Avid S3 Guide

Installation and Overview



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Guide Part Number 9329-66454-00 REV A 12/22

Safety Compliance

Safety Statement

This equipment has been tested to comply with USA and Canadian safety certifications in accordance with the specifications of UL Standards: UL60950-1:2007, 2nd Edition and canadian CAN/CSA C22.2 60950-1-07, 2nd Edition. Avid Inc. has been authorized to apply the appropriate UL and CUL mark on its compliant equipment.

Warning



Important Safety Instructions

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this equipment near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other equipment (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect power cords from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the equipment.

11) Only use attachments/accessories specified by the manufacturer.

12) For products that are not rack-mountable: Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the equipment. When a cart is used, use caution when moving the cart/equipment combination to avoid injury from tip-over.

13) Unplug this equipment during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the equipment has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the equipment, the equipment has been exposed to rain or moisture, does not operate normally, or has been dropped.

15) For products that are a Mains powered device:
The equipment shall not be exposed to dripping or splashing and no objects filled with liquids (such as vases) shall be placed on the equipment.

Warning! To reduce the risk of fire or electric shock, do not expose this equipment to rain or moisture.

16) For products containing a lithium battery:
CAUTION! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

17) For products with a power switch:
The main power switch is located on the back panel of S3. It should remain accessible after installation.

18) The equipment shall be used at a maximum ambient temperature of 40° C.

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Introduction

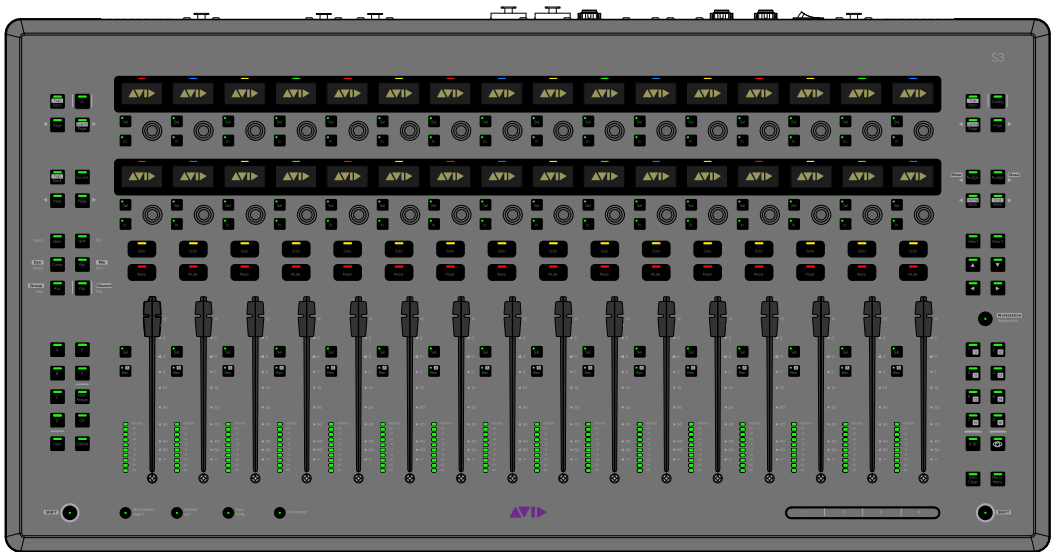
Welcome to the Avid S3 studio controller and Ethernet AVB 4 in/6 out audio interface from Avid®. The S3 uses Avid's high-speed EUCON™ (Extended User Control) protocol to enable fully integrated control of Pro Tools® and other EUCON-compatible audio and video applications via an Ethernet connection. The same Ethernet connection also provides Ethernet AVB audio connections between the on-board audio I/O on the S3 and the workstation computer.

Installation This guide shows how to install the S3 and EuControl software, and gives an overview of the S3 control surface.

Learning After installing the S3 and EuControl software, download the *Using EuControl Surfaces.pdf* for instructions on how to use S3 and other Avid media controllers to record, edit, and mix in Pro Tools (download the most recent editions of all EUCON guides **here**). Thanks to the EUCON protocol, most steps for Pro Tools are also applicable in other EUCON-aware applications from our development partners, including Logic Pro X, Cubase, Nuendo, Pyramix and more (see the *EUCON Application Setup.pdf* to learn how to set up EuControl communication with these applications).

The S3, when connected to an E3 engine and up to four Stage 16 remote stage boxes, is also the central controller for the VENUE | S3L-X live digital mixing system.

See the VENUE | S3L-X System Guide for more information.



EuControl Software

EuControl lets your workstation computer find, link, and communicate with the S3 via the EUCON protocol. EuControl also lets you set preferences for and customize the controls on your S3. EuControl software must be installed on the workstation computer before you can use the S3 with your application. You can also control applications on a secondary workstation computer by installing the separate EUCON Workstation software.

Ethernet AVB Audio

(AVB-compatible Mac Running OS X 10.9.x and Higher Required)

Ethernet AVB audio is a high-fidelity, low-latency Ethernet audio protocol used to connect the on-board audio I/O on S3 to your Core Audio- and AVB-compatible workstation computer. AVB audio must be enabled on the workstation computer before you can use the I/O on the S3 with your applications. See **S3 Audio I/O** for more information.

What's Included

- S3 control surface
- Power supply with IEC cable
- Cat5e (350 MHz) Ethernet crossover cable
- Documentation pack, which includes the EuControl software Activation Card, S3 Welcome Letter, Health and Safety Guide and a warranty card

If you bought the S3 as part of a VENUE | S3L-X system, see the VENUE | S3L-X System Guide for information on what is included.

Optional Equipment

- A standard Ethernet router or switch (for control surface functionality only)
- A qualified AVB-compatible Ethernet switch (for audio I/O and control surface functionality)

System Requirements and Compatibility

One S3 control surface can be used with EuControl Software at a time. One S3 can be used in conjunction with the Pro Tools | Control app for iPad (not included) and one Pro Tools | Dock. When no Pro Tools | Dock is present, S3 can be used with one Artist Transport at a time.

Avid can only assure compatibility and provide support for hardware and software it has tested and approved. For compatibility information and other resources, visit:

EUCON Compatibility

Software Installation

To install your controller as well as EuControl software, follow the instructions in the most recent editions of the following guides:

Guide	Description
Avid Control Guide.pdf	Installation instructions, overview of controls and features, and hardware specifications
Avid Dock Guide.pdf	Installation instructions, overview of controls and features, and hardware specifications
Avid S1 Guide.pdf	Installation instructions, overview of controls and features, and hardware specifications
Avid S3 Guide.pdf	Installation instructions, overview of controls and features, AVB audio capabilities, and hardware specifications
EUCON Application Setup Guide.pdf	Setup and configuration instructions for applications from EUCON Development Partners
Using EuControl Surfaces.pdf	Comprehensive operations guide for all controllers that explains track and session basics, recording, plug-ins and sends, mixing, and more including explanations of all EuControl Settings and examples of how to use and customize Soft Keys
EUCON Networking Guidelines.pdf	Guidelines and suggested configurations (with diagrams) for best network performance.

You can download all EuControl documentation from this article on our Knowledge Base: **EuControl Product Guides.**

About This Guide

This guide covers using the S3 control surface with Pro Tools and other EUCON-compatible applications.

For applications that only support MackieControl, see the EUCON Application Setup Guide.pdf..

Conventions Used in This Guide

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

Convention	Action
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 Avid guides.

How to Use this PDF Guide

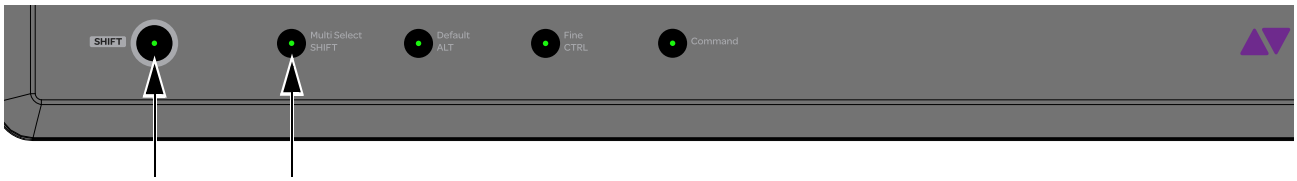
These are some useful features of this PDF:

- The Bookmarks on the left serve as a continuously visible table of contents. Click a + symbol to expand that heading to show subheadings. Click the – symbol to collapse a subheading. Click on a subject heading to jump to that page.
- 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.
- Any text entry in **blue** is an active link. Click on the link to go to that section.

Select Find from the Edit menu to search for a subject.

Hardware Switches on S3 Control Surface

The names of switches on the S3 control surface are in bold, such as **Sel.** The two **Surface SHIFT** switches on the S3 are indicated by bold text, in all-caps to distinguish it from references to the **Multi Select/SHIFT** Global Modifier switch and the Shift key on your computer keyboard.



Surface SHIFT switch (left) and the Multi Select/SHIFT switch (right)

Accessing Secondary Functions Using Surface SHIFT

The **Surface SHIFT** switches on the S3 are used in conjunction with other switches to access a secondary layer of functions. The secondary functions of some switches are highlighted in gray above the primary function (such as **< Bank/Home**, where **Home** is the secondary function). Other switches have secondary functions that are not labeled on the surface. Read this guide to learn how to access all secondary functions.

The following terminology is used to describe **Surface SHIFT** functions.:

Example:

- "Press and hold the **Surface SHIFT** switch then press the **Bank/Home** switch"

is written as

- "Press **Surface SHIFT + Bank/Home**"

Momentary or Latching SHIFT

By default, the **Surface SHIFT** switch operates in momentary behavior (active only while pressed and held down).

You can change this to operate in Latching behavior in the Preferences tab of EuControl Settings.

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/pro-tools-s3/learn-and-support

http://avid.force.com/pkb/articles/faq/S3-Surface-Support-FAQ

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

Get Started Fast Video Tutorials

Watch the latest video tutorials for the Control app, Dock, S3, and other EuControl products on YouTube:

S3 + Dock Integrated Workflows

For earlier EuControl hardware and software videos, watch the Get Started Fast videos:

Get Started Fast with Pro Tools | S3 and Dock

You can find more videos, including the latest workflow tutorials, on the Avid website. Go to **www.avid.com,** view Products and select Pro Mixing. Follow the links for your controller and check the Learn and Support listings for video resources.

Installation and Setup

This chapter shows how to get your S3 set up as a studio control surface, and consists of the following steps:

- **Connecting S3**
- **Installing EuControl Software**
- **Enabling EUCON in Pro Tools**
- **Confirming EUCON**

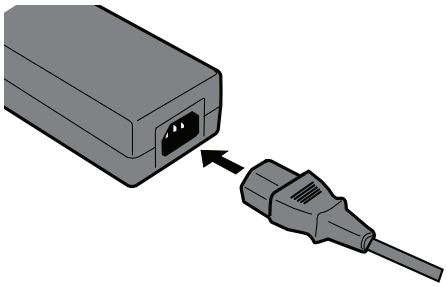
Connecting S3

First, connect your S3 directly to your workstation computer (the computer running Pro Tools or other DAW), or connect to a router that is then connected to your workstation computer, then power on S3.

⚠ *Standard routers and switches can be used if you are using the S3 only as a control surface. However, to use the built-in AVB audio I/O on the S3, the S3 must be connected directly to the computer or to an AVB-compatible Ethernet switch. Visit www.avid.com/compatibility for information on compatible peripherals.*

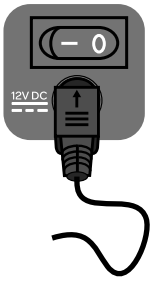
To connect your S3 to your workstation computer:

1 Connect the female end of the AC power cord into the power adapter and the male end into a power outlet. Make sure the AC power cord is pushed all the way into the adapter.



