用程序的输出送回它自己，创造一个所谓的 "反馈回路"。



Whenever you’re recording using the Revelator io44 mixer with an application that offers monitoring, like Studio One or OBS, you must either disable monitoring or mute the return channel in your Revelator io44 mixer to avoid creating a feedback loop.

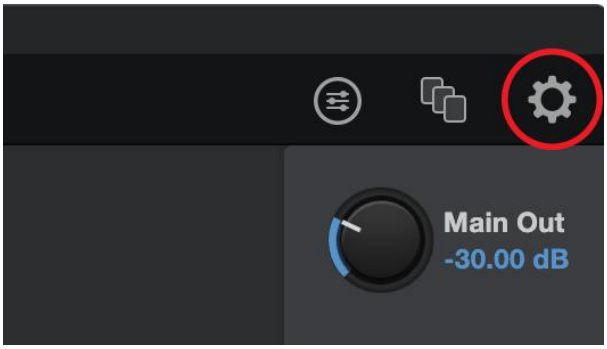
当你使用Revelator io44混音器和一个提供监听的应用程序（如Studio One或OBS）进行录音时，你必须在Revelator io44混音器中禁用监听或将返回Channel 静音，以避免产生反馈回路。

Applications like Skype and Zoom have a “mix minus” feature that removes the input signal from the output signal, so you don’t have to worry about this if you’re just recording a video chat. This feature is on by default, all thetime.

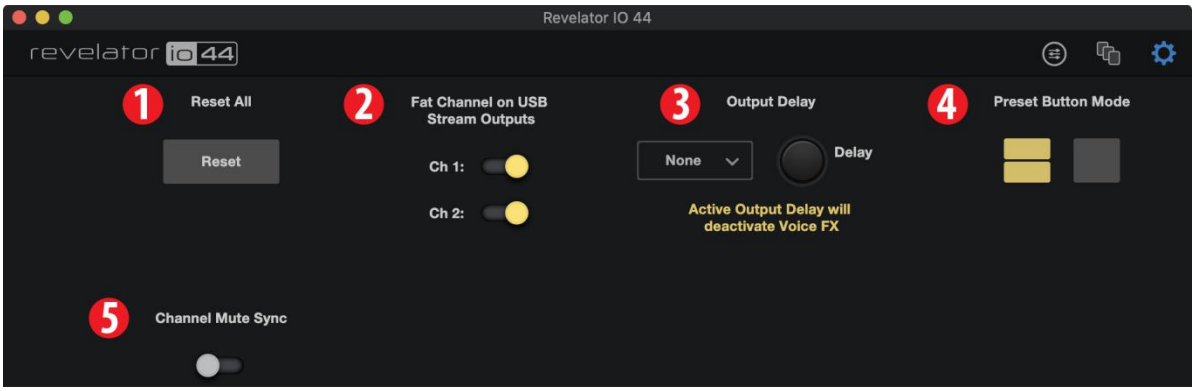
像Skype和Zoom这样的应用程序有一个 "减去混合" 的功能，将输入信号从输出信号中移除，所以，如果你只是在录制视频聊天，不必担心这个问题。这个功能默认是打开的，一直都是。

7. Advanced Features and Customization Tools 优先功能和定制工具

7.1 Settings Menu 菜单设置



Your Revelator io44 features several customizable features. Press the Settings button in the upper right corner to get started.
你的Revelator io44具有几个可定制的功能。按右上角的设置按钮就可以开始了。



1. **Reset All.** Click this button to reset your Revelator io44 to its factory default state.
2. **Fat Channel on USB Stream Outputs.** By default, your Revelator io44 will record audio just as you hear it in your headphones, complete with the Fat Channel preset. If you would like to record only the raw unprocessed audio, but still listen to the presets while you record, disable “Fat Channel on USB Stream Outputs.”
3. **Output Delay.** Use an output delay to help sync audio to video if you’re experiencing sync issues between your audio and video. Use the drop-down menu to choose the desired Outputs, and the Delay knob to set the amount of delay in milliseconds. (Similar features are sometimes called “lip sync” on some TVs).
4. **Preset Button Mode.** By default, your Revelator io44 offers two presets via the Preset buttons on the interface itself. If you find yourself only using one, you can simplify this accordingly by clicking here.
   When One or Two Preset Button Mode is engaged, you will only see the respective number of presets in the Revelator io44 mixer as well; the unused presets will be greyed out. Note that in single Preset slot mode, the Preset button on Revelator io44 will toggle between the loaded preset and bypass. In two-Preset slot mode, bypass is still achieved by pressing and holding the Preset button on Revelator io44.
5. **Channel Mute Sync.** When activated, Muting a Channel in Universal Control will mute it across all mixes.

1. **全部重置**。点击这个按钮，将你的Revelator io44 重置为出厂默认状态。
2. **Fat Channel 在USB 流输出。**默认情况下，你的Revelator io44将记录你在耳机中听到的音频，并完成Fat

Channel 预置。如果你想只录制未经处理的原始音频，但在录制时仍能听到预设，请禁用 "Fat Channel USB 流输出"。

3. **输出延时。**如果你遇到音频和视频之间的同步问题，使用输出延迟来帮助同步音频和视频。使用下拉菜单选择所需的输出，并使用延迟旋钮设置以毫秒为单位的延迟量。(类似的功能有时在一些电视上被称为 "唇语同步"）。

4. **预设按钮模式。**默认情况下，你的 Revelator io44 通过界面上的预置按钮提供两个预置。如果你发现自己只使用一个，你可以通过点击这里进行相应的简化。

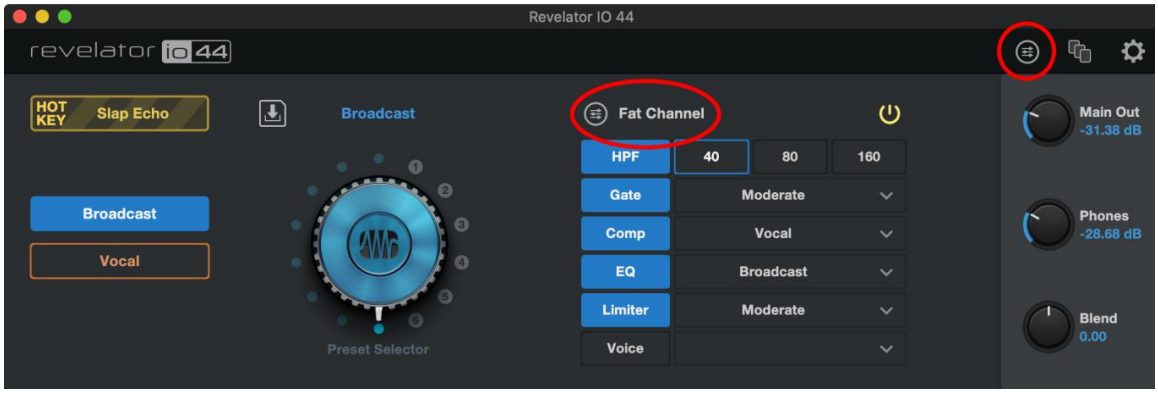
当一个或两个预置按钮模式参与时，你将只看到Revelator io44混音器中相应数量的预置；未使用的预置将被灰色显示出来。注意，在单预置槽模式下，Revelator io44上的预置按钮将在加载的预置和旁路之间切换。在双预置槽模式下，旁路仍然是通过按住Revelator io44上的预置按钮实现的。

5. **Channel 静音同步。**当激活时，在Universal Control 中对一个通道进行静音，将在所有混音中对其进行静音。

7.2 Advanced Fat Channel and Voice Effects Controls 高级的Fat Channel 和声音效果控制

To open the advanced Fat Channel and Voice Effects Controls, click on the Fat Channel menu at the top right of Universal Control, or click “Fat Channel.”

要打开Fat Channel 和声音效果控制，请点击Universal Control 右上方的Fat Channel 菜单，或者点击 "Fat Channel”。



To edit any of the effects, click on the name of the desired processor from the tabs at the top of the screen. This will bring its controls into focus.

要编辑任何一个效果，从屏幕顶部的标签中点击所需处理器的名称。这将使其控制成为焦点。

7.2.1 High Pass Filter 高通滤波器

Use this control to set the High-Pass Filter frequency threshold for the selected Channel or Output Bus. The filter’s threshold can be set from 24 Hz to 1 kHz. When the threshold is set to its lowest point, the filter is off. The high-pass filter’s slope is -12 dB/8va.

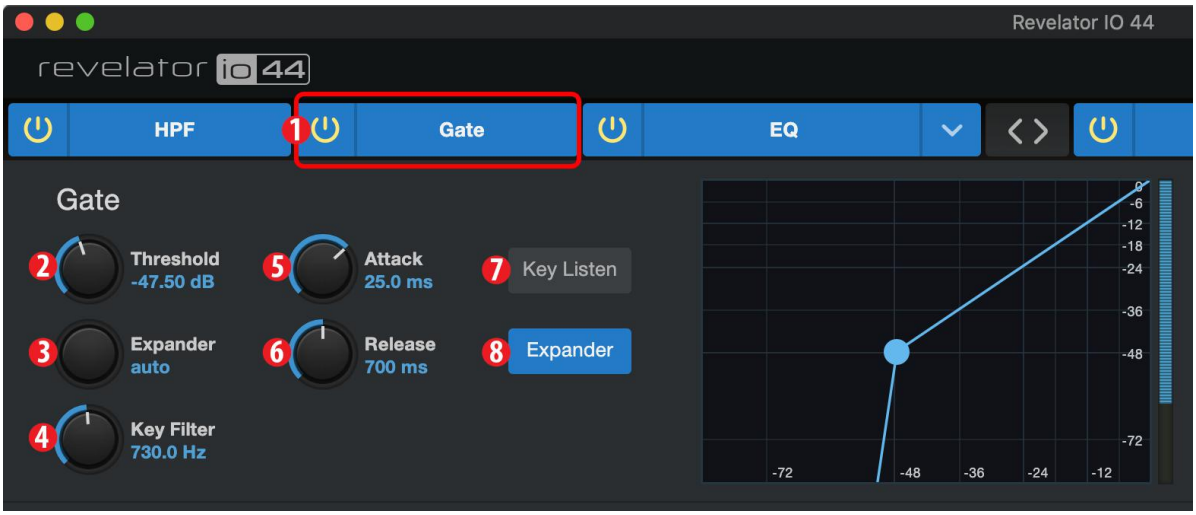
使用这个控制为选定的Channel 或输出总线设置高通滤波器的频率阈值。滤波器的阈值可以设置为24Hz到1kHz。当阈值被设置到最低点时，滤波器是关闭的。

高通滤波器的斜率是-12dB/8va。

Power User Tip: *A high-pass filter attenuates all frequencies below the set threshold. Usethe Fat Channel high-pass filter to remove unwanted low frequencies from your source signal, rather than trying to EQ them out.*

用户提示*。高通滤波器减弱了所有低于设定阈值的频率。使用 Fat Channel高通滤波器可以从你的源信号中去除不需要的低频，而不是试图将它们均衡掉。*

7.2.2 Noise Gate 噪声门



1. **On/Off.** Turns the Noise Gate on or off in the signal chain.
2. **Threshold.** Sets the signal level that bisects the signals you wish to keep from the signals you want to attenuate. Signals below this level are attenuated according to the setting of the Range parameter. Signals above this level pass through unaffected.
3. **Range.** Sets the amount of attenuation applied to a signal when its level falls below the Threshold. Lower settings pull signal level down further, all the way to -∞, if desired. Higher settings pull the signal down to a lesser extent, de-emphasizing noise and other nuisance signals more subtly (without a "hard" cut-off). Note: *Range is disabled when the Expander is engaged.*
4. **Key Filter.** This sets the frequency at which the gate will open. Setting a specific frequency, in addition to a specific decibel level, provides more sonic shaping.

1.开/关。在信号链中打开或关闭噪声门。

2.阈值。设置一个信号电平，将你希望保留的信号与你希望减弱的信号一分为二。低于这个电平的信号根据范围参数的设置进行减弱。高于此电平的信号不受影响地通过。

3.范围。设置当信号的电平低于阈值时，应用于信号的衰减量。如果需要的话，较低的设置会进一步拉低信号电平，一直到 -∞。较高的设置将信号拉低到一个较小的程度，更巧妙地去强调噪声和其他干扰信号（没有一个 "最大程度上" 截止）。注意：当扩展器投入使用时，范围被禁用。

4.按键滤波器。这设置了门将打开的频率。设置一个特定的频率，再加上一个特定的分贝水平，可以提供更多的声音塑造。

> ***Power User Tip:*** *A properly set key filter on a gate can greatly improve the overall sound quality of a mix. For example, if you are recording outside, the road noise may be loud enough to open the gate. This is where a key filter can come in handy. By setting the key filter to remove some of those low frequencies, the gate won't be as apt to open for the next passing car.*
>
> ***用户提示：****在噪声门上适当地设置一个关键的滤波器，可以大大改善混音的整体音质。例如，如果你在外面录音，道路上的噪音可能大到足以打开噪声门。这时，按键滤波器就可以派上用场了。通过设置关键滤波器来去除一些低频，噪声门就不会那么容易为下一辆经过的汽车打开。*

5. **Attack.** Sets the time it takes for the gate to “open” when a signal passes the threshold.

攻击。设置当信号通过阈值时，噪声门 "打开" 所需的时间。

> **Power User Tip**: *A fast attack rate is crucial for percussive instruments. Slow-rising signals such as vocals and bass guitar require a slower attack; with these signals, a faster attack can cause an audible click. All gates have the ability to click when opening but a properly set gate will never click.*
>
> ***用户提示：****快速的攻击率对打击性乐器来说是至关重要的。缓慢上升的信号，如人声和低音吉他，需要较慢的速度；对于这些信号，较快的速度会导致可听到的咔嗒声。所有的门都有在打开时发出咔哒声的能力，但一个正确设置的门永远不会发出咔哒声。*

6. **Release.** Sets the time it takes for the gate to “close” when a signal falls beneath the threshold.

7. **Key Listen.** Press the button to engage or disengage the Key Listen function. It will illuminate to indicate that the Key Listen is active. When Key Listen is enabled, you will be listening to the frequency that Key Listen is set to.
8. **Expander Mode.** Press the button or turn the encoder to switch between Gate and Expander functions for this processor.

