Avid VENUE | S6L

Installation Guide

Legal Notices

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Introduction

Welcome to the Avid VENUE | S6L digital live mixing system from Avid®.

This guide shows how to install S6L hardware and software. Before you can start using your VENUE | S6L system, you must install the most recent VENUE software on both your S6L control surface and your E6L engine.

VENUE software, plug-ins for your system, and additional software are accessed from your Avid account after you have activated your purchase.

Read this Introduction section to learn about **System Requirements and Compatibility**, get suggestions for **How to Use this PDF Guide** and other VENUE S6L guides and documentation, and to become familiar with some of the **Resources** available at www.avid.com.

Then do the following as appropriate for your installation:

- If you are installing an S6L system for the first time, see **Setting Up a VENUE S6L System for the First Time**.
- If you are updating or upgrading a system that has already been installed and configured, see **VENUE Software Installation Options**.

System Requirements and Compatibility

Avid can only assure compatibility and provide support for hardware and software it has tested and approved. For complete system requirements and a list of qualified computers, operating systems, hard drives, Ethernet switches, media converters, other third-party devices, and versions of Pro Tools software, visit:

www.avid.com/S6Lsupport

How to Use this PDF Guide

These are some useful features of this PDF:

- The Bookmarks on the left serve as a continuously visible table of contents. Click on a subject heading to jump to that page. Click a + symbol to expand that heading to show subheadings. Click the – symbol to collapse a subheading.
- The Table of Contents provides active links to their pages. Select the hand cursor, allow it to hover over the heading until it turns into a finger. Then click to locate to that subject and page.
- All cross references in **blue** are active links. Click to follow the reference.
- Select Find from the Edit menu to search for a subject.

Conventions Used in This Guide

All of our guides use the following conventions to indicate menu choices and key commands:

Convention	Action
Options > System	In the VENUE software, click Options to display the Options tab, then click the System tab.
File > Save	Choose Save from the File menu
Control+N	Hold down the Control key and press the N key
Control-click	Hold down the Control key and click the mouse button
Right-click	Click with the right mouse button

The names of Commands, Options, and Settings that appear on-screen are in a different font.

The following symbols are used to highlight important information:

User Tips are helpful hints for getting the most from your system.

Important Notices include information that could affect your data or the performance of your system.

Shortcuts show you useful keyboard or mouse shortcuts.

Cross References point to related sections in this guide and other VENUE guides.

Hardware Switches on Control Surfaces

The names of switches on the control surfaces are in bold (such as **Sel).** The Shift switch on the S6L is indicated by bold text, in all-caps (**SHIFT**) to distinguish it from references to the Shift key on your QWERTY keyboard.

Resources

The Avid website (**www.avid.com)** is your best online source for information to help you get the most out of your Avid system. The following are just a few of the services and features available.

Account Activation and Product Registration

Activate your product to access downloads in your Avid account (or quickly create an account if you don't have one). Register your purchase online, download software, updates, documentation, and other resources.

https://www.avid.com/account

Support and Downloads

Contact Avid Customer Success (technical support); download software updates and the latest online manuals; browse the Compatibility documents for system requirements; search the online Knowledge Base or join the worldwide Avid user community on the User Conference.

https://www.avid.com/products/venue-s6l-system/learn-and-support

Training and Education

Study on your own using courses available online, find out how you can learn in a classroom setting at an Avid-certified training center, or view a webinar. For example, check out the live sound webinars hosted by Robert Scovill:

http://www.avid.com/live-sound-webinars

Also check out our Live Sound blogs:

http://www.avidblogs.com/livesound/

Get started learning the ins and outs of S6L using the many **Avid Live Sound** videos on YouTube.

Products and Developers

Learn about Avid products; download demo software or learn about our Development Partners and their plug-ins, applications, and hardware.

https://www.avid.com/Products/index.html

Part I: First Time Setup

Setting Up a VENUE S6L System for the First Time

Setting up a system for the first time requires the following tasks:

- Review and identify **What's Included**, **Optional Items**, **Operational Requirements**, and **Cabling Requirements**
- Get started by **Unpacking and Assembling Basic System Components**
- Finish the initial steps by **Activating S6L System Components** (very important!)

If you are upgrading or updating a system that has already been installed and configured, see **VENUE Software Installation Options**.

The screens and text displayed on your system may differ slightly from the images shown on the following pages.

What's Included

The following sections describe what is included in each S6L package.

With the S6L Control Surface

Each S6L control surface includes the following items:

- S6L control surface
- Two (2) IEC auto-locking AC power cords
- Dust cover
- Microfiber cloth (for cleaning touch screens)
- One (1) 2.5 mm hex ball-end screwdriver (fits the hex screws used on the S6L control surface)
- Documentation, including a Welcome Letter, Warranty Card, *Health and Safety Guide*, and a VENUE Tech Support card (for obtaining tech support for your system)
- **VENUE | S6L Control Surface Software & Plug-Ins Pack**
- **Pro Tools® | Software and the Live Sound Production Toolkit**

VENUE | S6L Control Surface Software & Plug-Ins Pack

The S6L Control Surface Software and Plug-Ins pack includes the following:

S6L Control Surface Restore USB Drive Use this USB drive to initially install system software on your S6L control surface, and to store S6L Control Surface System Restore software. After initial installation, keep this drive with your S6L control surface at all times for S6L control surface maintenance and troubleshooting.

Do not use this drive for anything other than S6L Control Surface System Restore software. Do not use this drive to store VENUE Show files, audio files, or any other data or software, including VENUE software updates.

S6L Plug-Ins iLok Stores your S6L plug-in licenses. To run the plug-ins on your system, this iLok containing the licenses for the plug-ins must be connected to your S6L control surface.

For more information on the activation process for your VENUE system software, go to www.avid.com/activationcard and select S6L.

VENUE | S6L Activation Card Contains codes and instructions required to activate your S6L control surface. The activation process deposits the following licenses into your iLok account:

- S6L plug-in licenses
- Live Sound Production Toolkit license

The activation process also deposits the following software downloads and documentation into your Avid account:

- S6L control surface System Restore software (and Update software, when available)
- E6L engine System Restore software (and Update software, when available)
- S6L plug-ins installer
- ECx Ethernet Control host software (for remote control of your S6L system)
- Documentation, including the main guide for your system, the *VENUE | S6L System Guide*
- VENUE S6L Standalone software

⚠ *A separate USB flash drive (not provided) is required to store the plug-ins installer, other software, and documentation. Do not use the included VENUE System Restore USB Drive.*

Pro Tools® | Software and the Live Sound Production Toolkit Pro Tools | Software is included with the S6L control surface, and is activated and downloaded separately from the S6L software and plug-ins. The Live Sound Production Toolkit is an iLok license that enables up to 128 channels of I/O between your S6L system and Pro Tools.

An iLok is also included in the Pro Tools package to store your Pro Tools and Live Sound Production Toolkit licenses. Do not store S6L plug-in licenses and Pro Tools licenses on the same iLok. You can, however, use the same iLok account to manage all iLok licenses.

With the E6L Engine

Each E6L engine includes the following:

- E6L engine
- E6L engine rack rails and installation guide (for installing E6L into an enclosure)
- Rack screws
- Two (2) IEC auto-locking AC power cords
- *Health and Safety Guide*
- Warranty claims card
- **VENUE | E6L Engine Restore Software Pack** (see next)

VENUE | E6L Engine Restore Software Pack

The E6L Engine Restore Software pack includes the following:

E6L Engine Restore Drive Use this USB drive to store E6L Engine System Restore software, and to initially install system software on your E6L. After initial installation, keep this drive with your E6L engine at all times for system maintenance and troubleshooting.

⚠ *Do not use this drive for anything other than E6L Engine System Restore software. Do not use this drive to store VENUE Show files, audio files, or any other data or software, including VENUE software updates.*

VENUE | E6L Activation Card Contains codes and instructions required to activate your E6L engine.

With the Stage 64 I/O Rack

Each Stage 64 I/O rack includes the following:

- Stage 64 I/O rack with 6 SRI-192 Analog Input cards and 1 SRO-192 Analog Output card
- Stage 64 rack ears and installation guide, for installing Stage 64 into an enclosure
- Two (2) IEC auto-locking AC power cord
- *Health and Safety Guide*
- Warranty claims card
- **VENUE | Stage 64 Activation Card** (see next)

VENUE | Stage 64 Activation Card Contains codes and instructions required to activate your Stage 64 I/O Rack.

Additional Required Items

The following items are required for installation:

- Four (4) shielded Cat 5e (350 MHz) or better Ethernet cables (one is included with the S6L control surface, the other three must be purchased separately)
- Free-standing HDMI or DVI-D compatible DVI-D compatible Full HD display with 1920 x 1080 minimum resolution (21.5-inch or greater touch display recommended), a DVI-D cable, and a USB cable (for enabling the touch screen function on the monitor)

⚠ *Use a qualified monitor with your S6L system. Visit* **www.avid.com/S6Lsupport** *for a list of supported monitors.*

⚠ *If you are using a non-qualified monitor, do not use a USB-powered monitor with your S6L system.*

- A VGA-compatible monitor (for installing VENUE software on the E6L engine)
- Windows-compatible USB keyboard and mouse
- USB 2.0 flash drive(s) for storing the S6L plug-ins installer and other required software installers
- An active hard-wired Internet connection
- A separate computer running Windows XP or higher

Optional Items

The following items are optional, and must be purchased separately:

- Shielded Cat 5e (350 MHz) or better Ethernet cable for connections to Pro Tools
- Standard Cat 5e or better Ethernet cable for ECx Ethernet Control connections
- Headphones with 1/4-inch connector
- Footswitch with 1/4-inch connector
- BNC cables for word clock connections to/from external digital devices
- DB25 (25-pin) cable(s) for connecting to GPI devices
- Thunderbolt-to-Gigabit Ethernet adapter for connecting to the Thunderbolt port of a qualified Pro Tools computer
- Windows-compatible USB mouse, for navigating external display if a touch monitor is not being used

Expansion Options

S6L systems can be expanded to add analog or digital IO, plug-in processing capability, and connectivity. For an overview of available options, see the *VENUE S6L System Guide.pdf*.

When setting up a system for the first time, complete the primary VENUE hardware and software installation as described in this guide *before* installing any Option cards into the E6L engine (such as additional AVB-192 Network Cards, MADI-192 MADI Option Cards, or a WSG-HD Waves SoundGrid Option Card) or Stage 64s (such as DNT-192 Dante Option Cards). Installation instructions for Option cards are included in their packages.

Operational Requirements

While operating your S6L system, be sure to follow these guidelines.

Temperature and Ventilation

S6L system devices should be operated away from heat sources and with adequate ventilation.

Hardware monitoring and automatic warnings are provided for temperature, power and other factors. For more information about the Hardware Monitoring Window, see the VENUE S6L System Guide.pdf.

Storage

S6L system devices should be stored and transported at temperatures not lower than 0 degrees F (–18 degrees C) and not exceeding 140 degrees F (60 degrees C).

Operation

S6L system devices should be operated at temperatures not lower than 40 degrees F (4 degrees C) and not exceeding 104 degrees F (40 degrees C).

During operation, the left and right end caps on the back of the S6L control surface, the front and back of the E6L engine, and the fans on the back of the Stage 64 should be exposed to ambient air. Do not block the ventilation holes on any S6L system component. Do not operate in direct sunlight or at extreme ambient temperatures.

Water and Moisture

S6L system devices should be operated away from sources of direct moisture and should be kept clear of liquids that might spill into the units. If condensation is present on the unit, leave the unit to dry in ambient air for at least one hour before powering the unit on.

Storage humidity range	5% to 95%, non-condensing
Operating humidity range	20% to 80%, non-condensing

Cleaning and Maintenance

- Use a dry cloth to clean the surfaces of the S6L components. Do not apply any cleaning solutions, spray cleaners, or abrasives to the surfaces of the components.
- Use a microfiber cloth (included with the S6L control surface) to clean the touch screens. Do not apply any cleaning solutions, spray cleaners, or abrasives.

Cabling Requirements

While operating your S6L system, be sure to follow these guidelines.

Power Connections

Power connections on all S6L system devices are auto voltage-selecting (100 to 240V nominal, 90-260V maximal, 50–60 Hz).

Make sure your power source is correctly rated for the number of units you are connecting. A surge-protected power source (not included) is highly recommended.

Audio Network Connections

This section describes the audio network cabling requirements for S6L system components. Audio network connections between S6L system components can be made using either copper or fiber-optic audio network cables. Cable types can be mixed within a system, but only one type of connection (copper or fiber) can be used per audio network connection.

⚠ *For more information on connecting S6L system components, see* **S6L Network Connections**.

Copper

Shielded Cat 5e (350 MHz) or better Ethernet cable with Neutrik etherCON connectors are required, supporting a distance of up to 100 meters per connection.

Fiber-Optic

S6L systems support single-mode fiber (SMF) or multi-mode fiber (MMF) cable to make audio network connections between components, as follows:

SMF Requires single-mode 9/125 OS1 or OS2 cables with duplex LC connectors and two qualified single-mode SFP transceivers per connection, supporting distances of up to 10 kilometers

MMF Requires multi-mode 50/125 OM2 or better cables with duplex LC connectors and two qualified multi-mode SFP transceiver modules per connection, supporting distances of up to 500 meters.

⚠ *Visit* **www.avid.com/S6Lsupport** *for a list of qualified SFP transceivers for use with S6L systems.*

Pro Tools Connections

Shielded Cat 5e (350 MHz) or better Ethernet cable with RJ-45 connectors is required for the AVB audio connections to Pro Tools.

ECx Ethernet Control Connections

Standard Cat 5e Ethernet cable with RJ-45 connectors are supported for ECx remote control connections to a client computer or wireless/wired router.

Unpacking and Assembling Basic System Components

Follow the instructions in this section to unpack system components, and make basic connections (power, monitor, and keyboard). After completing this section, proceed to **Activating S6L System Components**.

Unpacking

When unpacking and assembling S6L system components, make sure at least two people are available at all times. Team lift all system components.

- Remove the S6L control surface from its shipping package, and place it on a table or other stable surface that leaves full access to its front and back panels.
- Remove the E6L engine from its shipping package and place it on a flat surface, leaving full access to its front and back panels.

The E6L engine can be installed in a road case or similar enclosure. Rack supports (and installation instructions) are included in the E6L engine package.

The E6L engine bezel ships separately in the E6L shipping package. Attach it to the E6L engine chassis after you have installed the unit in an enclosure. For instructions, see the E6L Engine Rack Support Guide.

- Place any Stage 64 I/O racks on a flat surface.

You can install the Stage 64 in an enclosure such as a road case. Rack ears for that purpose are included in the Stage 64 package, along with installation instructions.

- Keep cables and other included items organized, making sure to keep them with their associated component after unpacking.

Connecting Power

Make primary and, if desired, redundant power connections to all S6L system components.

To connect power to the S6L control surface:

1. Connect an included IEC power cable from AC power inlet **A** on the back panel of the S6L control surface to your power source.
2. For fully redundant power connections, connect the other included IEC power cable from AC power inlet **B** on the back panel of the S6L control surface to a secondary power source.

To connect power to the E6L engine:

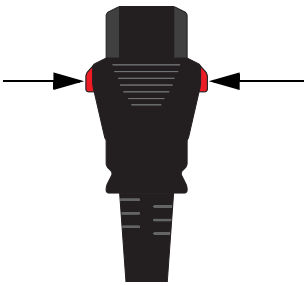
1. Connect the included IEC power cable from AC power inlet **A** on the back panel of the E6L engine to your power source.
2. For fully redundant power connections, connect the other included IEC power cable from AC power inlet **B** on the back panel of the E6L engine to a secondary power source.

To connect power to the Stage 64:

1. Connect the included IEC power cable from an AC power inlet on the back of Stage 64 to your power source.
2. For fully redundant power connections, connect the other included IEC power cable from the other AC power inlet on the back of the Stage 64 to a secondary power source.

Disconnecting the Included IEC Power Cables

The IEC power cables included with S6L system devices lock when connected to the AC power inlets of S6L system devices, and must be released when disconnecting.



To release an included IEC cable from an AC power inlet on an S6L system device:

- Simultaneously slide the two tabs on either side of the connector back, then pull the cable out of the power inlet.

Connecting a Monitor

A DVI connector is provided on the S6L control surface back panel to view the external screen.

VGA monitors are not compatible with the S6L control surface. Only connect a VGA monitor to the VGA port on your E6L engine when you are restoring or updating your system software. Make sure the VGA monitor is not connected to the E6L engine when powering up your S6L system.

To connect a monitor:

1. Connect an HDMI or DVI-D-compatible monitor cable from the DVI port on the back panel of the S6L control surface to the DVI port on your monitor.
2. If the monitor has a touchscreen function, enable it by connecting a USB cable from one of the USB ports on the back of the S6L control surface to the USB port on the monitor.

Connecting a USB Keyboard

The S6L control surface provides four USB 2.0 ports (two on the front and two on the back) to connect a USB keyboard.

To connect a USB keyboard:

- Connect the keyboard to a USB ports on the front or back of the S6L control surface.

You can also connect a USB mouse or trackball to the S6L control surface for navigating the external screen.

How to Proceed

After unpacking your system and making basic connections, proceed to **Activating S6L System Components**.

Activating S6L System Components

Activate each S6L system component using the Activation Card located in each component's package. You must activate each S6L system component in order to access software and documentation included with your system, including VENUE System Restore software and plug-ins. Both an Avid account and an iLok account are required.

To obtain licenses and download links for your software:

1. If you do not already have an iLok account, visit **www.ilok.com** to sign up for free.
2. While at iLok.com, download the iLok License Manager and install it on your computer. This application allows you to manage all your iLok licenses and accounts without having to open a web browser. An Internet connection is required to transfer licenses to and from your iLok.com account.
3. Visit **www.account.avid.com** and create an Avid Master Account. If you already have an account, skip to the next step.
4. Visit **www.avid.com/activation** and log in to your Avid account using your registered email address.

It is recommended that you use the same Avid account for all activations and downloads, and the same iLok account for all your iLok licenses.

5. Follow the link to Avid Software Activation and Download and follow the instructions on-screen to enter your code.
   After entering your Activation Code, new VENUE software will be deposited in your account (follow links to Products Not Yet Downloaded).
6. Repeat as necessary to activate each S6L component.

How to Proceed

After unpacking, making basic connections, and activating S6L system components, proceed to **VENUE System Restore**.

Part II: Software Installation

VENUE Software Installation Options

Before you can start using your VENUE | S6L system, you must install the most recent VENUE software on both your S6L control surface and your E6L engine. VENUE software, plug-ins for your system, and additional software are accessed from your Avid account after **Activating S6L System Components**.

If you are configuring your system for the first time It is required to perform a *System Restore* when configuring a system for the first time. You might be required to update the BIOS before performing a System Restore, depending on the currently installed version of VENUE software. For instructions, proceed to **VENUE System Restore**.

If you are upgrading an already configured system The most recent VENUE software can be installed as either a complete *System Restore*, or as a *Software Update*, depending on two primary factors:

- The version of VENUE software already installed, and
- Whether the new version is available as a Software Update

For example:

- If your system is running VENUE 5.6 or lower, you must perform a System Restore.
- If your system is running VENUE 5.0.1 or lower, you must update the E6L Engine BIOS and perform a System Restore to the latest version (such as VENUE 5.4 or higher). For instructions, see **VENUE System Restore**.
- If your system is already running VENUE 5.1.1 or higher, you should not need to update the E6L Engine BIOS. You can perform a System Restore. You can perform a **VENUE Software Update** if your current version supports doing so, and a Software Update is available.
- If no Software Update is available for the latest version of VENUE software (such as 5.7) you must perform a full System Restore (see **VENUE System Restore**).