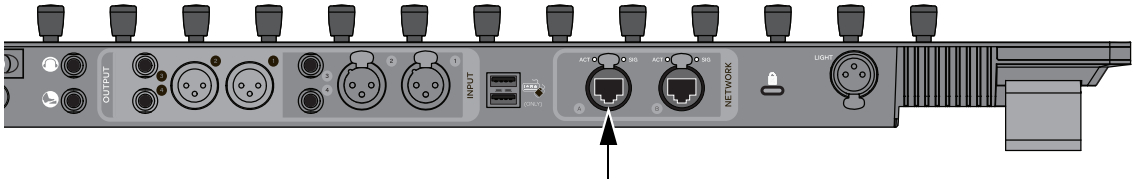
Connecting the AC power cable to the power adapter

2 Connect the DC output cable from the power adapter to the DC In jack on the back panel.



Connecting the DC power output cable to the DC In jack

3 Connect one end of an Ethernet Crossover cable into Network port A on the back panel of the S3.



Network port A on the back panel of the S3

If your system includes a Dock and an S3 you can connect the Dock to Network port B on the S3, and connect S3 network port A to your workstation. (S3 and S1 cannot be used simultaneously.)

4 Connect the other end of the Ethernet cable to an available Ethernet port on your computer, or to the computer's Thunderbolt port using an Ethernet-to-Thunderbolt adapter.

An Ethernet-to-USB adapter may also be used, but audio I/O to and from the S3 is not supported.

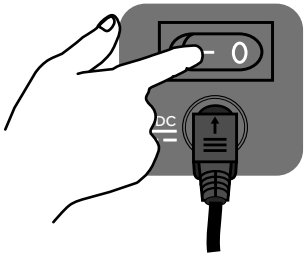
S3 cannot connect to your workstation computer using a wireless connection. A hard-wired network connection is required.

5 If you want to connect the S3 to a local area network, or to connect an Artist Transport, connect the Ethernet cable to an Ethernet router or switch, and make sure the router or switch is powered on before powering on the S3.

6 If you are connecting to a Mac with two Ethernet ports, we recommend you use Ethernet 1 rather than Ethernet 2. However, if you want to use Ethernet 2, do the following on your computer:

- On the workstation computer, go to System Preferences > EUCON.
- Click the Network Interface pop-up menu and choose Ethernet 2.

7 Press the power switch on the back of the S3 to the "on" position. The faders jump and the LEDs blink during initialization.



8 When the S3 is finished initializing, confirm that the S3 is in Studio Mode, indicated by Studio Mode appearing in the 15th top-row encoder display.



Top-row encoders showing Studio Mode enabled

If the S3's current mode does not appear in the two encoder displays after the S3 is powered on, the firmware on your S3 must be updated via VENUE Software 4.5 or higher. Connecting the S3 to an E3 engine with VENUE 4.5 or higher installed and powering on both devices automatically updates the firmware on the S3. See the What's New in VENUE 4.5 Guide for more information.

9 Do one of the following depending on the S3's current mode:

- If the S3 is in Studio Mode, proceed to **Installing EuControl Software**.
- If Live Mode is shown in the display instead of Studio Mode, proceed to **Toggling Studio and Live Modes**.

Toggling Studio and Live Modes

The S3 operates in one of the two following modes:

Studio Mode Lets you use the S3 with your workstation computer after EuControl software has been installed. If the S3 is in Studio Mode and is connected to an E3 engine (for use in an S3L live mixing system), the S3 will not be recognized by any E3 engines in the network.

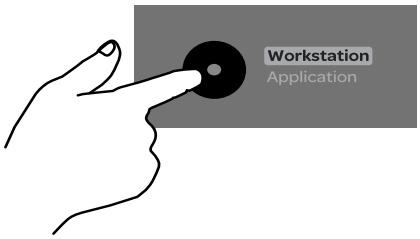
Live Mode Lets you use the S3 with an E3 engine as part of an S3L live mixing system. If the S3 is in Live Mode and is connected to a workstation computer with EuControl software installed, the S3 will not be recognized by EuControl on the workstation computer.

You can toggle the S3 between modes using the **Application/Workstation** switch.

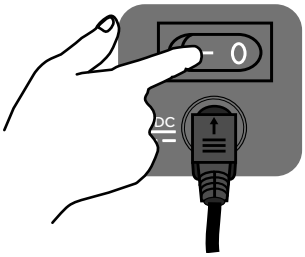
To toggle between Live and Studio modes:

1 Power off your S3.

2 Press and hold the **Application/Workstation** switch, then press the power switch on the back of the S3 to the "on" position.



Press and hold the Application/Workstation switch...



...then press the S3 power switch to "On"

3 Keep holding the **Application/Workstation** switch until the two rightmost top row encoder displays (encoders 15 and 16) show Live Mode/Studio and OK, respectively.



Top-row encoder displays showing mode toggle controls

4 Press the encoder under the display showing Live Mode/Studio once, so that the desired mode appears above and in larger text than the other mode in the display.



Encoder display showing Studio Mode enabled

5 Press the encoder under the display showing OK. The S3 restarts automatically in the selected mode.

Installing EuControl Software

Next, install EuControl software on your workstation computer. An Internet connection is required to download EuControl.

To install EuControl software:

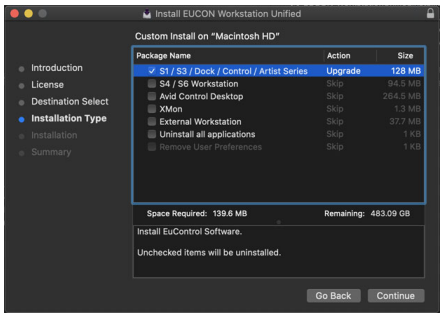
1 Visit **www.avid.com/account** and log into your Avid account (or create an account if you don't already have one) to download the EUCON_WorkstationUnifiedInstall installer for your workstation computer's platform (Mac or Windows). If you do not see EuControl software in your account go to **avid.com/activationcard** and click on EuControl.

2 When download is complete, locate the EUCON_WorkstationUnifiedInstall on your computer and double-click it to mount it (DMG on Mac) or uncompress it (ZIP for Windows), then launch the installer.

3 Follow the on-screen prompts until the Installer list is displayed (as shown at right). For a description of each option, select it (Mac) or hover the mouse over it (Windows only).

4 Select each option you want to install:

- To only install EuControl, select S1/S3/Dock/Control/Artist Series.
- To also install Avid Control Desktop, select it.
- If you have already installed EuControl on your primary workstation and now want to install onto an additional, external workstation, select External Workstation. (See also **Connecting a Second Workstation**).



Installing EUCON Workstation software

5 Click Continue (Mac) or Next (Windows), then click Install.

When reminded that a restart is required, click Continue Installation (Mac) or Yes (Windows).

6 When installation is complete click Restart.

After your computer restarts, EuControl software launches automatically and is running when its icon appears in the Menu bar (Mac) or the System tray (Windows).

(macOS Only) Follow the on-screen instructions if prompted to add EuControl to the Security/Accessibility list in System Settings.

The icon appears unlit until at least one device is connected in EuControl software (explained later).



EuControl icon on Mac, unlit (at left) and lit (right)

7 If the lit EuControl icon does not appear, do any of the following:

- See **3 – Add** to add S3 manually.
- Click the unlit EuControl icon and choose Restart EUCON Applications.
- Shut down S3 and your computer, then turn them on (S3 first, then the workstation computer).
- See **www.avid.com/S3-Surface-Support** for the most current troubleshooting information.

8 Proceed to **Updating S3 Firmware**.

To uninstall items:

1 Launch the installer. Items that are currently installed are selected (checked) and indicated as Installed.

2 Do the following:

- To uninstall a specific component, make sure it is not selected (no check mark).
- To uninstall all EUCON applications, select Uninstall all applications.
- To uninstall all User Preferences, select Uninstall User Preferences (your appsets will not be removed).

3 Click Continue (Mac) or Next (Windows).

AutoLaunch Settings

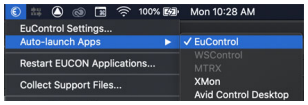
You can enable or disable auto-launch for EuControl software elements using the AutoLaunch selector.

To configure AutoLaunch on Mac:

1 Make sure EuControl or S6 WSControl is installed, then do the following:

Mac Click on the EuControl or WSControl icon in the menu bar.

Windows Right-click on the EuControl or WSControl icon in the System Tray at the bottom of the screen.



EuControl Auto-launch Apps selector (macOS shown)

2 From the Auto-launch Apps sub-menu, choose any of the following (you can enable more than one):

- EuControl (for S3, S1, Dock, Avid| Control, and Artist Series)
- WSControl (for S4/S6)
- MTRX (DADMan for Pro Tools | MTRX and MTRX Studio)
- XMON
- Avid Control Desktop

Create Your Surface in EuControl Settings

EuControl can be configured to launch automatically upon starting your computer (use the Auto-Launch Apps choices in the EuControl menu). EuControl is responsible for finding, linking, and communicating with all Avid media controllers on the network. You can use the different tabs in the EuControl Settings window to manage surfaces, pair surfaces with tablets, connect to workstations, and more.

First Time Startup

The first time your computer starts up after installing EuControl software you will be guided through the initial configuration steps.

Check Firmware A dialog appears reminding you to check and update firmware on hardware units. Click OK to proceed.

Create Surface Next, the Create Surface dialog is shown that describes how to configure your surface arrangement in EuControl Settings. Click OK to proceed to the Surfaces tab in EuControl Settings.

You can also access EuControl Settings at any time.

To open the EuControl Settings window:

1 Do following:

- On macOS, click the EuControl icon on the taskbar and select EuControl Settings.
- On Windows, double-click the EuControl icon in the system tray and select EuControl Settings. If you don't see the EuControl icon, it could be automatically hidden by Windows. Click on the small white arrow to show hidden icons, then double-click the EuControl icon.

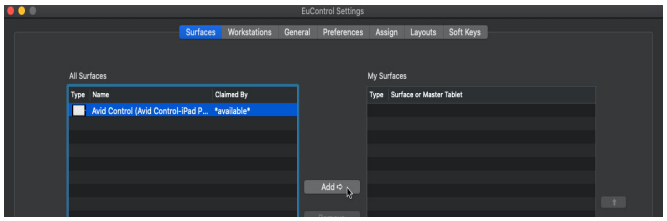
2 Go to the Surfaces tab to manage connected (attached) controllers.

Using the Surfaces Tab to Add and Manage Controllers

After installing EuControl for the first time, or whenever you need to manage controllers, use the Surfaces tab to add and arrange a Dock, S1, S3, and/or Avid Control apps.

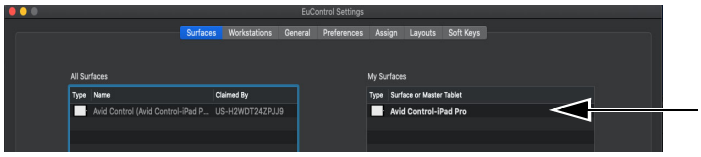
To connect a single controller to EuControl:

1 Select the controller in the All Surfaces list and click Add. Or drag the controller from All Surfaces and drop into My Surfaces.



Surfaces tab showing an Avid Control selected in All Surfaces to be added to My Surfaces

The controller appears in the Surface or Master Tablet column in My Surfaces.



Surfaces tab showing Avid Control in My Surfaces

The controller is now communicating with EuControl software.

2 Repeat to add additional controllers, if any (see next), then proceed to **Updating S3 Firmware**.

To arrange multiple S1s or multiple Artist Mix units:

- The order (top-to-bottom) that surfaces are listed in My Surfaces determines the order of fader strips (1–n, left-to-right). For example, if you add two S1s the top-most S1 will default to tracks 1–8 and the lower S1 to tracks 9–16.
  - To reorder controllers, select one in My Surfaces and use the up/down arrow buttons located to the right of My Surfaces.

To enter a custom name for a controller:

- To give a controller a custom name, double-click it in My Surfaces and enter a new name.

In previous versions of EuControl software the Surfaces tab included the "Automatically Add" menu. This menu has been removed to better support multiple tablets and Control apps.

Configuring Avid Control (and Avid Control Desktop) with Other Control Surfaces

You can use more than one Avid Control app simultaneously as long as there is at least one Avid S1 in the My Surfaces list.

- When only a Dock and/or S3 is present, only one Avid Control app can be used.
- When a Dock and one S1 is present, up to two Avid Control apps can be used.
- For each additional S1 in the My Surfaces list (up to the maximum of four) another Control app can be added.