6. **释放。**设置当信号低于阈值时，门 "关闭 "的时间。

7. **按键监听。**按下该按钮，可以使用或取消按键监听功能。它将会亮起，表明按键监听功能已经激活。当监听功能启用时，你将收听监听所设定的频率。

8. **扩展器模式。**按下按钮或转动编码器，在这个处理器的门和扩展器功能之间进行切换。

***Power User Tip**: Gate release times should typically be set so that the natural decay of the instrument or vocal being gated is not affected. Shorter release times help to clean up the noise in a signal but may cause "chattering" with percussive instruments. Longer release times usually eliminate chattering and should be set by listening carefully for the most natural release of the signal.*

***用户提示：**噪声门控释放时间的设置，通常应使被门控的乐器或人声的自然衰减不受影响。较短的释放时间有助于清除信号中的噪音，但可能会造成打击乐器的"颤音"。较长的释放时间通常可以消除颤音，应该通过仔细聆听信号的最自然释放来设置。*

7.2.3 Compressor 压缩机

As previously mentioned, a compressor is a dynamics processor that reduces the dynamic range of a signal by attenuating it by a set ratio when it exceeds a defined threshold. Your Revelator io44 is equipped with three compressor models from which to choose: Standard, Tube, and FET.

These distinct compressor plug-in models have their own set of controls and behavior:

- **Standard Compressor.** A clean and full-featured compressor that offers transparent dynamic range reduction.
- **Tube Leveling Amplifier.** A model of a tube-based optoelectronic compressor, with simple, quick controls and a classic tonal character.
- **Class-A FET Leveling Amplifier.** A model of a Class-A FET-based compressor, with an aggressive, punchy tonal character.

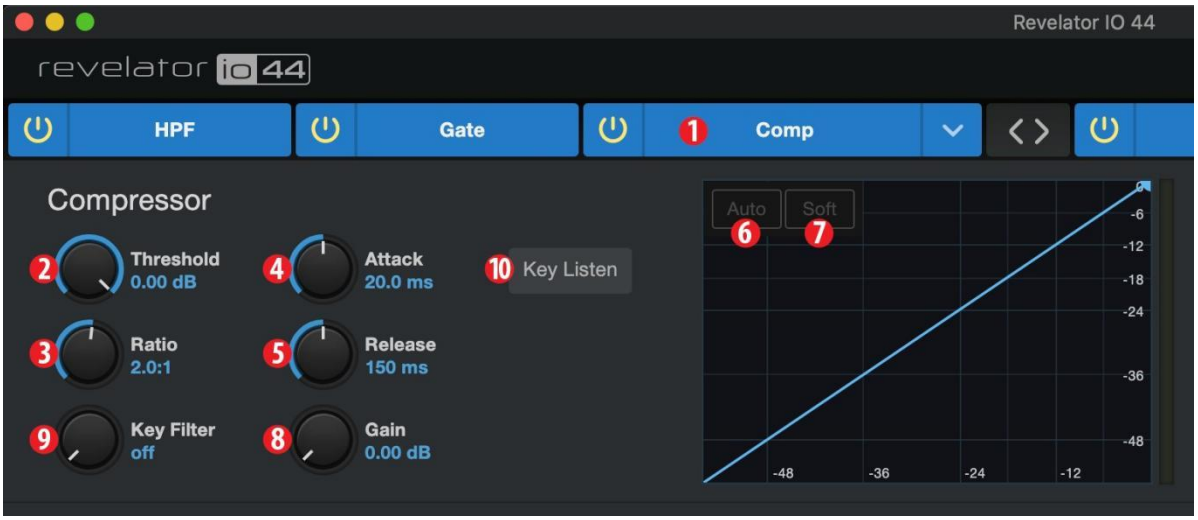
To change the compressor model, click on the dropdown menu. Note: The compressor will turn off whenever a new model is loaded and must be re-enabled for you to hear its effect on your voice.

如前所述，压缩器是一种动态处理器，当信号超过规定的阈值时，它按设定的比例衰减，从而减少信号的动态范围。你的Revelator io44配备了三种压缩器型号供你选择。标准、电子管和FET。
这些不同的压缩器插件模型有各自的控制和行为。

- **标准压缩器。**一个干净和功能齐全的压缩器，提供透明的动态范围减少。
- **电子管均衡放大器。**一个基于电子管的光电子压缩器的模型，具有简单、快速的控制和经典的音色特征。
- **A类FET平衡放大器。**一个基于FET的A类压缩器的模型，具有激进、有力的音调特征。

要改变压缩器的模型，请点击下拉菜单。注意：每当加载一个新的模型时，压缩器就会关闭，必须重新启用才能听到它对声音的影响。

7.2.4 Standard Compressor 标准压缩器



1. **On/Off.** Turns the Compressor on or off in the signal chain.
2. **Threshold.** Sets the level above which the compressor begins to attenuate the signal.
3. **Ratio.** Sets the relationship between the amount a signal goes above the threshold, and the amount it is attenuated. At a 1-to-1 ratio (often written as 1:1), no compression occurs. At a 4:1 ratio, a signal that passes the threshold by 8 dB is attenuated to within 2 dB of the threshold (dividing by four). The higher the ratio you choose, the more pronounced the compressor effect becomes.
4. **Attack.** Sets the time it takes for the compressor to begin attenuating a signal, once it passes the threshold.
5. **Release.** Sets the time it takes for the compressor to stop attenuating a signal once it falls below the threshold.
6. **Auto. Press to toggle Auto mode on or off.** When Auto mode is active, the Attack and Release controls become inoperative, and a preprogrammed attack and release curve is used. In this mode, the attack is set to 10 ms, and the release is set to 150 ms. All other compressor parameters can still be adjusted manually.

7. Soft. Press to toggle Soft knee on or off. When set to “on,” compression will be applied more gradually over time when the Threshold is reached by the input signal.

1. **开/关。**在信号链中打开或关闭压缩器。

2. 门限。设定压缩器开始衰减信号的电平。

3. 比值。设定信号在阈值以上的量和它被衰减的量之间的关系。在1比1的比率下（通常写成1:1），不发生压缩。在4:1的比例下，一个通过阈值 8dB 的信号被衰减到阈值的 2dB 以内（除以4）。你选择的比率越高，压缩器的效果就越明显。

4. Attack。设定信号通过门限后，压缩器开始衰减的时间。

5. 释放。设定当信号下降到噪声门限以下时，压缩器停止衰减的时间。

6. Auto（自动）。按下以切换自动模式的开或关。当自动模式处于活动状态时，攻击和释放控 制不能使用，而使用预先编程的攻击和释放曲线。在这种模式下，攻击被设定为10ms，释放被设定为50ms。所有其他的压缩器参数仍然可以手动调整。

7. 微弱。按下以切换Soft knee 的开或关。当设置为 "开 "时，当输入信号达到阈值时，压缩将随着时间的推移而逐渐应用。

Power User Tip: *Very short compressor release times can produce a choppy or "jittery" sound, especially when compressing instruments that have a lot of low-frequency components, such as a rich acoustic guitar. Very long release times can result in an over-compressed, or "squashed," sound. All ranges of release can be useful, however, and you should experiment to become familiar with different sonic possibilities.*

用户提示：*非常短的压缩器释放时间会产生不稳定或"抖动"的声音，特别是在压缩有大量低频成分的乐器时，如丰富的Acoustic吉他。非常长的释放时间会导致过度压缩，或有"压扁"的声音。然而，所有的释放范围都是有用的，你应该通过实验来熟悉不同的声音位置。*

8. Gain. Sets the amount of "makeup gain" to apply to a signal. Once a signal is compressed, its overall level is often reduced. This gain control lets you bring it back up to the proper level after compression occurs.

9.Key Filter. This sets the frequency at which the compressor will engage. The compressor will still process the entire frequency range, but it is only engaged when the specified frequency is present.

10. Key Listen. Press to listen the signal being used to trigger the compressor, as set with the Key Filter control (including the effects of the high-pass filter). Press again to switch back to the normal channel signal.

8.增益。设置应用于信号的"补充增益"的量。一旦一个信号被压缩，它的整体电平往往会被降低。这个增益控制可以让你在压缩发生后把它恢复到适当的电平。

9.按键滤波器。它设定了压缩器的工作频率。压缩器仍将处理整个频率范围，但只有当指定的频率出现时，它才会投入。

10. 键听。按这个键可以听被用来触发压缩器的信号，正如用Key Filter控制所设定的那样（包括高通滤波器的效果）。再按一下，就会切换回正常的通道信号。

7.2.5 Tube Leveling Amplifier 电子管调平放大器

1. **On/Off.** Turns the Compressor on or off in the signal chain.
2. **Gain.** Sets input gain to the compressor. Because this type of compressor operates in a different way than a standard compressor, much of the way that it affects signals is based on the input level. Try different settings to see what suits your needs.
3. **Peak Reduction.** Sets the amount of peak reduction to apply to the signal. Higher settings result in more gain reduction and more pronounced compression effect.
4. **Compressor/Limiter Toggle.** The button below toggles the Tube Leveling Amplifier between its compressor and limiter modes. When in compressor mode, it acts with a variable ratio of 1:1-10:1. When in limiter mode, it acts with a variable ratio of 10:1-20:1, more aggressively limiting peaks.
5. **Key Filter.** This sets the frequency at which the Tube Leveling Amplifier will engage. It will still process the entire frequency range, but it is only engaged when the specified frequency is present.
6. **Key Listen.** Press to listen to the signal being used to trigger the compressor, as set with the Key Filter control (including the effects of the high-pass filter). Press again to switch back to the normal channel signal.

1.开/关。在信号链中打开或关闭压缩器。

2.增益。设置压缩器的输入增益。因为这种类型的压缩器的工作方式与标准的压缩器不同，所以它影响信号的方式主要是基于输入电平。试试不同的设置，看看什么适合你的需要。

3.峰值降低。设置应用于信号的峰值降低量。较高的设置会导致更多的增益减少和更明显的压缩效果。

4.压缩器/限幅器的切换。下面的按钮可以在压缩器和限制器模式之间切换电子管均衡放大器。当处于压缩器模式时，它以1:1-10:1的可变比率工作。当处于限制器模式时，它以10:1-20:1的可变比率工作，更积极地限制峰值。

5.按键滤波器。这设置了电子管均衡放大器的频率。它仍将处理整个频率范围，但只有当指定的频率出现时，它才会参与。

6.键听。按这个键可以听用于触发压缩器的信号，正如用Key Filter 控制所设定的那样（包括高通滤波器的效果）。再按一下，就会切换回正常的通道信号。

7.2.6 Class-A FET Compressor A级 FET压缩器

1. **On/Off.** Turns the Compressor on or off in the signal chain.
2. **Input Gain.** Sets input gain to the compressor. This setting affects the action of the compressor, so feel free to try various settings to find the optimal effect for your needs.
3. **Output Gain.** Sets the amount of “makeup gain” to apply to a signal. Once a signal is compressed, its overall level is often reduced. This gain control lets you bring it back up to the proper level after compression occurs.
4. **Attack.** Sets the time it takes for the compressor to begin attenuating a signal once it passes the threshold.
5. **Release.** Sets the time it takes for the compressor to stop attenuating a signal once it falls below the threshold.
6. **Ratio.** Sets the Ratio for the compressor. The following Ratios are available: 4:1, 8:1, 12:1, 20:1, or All.
7. **Key Filter.** This sets the frequency at which the compressor will engage. The compressor will still process the entire frequency range, but it is only engaged when the specified frequency is present.
8. **Key Listen.** Press to listen to the signal being used to trigger the compressor,as set with the Key Filter control (including the effects of the high-pass filter). Press again to switch back to the normal channel signal.

1.开/关。在信号链中打开或关闭压缩器。

2.输入增益。设置压缩机的输入增益。这一设置会影响到压缩器的动作，因此可以随意尝试各种设置，以找到符合你需要的最佳效果。

3.输出增益。设置应用于信号的 "补充增益 "的量。一旦信号被压缩，它的整体电平往往会被降低。这个增益控制可以让你在压缩发生后把它恢复到适当的水平。

4.**Attack**。设定压缩器信号通过噪声门限时，开始减弱。

5.**释放**。设定当信号下降到噪声门限以下时，压缩机停止衰减。

6.**Ratio（比率）。**设置压缩器的比率。有以下比例可供选择。4:1，8:1，12:1，20:1，或全部。

7.**关键过滤器。**它设定了压缩器介入的频率。压缩器仍将处理整个频率范围，但它只在指定的频率出现时才开始工作。

8.**关键倾听**。按这个键可以听用于触发压缩器的信号，正如用Key Filter控制所设定的那样（包括高通滤波器的效果）。再按一下，就会切换回正常的通道信号。

a

7.2.7 Changing the Signal Chain 改变信号链

The Compressor and EQ can be reordered in the signal path. By default, the signal passes through the compressor before passing through the EQ. When reordered, the EQ is placed before the compressor in the signal path.

压缩器和均衡器可以在信号路径中重新排序。默认情况下，信号先经过压缩器，再经过EQ。当重新排序时，EQ在信号路径中被放在压缩器之前。

Power User Tip: *Placing the compressor before the EQ allows you to make dramatic changes to the EQ settings without needing to alter the compressor setting. However, if you place the EQ before the compressor, you can better control different frequencies, achieving a more natural response.*

用户提示：*将压缩器放在EQ之前，可以对EQ的设置进行大幅度的修改，而不需要改变压缩器的设置。但是，如果你把EQ放在压缩器之前，你可以更好地控制不同的频率，实现更自然的响应。*

7.2.8 Equalizer 平衡器

As previously mentioned, an EQ (or equalizer) is a tone control that lets you make changes in the tonal balance of a signal. You can boost or cut the level of ranges of frequencies, to make corrective or creative changes to the signal. Like the compressor, your Revelator io44 is equipped with three EQ models from which to choose: Standard, Passive, and Vintage.

These distinct EQ models have their own set of controls and behavior:

- **Standard EQ.** A clean and full-featured EQ that offers transparent tone shaping.
- **Passive Program EQ.** A model of a tube-based EQ with simple, quick and a classic tonal character.
- **Vintage 1970s EQ.** A model of a classic solid-state EQ, with simple, musical frequency settings and a lot of character.