  Not all versions of VENUE software can be installed as a Software Update. When one is available, it is provided for download in your Avid account.

To determine the currently installed version of VENUE software, launch the system and go to the Options > System screen. The currently installed version of VENUE software is shown in the lower-right corner.

To determine if a software update is available, check the most recent version of the *What's New in VENUE Software.pdf* for details on what type of installers are available, and any requirements.

If you will be performing a full System Restore, you don't need to download the VENUE Updater (if available). If you are updating, we recommend downloading the System Restore files to be able to keep them with the system at all times.

VENUE System Restore

If you are configuring a system for the first time, or whenever no Software Update is available, you should install the most recent VENUE System Restore software on both your S6L control surface and your E6L engine. VENUE software, plug-ins for your system, and additional software are accessed from your Avid account after you have activated your purchase.

Follow the instructions in this section to perform a System Restore.

The screens and text displayed on your system may differ slightly from the images shown on the following pages.

System Restore Software Installation Overview

After **Unpacking and Assembling Basic System Components**, and **Activating S6L System Components**, getting your system up and running with the latest software consists of the following general steps:

- Downloading VENUE System Restore software
- Creating two System Restore USB Drives (one for the E6L engine and one for the S6L control surface)
- Installing E6L engine System Restore software on the E6L Engine
- Installing S6L control surface System Restore software on the S6L control surface

To begin, proceed to **Downloading VENUE System Restore Software**.

Downloading VENUE System Restore Software

Once you have completed the activation process for all S6L system components, download links for all S6L system software and documentation are available from the My Products and Subscriptions section of your Avid account. These items remain in your account after you have downloaded them, in case you need to access them again.

To download your software:

1. Go to **www.avid.com/account** and log into the Avid account that you used to activate your S6L system components.
2. In the My Account page under My Products, click My Products and Subscriptions to access your software.
3. Click these links to download ZIP files of the most recent S6L Console and E6L Engine System Restore files to your computer:
   - VENUE 5.X.X.xxx_S6L_Console_Restore
   - VENUE 5.X.X.xxx_E6L_Engine_Restore
4. After download is complete, extract each ZIP file:
   - For the S6L Console Restore and E6L Console Restore, locate the resulting ISO files.
5. Make sure the files are accessible by a computer running Windows XP or higher (PCs and Macs running Windows virtual machines are supported), then proceed to **Creating System Restore USB Drives**.

If you ever downgrade an S6L system to VENUE software version 5.5.2 or lower using its System Restore, you will need to manually install the VENUE PACE Update. See the VENUE 5.5.3 Read Me.pdf for more information.

Creating System Restore USB Drives

Windows XP or Higher and the Included System Restore USB Drives Required

After downloading System Restore software, create System Restore USB drives using a free utility called Rufus. You must create one System Restore USB drive for the E6L engine using the E6L System Restore image, and another for the S6L control surface using the S6L System Restore image.

Use the USB drives included in your E6L and S6L software and plug-ins packs when creating the System Restore USB drives. We recommend using the included drives, which you should keep updated and with your system at all times. A separate computer running Windows XP or higher (virtual machines supported) with an Internet connection is required.

Make sure to only use the included USB drives when creating the initial System Restore drives. You can use commercially available USB drives with a capacity of least 4 GB each to create backups or replacements in case the original is misplaced or lost.

If a separate computer is not available, you can use Rufus to create the System Restore drive on the S6L control surface or E6L engine by booting to the Desktop.

To boot to the Desktop:

1. Hold the “e” key on the USB keyboard during startup of the S6L control surface.
2. Connect a VGA monitor and press the F5 key on the USB keyboard during startup of E6L engine.

Creating an E6L Engine System Restore USB Drive

To create an E6L Engine System Restore USB Drive:

1 In the extracted System Restore folder, locate the file called rufus-x.x.x.exe and make sure it is located on the same computer as the VENUE System Restore ISO file.

2 Double-click the file to launch it.

3 Insert a USB drive into an available USB port on your computer.

4 In Rufus, do the following:

- Choose the USB drive from the Device pop-up menu.
- Choose FAT32 from the File System pop-up menu.
- (Optional) Enter a name for the USB drive in the Volume label field.

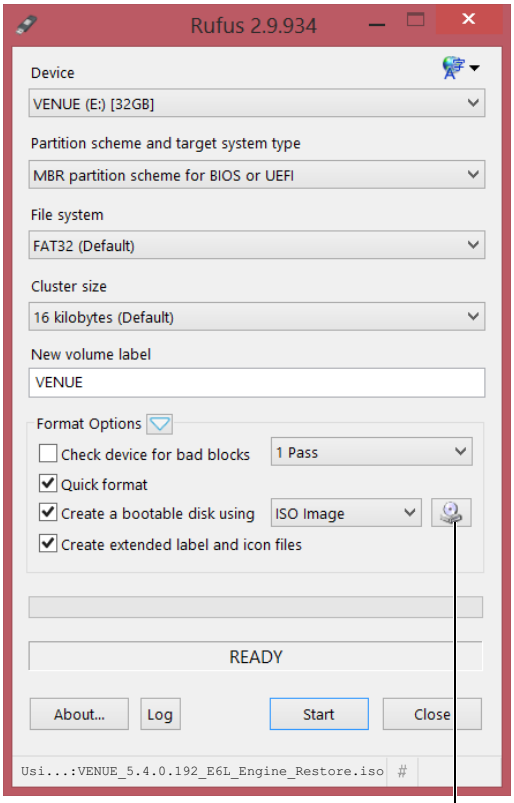
5 Under Format options, do the following:

- Choose Quick Format.
- Choose Create a bootable disk using, and then from the pop-up choose ISO Image.
- Click the disk icon, browse to the VENUE 5.X.X.xxx E6L_Engine_Restore.iso file, and click Open. VENUE 5.X.X.xxx E6L_Engine_Restore should appear at the bottom of the Rufus window.

6 Click Start, then click OK. Rufus begins to format the USB drive and progress is indicated on-screen.

If the Autoplay window appears during formatting, close it.

7 When formatting is completed, remove the USB drive from the computer, and then label the drive "E6L Engine Restore."



Rufus window Disc Icon

Creating an S6L Control Surface System Restore USB Drive

To create an S6L Control Surface System Restore USB Drive:

1 Insert the other USB drive into the USB port of your computer.

2 Relaunch Rufus, if necessary, and do the following in Rufus:

- Choose the USB drive from the Device pop-up menu.
- Choose FAT32 from the File System pop-up menu.
- (Optional) Enter a name for the USB drive in the Volume label field.

3 Under Format options, do the following:

- Choose Quick Format.
- Choose Create a bootable disk using, and then from the pop-up choose ISO Image.
- Click the disk icon, browse to the VENUE 5.X.X.xxx_S6L_Console_Restore and click Open. VENUE 5.X.X.xxx_S6L_Console_Restore should appear at the bottom of the Rufus window.

4 Click Start, then click OK. Rufus begins to format the USB drive and progress is indicated on-screen.

5 When formatting is completed, click Close, remove the USB drive from the computer, and then label the drive "S6L Console Restore."

6 Proceed to **Installing and Activating VENUE Software on the E6L Engine**.

Installing and Activating VENUE Software on the E6L Engine

After creating System Restore USB drives, install and activate the software on your E6L engine. The following items are required to install and activate the software on your E6L engine:

- A VGA compatible monitor
- A USB keyboard and mouse
- A physical Internet connection via an Ethernet cable (Wi-Fi is not supported)
- The E6L Engine System Restore USB Drive

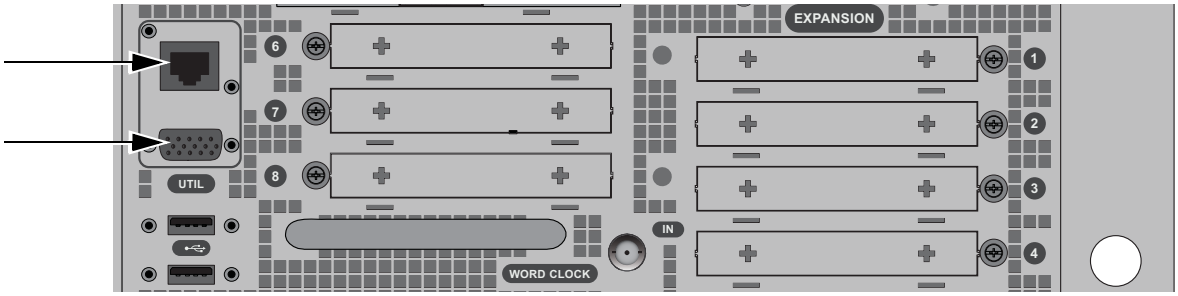
Installing VENUE Software on E6L

⚠ *Make sure your S6L system components are not connected while installing System Restore software, and that your E6L is powered off before starting this procedure.*

To install VENUE software on the E6L engine:

1 Connect the following to your E6L engine:

- An included IEC power cable from AC power inlet **A** on the back panel of the E6L to your power source.
- A USB keyboard and mouse to any USB ports on the E6L. E6L provides two USB ports on the front panel, and two on the back panel.
- An Ethernet cable from your Internet source (router or modem) to the Ethernet (RJ-45) port on the back of the E6L.
- A VGA-compatible monitor to the VGA port on the back of the E6L, and power on the monitor.

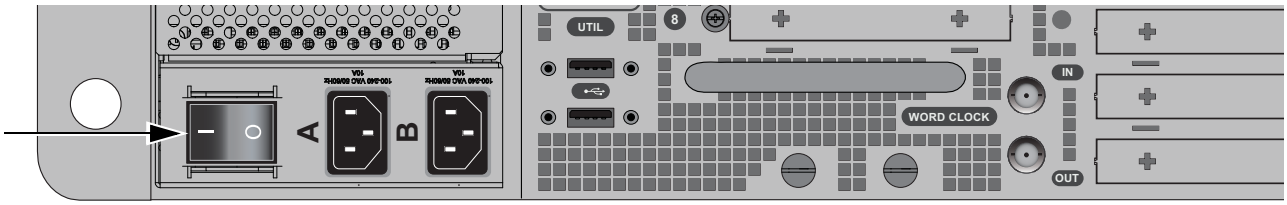


Ethernet port (top) and VGA port (bottom) on the back of the E6L engine

2 Insert the E6L Engine System Restore USB drive into an available USB port on the E6L.

⚠ *Make sure to use the E6L Engine System Restore USB Drive, not the S6L Control Surface System Restore USB Drive*

3 Power on your E6L using the back panel power switch to the on (1) position, and then repeatedly press **F10** on the keyboard until the “Welcome to Avid’s VENUE System Restore USB Drive” dialog appears on the monitor.



E6L engine power switch

Some models of USB keyboards require repeated pressing of F10 (holding it down in between pressings) to register.

4 When prompted, press “r” (lower-case) on the keyboard. When the Restore confirmation dialog appears, press Shift + R (upper-case) on your keyboard to proceed. Installation begins.

5 When prompted, press “A” (upper-case, Shift + A) on the keyboard, and repeatedly press **F5** on the keyboard until the next screen appears on your monitor.

If you forget to press F5 (or start pressing too late), the next screen will not appear on the monitor. If this occurs, power cycle the E6L engine (power it off, wait until it completely shuts down, then power it back on again) and then press F5 repeatedly.

6 If the VENUE software installer displays a message telling you that you need to update the BIOS, see **Updating the BIOS**. Otherwise, proceed to **Activating Windows and RTX on E6L**.

Activating Windows and RTX on E6L

After installing VENUE software, activate the Windows operating system from Microsoft and the RTX64 real time processing engine from Interval Zero. Windows and RTX64 are part of the VENUE software installation on your E6L engine, and must be activated separately from VENUE software. To activate Windows and RTX64, the E6L engine must be physically connected to an Internet source (Ethernet cable required; Wi-Fi not supported).

You must activate Windows and RTX64 immediately after installing the E6L System Restore software. The E6L engine will not connect to the S6L control surface until you activate the E6L.

Activating Windows on E6L

To activate Windows and RTX64 on your E6L engine:

1 When the E6L restarts after installing new software and pressing F5, click OK to close the Windows/RTX Activation dialog
The system exits to the Desktop.

2 Click OK to dismiss the on-screen dialog stating “The RTX64 Runtime is not licensed, or the license has expired.”
The Windows Desktop appears.

If the Desktop does not appear, press the WIN key (the key with the Windows logo), then click the Desktop tile to show the Desktop.

3 In the Networks panel, click No, do not share the network.

The Networks panel only appears when a valid network is detected. If it does not appear, make sure your network is active.

4 To activate Windows, do the following:

- On the Desktop, double-click Activate Windows.
- Follow the on-screen instructions to activate your copy of Windows.
  Windows Activation is complete when “Product activated successfully. Press any key to continue...” appears in the activation window on-screen.

5 Proceed to **Activating RTX64 on E6L**.

Activating RTX64 on E6L

To activate RTX64:

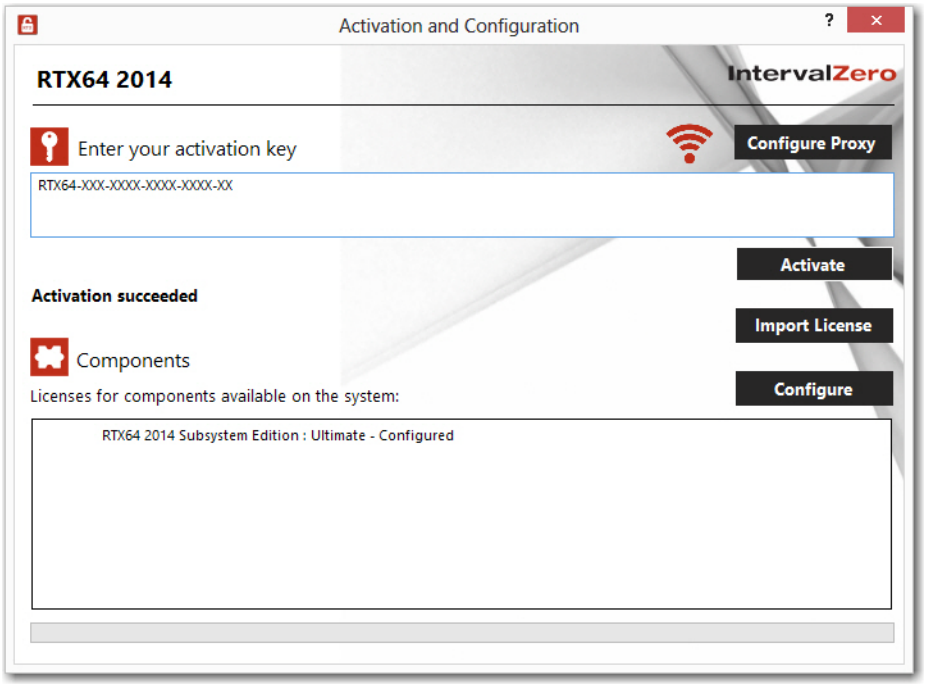
1 On the front-panel of the E6L engine, locate the RTX Activation sticker and write down the alphanumeric code that appears on the label. Keep this information close by, as you are required to enter this code when activating RTX.

⚠ *If you installed the E6L bezel on the front of the E6L engine, you must remove it to access the RTX Activation Key. For instructions, see the E6L Engine Rack Supports Installation Guide.*

2 On the Desktop, double-click Activate RTX.

3 In the RTX64 Activation and Configuration window, enter the alphanumeric code exactly as it appears on the RTX Activation Key label.

4 Click Activate.
RTX64 Activation is complete when “Activation succeeded” appears in the window.



The RTX activation window showing a successful activation

5 Close the RTX64 Activation and Configuration window.

6 Double-click the Shut Down the System shortcut on-screen.

7 Wait until the front panel Status LED is unlit and the System LED is lit amber, then press the back panel power switch to the off (0) position.

8 Do either of the following, as appropriate:

- If your system does not include any MADI-192 MADI Option Cards, unplug the E6L Engine System Restore USB drive, VGA monitor, the USB keyboard and mouse, and the Ethernet cable from the E6L Engine, then proceed to **Installing VENUE Software on the S6L Control Surface**.
- If your system does include one or more MADI-192 MADI Option Cards, proceed to **Updating MADI Card Firmware**.

Updating MADI Card Firmware

If you have installed one or more MADI-192 MADI Option Cards in your E6L engine, or on startup you encounter the message that the firmware needs to be updated, use this procedure to update the firmware on the MADI card(s).

To update MADI-192 MADI Option Card firmware:

1. If necessary, shut down your system, and power off all components.
2. Make sure a VGA monitor and USB keyboard and mouse are still connected to your E6L engine.
3. Power on your E6L engine, and repeatedly press F5 on the keyboard while the engine starts up.
4. Close the window that appears on screen to show the Desktop.
5. Double-click the Update MADI Firmware icon on the Desktop.
6. Follow the on-screen instructions to update the firmware on your MADI-192 MADI Option Cards.

   When the firmware update completes, the E6L engine shuts down (indicated by the front-panel System LED going dark, and the Status LED lighting amber).
7. After the E6L engine shuts down, do the following:
   - Disconnect power from the E6L and wait at least 30 seconds.
   - Make sure to disconnect the VGA monitor, mouse, and keyboard.

⚠ *You must unplug the VGA monitor, USB keyboard and mouse, and Ethernet cable before proceeding.*

8. Proceed to **Installing VENUE Software on the S6L Control Surface**.

Installing VENUE Software on the S6L Control Surface

After installing and activating VENUE software on your E6L engine, install and activate VENUE software on your S6L control surface, and then configure your system's touchscreens.

Installing VENUE Software on S6L

Use the S6L Control Surface System Restore USB Drive to install VENUE software on your S6L control surface.

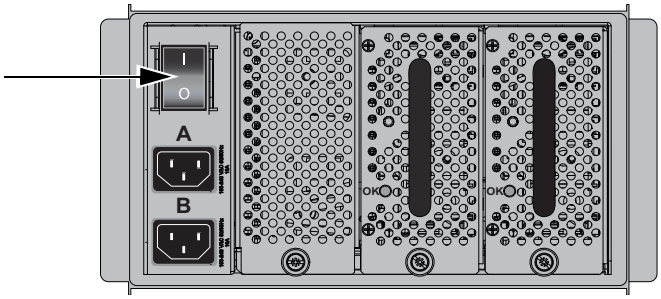
⚠ *Make sure your S6L system components are not connected while installing System Restore software, and that your S6L is powered off before starting this procedure.*

To install VENUE software:

1. Connect the following to your S6L control surface:
   - An included IEC power cable from AC power inlet **A** on the back panel of the S6L to your power source.
   - A USB keyboard and mouse to any USB ports on the S6L. S6L provides two USB ports on the front panel, and two on the back panel.
   - The DVI monitor you are using with your S6L control surface to the DVI port on the back the S6L, and power on the monitor.
   - If the monitor has a touchscreen function, a USB cable from one of the USB ports on the back of the S6L control surface to the USB port on the monitor.
2. Insert the S6L Control Surface System Restore USB Drive into an available USB port on S6L. The S6L provides two USB ports on the front-panel, underneath the armrest.

