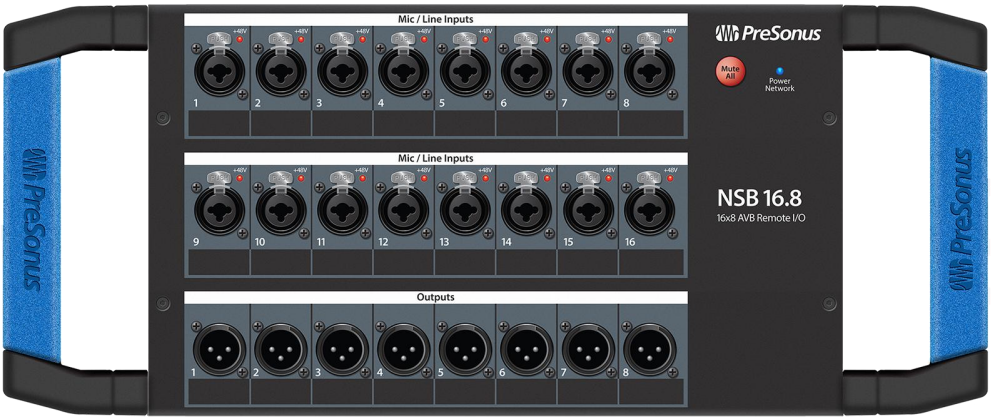
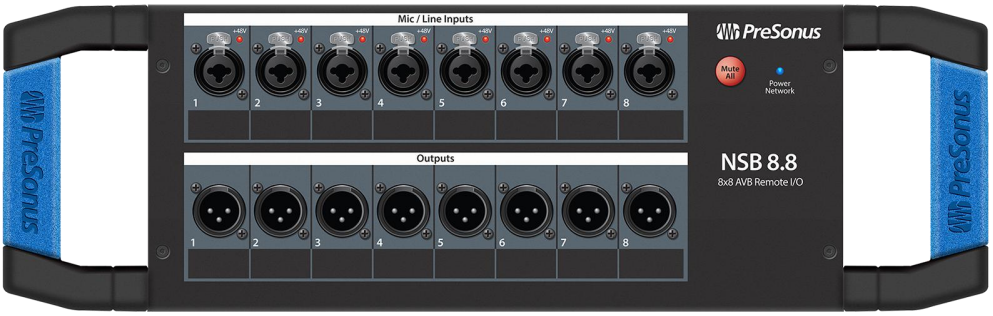
NSB-Series Stagebox
NSB系列舞台想

AVB Remote I/O
AVB远程I/O

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 an NSB-series AVB-networked stage box. Designed to work seamlessly with the PreSonus StudioLive® Series III digital mixers, the NSB-series networked stage boxes provide a high-quality, expandable, networked, remote I/O solution for stage, installed sound systems, or studio recording.

感谢您购买NSB系列的AVB网络舞台箱。NSB系列网络舞台箱的设计可以与PreSonus StudioLive® III系列数字控制台无缝连接，为舞台、安装的音响系统或录音室录音提供了高质量、可扩展、网络化的远程I/O解决方案。

PreSonus Audio Electronics is committed to constant product improvement, and we highly value our customers and their creative endeavors. We appreciate the support you have shown us by purchasing your NSB-series stage box and are confident that you will enjoy for years to come!

PreSonus Audio Electronics 公司致力于不断改进产品，我们高度重视客户和他们的创造性的努力。感谢您通过购买NSB系列舞台箱对我们的支持，并相信在未来的日子里，您会享受到更多的乐趣!

1.2 About This Manual 关于本手册

We suggest you spend some time with this manual before beginning to work with your NSB-series stage boxes, and familiarize yourself with their features, functions, and proper connection procedures. This will facilitate configuring your AVB network and make the process go as smoothly as possible.

我们建议在开始使用NSB系列舞台箱之前，请您花一些时间阅读本手册，熟悉其特点、功能和正确的连接流程。这将有利于配置您的AVB网络，使整个过程尽可能顺利。

This manual describes the functions of the NSB-series stage boxes with StudioLive Series III digital mixers. More information about AVB Networking best practices and configurations can be found in the PreSonus AVB Networking Guide, and we highly recommend that you review this document as well, to avoid any difficulty in creating your AVB network. This manual covers basic connection and use case configurations only. For more complex routing examples, please review the PreSonus AVB Networking Guide.

本手册介绍了NSB系列舞台箱与StudioLive III系列数字控制台的功能。关于AVB网络的最佳实践和配置的更多信息，可以在PreSonus AVB网络指南中找到，我们强烈建议阅读这份文件，以避免在创建AVB网络时遇到困难。本手册只涵盖了基本的连接和用例的配置。对于更复杂的路由实例，请查阅 PreSonus AVB网络指南。

Throughout this manual, you will find **Power User Tips.** These suggestions provide useful information on getting the most out of your NSB stage box as well as explanations of various useful audio terminology.

在这本手册中，你会发现**电源用户提示**。这些建议提供了关于如何充分利用NSB舞台箱的有用信息，以及对各种有用的音频技术的解释。

Thank you, once again, for purchasing our product. We are confident that you will enjoy your new NSB stage box.

再次感谢您购买我们的产品。我们相信，你会喜欢新的NSB系列舞台箱。

Note: When using your NSB stage box with a StudioLive Series III mixer, your mixer will require the latest firmware and Universal Control version for proper functionality. Please log into your My PreSonus user account and update all associated software for your PreSonus AVB products before proceeding.

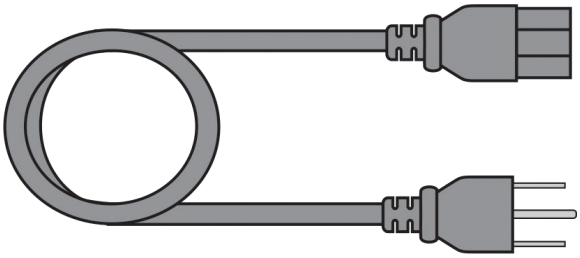
注意：当你将NSB舞台箱与StudioLive III系列控制台一起使用时，你的控制台需要最新的固件和Universal Control 版本以实现适当的功能。请登录您的My PreSonus用户账户，在继续操作前，更新您的PreSonus AVB产品的所有相关软件。

1.3 What's in the Box 包装里都是什么

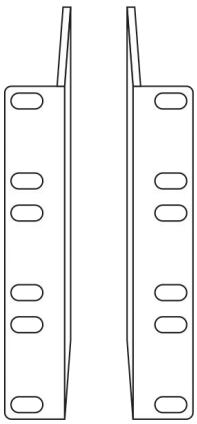
In addition to a Quick Start Guide, your NSB-series stage box package contains the following:

除了《快速入门指南》外，你的NSB系列舞台箱包装里还包括以下内容：

NSB 32.16, NSB 16.8 or **NSB 8.8** AVB-networked stage box
NSB 32.16, NSB 16.8 或 NSB 8.8 AVB网络舞台箱



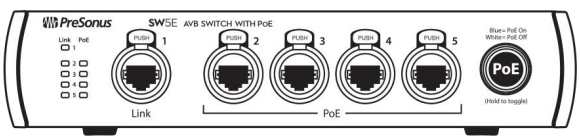
IEC Power Cord IEC 电源线



Reversible Rack Ears (NSB 32.16 only) The rack ears included with the NSB 32.16 are reversible, allowing the mixer to be racked in either recessed or reversed configurations, allowing space for all attached cabling when installing NSB 32.16 in a stage rack.

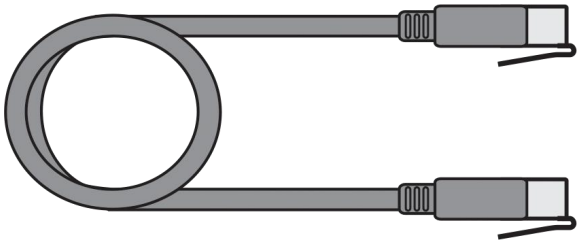
可逆式的 Rack Ears机架（仅NSB 32.16）当把 NSB 32.16安装在舞台机架上时，允许调音台以凹陷或反转的配置上架，为所有连接的线缆提供空间。

1.3.1 What Else You Need 您还需要什么



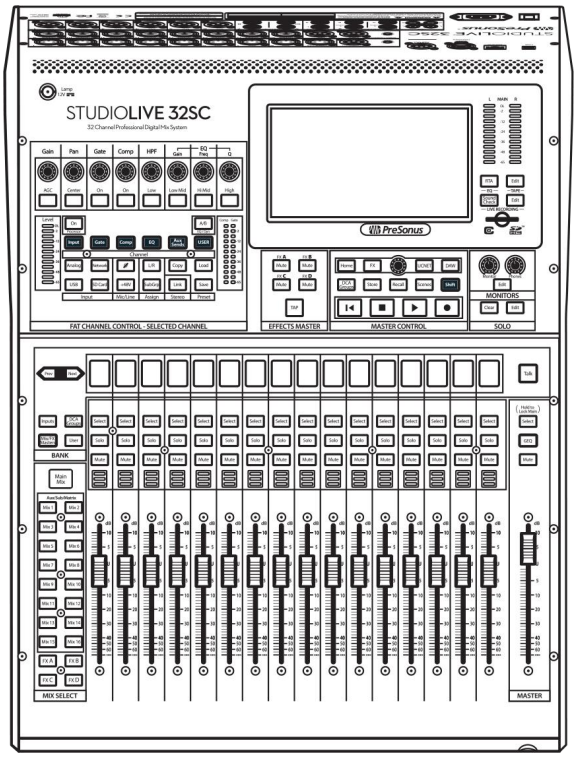
AVB Switch. The PreSonus SW5E AVB PoE Switch is fully compatible with all PreSonus AVB products and third-party AVB devices that adhere to the 1722.1 AVB standard. *For a complete list of compatible third-party AVB switches,* please visit www.presonus.com.

AVB开关。PreSonus SW5E AVB PoE交换机与所有 PreSonus AVB 产品和符合 1722.1 AVB 标准的第三方AVB设备完全兼容。有关兼容的第三方 AVB交换机的完整列表，请访问 www.presonus.com。



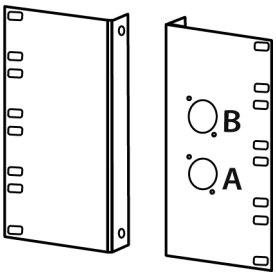
Gigabit-capable Ethernet Cable. PreSonus recommends a CAT6 or CAT6A Ethernet cable for all AVB devices. These can be acquired at most electronics dealers. We recommend cables that have been ETL or UL verified to meet ANSI/TIA 568-C.2 specification.

Gigabit-capable 网络线。PreSonus建议所有AVB设备使用 CAT6 或 CAT6A 网络线。这些可以在大多数电子产品经销商处获得。推荐您通过 ETL或 UL 验证的线缆，符合 ANSI/TIA 568-C.2 规格。



1722.1 AVB-compatible mixer. All PreSonus StudioLive Series III mixer models are fully compatible with the 1722.1 AVB standard and NSB-series stage boxes. If you are using a third-party AVB mixer, please contact the manufacturer to verify compatibility with this standard.

1722.1 AVB兼容的混合器。所有 PreSonus StudioLive Series III控制台型号都完全可以与 1722.1 AVB 标准和 NSB系列舞台箱兼容。如果你使用的是第三方AVB混合器，请与制造商联系，确认与该标准的兼容性。



NSB 16.8 or NSB 8.8 Rack adapter. PreSonus has designed the NSB 16.8 and NSB 8.8 adapters to mount the NSB-series stage boxes in standard 19” equipment rack. This accessory is sold separately at your favorite PreSonus dealer or at www.presonus.com.

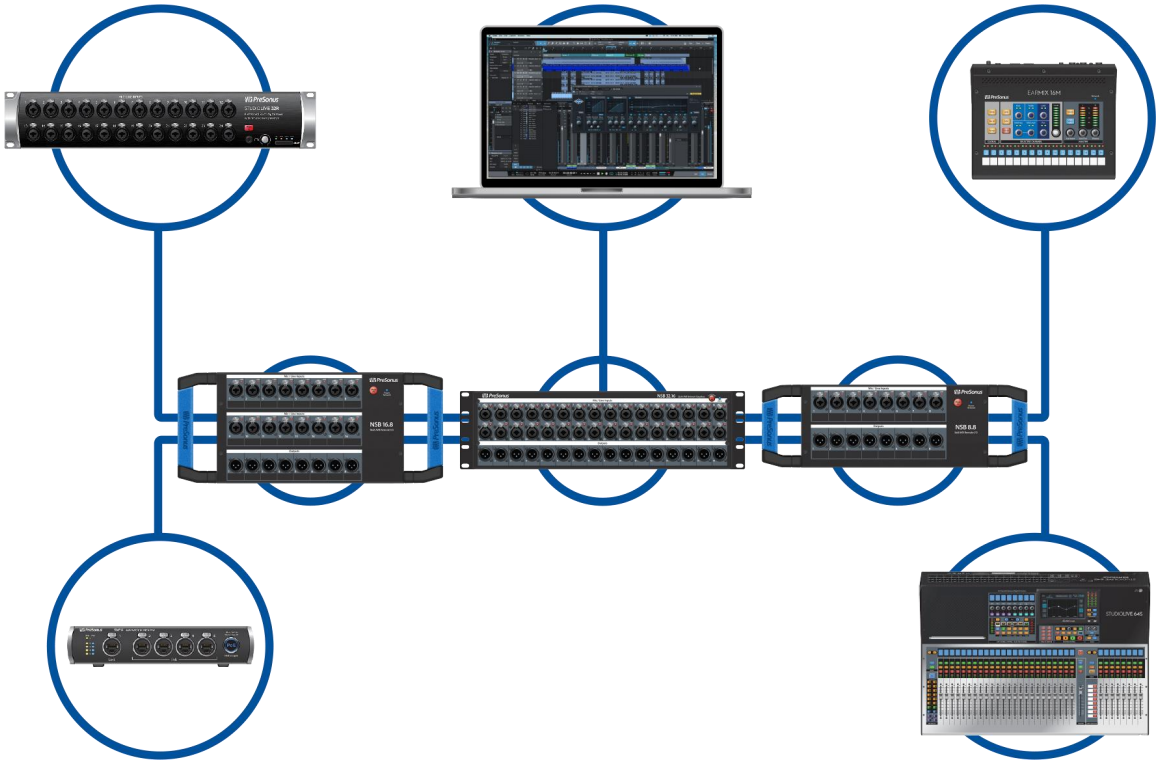
NSB 16.8或 NSB 8.8机架适配器。PreSonus设计了NSB 16.8和 NSB 8.8适配器，用于将NSB系列舞台箱安装在标准的19英寸设备架上。这个配件在 PreSonus 经销商处单独出售，或者在 www.presonus.com网站上。

1.4 Companion PreSonus Products 产品指南

Welcome to the PreSonus Ecosystem! As a solutions company, we believe the best way to take care of our customers (that's you) is to ensure that you have the best possible experience from the beginning of your signal chain to the end. In order to achieve this goal, we've prioritized seamless integration throughout every design phase of these products from day one. The result is systems that communicate with each other as intended— straight out of the box—without excessive configuration hassle.