To change the EQ model, click on the dropdown menu. Note: The EQ will turn off whenever a new model is loaded and must be re-enabled for you to hear its effect on your voice.

如前所述，EQ（或均衡器）是一种音调控制，可以让你改变信号的音调平衡。你可以提高或降低各频率范围的电平，对信号进行纠正或创造变化。与压缩器一样，Revelator io44 也配备了三种EQ模型供你选择。标准、无源、和复古。

这些不同的EQ模型有各自的控制和行为。

- **标准EQ。**一个干净的、功能齐全的EQ，提供透明的音色塑造。
- **无源程序EQ。**一个基于电子管的EQ模型，具有简单、快速和经典的音色特征。
- **复古的70年代EQ。**一个经典的固态均衡器的模型，具有简单的、音乐性的频率设置和大量的特征。

要改变EQ模型，请点击下拉菜单。注意：每当加载一个新的模型，EQ就会关闭，必须重新启用才能听到它对你声音的影响。

7.2.9 Standard EQ 标准 EQ

1. **On/Off.** Turns the EQ on or off in the signal chain.
2. **Frequency.** This control sets the center frequency at which signals are boosted or cut for the currently selected band.
3. **Gain.** Sets the amount by which the selected frequency will be boosted or cut.
4. **Q.** Sets the Q (or width) of the current EQ band. Larger Q values affect a narrower range of frequencies. Lower Q values affect a wider range.
5. **Low Shelf On/Off.** Enables/disables the low shelf EQ. When the Shelf button is not engaged, the Low band is parametric. Enabling the Shelf button turns the Low band into a low-shelving EQ that alters, by a fixed amount, a band of low frequencies at and below a user-selected shelving frequency.

1. 开/关。在信号链中打开或关闭均衡器。
2. 频率。这个控制设置中心频率，在这个频率上，信号被提升或削减，目前选择的频段。
3. 增益。设定所选频率被提升或削减的量。
4. Q. 设置当前均衡带的Q值（或宽度）。较大的Q值影响较窄的频率范围。较低的Q值则影响较宽的范围。
5. Low Shelf 开/关。启用/禁用低频段EQ。当 Shelf 按钮没有使用时，低频段是参数性的。启用Shelf按钮可以将低频段变成一个低搁置的EQ，通过一个固定的量来改变用户所选择的搁置频率上下的低频段。

Power User Tip: *A low shelving EQ is like a bass-control knob on a stereo. In this mode, the Center Frequency control selects the shelving frequency.*

用户提示：*低速搁架式均衡器就像立体声中的低音控制旋钮。在这种模式下，中心频率控制可以选择搁置频率。*

6. **Low Band Select.** Enables/Disables the Low Band and enables the Frequency, Gain, and Q for this band.
7. **L-Mid Band Select.** Enables/Disables the Low-mid Band and enables the Frequency, Gain, and Q for this band.

   H-Mid Band Select. Enables/Disables the High-mid Band and enables the Frequency, Gain, and Q for this band.
8. **High Band Select.** Enables/Disables the High Band and enables the Frequency, Gain, and Q for this band.
9. **High Shelf On/Off.** Enables/disables the high shelf EQ. When the Shelf button is not engaged, the High band is a parametric EQ. Enabling the Shelf button turns the High band into a high shelving EQ that alters, by a fixed amount, a band of high frequencies at and above a user-selected shelving frequency.

Power User Tip: *A high shelving EQ is like a treble-control knob on a stereo. In this mode, the Center Frequency control selects the shelving frequency.*

6. 低频段选择。启用/禁用低频段，并启用该频段的频率、增益和Q值。
7. 中低频段选择。启用/禁用中低频段，并启用该频段的频率、增益和Q值。
8. 中高频段选择。启用/禁用中高频段，并启用该频段的频率、增益和Q值。
9. 高架开/关. 启用/禁用高架EQ。当Shelf 按钮没有使用时，高频段是一个参数性的均衡器。启用 "Shelf " 按钮后，高频段就变成了一个高架均衡器，在用户选择的高架频率上下，以一个固定的量改变高频的频带。

7.2.10 Passive Program EQ 无源程序均衡器

1. **On/Off.** Turns the EQ on or off in the signal chain.
2. **Low Boost.** Sets the level of boost applied around the chosen low frequency. This control interacts nicely with the Low Attenuation control, allowing for boosts in apparent bass energy while keeping overall bass energy within optimal limits.
3. **Low Attenuation.** Sets the level of attenuation applied around the chosen low frequency. his control interacts nicely with the Low Boost control, allowing for boosts in apparent bass energy while keeping overall bass energy within optimal limits.
4. **Low Frequency Select.** Sets the center frequency of the band covered by the Low Boost and Low Attenuation controls.
5. **High Bandwidth.** Sets the Q (or width) of the effect of the high EQ band.
6. **High Boost.** Sets the level of boost applied around the chosen high frequency.
7. **High Attenuation.** Sets the amount of attenuation applied in a shelving fashion to frequencies at and above the chosen high frequency.
8. **High Frequency.** Sets the center frequency of the high EQ band.
9. **Attenuation Select.** Sets the frequency at and above which the High Attenuation control attenuates treble content.

1. 开/关。在信号链中打开或关闭EQ。

2. 低频提升。设定所选择的低频周围的提升水平。这个控制与衰减控制有很好的相互作用，允许提升明显的低音能量，同时将整体的低音能量保持在最佳范围内。

3. Low Attenuation. 这个控制与低速提升控制有很好的相互作用，可以提升明显的低音能量，同时将整体的低音能量保持在最佳限度内。

4. 低频选择。设置低速提升和低速衰减控制所覆盖的频带的中心频率。

5. 高带宽。设定高 EQ 频段效果的 Q 值（或宽度）。

6. High Boost（高提升）。设定所选择的高频周围的提升水平。

7. High Attenuation（高衰减）。设定在选定的高频及以上的频率上以搁置方式应用的衰减量。

8. 高频。设置高频均衡带的中心频率。

9. Attenuation Select（选择衰减）。设定高频衰减控制，对高音内容进行频率衰减。

7.2.11 Vintage 1970s EQ 70年代复古 EQ

1. **EQ On/Off.** Enables/disables the EQ globally. Touch to toggle on or off.
2. **Low Frequency.** Sets the shelving frequency for the Low Band.
3. **Low Gain.** Sets the Gain for the Low Band.
4. **Low-Mid Frequency.** Sets the center frequency for the Low-Mid Band.
5. **Low-Mid Gain.** Sets the Gain for the Low-Mid Band.
6. **High-Mid Frequency.** Sets the center frequency for the High-Mid Band.
7. **High-Mid Gain.** Sets the Gain for the High-Mid Band.
8. **High Gain.** Sets the Gain for the High Band.

1. **EQ开/关。**启用/禁用均衡器。触摸来切换开启或关闭。
2. **低频。**设置低频段的搁置频率。
3. **低增益。**设置低频段的增益。
4. **中低频。**设置中低频段的中心频率。
5. **低-中增益。**设置中低频段的增益。
6. **中高频率。**设置中高频段的中心频率。
7. **中高增益。**设置中高频段的增益。
8. **高增益。**设置高波段的增益。

7.2.12 Limiter 限制器

This encoder sets the threshold of the limiter for the selected channel or output bus. When the signal's amplitude (level) exceeds the threshold setting, the limiter is engaged. Turning the knob counterclockwise lowers the threshold, so limiting begins at a lower amplitude. The Limiter ratio is ∞:1.

这个编码器为选定的通道或输出总线设置限制器的门限。当信号的振幅（电平）超过门限值的设置时，限制器就开始工作。逆时针旋转旋钮可以降低门限值，因此限制在较低的幅度上开始。限制器的比例是∞：1。

7.2.13 Voice FX 语音特效

Your Revelator io44 is equipped with six Voice FX processors that can make your voice sound ethereal, otherworldly, or just plain weird… your choice! This section will go through each effect in detail. Note that while you can use any of these effects with the Fat Channel and Reverb, you can only use one effect at a time.

To enable/disable the Voice FX of your choice, use the power button in the Voice tab.

你的Revelator io44 配备了6个语音特效处理器，可以使你的声音听起来空灵、超凡脱俗，或是简单的搞怪.....由你来定！本节将详细介绍每种特效。注意，虽然你可以用Fat Channel和混响来使用这些效果中的任何一种，但你一次只能使用一种效果。

要启用/禁用你选择的声音特效，请使用声音标签中的电源按钮。

7.2.14 Doubler 加倍器

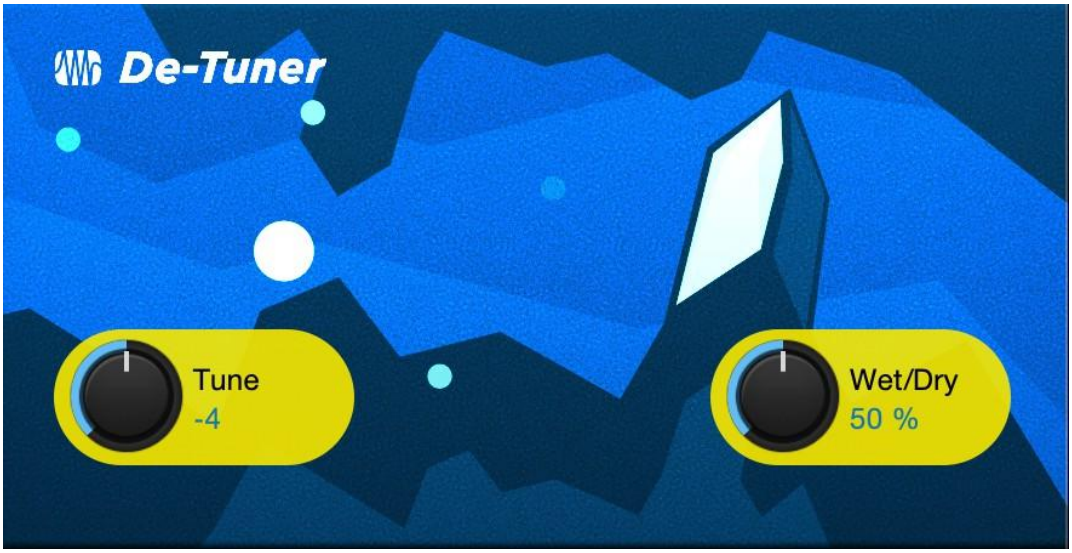
The Doubler will enhance your voice with a natural doubling effect that will add richness and depth with just a hint of reverb.

加倍器将以自然的加倍效果增强你的声音，只需一丝混响，就能增强丰富度。

- **Lows.** Use this control to boost the low-frequency content.
- **Width.** This control adjusts the stereo image.
- **Wet/Dry.** Blends the affected sound with the dry sound of your voice. Set to 100% to only hear the processed sound. Set to 0% to only head the dry sound.
- 低音。用这个控制来提高低频的内容。
- 宽度。这个控制可以调整立体声图像。
- Wet/Dry。将受影响的声音与你的声音混合。设置为100%，只听到受影响的声音。设为0%，则只听到Dry声音模式。

7.2.15 Detuner 分流器

True to its name, the Detuner will artificially lower your voice.
正如它的名字一样，去谐器会人为地降低你的声音。



- **Tune.** Sets the amount your voice will be lowered.
- **Wet/Dry.** Blends the affected sound with the dry sound of your voice. Set to 100% to only hear the processed sound. Set to 0% to only head the dry sound.

调音。设置你的声音将被降低的量。

Wet /Dry。将受影响的声音与你的声音的Dry混合模式。设置为100%，只听到受影响的声音。设为0%，只听到Dry声音模式。

7.2.16 Vocoder 声码器

Think of a vocoder as a “talking synthesizer.” Your voice is sent through a filter and essentially removed so that only the synthesized sound after it was modulated by the filter remains. This results in a synthesized sound that pulses to the tempo of your voice with the same tonal characteristics.

把声码器看成是一个 "会说话的合成器"。你的声音被送过一个滤波器，并基本上被移除，这样就只剩下被滤波器调制后的合成的声音。这就产生了一个合成的声音，它与你的声音的节奏一样，具有相同的音调特征。

- **Freq.** Sets the frequency of the filter.
- **Type.** Choose between three filter types: Noise, Sawtooth, Rectangle

- 频率（Freq）。设置滤波器的频率。
- 类型。在三种滤波器类型中选择。噪声、锯齿、矩形

- **Wet/Dry.** Blends the affected sound with the dry sound of your voice. Set to 100% to only hear the processed sound. Set to 0% to only head the dry sound.