⚠ *Make sure to use the S6L Control Surface System Restore USB Drive, not the E6L Engine System Restore USB Drive.*

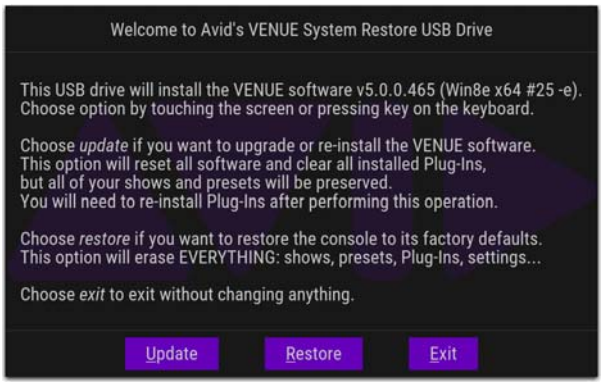
3. Power on your S6L control surface using the back panel power switch, then repeatedly press **F10** on the keyboard until the "Welcome to Avid's VENUE System Restore USB Drive" dialog appears on the Master Touch Screen (MTS).



S6L control surface power switch

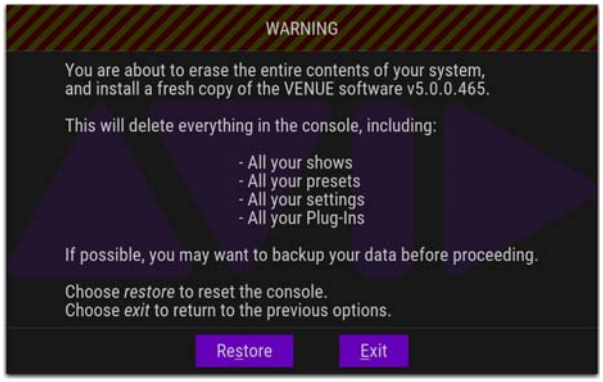
💡 *Some models of USB keyboards require repeated pressing of F10 (holding it down in between pressings) to register.*

4. Touch Restore. If the MTS is not responding to touch, press the "r" key on your keyboard.



System Restore dialog

5 In the next screen, touch Restore again to proceed. If the MTS is not responding to touch, press the “s” key on your keyboard. Follow the on-screen instructions to complete the installation.



Restore dialog

6 After the S6L control surface restarts, proceed to **Installing the VENUE PACE Update**.

Installing the VENUE PACE Update

Many VENUE plug-ins from Avid and other manufacturers utilize PACE software licensing. Most often, any updates to PACE software are included in VENUE System Restore and Software Update installers, but occasionally this is not possible and PACE software must be installed manually. Do the following to ensure your system is running the latest PACE software.

It is necessary to install the PACE update whenever a System Restore of any VENUE software version 5.5.2 or lower is performed

To install the VENUE PACE Update:

1 Make sure you have downloaded the VENUE PACE Updater.zip file, extracted it, and copied the PACE Updater folder to the root level of a USB drive.

2 Connect the USB drive to the S6L Control Surface.

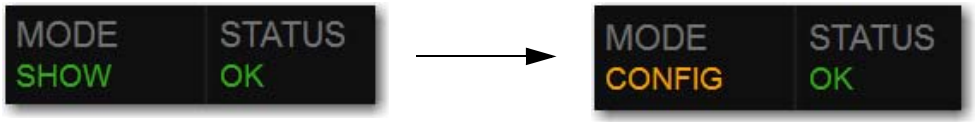
3 Enable Config Mode by doing the following:

- Press **Config** on the S6L control surface. The **Config** switch lights.

Config switch on the S6L control surface (left) and the Mode box showing Config

– or –

- On-screen, double-tap the Mode box in the Status Bar, located in lower-right hand corner of the screen, so that Config is shown. The **Config** switch also lights.



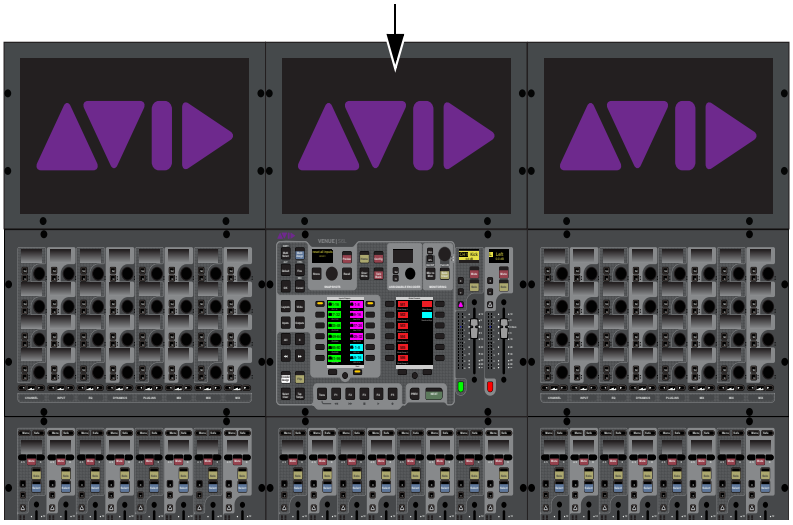
Mode box showing Show mode enabled (left) and Config mode enabled (right)

4 Go to Options > System, click the UPDATE button and follow the on-screen prompts.

5 Proceed to **Configuring S6L Master Touch Screen (MTS) and External Monitor**.

Configuring S6L Master Touch Screen (MTS) and External Monitor

After installing the System Restore software on your S6L control surface, the touchscreen configuration wizard appears on the MTS. Use the monitor you plan on using for the external VENUE software screen when configuring. You do not need to manually configure Channel Touch Modules (CTMs).



MTS on an S6L-24D

To configure your screens:

1. Make sure your DVI monitor is connected to your S6L control surface and is powered-on.
2. Follow the on-screen prompts to configure your touchscreens. If prompted to press Enter, then press the **Enter** key on your keyboard.
3. Touch Accept to accept the Avid End User License Agreement for VENUE software. The Please Select Engine screen appears on the MTS.
4. Proceed to **S6L Network Connections**.

VENUE Software Update

Follow the instructions in this section to install a Software Update. Not all versions of VENUE software can be installed as a Software Update. In addition, even if a Software Update is available a complete System Restore might be required depending on which version of VENUE software is currently installed on your system. Check the most recent version of the *What's New in VENUE Software.pdf* for details on what is available, and its requirements.

All systems should back up all console data before installing new VENUE software. If you perform a System Restore, make sure to re-install your plug-ins after installing new VENUE software. If you perform a VENUE Software Update, be sure to check for updated versions of your plug-ins.

To begin, proceed to **Downloading VENUE Software**.

Downloading VENUE Software

Download links for all S6L system software and documentation are available from the My Products and Subscriptions section of your Avid account. These items remain in your account after you have downloaded them, in case you need to access them again.

In the following instructions, version numbers shown might not match the version you are installing. Always use the most recent version of VENUE software installers and updaters.

To download your software:

1. Go to **www.avid.com/account** and log into the Avid account that you used to activate your S6L system components.
2. In the My Account page under My Products, click My Products and Subscriptions to access your software.
3. Click these links to download ZIP files of S6L Console and E6L Engine System Restore and VENUE Update files to your computer: For example:
   - VENUE 5_X_xx_S6L_Console_Restore.zip
   - VENUE 5_X_xx_E6L_Engine_Restore.zip
   - VENUE_Update_5_X_xx.zip

If you will be performing a full System Restore, you don't need to download the VENUE Updater. If you are updating, you do not need to use the System Restore files but we recommend downloading them to be able to keep them with the system at all times.

4. After download is complete, extract each ZIP file, and in their resulting folders locate the resulting BIOS folder (if any) and/or ISO files.
5. Make sure the files are accessible by a computer running Windows XP or higher (PCs and Macs running Windows virtual machines are supported), then proceed to **Backing Up System Settings**.

Backing Up System Settings

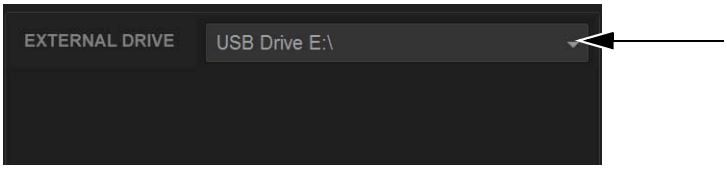
Whether you are performing an upgrade or a full system restore, you should back up your system's settings (such as Console settings, Show files and Presets) before installing VENUE software.

To back up current settings:

1 Go to the Filing page and click the Transfer tab.

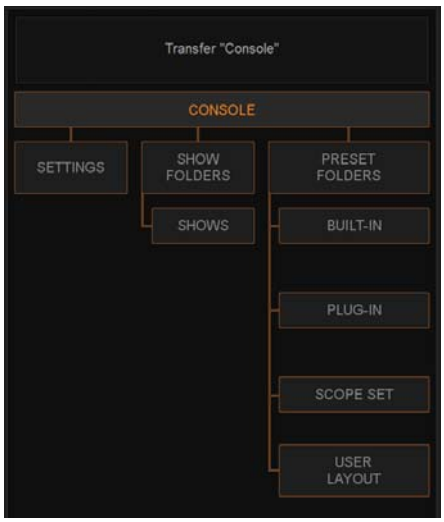
2 Connect a portable storage device (such as a USB flash drive, formatted as FAT32) to the system.

The device appears above the right column of the Transfer tab. If it does not, click the External Drive selector and choose your storage device.



3 In the center column, select the type of data to transfer by doing one of the following:

- To backup (transfer) all data, click Console so that it is highlighted.
- To transfer the current state of the console without having to first create and name a Show file, click Settings. Transferring console settings does not transfer presets or Show Folders.
- To transfer Show Folders, individual Shows, all Preset Folders, Presets for individual items, Input Channel Presets or Scope Sets for Recall Safe, or User Layouts, click to select them.



4 For selections other than Console, in the left column select the items you want to transfer from your system to your portable storage device. The items that appear in the left column depend on the type of data selected in the center column.

You can Shift-click to select multiple consecutive items or Control-click to select multiple non-consecutive items to transfer.

5 Click the Transfer button. Large transfers may take time. Transfer status is shown by a progress bar. A transfer may be canceled by clicking Cancel.

Canceled transfers may result in partial folder contents on the storage device, which will have to be deleted manually.

6 Remove the portable storage device from the system.

USB flash drives do not have to be unmouted or ejected to be removed from VENUE systems.

Updating the BIOS

If the VENUE software installer displays a message telling you that you need to update the BIOS, see **Updating the BIOS**.

Otherwise, proceed to **Updating VENUE Software on the E6L Engine and S6L Control Surface**.

Updating VENUE Software on the E6L Engine and S6L Control Surface

Windows XP or Higher and One USB Drive Required

Updating VENUE software on the E6L and S6L requires a single USB drive, formatted to FAT32. You can reformat the USB Drive you used for the BIOS update to FAT32 and reuse it. The BIOS50 updater remains available in your Avid Account, although you should not need it after successfully updating the system BIOS.

To create a VENUE software updater USB drive:

1. Make sure you have already followed the instructions in **Backing Up System Settings** and **Updating the BIOS**.
2. Make sure you have extracted the VENUE software Update you downloaded earlier.
3. Drag and drop the VENUE_Update folder (containing content.dat and VENUE Installer.bat files) to the root level of a USB drive.

⚠ *Do not use the System Restore drives included with your system. After performing the system update you will want to update the images on those drives with the latest VENUE 5.x.x System Restore images that you have downloaded.*

Updating the E6L Engine

To update VENUE software on the E6L Engine:

1. Power down the S6L system (E6L engine, S6L control surface, and all attached Stage 64s).
2. Connect a VGA monitor, keyboard and mouse directly to the E6L Engine. Be sure to connect the keyboard and mouse to USB ports on the front panel of the E6L Engine.
3. Power on your E6L, then press and hold F5 on the keyboard until the BIOS splash screen appears on the VGA monitor.
   Once the E6L Engine fully boots, an all-black screen with one command prompt window appears.
4. To update the E6L Engine, do the following:
   - Insert the USB drive containing the VENUE_Update folder into any available USB port on the back of the E6L Engine.
   - On the computer keyboard, press Ctrl+Shift+U.
   - When the Update dialog appears, choose to Update to 5.x.x.
   - When finished, a Restart dialog appears.
5. Do either of the following, as appropriate:
   - If your system does not include any MADI-192 MADI Option Cards, choose restart and immediately disconnect the mouse, keyboard, and VGA monitor, then proceed to **Updating the S6L Control Surface**.
   - If your system does include one or more MADI-192 MADI Option Cards, proceed to **Updating MADI Card Firmware**.

Updating MADI Card Firmware

If you have installed one or more MADI-192 MADI Option Cards in your E6L engine, or on startup you encounter the message that the firmware needs to be updated, use this procedure to update the firmware on the MADI card(s).

To update MADI-192 MADI Option Card firmware:

1. If necessary, shut down your system, and power off all components.
2. Make sure a VGA monitor and USB keyboard and mouse are still connected to your E6L engine.
3. Power on your E6L engine, and repeatedly press F5 on the keyboard while the engine starts up.
4. Close the window that appears on screen to show the Desktop.
5. Double-click the Update MADI Firmware icon on the Desktop.
6. Follow the on-screen instructions to update the firmware on your MADI-192 MADI Option Cards.
   When the firmware update completes, the E6L engine shuts down (indicated by the front-panel System LED going dark, and the Status LED lighting amber).

7 After the E6L engine shuts down, do the following:

- Disconnect power from the E6L and wait at least 30 seconds.
- Make sure to disconnect the VGA monitor, mouse, and keyboard.

⚠ *You must unplug the VGA monitor, USB keyboard and mouse before proceeding.*

8 Proceed to **Updating the S6L Control Surface**.

Updating the S6L Control Surface

To update VENUE software on the S6L Control Surface:

1 Connect a DVI monitor, keyboard and mouse directly to the S6L control surface.

2 Disconnect all speakers and headphones.

3 Power on the S6L control surface and wait for the Waiting for Engine dialog to appear.

4 On the computer keyboard, press Ctrl+Shift+U, then do the following:

- When the Update dialog appears, choose to Update to 5.x.x.
- When finished, a Restart dialog appears. Choose restart.

5 Proceed to **S6L Network Connections**.

Part III: Network Connections

S6L Network Connections

Follow the instructions in this section to make S6L network connections. Before you begin, power down all components (S6L control surface, E6L engine, Stage 64s, and Stage 16s (if any)).

S6L Network Connections Overview

The S6L system has two discrete networks, the AVB audio network and the ECx Ethernet Control network. The AVB audio network connects all S6L system components and Pro Tools. The ECx network connects a client computer or other device (directly or via network equipment) to S6L to enable remote control of your system.

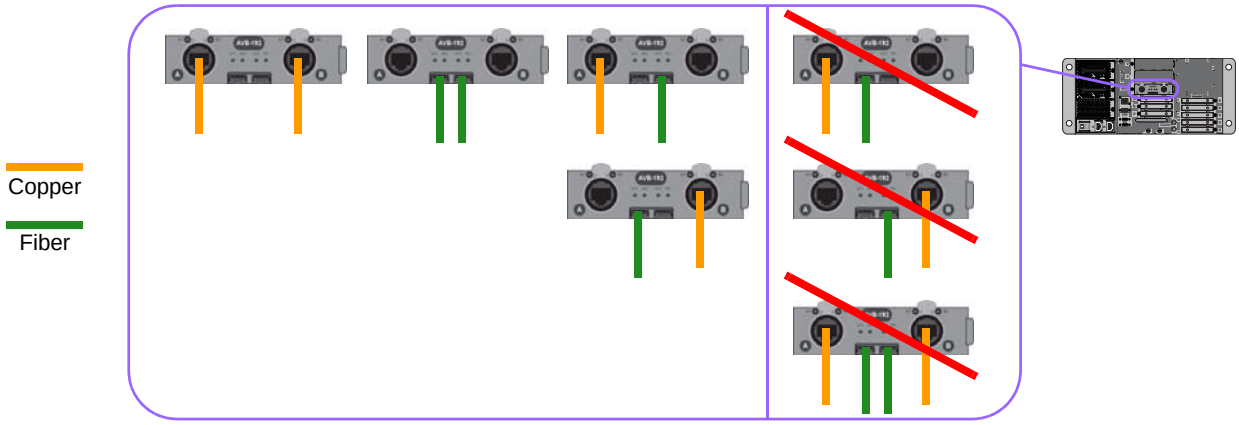
AVB Audio Network Connections

Direct connections are required for all AVB audio network connections between S6L system components and between the S6L control surface and Pro Tools.

⚠ *Do not connect network equipment such as routers, hubs or switches to any S6L system AVB Network ports.*

S6L System Components Connect S6L system components together using either supported copper or fiber-optic network cables.

- You can mix cable types within a system. For example, you can connect the S6L control surface to the local E6L engine using supported copper cables, then connect to a Stage 64 I/O rack using fiber.
- However, only one cable type (copper or fiber-optic) can be used per audio network port. Each network port (A or B) has two connectors (one copper, and one fiber). Never have both copper and fiber connected to the same network port simultaneously.



Supported and unsupported cable type connections between S6L system components (example E6L engine shown)

The instructions and diagrams in the following sections show copper Ethernet connections only between RJ-45 ports on components. For information on connecting via fiber, see **Making Fiber Connections**.

Pro Tools Recording/Playback Connections You can connect to a Pro Tools computer (or other DAW) from Network port **C** on the S6L control surface using supported copper audio network cables.

⚠ *Make sure to use the supported cables to make audio network connections between S6L system components and to Pro Tools. See* **Cabling Requirements** *for more information.*

ECx Ethernet Control Connections

You can connect a network router, hub, switch, or a client computer directly to the ECx port on the S6L control surface to be able to control your S6L system remotely using a computer or tablet. ECx host and client software must be installed to enable ECx. For more information on installing and using ECx, see the *ECx Ethernet Control Guide.*

Supported Audio Network Configurations

Redundant Ring Network In a redundant ring network, components are daisy-chained together using the Network ports on each device. All S6L systems must be connected in a redundant ring network as shown in the following sections. A redundant ring network supports the following maximum input and output capabilities and required hardware configurations.

Making S6L Network Connections

After connecting power and peripherals, make audio network connections between system components.

⚠ *If you are setting up your S6L system for the first time, before connecting system components make sure to install the latest System Restore software on your S6L control surface and E6L engine as explained in* **VENUE System Restore**.

To connect your system, refer to the connection instructions and diagram for the number of Stage I/O devices and AVB-192 cards in your configuration.

Supported Audio Network Configurations

Configurations (click for instructions)	Stage Inputs (max)	Stage Outputs (max)	Stage 64 IO Racks (required for maximum I/O)	Stage 16s	AVB-192 Cards (required
Configuration 1	64	32	1		1
Configuration 2	96	64	2		1
Configuration 3 Single System Expanded I/O	192	96	3		2
Configuration 4 Dual Systems for I/O Sharing	192	96	3		2
Stage 16 Configurations Including Stage 16-only, Mixed Stage 64 and Stage 16, and Dual Mixed Systems for I/O Sharing	192	112 *	Up to 2 (max)	Up to 4 (max)	2

** Each Stage 16 provides 16 analog and 4 digital output channels.*

Connecting a Basic System

The following sections show connections for systems with one E6L engine, one S6L control surface, and up to three Stage 64s.