For more information on how our PreSonus AVB networking devices play so well with one another, please review the PreSonus AVB Networking Guide.

欢迎来到 PreSonus Ecosystem! 作为一家解决方案公司，我们相信照顾客户（也就是你）的最佳方式是确保你从信号链的起点到终点都能获得最佳体验。为了实现这一目标，我们从第一天起结合产品贯穿于它们的每个设计阶段。其结果是，系统可以按照预期互相相连——开箱急用——无需过得的配置麻烦。欲了解更多关于我们的 PreSonus AVB 网络设备如何互相配合的信息，请查阅 PreSonus AVB 网络指南。



2. Getting Started 开始

The PreSonus NSB-series stage boxes make it easy to get audio to and from the stage using an AVB network. With AVB networking, input and output signals flow through one lightweight CAT5e or CAT6 Ethernet cable. In addition, NSB-series' inputs, preamps, and phantom power can be remotely controlled from your networked StudioLive Series III console or from any device running PreSonus UC Surface touch-control software.

PreSonus NSB系列舞台箱可以通过 AVB 网络轻松地将音频输入和输出到舞台。通过 AVB 网络，输入和输出信号通过一条轻便的CAT5e或CAT6网络线。此外，NSB系列的输入、前置放大器和幻象电源可以从联网的StudioLive系列III控制台或运行的PreSonus UC Surface 触控软件上的任何设备中，进行远程控制。

Before you begin, here are a few rules to get you started:
开始之前，这里有几条规则供你参考：

- If your mixer or your NSB-series stage box is not properly gain staged, none of your mixes will sound their best.
- Do not allow your inputs to clip. Watch the level meters; when the signal nears clipping, the top LED will illuminate, indicating that the digital-to-analog converters are in danger of being overdriven.
- 如果你的控制台或NSB系列舞台箱没有正确的增益阶段，你的混音都不会有最好的声音。
- 不要让你的输入端出现剪辑。注意电平表；当信号接近削波时，顶部的LED灯会亮起，表明数模转换器有过载的危险。

The following tutorials have been created for two common applications, but can be altered accordingly for your personal needs. More complex use case examples can be found in the PreSonus AVB Networking Guide.

下面的教程是为两种常见的应用创建的，但可以根据你的个人需要进行相应的改变。更复杂的用例可以在 PreSonus AVB Net-work Guide 指南中找到。

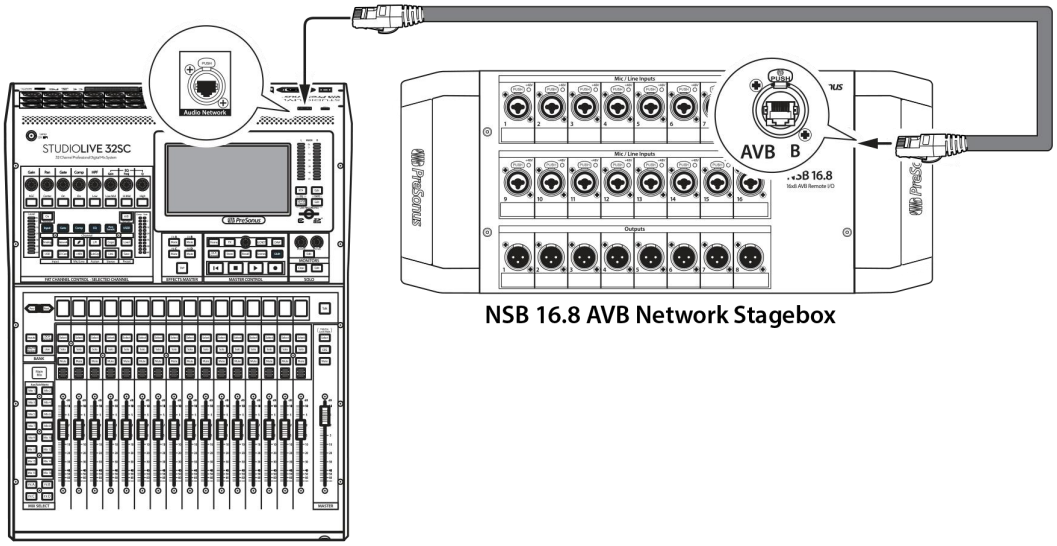
2.1 Direct connect with a StudioLive Series III mixer 与StudioLive III系列控制台直接连接

With the exception of the StudioLive 64S and StudioLive 16R, every StudioLive Series III mixer is a 32-channel mixer with 16 FlexMixes regardless of its complement of onboard I/O. **In this example, we will be looking at using on NSB 16.8** to expand the I/O capability of the StudioLive 32SC console mixer, so that it has 32 inputs and 16 outputs. This process is identical if using the NSB 32.16 or NSB 16.8.

除了 StudioLive 64S 和 StudioLive 16R 之外，每台 StudioLive III 系列控制台都是32通道的，有16个 FlexMixes，而无需考虑其板载I/O的补充情况。在这个例子中，我们将研究如何使用 NSB 16.8 来扩展 StudioLive 32SC控制台的I/O能力，使其拥有32个输入和16个输出。如果使用 NSB 32.16 或 NSB 16.8，这个过程是相同的。

Connect your NSB 16.8 to your StudioLive 32SC as shown below and power on your equipment:

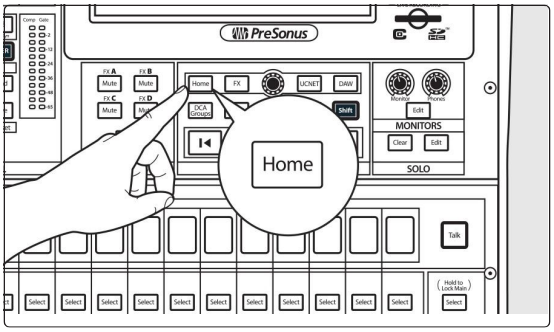
如下图所示，将 NSB 16.8 连接到 StudioLive 32SC，并接通设备电源：



NSB 16.8 AVB Network Stagebox

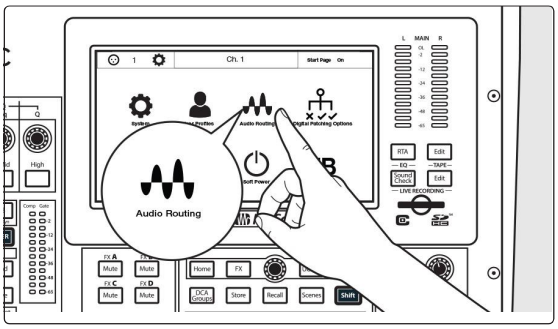
StudioLive 32SC Digital Console Mixer

Step 1: Connect Your Stage Box to Your Mixer
第1步：将您的舞台箱连接到您的控制台上



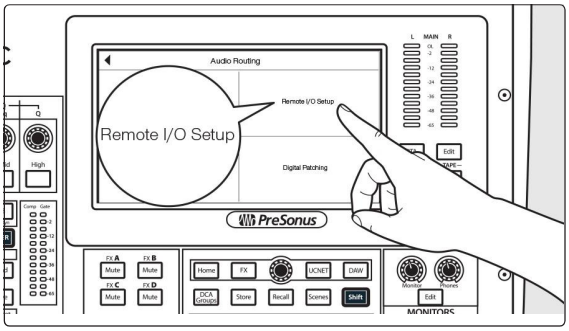
Press the Home button on your StudioLive Series III mixer.

按下 StudioLive 系列 III 控制台的主按钮。

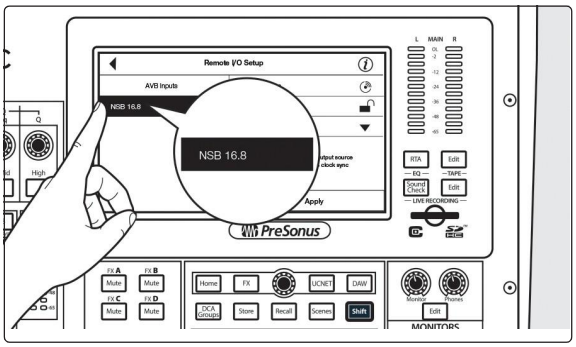


Press the Audio Routing icon on the Touchscreen.

按触摸屏上的 Audio Routing 图标。

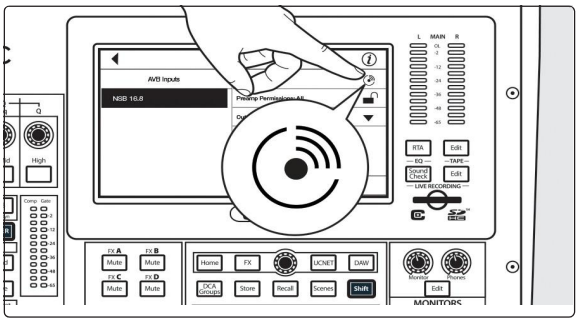


Press the Remote I/O Setup button on the Touchscreen. 按触摸屏上的 Remote I/O Setup 按钮。



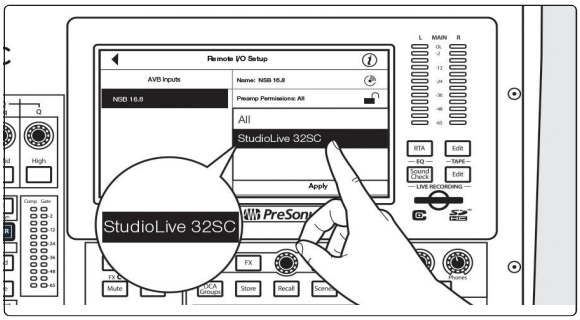
Select the NSB 16.8 from the list on the left.

从左边的列表中选择 NSB 16.8。



In applications where you are using multiple NSB-series stage boxes of the same model, you can press the Identify button. This will flash the Power Network LED on the front of the selected NSB stage box from green to red, allowing you to quickly locate your selection.

在使用同一型号的多个NSB系列舞台箱的应用中，你可以按下识别按钮。这将使所选择的NSB舞台箱前面的电源网络 LED 灯由绿变红，让你快速找到你所选择的位置。

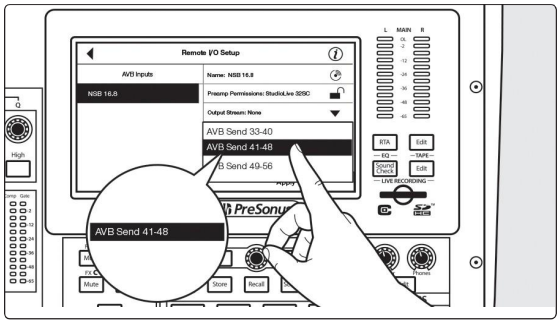


Select the mixer you'd like to use to control the preamps on your NSB stage box. By default, this is set to "All", enabling any StudioLive Series III mixer on the AVB network to control the preamps on your stage box.

选择你需要控制NSB舞台箱的前置放大器的调音台。默认情况下，这被设置为 "All"，使 AVB 网络上的 StudioLive III 系列控制台能够控制舞台箱的前置放大器。

Power User Tip: *Because your NSB stage box inputs are most likely routed to multiple sources on your network, PreSonus highly recommends designating one mixer to control the NSB preamps.*

用户提示：*由于 NSB 舞台箱的输入很可能被路由到网络上的多个信号源，PreSonus 强烈建议您，指定一个控制台来控制 NSB前置放大器。*

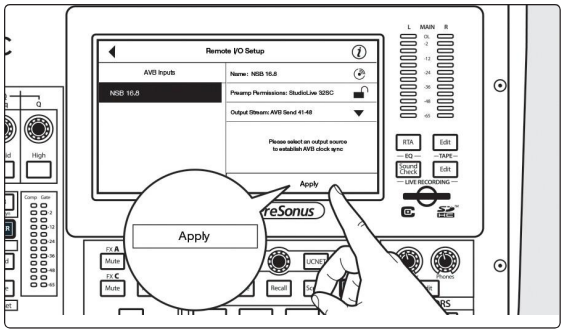


Select the AVB Output Sends you'd like returned to the physical outputs on your NSB stage box. Because the AVB streams must be routed in banks of 8, you can only source these outputs from one mixer on the network.

选择你想返回到 NSB 舞台箱上物理输出的AVB Output Sends信号。因为AVB数据流必须以8个为一组进行路由，你只能从网络上的一个控制台获取这些输出。

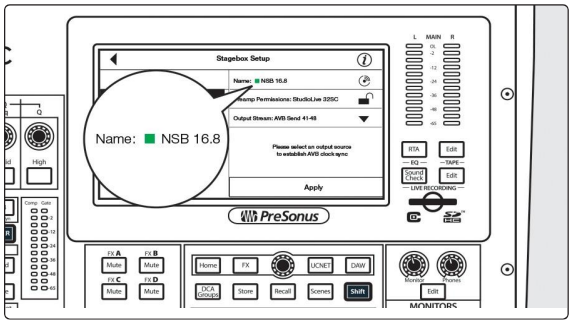
Note: You must assign an output stream from your mixer to your NSB-series stage box so that it is clocked properly over the network. If you do not assign an output stream from your mixer, your networked stage box will not be properly synced and you will hear audio artifacts. For more information on clocking over AVB, please review the AVB Networking Guide.

注意：您必须从控制台分配给 NSB系列舞台箱一个输出流，这样它才能在网络上正确地进行时钟控制。如果你不指定控制台的输出流，网络舞台箱将不能正确同步，你会听到音频伪影。关于AVB时钟的更多信息，请查阅AVB Networking Guide指南。



Press the Apply button when finished.

完成后，按 Apply 按钮。



Once send streams from your mixer have been successfully patched, you will see a green status indicator next to your NSB stage box in the setup screen.

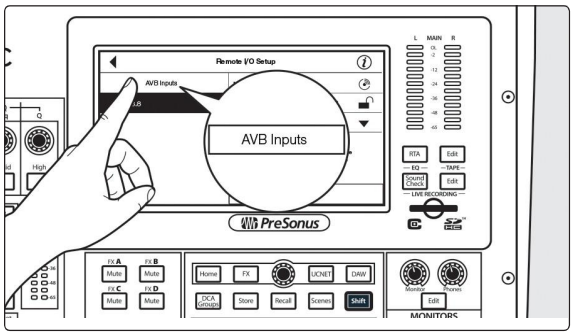
一旦控制台成功连接发送流，你会在屏幕设置中，看到 NSB 舞台箱旁边的绿色的状态指示灯。

The Power Network LED on your NSB stage box will turn from green to blue when proper clock sync has been established with the AVB network.