Wet/Dry模式。将受影响的声音与你的声音的干音混合模式。设置为100%，只听到受影响的声音。设为0%，只听Dry声音模式。

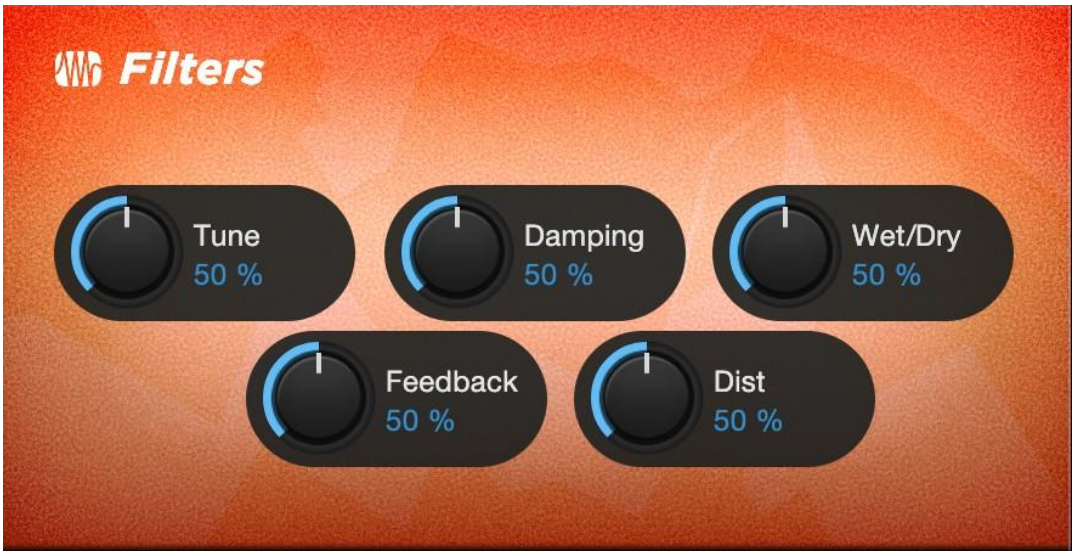
7.2.17 Ring Modulator 环形调制器

A Ring Modulator basically takes two separate signals (your voice and an oscillator) and creates a new signal that is made up of the sum and differences of the original sources. All of this is a fancy way of saying: it makes you sound like a robot. 环形调制器基本上是将两个独立的信号，创造一个新的信号，由原来的信号源的和与差组成。所有这些都是一种表面上的说法：它会使你的声音像一个机器人。

- **Dist.** Controls the amount of distortion from zero to over-the-top. 控制失真量，从零到超过顶点。
- **Freq.** Sets the frequency of the oscillation. 频率（Freq）。设定震动的频率。
- **SC Freq.** Sets the frequency of the Sub Carrier.SC频率（SC Freq）。设定副载波的频率。
- **Sub Carrier.** You can choose to add a low frequency oscillation to your signal or not by engaging or disengaging the Sub Carrier. Sub Carrier。你可以选择在你的信号中加入或不加入Sub Carrier 的低频振动。
- **Wet/Dry.** Blends the affected sound with the dry sound of your voice. Set to 100% to only hear the processed sound. Set to 0% to only head the dry sound. 将受影响的声音与你的声音的Dry混合模式。设为100%，只听到受影响的声音。设为0%则只听到Dry声音模式。

7.2.18 Filters 过滤器

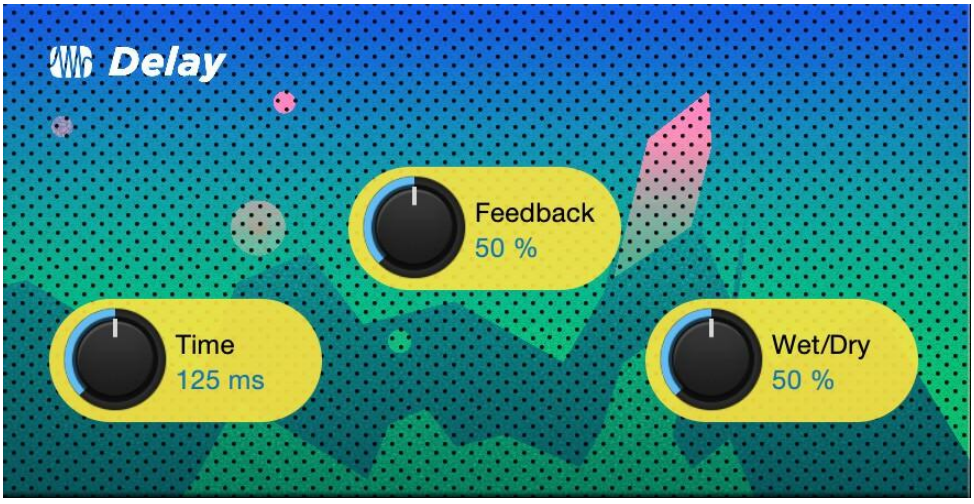
This is a custom filter bank that allows you to create some truly otherworldly effects!
这是一个自定义的滤镜库，可以让你创造出一些真正的异世界效果!



- **Tune:** Adjusts the pitch of the affected signal from high to low.
- **Damping:** Adjusts the amount of high-frequency content sent through feedback (4.) in the affected signal.
- **Wet/Dry:** Blends the affected (“wet”) sound with the un-affected, (“dry”) sound of your voice. Set to 100% to only hear only the processed sound. Set to 0% to only head the dry sound.
- **Feedback:** Adjusts length of echo effect.
- **Distortion:** Add some grit and edge to the affected sound, like an overdriven guitar ampllifier.
- 调音：调整受影响信号的音调，从高到低。
- 阻尼：调整受影响信号中，通过反馈（4.）发送的高频内容的数量。
- Wet/Dry：将受影响的（Wet"）声音与未受影响的（"Dry"）声音混合。设为100%，只听到处理后的声音。设为0%，则只听到Dry的声音模式。
- 反馈：调整回声效果的长度。
- 失真：给受影响的声音增加一些砂砾和边缘，就像一个过度驱动的吉他放大器。

7.2.19 Delay 延迟

A delay essentially creates an echo, although you can often use delays to create more complex time-based effects. The source signal is delayed so that it is heard later than it actually occurred.



延迟基本上是创造回声，尽管你经常可以用延迟来创造更复杂的基于时间的效果。源信号被延迟了，所以听到的时间比实际发生的时间晚。

- **Time.** This is the time (in milliseconds) between the source signal and its echo. The simplest delay effect is a single repeat. A short delay between 30 and 100 ms can be used to create slap-back echo, while longer delay times produce a more distant echo.
- **Feedback.** Variable feedback, or regeneration, produces multiple decaying repeats. Increasing the feedback value increases the number of echoes, as well as the resonance that is created as one echo disappears into another.
- **Wet/Dry.** Blends the affected sound with the dry sound of your voice. Set to 100% to only hear the processed sound. Set to 0% to only hear the dry sound.

- **时间。**这是源信号和它的回声之间的时间（以毫秒为单位）。最简单的延迟效果是单一的重复。30 到100毫秒之间的短延迟可以用来产生拍打回声，而较长的延迟时间则产生更远的回声。
- **反馈**。可变的反馈，或再生，产生多个衰减的重复。增加反馈值可以增加回声的数量，也可以增加一个回声消失在另一个回声中时产生的共鸣。
- **Wet/Dry。**将受影响的声音与你的声音的Dry混合模式。设为100%，只听到受影响的声音。设置为0%则只听到Dry模式。

8. Studio One Artist Quick Start

Whether you are about to record your first album or your fiftieth, Studio One Artist provides you with all of the tools necessary to capture and mix a great performance. 无论你是准备录制你的第一张专辑，还是第五十张专辑，Studio One Artist 都能为你提供所有的工具来创作你的表演。

Power User Tip: *As a valued PreSonus customer, you are eligible for a discount upgrade to Studio One Pro-fessional. For more details on the Studio One upgrade program for PreSonus customers, please visit https://shop.presonus.com/products/software/studio-one-prods.*

用户提示：*作为PreSonus的重要客户，你有资格以折扣价升级到Studio One Pro-fessional。关于 PreSonus 客户的Studio One升级计划的更多细节，请访问 https://shop.presonus.com/products/software/studio-one-prods。*

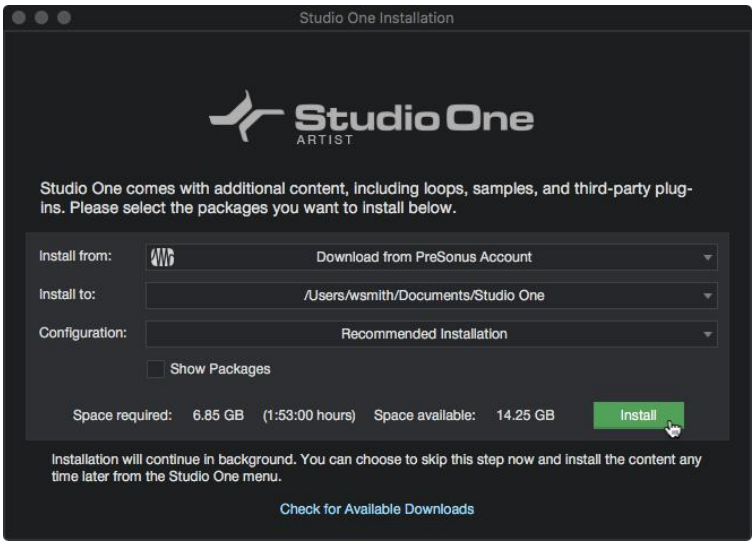
8.1 Installation and Authorization 安装与授权

Once you have installed the drivers for your audio interface and connected it to your computer, you can use the included PreSonus Studio One Artist music-production software to begin recording, mixing, and producing your music. To install Studio One Artist, log into your My PreSonus account and register your interface. Your product key for Studio One Artist will automatically be registered to your My PreSonus account, along with your hardware registration.

一旦你安装了音频接口的驱动程序并将其连接到电脑上，你就可以使用附带的PreSonus Studio One Artist音乐制作软件来开始录音、混音和制作音乐。要安装Studio One Artist，请登录My PreSonus 帐户并注册你的接口。你的 Studio One Artist 的产品密钥将自动注册到你的 My PreSonus 账户中，同时你的硬件注册也会自动注册。

Downloading and Running the Studio One Installer

下载并运行Studio One安装程序



To install Studio One Artist, download the Studio One Artist installer from your My PreSonus account to the computer on which you will use it.

- **Windows:** Launch the Studio One Artist installer and follow the onscreen instructions.
- **Mac:** Drag the Studio One Artist application into the Applications folder on your Mac hard drive.

Authorizing Studio One

When Studio One is launched for the first time on your computer, it will communicate with your My PreSonus account and verify your registration. To ensure a seamless authorization process, make sure to download your installer to the computer on which you will be using it, and be sure that your computer is connected to the Internet when you launch the application for the first time.

要安装 Studio One Artist，请从你的 My PreSonus 账户下载 Studio One Artist 安装程序到你要使用的电脑上。
在Windows下：启动Studio One Artist安装程序并按照屏幕上的指示操作。
苹果电脑：将Studio One Artist应用程序拖入你的Mac硬盘上的 "应用程序 "文件夹。

授权给Studio One

当Studio One 第一次在你的电脑上启动时，它将与你的My PreSonus 账户通信，并验证你的注册。为了确保无缝的授权过程，请确保将安装程序下载到你要使用的电脑上，并确保你的电脑在第一次启动应用程序时连接到互联网。

Power User Tip: *You may be prompted to enter your My PreSonus user account information. Clicking "Remember Credentials" will allow you to have immediate access to any content you purchase from the PreSonus Marketplace.*

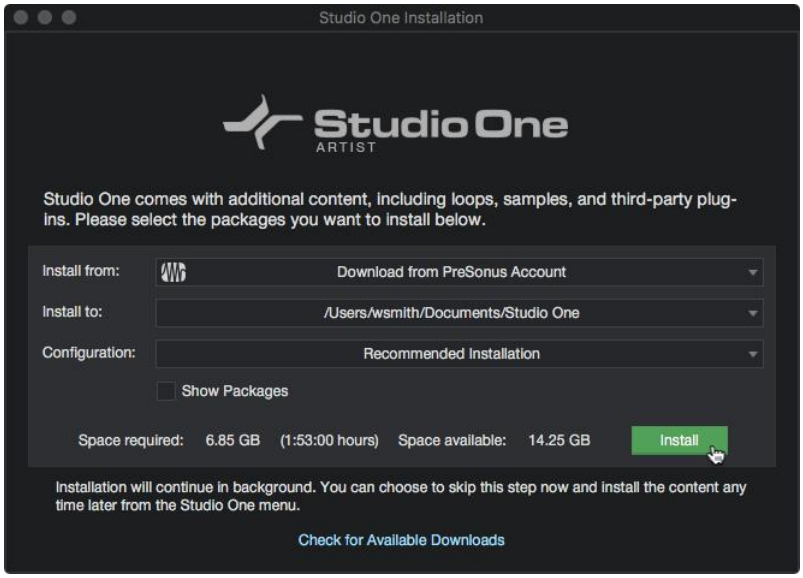
用户提示：*你可能会被提示输入你的 My PreSonus 用户帐户信息。点击 "Remember Credentials "将使你能够立即访问你从PreSonus Mar-ketplace购买的任何内容。*

Installing Bundled Content for Studio One Artist

Studio One Artist comes bundled with an array of demo and tutorial materials, instruments, loops, and samples. The Studio One Artist bundle includes all that you need to begin producing music.

为 Studio One Artist安装捆绑的内容

Studio One Artist 捆绑了一系列的演示和教程材料、乐器、循环和采样。Studio One Artist 的捆绑内容包括你开始制作音乐所需的所有内容。



The first time you launch Studio One Artist, you will be prompted to install its companion content. Select the content you wish to add and click “Install.” The content will automatically begin to download and install from your My PreSonus user account.当你第一次启动Studio One Artist时，你会被提示安装其配套内容。选择你想添加的内容，然后点击 "安装"。该内容将自动开始从你的 My PreSonus 账户中下载和安装。

Power User Tip: *To select only a portion of the available content, click on “Show Packages”. From here you can customize your content installation.*

用户提示：要只选择一部分可用的内容，请点击 "显示包"。从这里你可以定制你的内容安装。

8.2 Setting Up Studio One Artist 设置 Studio One Artist

Studio One Artist was designed to work with PreSonus interfaces and provides unique interoperability and simplified setup. When Studio One Artist is launched, by default you will be taken to the Start page. On this page, you will find document-management and device-configuration controls, as well as a customizable artist profile, a news feed, and links to demos and tutorials from PreSonus. If your computer is connected to the Internet, these links will be updated as new tutorials become available on the PreSonus Web site.

Studio One Artist 被设计为与PreSonus 接口一起使用，具有独特的互操作性和提供简化的设置。当 Studio One Artist 启动时，默认情况下，你会被带到 "开始" 页面。在这个页面上，你会发现文件管理和设备配置控制，以及一个可自定义的艺术家档案，一个新闻提要，还有 PreSonus 的演示和教程链接。如果你的电脑连接到互联网，当PreSonus网站上有新的教程时，这些链接将被更新。

Complete information on all aspects of Studio One Artist is available in the Reference Manual PDF located within Studio One. The information in this tutorial covers only the basic aspects of Studio One Artist and is intended to get you set up and recording as quickly as possible.