Beginning with EuControl 2020.11, Avid Control Desktop can be used according to the following guidelines:

- One or more S1s, or one S3, must already be present in the My Surfaces list. Unlike Avid Control for iOS and Android, Avid Control Desktop cannot be used standalone, and cannot be used without a supported hardware control surface (see below).
- As long as there is one S1 that is *not* linked to a tablet for Meters mode, one instance of Avid Control Desktop can be added to provide Meters mode for the unlinked S1. When two or more S1s are connected (or one S1 is not linked to a Meters tablet) you can combine one or more tablets running Avid Control app for iOS/Android with one instance of Avid Control Desktop.
- With S3 you can add one instance of Avid Control Desktop to provide Meters view for S3 tracks. You can also add one Master tablet in addition to the one instance of Avid Control Desktop.
- Note that only one instance of Avid Control Desktop can be used at any time.

The following table shows maximum combinations and configurations.

Dock	S1	S3	Control app		Avid Control Desktop
# of units	# of units	# of units	Maximum # of tablets	Control app Modes	ACD scales to the number of available surface tracks that are not linked to a Meters tablet
1x			1x	Master	
	1x			Master	1x
1x		1x	1x	Master	1x
	1x		2x	1x Master + 1x Meters	
	1x		1x	1x Master *or* 1x Hybrid	1x
1x	1x		2x	1x Master + 1x Meters	1x
1x	2x		3x	1x Master + 2x Meters	1x
1x	3x		4x	1x Master + 3x Meters	1x
1x	4x		5x	1x Master + 4x Meters	1x
	4x		4x	1x Master *or* Hybrid + 3x Meters	1x
		1x	1x	1x Master	1x

Control App Master, Hybrid, and Meters Modes

The Control app (only) can be used in Master, Hybrid, or Meters modes.

Master The Control app is not linked to any control surface and provides all views. Meters view is independent of, and does not follow, control surface banking. When using the Control app by itself, or with only a Dock and/or S3, the app functions in Master mode. There can only be one Master tablet.

Hybrid (Master + Meters) The Control app is linked to an S1 and all Control app views are available, but Meters view follows the S1 to which it is linked. There can only be one Hybrid tablet, *or* one Master tablet.

Meters The Control app is linked to an S1 and provides Meters view only, which banks with the S1 to which it is linked. To use the Control app in Meters mode there must be at least one S1, and one other Control app already configured as a Master or Hybrid tablet. Each additional Meters tablet requires its own S1. (Avid Control Desktop, when present, operates in Meters mode only.)

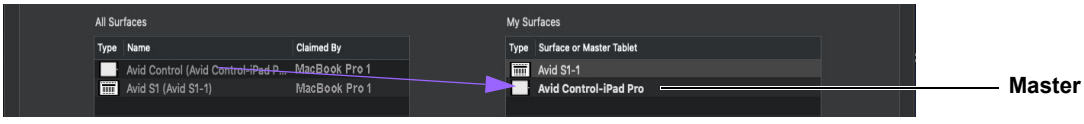
You designate tablets for Master, Meters, or Hybrid modes using the My Surfaces list in EuControl Settings.

Master Tablet Designation

To add a Control app as a Master tablet:

1 Make sure no other Control app/tablets are already in the Surfaces and Master Tablet column of the My Surfaces list.

2 Select a Control app in All Surfaces and click Add. Or drag it from All Surfaces to an *empty* row in My Surface (but not on top of any S1s). If you select multiple units in All Surfaces and add them simultaneously, only one Control app will be added (as a Master). In My Surfaces, Master or Hybrid apps are shown in bold.



Surfaces tab showing an Avid S1 and unlinked Avid Control app (Master mode)

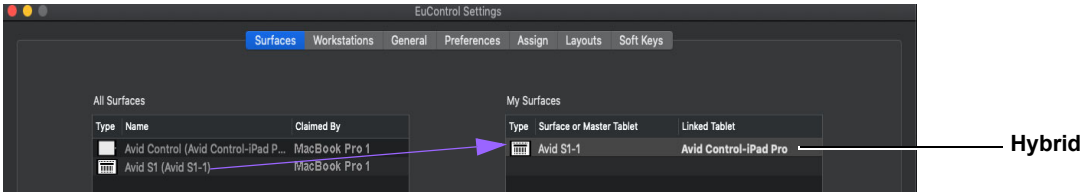
That Control app becomes a Master, provides all views, and Meters view does not follow control surface banking.

Hybrid Tablet Designation

To designate a Control app as a Hybrid tablet:

1 Make sure an S1, but no other Control app/tablets, are already in the Surfaces and Master Tablet column of My Surfaces.

2 Drag a Control app from All Surfaces and drop it on top of the *same* row as an S1 in My Surfaces.



Surfaces tab showing a Control app linked to an S1 (Hybrid mode)

That Control app becomes a Hybrid, provides all views, and Meters view displays 8 strips that follow S1 banking.

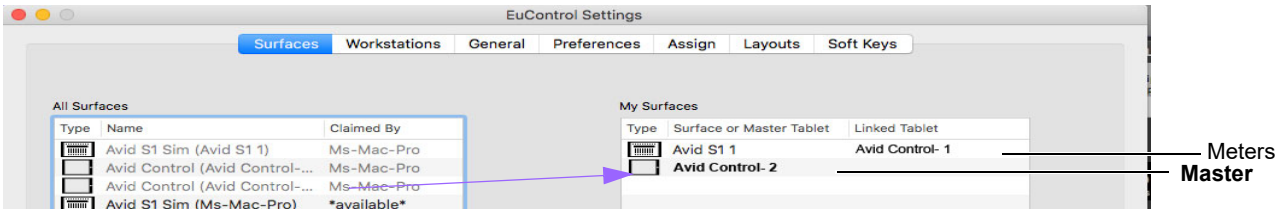
Meters Tablet Designation

To designate one Master and one Meters tablet:

1 Make sure an S1, but no other Control app/tablets, are already in the Surfaces and Master Tablet column of My Surfaces.

2 Drag a Control app from All Surfaces and drop it on top of the same row as an S1. This Control app becomes a Hybrid.

3 Drag another available Control app from All Surfaces to an *empty* row in My Surface (but not on top of any S1s).



Surfaces tab showing a linked S1 and Control app (Meters mode) and a second Control app (Master mode)

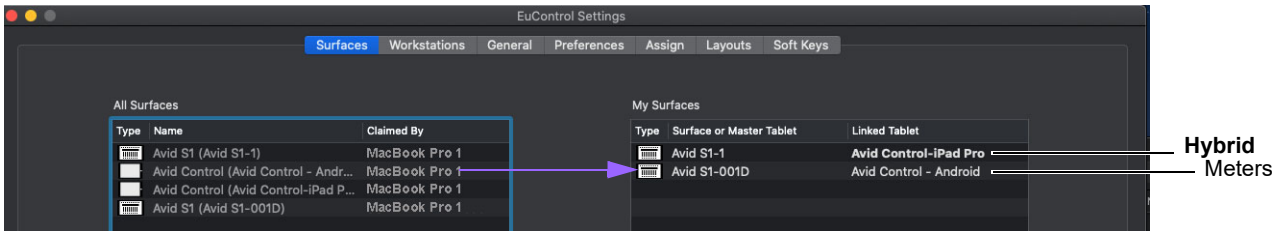
- The most recently added Control app becomes a Master and provides all views.
- The originally added Control app (linked as a Hybrid to the S1 in step 2) changes to a Meters app.

To designate one Hybrid and one or more Meters tablets:

1 Add at least two S1s to My Surfaces.

2 Drag a Control app from All Surfaces and drop it on top of the same row as an S1. This Control app becomes a Hybrid.

3 Drag another Control app from All Surfaces and drop it on top of a row for a different S1 to designate it as a Meters app.



Surfaces tab showing a linked S1 and Control app (Meters mode) and a second Control app (Master mode)

4 Repeat step 3 to add additional Control apps as Meters apps to other S1s, if any.

To unlink a Control app/tablet from an S1:

- Select the linked Control app in My Surfaces and drag it back to All Surfaces.

To reassign tablets and S1s in the My Surfaces list:

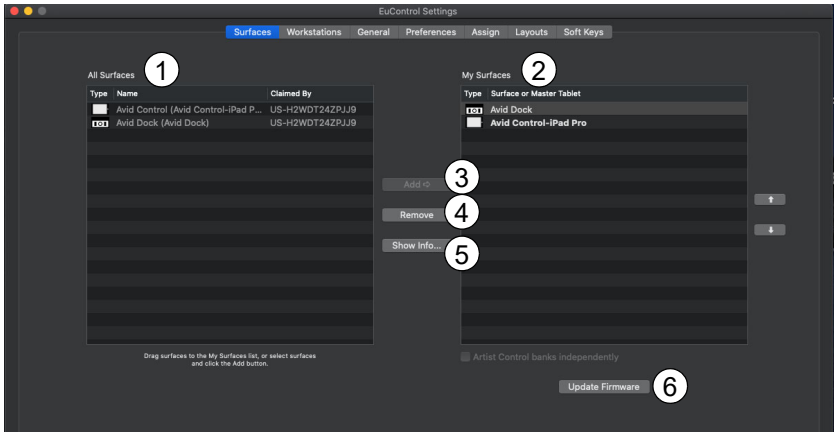
- To link a Control app to a different S1, drag the app onto the new S1.

Guidelines

- If there are no other tablets in the My Surfaces list, dragging a tablet onto an S1 will always make that tablet a Hybrid.
- A Hybrid tablet's Meters view follows banking on the S1 to which it is linked.
- If an S1 has a tablet linked in Hybrid mode, and a second tablet is added to the My Surfaces list as a Master, the originally linked Hybrid tablet becomes an S1 Meters tablet.
- If there are two S1 units (but no Dock) the first tablet dragged on top of an S1 becomes a Hybrid. Dragging another tablet onto the other S1 adds that tablet as a Meters tablet, leaving the previously added tablet as a Hybrid.

Overview of the Surfaces Tab

The Surfaces tab in EuControl Settings shows all EUCON controllers on your network and those connected to your instance of EuControl. Use the Surfaces tab to add and connect surfaces, arrange them in the desired order, pair S1s with Control app tablets and manage Control app Master/Meters/Hybrid designation.



Surfaces tab showing the Avid Control app in All Surfaces (at left) and added to the My Surfaces list (at right)

The Surfaces tab provides the following lists and controls.

1 – All Surfaces

All Surfaces shows all Avid media controllers on the network. A device shown in light gray is already connected either to your own or another instance of EuControl running on a different workstation. In both cases, it is not selectable.

2 – My Surfaces

My Surfaces shows the media controllers connected to your instance of EuControl. The Type column shows an icon for each device. The Surface or Master Tablet column shows the name of the device, and for tablets indicates whether Avid Control is functioning in Master, Meters, or Hybrid mode. The top-to-bottom order corresponds to the left-to-right order of the surfaces, respectively. The leftmost surface is assigned to fader strip 1. Use the up and down arrow buttons (located to the right of My Surfaces) to reorder the list. Each media controller can be renamed by double-clicking the existing name and typing a new name.

3 – Add

Click Add to add the selected All Surfaces entry to My Surfaces. This connects the selected Avid media controller to your instance of EuControl. You can also click and drag an Avid media controller from All Surfaces to My Surfaces. Add is disabled if all media controllers in All Surfaces are connected to any instance of EuControl.

4 – Remove

Click Remove to remove the selected surface or linked S1/Control app pair from My Surfaces and make it available to other instances of EuControl. Remove is disabled if no surface is selected.

5– Show Info

Select a unit in All Surfaces or My Surfaces and click Show Info to see the name of the device (and currently linked Control app, if any), hardware and software information, or troubleshooting suggestions.

6 – Update Firmware

Select a single hardware media controller (not Avid Control/Desktop) in the My Surfaces list, then click Update Firmware to check and, if necessary, update firmware on that unit by following the on-screen instructions. Repeat for any additional hardware controllers.