与 AVB 网络建立了正确的时钟同步时，NSB舞台箱上的电源网络 LED 灯，它将从绿色变成蓝色。

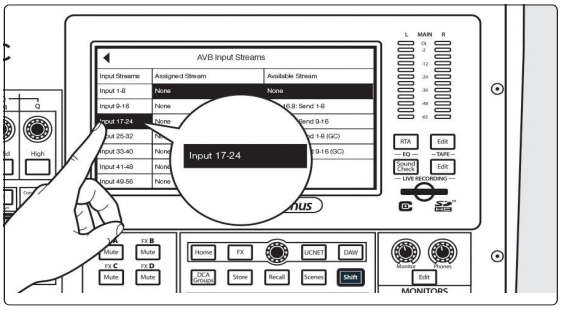
Step 2: Routing Stage Box Inputs to Mixer

第2步：舞台箱输入路由到混音器



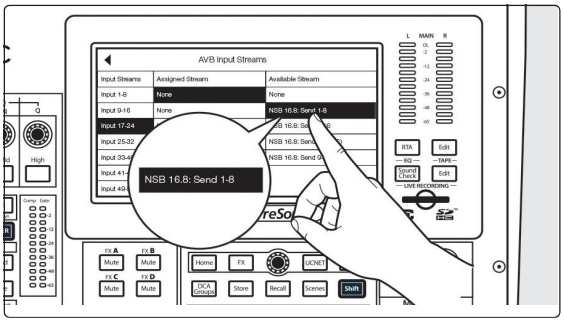
In our example, we are using the NSB 16.8 to add 16 additional analog inputs and 8 additional analog outputs to a StudioLive 32SC. Press the AVB Inputs button.

在我们的例子中，使用了NSB 16.8 为StudioLive 32SC增加16个额外的模拟输入和8个额外的模拟输出。按下AVB Inputs 按钮。



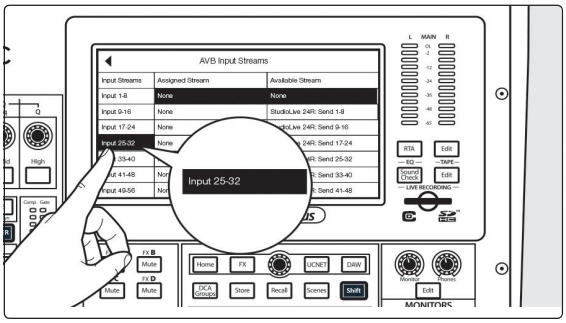
Select Inputs 17-24 from the Input Streams list.

从 Input Streams 列表中，选择 Inputs 17-24。



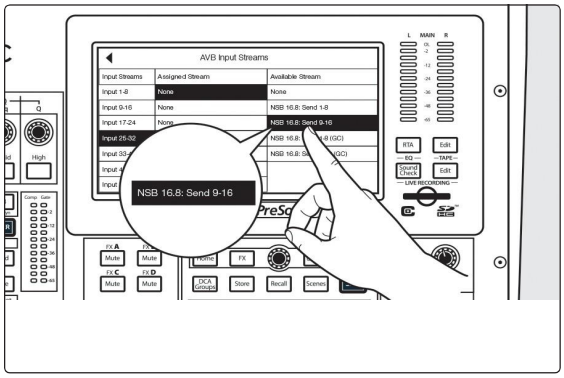
Select NSB 16.8: Send 1-8 from the Available Stream list to patch the first eight NSB inputs to channels 17-24 on your mixer.

选择NSB 16.8: 从 "Available Stream "列表中发送1-8，将前8个NSB输入跳接到控制台的17-24通道。



Select Inputs 25-32 from the Input Streams list.

从 Input Streams（输入流）列表中，选择 Inputs 25-32。



Select NSB 16.8: Send 9-16 from the Available Stream list to patch the second eight NSB inputs to channels 25-32 on your mixer.

Note: NSB stage boxes have two sets of streams: one with Gain Compensation and one without. In our example, the StudioLive 16 has total preamp control over the NSB stage box and is the only mixer connect to its streams. Because of this, Gain Compensation is not required in this example. Please review *the Gain Compensation topic* for more information on Gain Compensation and when it is advantageous or even required.

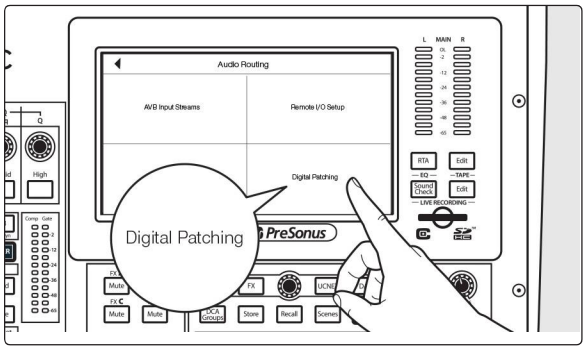
选择 NSB 16.8: 从 "Available Stream"列表中发送9-16，将后8个NSB输入跳转到控制台的25-32通道。

注意：NSB舞台箱有两套“streams”：一套有增益补偿，一套没有。在我们的例子中，StudioLive 16 对 NSB 舞台箱有完全的前级控制，并且是唯一连接到其“streams”的控制台。正因如此，本例中不需要“Gain Compensation”增益补偿。请查看 *the Gain Compensation topic* ，以了解关于“Gain Compensation”的更多信息，以及什么时候它是有利的，甚至是必需的。

Step 3: Engaged Network Sources
第三步：占用的网络资源

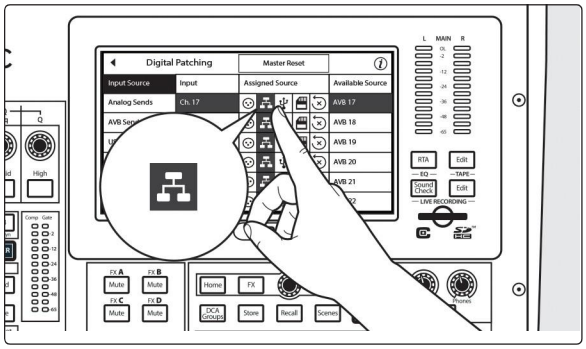
Press the back arrow twice to return to the Audio Routing screen.

按两次向后的箭头，返回到 Audio Routing 屏幕。



Press Digital Patching.

请按 Digital Patching。

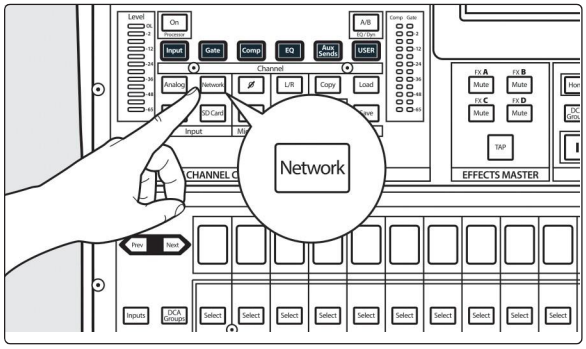


Select Input Source and scroll to Inputs 17-32. Assign each to the Network source by pressing the Network button next to each Input.

Or....

选择 Input Source ，滚动到 Inputs 17-32。按下每个 Input 旁边的 Network 按钮，将每个输入分配给 Network 。

或....



Select each channel and press the Network button from the Input source section in the Fat Channel.

选择每一个通道，并 从Fat Channel中的输入源部分按下Network键。

Your NSB 16.8 is now ready to use!

NSB16.8现在可以使用了！

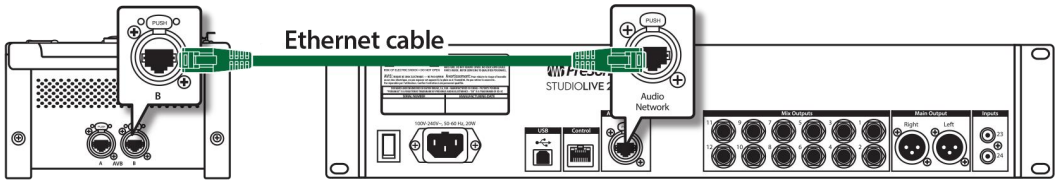
2.2 Direct connect with a StudioLive Series III rack mixer 与StudioLive III系列机架调音台直接连接

In this example, we will be looking at using **one NSB 8.8 to expand the I/O capability of the StudioLive 24R rack mixer**, so that it has 32 inputs and 16 outputs.Note that the workflow below is identical for NSB 32.16 and NSB 16.8.

在这个例子中，我们使用 **NSB 8.8 来扩展 StudioLive 24R 机架混音器的I/O能力**，使其具有32个输入和16个输出。注意，以下的工作流程对于 NSB 32.16 和 NSB 16.8 是相同的。

Connect your NSB 8.8 to your StudioLive 24R as shown below and power on your equipment:

将 NSB 8.8 连接到 StudioLive 24R，如下图所示，并接通设备电源：



NSB8.8 AVB Network Stagebox Side View

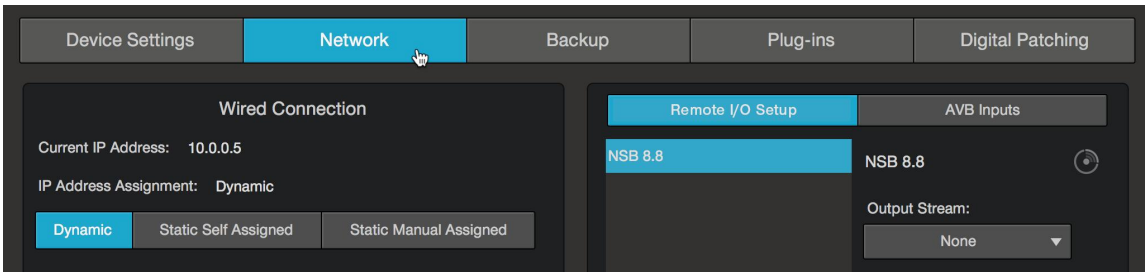
StudioLive 24R Digital Console Mixer Rear View

Step 1: Connect Your Stage Box to Your Mixer

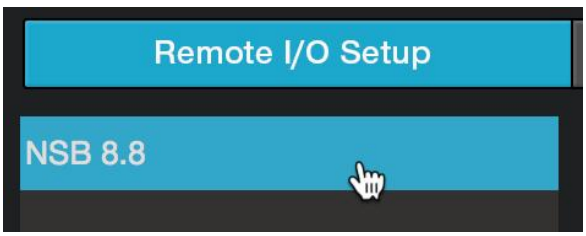
第1步：将您的舞台箱连接到您的控制台

1. Launch UC Surface and connect to your StudioLive 24R.
   启动 UC Surface 并连接到 StudioLive 24R。

2. Click or Tap on the Settings Gear. 单击或点击 " Settings Gear "。
3. Click or Tap on the Network tab. 单击或点击 "Network tab"。



4. In the Remote I/O area, select the NSB 8.8 from the list. 在远程I/O区域，从列表中选择 NSB 8.8

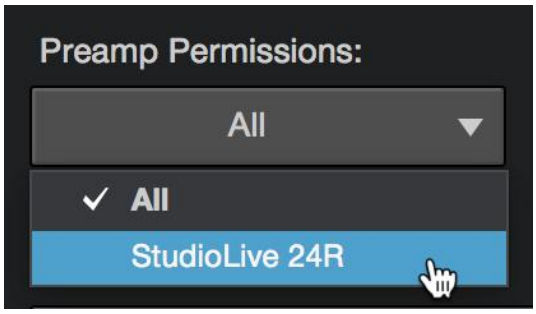


Power User Tip: *In applications where you are using multiple NSB-series stage boxes of the same model, you can press the Identify button. This will flash the Power Network LED on the front of the selected NSB stage box from green to red, allowing you to quickly locate your selection.*

用户提示：使用多个相同型号的NSB系列舞台箱的应用中，你可以按下 *Identify* 按钮。这将使所选NSB舞台箱前面的电源网络 LED 灯由绿变红，让您快速找到您所选择的位置。

5. Select the mixer you'd like to use to control the preamps on your NSB stage box. By default, this is set to "All", enabling any StudioLive Series III mixer on the AVB network to control the preamps on your stage box.

   选择您想用来控制NSB舞台箱的前置放大器的控制台。默认情况下，这被设置为"All"，使 任何在AVB 网络上的StudioLive III系列的控制台，都能控制舞台箱的前置放大器。

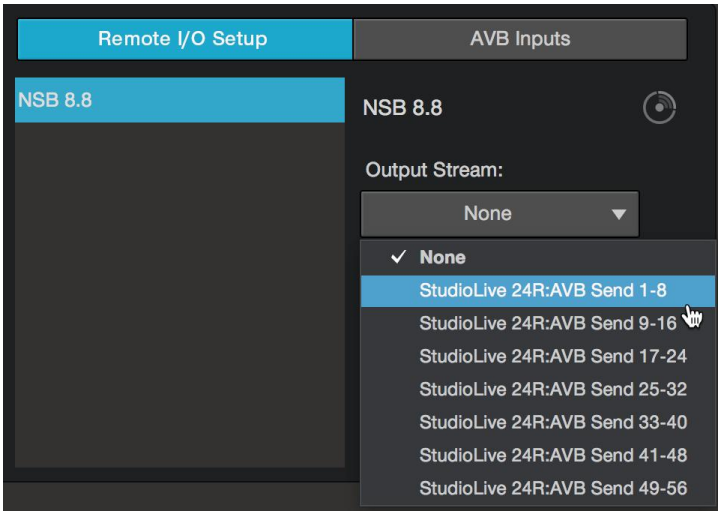


Power User Tip: *Because your NSB stage box inputs are most likely routed to multiple sources on your net- work, PreSonus highly recommends designating one mixer to control the NSB preamps.*

用户提示：*由于 NSB 舞台箱的输入很可能路由到网络上的多个信号源，PreSonus强烈建议您，指定一个控制台来控制 NSB前置放大器。*

6. Select the AVB Output Sends from the StudioLive 24R you'd like returned to the physical outputs on your NSB stage box. Because the AVB streams are routed must be routed in banks of 8, you can only source these outputs from one mixer on the network.