Tip: All connections are made from an **A** *port to a* **B** *port.*

Configuration 1

Up to 64 In/32 Out, 1 Stage 64 IO Rack and 1 AVB Network Card

This configuration includes one S6L control surface, one E6L Engine with a single AVB Network card, and one Stage 64 IO Rack. It supports a maximum of eight supported input cards and four supported output cards, providing a total of 64 inputs and 32 outputs.

To connect components:

1. Connect an Ethernet cable from Network port **A** on the back of the S6L control surface to Network port **B** on the E6L engine.
2. Connect an Ethernet cable from Network port **A** on the E6L engine to Network port **B** on the Stage 64.
3. Connect an Ethernet cable from Network port **A** on the Stage 64 to Network port **B** on the S6L control surface.

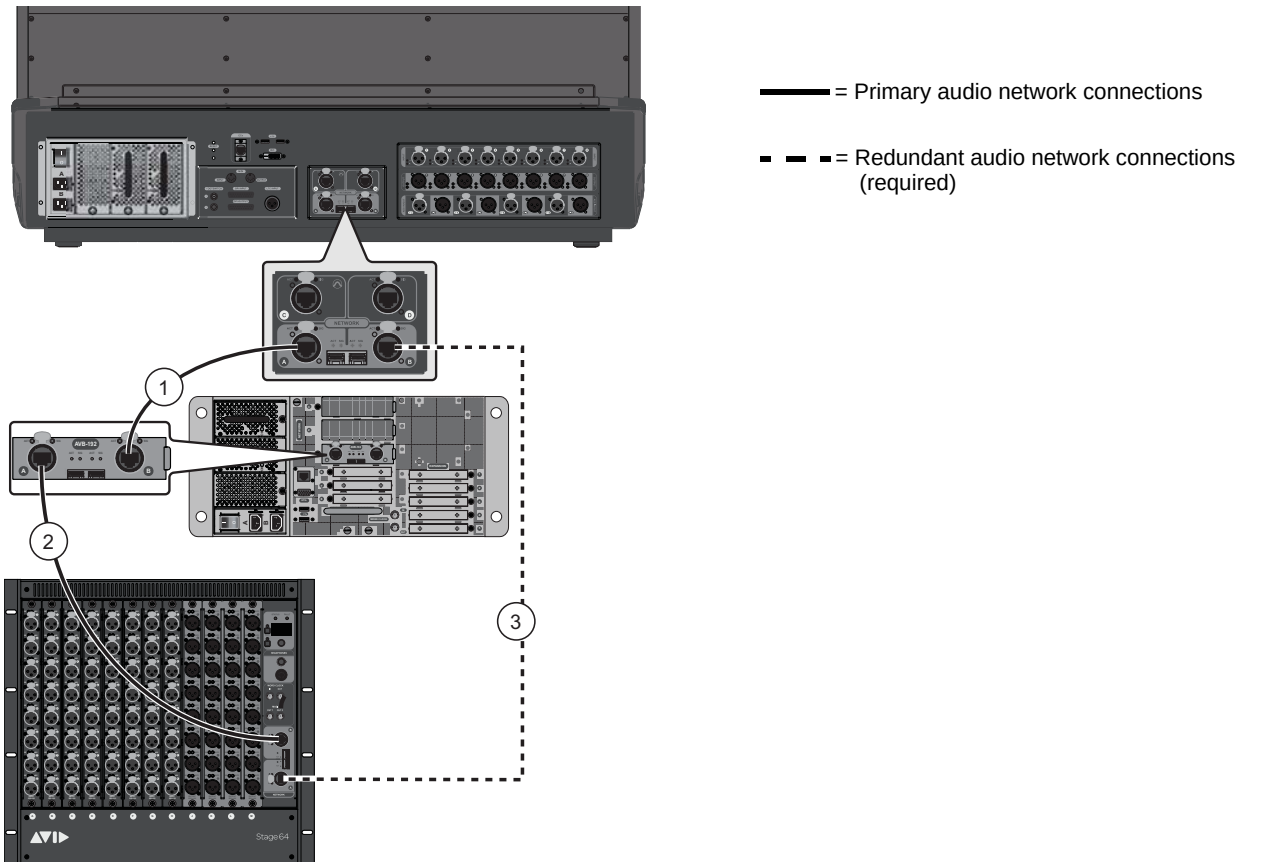


Figure 1. S6L system connections with one AVB-192 card and one Stage 64

4. Proceed to **Powering the System Up and Down**.

Configuration 2

Up to 96 In/64 Out, 2 Stage 64 IO Racks and 1 AVB Network Card

This configuration includes one S6L control surface, one E6L Engine with a single AVB Network card, and two Stage 64 I/O Racks. It supports a maximum of six supported input cards and four supported output cards per Stage 64 IO Rack, providing a total of up to 96 inputs and up to 64 outputs.

To connect S6L components:

1. Connect an audio network cable from Network port **A** on the back of the S6L control surface to Network port **B** on the E6L engine.
2. Connect an audio network cable from Network port **A** on the E6L engine to Network port **B** on the first Stage 64.
3. Daisy-chain the first Stage 64 to the second Stage 64 by connecting an Ethernet cable from Network port **A** on the first Stage 64 to Network port **B** on the second Stage 64.
4. Connect an Ethernet cable from Network port **A** on the last Stage 64 in the chain to Network port **B** on the S6L control surface.

⚠ *Do not connect network equipment such as routers, hubs and switches to any S6L system Network ports.*

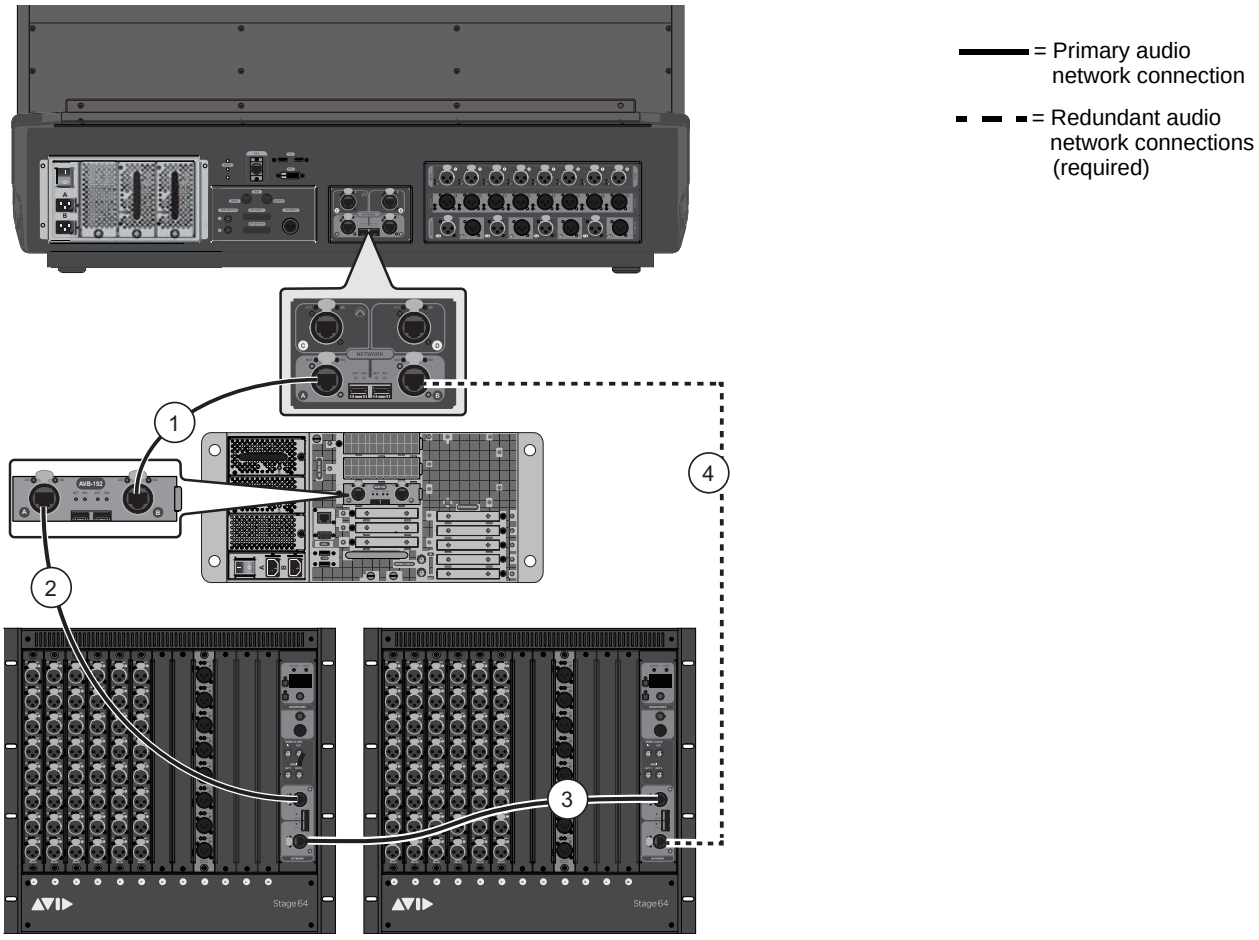


Figure 2. S6L system connections with one AVB-192 card and two Stage 64s

5. Proceed to **Powering the System Up and Down**.

Configuration 3

Single System Expanded I/O with Up to 192 In/96 Out, 3 Stage 64 IO Racks and 2 AVB Network Cards

This configuration includes one S6L control surface, one E6L engine with two AVB Network cards, and up to three Stage 64s. It supports a maximum of eight supported input cards and four supported output cards, providing a total of up to 192 inputs and up to 96 outputs per Stage 64 rack.

To connect components:

1 Do both of the following to connect the S6L control surface to the E6L engine:

1.1 Connect an audio network cable from Network port **A** (use the RJ-45 port for copper, or the SFP port for fiber) on the back of the S6L control surface to Network port **B** on the top-most AVB Network Card of the E6L engine.

1.2 Connect an Ethernet cable from Network port **A** on the top-most AVB Network card of the E6L engine to Network port **B** on the S6L control surface.

2 Connect an audio network cable from Network port **A** on the Master 1 (lowest slot) AVB Network Card of the E6L engine to Network port **B** on the first Stage 64.

3 If applicable, daisy-chain the first Stage 64 to the second Stage 64 by connecting an Ethernet cable from Network port **A** on the first Stage 64 to Network port **B** on the second Stage 64. If using three Stage 64s, connect an Ethernet cable from Network port **A** on the second Stage 64 to Network port **B** on the third Stage 64.

4 Connect an Ethernet cable from Network port **A** on the last Stage 64 in the chain to Network port **B** on the **Master 1** AVB-192 Network Card (AVB card in the lowest slot) on the E6L engine.

⚠ *Do not connect network equipment such as routers, hubs and switches to any S6L system Network ports.*

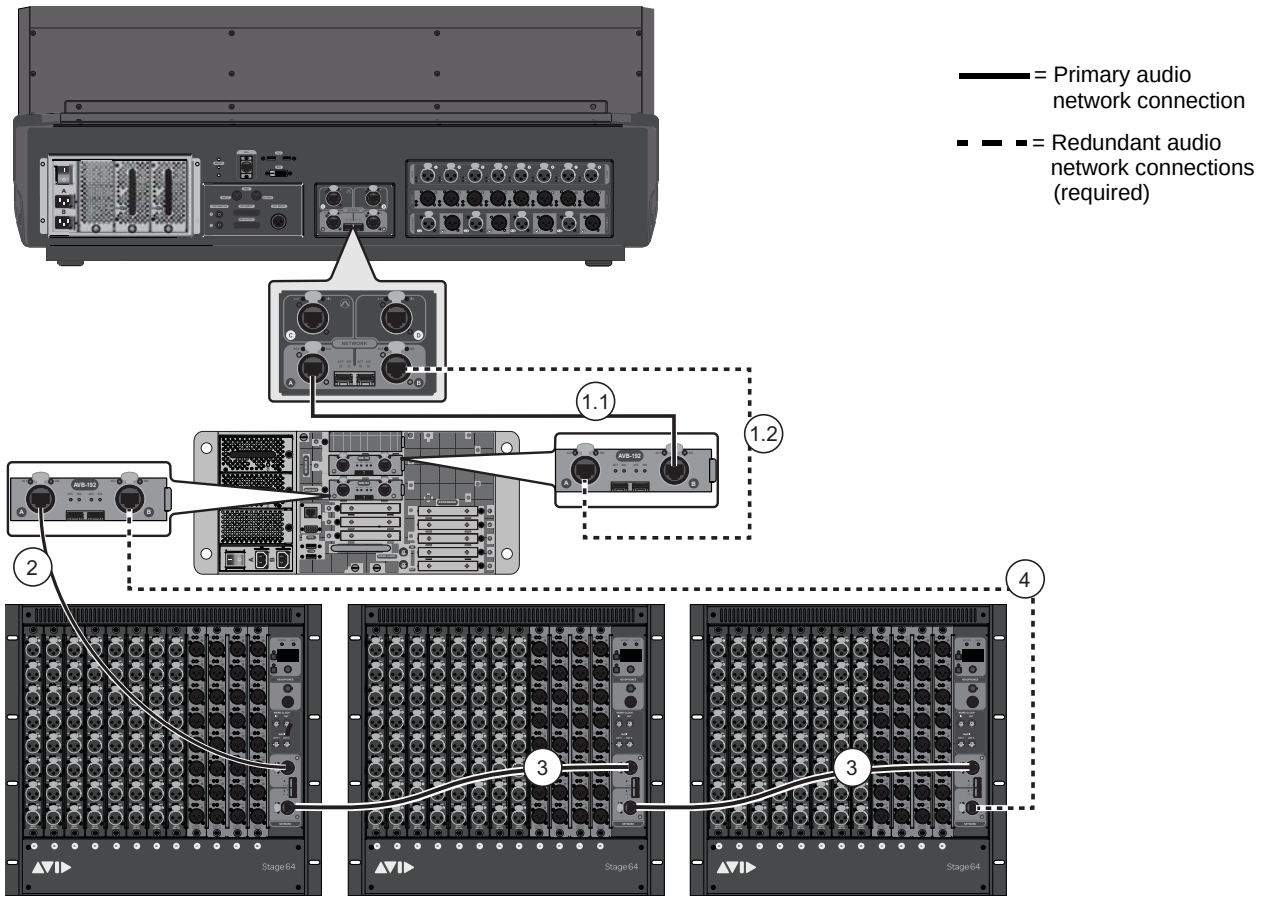


Figure 3. S6L system connections for two AVB-192 cards and three Stage 64s (fully expanded IO shown)

5 Proceed to **Powering the System Up and Down**.

Connecting a Shared Stage I/O Configuration

Configuration 4

The VENUE S6L system lets you share the Stage inputs and outputs of up to three Stage 64 IO Racks between two E6L engines and two S6L control surfaces. You can also share I/O from up to two Stage 64s with up to four Stage 16s (see **Stage 16 Configuration 4**).

Each S6L system has independent control of channel parameters including input and output levels, EQ and Dynamics settings, channel names, and plug-in parameters, as well as independent snapshots and Show files. In addition, with automatic Gain Tracking each S6L system has independent control of input gain levels for the shared stage inputs. All parameters, including input gain levels, can be stored to and recalled from Show files and snapshots independently on each S6L.

Each S6L system can record to and playback from its own dedicated Pro Tools system, letting each user on the network perform their own discrete Virtual Soundcheck without affecting any other user on the network. (Not all configurations support multiple Pro Tools systems. For compatibility information and system requirements, see **System Requirements for Pro Tools with S6L**.)

This section shows how to make **Required Connections for Stage I/O Sharing** with up to two S6L systems. Later, you will designate ownership of Stage 64s inputs, and of individual output slots, as explained in **Assigning Stage 64 and Stage 16 I/O Racks**.

⚠ *Stage I/O Sharing requires all systems to be running the same version of VENUE software (5.4 or higher). Install the latest VENUE software on each system BEFORE connecting multiple systems to each other.*

Required Connections for Stage I/O Sharing

Figure 4 and the following procedure show how to connect two S6L control surfaces, two E6L engines and up to three Stage 64s in an enhanced ring network to enable Stage I/O sharing. All connections are made from an **A** port to a **B** port.

⚠ *Use Cat 5e (350 MHZ) or better Ethernet cable for all audio network connections. Maximum drive distances per connection are 100m for copper cable. Drive distances can be increased using fiber cables–consult the manufacturer's specifications for details.*

⚠ *Do not connect network equipment such as routers, hubs and switches to any S6L system AVB Network ports.*

To connect S6L components:

1 Do the following to connect each S6L control surface to an E6L engine:

1.1 Connect an Ethernet cable from Network port **A** on each S6L control surface to Network port **B** on the top-most AVB Network card on its corresponding E6L engine. For example, on an E6L with two AVB Network cards, connect the S6L control surface to the top-most AVB Network card on its corresponding E6L engine.

1.2 On each pair of E6L engine and S6L control surface connected in step 1.1, connect an Ethernet cable from Network port **A** on the top-most AVB Network card of the E6L engine to Network port **B** on the S6L control surface.

2 Daisy-chain the E6L engines together by doing the following:

- Connect one end of an Ethernet cable to Network port **A** on the **Master 1** (lowest slot) AVB Network card on the second E6L engine, and connect the other end to Network port **B** on the **Master 1** (lowest slot) AVB Network card on the first E6L engine.

⚠ *If multiple supported Pro Tools systems are present in a shared input configuration, it is highly recommended that you pair each Pro Tools system to its corresponding E6L **before** creating a shared input system. Do not make the connections between E6L engines until each Pro Tools computer has been paired to the desired E6L.*

3 Connect an Ethernet cable from Network port **A** on the Master (lowest slot) AVB Network Card of the first E6L Engine to Network port **B** on the first Stage 64.

4 Daisy-chain Stage 64s together by doing the following:

- Connect an Ethernet cable between Network port **A** on the first Stage 64 to Network port **B** on the second Stage 64.
- If your system includes three Stage 64s, connect another Ethernet cable from Network port **A** on the second Stage 64 to Network port **B** on the third Stage 64.

5 Connect an Ethernet cable from Network port **A** on the last Stage 64 in the chain to Network port **B** on the **Master 1** (lowest slot) AVB Network Card of the second E6L engine.