Artist Control Banks Independently

(Artist Control Only)

This option is only available when an Artist Control is selected in the My Surfaces list. When enabled, each Artist Series unit can bank independently of each other (in applications that support it).

In previous versions of EuControl software the Surfaces tab included the "Automatically Add" menu. This menu has been removed to better support multiple tablets and Control apps.

Updating S3 Firmware

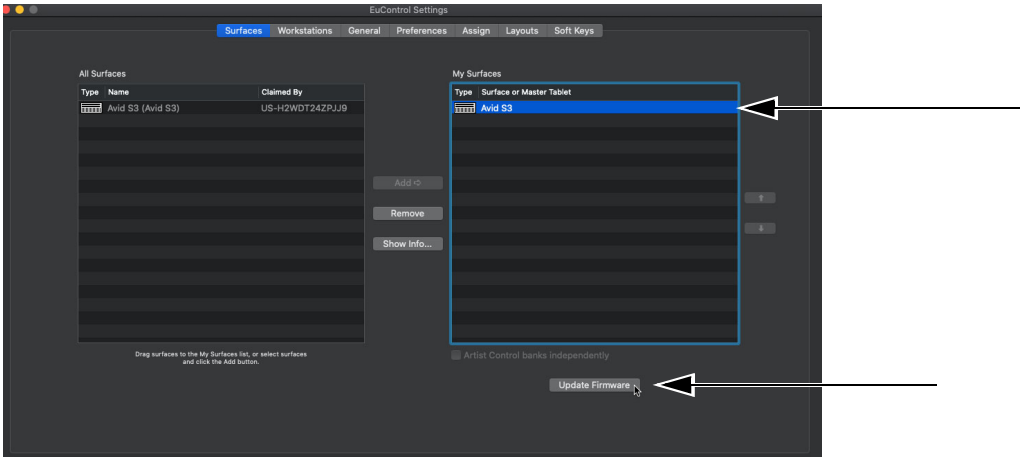
After installing EuControl, make sure your S3 is running the latest firmware. The firmware is provided within EuControl, so an Internet connection is not required.

To update S3 firmware:

1. Click (Mac) or double-click (Windows) the EuControl icon and select EuControl Settings.
2. If necessary, click Surfaces to display the Surfaces tab.
3. Click Avid S3 in the My Surfaces list so it is highlighted.

If S3 does not appear in the My Surfaces list, add it manually. See **3 – Add**.

4. Click Update Firmware. If the Update Firmware dialog shows a message that the surface is up to date, no further action is necessary.



Surfaces tab

5 If the firmware needs to be updated, follow the instructions in the Update Firmware dialog box to proceed, and make sure to observe the following guidelines when updating firmware:

- Ensure that S3 is connected to a trustworthy power source.
- Do *not* power off the S3 during the update or attempt to interrupt the update.

The status of the firmware update is shown on the S3 displays as well as in the EuControl dialog.

6 Click Done when the firmware update is complete, then proceed to **Enabling EUCON in Pro Tools**.

Enabling EUCON in Pro Tools

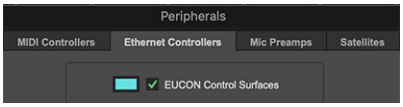
When you first connect your S3, you must enable EUCON in Pro Tools, EUCON subsequently remains enabled in Pro Tools unless you disable it. To enable EUCON in other DAWs, see the documentation provided by the manufacturer, as well as the *EUCON Application Setup Guide.pdf*.

To enable EuControl in Pro Tools:

1 Launch Pro Tools. If the Dashboard appears, close it.

2 Choose Setup > Peripherals, and click the Ethernet Controllers tab.

3 Select Enable EUCON.



Enable EUCON check box

⚠ *While Pro Tools is connected to a EUCON surface do not uncheck to disable and re-check to enable without a complete restart of all components (surfaces and Pro Tools computer) after disabling and before re-enabling.*

4 Click OK. You do not need to configure any other Ethernet Controllers settings. These settings do not apply to EUCON.

Pro Tools scans your system until it identifies attached EUCON-compatible hardware. When Pro Tools finishes scanning your system, your controllers are ready to use with Pro Tools.

5 Proceed to **Confirming EUCON**.

Confirming EUCON

To confirm installation and communication:

1 Make sure you have enabled EUCON.

2 Open a session if one is not already open.

3 Verify that the channel strip displays above the bottom row of 16 encoders (the Channel Encoders) on the S3 show the track names for the first 16 tracks in the Pro Tools session.



Channel Encoder displays showing track names (first eight tracks shown)

4 In the Pro Tools Mix window, verify that the names of tracks currently banked to S3 fader strips are highlighted with blue-green borders.



Pro Tools Mix window showing tracks currently banked to the S3 channel strips

5 Proceed to any of the following:

- For instructions on using your S3 after initial installation, see **Powering-On Your System After Initial Setup**.
- To connect a second workstation computer, go to **Connecting a Second Workstation**.
- To connect a footswitch, go to **Connecting a Footswitch**.

Powering-On Your System After Initial Setup

After the initial installation and setup, it is recommended to power up system components in the following order.

1 Router or switch, if any: It is strongly recommended that your router or switch should always be turned on and booted before anything else.

2 Avid media controllers: S1(s), Dock, S3, tablet(s) and Avid Control app.

Confirm that S3 is in Studio Mode. Enable Studio Mode if Studio Mode is not enabled (see **Toggling Studio and Live Modes**).

3 Computer: If a surface is not recognized by EuControl on your workstation computer, click the unlit EuControl icon in the menu bar (Mac) or System tray (Win) and choose Restart EUCON Applications...to relaunch EuControl and re-initiate the connection. See also **Troubleshooting EuControl Connections**.

If you find a different power-up sequence that works for your controllers, computer, and particular configuration, power up in that same sequence every time.

Connecting a Second Workstation

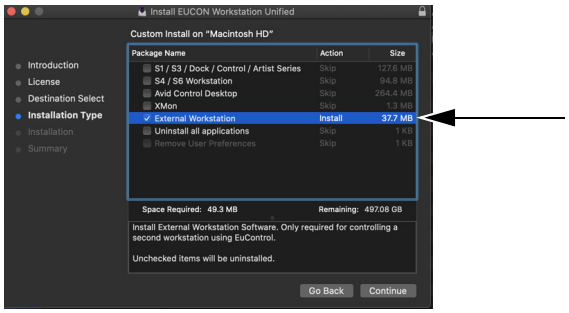
The S3 can control applications running on a second computer that is connected to the same network as the primary computer, referred to in this guide as a *workstation*. If EuControl is running on the same workstation as all your audio/video applications you can skip these instructions.

To be able to control a second workstation:

1 Quit (Mac) or Exit (Windows) Pro Tools and any other EUCON applications running on any of your workstations.

2 Transfer the EUCON_WorkstationUnifiedInstall onto the second computer. After downloading, make sure the installer is mounted (DMG on Mac) or uncompressed (ZIP for Windows).

3 Double-click the Install EUCON Workstation Unified installer, then select the EUCON Workstation option and click Next.



External Workstation selected in EUCON Combined Installer

4 Follow the instructions on-screen to complete the installation.

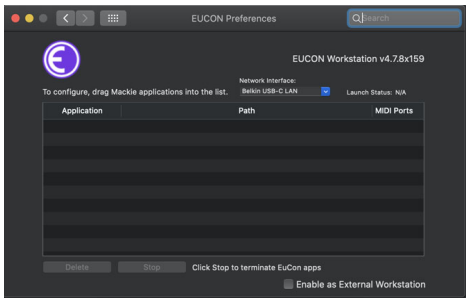
5 When installation has finished, go to Spotlight (Mac) or Search (Windows), and type "MC Client" to locate the application, then launch MC Client.

6 On the primary workstation, do each of the following:

- Open EuControl Settings, go to the Workstations tab, and click to enable Enable External Workstations. Follow the prompt and wait until EUCON applications restart. You must also manually relaunch your DAW.
- Go to System Preferences > EUCON (Mac) or Control Panel > EUCON (Windows).
- Click the Network Interface selector and choose the port used for your EUCON network connection (such as Ethernet 1).

7 On the secondary workstation, do each of the following:

- Go to System Preferences > EUCON (Mac) or Control Panel > EUCON (Windows).
- Make sure the Network Interface selector shows the correct network port for your EUCON connection.
- If it is not already enabled, click to enable Enable as External Workstation. Follow the prompt and wait until EUCON applications restart. You must also manually relaunch your DAW.



EUCON Control Panel, Enable as External Workstation

8 Open the EuControl Settings window by doing either of the following:

- On Mac, click the EuControl icon on the taskbar and select EuControl Settings.
- On Windows, double-click the EuControl icon in the system tray and select EuControl Settings. If you don't see the EuControl icon, it could be automatically hidden by Windows. Click on the small white arrow to show hidden icons, then double-click the EuControl icon.

9 In EuControl Settings, go to the Workstations tab.

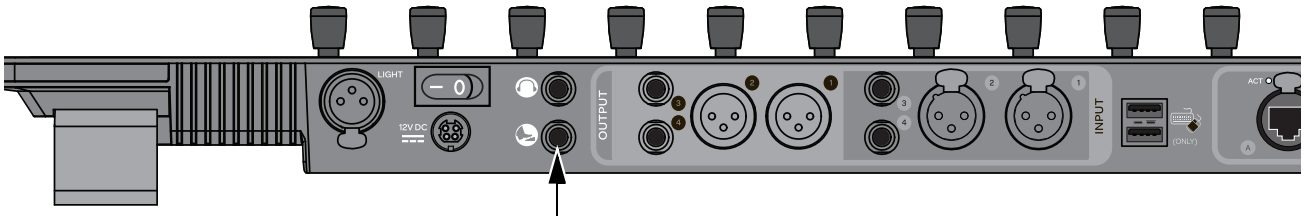
10 Select your secondary workstation in the All Workstations list, then click Add to add it to the My Workstations list.

You can now switch between workstations by doing either of the following:

- On the Dock, S3, or other Artist Series media controller, press the **Workstation** switch. For example, on the S3 press **SHIFT+Application/Workstation**.
- In the Workstations tab of EuControl Settings, select the desired workstation in the My Workstations list and click Attach. If you are using the Control app without any other Artist Series controllers, you must use this method to switch workstations.

Connecting a Footswitch

The S3 has a 1/4-inch footswitch input on the back panel, which can be used to punch in and out of recording in your DAW, or for engaging talkback. For more information on configuring the footswitch in EuControl for punch in/out or talkback, see the *Using EuControl Surfaces.pdf*.



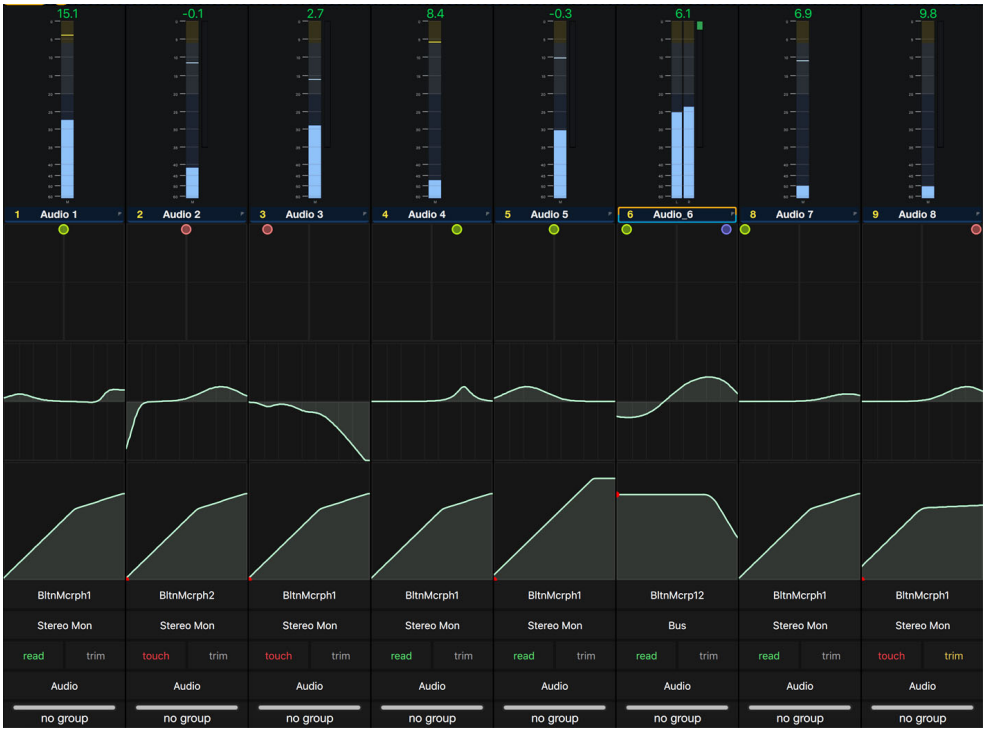
Footswitch input on the back of S3

When using S3 as an AVB audio interface, a footswitch can be configured for AVB talkback. For more information, see **Using Talkback**.