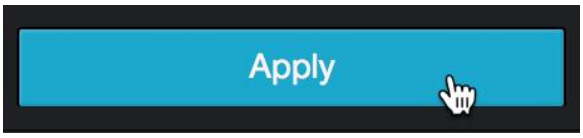
   从 StudioLive 24R 中选择您想要返回到 NSB舞台箱上的物理输出的AVB Output Sends信号。因为 AVB streams 的路由必须是8个一组，所以只能从网络上的一个控制台获取这些输出。



Note: You must assign an output stream from your mixer to your NSB-series stage box so that it is clocked properly over the network. If you do not assign an output stream from your mixer, your networked stage box will not be properly synced and you will hear audio artifacts. For more information on clocking over AVB, please review the StudioLive Series III AVB Networking Guide.

注意：您需要从控制台分配给NSB系列舞台箱一个输出流，这样，它就可以通过网络正确地进行计时。如果你不指定控制台的 output stream，你的网络舞台箱将不能正确同步，你会听到音频伪影。关于AVB时钟的更多信息，请查看 StudioLive III系列 AVB Networking Guide 指南。

7. Press the Apply button when finished. 完成后，按 Apply 按钮。



The Power Network LED on your NSB stage box will turn from green to blue when proper clock sync has been established with the AVB network.

与AVB 网络建立了正确的时钟同步时，NSB舞台箱上的电源网络LED灯将从绿色变成蓝色。

Step 2: Routing Stage Box Inputs to Mixer
第2步：舞台箱输入路由到混音器

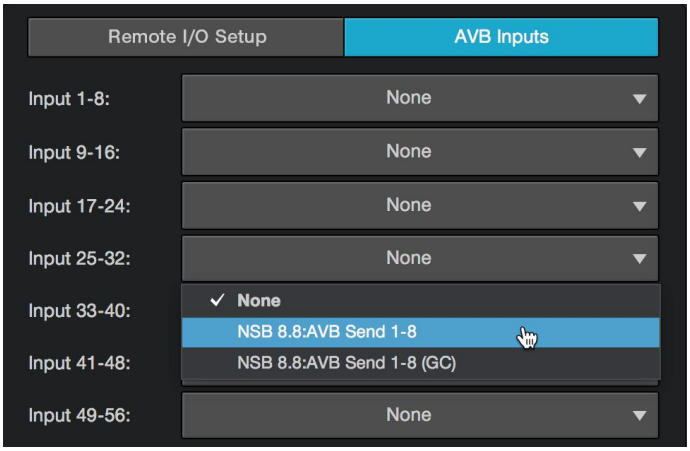
In our example, **we are using the NSB 8.8** to add 8 additional analog inputs and 8 additional analog output to a StudioLive 24R. The workflow for the NSB 16.8 or NSB 32.16 will be identical.

在我们的例子中，我们正在使用NSB 8.8来对StudioLive 24R，增加8个模拟输入和8个模拟输出。NSB 16.8 或 NSB 32.16的工作流程将是相同的。

1. Click on the AVB Inputs tab. 点击AVB Inputs。

2. Next to Inputs 25-32, select NSB 8.8: Send 1-8 from the Available Stream drop-down menu. This will patch the eight inputs on your NSB 8.8 to channels 25-32 on your StudioLive 24R.

   挨着 Inputs 25-32 ，从Available Stream下拉菜单中，选择 NSB 8.8: Send 1-8。这会把 NSB 8.8 上的 8个输入跳接到 StudioLive 24R上的25-32通道上。



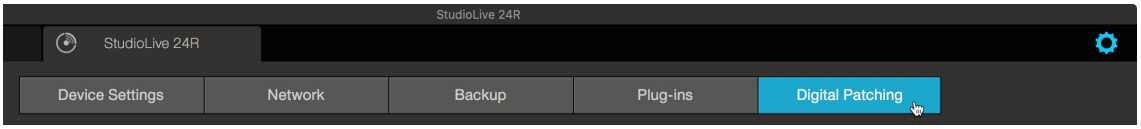
Power User Tip: *NSB stage boxes have two sets of streams: one with Gain Compensation and one without. In our example, the StudioLive 24R has total preamp control over the NSB stage box and is the only mixer connect to its streams, because of this, Gain Compensation is not required in this example.*

Please review the GainCompensation topic for more information on Gain Compensation and when it is advantageous or even required.

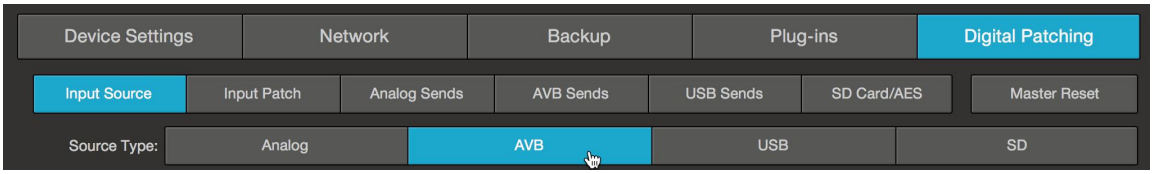
用户提示：*NSB舞台箱有两组 streams：一组有增益补偿，一组没有。在我们的例子中，StudioLive 24R对 NSB舞台箱，有完全的前级控制，并且是唯一连接到其streams的控制台，正因如此，本例中不需要增益补偿。请查阅the GainCompensation topic 专题，了解更多关于 Gain Compensation的信息，以及它何时是有用的，甚至是必须的。*

Step 3: Engaged Network Sources

1. Click or tap on the Digital Patching tab. 单击或点击 Digital Patching。

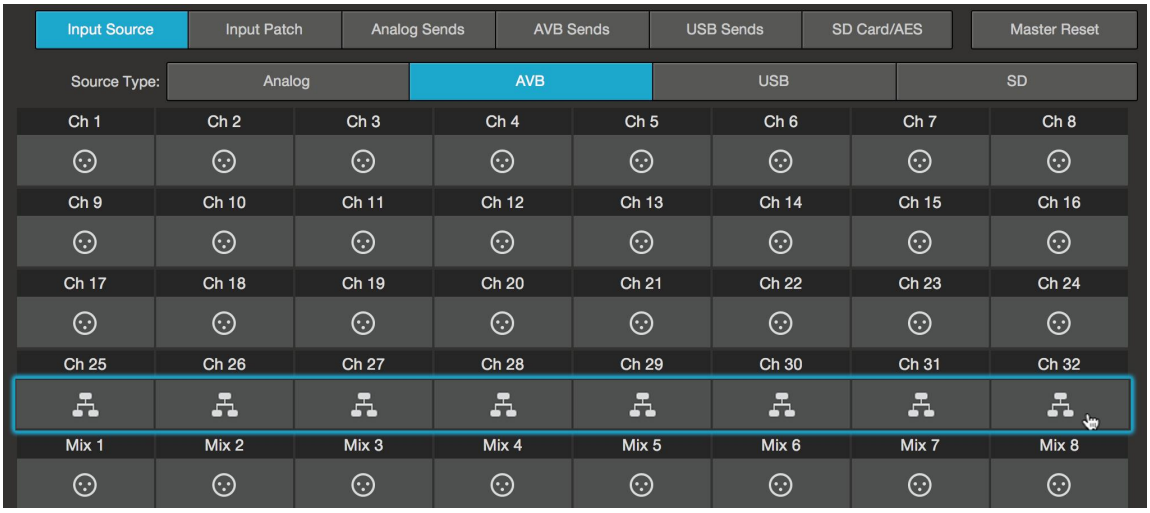


2. By default, the Input Source tab will be active. Select AVB from the Source Type selection.
   默认情况下，Input Source 选项卡将被激活。从Source Type 选项中选择 AVB。



3. Click or tap on the source icon for Channels 25-32 to change each channel's source input to AVB. This will enable the corresponding NSB stage box input to each channel (e.g. NSB Input 1 will be enabled on StudioLive 24R channel 25, NSB Input 2 will be enabled on StudioLive 24R channel 26, etc.)

   单击或点击Channels 25-32的信号源图标，将每个通道的信号源输入改为 AVB。这将启用每个通道相应的NSB舞台箱输入（例如，NSB输入1将在StudioLive 24R通道25启用，NSB输入2将在StudioLive 24R通道26启用，等等。）



Your NSB 8.8 is now ready to use!

NSB 8.8现在已经可以使用了！

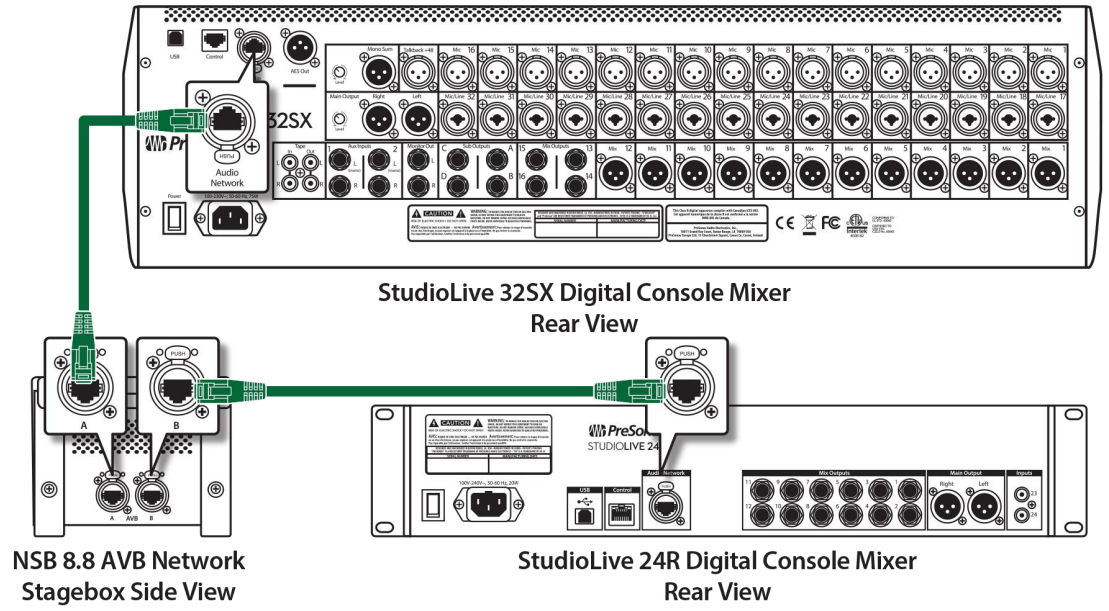
2.3 Using an NSB-series Stage Box with Two or More Mixers 将NSB系列舞台箱与两个或更多的调音台一起使用

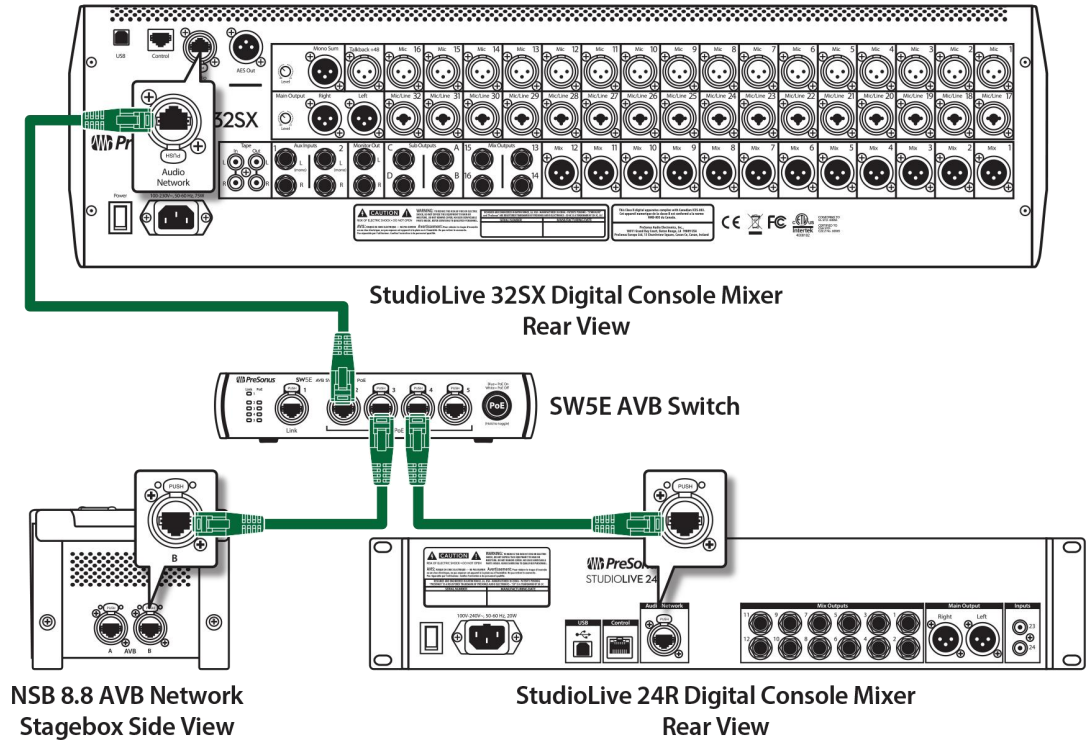
The same stage box can be used as a source for multiple mixers on the network. This situation is common when there is a mixer at Front-of-House and another mixer at Monitor Position. In this example, we will be using an NSB 8.8 to add eight remote analog inputs to a StudioLive 32SX at front-of-house as well as to add eight additional analog inputs to a StudioLive 24R configured as a monitor mixer to provide a full 32-channel monitor mix solution.

同一个舞台箱可以作为网络上多个控制台的信号源。在观众席有一个控制台，监听位置有另一个控制台，这种情况很常见。在这个例子中，我们将使用 NSB 8.8为观众席的StudioLive 32SX增加8个远程模拟输入，并配置为监听控制台的StudioLive 24R，增加8个额外的模拟输入，以提供一个完整的32通道监听混音解决方案。

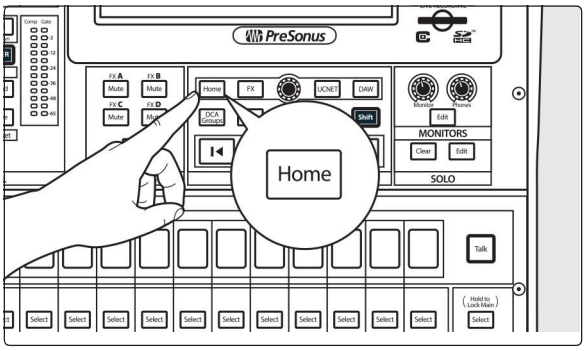
Connect your network as shown below and power on your equipment. Because the NSB-series stage boxes have an AVB switch onboard, you can connect two different devices simultaneously to a single NSB stage box. You also have the option of using a stand-alone AVB switch, like the PreSonus SW5e. Either of the configurations below are supported.