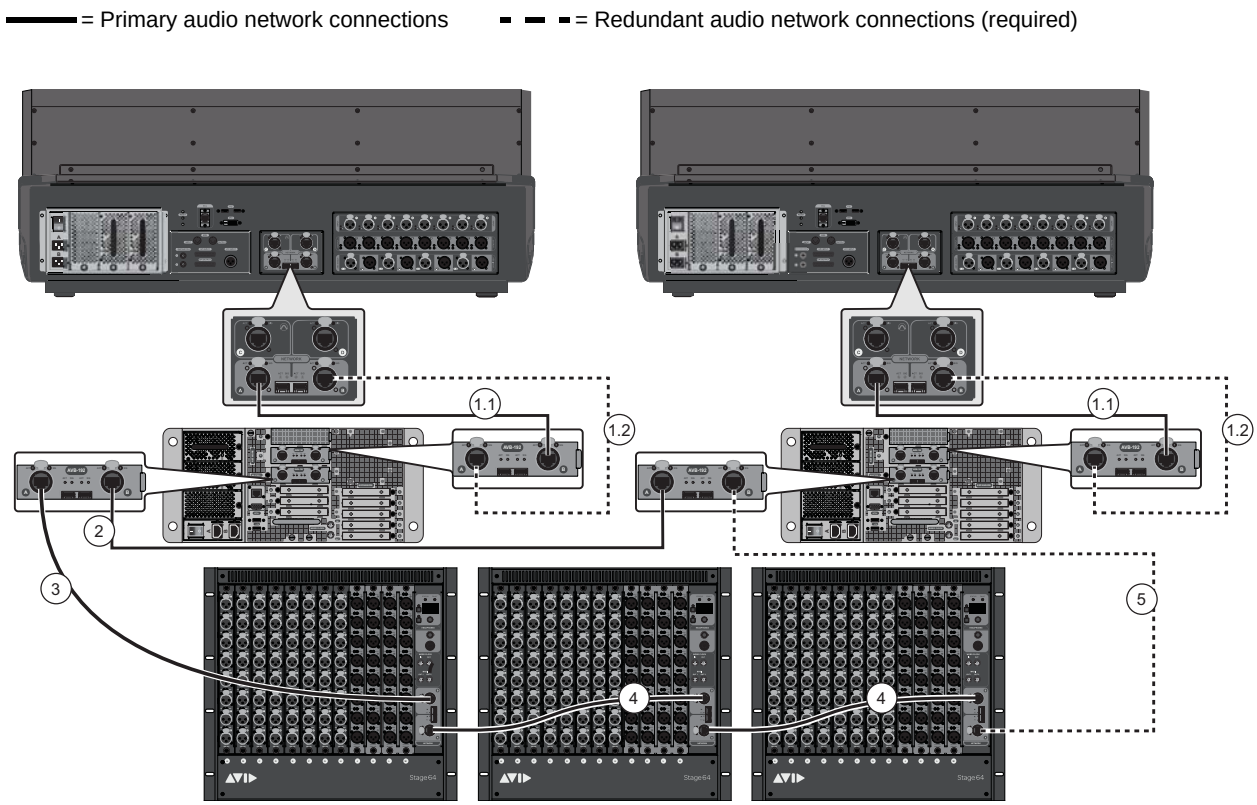
About Synchronization in Shared I/O Configurations

E6Ls in shared I/O configurations can send and receive Word Clock. However, only one E6L engine should ever be connected to an external word clock device.

I/O sharing configurations should be thought of as a single “system” in terms of clock. When you connect two E6L engines together (where two S6L systems are sharing one or more Stage Racks in a shared I/O configuration), only one of the E6L engines should ever be connected to an external word clock device. This E6L engine then becomes the Master clock for the entire dual-system configuration and distributes clock to all other S6L devices. If no external word clock device is connected, the E6L that comes online first becomes the Master clock for the entire system.

Never connect word clock from one engine to the other when sharing I/O, and always make sure that only one E6L engine's word clock input is connected if using an external word clock when sharing I/O.

Figure 4. An S6L system with Stage I/O sharing (expanded IO shown)



6 Proceed to **Powering the System Up and Down**.

If multiple Pro Tools systems are present, Avid recommends that you first connect, power on, and configure S6L system devices before making **Optional Connections for Pro Tools and ECx Ethernet Control**.

Stage 16 Configurations

Beginning with VENUE 5.5 you can use Avid Stage 16 I/O racks with S6L systems.

Firmware Note When moving a Stage 16 from S3L to S6L or vice versa, a firmware update will occur automatically.

Gain Compensation and Virtual Soundcheck Note When connected to an S6L system, Stage 16 gain is compensated to match Stage 64 values and displays. For example, when switching to Virtual Soundcheck, the digital trim will show –10 dB if the Stage 16 is at its lowest setting (+10), and shows negative values up until the stage gain reaches + 20.

Supported Configurations

Supported IO Configurations for S6L Systems (2x AVB-192 Network Cards required)

	Stage Inputs (max)	Stage Outputs (max)	Stage 64s	Stage 16s	AVB-192 Network Cards
Stage 16 Configuration 1	64	48	0	4	2
Stage 16 Configuration 2	128	80	1	4	
Stage 16 Configuration 3	192	112	2	4	
Stage 16 Configuration 4	I/O Sharing				

Requirements

- To use any number of Stage 16s with S6L systems, two AVB-192 Network Cards must be installed in all E6L Engines.
- No more than two Stage 64s can be connected whenever any Stage 16 is present.

Stage 16s can still be used with S3L-X and S3L systems. S3L-X/S3L configurations are unchanged (see the *S3L-X System Guide.pdf* for more information).

Connecting Stage 16s to S6L Systems

Connecting Stage 16s to S6L systems follows the same configuration rules as Stage 64s:

- Always connect an "**A**" port to a "**B**" port
- Always use qualified Ethernet Cat5-e or better cables (Stage 16s do not support Fiber connections)
- Always connect devices for a redundant ring network as shown in the following sections. It is also recommended to connect all Stage 64s in series (daisy-chain) then all Stage 16s as shown.

To connect components:

1 Do both of the following to connect the S6L control surface to the E6L engine:

1.1 Connect an audio network cable from Network port **A** on the back of the S6L control surface to Network port **B** on the top-most AVB Network Card of the E6L engine.

1.2 Connect an Ethernet cable from Network port **A** on the top-most AVB Network card of the E6L engine to Network port **B** on the S6L control surface.

2 Connect an audio network cable from Network port **A** on the **Master 1** (lowest slot) AVB Network Card of the E6L engine to Network port **B** on the first Stage box (Stage 64 shown in the figure).

3 If applicable, daisy-chain the first Stage box to the second Stage box by connecting an Ethernet cable from Network port **A** on the first to Network port **B** on the second. Repeat for additional Stage boxes.

4 Connect an Ethernet cable from Network port **A** on the last Stage 64 in the chain to Network port **B** on the **Master 1** AVB-192 Network Card (AVB card in the lowest slot) on the E6L engine.

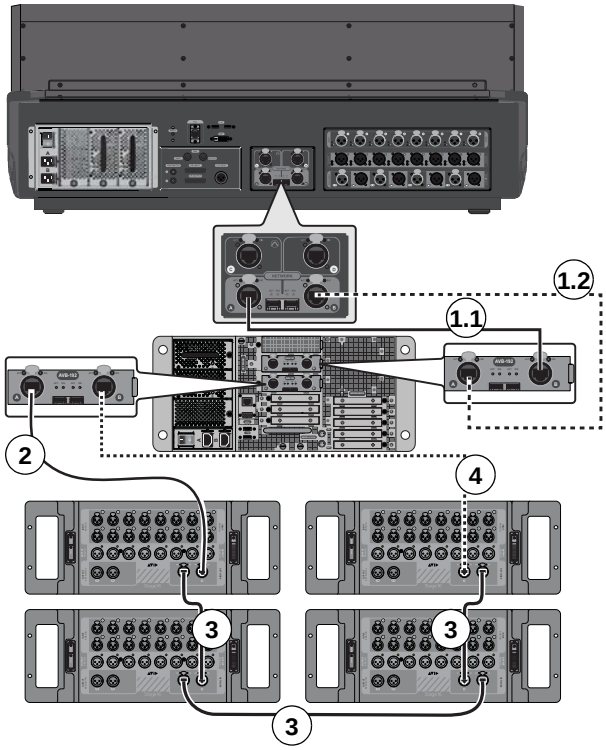
5 After completing the required connections, proceed to **Powering the System Up and Down**.

If multiple Pro Tools systems are present, Avid recommends that you first connect, power on, and configure S6L system devices before making **Optional Connections for Pro Tools and ECx Ethernet Control**.

Stage 16 Configuration 1

Up to 64 In/48 Out

When no Stage 64s are present, up to four Stage 16s can be connected as shown below.



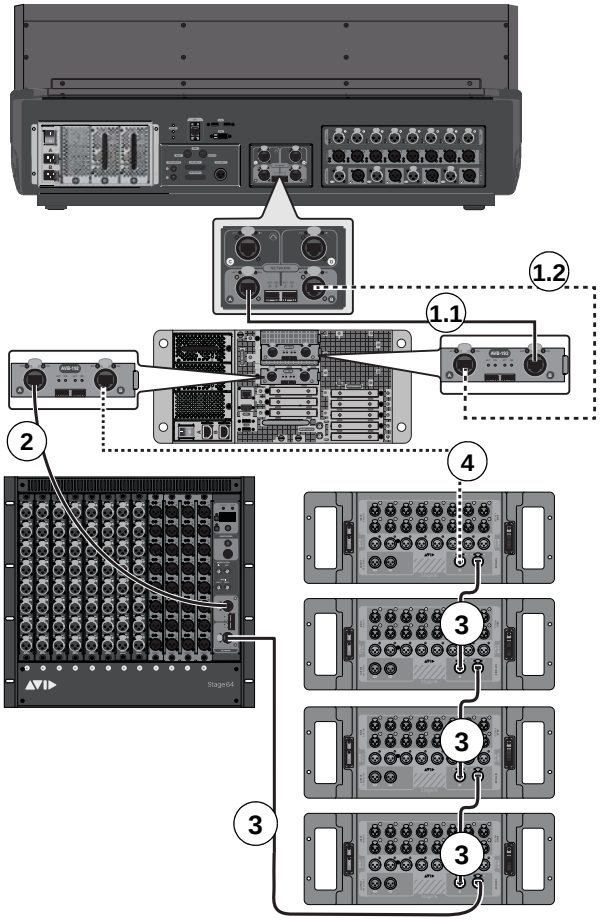
= Primary audio network connections

= Redundant audio network connections (required)

Stage 16 Configuration 2

Up to 128 In/80 Out

When one Stage 64 is present, up to four Stage 16s can be connected as shown below.



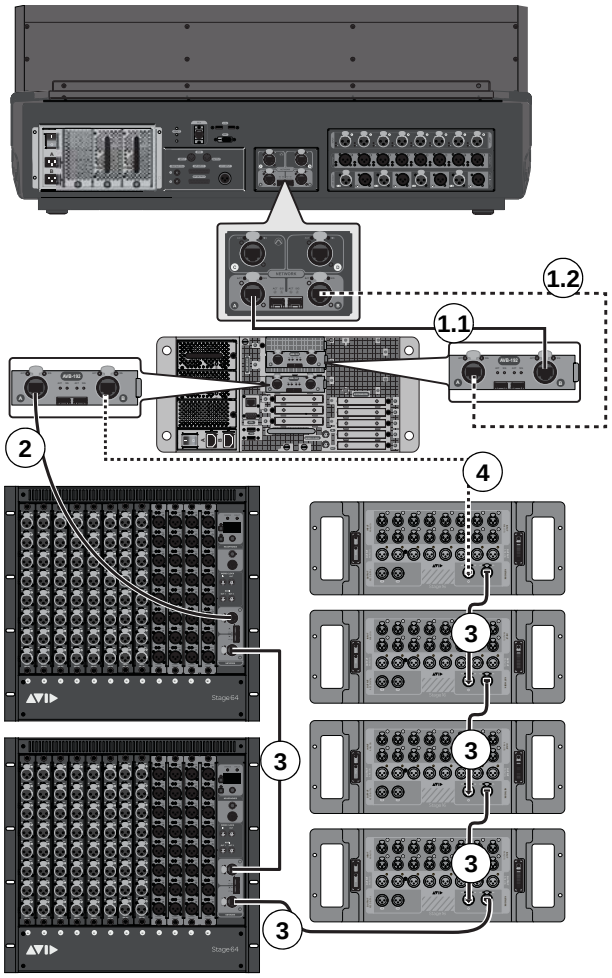
= Primary audio network connections

= Redundant audio network connections (required)

Stage 16 Configuration 3

Up to 192 In/112 Out

When two Stage 64s are present, up to four Stage 16s can be connected as shown below.



= Primary audio network connections

= Redundant audio network connections (required)

Stage 16 Configuration 4

Dual Mixed Systems for I/O Sharing Example

You can connect any two supported Stage 16/Stage 64 configurations for I/O Sharing. When doing so, note the following:

- Stage 64 inputs can be shared per-Stage 64. Stage 64 outputs can be shared per-Output card slot.
- Stage 16 inputs and outputs can be shared per-Stage 16.

To connect systems for I/O Sharing:

1 Do the following to connect each S6L control surface to an E6L engine:

1.1 Connect an Ethernet cable from Network port **A** on each S6L control surface to Network port **B** on the top-most AVB Network card on its corresponding E6L engine.

1.2 On each pair of E6L engine and S6L control surface connected in step 1.1, connect an Ethernet cable from Network port **A** on the top-most AVB Network card of the E6L engine to Network port **B** on the S6L control surface.

2 Daisy-chain the E6L engines together by doing the following:

- Connect one end of an Ethernet cable to Network port **A** on the **Master 1** (lowest slot) AVB Network card on the second E6L engine, and connect the other end to Network port **B** on the **Master 1** (lowest slot) AVB Network card on the first E6L engine.

3 Connect an Ethernet cable from Network port **A** on the **Master 1** (lowest slot) AVB Network Card of the first E6L Engine to Network port **B** on the first Stage box.

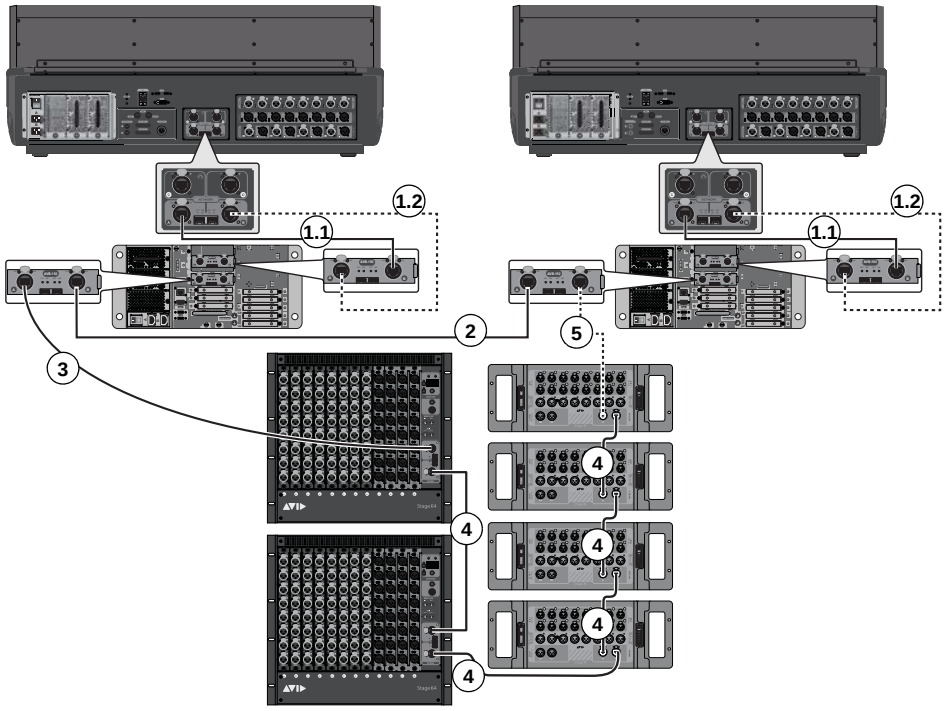
4 Daisy-chain Stage boxes together by doing the following:

- Connect an Ethernet cable between Network port **A** on the first Stage box to Network port **B** on the second Stage box.
- Connect another Ethernet cable from Network port **A** on the second Stage box to Network port **B** on the third Stage box. Repeat for additional Stage boxes.

5 Connect an Ethernet cable from Network port **A** on the last Stage box in the chain to Network port **B** on the **Master 1** (lowest slot) AVB Network Card of the second E6L engine.

⚠ *Before making any connections for external word clock, see* **About Synchronization in Shared I/O Configurations**.

6 After connections are made, proceed to **Powering the System Up and Down**.



Part IV: Completing the Installation

Powering Up and Configuring the System

After installing software and making S6L network connections, follow the instructions in this section to learn how to power the system up (and down), and to configure your S6L system.

Powering the System Up and Down

After connecting your system components for the first time, power up your system by following the steps in this section. Make sure you have installed the S6L System Restore software and the E6L System Restore software on the respective devices.

⚠ *If you have not installed the System Restore software on your S6L control surface, on initial power-up S6L prompts you to install software or shut down your system. For System Restore instructions, see* **VENUE System Restore**.

For day to day operation of the system, or after performing a System Update, you can follow the instructions in **Day to Day Powering Up and Down**.

First Time Power Up

Power up the system in the following sequence:

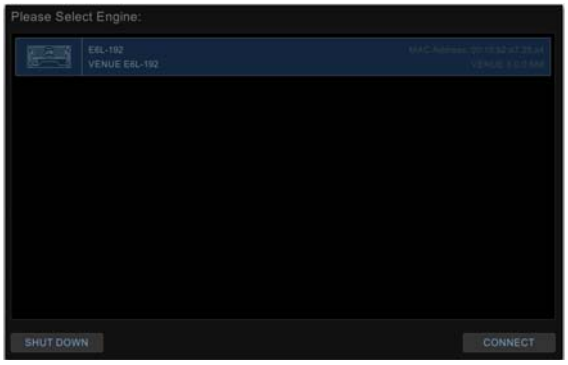
⚠ *Make sure no VGA monitor, mouse, keyboard, or internet is connected to the E6L engine before powering up your S6L system.*

1. If applicable, power on routers for use with ECx remote control.
2. Power on any connected computers for recording/playback.
3. Power on the control surface video monitor.
4. Power on the E6L engine by pressing the power switch on the back to the on (1) position. On the front panel of the E6L engine, the LEDs light as follows:
   - Status LED lights green.
   - The System LED begins to flash amber while the E6L is waiting to connect to the S6L control surface, then turns green when connection is complete.
5. Power on the S6L control surface by pressing the power switch on the back panel to the on (1) position.

   The LEDs on each of the S6L's PSUs light green, and Avid logos appear on the Master Touch Screen (MTS), the Channel Touch Modules (CTMs), and the external screen while the system initializes.

   If you are powering up the system for the first time, or the S6L control surface is connected to a different E6L engine than it was previously connected to, the Please Select Engine screen appears on the MTS when initialization is complete.

Avid logo on-screen



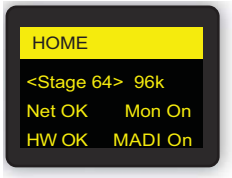
Please Select Engine Screen on the MTS

If the Please Select Engine dialog appears, complete the rest of these power up instructions and then proceed to **Confirming System Components**.

If the E6L engine has not fully initialized by the time the S6L control surface has initialized, "Waiting for the E6L Engine to start..." appears in the MTS until the E6L finishes initializing.

6 Power on the first Stage 64 by pressing the power switch to the On position for the PSU that is plugged into an AC power source. If both PSUs are connected for redundancy, power-on both PSUs. The power switch(es) lights green and the following occurs on the front panel of the Stage 64:

- The Status LED lights green.
- The AVID logo appears while the device initializes.
- When initialization is complete, the Controller Menu HOME page is shown.



Controller Menu HOME page

7 Power on any other Stage 64 I/O racks in the system.

8 Proceed to **Confirming System Components**.

For day to day startup and shut down, follow the instructions in **Day to Day Powering Up and Down**.