Avid Control Desktop

Avid Control Desktop can be used for Meters display with an Avid S3. Avid Control Desktop can be installed on either your primary EuControl workstation or on a separate, external workstation on the same network (does not require EuControl or EuControl External Workstation software).

Avid Control Desktop can display meter strips for up to 32 tracks and can be stretched over multiple monitors.



Avid Control Desktop app

For installation and configuration instructions, see the *Avid Control Guide.pdf*.

Troubleshooting EuControl Connections

This section provides troubleshooting for EuControl connection issues.

Tablets or Surfaces Disconnecting from EuControl

If your tablets or surfaces are losing connection to EuControl, try the following:

- Make sure the computer is not going to sleep.
- Restart the Control app(s).
- Turn Wi-Fi off and then back on.
- Restart tablet(s).
- Restart EuControl.

"EUCON Network Not Found" Dialog

If the "EUCON Network Not Found" dialog appears when launching EuControl software, you must select the correct Network Interface in the EUCON Preferences (Mac) or EUCON Control Panel (Windows).

To select the correct Network Interface for EuControl:

1 Do one of the following depending on your workstation computer's operating system:

Mac Go to System Preferences and select EUCON.

Windows Go to the Control Panel and select EUCON.

2 From the Network Interface (Mac) or the Select Network Interface (Windows) pop-up menu, select one of the following depending on your configuration:

Wi-Fi When using the Control app standalone (not in conjunction with another Avid media controller).

Ethernet When using the Control app in the following configurations:

- Your workstation computer is connected directly to an Avid media controller such as S3.
- Your workstation computer is connected to a router or switch.
- Your configuration includes a second workstation with EUCON Workstation software installed.

3 In the "EUCON Network Not Found" dialog, choose Restart EUCON.

4 If you chose Quit in the "EUCON Network Not Found" dialog, relaunch EuControl by typing "EuControl" into Spotlight Search (Mac) or the Start Menu Search box (Windows), then choose EuControl.

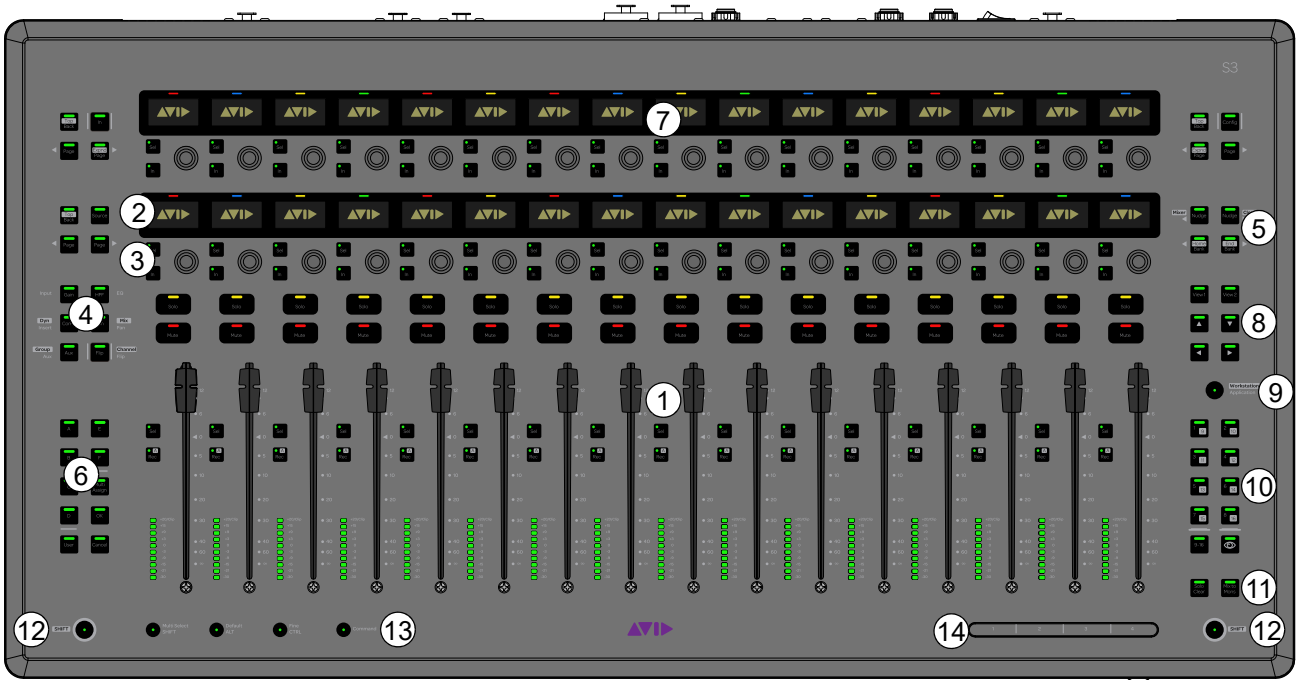
Unlit EuControl Icon

If a lit EuControl icon does not appear when EuControl launches, do any of the following:

- See **3 – Add** to add the Control app manually.
- Click the EuControl icon in the menu bar (Mac) or right-click the choose Restart EUCON Applications.
- Shut down the tablet and your computer, then turn them on (tablet first, then the workstation computer).
- Make sure the name of your tablet does not exceed 31 characters.
- See **http://avid.force.com/pkb/articles/faq/Avid-Control-Support** for the most current troubleshooting information.

S3 Surface Controls Overview

This section provides an overview of the surface controls on the S3 when using S3 with EUCON-compatible applications. For specific S3 workflows, see the *Using EuControl Surfaces.pdf*.



S3 top panel

1 – Channel Strips

2 – Channel Strip Displays

3 – Assignable Channel Encoders

4 – Channel Encoder Assignment Switches

5 – Fader Banking Controls

6 – Left Control

7 – Channel Control

8 – View and Arrow Switches

9 – Application/Workstation Switch

10 – Right Control

11 – Solo Clear and Mix to Monitors Switches

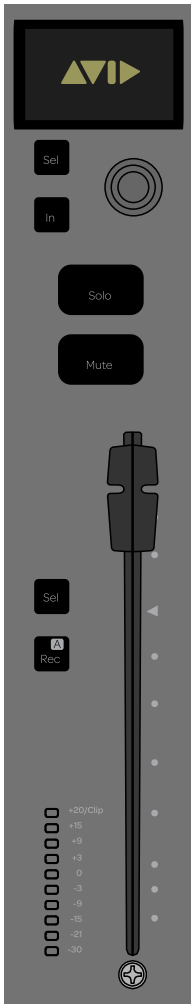
12 – Surface SHIFT

13 – Modifier Switches

14 – Touchstrip

Channel Strips

S3 provides 16 channel strips, each with a display, an Assignable Channel Encoder (each with its own encoder **Sel** and **In** switches), a **Solo** switch, a **Mute** switch, a 100mm motorized touch-sensitive fader, a channel select (**Sel**) switch, a record engage (**Rec**)/Automation Mode (**A**) switch, and a level meter.



Install the Avid Control Desktop app on any macOS or Windows computer on the same network as EuControl for additional metering.

Channel Strip Display

See **Channel Strip Displays**.

Assignable Channel Encoder

See **Assignable Channel Encoders**.

Solo

The **Solo** switch lights yellow when that track is soloed.

Mute

The track is muted (off) when the strip **Mute** switch is lit, and is on (unmuted) when not lit.

Fader

The fader controls the level for the track assigned to the channel strip, or the parameter assigned to the Channel Encoder if Flip to Faders is engaged. It is motorized so it reflects changes made in the application, such as automation. It is also touch sensitive, which some applications use for automation.

- When the Select by Touch General preference is selected in the EuControl Settings application, touching a fader selects that track in the application and attentions it on that strip. This is the same as pressing the fader **Sel** switch.
- Holding down the **Default/ALT** switch and touching a fader sets it to unity gain.

Channel Sel and Rec Switches

Each channel strip features a channel **Sel**, a channel **Rec** switch, and an automation mode switch (**A**), which operate as follows:

Sel Selects that track in the application, and *attentions* it for editing in the Channel Encoders when Channel Mode is enabled (see **Channel Encoder Modes**), and in Channel Control (see **Channel Control**). A line under the track name in a channel strip display indicates the track is attentioned.

In Pro Tools and other applications, multiple tracks can be selected, but only one channel can be attentioned. In this case, the attentioned track is the last one selected.

Rec Record-enables a track in the application.

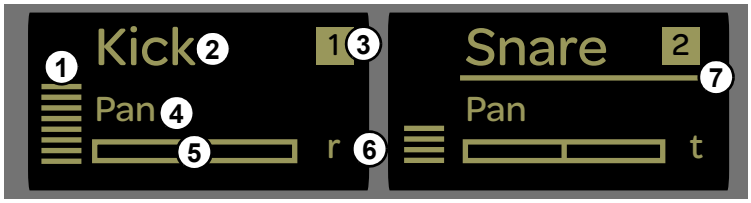
- In Pro Tools, the **Rec** switch flashes red to indicate that track is enabled (armed) for recording, and is lit solid when recording is in progress.
- Pressing a lit **Rec** switch disables that track for recording.

A (Surface SHIFT + Rec) Changes the automation mode for a track.The desired automation mode appears in the bottom right-hand corner of the channel strip display or on-screen.

You can swap the primary and SHIFT functions of the REC/A switch in the General tab of EuControl Settings. You can also use the Function (F1–F16) switches to change track automation modes. For more information, see the Using EuControl Surfaces.pdf.

Channel Strip Displays

At the top of each channel strip is an Organic Light Emitting Diode (OLED) display. When S3 is first powered on, the Channel Encoders are in Normal Mode (see **Channel Encoder Modes**), and each display shows track information as follows:



Channel strip display in Normal Mode

1 – Meter Shows clip, peak, and normal values. It can show mono, stereo, or surround tracks.

2 – Track Name Shows the track name as it appears in the application. When a fader is touched, it shows the value of the fader. After releasing the fader it reverts to showing the track name.

3 – Track Number Shows the track number relative to its position in the application.

4 – Parameter Name Shows the name of the parameter currently assigned to the corresponding Channel Encoder. When an encoder is touched, it shows the value of the parameter. After releasing the encoder it reverts to showing the parameter name.

5 – Encoder Position Shows the relative setting of the control for the currently assigned parameter.

6 – Automation Mode Shows the track's current automation mode setting, as follows:

Automation Modes and Displayed Indication

Mode	Display
Off	(blank)
Read	r
Touch	t
Latch	l
Touch-Latch	tl
Write	W
Trim	<mode>

For more information on working with automation on the S3, see the Using EuControl Surfaces.pdf.

7 – Attention Indicator Indicates that the corresponding track is the attentioned track. Any parameters adjusted using the Channel Encoders in Channel Mode (see **Channel Encoder Modes**) and using Channel Control apply to the attentioned track (see **Channel Control**).

Display Sleep

To preserve display life, the channel displays enter sleep mode when not in use. *For more information, see the Using EuControl Surfaces.pdf.*

Assignable Channel Encoders

Each channel strip has one touch-sensitive, continuously rotating encoder for adjusting parameters as assigned by the Channel Encoder Assignment switches (see **Channel Encoder Assignment Switches**). Each encoder can also be pressed, which is typically used to access sub-menus. Each encoder also has corresponding **Sel** and **In** switches.