如下图所示连接你的网络，并给你的设备通电。因为 NSB 系列舞台箱上有一个AVB开关，你可以同时将两个不同的设备连接到一个NSB舞台箱上。你也可以选择使用一个独立的 AVB 开关，比如 PreSonus SW5e。下面的任何一种配置都支持。


32SX
Audio Network
StudioLive 32SX Digital Console Mixer
Rear View
NSB 8.8 AVB Network
Stagebox Side View
StudioLive 24R Digital Console Mixer
Rear View

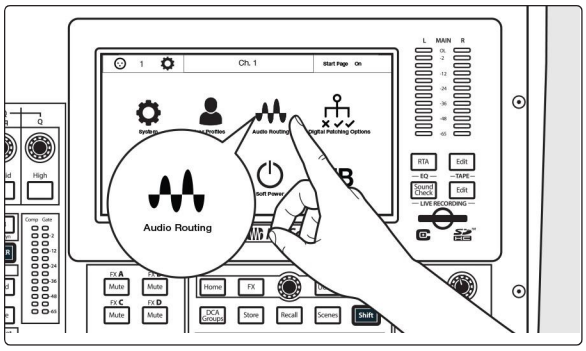

32SX
Audio Network
StudioLive 32SX Digital Console Mixer
Rear View
SW5E AVB Switch
NSB 8.8 AVB Network
Stagebox Side View
StudioLive 24R Digital Console Mixer
Rear View

Step 1: Connect Your Rack Mixer (Monitors) to Your Console Mixer (FOH)
第1步：将机架式控制台（监听）连接到调音台上（FOH）



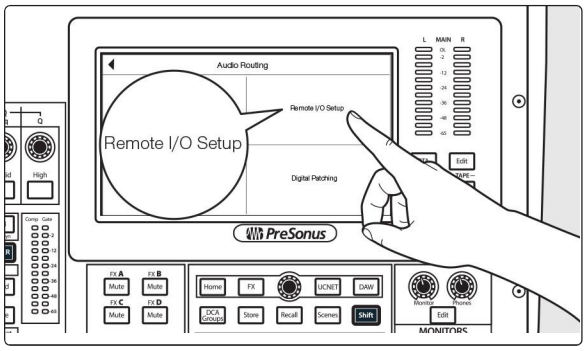
Press the Home button on your StudioLive Series III mixer.

按下StudioLive 系列III调音台上的Home 按钮。



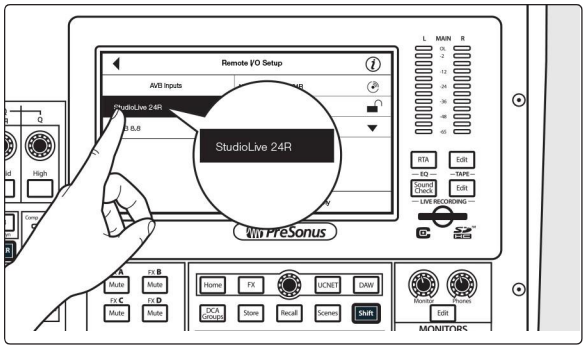
Press the Audio Routing icon on the Touchscreen.

按触摸屏上的Audio Routing图标。



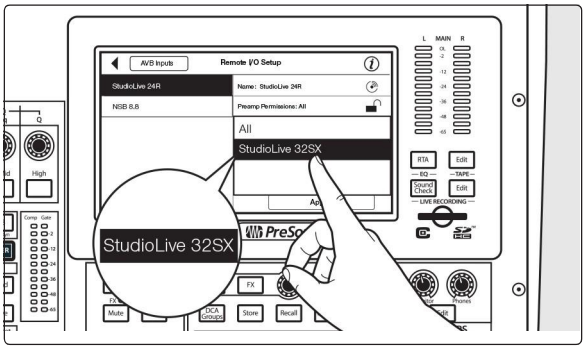
Press the Remote I/O button on the Touchscreen.

按触摸屏上的 "Remote I/O"按钮。



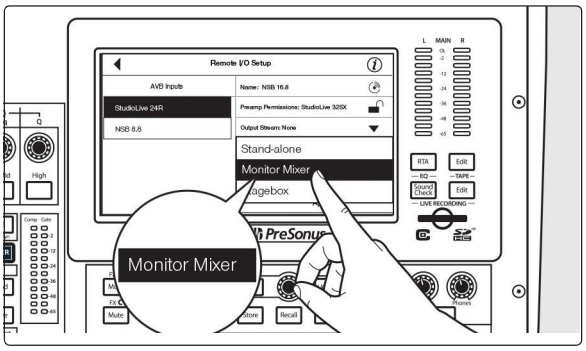
Select the StudioLive 24R.

选择 StudioLive 24R。



In our example, all preamps will be controlled from the Front-of-House mixer, so set the Preamp permissions to StudioLive 32SX.

在我们的例子中，所有的前置放大器将由观众席的调音台控制，因此将前置放大器的权限设置为 StudioLive 32SX。



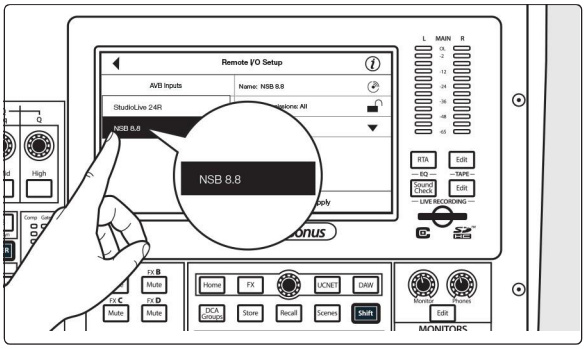
Change the Mode to Monitor Mixer.

将Mode改为 Monitor Mixer 监听混音器。

Note: For complete information on using your rackmount StudioLive Series III mixer as a stage box or monitor mixer with your StudioLive Series III console, please review the StudioLive Series III Stagebox Mode Addendum.

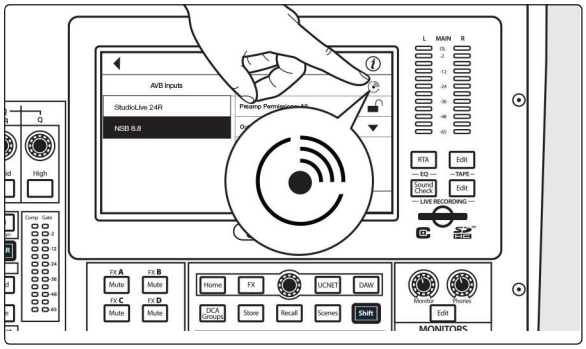
注：关于将机架式 StudioLive系列III 调音台作为舞台箱或监听调音台与StudioLive系列III控制台一起使用的完整信息，请查看 StudioLive Series III Stagebox Mode Addendum 附录。

Step 2: Connect Your Stage Box to Your Console Mixer (FOH)
第2步：将舞台箱连接到调音台（FOH）



Select the NSB 8.8 from the list on the left.

从左边列表中选择 NSB8.8 。

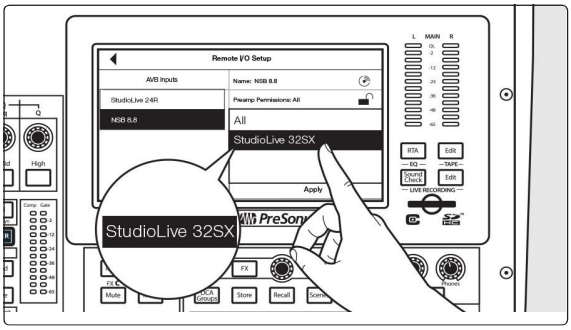


In applications where you are using multiple NSB-series stage boxes of the same model, you can press the Identify button. This will flash Power / Network LED on the top panel red and green on the currently selected NSB, allowing you to quickly locate your selection.

在使用多个相同型号的 NSB 系列舞台箱的应用中，可以按下Identify 按钮。这将使顶部面板上的Power / Network LED灯，在当前选定的NSB上闪烁红绿光，可快速找到你所选择的位置。

Step 3: Set Preamp Permissions

第3步：设定前置放大器的权限



The preamps on NSB-series stage boxes can be controlled from any StudioLive Series III mixer on the network. When you have a stage box feeding more than one mixer, it is recommended that you give only one mixer permission to adjust the NSB preamp levels. In our example, we will be giving permission to the StudioLive 32SX at Front-of-House.

NSB系列舞台箱的前置放大器可以从网络上的 StudioLive III系列调音台控制。当舞台箱为一个以上的调音台提供服务时，建议只给一个调音台调整 NSB前置放大器的电平权限。在我们的例子中，我们将把权限交给观众席的 StudioLive 32SX。

Step 4: Patch Outputs 补丁输出

The NSB-series stage box is equipped with 8 outputs to feed floor monitors, mains, or personal monitoring systems. In our example, we will be using these outputs exclusively for floor monitors and since we have a StudioLive 24R dedicated as a monitor mixer, we will be using its AVB Sends to feed the NSB 8.8 outputs.

NSB系列舞台箱配备了8个输出，可以为地板放射性监听、主控或个人监听系统提供信号。在我们的例子中，把这些输出专门用于地板放射性监听，由于我们有一个专门作为监听的调音台 StudioLive 24R，用它的AVB Sends来供应NSB 8.8输出。

Note: Because the AVB streams are routed must be routed in banks of 8, you can only source these outputs from one mixer on the network.

注意：因为 AVB streams 需要以8个一组的方式进行路由，所以你只能从网络上的一个调音台上获得这些输出。

Send and Return connections over the network to and from the NSB-series stage box must be made from each mixer individually. For console mixers, this routing can be made locally, using the LCD, or remotely from UC Surface. All audio routing for rack mixers must be done remotely using UC Surface.

通过网络与NSB系列舞台箱的Send 和 Return连接，必须从每个调音台单独进行。对于调音台，这种路由可以在本地使用LCD，或从UC Surface远程进行。所有机架式调音台的音频路由必须使用UC Surface 远程完成。

Note: You must assign an output stream from your mixer to your NSB-series stage box so that it is clocked properly over the network. If you do not assign an output stream from your mixer, your networked stage box will not be properly synced and you will hear audio artifacts. For more information on clocking over AVB, please review the AVB Networking Guide.

注意：你需要从调音台分配给NSB系列舞台箱一个输出流，这样它才能在网络上正确地进行时钟控制。如果你没有指定调音台的输出流，你的网络舞台箱将不能正确同步，你会听到音频伪影。关于AVB时钟的更多信息，请查阅 AVB Networking Guide指南。

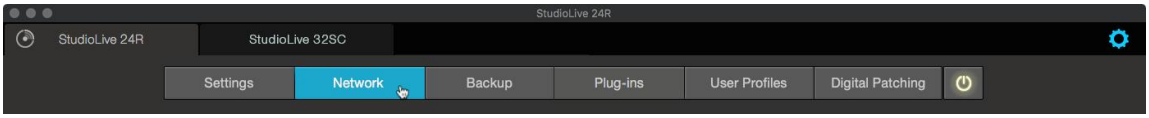
In our example, we will be routing the last 8 FlexMixes from the StudioLive 24R to the physical outputs on the NSB 8.8.

在我们的例子中，我们将从 StudioLive 24R 路由最后8个 FlexMixes 到 NSB 8.8 的物理输出。

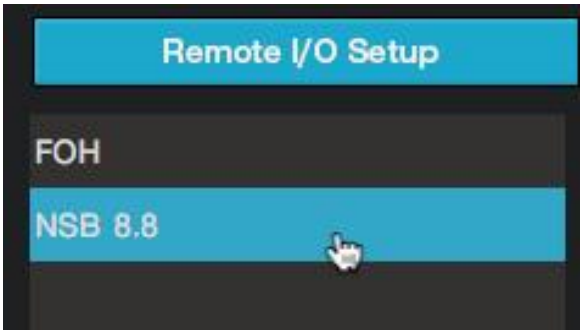
1. In Universal Control, connect to the StudioLive 24R. 在Universal Control中，连接StudioLive 24R

2. Click or tap on the Settings Icon. 单击或点击 "Settings"图标。

3. Click or tap on the Network Tab. 单击或点击 " Network"标签

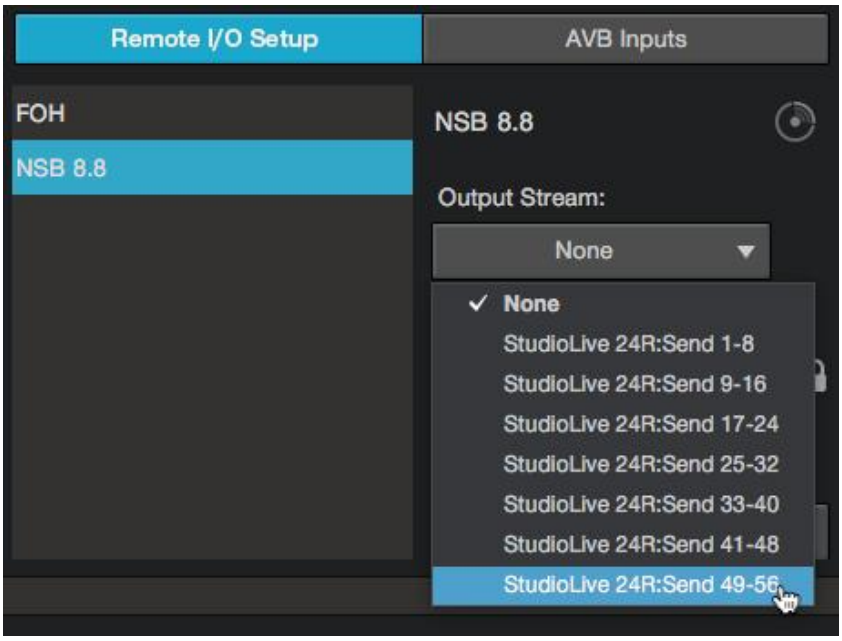


4. In the Remote I/O area, select the NSB 8.8. 在Remote I/O 区域，选择NSB 8.8。

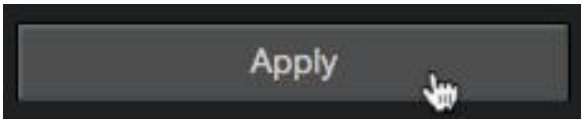


5. From the drop-down menu, select StudioLive 24R Sends 49-56.

从下拉菜单中，选择 StudioLive 24R Sends 49-56。



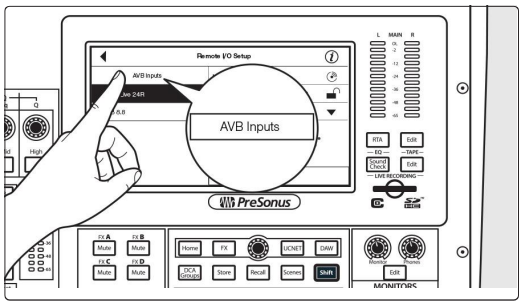
6. Press the Apply button when finished. 当完成时，按下 ”Apply” 键。



Step 5: Routing inputs to your console mixer
第5步：将输入路由到调音台

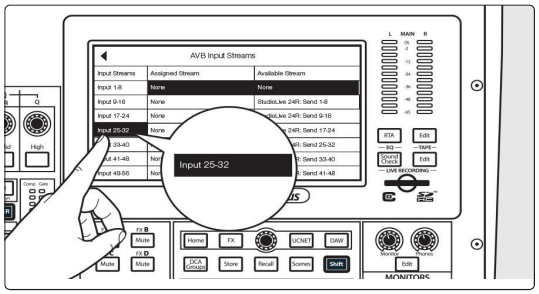
In our example, we are using the NSB 8.8 to add 8 remote inputs to the StudioLive 32S. We will also be routing the audio from the LCD on the console.