Confirming System Components

After connecting and powering up system components, you can confirm and configure system components on the Options > Devices page of the VENUE software screen.

To confirm system components:

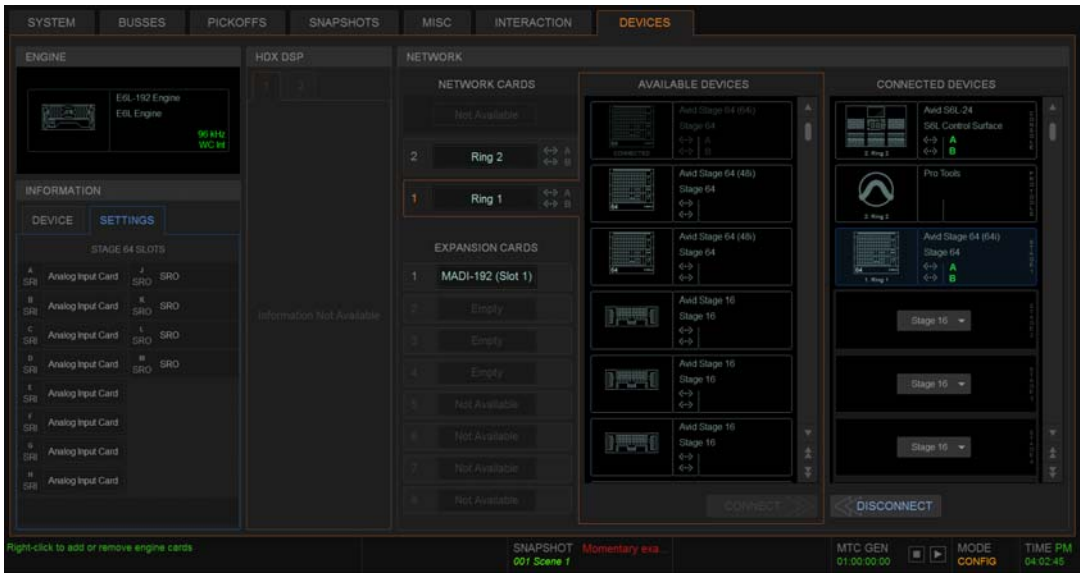
1 On the external screen, select the Options button.

Options button

2 Select the Devices tab.

Devices tab

All connected and powered on system components appear on the Devices page. The Devices page lets you connect and troubleshoot system components, view their status, and edit hardware settings.



Options > Devices tab

If any components do not appear, check all network connections between components, and make sure all components are powered on. For more information see the Troubleshooting section of the VENUE S6L System Guide.pdf

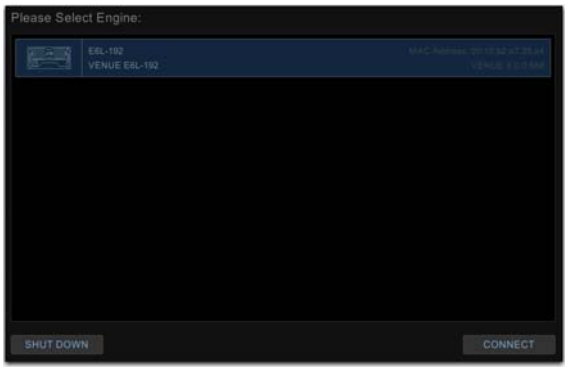
3 Proceed to **Pairing the E6L and S6L**.

Pairing the E6L and S6L

By default, an E6L engine automatically connects to its previously assigned S6L control surface. When assigned to an E6L, the S6L controls the parameters associated with that E6L. After the initial assignment, an E6L will automatically attempt to reconnect to the most recently assigned S6L. However, you can assign any E6L to any S6L on the network.

- If you are configuring a system for the first time, or the S6L control surface is connected to a different E6L engine than it was previously connected to, the Please Select Engine screen appears on the MTS when initialization is complete. If so, follow the instructions in **Please Select Engine**.
- If your S6L control surface was already paired with an E6L engine, and that E6L engine is detected on the network, the system will startup as usual and automatically connect. If so, proceed to **Assigning Stage 64 and Stage 16 I/O Racks**. If your configuration has not changed and components were already paired prior to performing a *Software Update*, you should not need to pair them again; if this is the case, proceed to **Setting the System Clock**.
- If you ever need to re-assign components, see **Managing Connections**.

Please Select Engine



Please Select Engine Screen on the MTS

If the E6L engine has not fully initialized by the time the S6L control surface has initialized, "Waiting for the E6L Engine to start..." appears in the MTS until the E6L finishes initializing.

To pair your E6L engine to your S6L control surface, in the Engine Selection screen on the MTS do the following:

1 If you have not already done so, power on the E6L engine by pressing the power switch on the back to the on (1) position.

On the front panel of the E6L engine, the front-panel Status LED lights green and the System LED flashes amber while the E6L engine initializes.

On the MTS, the Please Select Engine screen appears.

A selected E6L engine.

If multiple E6L engines are detected, all are listed.

Selecting an E6L from the list of available engines (E6L-192 shown selected)

2 In the Please Select Engine screen on the MTS, select a connected E6L engine so it is highlighted in blue.

3 Select CONNECT.

Connect button

The MTS indicates that the S6L control surface is waiting for the E6L engine to start. When the devices connect, the Universe view appears on the MTS, and the Inputs page appears on the external screen.

If you have incorrectly assigned E6Ls, they must first be unassigned from the S6Ls to which they are currently assigned. See **Managing Connections**.

Firmware and software updates begin on various devices in the system, as follows:

- Surface modules (the Channel Fader Modules and the Channel Knob Modules), and status is indicated on the MTS.
- S6L control surface and E6L engine Network cards, and status is indicated on the Options > Devices page of the external screen.
- Any Channel Touch Modules (CTMs), and status is indicated on the CTMs.

The CTMs indicate that you must power-cycle your system to complete software installation. Do not power-cycle your system at this time. Wait until the instructions in this guide tell you to power-cycle the system.

4 On the external VENUE software screen, in the Console Network Card alert dialog, click Review to monitor the progress of firmware updates.

During the E6L engine update, alerts are shown indicating that connection between the S6L control surface and the E6L engine has been lost, and plug-in racks need reset. These alerts can be ignored, as they are a normal part of the update process.

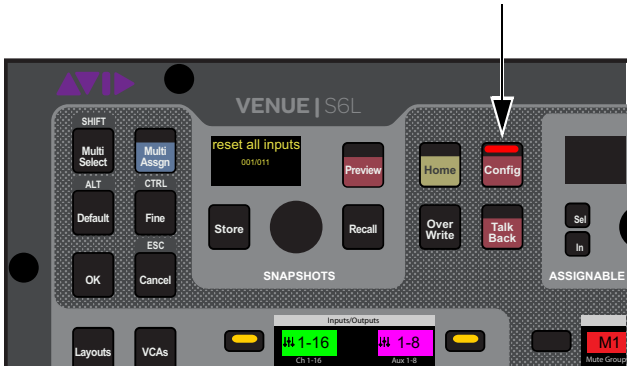
5 Proceed to **Enabling Config Mode**.

Enabling Config Mode

After confirming system components, enable *Config* mode. S6L systems have two basic operating modes, *Config* mode and *Show* mode. Use Config mode to accomplish tasks such as setting up your system, configuring options, loading Show files, and installing software such as plug-ins and system updates. Use Show mode when mixing performances.

To enable Config mode, do one of the following:

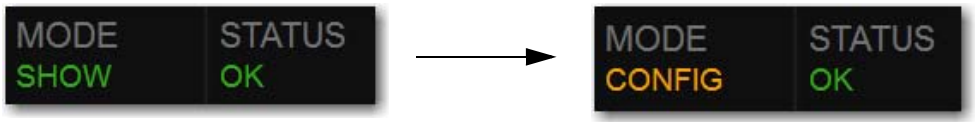
1 Press **Config** on the S6L control surface. The **Config** switch lights, and Config is indicated in the Mode box in the on-screen Status Bar.



Config switch on the S6L control surface (left) and the Mode box showing Config

– or –

- On-screen, double-tap the Mode box in the Status Bar, located in lower-right hand corner of the screen, so that Config is shown. The **Config** switch also lights.



Mode box showing Show mode enabled (left) and Config mode enabled (right)

2 If desired, give each S6L and/or E6L a unique name by doing the following:

- Make sure you have enabled Config mode.
- In the Options > Devices tab of the external screen, select the E6L engine, S6L control surface, or Stage 64 graphic so it is outlined in blue.
- In the Information pane, select the DEVICE tab.
- Touch-and-hold (double-click) the field next to Name, enter a unique name using the keyboard, then press Enter when finished.

Device names are not saved as part of Show files, they are stored in the hardware unit. In addition, you cannot rename devices in the Standalone software.

3 Proceed to **Assigning Stage 64 and Stage 16 I/O Racks**.

Assigning Stage 64 and Stage 16 I/O Racks

When you initially configure a system, you must assign Stage 64 and/or Stage 16 I/O racks to available Stage slots in the Options > Devices tab. Each Stage slot corresponds to a Stage hardware tab 1–6 in the VENUE Patchbay.

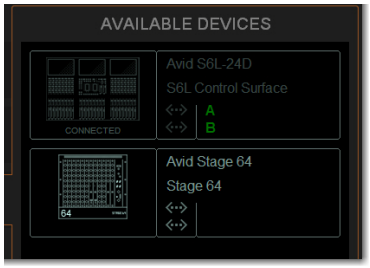
The following sections show how to assign Stage 64s during initial system configuration. Additional steps are required when adding Stage 16s, or when reconfiguring Stage I/O units (see **Managing Stage 64 and Stage 16 Connections***).*

- If you are configuring a basic (single) system, complete the following steps to assign Stage 64s to E6Ls.
- If you are configuring a system connected for I/O Sharing with another S6L system, complete the following steps to assign Stage 64s to E6Ls and then see **Using Master and Slave E6Ls in Shared I/O Configurations**.

To assign Stage 64 I/O racks:

1 Make sure your system is in Config mode.

2 On the external screen, go to the Options > Devices page and locate the Available Devices column. All connected and powered on Stage 64 I/O racks are shown in this column.

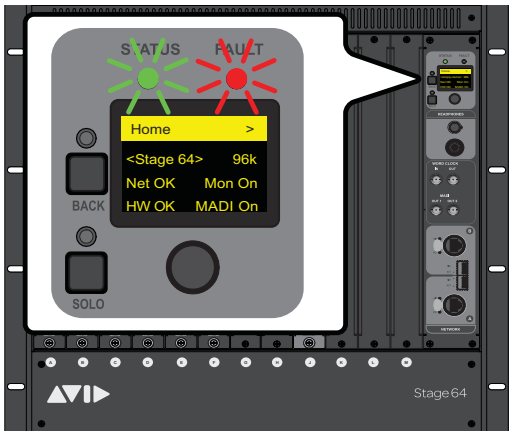


Unassigned Stage 64 I/O rack in the Available Devices column of the Options > Devices tab

If any connected Stage 64 boxes do not appear in the Unassigned section, check network and power connections.

3 In the Available Devices column, select the top-most Stage 64 so it is outlined in blue. The blue outline indicates that device is targeted for connection, and is targeted in the Information area of the Devices page.

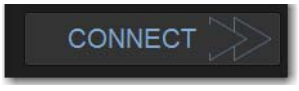
4 In the Information area, select the Device tab so it is highlighted in blue, then select the Identify button to latch it on.
The Identify button on-screen flashes, and the Status and Fault LEDs on the front panel of the corresponding Stage 64 flash.



The Identify button (left) and flashing Status and Fault LEDs on the corresponding Stage 64 (right)

5 Select Identify again to turn it off.

6 Select the Connect button at the bottom of the Available Devices column.



Available Devices Connect button

7 In the Connected Devices columns, select a flashing Stage slot to assign that Stage 64 to that Stage slot.

Flashing Stage slots in the Connected Devices column (left) and a Stage 64 assigned to Stage slot 1 (right)

You can also right-click on the desired Stage device in the Available Devices column and assign it by selecting an available slot.

The Stage slot is populated with the selected Stage 64, and the I/O on that Stage 64 is now available to be patched to system input and output channels in the VENUE Patchbay under the corresponding Stage 1, Stage 2, or Stage 3 hardware tab. For more information on using the Patchbay, see the *VENUE S6L System Guide.pdf*.

On initial power-on after installation of System Restore software, firmware updates of the Stage 64 begin just after assigning them.

8 Assign any other available Stage 64 I/O racks to initiate their firmware updates.

9 Once firmware updates are complete, dismiss all alerts and dialogs by selecting OK in each one.

You can reassign Stage I/O units at any time after the initial the software installation, and after all necessary firmware updates are completed. See **Managing Connections** *for complete information.*

10 If desired, give each Stage 64 a unique name by doing the following:

- Make sure the system is in *Config* mode (see **Enabling Config Mode**).
- In the Options > Devices tab of the external screen, select the appropriate Stage 64 graphic so it is outlined in blue.
- In the Information pane, select the DEVICE tab.
- Touch-and-hold (double-click) the field next to Name, enter a unique name using the keyboard, then press Enter.

Stage 64 names will appear in the corresponding tab of the Patchbay. Device names are not saved as part of Show files, they are stored in the hardware unit. In addition, you cannot rename devices in the Standalone software.

11 Shut down your system by doing the following:

- Make sure the system is in *Config* mode.
- On the external VENUE software screen, go to the Options page and select the System tab.
- Select Shut Down, then select Shut Down again to confirm.

12 Power down all connected components by pressing their back panel power switches to the off (0) positions, and leave all components powered-off for at least 30 seconds.

A complete power-cycle is required before using your S6L system.

13 Power the components back on in the following order:

- E6L engine
- S6L control surface
- Any connected Stage 64 I/O racks

14 Wait for the CTMs to complete their final software update, then proceed to **Setting the System Clock**.

Using Master and Slave E6Ls in Shared I/O Configurations
(Input and Output Sharing)

By default, such as when you first configure systems for I/O Sharing, connecting a Stage device to an E6L engine in the Options > Devices page assigns ownership of all Inputs and Outputs to that E6L (in this context "E6L" is synonymous with "S6L system").

In shared I/O systems, the E6L to which a Stage 64 is assigned becomes the **Input Master** of that Stage 64, and other E6Ls on the network become the **Input Slave** of that Stage 64. Input Master status determines which E6L can manage shared I/O.

Input Master When an E6L is the Input Master of a Stage 64, In Master is displayed on the Stage 64 graphic in the Connected Devices column on the Options > Devices page. I/O on the Stage 64 is available to be patched to system input and output channels in the VENUE Patchbay, and the Stage tabs are highlighted in green to indicate Master status, as is the channel source box on the Inputs page on a per-channel basis.

- The Input Master system has ownership (control) of all Input slots (A–H) on that Stage 64. Individual Input slots cannot be assigned to, or controlled by, different systems simultaneously.
- By default, the Input Master system also *Claims* (controls) all Output slots (J–M) on that Stage 64. The Input Master system can assign control of Stage 64 outputs to other systems on the network on a per-Output slot (J–M) basis from the Options > Devices page (see **Assigning Ownership of Output Slots**).
- The Input Master system controls both inputs and outputs of Stage 16s (if any). Individual Input or Output slots on each Stage 16 cannot be assigned to, or controlled by, different systems simultaneously.

Input Slave When an E6L is Slave to a Stage 64 (for example, when another E6L on the network has already assigned a Stage 64), In Slave is displayed on the Stage 64 graphic(s) in the Connected Devices slot on the Options > Devices page. Stage inputs are freely available for patching. Stage outputs for that Stage 64 are grayed out in the Patchbay and the outputs are unavailable. The Stage tabs are highlighted in yellow to indicate Slave status, as is the channel source box on the Inputs page on a per-channel basis.

In the Options > Devices page, Input and Output ownership status is indicated on the image of each device as follows:

Indication and status of Stage devices in I/O Sharing configurations

Indicator	Status
In Master	The system is the Input Master for that Stage device.
In Slave	A different system is the Input Master for that Stage device.
Reminder: Inputs are controlled globally per Stage device; control of individual Input slots on a Stage device cannot be shared.	
Out Claimed	The system has claimed control of *all* Output slots on that Stage device.
Out Waived	A different system has claimed, or been assigned, control for *all* Output slots on that Stage device.
Out Mixed	The system has claimed control of *some*, but not all, Output slots on that Stage device. A different system also has control of some, but not all, Output slots on that Stage device.

For an example IO sharing configuration, including diagrams showing ownership indication in Options > Devices and in the Patchbay, and steps to configure the example configuration, see the VENUE S6L System Guide.pdf.

In the Patchbay, claimed Output slots are active and available for patching. Waived Output slots are inactive (grayed) but are still available for patching.

Stored patching to Output slots on any system on the network is unaffected by Output slot ownership. New patching is allowed to Output slots that are not claimed, similar to other inactive destinations. When an Output patch is reassigned from another patch in the same Show file, a confirmation dialog is displayed asking you to confirm the new assignment.

Before assigning Stage 64s in shared configurations, you should take into account the following differences in functionality between Input Master and Input Slave E6Ls for a connected Stage 64 or Stage 16 (as applicable):

Functionality	Master E6L	Slave E6L
Stage 64 Input Mic Preamp Control	Yes (analog gain)	Yes (digital trim)
Control of Stage 64 pad	Yes (analog pad)	Yes (digital pad)
Control of Stage 64 phantom power	Yes	No
Gain Tracking	n/a	Yes
Routing to Stage 64 Outputs	Yes	No
Routing to/from local IO (Console and Engine I/O)	Yes	Yes
Patching Stage Inputs to Input Channels	Yes	Yes
Reordering Input Channels	Yes	Yes
Mute All Outputs functionality from GUI	Yes	No
Mute All Outputs status indication	Yes	Yes
Identify functionality from GUI	Yes	Yes
Identify status indication	Yes	Yes
Ability to rename an assigned Stage 64	Yes	No
Ability to unassign a Stage 64	Yes	No

For example, if you need to connect stage monitors to the Outputs on a particular Stage 64, make sure to assign some or all Output slots on that Stage 64 to the E6L controlling the monitor mix.

Assigning Ownership of Output Slots

You can assign and reassign Output slot ownership in the Options > Devices page of the current Input Master system.

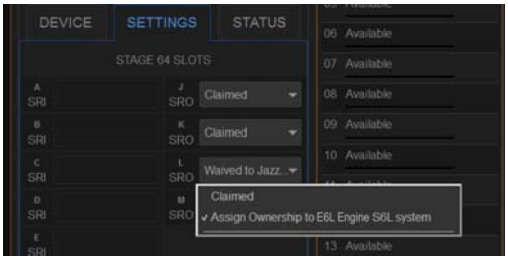
Output Slot ownership can only be assigned for Stage 64s, not for Stage 16s (the Input Master always controls all Stage 16 Input and Output slots).

To reassign Stage Output ownership:

1 On the Input Master system, go to Options > Devices and select a connected Stage 64 on-screen.

2 In the Information section, tap the Settings tab for the currently selected Stage 64.

Ownership is shown as Claimed or Waived to <E6L Device Name> S6L system.



3 From the pop-up selector for the desired Output slot, select either of the following:

- To claim control of that slot, choose Claim.
- To assign ownership of that slot to a different system on the network, choose Assign Ownership to <E6L Device Name> S6L system.