关于Studio One Artist各方面的完整信息，可以在Studio One的参考手册PDF中找到。本教程中的信息只包括Studio One Artist的基本内容，目的是让你尽快完成设置和录音。

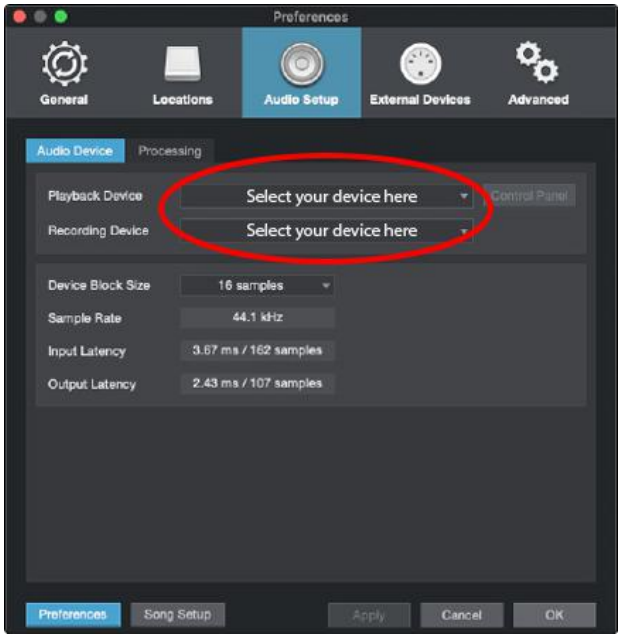
8.2.1 Configuring Audio Devices 配置 音频设备

In the middle of the Start page, you will see the Setup area. Studio One Artist automatically scans your system for all available drivers and selects a driver. By default, it will choose a PreSonus driver if one is available.

在开始页面的中间，你会看到设置区域。Studio One Artist 会自动扫描你的系统，寻找所有可用的驱动，并选择一个驱动。默认情况下，如有 PreSonus 的驱动程序，它将选择一个。

If you do not see your device listed on the Start page when you launch Studio One, click on the Configure Audio Devices link in the Setup area to open the Options window.

如果你在启动 Studio One 时，没有看到你的设备列在 "开始" 页上，请点击设置区的 "配置音频设备" 链接，打开选项窗口。



In the Options window, click on the Audio Setup tab and select your device driver from the pull-down.
在 "选项 " 窗口，点击 "音频设置 " 标签，从下拉菜单中选择你的设备驱动程序。

8.3 Configuring MIDI Devices 配置MIDI设备

From the External Devices window in Studio One Artist, you can configure your MIDI keyboard controller, sound modules, and control surfaces. This section will guide you through setting up your MIDI keyboard controller and sound modules. Please consult the Reference Manual located within Studio One for complete setup instructions for other MIDI devices.

在 Studio One Artist 的外部设备窗口中，你可以配置你的MIDI键盘控制器、声音模块和控制面。本节将指导你设置你的MIDI键盘控制器和声音模块。有关其他MIDI设备的全部设置说明，请查阅Studio One中的《参考手册》。

If you are using a third-party MIDI interface or USB MIDI-controller keyboard, you must install any required drivers for these devices before beginning this section. Please consult the documentation that came with your MIDI hardware for complete installation instructions.

If you do not have any MIDI devices, please skip this section.

如果你使用的是第三方MIDI接口或USB MIDI控制器键盘，在开始本节之前，你必须为这些设备安装任何必要的驱动程序。有关完整的安装说明，请查阅您的MIDI硬件附带的文件。

如果你没有任何MIDI设备，请跳过本节。

Setting up an External MIDI Keyboard Controller from the Start Page

从开始页，设置一个外部 MIDI键盘控制器

A MIDI keyboard controller is a hardware device that is generally used for playing and controlling other MIDI devices, virtual instruments, and software parameters. In Studio One Artist, these devices are referred to as Keyboards, and they must be configured before they are available for use. In some cases, your MIDI keyboard controller is also used as a tone generator. Studio One Artist views the controller and tone-generation functions as two different devices: a MIDI keyboard controller and a sound module. The MIDI controls (keyboard, knobs, faders, etc.) will be set up as a Keyboard. The sound modules will be set up as an Instrument.

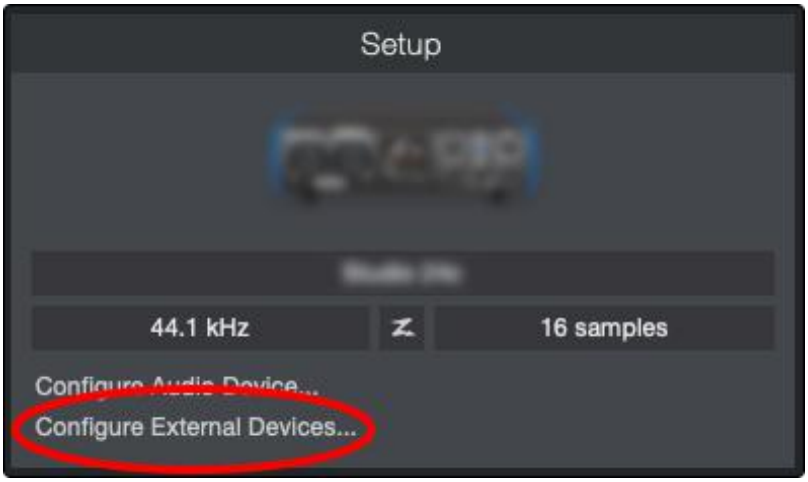
MIDI键盘控制器是一种硬件设备，通常用于演奏和控制其他MIDI设备、虚拟乐器和软件参数。在Studio One Artist中，这些设备被称为键盘，在使用前必须对它们进行配置。在某些情况下，你的MIDI键盘控制器也被用作音色发生器。Studio One Artist将控制器和音调发生器的功能视为两个不同的设备：一个MIDI键盘控制器和一个声音模块。MIDI 控制器（键盘、旋钮、音量控制器等）将被设置为键盘。声音模块将被设置为一个乐器。

You can set up your external MIDI devices from the Setup area in the Start page. Before setting up a new Song for recording, take a moment to configure external devices.

Make sure you have connected the MIDI Out of your external MIDI controller to a MIDI In on your PreSonus audio interface (if available) or other MIDI interface. If you are using a USB MIDI controller, connect it to your computer and power it on.

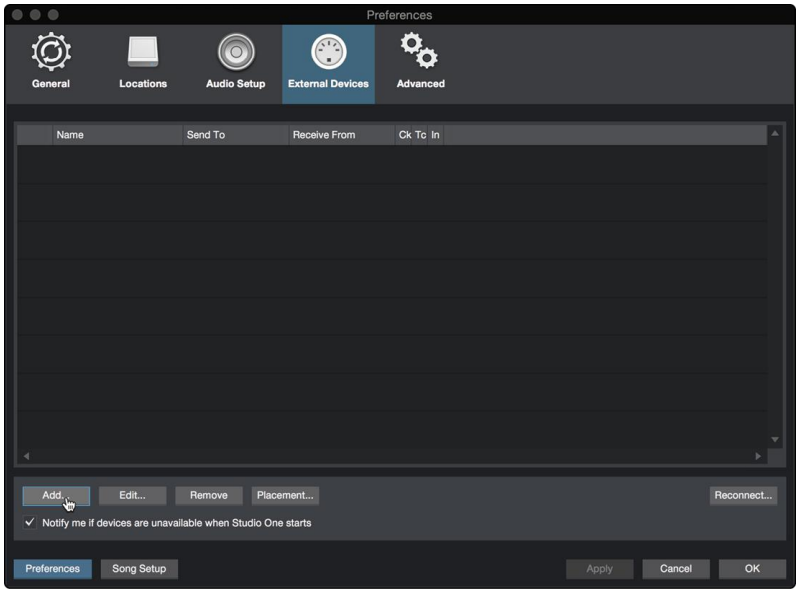
你可以在 "开始" 页面的 "设置" 区域设置你的外部 MIDI 设备。在设置一个新的歌曲进行录音之前，花点时间配置外部设备。

确保你已经将外部 MIDI 控制器的 MIDI 输出连接到PreSonus 音频接口（如果有的话）或其他 MIDI 接口的MIDI输入。如果你使用的是 USB MIDI 控制器，请将它连接到你的电脑上并接通电源。



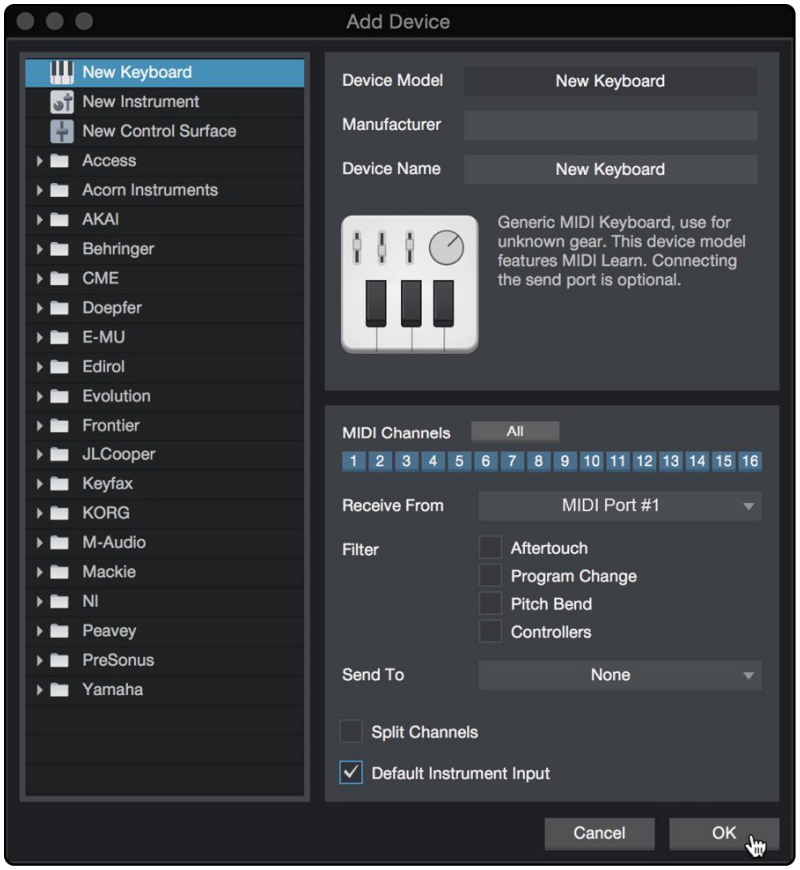
Click on the Configure External Devices link in the Setup area on the Start page to launch the External Devices window.

点击 "开始 " 页面设置区的 "配置外部设备 "链接，启动 "外部设备 "窗口。



Click the Add button. This will launch the Add Device window.

点击 "添加 " 按钮。这将启动 "添加设备 " 窗口。



From the menu on the left, select your MIDI controller from the list of manufacturers and models. If you do not see your MIDI controller listed, select New Keyboard. At this point, you can customize the name of your keyboard by entering the manufacturer and device names.

从左边的菜单中的制造商和型号的列表中，选择您的MIDI控制器。如果你没有看到列出你的MIDI控制器，请选择新键盘。在这一点上，你可以通过输入制造商和设备名称来定制你的键盘名称。

- You must specify which MIDI channels will be used to communicate with this keyboard. For most purposes, you should select all MIDI channels. If you are unsure of which MIDI channels to choose, select all 16.
- Studio One allows you to filter out specific control functions. If you would like Studio One to ignore Aftertouch, Pitch Bend, Program Change, or all CC messages, enable filtering for any or all of these messages.
- In the Receive From drop-down menu, select the MIDI interface input from which Studio One Prime will receive MIDI data (that is, the MIDI port to which your keyboard is connected).
- If this is the only keyboard that you will use to control your external synthesizers and virtual instruments, you should check the box next to Default Instrument Input. This will automatically assign your keyboard to control all MIDI devices in Studio One Prime.
- Click “OK.” You're all set up!

- 你必须指定哪些 MIDI 通道将被用于与该键盘通信。对于大多数情况，你应该选择所有的MIDI通道。如果你不确定要选择哪些 MIDI 通道，请选择全部16个。
- Studio One 允许你过滤掉特定的控制功能。如果你想让Studio One忽略Aftertouch、Pitch Bend、Program Change或所有CC信息，请启用任何或所有这些信息的过滤功能。
- 在 Receive From下拉菜单中，选择Studio One Prime接收MIDI数据的MIDI接口输入（也就是你的键盘所连接的MIDI端口）。
- 如果这是你用来控制外部合成器和虚拟乐器的唯一键盘，你应该选中默认乐器输入旁边的方框。这将自动分配你的键盘来控制Studio One Prime 中的所有MIDI设备。
- 点击 "确定"。你就全部设置好了!

Power User Tip:*In the Send To drop-down menu, select the MIDI interface output from which your Studio One will send MIDI data to your keyboard. If your keyboard controller doesn’t need to receive MIDI data from Studio One, you can leave this unselected.*

用户提示：*在 "发送到 "下拉菜单中，选择MIDI接口输出，Studio One将从该接口向你的键盘发送MIDI数据。如果你的键盘控制器不需要从Studio One接收MIDI数据，你可以不加选择。*

If you have a sound module that you’d like to connect, leave the External Devices window open and proceed to the next part of this section. If not, you can close the window and skip to the next section.

如果你有一个你想连接的声音模块，让 "外部设备 " 窗口打开，然后进入本节的下一部分。如果没有，你可以关闭该窗口并跳到下一节。

Setting up an External MIDI Sound Module from the Start Page

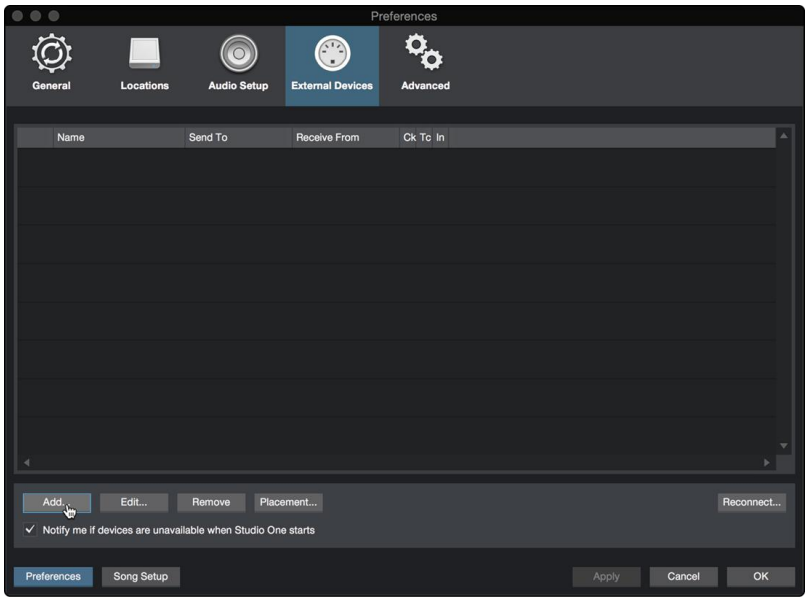
从开始页，设置一个外部MIDI声音模块

MIDI instrument controllers (keyboards, MIDI guitars, etc.) send musical information, in the form of MIDI data, to tone modules and virtual instruments, which respond by generating sound as instructed. Tone modules can be standalone sound devices or can be integrated into a MIDI instrument, such as a key- board synthesizer. Studio One Artist refers to all tone generators as Instruments. Once you have set up your MIDI keyboard controller, take a moment to configure your sound module.