在我们的例子中，我们使用 NSB 8.8 向 StudioLive 32S添加8个远程输入。我们还将从调音台的LCD上路由音频。

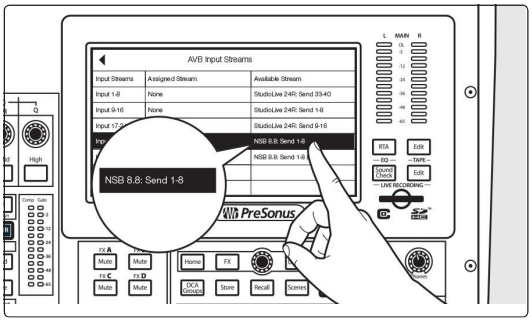


On the Remote I/O screen, press AVB Inputs.

在Remote I/O屏幕上，按AVB Inputs。



Select Input 25-32.
选择 Input 25-32。

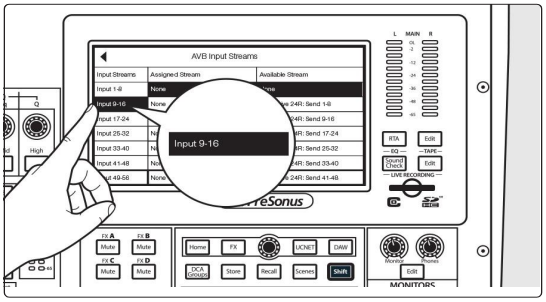


From the Available Stream list, use the Value encoder to scroll to NSB 8.8 Send 1-8.

In our example, we will also be using routing inputs 9-24 on the StudioLive 24R as part of our mix on the StudioLive 32SX. Let's go ahead and route those now.

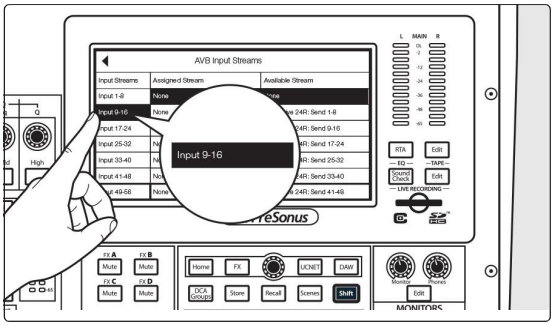
从 Available Stream 列表中，使用 Value编码器回到 NSB 8.8 Send 1-8。

在我们的例子中，我们还使用 StudioLive 24R上的路由输入9-24，把它作为我们在 StudioLive 32SX上混合的一部分。现在我们来给它们设置路由。



Select Input 9-16.

选择 Input 9-16。



From the Available Streams list, use the Value encoder to scroll to StudoLive 24R: Send 9-16.

从 Available Streams 列表中，使用Value编码器回到 StudoLive 24R: Send 9-16。

Repeat Steps 2-5 with Inputs 17-24 and StudioLive 24R Sends 17-24.

重复步骤2-5，输入17-24和 StudioLive 24R Sends 7-24。

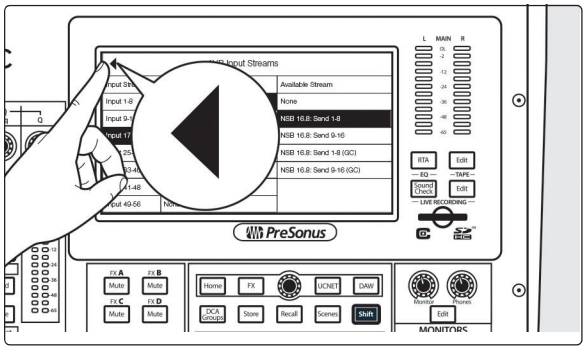
Your StudioLive 32SX is now configured as follows:

您的StudioLive 32SX现在被配置成如下：

- Channels 1-8: No network source available.
- Channels 9-16: Network sourced from StudioLive 24R Inputs 9-16.
- Channels 17-24: Network sourced from StudioLive 24R Inputs 17-24.
- Channels 25-32: Network sourced from NSB 8.8 Inputs 1-8.
- 通道1-8：没有可用的网络源。
- 通道9-16：网络源来自 StudioLive 24R Inputs 9-16。
- 通道17-24：网络源来自 StudioLive 24R Inputs 17-24。
- 通道25-32：网络源来自 NSB 8.8 Inputs 的1-8。

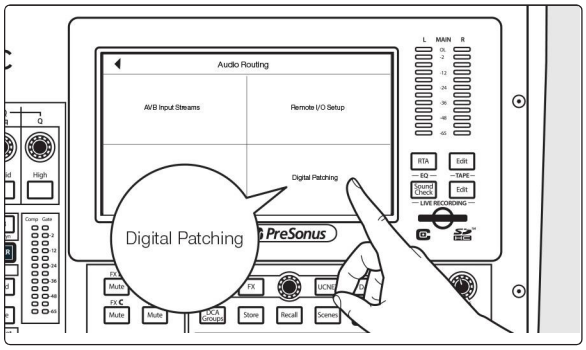
Step 6: Engaging the Network Sources on your Console Mixer

第6步：在调音台上启用网络资源



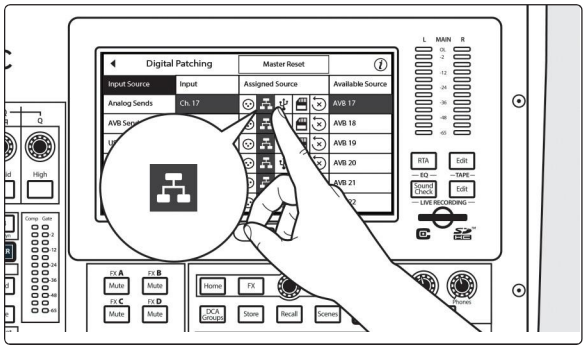
Press the back arrow to return to the Audio Routing screen.

按返回键回到Audio Routing屏幕。



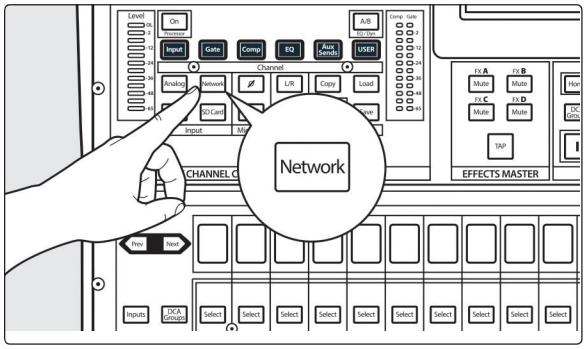
Press the Digital Patching button to open the Digital Patching screen.

按Digital Patching按钮，打开 Digital Patching 屏幕。



Scroll to Inputs 9-32 and assign each to the Network source by pressing the Network button next to each Input.

滚动到输入9-32，按每个输入旁边的Network按钮，将每个输入分配到Network上。



The Network Source can also be enabled for each channel individually from the Fat Channel. Using the Digital Patching screen allows you to assign the sources to multiple channels at once.

Your NSB 8.8 is now ready to use with your StudioLive 32SX. Now let's set it up for the StudioLive 24R!

Network Source 也可以从 "Fat Channel"中，单独启用每个通道。使用 Digital Patching 屏幕可以一次将信号源分配给多个通道。现在您的NSB 8.8已经可以和 StudioLive 32SX 一起使用了。

让我们开始为 StudioLive 24R 设置吧!

Step 7: Routing Inputs to your rack mixer

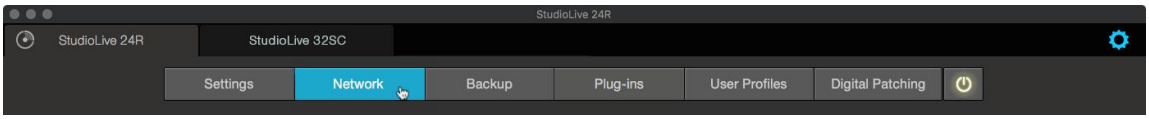
第7步： 将Routing Inputs到你的机架式调音台

In our example, we are using the NSB 8.8 to also add 8 more inputs to the StudioLive 24R create a full 32-channel mixer. Let's open up UC Surface and get that routed!

在我们的例子中，我们使用 NSB 8.8，为 StudioLive 24R 增加了8个输入，创造了一个完整的32通道的调音台。让我们打开 UC Surface，开始吧!

1. In UC Surface connected to your StudioLive 24R, press the Settings gear.
在连接到 StudioLive 24R 的 UC Surface 中，按下 Settings gear 。

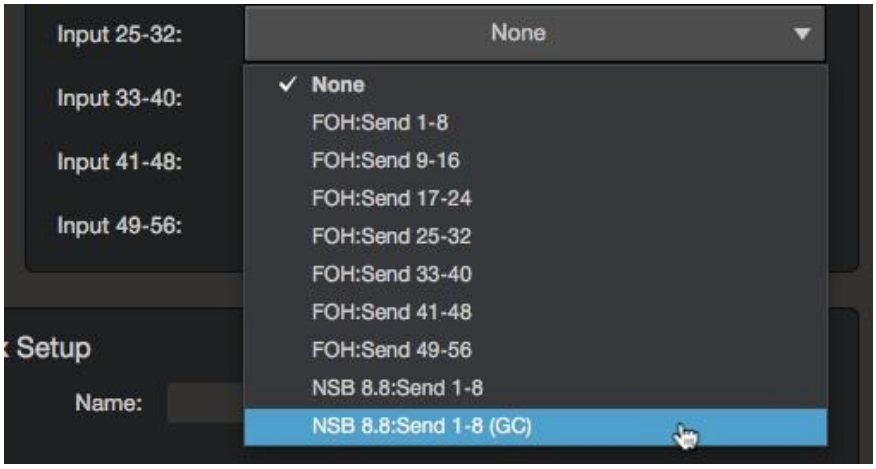
2. Click on the Network Tab. 单击 "Network " 标签。



3. From the Remote I/O area, click on the AVB Inputs tab. 在远程I/O区域，点击 AVB Inputs 标签。

4. Click or tap on the drop-down menu for Input 25-32 and select NSB 8.8: Send 1-8 (GC). These are the gain compensated streams for your NSB 8.8. Please see Section 3 for more information on Gain Compensation.

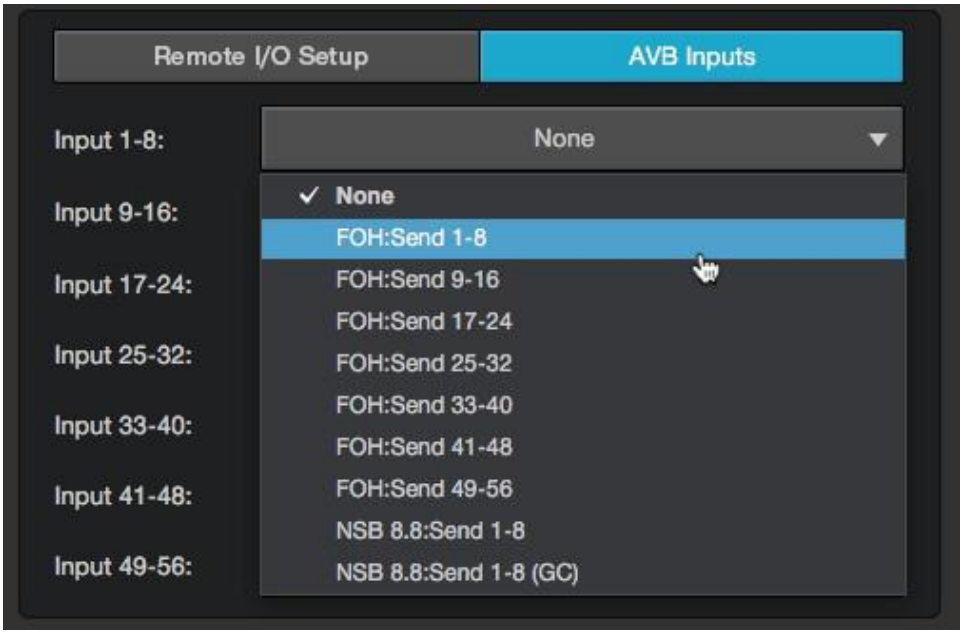
单击或点击Input 25-32的下拉菜单，选择 NSB 8.8：Send 1-8（GC）。这些是NSB 8.8的增益补偿流。关于Gain Compensation.的更多信息，请参见第3节。



In our example, we will also be using routing inputs 1-8 on the StudioLive 32SX as part of our monitor mix. Let's go ahead and route those now.

在我们的用例中，我们还将使用 StudioLive 32SX上的路由输入1-8，作为我们监听混音的一部分。让我们继续。

5. Click or tap on the drop-down menu for Input 1-8 and select StudioLive 32SX: Send 1-8
单击或点击下拉菜单的 Input 1-8，选择 StudioLive 32SX：Send 1-8



Your StudioLive 24R is now configured as follows:
您的 StudioLive 24R 配置如下：

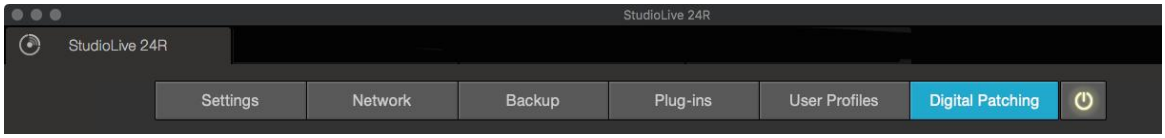
- Channels 1-8: Network sourced from StudioLive 32SX Inputs 1-9
- Channels 9-16: No network source available. Local sources only (Analog or USB)
- Channels 17-24: No network source available. Local sources only (Analog or USB)
- Channels 25-32: Network sourced from NSB 8.8 Inputs 1-8.