For an example IO sharing configuration, including diagrams, ownership indication in Options > Devices and in the Patchbay, and steps to configure the example configuration, see the VENUE S6L System Guide.pdf.

4 Proceed to **Setting the System Clock**.

Setting the System Clock

After pairing, make sure the system clock time, date and time zone are set appropriately. System Clock is set on the Options page of the external VENUE software screen.

The system clock time can be shown in the Status bar for constant time-of-day display. For more information, see the VENUE |S6L System Guide.

To set the System Clock:

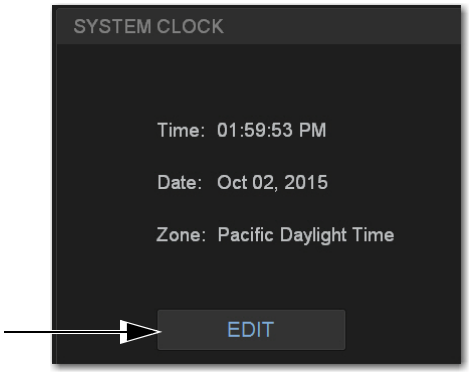
1 On the external screen, select Options, then select the Misc tab.

If necessary, minimize (but do not Cancel) the Windows Activation alert by touching the down arrow at the top-right of the dialog.

2 In the System Clock section, select the Format pop-up menu to set the time format (12 Hour AM/PM or 24 Hour).

3 Select the Edit button in the System Clock section.

4 Select the Zone pop-up to choose the appropriate time zone. .

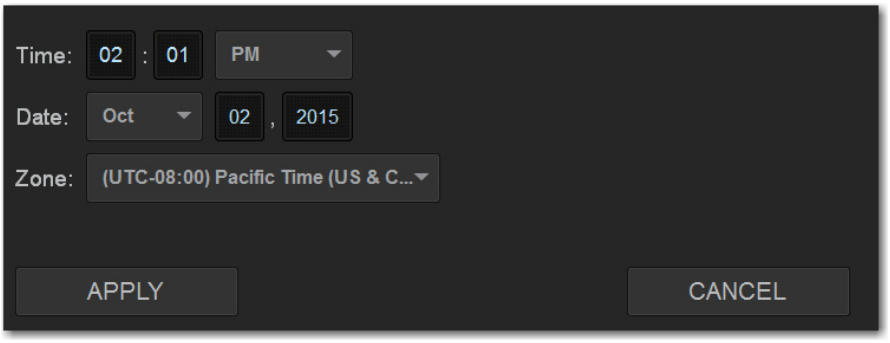


On touch screens, touch in a field and slide your finger up or down on the screen to increase or decrease the value in the field.

5 Select each available field and enter the appropriate data to set the time and date.

6 Select Apply.

The new System Clock settings are applied.



Setting the Time Code Start Time

(Optional)

If you plan on generating or chasing time code, note that VENUE defaults to a start time of 01:00:00:00. You can set a different time code start time (such as 00:00:00:00) in the Options > Snapshots screen after completing the system configuration. For more information, see the *VENUE S6L System Guide.pdf*.

How to Proceed

- If prompted to activate Windows, proceed to **Activating Windows on S6L**.
- If not, proceed to **Optional Connections for Pro Tools and ECx Ethernet Control**.

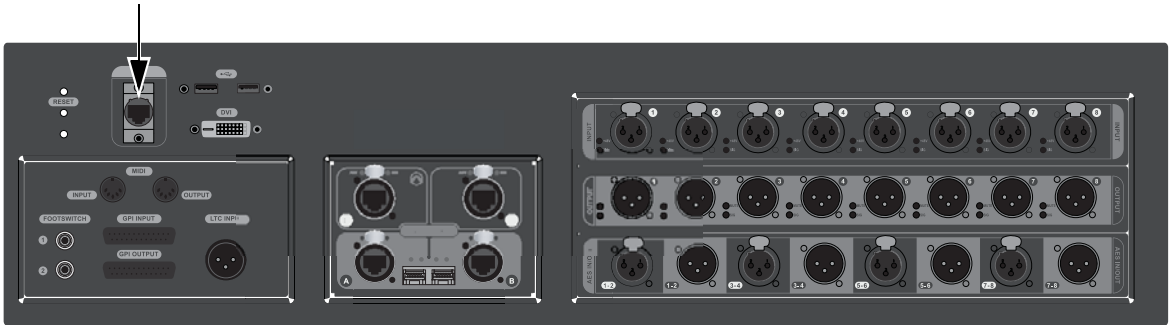
Activating Windows on S6L

After setting the system clock, activate Windows on your S6L control surface. Windows is part of the VENUE software installation on your S6L control surface, and must be activated separately from VENUE software, and separately from the Windows activation on the E6L engine.

⚠ *Activate Windows after you have connected and powered on your system. You have 30 days from the date of installation to activate Windows on your S6L control surface.*

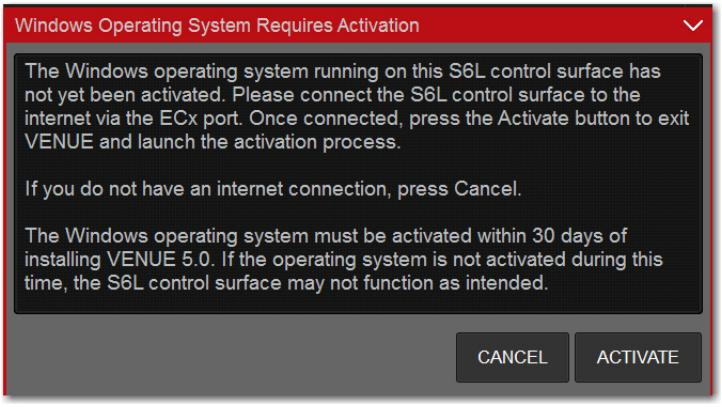
To activate Windows on your S6L control surface:

1 Connect an Ethernet cable from your Internet source (router or modem) to the ECx port on the back of your S6L control surface.



ECx port on the back of the S6L control surface

2 In the on-screen dialog prompting you to authorize Windows, tap Activate.



Windows activation dialog

3 Follow the on-screen instructions to activate Windows.

Windows Activation is complete when “Product activated successfully. Press any key to continue...” appears in the activation window on-screen.

💡 *If the activation fails, confirm your Internet connection and attempt to activate when the Activation dialog reappears.*

4 Disconnect the Ethernet cable from the ECx port.

5 Proceed to **Optional Connections for Pro Tools and ECx Ethernet Control**.

Optional Connections for Pro Tools and ECx Ethernet Control

After assigning each S6L control surface and Stage 64 stage box to an E6L engine, you can make optional connections for Pro Tools AVB/VENUE Link and ECx Ethernet Control.

For information on installing and configuring VENUE | On-Stage for iPad and iPhone, see the VENUE | On-Stage Guide.pdf.

To make optional connections:

1 To connect a qualified Pro Tools computer, connect a supported Ethernet cable from Network port **C** on the S6L control surface to an available Ethernet port on the computer (or to a Thunderbolt port using a Thunderbolt-to-Ethernet adapter).

If multiple Pro Tools systems are present, Avid recommends that you first connect, power on, and configure S6L system devices before connecting and configuring Pro Tools computers.

2 To connect to a router or computer for ECx Ethernet Control, connect a standard Ethernet cable from the port labeled **ECx** on the S6L control surface to the router or client computer.

VENUE Link is not supported via the ECx port. Use Network port **C** *for Pro Tools/VENUE Link connection.*

Network Connection Guidelines for ECx Unsupported ECx connections can destabilize VENUE when connected to a large network. The **ECx** port on the S6L control surface is intended to be connected to a private network containing only S6L-compatible devices such as a laptop or tablet for remote control. Do not connect the **ECx** port directly to a LAN such as a corporate network which contains other types of devices. Doing so may disrupt the device discovery mechanisms used by some S6L components. For more information, see the *ECx Ethernet Control Guide.pdf*.

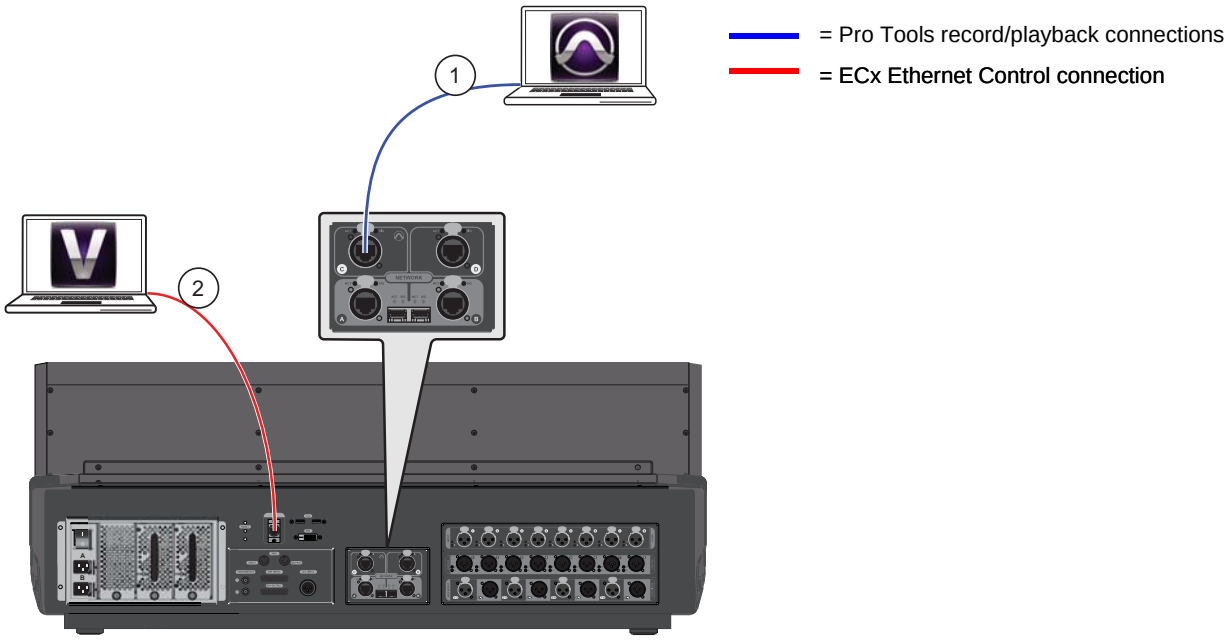


Figure 1. Optional connections for Pro Tools and ECx Ethernet Control

3 If you are configuring your system for the first time, or if you performed a System Restore, follow the instructions in the following sections to complete the software installation procedure:

- **Installing Plug-Ins**
- **Installing Optional S6L System Software**
- **Installing Pro Tools**

Installing Plug-Ins

To install plug-ins on your S6L system, you must transfer plug-in licenses to your plug-ins iLok, copy the S6L plug-ins installer to a USB drive, and then install the plug-ins on the S6L control surface using the USB drive containing the plug-ins installer.

For Waves plug-ins (if any) see the Waves SoundGrid for VENUE.pdf from Waves (also available in your Avid account).

Transferring Plug-In Licenses

After activating your software, transfer plug-in licenses to the S6L plug-ins iLok. *Do not transfer the Live Sound Production Toolkit license to the plug-ins iLok.* The Live Sound Production Toolkit license must reside on the Pro Tools iLok, which is included in the Pro Tools package.

Wait until you activate and install Pro Tools to transfer the Live Sound Production Toolkit license.

To transfer plug-in licenses to the S6L plug-ins iLok:

1. Launch the iLok License Manager on your computer.
2. Insert the S6L plug-ins iLok into an available USB port on your computer.
3. In the dialog asking you to register the iLok to your account, select Yes to confirm. If this iLok is already registered to your account, skip to the next step.
4. In the License Manager, select the licenses for the S6L plug-ins and drag them to the iLok.

iLok 3rd generation

iLok 2nd generation

Do not transfer the Live Sound Production Toolkit license to the S6L plug-in iLok.

5. Label this iLok so you can easily identify it as containing the licenses for your S6L system plug-ins (such as “S6L Plug-Ins”).

Copying the Plug-Ins Installer to a USB Drive

Do not use the VENUE System Restore USB Drive to store software or any other data.

To copy the plug-ins installer to a USB drive:

1. Make sure there is enough free space on your USB drive to accommodate all the software.
2. Format your USB drive to the exFAT, FAT32 or NTFS file system using Disk Utility (Mac) or Windows Disk Management (Windows).
3. If you have not done so already, download the “S6L Plug-Ins Installer” file from the My Products and Subscription section of your Avid account to your computer.
4. Unzip the S6L plug-ins installer file by doing the following, depending on your computer platform:

Mac Double-click the ZIP file containing the software to unzip it.

Windows Right-click the ZIP file containing the software, select Extract All... from the pop-up menu, and in the ensuing dialog click Extract.

5. In the unzipped file, locate the “AAX Plug-Ins” folder.
6. Copy the entire “AAX Plug-Ins” folder to the top (root) level of the USB drive.

Be sure to copy the AAX Plug-Ins folder itself, not the individual plug-ins inside the AAX Plug-Ins folder. If the S6L system does not find the plug-ins during installation, check your USB drive to make sure you have properly copied the AAX Plug-Ins folder to your USB drive.

Installing Plug-Ins

To install plug-ins:

1 Connect and power-on your S6L system as described in the *VENUE | S6L System Guide.*

2 Insert the iLok containing the plug-in licenses into a USB port on your S6L control surface. Make sure this iLok is connected to your S6L control surface whenever your system is in use.

A secure USB port inside the S6L control surface is provided to securely protect an iLok. See the VENUE | S6L System Guide instructions on accessing the port.

3 Insert the USB drive containing the plug-in installers into an available USB port on the S6L control surface.

Plug-ins must be installed using the USB ports on the S6L control surface only.

4 Press the **Config** switch on the S6L control surface so that it is lit.

5 In the VENUE software, go to the Options page and select the Plug-Ins tab. The following two lists are shown:

Plug-Ins to Install This list shows available plug-in installers. At the top of the list is the Device selector, which provides a pop-up menu of available media sources.

Installed Plug-Ins This list shows all plug-ins already installed on the system.

6 In the Plug-Ins to Install list, select the Device selector menu and choose the USB drive from the pop-up to access the plug-in installers located on the drive.

7 Select a plug-in from the Plug-Ins to Install list to target that plug-in for installation.

8 Select Install to install the selected plug-in.

9 When prompted, select Accept to accept the End User License Agreement for the plug-in.
Once installed, the plug-in appears in the Installed Plug-Ins list on the right.

10 Repeat the three previous steps to install any other available plug-ins.

11 Proceed to **Installing Optional S6L System Software**.

Installing Optional S6L System Software

Your system also includes ECx Ethernet Control software, VENUE Standalone software, VENUE On-Stage for iPad and iPhone, and system documentation, all of which are available in your Avid account.

ECx Ethernet Control Software ECx is installed separately on both your S6L system *and* a client computer (or other mobile device) for remote control of your VENUE system. Follow the instructions in the *ECx Ethernet Control Guide.pdf*, included in the ECx software bundle.

VENUE Standalone Software VENUE standalone software is installed on a separate compatible computer (Windows XP SP3 and higher required) and is used to simulate an S6L system, letting you prepare a Show file and learn S6L system basics.

VENUE On-Stage On-Stage is available for free download from the App Store and is installed on any compatible tablet or phone. VENUE On-Stage lets performing artist remotely control their own monitor mix. Follow the instructions in the *VENUE On-Stage Guide.pdf*, available for download from your Avid account.

Waves SoundGrid Plug-Ins If your system includes an Avid WSG-HD Waves SoundGrid Option Card, follow the instructions in the *Waves SoundGrid for VENUE User Guide.pdf* from Waves (also available in your Avid account).

Documentation The documentation included with your S6L system include PDFs of the *VENUE| S6L System Guide,* providing complete operational information for your system, and other useful documentation. Download these PDFs from your Avid account to your personal computer or tablet.

Installing Pro Tools

Pro Tools software is installed on a separate compatible computer. The Pro Tools software package, included with the S6L control surface, includes its own Activation Card and iLok. Follow the instructions in the package to activate, download, and install Pro Tools software. After you have installed Pro Tools, transfer the Live Sound Production Toolkit to your Pro Tools iLok.

Your Pro Tools computer must be AVB-audio compatible to connect to the S6L system Network port. Visit **www.avid.com/S6Lsupport** *for a list of qualified computers.*

Transferring the Live Sound Production Toolkit License

After installing Pro Tools and any required audio drivers, transfer the Live Sound Production Toolkit license to the iLok that is included in the Pro Tools software package.

Do not transfer the Live Sound Production Toolkit to the iLok containing S6L plug-in licenses. The Live Sound Production Toolkit license must be transfered to the iLok containing the Pro Tools license.

To transfer the Live Sound Production Toolkit license to your iLok:

1. Locate the Pro Tools iLok and insert it into an available USB port on your computer.
2. Launch the iLok License Manager.
3. In the License Manager, select the Live Sound Production Toolkit license and drag it to the Pro Tools iLok.
4. Label this iLok so you can easily distinguish it from the iLok containing S6L plug-in licenses. Make sure this iLok is connected to your Pro Tools computer whenever you launch Pro Tools.

How to Proceed

Refer to the following after configuring your system:

- See the *VENUE S6L System Guide* for complete system operational information.
- See the most recent edition of the *What's New in VENUE 5.x.x.pdf* to learn about the new features that are available.
- See the most recent edition of the *VENUE Software Read Me* to see a list of what was fixed to optimize performance and improve reliability.

These and all other VENUE guides are available to download from your Avid account (**https://www.avid.com/account**), and from our Knowledge Base (**http://avid.force.com/pkb/articles/user_guide/S6L-Documentation**).

Managing Connections

After initial setup, devices on the network can be named and renamed, reassigned, and removed.

In the following sections, references to "Stage I/O devices" includes Stage 64 and Stage 16.

Naming System Components

You can name the S6L control surface, the E6L engine, and any connected and assigned Stage I/O devices. The device name is stored with the respective device, and stays with that device until it is changed. Names can be changed at any time. Though not required, naming components is highly recommended.

To name S6L system components:

1. In the Options > Devices tab of the external screen, select the component graphic so it is outlined in blue.
2. In the Information list, select the DEVICE tab.
3. Touch-and-hold (double-click) the field next to Name, then enter a unique name using the keyboard, then press Enter when finished.

Managing Stage 64 and Stage 16 Connections

When power-cycling your system and/or reconnecting Stage I/O devices to the same E6L engine, the original Stage 1–6 assignments are automatically recalled, regardless of the order in which Stage devices are connected. Depending on the hardware combinations being used, however, you may want or need to reconfigure system Stage I/O. You can reconfigure Stage I/O on the Options > Devices tab any time after the initial system set up and configuration. You can reassign connected Stage I/O racks, remove Stage I/O racks from the current configuration, and add new Stage I/O racks to the current configuration.

Reassigning a Stage I/O Rack

You can reassign a Stage device to a different Stage slot. For example, for a particular stage setup you may want to rearrange the order of Stage 64 I/O racks as they appear in the VENUE Patchbay. Or you might want to add one or more Stage 16 I/O racks (up to four, maximum).