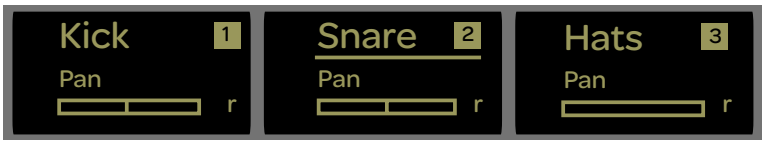
- A Channel Encoder **Sel** switch assigns a secondary function of the displayed parameter to the corresponding Channel Encoder. For example, engaging the **Sel** switch for an encoder controlling EQ frequency assigns Q (bandwidth) to that encoder.
- A Channel Encoder **In** switch toggles two-state parameters, such as turning an individual EQ Band on/off.

Channel Encoder Modes

The Channel Encoders operate in either Normal Mode or Channel Mode. The channel displays shows the current channel mode.

Normal Mode

In Normal Mode, each Channel Encoder controls the same parameter for every track on the channel strips. A line appears under the attentioned track's name in the display.



Channel displays in Normal Mode, showing "Snare" as the attentioned track

Channel Mode

In Channel Mode, the 16 Channel Encoders control up to 16 different parameters for the attentioned track. In Channel Mode parameter names and value are highlight in each channel display. For the attentioned track, track name as well as parameter and value are highlighted.



Channel displays in Channel Mode, showing "Snare" as the attentioned track

Channel Mode is useful for editing EQs and plug-ins that have many parameters.

Basic Channel Encoder Use

When S3 is first powered on, the Channel Encoders are in Normal Mode and **Pan** is assigned to the Channel Encoders by default. Each Channel Encoder controls pan for its corresponding track on the strip.

To quickly access pan control on the Channel Encoders in Normal Mode:

- Press the **Pan** Channel Encoder Assignment switch.

To enable Channel Mode:

1. Press a Channel **Sel** switch to attention that track, then press **SHIFT + Flip**.
2. Press the desired channel Encoder Assignment switch
3. To exit Channel Mode, press **Shift + Flip** again.

Pressing the EQ Channel Encoder Assign Switch automatically enables Channel Mode as well.

Channel Encoder Assignment Switches

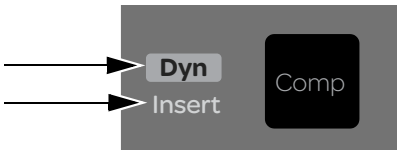
The Channel Encoder Assignment switches assign sets of adjustable parameters, called *Knob Sets*, to the Channel Encoders. A Knob Set is an array of controls used by EuControl-compatible applications to control plug-ins, EQs, dynamics, aux sends, and other processing functions using the controls on the S3. Some of these Knob Sets also have sub-menus.

One of the switches is always selected, and the associated parameters are assigned to the Channel Encoders until another Channel Encoder Assignment switch is pressed. When S3 is first powered on, **Pan** is selected by default.



Channel Encoder Assign switches

The labels *next* to each Channel Encoder Assignment switch indicate the parameters that can be assigned to the Channel Encoders. The text in white represents a switch's primary function, and the text in black represents a switch's secondary function. Secondary functions are accessed by pressing and holding the Surface **SHIFT** switch (see **Surface SHIFT**) then pressing the desired Channel Navigation switch.



Primary function (Insert) and the secondary function (Dyn)

⚠ *The text on the switch itself indicates the parameter that can be assigned to the Channel Encoders when using S3 as part on an S3L live system.*

The following switches are provided:

Input Assigns hardware input parameters such as input routing, mic gains, phantom power, and other application-specific parameters to the Channel Encoders.

Use the Audio Control Encoders to control the S3's built-in I/O. See **S3 Audio I/O** *for more information.*

Insert Assigns the top-level Insert Knob Set to the Channel Encoders. When **Insert** is pressed, in each channel display for all currently banked tracks the first insert slot (a) is shown, or a plug-in is shown if one is inserted. Pressing a Channel Encoder under the display showing the plug-in you want to adjust enables Channel Mode on the Channel Encoders, and the Knob Set for the selected plug-in is assigned to the 16 Channel Encoders for editing.

In the Insert Knob Set, parameters are mapped to the Channel Encoders according to the manufacturer's specifications. Parameter mapping can vary between plug-ins, even of the same type.

- Press the **Page >** Channel Encoder Navigation switch to access the next plug-in.
- Press the **Back** Channel Encoder Navigation Switch to return to the Channel Encoders to the top-level Inserts Knob Set. Or, you can simply press another Channel Encoder Assignment switch to navigate directly to another Knob Set.

Dyn Assigns the top-level Dynamics Knob Set to the Channel Encoders. Operation is similar to the Inserts Knob Set, except only the first inserted Dynamics plug-in on the channel is displayed and accessed.

In the Dyn Knob Set, parameter mappings to the Channel Encoders are standardized across dynamics plug-ins. For example, the threshold controls for two compressor plug-ins from different manufacturers appear on the same encoder.

Aux Assigns sends on the Channel Encoders.

- In Normal Mode, the first send is displayed, and pressing the **Page >** Channel Encoder Navigation switch assigns the next set of sends to the encoders.
- In Channel Mode, up to 16 sends for the currently selected channel can be accessed at once.

Group Displays the Group Knob Set to configure group or control group (VCA) membership.

- In Normal Mode, the first group is displayed, and pressing the **Page >** Channel Encoder Navigation switch displays the next group if applicable.
- In Channel Mode, up to 16 groups for the currently selected channel can be accessed at once.

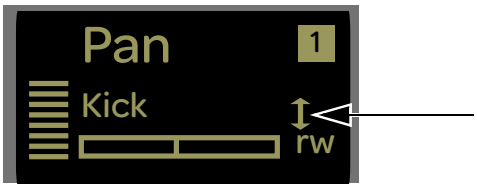
EQ Assigns the top-level EQ Knob Set to the Channel Encoders. Operation is similar to the Inserts Knob Set, except only the first inserted EQ plug-in on the channel is displayed and accessed.

In the EQ Knob Set, parameter mappings to the Channel Encoders are standardized across EQ plug-ins. For example, high band gain controls for two EQ plug-ins from different manufacturers appear on the same encoder.

Pan Displays the Pan Knob Set to configure stereo or surround panning. Pan controls are not available for tracks with mono or no output path assignments.

Mix (Surface SHIFT + Pan/Mix) Displays the Mix Knob Set to configure track output routing.

Flip Toggles what is currently assigned to the knobs (such as pan or send parameters) to the faders. A vertical double arrow appears in the channel strip display when the faders and knobs are flipped. Press **Flip** again to toggle the faders and knobs back to normal. You can use Flip mode with Aux sends, for example, to quickly set up headphone mixes using the faders.

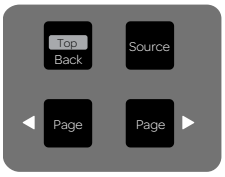


Flip indicator in OLED display

Channel (Surface SHIFT + Flip/Channel) Toggles the Channel Encoders between Normal Mode (unlit **Channel** switch) and Channel Mode (lit **Channel** switch). In Normal Mode, the attentioned track name is underlined to show which track's parameters will be expanded in Channel Mode.

Channel Encoder Navigation Switches

Since a Knob Set may have more parameters than encoders, use these switches to navigate through available parameters.



Channel Navigation Switches

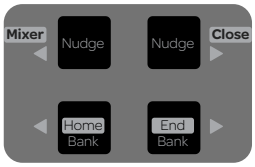
Back Returns to the previous Knob Set. Press **Back** repeatedly to back out of all sub-menus and display the top of the current Knob Set.

Source Shows the input sources for the currently banked channels in the channel strip displays.

< Page, Page > Assigns the previous or next set of parameters to the Channel Encoders. The switches light when there is a previous or next set to go to. For example, if Send A is assigned to the Channel Encoders, pressing **Page >** assigns Send B to the Channel Encoders.

Fader Banking Controls

Bank tracks to the channel strips using the **Bank** and **Nudge** switches. **Home** and **End** are shortcuts to the first and last banks, respectively.



Fader Navigation controls

Bank and Nudge

The **Bank** and **Nudge** switches change which tracks are assigned to the channel strips, as follows:

< Nudge Banks tracks one track to the left. If tracks 2–17 were banked to channel strips 1–16, pressing **< Nudge** once banks tracks 1–16 to strips 1–16. Pressing **< Nudge** again banks tracks 1–15 to strips 2–16.

Nudge > Banks tracks one track to the right. If tracks 1–16 were banked to channel strips 1–16, tracks 2–17 are now banked to strips 1–16.

< Bank Banks 16 tracks to the left. If tracks 17–32 were banked to strips 1–16, pressing **< Bank** banks tracks 1–16 to strips 1–16. Pressing the switch again does nothing because the first bank is already shown.

Bank > Banks 16 tracks to the right. If tracks 1–16 were banked to strips 1–16, tracks 17–32 are now banked to strips 1–16.

The Bank and Nudge switches are also used to spill VCAs in Multi-Master mode. For more information, see the Using EuControl Surfaces.pdf

Mixer and Close

Not all applications support these switches.

Mixer (Surface SHIFT+ < Nudge/Mixer) Toggles Mix and Edit windows in Pro Tools.

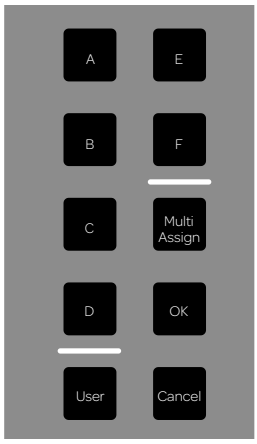
Close (Surface SHIFT + Nudge >/Close) Closes any open window in the application.

Home and End

Home (Surface SHIFT + < Bank/Home) Banks tracks 1–16 to the channel strips.

End (Surface SHIFT + Bank >/End) Banks the last set of tracks to the strips.

Left Control



Left Control

Switches A–F

By default, these switches let you recall custom fader banks and layouts, as created and stored using the Avid Control app or the Layouts and Assign tabs of the EuControl Settings application. You can recall up to 12 custom fader layouts using switches **A–F**. **A–F** recall mixer layouts 1–6. The Shift layer (**Surface SHIFT + Bank A–F**) recalls layouts 7–12. You can also customize these switches in EuControl. See the *Using EuControl Surfaces.pdf* for more information.

OK and Cancel Switches

Multi Assign Performs the Do to Selected command. For example, use this to create a send or insert a plug-in on all selected tracks.

Pressing and holding Surface SHIFT + Multi Assign performs the Do to All command. Use this to create a send or insert a plug-in on all tracks in the session.

OK Confirms and closes dialogs, and is the equivalent of pressing the Enter key on a computer keyboard.

Cancel Closes dialogs without making any changes, and is the equivalent of pressing the Escape key on a computer keyboard.

User Saves the current session.