- 通道1-8：Network sourced 来自StudioLive 32SX Inputs 1-9
- 通道9-16：没有可用的网络源。只有本地信号源（模拟或USB）。
- 通道17-24：没有可用的网络源。只有本地信号源（模拟或USB）。
- 通道25-32：Network sourced来自 NSB 8.8 Inputs 1-8。

Step 8: Engaging the Network Sources on your Rack Mixer

第8步：在您的混合器上启动网络资源

1. Click or tap on the Digital Patching tab.
单击或点击Digital Patching标签



2. Click or tap on the Input Source tab.

   单击或点击Input Source 标签

3. Click or tap on the AVB tab.

   单击或点击 AVB 标签

4. Click or tap on the icon on Channels 1-8 and Channels 25-32. This will assign the source for each of these channels to the AVB network.

   单击或点击 Channels1-8和 Channels 25-32上的图标。这些通道的信号源将会分别分配给 AVB 网络。

3. Gain Compensation 增益补偿

When your NSB-series stage box is connected to multiple mixers, you have the option to designate only one to have control over the preamps. In this way, only one engineer is in charge of gain staging on stage. Once the preamp level is set by the master mixer, every other mixer on the network has the option of listening to the same stream or the gain compensated stream.

当您NSB系列舞台箱连接到多台调音台时，可以选择仅指定一台来控制前置放大器。这样一来，一个工程师就爱可以负责舞台上的增益分级。一旦设定了主调音台的前置放大器的电平，网络上其它每个调音台，都可以选择收听相同的流或增益补偿的流。

Routing the AVB stream that isn't gain compensated means that you will have no control over the level of the streams feeding the inputs of your mixer. While this may be fine in some situations, this could create gain staging issues in others.

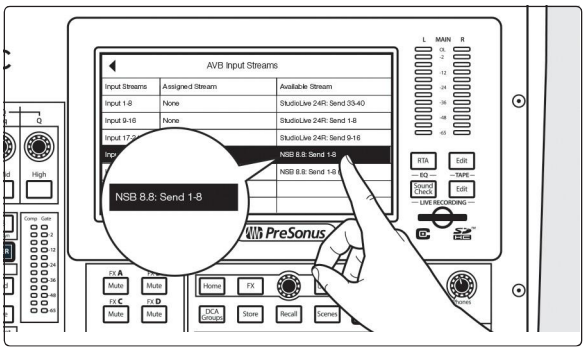
对没有增益补偿的AVB流进行路由，这意味着你将无法控制混音器输入流的电平。虽然这在某些情况下可能不错，但在其他时候，可能会造成增益分级的问题。

Using the Gain Compensated (GC) stream allows you to retain independent gain control on each mixer without potentially harming the Front-of-House mix. NSB stage boxes have an onboard DSP that adjusts the level of the gain compensated streams relative to gain set on the master mixer. In this way, every mixer on the network has a working gain range of +/- 20 dB, even if they are not the set as the master preamp controller for the stage box.

使用增益补偿（GC）流，你可以在每个调音台上保留独立的增益控制，但不会对观众席混音造成潜在的损害。NSB舞台箱有一个板载的DSP，可根据主调音台的增益设置，来调整增益补偿流的电平。这样，网络上的每个调音台都有一个+/-20dB的工作增益范围，即使没有设置他们为舞台箱的主前级控制器。

Once Gain Compensation is engaged, the Master mixer can adjust the gain of each NSB preamp +/- 15 dB before the change will be heard locally on any mixer receiving the Gain Compensated stream.

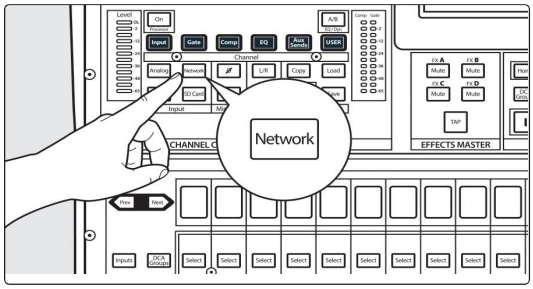
一旦增益补偿启动，主调音台可以调整每个NSB前置放大器的增益+/-15dB，然后在接收增益补偿流的任何调音台上，都能听到这种变化。



When using a StudioLive Series III console as the master preamp controller for your NSB-series stage box, select the non-Gain Compensated streams for your inputs.

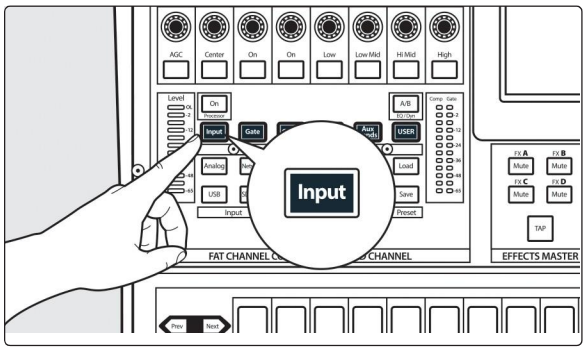
StudioLive III 系列调音台作为 NSB 系列舞台箱的主前级控制器，使用时，选择非 Gain Compensated 增益补偿流作为您输入流。

3.1 Remote Preamp Control (Console Mixers) 远程前置放大器控制（调音台）



After you route the NSB inputs to your console mixer, select Network for the source on the corresponding channels.

将 NSB 输入路由到调音台混音器后，在相关通道上选择 Network 作为信号源。

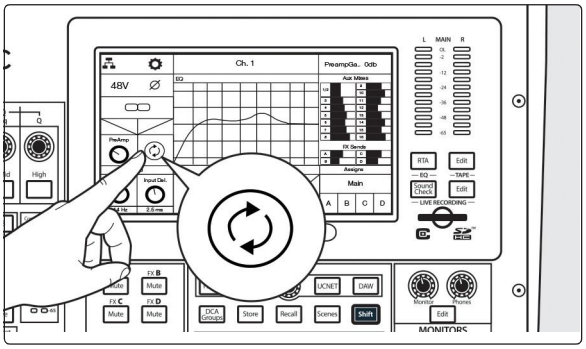


Press Input on the Fat Channel.

请按 Fat Channel 上的 Input 键。

You can now control the preamp level and phantom power for your NSB stage box from the Fat Channel on your console, in the same way that you control the local inputs.

现在可以从调音台的 Fat Channel通道，来控制NSB舞台箱的前置放大器电平和幻象电源，与控制本地输入的方式相同。



After you have set the preamp levels, enable Gain Compensation from the LCD. This will turn on Gain Compensation for that input and allow other mixers on the network to source that stream.

在你设置好前置放大器的电平后，从LCD上启用Gain Compensation。这将开启该输入的增益补偿，并允许其他网络上的混音器使用该数据流。

Note: If you do not enable Gain Compensation, making a change on the mixer with preamp con- trol over the NSB stage box will change it for any device listening to that stream on the network.

注意：如果你不启用Gain Compensation增益补偿，在调音台上对NSB舞台箱的前置放大器进行改变，会对网络上收听该数据流的任何设备进行改变。

3.2 Remote Preamp Control (UC Surface) 远程前置放大器控制 (UC Suface）。

After you route the NSB inputs to your console mixer, select Network for the source on the corresponding channels.

NSB 输入路由到混音器后，在相关通道上选择Network作为信号源。

Select the channel for which you'd like to set the gain.

选择你要设置增益的通道。

You can now control the preamp level and phantom power for your NSB stage box from the Fat Channel in UC Surface, in the same way that you control the local inputs.

你现在可以从UC Surface的Fat Channel中，控制NSB舞台箱的前置放大器电平和幻象电源，就像你控制本地输入一样。

After you have set the preamp levels, enable Gain Compensation. This will turn on Gain Compensation for that input and allow other mixers on the network to source that stream.

设置好前置放大器的电平后，请启用Gain Compensation增益补偿。这将打开该输入的增益补偿，而且允许网络上其他的调音台使用该数据流。

Note: If you do not enable Gain Compensation, making a change on the mixer with preamp control over the NSB stage box will change it for any device listening to that stream on the network.

注意：如果你不启用Gain Compensation，在调音台上，对NSB舞台箱的前级控制进行改变，将改变设备在网络上聆听该数据流的情况。

4. Hookup 连接

4.1 Front-Panel Connections 前面板连接

Mic/Line Inputs. The inputs on your NSB-Stagebox can also accept mic- or line-level signals. These inputs use TRS-XLR combo jacks that can accept both XLR and balanced or unbalanced 1/4” cables.

Mic/Line Inputs. NSB-Stagebox的输入可以适配 Mic/Line Inputs 信号。这些输入使用TRS-XLR组合插座，可以适配 XLR 和平衡或不平衡的1/4 "电缆。

The XLR inputs provide access to the onboard PreSonus XMAX microphone preamplifiers, for use with all types of microphones. The XMAX preamp features a Class A input buffer circuit, followed by a dual-servo gain stage. This results in exceptionally low noise, and a wide range of gain, allowing you to boost signals significantly, without introducing unwanted background noise.

XLR 输入提供对板载 PreSonus XMAX 麦克风前置放大器的访问，用于所有类型的麦克风。XMAX前置放大器具有一个A类输入缓冲电路，然后是一个双伺服增益级。这样使噪音特别低和增益范围很广泛，信号得到显著提高，而不会引入不必要的背景噪音。

The ¼-inch TRS connectors bypass the gain stage and are scaled to accept line-level signals up to +18 dBFS. Use these inputs for any line-level device.

¼英寸TRS 连接器绕过增益级，按比例适配高达 +18dBFS 的线级信号。这些输入可用于任何线级设备。

Power User Tip: *When the line inputs are engaged, the microphone preamp circuit is bypassed completely, and no trim control is available. Typical examples of line-level connections are synthesizer outputs, signal processors, and stand-alone mic preamps and channel strips. Use the output level control on your line-level device to adjust its level.*

用户提示：当线路输入时，麦克风前置放大器电路被完全绕过，没有可用的微调控制。线路连接的经典用例是合成器输出，信号处理器，以及独立的麦克风前置放大器和通道带。使用线级设备上的输出电平控制，来调整其电平。

Note: As with many audio devices, plugging a microphone or line-level device, or enabling/disabling phantom power can create a momentary noise spike in the audio output. It is highly recommended that you mute or turn down a channel’s fader before changing connections or toggling phantom power on or off.

注意：与许多音频设备一样，插入麦克风或线级设备，或启用/禁用幻象电源，都会在音频输出中产生短暂的噪音高峰。强烈建议您在改变连接或切换幻象电源的开启或关闭之前，将通道的推子静音或调低。

Phantom Power Indication. The NSB provides individually-switchable 48V phantom power for each microphone input. The red LED next to each input indicates whether or not Phantom Power has been enabled for the corresponding mic preamp. Whichever mixer has preamp control permissions, also controls the Phantom Power for each input.

幻象电源指示. NSB给每个麦克风输入提供可单独切换的48V幻象电源。每个输入旁边的红色LED指示是否为相应的麦克风前置放大器启用了幻象电源。无论哪个调音台有前置放大器的控制权限，都可以控制每个输入的幻象电源。

WARNING: Phantom power is required for condenser microphones and certain other specialty microphones that contain active preamp circuitry. However, applying phantom power to mics that don't require power can damage them (especially ribbon mics). Switch phantom power off for all channels where it is not required.

警示：电容式麦克风和其它某些包含有源前置电路的特殊麦克风，是需要幻象电源。然而，对不需要电源的麦克风，使用幻象电源会损坏它们（特别是带状麦克风）。在不需要幻象电源的情况下，请关闭所有通道的幻象电源。

XLR connector wiring for phantom power:
Pin 1 = GND **Pin 2** = +48V **Pin 3** = +48V

幻象电源的XLR连接器接线：
Pin 1 = GND **Pin 2** = +48V **Pin 3** = +48V

Line Out. These balanced XLR line outputs are to connect external devices like powered floor monitors, amplifiers, etc.

Line Out. 这些平衡的 XLR 线路输出，用于连接外部设备，如有源地板放射性监听器、扩音器等。

Mute All. This button mutes every input and output on your NSB. Use this button to quickly silence your NSB while making connections or disconnecting equipment to avoid volume spikes in your system.

Mute All. 这个按钮，使所有NSB的输入和输出都静音。在连接或断开设备时，使用这个按钮，可以迅速使NSB静音，以避免系统中出现音量高峰。

Power Network. This LED displays power and network connectivity.

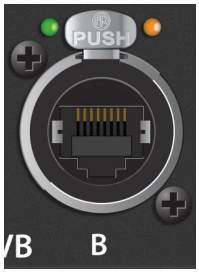
Power Network. 这个 LED 显示电源和网络连接。

- **Red.** No network is available.
- **Green.** The NSB stage box is connected to an AVB network.
- **Blue.** The NSB stage box is connected to an AVB network and receiving proper word clock sync.
- **红色：**没有可用网络。
- **绿色：**NSB舞台箱已连接到AVB网络。
- **蓝色：**NSB舞台箱已连接到AVB网络，并收到正确的字时钟同步。

4.2 Left-panel Connections 左侧面板连接

AVB A. This locking Ethernet connection should be used to connect your NSB to your AVB network.

AVB A. 这个锁定的Ethernet连接，应该用来连接您NSB和AVB网络。



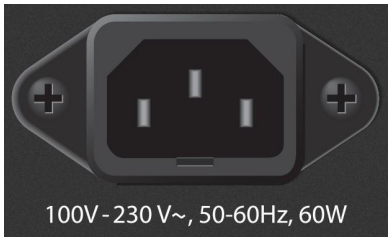
AVB B. This locking Ethernet connection can be used to connect your NSB to another NSB or other AVB device. You can also use this connection to daisy chain additional NSB stage boxes or EarMix 16M personal monitor mixers in situations where you are connecting your devices directly to your mixer without an AVB switch or if you have exhausted the available ports on your AVB switch.