MIDI乐器控制器（键盘、MIDI吉他等）以 MIDI 数据的形式向音色模块和虚拟乐器发送音乐信息，音色模块按照指示产生声音来响应。音色模块可以是独立的声音设备，也可以集成到一个MIDI乐器中，比如键盘合成器。Studio One Artist 把所有的音色发生器都称为乐器。一旦你设置好了你的 MIDI 键盘控制器，就花点时间来配置你的声音模块。

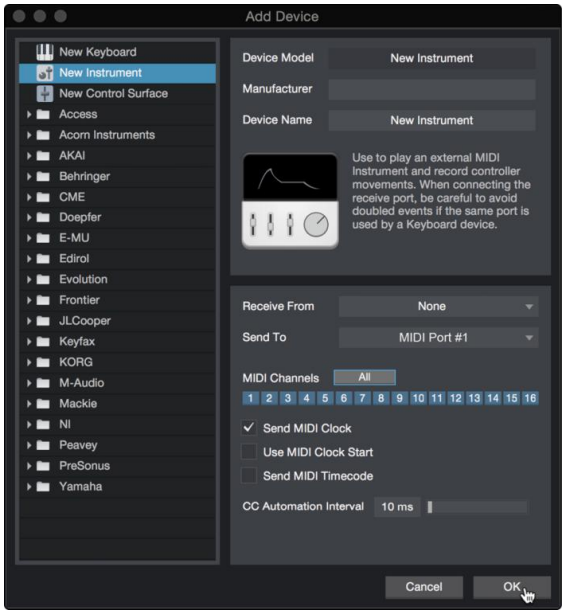
Make sure you have connected the MIDI In of your external sound module to the MIDI Out of your MIDI interface.

确保你已经将外部声音模块的 MIDI 输入连接到你的MIDI接口的MIDI输出。



In the External Devices window, click the Add button.

在 "外部设备 " 窗口，点击 "添加 " 按钮。



Select your device in the menu on the left. If your device is not listed, select New Instrument. At this point you can customize the name of your keyboard by entering the manufacturer and device names.

- Specify which MIDI channels will be used to communicate with this sound module. For most purposes, you should select all MIDI channels. If you are unsure of which MIDI channels to select, we suggest you select all 16.
- In the Send To menu, select the MIDI interface output from which Studio One Prime will send MIDI data to your sound module. Click “OK” and close the External Devices window. You are now ready to start recording in Studio One Prime.

The rest of this Quick Start Guide will go over how to set up a Song and will discuss some general workflow tips for navigating through the Studio One Artist environment.

在左边的菜单中选择你的设备。如果你的设备没有列出，请选择 "新仪器"。这时你可以通过输入制造商和设备名称来定制你的键盘名称。

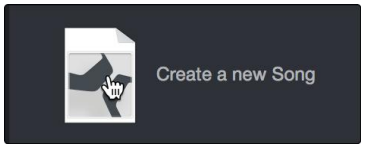
- 指定哪些 MIDI 通道将被用来与这个声音模块通信。对于大多数目的，你应该选择所有的MIDI通道。如果你不确定要选择哪些MIDI通道，我们建议你选择全部16个。
- 在 "发送到 "菜单中，选择MIDI接口输出，Studio One Prime 将从该接口向你的声音模块发送MIDI数据。点击 "确定"，关闭 "外部设备 " 窗口。准备好现在可以在Studio One Prime中开始录音。

本快速入门指南的其余部分将介绍如何设置歌曲，并将讨论一些在Studio One Artist环境中导航的一般工作流程提示。

8.4 Creating a New Song 创建一首歌曲

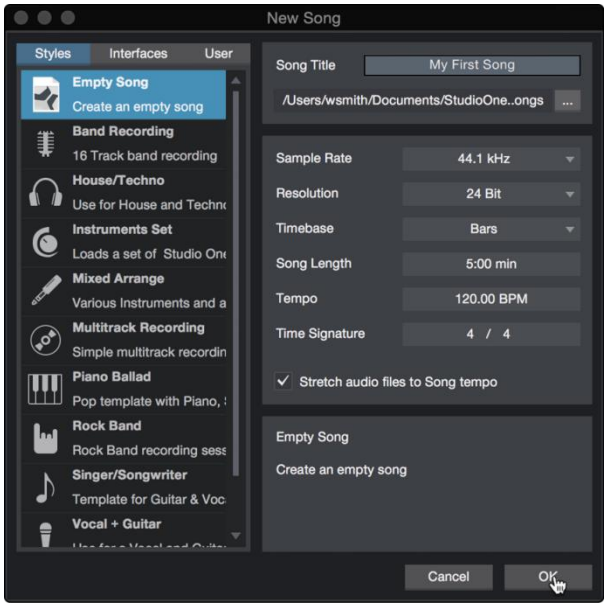
Now that you’ve configured your audio and MIDI devices, let’s create a new Song. We’ll start by setting up your default audio I/O.

现在你已经配置了你的音频和MIDI设备，让我们来创建一首新的歌曲。我们将从设置你的默认音频输入/输出开始。



From the Start page, select “Create a New Song.”

从 "开始 "页面，选择 "创建一首新歌"



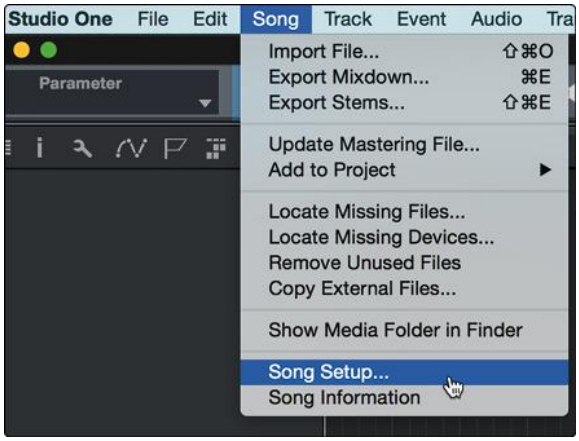
In the New Song window, name your Song and choose the directory in which you'd like it saved. You'll notice a list of templates on the left. These templates provide quick setups for a variety of devices and recording situations. The section will describe creating a Song from an empty session.

在 "新建歌曲" 窗口，为你的歌曲命名，并选择你想保存的目录。你会注意到左边有一个模板列表。这些模板为各种设备和录音情况提供快速设置。本节将描述从一个空的会话中创建一首歌曲。

***Power User Tip**: If you plan to import loops into your Song, make sure that the Stretch Audio Files to Song Tempo option is selected. This will automatically import loops at the correct tempo.*

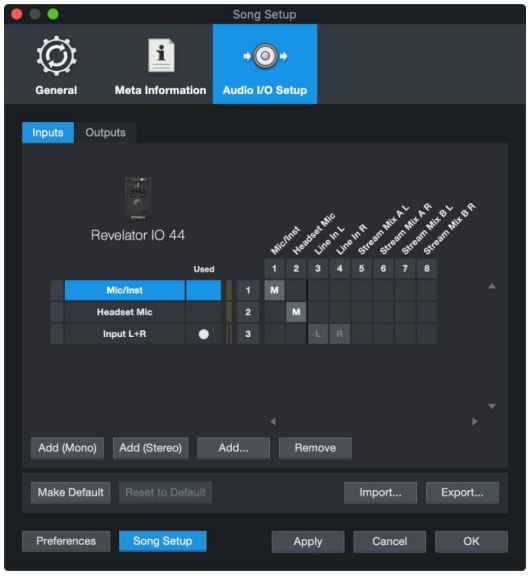
***用户提示：**如果你打算把循环导入到你的歌曲中，请确保选择 "将音频文件拉伸到歌曲节奏 "选项。这将自动以正确的速度导入循环。*

9. Configuring Your I/O 配置你的输入和输出



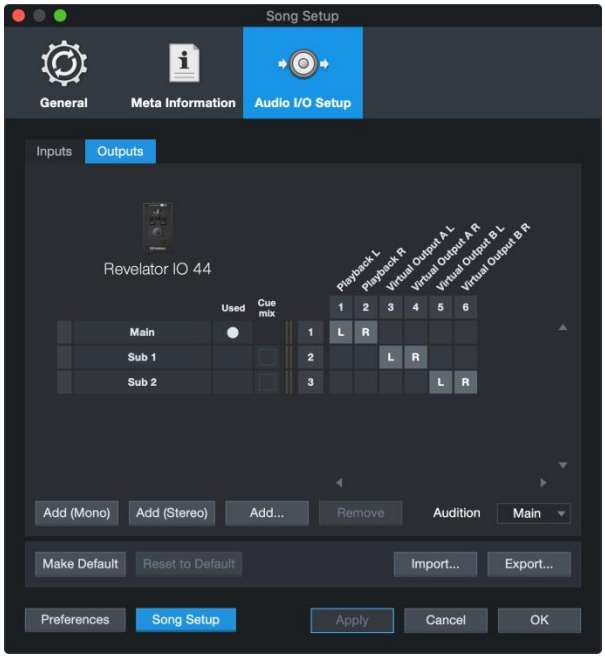
Click on Song | Song Setup to set your sample rate and resolution and configure your audio I/O.
点击歌曲|歌曲设置，设置你的采样率和分辨率，配置你的音频I/O。

Click on the Audio I/O Setup tab. 点击音频I/O设置标签。



From the Inputs tab, you can enable the Mic/Inst, Headset, and Stereo Line Inputs for your Revelator io44, as well as the Stream Mix Inputs that you'd like to have available. We recommend you create a mono input using Input 1 of your Revelator io44 and two Stereo Inputs; one for Stream Mix A and another for Stream Mix B.

在 "输入" 选项卡中，你可以为你的Revelator io44启用麦克风/录音机、耳机和立体声线路输入，以及你想获得的流混合输入。我们建议你使用 Revelator io44 的输入1创建一个单声道输入和两个立体声输入；一个用于Stream Mix A，另一个用于Stream Mix B。



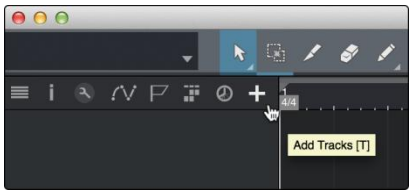
Click on the Outputs tabs to enable any or all of the outputs on your Revelator io44. In the lower right corner, you will see the Audition Select menu. This allows you to choose the output from which you will audition audio files prior to importing them into Studio One Artist. In general, you will want this to be the main output bus.

点击 "输出 " 选项卡，启用Revelator io44上的任何或所有的输出。在右下角，你会看到试听选择菜单，允许你选择输出，在将音频文件导入Studio One Artist之前，你将从该输出进行试听。一般来说，你会希望这是主输出总线。

***Power User Tip**: If you would like this I/O configuration to be the same every time you open Studio One, click the Make Default button.*

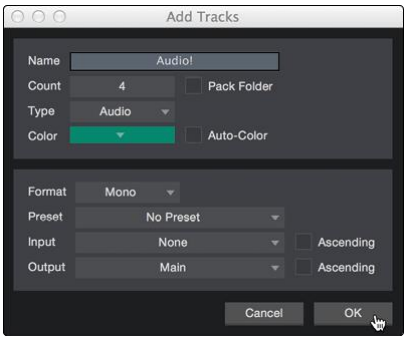
***用户提示：**如果你希望每次打开 Studio One时，这个 I/O 配置都是一样的，请点击 Make Default 按钮。*

10. Creating Audio and Instrument Tracks 创建音频和音轨



In the upper left corner of the Arrange window, you will notice several buttons. The button furthest to the right is the Add Tracks button. Click on this button to open the Add Tracks window.

在编曲窗口的左上角，你会注意到几个按钮。最靠右的按钮是 "添加音轨 " 按钮。点击这个按钮，打开 "添加音轨" 窗口。



In the Add Tracks window, you can customize the track name and color, add a preset rack of effects, and set the physical source for the input and output of your audio tracks. Most important, you can select the number and type of tracks you'd like to create.

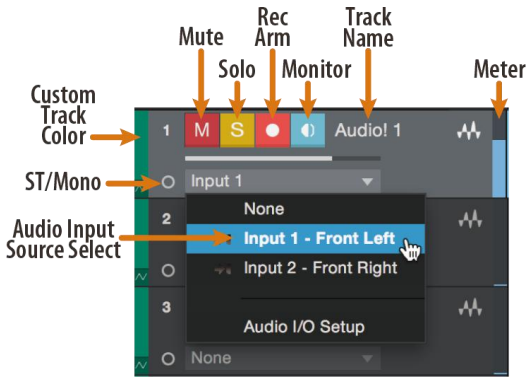
- **Audio.** Use this track type to record and playback audio files.
- **Instrument.** Use this track to record and playback MIDI data to control external MIDI devices or virtual instrument plug-ins.
- **Automation.** This track type lets you create automated parameter controls for your session.
- **Folder.** This track helps you to manage your session as well as to quickly edit multiple tracks at once.