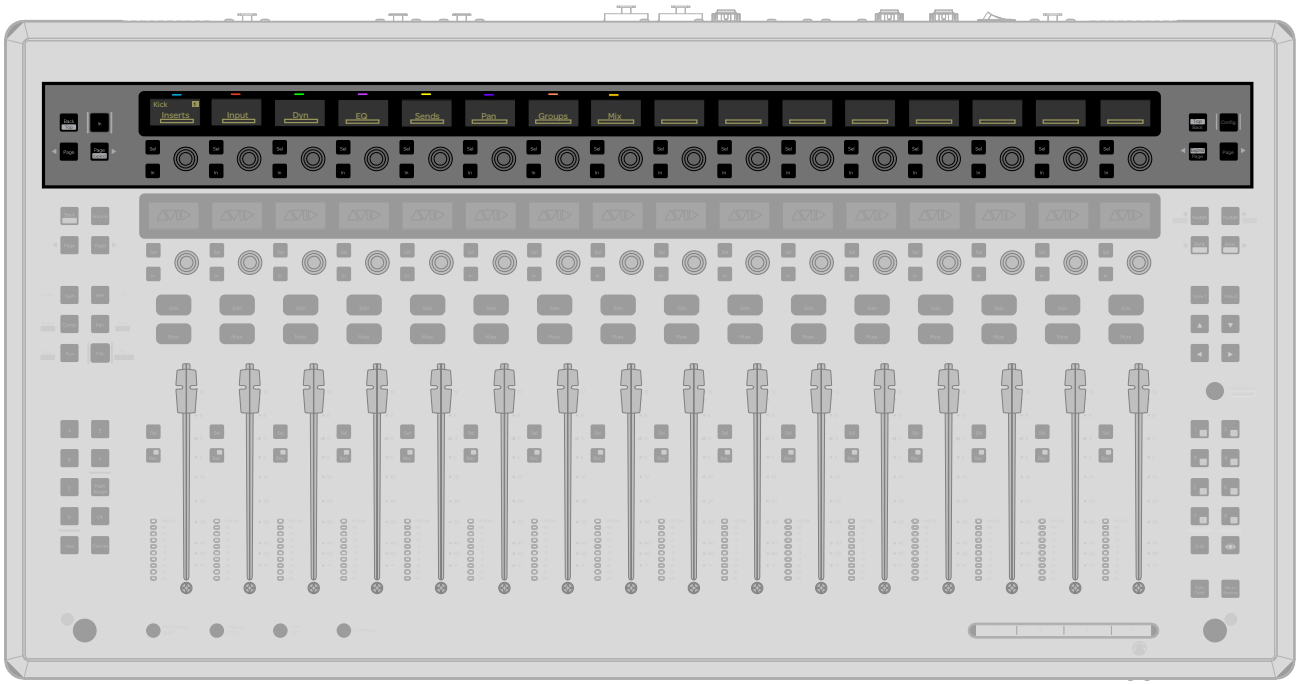
To save the current session:

1. Press **User**.
2. Press **User** again to confirm, or press **Cancel** to not save.

Channel Control

The top row of 16 encoders and associated navigation switches is called *Channel Control.* Channel Control lets you adjust a variety of parameters for the currently attentioned track. Channel Control and the bottom-row Channel Encoders operate independently, so you can adjust two sets of parameters for a single channel. You can also access controls for the S3's built-in I/O using Channel Control (see **S3 Audio I/O** for more information).

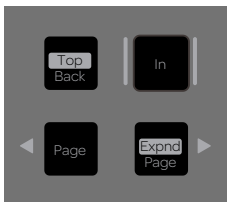
Each Channel Control Encoder features a corresponding display, a select (**Sel**) switch, an **In** switch, and a color-by-function LED. Four Channel Control Navigation switches are provided for navigating through parameters.



Channel Control showing the top-level Channel Control Knob Set (I/O controls are hidden)

Channel Control Navigation Switches (Left)

These switches let you navigate through the available pages of Channel Control parameters. An **In** (enable/bypass) switch is also provided.



Channel Control Navigation switches

The following switches are provided:

Back/Top Backs out of the currently assigned Knob Set.

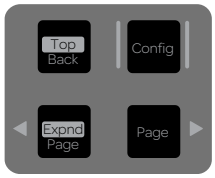
Surface SHIFT + Back/Top returns Channel Control to the top-level Channel Control Knob Set.

In Toggles in/out whatever is assigned to the Channel Control Encoders, such as sends and plug-ins. A lit switch indicates that the send or plug-in is in.

< Page, Page > Assigns the previous or next page of parameters. These switches light when there is a previous or next set to go to.

Channel Control Navigation Switches (Right)

These switches provide access to Config mode and the controls for the built-in I/O in Channel Control.



Config switch and I/O Controls

Config Enables *Config* mode on the Channel Control Encoders, letting you assign plug-ins to tracks, and assign track and send input and output paths. See the *Using EuControl Surfaces.pdf* for more information.

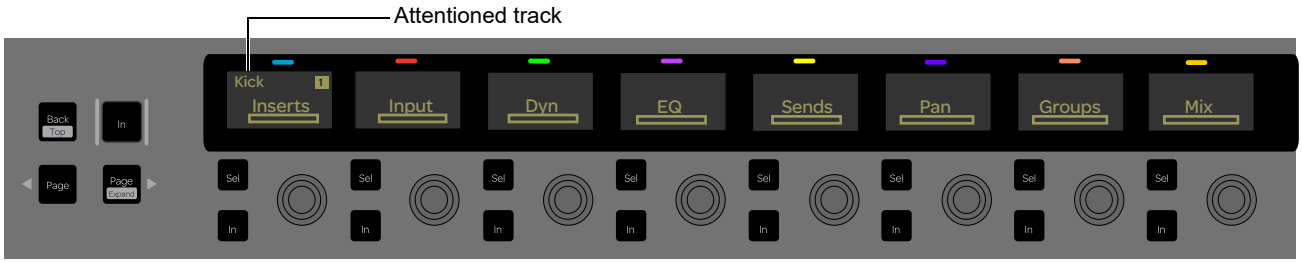
< Page, Page > Lets you show/hide the Audio Control (controls for the built-in I/O) on the Channel Control Encoders when pressed simultaneously. I/O controls are hidden by default. See **Accessing Audio Control on the S3** for more information.

Basic Channel Control Use

When S3 is first connected to a session in your DAW, the top-level Knob Set for the currently selected channel is shown in the Channel Control displays. The types of parameters that can be spilled to the Channel Control Encoders vary depending on the type of channel selected (audio track, instrument track, etc.).

To adjust parameters using Channel Control:

1 Select a track. If multiple channels are selected, the last selected track is the attentioned track, and is the targeted channel for any changes made in Channel Control. The name of the attentioned track and its track number is shown in the leftmost Channel Control display.



Channel Control top-level Knob Set, showing the attentioned track in the leftmost display

2 Press a Channel Control Encoder under the display showing the parameters you want to adjust. For example, to adjust an EQ plug-in inserted on the currently selected channel, press the Channel Control Encoder under the display showing EQ.

The parameters are spilled across the top 16 encoders, and the LEDs light to reflect the currently assigned function.

3 To go to a different Knob Set, press the **Back** Channel Control Navigation switch to return to the top-level Knob Set, then press another Channel Control Encoder.

Channel Control LED Color-Coding

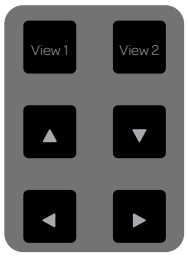
Channel Control LEDs are color-coded by function, as follows:

Channel Control Functions and Corresponding LED Colors

Function	Color	Function	Color
Insert	Turquoise (blue/green)	**Sends**	Yellow
Input	Red	**Pan**	Blue
Dyn	Green	**Groups**	Orange
EQ	Purple	**Mix**	Amber

View and Arrow Switches

By default, these switches provide recall of Memory Locations, and zoom controls. You can also customize these switches in EuControl. See the *Using EuControl Surfaces.pdf* for more information.



Window Navigation controls

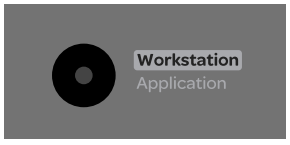
View 1 and View 2 Recall Memory Locations 1 and 2 respectively. If no Memory Locations exist, these switches do nothing.

▲ ▼ Adjust vertical zoom (track height) of all tracks in the Timeline display of the Edit window.

◄ ► Adjust horizontal zoom (zoom in/out) of all tracks in the Timeline display of the Edit window.

Application/Workstation Switch

This switch lets you cycle through the available applications and workstations.

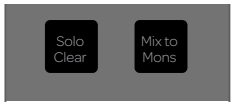


Application/Workstation switch

Application Toggles between the two most recently used open applications. Hold down **Application** and press **Bank >** to cycle through all open applications. Hold down the **Application** key and press **< Bank** to cycle through applications in the opposite direction.

Workstation (Surface SHIFT + Application/Workstation) Attaches the S3 to another workstation, where applicable. S3 can control applications running on a second computer, referred to in this guide as a workstation. You must first have two or more workstations listed in the My Workstations list in EuControl Settings > Workstations. See the *Using EuControl Surfaces.pdf* for more information.

Solo Clear and Mix to Monitors Switches



Solo Clear and Mix to Monitors switches

These switches provide the following functions:

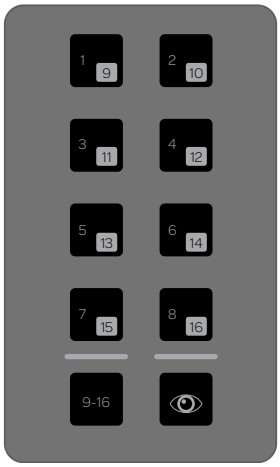
Solo Clear Clears any currently soloed channels.

Mix to Mons Is not currently implemented for DAW use.

Right Control

By default, switches **F1–F8 (F9–F16)** provide control over the automation mode for one or more selected tracks in two banks of switches. You can also customize these switches in the Soft Keys tab in EuControl Settings.

See the *Using EuControl Surfaces.pdf* for more information.



Automation Controls

The following table shows the default function of each switch in this section.

Switch	Automation Function	Switch	Automation Function
F1	Write	F2	Read
F3	Touch	F4	Automation Off
F5	Latch	F6	Automation Match
F7	Trim	F8	Automation Window
F9	Preview	F10	Write to All/Selected
F11	Punch Preview	F12	Write to Start
F13	Capture	F14	Write to End
F15	Punch Capture	F16	Write to Next
9–16	Toggles switches between banks F1-F8 and F9-F16	Show Me (Eye Icon)	Opens EuControl Settings > Soft Keys > Right Control section

To set the automation mode on a single track:

- Press and hold the Function switch for the desired Automation Mode, then select a channel.

To set the automation mode on multiple tracks:

1. Select multiple channels.
2. Press and hold **Multi-Select/SHIFT+ ALT**, then press the switch for the desired Automation Mode.

The Function Switch LED lights whenever its respective automation mode is selected. In certain automation modes such as Write, the LED flashes.

Surface SHIFT

Some switches have secondary functions, highlighted in gray above the primary function (such as **< Bank/Home**, where **Home** is the secondary function). To access these secondary functions, use either of the two **Surface SHIFT** switches located at the lower-left and lower-right sides of the console surface. **SHIFT** can be engaged momentarily or latched on.



Surface SHIFT switch

To engage Surface SHIFT momentarily:

- Press and hold the **Surface SHIFT** switch.

By default, the **Surface SHIFT** switch operates in momentary behavior (active only while pressed and held down). You can change this to operate in Latching behavior (pressing and releasing quickly toggles the state on or off) by enabling Latching Shift. This setting is located in the Miscellaneous section of the Preference tab in EuControl Settings.

Modifier Switches

The Modifier switches provide frequently used shortcuts that can be applied to console actions and software screen interactions. In Pro Tools, these switches duplicate the function of the Pro Tools computer keyboard modifiers.



Global Modifier switches

Multi Select/SHIFT Duplicates the function of the Shift key on the computer keyboard.

Default/ALT Duplicates the function or the Option key (Mac) or the Alt key (Windows) on the computer keyboard.

Fine/CTRL Duplicates the function of the Control key (Mac) or the Windows key (or Start) on the computer keyboard.

Command Duplicates the function of the Command key (Mac) or the Control key (Windows) on the computer keyboard.

Touchstrip

By default, the four Touch strip Zones provide transport controls.

You can also customize these switches in EuControl. See the *Using EuControl Surfaces.pdf* for more information on the Soft Key Editor.



Transport controls

To use the Transport:

1 Press and hold **Surface SHIFT**.

2 Press the following Zones for the various transport functions:

1 (Rewind) Rewinds until released.

2 (Fast Forward) Fast forwards until released.

3 (Play/Stop) Engages play when the transport is stopped; stops the transport when play is engaged.

4 (Record Arm) Arms the transport for recording.

S3 Audio I/O

This chapter shows how to use the built-in audio I/O on the S3, including:

- **Enabling S3 Audio on the Workstation Computer**
- **Direct Out Mode**
- **S3 Audio Connections Overview**
- **Accessing Audio Control on the S3**
- **Connecting and Adjusting Inputs**
- **Connecting and Adjusting Outputs**
- **Connecting Hardware Inserts**
- **Connecting and Adjusting Headphones**
- **Saving S3 Monitor Settings**

Enabling S3 Audio on the Workstation Computer

To use the audio I/O on your S3 with your workstation computer, you must first enable the audio connection on the workstation computer. This connection only needs to be enabled the first time you connect the S3 to a particular computer.