To reassign a Stage I/O unit:

1. Put the system into Config mode.
2. Go to Options > Devices.
3. Select a Stage device in the Connected Devices column, then select the Disconnect button.
   The unassigned Stage device appears in the Available Devices column.
4. Re-assign Stage I/O racks as necessary.

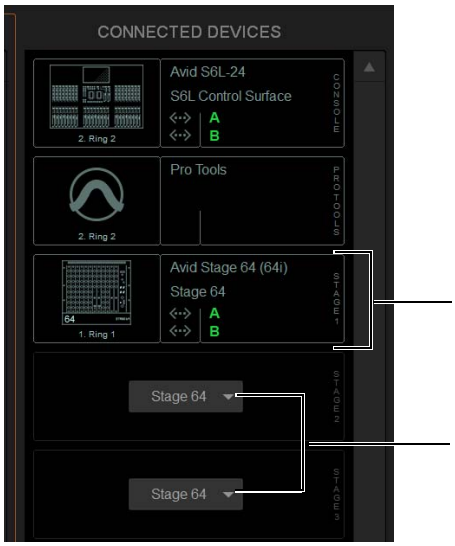
Configuring Stage Slots for Stage 16s or Stage 64s

When adding Stage 16s for the first time, or when reconfiguring a system to use Stage 64s instead of Stage 16s, you must first configure Stage slots before you can assign Stage I/O units in the Options > Devices tab. Each Stage slot corresponds to a Stage hardware tab 1–6 in the VENUE Patchbay.

You can configure Stage slots and assign devices in VENUE Standalone Software (requires version 5.5 or higher).

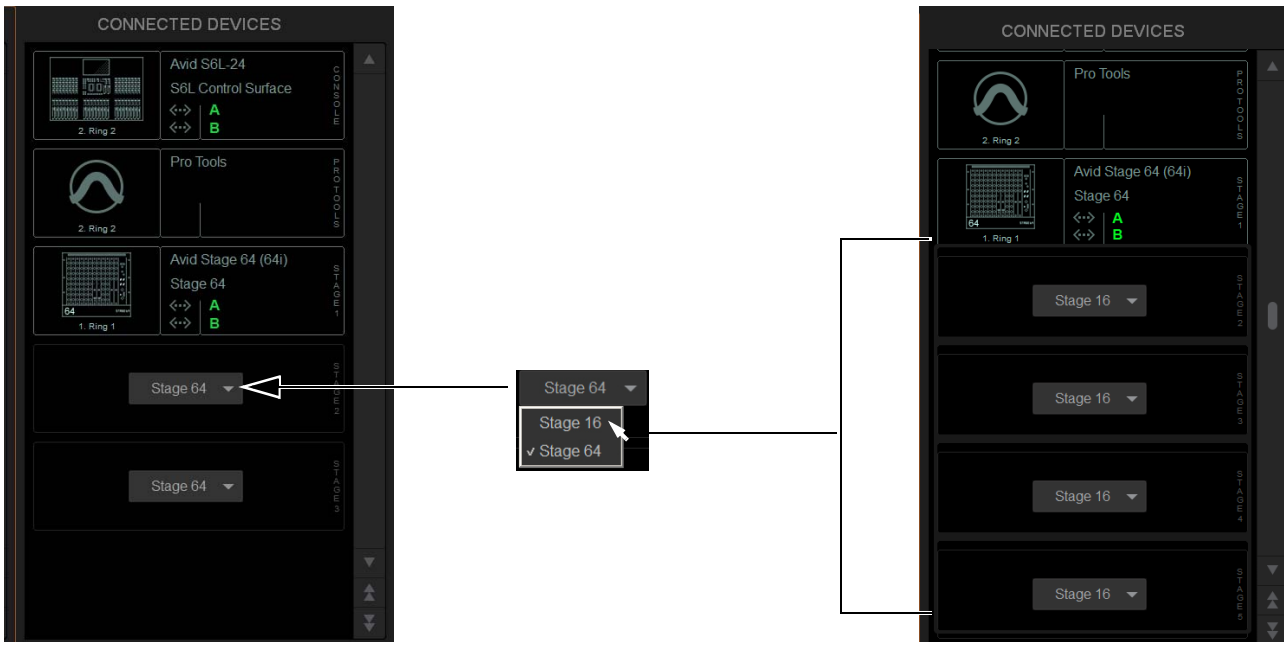
To configure Stage slots and assign Stage 16 I/O racks:

1. Make sure your system is in Config mode.
2. On the external screen, go to the Options > Devices page and locate the Connected Devices column.
   By default, three Stage 64 slots are displayed in the Connected Devices column.



Connected Devices showing one connected Stage 64 (above), and two Stage slot Type selectors (below)

3. Select any available slot Type selector and choose Stage 16 from its pop-up menu.
   Up to four Stage 16 slots appear in the Connected Devices column.



Stage 16 slots available in Options > Devices

The number of available Stage slots that appear is determined by the number of connected Stage 64s (if any), allowing for the maximum supported configurations to be connected. For example, when one or two Stage 64s are already connected configuring the third available slot to Stage 16 makes four Stage 16 slots become available. When three Stage 64s are already connected, no additional slots are available.

Virtual Soundcheck: Important Note You can configure Stage I/O devices in any order in the Connected Devices column (they do not need to match the order of physical network connections). Their Slot designation (1–6) determines where I/O appears in the Patchbay I/O tabs 1–6, which also determines Virtual Soundcheck channel order. Because each Stage 16 slot occupies 16 channels of Virtual Soundcheck, switching any slot from Stage 64 to Stage 16 will occupy 64 channels of Virtual Soundcheck. For example, even if only one Stage 16 I/O unit is connected and three Stage 16 slots are empty, followed by slot 5 assigned and connected to a Stage 64, the Pro Tools inputs corresponding to that Stage 64 will begin at channel 65. To avoid this, it is recommended to assign Stage 64s (if any) to the lowest numbered slots 1–3 whenever possible, followed by any Stage 16s.

4 In the Available Devices column, select the desired Stage I/O device so it is outlined in blue.

5 Select the Connect button at the bottom of the Available Devices column.

6 In the Connected Devices columns, select a flashing Stage 16 slot to assign the selected Stage 16 to that slot.

You can also right-click on the desired Stage device in the Available Devices column and assign it by selecting an available slot.

Flashing Stage slots in the Connected Devices column (left) and a Stage 16 assigned to Stage slot 2 (right)

The Stage slot is populated with the selected Stage 16, and the I/O on that Stage 16 is now available to be patched to system input and output channels in the VENUE Patchbay under the corresponding Stage 1–6 hardware tab. For more information on using the Patchbay, see the *VENUE S6L System Guide.pdf*.

7 Assign any other available Stage I/O racks as desired.

You can reassign Stage 64 and Stage 16 I/O racks at any time after initial software installation, and after all necessary firmware updates are completed. If you are replacing Stage 16s with Stage 64s (or vice versa), simply select and Disconnect the unwanted Stage I/O unit in the Connected Devices list, re-assign the corresponding Stage slot if necessary, then assign the desired Stage I/O units.

Removing a Stage I/O Rack

You can unassign a Stage I/O rack from your configuration. Do this if you are removing a connected Stage device from your configuration, or if a Stage device from a previous configuration is not connected and you want to dismiss warning dialogs.

To remove a Stage device from the current configuration:

1. Put the system into Config mode.
2. Go to Options > Devices.
3. Do either of the following depending on the status of the Stage device:
   - To remove a connected Stage device, select that device in the Connected Devices column and choose Disconnect.
   - To remove a Stage device that is not connected (indicated by a greyed-out Stage device in the Connected Devices list), touch and hold (right-click) the grayed-out Stage device and choose Forget missing Stage device.

   The I/O for that Stage device is now grayed-out under the corresponding Stage 1–3 hardware tab in the Patchbay.

Managing S6L–E6L Connections in Shared I/O Configurations

After the initial setup, the next time you power on your S6L system an S6L will automatically attempt to reconnect to the most recently assigned E6L. This allows for a specific S6L to always be paired with a specific E6L. The command Forget Engine is provided to manage subsequent S6L–E6L connections.

Forget Engine Lets you disconnect the currently connected E6L from the S6L control surface. This command is useful if you have multiple E6Ls and S6Ls that may or may not be used together regularly.

To disconnect an E6L from an S6L:

1. Enable Config Mode (see).
2. Go to the Options > Devices page.
3. Right-click the E6L Engine graphic and choose Forget Engine.

On subsequent restarts, the S6L will not attempt to pair with any E6Ls on the network. Any pairings to an E6L must be made manually (see **Pairing the E6L and S6L**).

Managing E6L–Stage 64 Connections in Shared I/O Configurations

After the initial setup, the next time you power on your system the previous Input Master/Slave and shared Output (if any) relationships between Stage I/O devices and E6Ls are maintained. If the E6L Master for a given Stage device in the network is not detected or is lost, the following dialogs are presented on the other E6L:

Master Engine Not Detected Appears when the E6L Master in the previous configuration is either not powered on or is not connected.

Master Engine Lost Appears if the E6L Master is disconnected from the network, for example if the audio network connection is broken or the Master E6L loses power.

In both cases, you can choose to either maintain the current Master/Slave relationship and continue to operate as if the Master E6L were still online (if, for example, the Master E6L has lost power), or become the Input Master of any Slave Stage devices (if, for example, you do not expect the former E6L Master to come back online). If you choose the latter option, Stage devices must be reassigned as described in **Reassigning a Stage I/O Rack**.

Reclaiming Output Slot Ownership

Disconnecting and reconnecting a Stage 64s (only) from/to the Input Master system lets you choose whether to recall the previous ownership assignments, or to claim all Output slots.

When reconnecting the same Stage 64 to the same Stage slot on the Input Master system, a dialog appears that lets you choose to either recall Output ownership from the previous configuration, or to claim the Stage Rack as a new Stage Rack and claim all Output slots by the Input Master system.

Choose either of the following in the Reconnecting Shared Stage Rack dialog:

Yes Connects the Stage Rack and restores Output slot ownership assignment to match the previous configuration.

No Connects the Stage Rack and claims all Output slots.

Show File Compatibility

Loading Show files is unaffected by Output ownership, and functions the same as when loading shows onto systems configured for Shared Stage Input.

Part V: Reference

Appendix A: Updating the BIOS

All systems that are updating from VENUE software version 5.1.0 or lower must first update the BIOS. Other versions of VENUE software might also require a BIOS update (the installer will inform you of this during installation).

If you are performing a System Restore or Software Update on a system that is already running VENUE software version 5.1.1 or higher, and the VENUE software installer does not prompt you to update the BIOS, you can skip these instructions.

Updating your system to BIOS 50 involves the following steps:

- Collecting the **Required Components**
- **Creating the BIOS 50 Update Key**
- **Updating the BIOS on the E6L**

Required Components

Before you begin, make sure you have all the following required components:

- Blank USB key
- VGA display and VGA cable
- USB keyboard and mouse (connect to USB ports on the front panel of the E6L Engine)
- Windows computer for creating a DOS bootable USB key
- BIOS50_Update.zip (included in the System Restore or Update .zip downloaded from your Avid Account)
- rufus-2.8.exe (included with the VENUE 5.x.x software download)

After collecting all the required components, proceed to **Creating the BIOS 50 Update Key**.

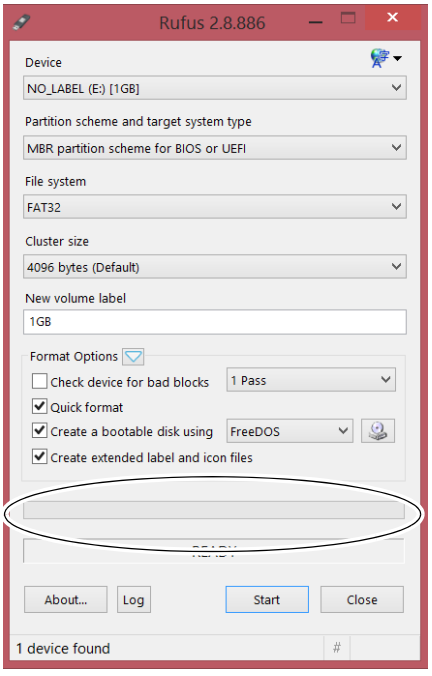
Creating the BIOS 50 Update Key

To create the BIOS 50 Update Key:

1. Make sure you have the BIOS50_Update (included in the Restore and Update .zip files), and downloaded and installed the Rufus utility (rufus-2.8.exe) as explained in **Downloading VENUE Software**.
2. Insert a USB key drive into an available USB port on your Windows computer.
3. Launch Rufus.
4. In Rufus, do the following:
   - Choose the USB drive from the Device pop-up menu.
   - Choose FAT32 from the File System pop-up menu.
   - (Optional) Enter a name for the USB drive in the Volume label field.
5. Under Format options, do the following:
   - Choose Quick Format.
   - Choose Create a bootable disk using, and then from the pop-up choose Free-DOS.
6. Click Start, then click OK.

   Rufus begins to format the USB drive and progress is indicated on-screen.

If the Autoplay window appears during formatting, close it.



Rufus window

7 Wait until formatting is completed (indicated by Done at the bottom of the Rufus window).

8 If you have not already done so, extract (unzip) the BIOS50_Update.zip.

9 Copy the contents of the BIOS50 folder (not the enclosing folder itself) to the root level of the USB drive.

Updating the BIOS on the E6L

To update the BIOS on the E6L:

1 Connect a VGA Display to the E6L Engine **VGA** Port.

2 Connect a keyboard and mouse to the front panel E6L Engine **USB** ports.

3 Insert the bootable BIOS USB drive into an available USB port on the back panel of the E6L.

4 Power on the E6L Engine and press F10 repeatedly during bootup to enable video output and boot from the USB drive.

5 Type flash.bat to run the BIOS update.

6 Wait for the BIOS update process to complete (approximately one minute), indicated by the blinking cursor appearing to prompt another command.

7 Press Ctrl+Alt+Delete, and when the screen goes black alternate between holding down the Esc and F5 keys to access the Windows boot menu.While on this screen, wait at least 2 minutes and 30 seconds.

8 After waiting at least 2 minutes and 30 seconds, press the Enter key on your computer keyboard to Continue.

Continue should be selected by default. If not, use the arrow keys to select it, then press Enter.

9 Depending on the version of VENUE software currently installed, you will see either of the following:

- A black screen with no dialog box or text. If you see this, power down the system.

-Or-

- A dialog with the following message: “The latest system software does not match the current hardware configuration. Please follow the instructions in the latest System Restore USB Drive to update the system software.”

  If you see this, press Shut Down, then power down the system and follow the instructions in **VENUE System Restore**.

How to Proceed

After updating the BIOS, resume performing a **VENUE System Restore** or proceed to **Updating VENUE Software on the E6L Engine and S6L Control Surface**.

Appendix B: Making Fiber Connections

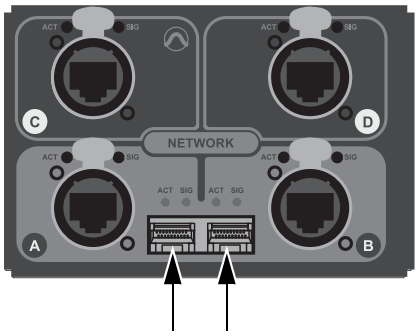
When using fiber to connect S6L system components, you must use two SFP qualified transceiver modules per connection in addition to supported fiber-optic cable (see **Cabling Requirements** for information on supported cabling). To make a fiber connections to an S6L system component, insert the SFP transceiver module into a fiber Network port of an S6L system component, and then insert the fiber-optic cable into the SFP module.

⚠ *It is recommended that you do not install or remove an SFP module with a cable attached to it, or install or remove an SFP module more often than is necessary. Always cover fiber-optic ports and connector ends when they are not connected using dust caps and plugs.*

The following applies to S6L control surface, E6L Engine, and Stage 64 connections (Stage 16s do not support Fiber connections).

To make a fiber-optic connection to an S6L system component:

1 Remove the dust plug from the desired fiber Network port on the S6L system component, and set it aside for later use.



Fiber Network ports A (left) and B (right) on the S6L control surface (dust plugs removed)

2 Align the SFP module with the fiber Network port so that the release latch on the SFP module faces up (when installing in the S6L control surface or the E6L engine), or to the left (when installing in a Stage 64).

3 Insert the SFP module into the port until you feel the module snap into place inside the port.

4 Remove the dust plug from the SFP module's port, and set it aside for later use.

5 Remove the dust cap from the fiber-optic cable connector, align the connector with the port so that the tab on the top of the cable connector faces up (when installing in the S6L control surface or the E6L engine), or to the left (when installing in a Stage 64), and then insert the cable into the SFP module until you feel the cable connector snap into place.

To remove the fiber-optic cable from the SFP module:

1 Press the tab on the top on the cable connector to release the cable, and then pull the cable out of the SFP module.

2 Replace the dust cap on the end of the fiber-optic cable connector.

To remove the SFP module from the fiber port:

1 Pull the release latch on the SFP module out and down to release the module from the port, using a small flat head screwdriver if necessary.

2 Pull the module out of the port.

3 Replace the dust plug on the SFP module port and place the module in an anti-static bag.

Appendix C: Day to Day Powering Up and Down

Use the following instructions to power the system up and down for regular, day-to-day start up and shut down. Only use these abbreviated steps *after* the system(s) have been connected and configured, and all components have been confirmed.

Powering Up the System

Power up the system in the following sequence:

⚠ *Make sure no VGA monitor, mouse, keyboard, or internet is connected to the E6L engine before powering up your S6L system.*

1. If more than one system is connected for I/O Sharing, do the following steps for the Clock Master system first.
2. If applicable, power on routers for use with ECx remote control.
3. Power on any connected computers for recording/playback.
4. Power on the control surface video monitor.
5. Power on the E6L engine by pressing the power switch on the back to the on (1) position.
   Wait until the front panel Status LED lights green and the System LED begins flashing amber.
6. Power on the S6L control surface by pressing the power switch on the back panel to the on (1) position.
   If you are powering up the system for the first time, or the S6L control surface is connected to a different E6L engine than it was previously connected to, the Please Select Engine screen appears on the MTS when initialization is complete. If this occurs, see **Please Select Engine**.

   If the E6L engine has not fully initialized by the time the S6L control surface has initialized, "Waiting for the E6L Engine to start..." appears in the MTS until the E6L finishes initializing.
7. Power on the first Stage 64 by pressing the power switch to the On position for the PSU that is plugged into an AC power source. If both PSUs are connected for redundancy, power-on both PSUs. The power switch(es) lights green.
   On the front panel of the Stage 64 the Status LED lights green, the AVID logo appears while the device initializes. When initialization is complete, the Controller Menu HOME page is shown.
8. Power on any other Stage 64 I/O racks in the system.
9. If more than one system is connected for I/O Sharing, repeat the preceding steps for the Clock Slave system.

Powering Down the System

Power down the system in the following sequence:

1. Turn off the audio monitoring system.
2. Turn off any connected computers for recording/playback.
3. Put the system into *Config* mode (see **Enabling Config Mode**), then on the external VENUE software screen go to the Options page and select the System tab.
4. Select Shut Down, then select Shut Down again to confirm.
5. When the MTS and the external screen go black, power off the S6L control surface using the back-panel power switch.
6. On the front panel of the E6L engine, once the Status LED is *unlit* and the System LED is *lit amber* you can power off the E6L using the back-panel power switch.
7. Power off any connected Stage 64 I/O racks.

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