在 "添加音轨" 窗口中，你可以自定义音轨的名称和颜色，添加预设的效果器，并为音轨的输入和输出设置物理源。最重要的是，你可以选择你想创建的轨道的数量和类型。

- 音频。使用这种轨道类型来录制和播放音频文件。
- 乐器。使用这种轨道来记录和播放MIDI数据，以控制外部MIDI设备或虚拟乐器插件。
- Automation（自动化）。这种轨道类型可以让你为你的会话创建自动参数控制。
- 文件夹。这种轨道可以帮助你管理你的会话，也可以一次快速编辑多个轨道。

Power User Tip: *If you would like to add an audio track for each of the available inputs, go to Track | Add Tracks for All Inputs.*

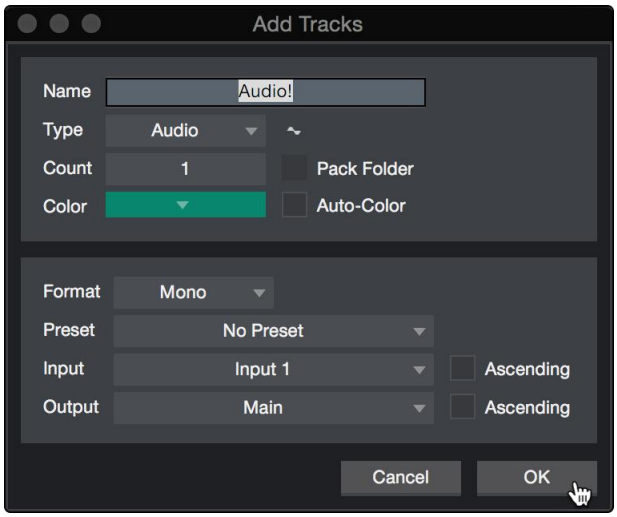
用户提示：如果你想为每个可用的输入添加一个音轨，请进入音轨|为所有输入添加音轨。



Note: Instrument tracks are nearly identical to audio tracks. The Input Source list for Instrument tracks lists available external MIDI devices as well as any virtual instruments that have been added to the Song.

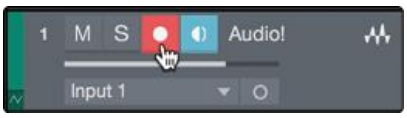
注意：乐器轨道几乎与音频轨道相同。乐器轨道的输入源列表列出了可用的外部MIDI设备，以及已经添加到歌曲中的任何虚拟乐器。

10.0.1 Recording an Audio Track 录制一个音轨



To begin recording, create an audio track from the Add Tracks window, set its input to Input 1 on yourRevelator io44, and connect a microphone to the same input.

要开始录音，从 "添加音轨" 窗口创建一个音轨，将其输入设置为Revelator io44的输入1，并将一个麦克风连接到同一输入。



Select Record Enable on the track. Turn up the Input 1 level on your audio interface while speaking/singing into the microphone. You should see the input meter in Studio One Artist react to the input. Adjust the gain so the input level is near its maximum without clipping (distorting).

You are now ready to start recording. For complete instructions, please consult the Studio One Reference manual located in Help | Studio One Reference Manual.

在轨道上选择 "启用录音"。在你的音频接口上调高输入1的电平，同时对着麦克风说话/唱歌。你应该看到Studio One Artist中的输入表对输入的反应。调整增益，使输入电平接近其最大值，而不出现削波（失真）。

准备好现在你可以开始录音了。有关完整的说明，请查阅位于帮助|Studio One参考手册的Studio One参考手册。

10.0.2 Adding Virtual Instruments and Effects

添加虚拟乐器和效果

You can add plug-ins and instruments to your Song by dragging-and-dropping them from the browser. You can also drag an effect or group of effects from one channel to another, drag in customized effects chains, and instantly load your favorite virtual-instrument preset without ever scrolling through a menu.
你可以通过从浏览器中拖放插件和乐器来增加你的歌曲。你还可以把一个或一组效果器，从一个通道拖到另一个通道，拖入定制的效果器链，并立即加载你最喜欢的虚拟乐器预设，而无需滚动菜单。

Opening the browser.
打开浏览器。

In the lower right corner of the Arrange window are three buttons:

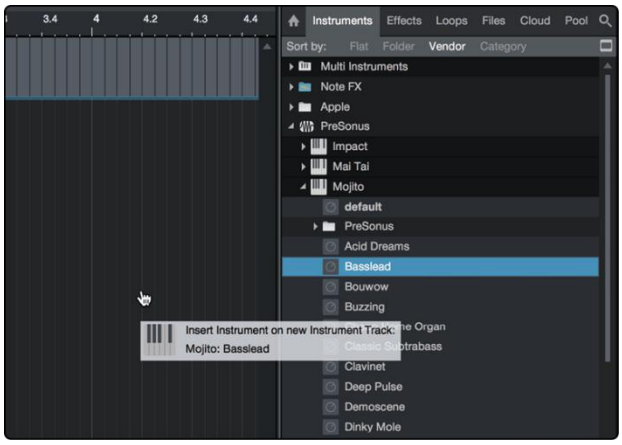
- The Edit button opens and closes the audio and MIDI editors.
- The Mix button opens and closes the Mixer window.

在编曲窗口的右下角有三个按钮。

- 编辑按钮可以打开和关闭音频和MIDI编辑器。
- 混合按钮打开和关闭混合器窗口。

- The Browse button opens the browser, which displays all of the available virtual instruments, plug-in effects, audio files, and MIDI files, as well as the pool of audio files loaded into the current session.
  浏览按钮打开浏览器，显示所有可用的虚拟乐器、插件效果、音频文件和MIDI文件，以及加载到当前会话的音频文件池。

Drag-and-Drop Virtual Instruments 拖放虚拟乐器



To add a virtual instrument to your session, open the browser and click on the Instrument button. Select the instrument or one of its patches from the Instrument browser and drag it into the Arrange view. Studio One Artist will automatically create a new track and load the instrument as the input.

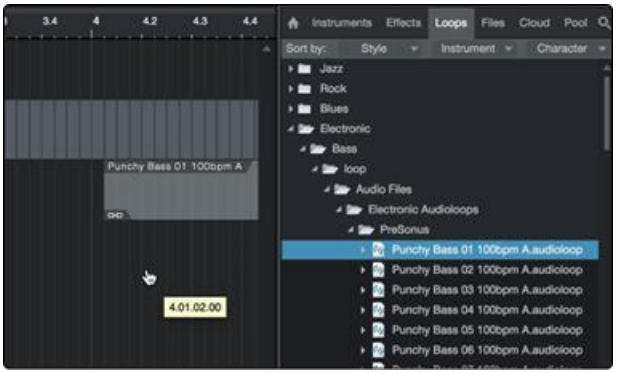
要添加一个虚拟乐器到你的会话中，打开浏览器并点击乐器按钮。从乐器浏览器中选择乐器或它的一个补丁，然后把它拖到编曲视图中。Studio One Artist会自动创建一个新的音轨，并将该乐器作为输入载入。

Drag-and-Drop Effects
拖放效果

To add a plug-in effect to a track, click the Effects button in the browser and select the plug-in or one of its presets in the effects browser. Drag-and-drop the selection over the track to which you would like to add the effect.

要将插件效果添加到轨道上，请单击浏览器中的 "效果" 按钮，并在效果浏览器中选择插件或其预置之一。将选择的效果拖放到你想添加效果的轨道上。

Drag-and-Drop Audio and MIDI Files
拖放音频和MIDI文件



Audio and MIDI files can be quickly located, auditioned, and imported into your Song by dragging them from the file browser into the Arrange view. If you drag the file to an empty space, a new track will be created with that file placed at the position to which you dragged it. If you drag the file to an existing track, the file will be placed as a new part of the track.

通过将音频和MIDI文件从文件浏览器拖到编曲视图中，可以快速定位、试听并导入你的歌曲中。如果你把文件拖到一个空位上，就会创建一个新的轨道，把该文件放在你拖动的位置上。如果你把文件拖到一个现有的轨道上，该文件将作为该轨道的一个新部分被放置。

11. Resources 资源

11.1 Gain Staging 101: Begin at the Beginning

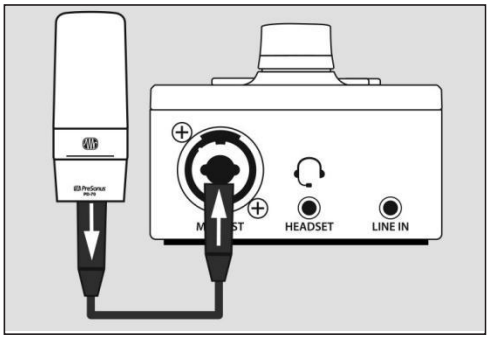
增益分期101：从头开始

It may seem counter-intuitive to boost the signal closest to its source and cut it later in the signal path if it is too loud, but this is precisely the best way to get a noise- and feedback-free recording. That said, you don't want to gain it up too much at the beginning either. If you find that you must cut the signal at every component that sits after the input-trim stage to avoid distortion, you've probably set the trim too high. Then, and only then, should you gain it down.

提升最接近信号源的信号，并在信号路径的后面削减它，如果它太响的话，这似乎是违反直觉的，但这正是获得无噪音和无反馈的录音的最佳方式。也就是说，一开始不想把它增益得太高。如果你发现你必须在输入调整阶段之后的每个组件上切断信号以避免失真，可能你的调整已经设置得太高了。那么，你应该把它增益调下来。

11.1.1 Step 1: Setting the Microphone Gain

第1步：设置麦克风增益

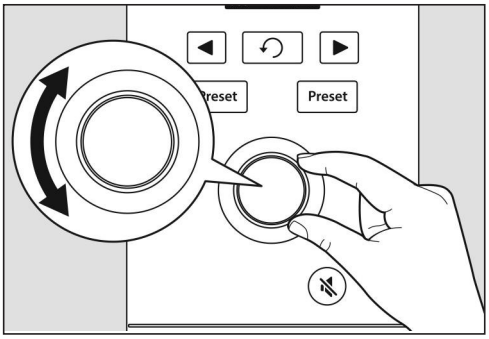


First, plug in your microphone into your desired Channel input and activate +48v if your mic requires it.

首先，将麦克风插入你所需的通道输入，如果你的麦克风需要的话，激活+48v。

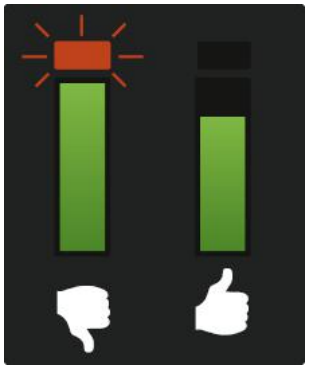
Put on your headphones and listen.

戴上你的耳机，听一听。



Turn the Encoder knob clockwise while speaking into the microphone.

在对着麦克风说话时，顺时针转动编码器旋钮。



Watching for the signal/clip indicator to turn red, then back it down until the level indicator is green only.

观察信号/夹子指示灯变成红色，然后将其退回，直到指示灯仅有绿色。

11.1.2 Step 2: Setting the EQ and Dynamics 设置均衡器和动态器

After you have set the input gain, you can use your channel EQ to sculpt your source. The more bands your EQ offers, the more control you will have, but you'll also add more potential for improper gain staging, so use with caution. This is also true with compression.

To set the EQ, you will need to adjust both the channel and the main faders to 0.0 dB. (AKA "unity.") This is just for the purposes of dialing in the sound you want. You'll dial in the mix next.

Often, when people are new to using an equalizer, they listen for what is missing from their source signal and try to boost it in. But that's not always the best solution. Sometimes removing the frequencies that are drowning out the ones you want works best.

Dynamics processors can be difficult to work with at first, because they both reduce gain and amplify it. Let's take a look at a compressor for a moment. A compressor works by lowering the dynamic range—and by extension, the gain—of a signal, but it also gives you a make-up gain control that allows you to get some of that back. If you apply a lot of gain reduction to a signal, then boost it too far with the make-up gain, your sound can get very unwieldy very fast. As with an EQ, only compress a signal as much as you need to (unless you're using it for a creative effect), and only gain it back up as far as you have to for it to cut through yourmix.

在你设置了输入增益后，你可以使用你的通道EQ来打磨你的音源。你的EQ提供的频段越多，你的控制力就越强，但你也会增加更多不适当的增益稳定的可能性，所以使用时要小心谨慎。在压缩方面也是如此。

要设置EQ，你需要将通道和音量控制器都调整到0.0dB。(又称 "统一"。) 这只是为了调出你想要的声音。接下来你将拨入混音。

通常情况下，当人们刚开始使用均衡器时，他们会聆听源信号中缺少的部分，并试图将其提高。但这并不总是最好的解决办法。有时，去除淹没在你想要的频率中的频率效果最好。

动态处理器一开始可能很难操作，因为它们既能减少增益又能放大增益。让我们先看一下压缩器。压缩器的工作原理是降低动态范围—也就是信号的增益，但它也给你一个补强的增益控制，使你能拿回一些增益。如果你把大量的增益降低到一个信号上，然后用补充增益把它提升得太远，你的声音就会很快变得非常不流畅。就像EQ 一样，只有在你需要的时候才压缩信号（除非你用它来做创造性的效果），并且只有在你需要的时候才回升它的增益，使它能够穿过你的混音。

11.1.3 Step 3: Setting Your Mix—The Unity Myth 设置你的混音

There is an unfortunate rumor that persists in the darker corners of the audio-nerd Internet. It states that all your faders should be set to unity (that bold line in the middle of the fader markings at 0 dB). But if you do this, you will limit the dynamic range of your signals—and not in a good way.

That bold mark next to your faders means just one thing: The channel and output mix level controls are not adding or removing any amplitude (volume) to or from your signal.

Why do you need to know this? For input gain staging and dialing in your EQ and dynamics, of course!

With the channel and the main faders at unity, you can listen to an individual channel unadulterated while you're setting your input gain level and adjusting your EQ and dynamics to sculpt the sound. Once that's done, the fat line in the middle of the channel has largely served its purpose. Are you getting too much of your animated guest caller in your headphones? By all means, go ahead and lower it. Need to give your own channel a little gas to compete? That's what that 10 dB above unity is for.

Like everything in audio, however, these rules aren't absolute, especially in a live sound situation. If you are gaining up a channel well above unity just for it to be heard in your mix, maybe your other channels are too loud. Try lowering the levels of the rest of your mix.