AVB B. 这个锁定的Ethernet连接，可以用来连接你的 NSB和另一个 NSB或其他 AVB设备。在没有 AVB 交换机的情况下，或在 AVB 交换机的可用端口用尽的情况下，你也可以用这个连接来串联其他 NSB 舞台箱或 EarMix 16M 个人监听调音台。

Power User Tip: *Please refer to the section on hop limitations on AVB networks in the PreSonus AVB Networking Guide before cascading numerous AVB devices without a central switch, like the PreSonus SW5e.*

用户提示：没有中央交换机，级联多个AVB设备之前，请参考 PreSonus AVB 网络指南中关于AVB网络的跳数限制 *hop limitations* 的章节。

4.3 Right-panel Connections 右侧面板连接

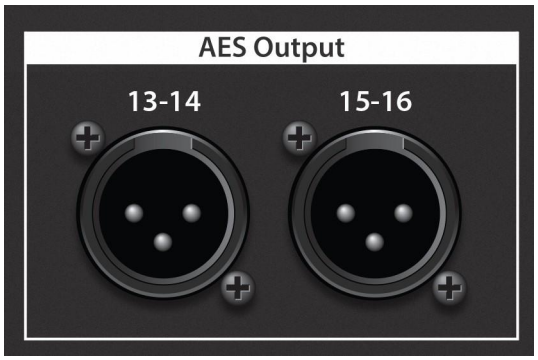


Power. This Power input accepts power from the included IEC3 Power cord.

Power. 这个电源输入口接受来自附带的IEC3电源线的电源。

Power Switch. This is the on / off switch for your NSB.
Power Switch. 这是你的NSB的开/关。

4.4 Rear-Panel Connections 后面板连接



(NSB 32.16 Only) AES Out. These Digital AES-3/EBU XLR outputs are to connect external devices like power amplifiers, 2-track recorders, streaming equipment, etc.

(NSB 32.16 Only) AES Out. 这些数字AES-3/EBU XLR 输出用于连接外部设备，如功率放大器、双轨录制、流媒体设备等。

4.5 Configurable Rack Ears (NSB 32.16 only) 可配置机架 (仅NSB 32.16)

Your NSB 32.16 ships with a pair of removable and reversible rack ears, allowing for a two extra mounting configurations to best suit your setup and workflow.

NSB 32.16配有一对可拆卸和可翻转的机架，允许两种额外的安装配置，以最适合你的设置和工作流程。

Mounting the rack ears in the recessed position allows you to set the NSB 32.16 farther back in a road case, allowing extra room for your cables in the front.

将架子安装在凹陷的位置，可以让你把NSB 32.16放在更远的地方，为前面的电缆提供空间。

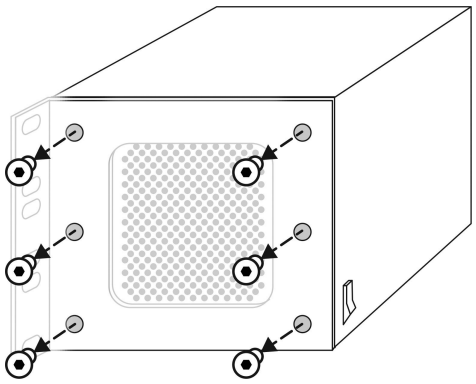
Mounting the rack ears in the reversed position allows you to mount the NSB 32.16 backwards in its rack, positioning the analog I/O at the rear of your case and the digital and power connectivity at the front.

将机架安装在反向位置，可以将NSB 32.16向后安装在机架上，将模拟输入/输出放在机箱的后面，数字和电源连接放在前面。

To remove and relocate the rack ears:

要拆除和重新定位机架：

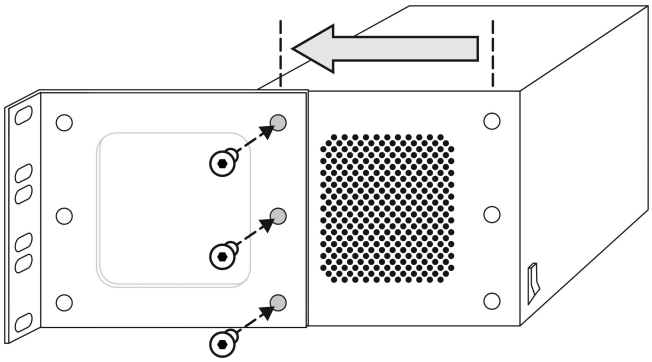
1. Loosen and remove the six screws on each side of the NSB 32.16 using a hex driver (not included.)
   用六角螺丝刀（不含）松开并卸下NSB 32.16两侧的六个螺丝。



2. Re-position the ears to the desired configuration.
   将架子重新定位到所需的配置。

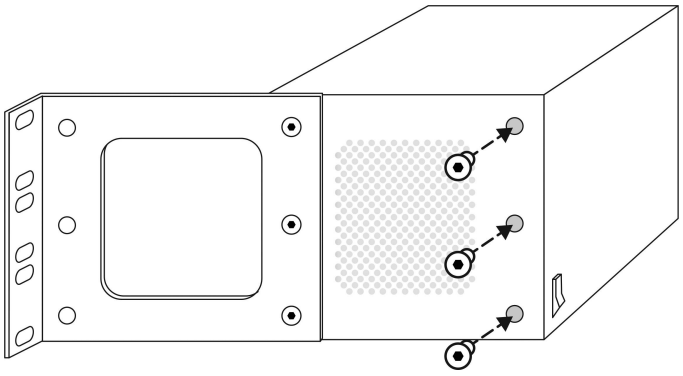
For a recessed configuration, attach the back end of the rack ears to the frontmost holes of the NSB 32.16.

对于凹陷的配置，将架子的后端连接到NSB 32.16的最前端的孔上。

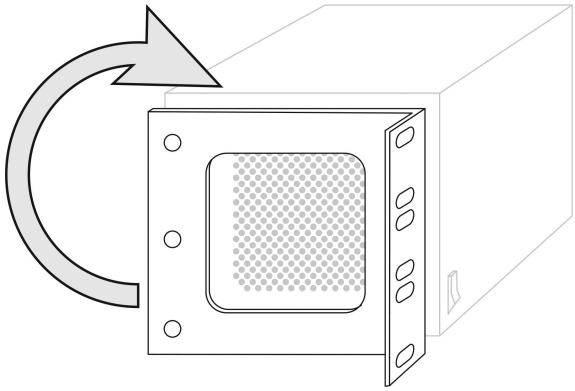


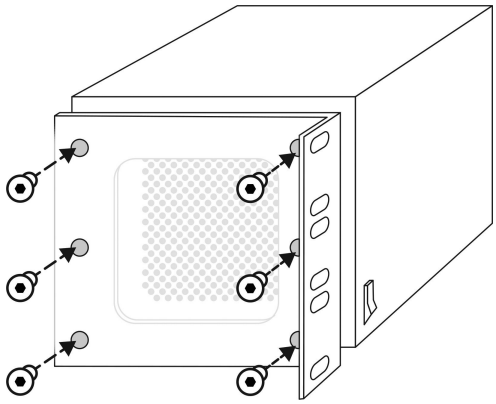
Replace the extra screws in the unused holes to avoid losing them.

将多余的螺丝钉替换到未使用的孔中，以免丢失。



For a reversed configuration, simply rotate the ears 180° and re-attach the screws.
对于相反的配置，只需将机架挂耳旋转180°并重新安装螺丝。





3. Mount your reconfigured NSB 32.16 stage box in the rack of your choice. You’re done!
将重新配置的NSB 32.16舞台箱安装在你选择的机架上。这就完成了!

5. Technical Information 技术信息

5.1 Specifications 规格

Microphone Preamplifier 麦克风前置放大器	
Input Type 输入类型	XLR Female, balanced
Frequency Response to Main Output (at unity gain) 主输出的频率响应（统一增益时）	20-20 kHz, ±0.5 dBu
Input Impedance 输入阻抗	1 kΩ
THD to Main Output 主输出THD	<0.005%, +4 dBu, 20-20 kHz, unity gain, unwtd
S/N Ratio to Main Output (Ref = +4 dB, 20 kHz BW, unity gain, A-wtd) 输出的信噪比（参考 = +4 dB, 20 kHz BW, unity gain, A-wtd)	94 dB
Common Mode Rejection Ratio (1 kHz at unity gain) 共模抑制率（1kHz，统一增益时）	65 dB
Gain Control Range (±1 dB) 增益控制范围（±1dB）	0 dB to +60 dB
Maximum Input Level (unity gain) 最大输入电平（统一增益）	=+12 dBu
Phantom Power (±2 VDC) 幻象电源（±2 VDC）	48 VDC, switchable per channel
Line Inputs 线路输入	
Type 类型	¼” TRS Female, balanced
Frequency Response to Main Output (at unity gain) 主输出的频率响应（统一增益时）	20-20 kHz, ±0.5 dBu
Input Impedance 输入阻抗	10 kΩ
THD to Main Output 主输出的 THD	<0.005%, +4 dBu, 20-20 kHz, unity gain, unwtd
S/N Ratio to Main Output (Ref = +4 dB, 20 kHz BW, unity gain, A-wtd) 主输出的信噪比（参考 = +4 dB, 20 kHz BW, unity gain, A-wtd)	94 dB
Maximum Input Level 最大输入电平	=+18 dBu
XLR Outputs XLR 输出	
Type 类型	XLR Male, balanced

Maximum Output Level 最大输出电平	=+24 dBu, ±0.5 dBu
Output Impedance 输出阻抗	100Ω
AES Outputs (NSB 32.16 only) AES输出（仅NSB 32.16）	
Connectivity 连接方式	XLR Male, balanced
Type 类型	AES 3
Digital Audio 数字音频	
ADC Dynamic Range ADC动态范围	115 dB (A-wtd, 48 kHz)
DAC Dynamic Range DAC动态范围	115 dB (A-wtd, 48 kHz)
AVB Audio Network Ports AVB音频网络端口	Locking XLR Ethernet
Sampling Rate 采样率	48 kHz
Power 电源	
Connector 连接器	Locking IEC
Input-Voltage Range 输入电压范围	90 to 230 VAC (±10%)
Physical 物理尺寸	
Height 高度	NSB 8.8: 5.2” (132 mm)
	NSB 16.8: 7” (178 mm)
	NSB 32.16: 5.25" (133 mm)
Width 宽度	NSB 8.8: 16.7” (424 mm)
	NSB 16.8: 16.7” (424 mm)
	NSB 32.16: 19" (483 mm)
Depth 深度	NSB 8.8: 4.5” (114 mm)
	NSB 16.8: 4.5” (114 mm)
	NSB 32.16: 5.5" (140 mm)

Weight 重量	NSB 8.8: 5.4 lbs. (2.4 kg)
	NSB 16.8: 6.2 lbs. (2.8 kg)
	NSB 32.16: 10.2 lbs (4.6 kg)

6. Legal 法律方面

7. Dinner is Served! 菜谱

Added bonus: PreSonus' previously Top Secret recipe for…

额外的奖励：PreSonus的绝密配方

Andouille & German Red Cabbage Po-Boys

香肠 & 德国红菜波波饼

Ingredients:

材料：

- 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
- 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 Andouille 或Bratwurst Sausage香肠，纵向切开
- ¼磅 Muenster干酪
- Creole 或德国芥末酱来调味
- 1条法国面包

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).

烹饪说明：

- 在大平底锅中加热2汤匙植物油。加入洋葱和姜，然后煮约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。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（如果你真的很饿，也可以不切）。

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

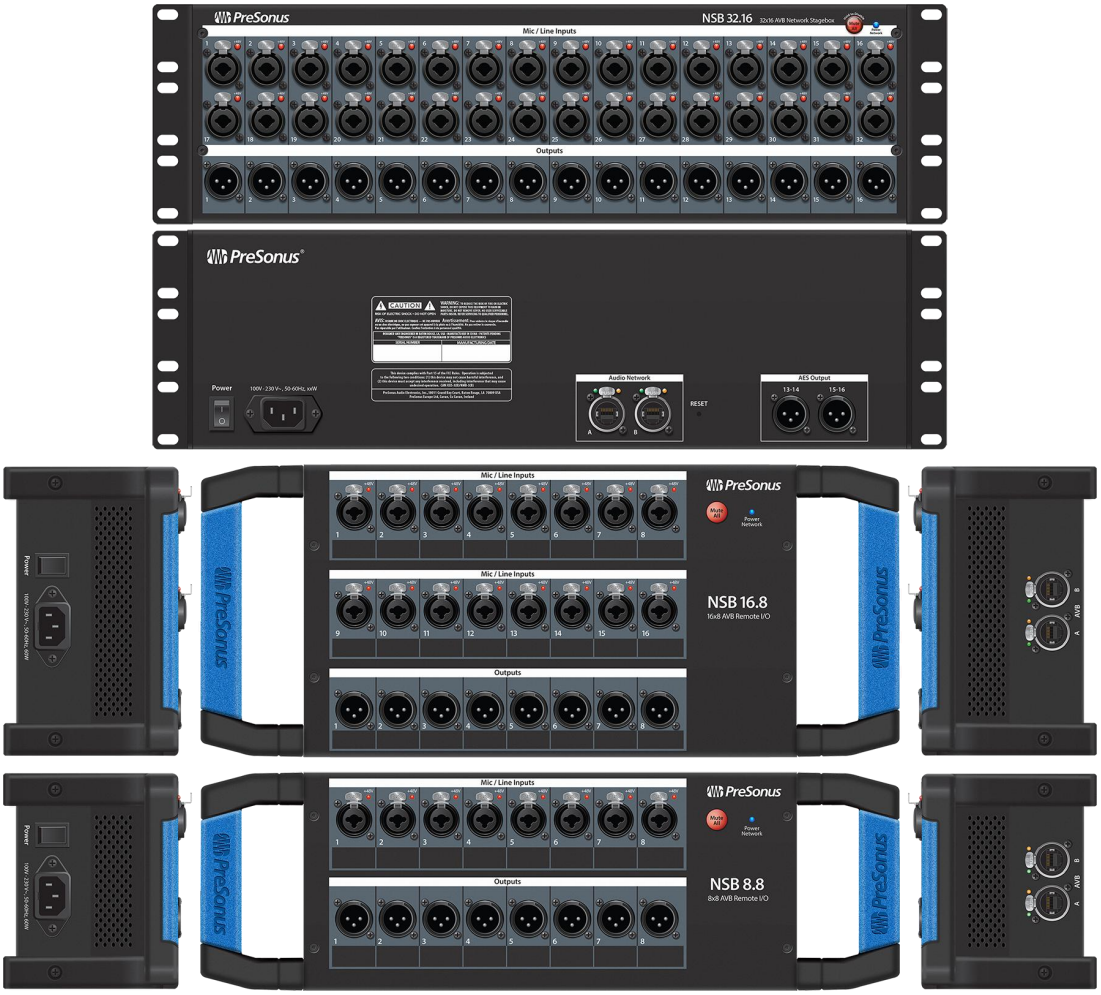
额外：多余的卷心菜可以作为肉类、鸡蛋、三明治等的调味品。

NSB-Series Stagebox
NSB系列舞台想

AVB Remote I/O
AVB 远程 I/O

Owner's Manual

用户手册



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