有一个很遗憾的说法，在音频互联网的黑暗角落里持续存在。它说，你所有的Faders 都应该设置为统一（Faders 标记中间的那条粗线为0dB）。但是，如果你这样做，会限制你的信号动态范围，而且不是一个好的方式。

Faders 旁边的粗体标记只意味着一件事：通道和输出混合电平控制没有为你的信号增加或减少任何振幅（音量）。

为什么你需要知道这个？当然是为了输入增益阶段和拨入EQ和动态！

在通道和Faders处于统一的情况下，你可以在设置输入增益水平和调整EQ和动态来塑造声音时，听一个单独的通道，不受影响。一旦这样做了，通道中间的粗线就基本达到了它的目的。你是否在耳机中得到了太多你的动画嘉宾来电？通过各种手段，继续降低它。需要给你自己的频道加点油来竞争吗？这就是高于统一标准的10分贝的作用。

然而，像音频中的一切，这些规则不是绝对的，尤其是在现场的声音情况。如果你把一个通道的增益远远超过统一水平，只是为了让它在你的混音中被听到，也许你的其他通道太响了。试着降低其余混音的电平。

11.1.4 Microphone Tips and Tricks 麦克风技巧和窍门

Like any tool, a microphone must be used properly to get the best result. Professional broadcasters or vocalists will tell you that good microphone technique is crucial to getting a good recording. How many times have you listened to a podcast where it sounded like there was a wall between the on-air talent and their microphone? Or the microphone was so close you could hear each breath and every popping 'P' sounded like a mini explosion in your headphones?

Proximity to the microphone is the most common issue when anyone begins the process of learning proper mic technique, but other issues, like background noise and improper gain staging, will exacerbate a poorly positioned microphone. Don't worry, we've all been there, and PreSonus has put together this tutorial to help you mitigate the most common mistakes people make when getting started recording their voice with a microphone.

像任何工具一样，麦克风必须正确使用才能获得最佳效果。专业人士会告诉你，良好的麦克风技术是获得良好录音的关键。你听过多少播音员和他们的麦克风之间像有一堵墙？或者麦克风离得太近，你可以听到每一次呼吸，每一个爆裂的 "P " 在你的耳机里听起来像一个小型爆破音？

当任何人开始学习正确的麦克风技术时，与麦克风的距离是最常见的问题，但其他问题，如背景噪音和不适当的增益阶段，会使位置不佳的麦克风变得更加糟糕。别担心，我们都经历过这种情况，PreSonus已经把这个教程放在一起，帮助你减轻人们在开始用麦克风录音时最常见的错误。

11.1.5 Handling Noise 处理噪音

Holding a microphone too roughly will create problematic handling noise. While this is fine for a stage performance where the sheer volume of the instruments on stage will mask this noise, in an audio recording made from a quiet location, handling noise becomes a distraction from the primary sound source. And in this case, that source is you! Handling noise can be eliminated by mounting your microphone to a stand or boom arm, particulary one with a shock mount.

太使劲地握住麦克风会产生有问题的噪音处理。虽然这对舞台表演来说很好，因为舞台上乐器发出的巨大音量会掩盖这种噪音，但在一个安静的地方进行的录音中，噪音处理会分散人们对主要声源的注意力。而在这种情况下，这个声源就是你的声音! 通过将麦克风安装在支架或吊臂上，特别是带有减震装置的支架上，可以消除噪音。

11.1.6 How Close is Too Close? 多近才算近？

Microphones are designed to pick up sound; that's their job. When folks are first learning to use a microphone, there is a natural tendency to speak too softly or too loudly. This is where monitoring yourself through headphones is especially helpful. As a general rule, if it sounds good in your headphones, it will sound good in your recording.

A good starting point is to position your mouth about four inches from the microphone. If you project your voice naturally, you may need to sit a little further back. The good news is that good microphone technique quickly becomes muscle memory once you get the hang of it, so the more you practice, the less awkward it becomes.

麦克风的设计是为了拾取声音，这是它们的工作。当人们第一次学习使用麦克风时，自然会有说话太轻或太大声的倾向。这时，通过耳机监听自己的声音就特别有帮助。一般来说，如果在耳机里听起来不错，在录音中也会听起来不错。

一个好的起点是将你的嘴放在离麦克风大约四英寸的地方。如果你的声音投射得很自然，你可能需要坐得更靠后一点。好消息是，一旦你掌握了良好的麦克风技术，很快就会成为肌肉记忆，所以你练习得越多，就越不觉得声音突兀。

11.1.7 Problematic Pronunciation 有问题的发音

Depending on your natural speaking style, additional adjustments may be necessary:

根据你的自然话风，可能需要进行额外的调整：

Plosives. Plosives are bursts of air that are picked up by the microphone that sound like a sort of low thump or booming sound when recorded. They can occur with any consonant, but occur most commonly when you say ‘P’ or ‘B’ sounds. The audio industry has battled these natural speech events for so long that there is a specialized hardware tool to combat them: pop filters! A pop filter sits between your mouth and microphone and slows down and disperses these bursts of air, shielding the microphone from picking them up. The other advantage of a pop filter is that it they can be used for maintaining a fixed position in front of your microphone, and are especially useful when recording with a condenser microphone.

Plosives。Plosives是被麦克风捕捉到的空气爆裂声，在录音时听起来像一种低沉的砰砰声或轰鸣声。它们可以与任何辅音一起出现，但最常见的是当你说 "P "或 "B "音时。音频行业与这些自然语音磨合了很久，以至于有一种专门的硬件工具来对付它们：流行滤波器！流行滤波器位于你的嘴巴之间。弹出式过滤器位于你的嘴和麦克风之间，减缓并分散这些突发的空气，保护麦克风不被拾起。弹出式过滤器的另一个优点是，它们可以用来在你的麦克风前保持一个固定的位置，在用电容式麦克风录音时特别有用。

Sibilance. Sibilance occurs when you make a consonant sound by directing your breath to the back of your teeth using your tongue. The most common examples of problematic sibilants are ‘S’ and ‘Z’ sounds. Depending on your speech pattern, you may naturally exaggerate these sounds without noticing—and this may be a habit that you wish to alter while you’re recording. Luckily, if this is a habit you cannot or do not want to break, you can fix most sibilance issues in post-production as long as you are multi-tracking your podcast using a dynamics effect called a de-esser, which your Revelator io44 happens to have onboard! See the *Fat Channel and Voice Effects Section* for more information. Professional DAW applications, like PreSonus Studio One, are also equipped with a de-esser plug-in especially for this purpose.

Sibilance。类似咝咝声，当你用舌头将呼吸引向牙齿后面，发出辅音时，就会出现咝咝声。有问题的咝音最常见的例子是 "S "和 "Z "音。根据你的说话方式，你可能会自然而然地夸大这些声音而不注意--这可能是你在录音时希望改变的习惯。幸运的是，如果这是一个你不能或不想打破的习惯，你可以在后期制作中解决大多数咝音问题，你的Revelator io44恰好有这种去咝音器的动态效果进行多重跟踪的功能。 更多信息请参见Fat Channel 和声音效果部分。专业的DAW应用程序，如PreSonus Studio One，也配备了专门用于去除“咝咝声”插件。

***Power User Tip**: If you are recording several speakers at once with your Revelator io44, using a de-esser can cause more problems than it solves, because over-using a de-esser or putting one where it is not needed can turn all your ‘S’ sounds to “Th” sounds, and you can easily give someone a lisp they don’t have, which they are unlikely to appreciate.*

***用户提示：**如果你用 Revelator io44同时录制几个扬声器，使用去“咝声”插件可能会引起更多的问题，因为过度使用它或放在不需要的地方，会把你所有的 "S "音变成 " Th "音，这样你很容易发出不恰当的口音。*

11.1.8 Putting it All Together 把它放在一起

Once you’ve practiced your microphone placement and technique, do some practice recordings to find out what works for you and what doesn’t. Just sit in front of the microphone and talk as you would if you were chatting with a friend. The more natural you feel behind the microphone, the more engaging your performance will be. Letting your natural charisma and charm come across is the best way to engage your audience.

一旦你练习麦克风位置和技术，还有录音工作，这样你会了解哪些适合你，哪些不适合。只要坐在麦克风前，就像和朋友聊天一样。你在麦克风后面感觉越自然，你的表演就越有吸引力。让你的自然魅力体现出来，是吸引观众的最佳方式。

11.1.9 Technical Specifications 技术规格

Specifications 参数

Audio Interface 音频接口	
Type 类型	USB-C® Compatible 兼容 USB 2.0
Sample Rates 采样率	44.1kHz, 48kHz, 88.2kHz, 96kHz
Bit Depth 位深	24 bit
ADC Converter Dynamic Range ADC转换器动态范围	96 dB
DAC Converter Dynamic Range DAC转换器动态范围	96 dB
Hardware Controls: Direct Monitor, Mic Gain, Headphone Level, Mute, Preset Select 硬件控制：直接监听，麦克风增益，耳机电平，静音，预置选择	
Software Controls: Mic Gain, Monitor Mix, Preset Management 软件控制：麦克风增益，监听混合，预设管理	
Onboard DSP 板载DSP	
PreSonus StudioLive Fat Channel: High Pass Filter, Noise Gate / Expander, 3 Compressor models, 3 EQ models, and Limiter; PreSonus StudioLive Fat Channel: 高通滤波器，噪音门/扩展器，3个压缩器模型，3个均衡器模型，以及限制器。	
Voice Effects: Doubler, Vocoder, Ring Modulator, Comb Filter, Detuner, Delay, Reverb 声音效果: 倍增器、声码器、环形调制器、梳状滤波器、失谐器、延时、混响	
Microphone Input 麦克风输入	
Maximum Level 最大电平	10 dBu (±0.5 dBu, min gain)
Gain Range 增益范围	60 dB
Frequency Response 频率响应	20 Hz - 20 kHz (+0.1dB/-0.3 dB, unity gain, unwtd)
THD + N	0.005% (1 kHz, -1 dBFS, min gain)
EIN	-128 dBu (A-weighted, 150Ω, max gain)

Input Impedance 输入阻抗	1.4 kΩ
Phantom Power 幻象电源	+48 VDC (10 mA total)
Instrument Input 仪器输入	
Maximum Level 最大电平	+10 dBu (min gain)
Gain Range 增益范围	50 dB
Frequency Response 频率响应	20 Hz – 20 kHz (+0.1dB/-0.3 dB, unity gain, unwtd)
THD + N	0.005% (1 kHz, min gain)
Input Impedance 输入阻抗	750K Ω
Line Input (Stereo) 线路输入（立体声）	
Maximum level 最大电平	+10dBu
Gain Range 增益范围	+/-20dBu
Frequency Response 频率响应	20Hz - 20kHz
Main Outputs 主输出	
Type 类型	¼” TRS, Female
Maximum Level 最大电平	"+10 dBu (1 kHz, unity gain, z-balanced)
Frequency Response 频率响应	20 Hz – 20 kHz (+0.1dB/-0.3 dB分贝, unity gain 统一增益, unwtd 非平衡)
THD + N	0.003% (1 kHz, -1 dBFS, unity gain 统一增益)
Headphone Output 耳机输出	
Maximum Power 最大功率	30 mW / channel @ 56Ω
Frequency Response 频率响应	20 Hz – 20 kHz (+0.1dB/-0.5 dB, unity gain, unwtd)

THD + N	0.050 % (1 kHz, 0 dBFS, loaded)
Impedance Working Range 阻抗工作范围	32 Ω to 300 Ω
Physical 体积	
Height 高度	2.3” (58.4 mm)
Width 宽度	3.03” (77 mm)
Depth 深度	5.35” (135.9 mm)
Weight 重量	0.78 lbs (0.35 kg)

12. Dinner is Served! 为您准备晚餐！

Added bonus: PreSonus' previously Top Secret recipe for…

经典保留：PreSonus 绝密食谱配方.....

Andouille & German Red Cabbage Po-Boys

Ingredients:

- 1 small Onion
- 3 Tbsp. fresh Ginger
- 1 small head Red Cabbage
- 1 tsp Salt
- 3 Tbsp. Honey
- ¼ cup Red Vinegar
- 12 oz Andouille or Bratwurst Sausage sliced lengthwise
- ¼ lb. Muenster Cheese
- Creole or German Mustard to taste
- 1 loaf French Bread

Cooking Instructions:

- Heat 2 tablespoon vegetable oil in large skillet. Add onions and ginger, then cook them for about 3 minutes until onions begin to wilt. Add cabbage, vinegar, and honey, and then cook for about 5 minutes. Add salt to taste and set aside.
- Heat oil in a skillet till hot. Add sausage cut side down till nice and brown, turn and cook for about 5 minutes till thoroughly cooked.
- Slice bread lengthwise, lay a bed of cabbage, then sausage, and cheese on top. Toast under the broiler or in a hot oven till cheese is melted and bread is crisp.
- Spread mustard on bread. Sandwich can then be cut into 2-3 pieces and shared (or not if you're really hungry).

BONUS: Extra cabbage can be used as a condiment with meat, eggs, sandwiches, etc.

Andouille和德国红叶卷心菜三明治

成分：

1个小洋葱

3汤匙新鲜生姜

1个小头红椰菜

1茶匙盐

3汤匙蜂蜜

¼杯红醋

12盎司安道尔或布拉德沃斯特香肠纵向切开

¼磅明斯特干酪

克里奥尔或德国芥末酱来调味

1条法国面包

烹饪说明：

在大平底锅中加热2汤匙植物油。加入洋葱和姜，煮约3分钟，直到洋葱开始萎缩。加入卷心菜、醋和蜂蜜，然后煮约5分钟。加入盐调味，放在一边。

在平底锅中将油加热至热。将香肠切面朝下放入锅中，直到变成棕色，再翻面，煮约5分钟，直到完全煮熟。

将面包纵向切开，铺上卷心菜，然后是香肠，上面放奶酪。在烤炉下或热烤箱中烘烤，直到奶酪融化，面包变脆。

在面包上涂抹芥末。三明治可以切成2-3块，然后分享（如果很饿就直接吃，不用切）。

额外：多余的卷心菜可以作为调味品与肉、鸡蛋、三明治等一起使用。

13. Legal 法律

Revelator io44

USB-C Compatible Audio Interface with Integrated Loopback Mixer and Effects

Owner's Manual 用户手册

PreSonus® Baton Rouge • USA
www.presonus.com

Part# : 70-12000181-A