At the time of this writing, using S3 as an AVB audio interface is only supported on Mac.

To enable S3 audio on your workstation computer:

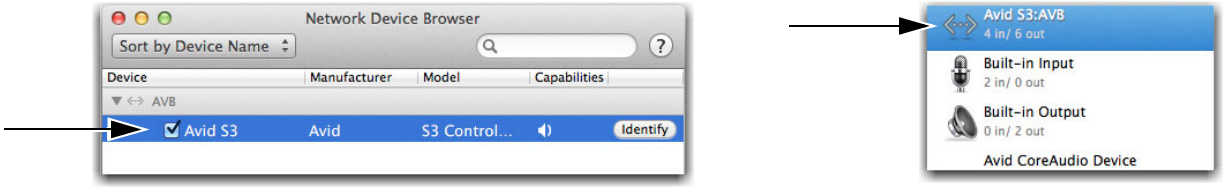
1 Connect S3 to your workstation computer.

2 Power on S3, and make sure the S3 is in Studio mode (see **Toggling Studio and Live Modes** for more information).

3 Power on your workstation computer.

4 On your computer, go to Applications > Utilities > Audio MIDI Setup and from the Window menu, choose Show Network Device Browser.

5 Click the checkbox next to Avid S3. If more than one device appears and both are checked, deselect the other device. Once checked, the S3 appears in the list of available audio devices in the Audio Devices Window of the Audio MIDI Setup.



S3 Surface shown in the Network Device Browser (left) and the Audio Devices Window (right) of the Audio MIDI Setup

6 Launch Pro Tools, and from the Setup menu choose Playback Engine.

For other DAWs, see the documentation for the application to configure its I/O settings.

7 From the Playback Engine pop-up, choose Avid S3:AVB.



Choosing the S3 as the Playback Engine for Pro Tools

8 Choose Setup > IO Setup. Click Default on both the Input and Output tabs, then click OK to close IO Setup.

Direct Out Mode

S3 Audio Control provides Direct Out mode on a per input basis. This lets you use the S3 in the following ways:

Standalone Mixer You can send any S3 audio input to any S3 audio output, letting you use S3 as a 4-in/6-out mixer.

Zero-Latency Monitoring While recording through S3, use Direct Out mode to route S3 input(s) to your main monitor outputs. In Pro Tools, mute the track you are recording to. Use the S3 encoder for Direct Out Level as a mix knob to balance input level with your main mix. This is similar to the Mix Knob on Mbox and other similar audio interfaces.

Note: Low-Latency Monitoring in Pro Tool is not supported with S3.

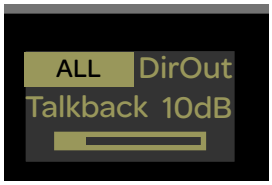
Talkback Any input can be set to be the S3 Talkback input. Talkback can be engaged (momentary or latched) using the **Mix to Mons** switch, or the **User** switch and/or a footswitch. For more information, see **Using Talkback**.

Direct Out Mixer QuickStart

1 Make sure the S3 is in Studio mode (see **Toggling Studio and Live Modes** for more information).

2 Simultaneously press the right-side **< Page** and **Page >** Channel Control Navigation switches to access Audio Control.

3 Hold the **Surface SHIFT** switch then press the encoder for any Audio Control input.
Direct Out controls for that input channel are shown in its encoder display.



Encoder display for an S3 audio input showing Direct Out Mode

4 To assign the input to an available S3 audio output, press the encoder **Sel** switch.
Each press cycles the assignment to the next available output (such as All, Out 1–2, Out 1, Out 2, or None). Any stereo or mono output can be chosen.

5 Rotate the encoder to set the Direct Out level.

6 Press the encoder to mute the Direct Out signal.

Avoiding Double-Monitoring

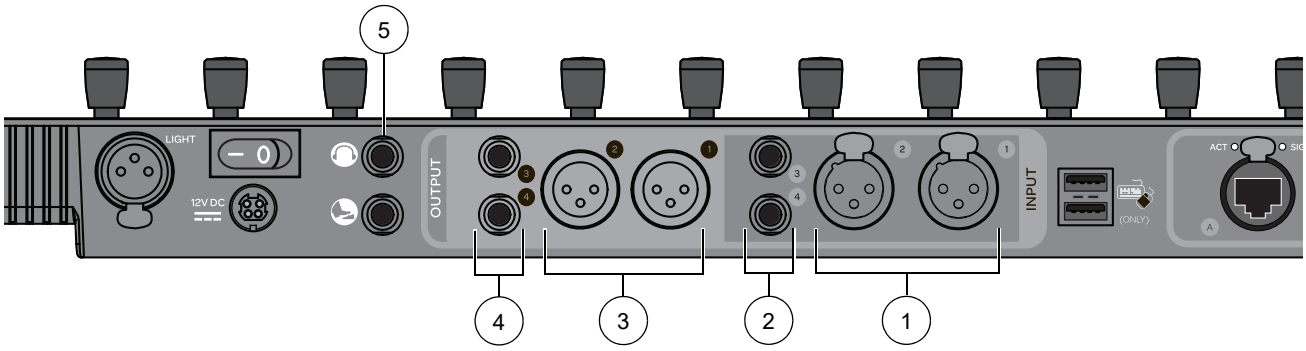
If you do not plan on using Direct Out mode for zero-latency monitoring or for talkback, but are planning on using S3 Audio Control for DAW/AVB monitoring, do the following to ensure that no audio is routed twice to your monitoring outputs:

1 Make sure to assign None as the output for all S3 audio inputs.

2 Save the Audio Control settings (see **Saving S3 Monitor Settings**).

S3 Audio Connections Overview

S3 provides four channels of analog inputs to Pro Tools or other Core Audio-compatible applications that support sample rates of 48 kHz, and four channels of analog outputs for connecting monitors and other outboard audio devices.



S3 control surface back panel audio connections

1 – Inputs 1–2 (2 x XLR)

Inputs 1–2 are balanced microphone inputs, and are adjusted using the In 1 and In 2 Channel Control Encoders. Phantom power (48 Volts) and a 20 dB pad are provided on each input. Inputs 1–2 can be linked. See **Connecting and Adjusting Inputs** for more information.

48V and the 20 dB pad can only be changed for inputs 1–2 when the Monitor Source is set to AVB 1–2 *or* In 3–4. *For more information, see* **Changing the Monitor Source**.

2 – Inputs 3–4 (2 x 1/4-inch TRS)

Inputs 3–4 are line-level inputs that accept balanced TRS and unbalanced TS connections. Inputs 3–4 operate at a nominal level of +4 dBu, and are adjusted using the Line 3 and Line 4 Global Control Encoders. A 20 dB pad is provided on each input. Inputs 3–4 can be linked.

3 – Outputs 1–2 (2 x XLR)

MAIN

Outputs 1–2 are the main monitoring output pair for your audio/video application, and operate at a nominal level of +4 dBu. Controls for Outputs 1–2 are linked and are adjusted using the Main Channel Control Encoder. By default the monitor source for Outputs 1–2 are Out 1–2 from Pro Tools or other DAWs. Outputs 1–2 are active when Select is highlighted in the MAIN Channel Control Encoder display. See **Connecting and Adjusting Outputs** for more information.

The monitor source for the MAIN and ALT outputs can be changed using the Mon Prefs encoder. See **Changing the Monitor Source** *for more information.*

4 – Outputs 3–4 (2 x 1/4-inch TRS)

ALT

Outputs 3–4 are an alternate monitoring output pair and operate at a nominal level of +4 dBu. Outputs 3–4 accept balanced TRS and unbalanced TS connections. Outputs 3–4 are linked and are adjusted using the ALT Global Control Encoder. By default the monitor source for Outputs 1–2 are Out 1–2 from Pro Tools or other DAWs. Outputs 3–4 are active when Select is highlighted in the Alt Channel Control Encoder display. Track outputs can also be routed to Outputs 3–4 independently in Pro Tools.

5 – Headphone Output (1 x 1/4-inch Stereo TRS)

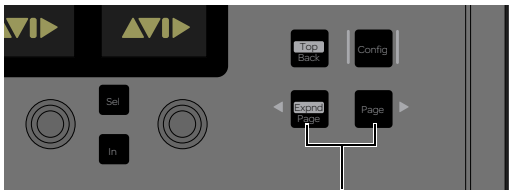
Headphone volume is adjusted using the volume wheel along the front edge of the S3. When the Mon to HP monitor preference is enabled, the headphone output mirrors Outputs 1–4 on the S3. Track outputs can also be routed to the Headphone output independently, and correspond to Out 5–6 in Pro Tools. See **Connecting and Adjusting Headphones** for more information

Accessing Audio Control on the S3

Audio Control–the S3's built-in I/O controls–are adjusted using Channel Control Encoders 9–16. Audio Control is hidden by default.

To access Audio Control:

- Simultaneously press the right-side **< Page** and **Page >** Channel Control Navigation switches.



Right-side < Page > switches

Controls for the built-in I/O are assigned to Channel Control Encoders 9–16.



I/O controls in Channel Control

Single Display Mode

Single Display mode lets Audio Control be focused on one single encoder (Channel Control encoder 16) instead of across eight encoders.

To enable Single Display Mode:

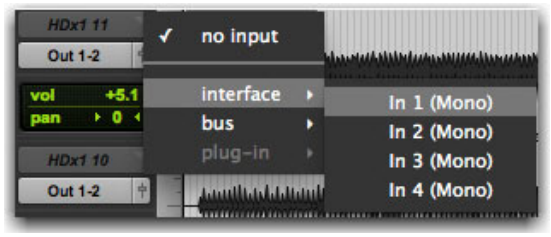
1. Hold **Surface SHIFT** switch and press **<Page + Page>** switches simultaneously to toggle between Single Display Mode and Full Display Mode.
2. While in Single Display Mode, use the **<Page** and **Page>** switches to bank through each Audio Control page.

Connecting and Adjusting Inputs

You can adjust inputs using the Channel Control Encoders. You can also link Inputs 1–2 and 3–4 and control each pair using a single Encoder and associated switches.

To connect and route a mic or line input:

1. Connect a microphone to Inputs 1–2; connect a line-level device to Inputs 1–4.
2. In your audio/video application, assign S3 hardware inputs to the desired track(s). In Pro Tools, inputs on the S3 are called In 1–4 in the Input Path selector.



Choosing an S3 Input in Pro Tools

To adjust inputs:

1 If necessary, access Audio Control by simultaneously pressing the **< Page** and **Page >** Channel Control Navigation switches.

2 Do any of the following under the display showing the input you want to adjust:

- To adjust input gain, rotate the encoder.
- To engage the 20 dB pad, press the encoder **Sel** switch so its LED is lit green and Pad is highlighted in the display.
- To engage 48v (phantom power) on Mic/Line Inputs 1–2, press the encoder **In** switch so its LED is lit red and 48v is highlighted in the corresponding display.

Inputs 1–2 and Monitor Source

When Inputs 1–2 are designated as the Monitor Source, the 20 dB pad is automatically engaged and 48V disengaged. These settings can only be changed when the Monitor Source is set to either AVB or to Inputs 3–4. For more information, see **Changing the Monitor Source**.

To link and unlink input pairs:

1 To link input pairs 1–2 or 3–4, press and hold **Multi-Select/SHIFT,** then press the Encoder under the display showing In 1 or In 2 to link 1–2, or In 3 or In 4 to link 3–4.



Encoder displays showing linked Input controls

2 To unlink an input pair, press **Multi-Select/SHIFT** + the encoder under the display showing In 1-2 or In 3-4.

Using Talkback

Any input can be assigned as the Talkback input. Talkback can be engaged (momentary or latched) via the **Mix to Mons** switch, **User** switch and/or a footswitch.

To assign the Talkback input source:

1 Access Direct Out mode by holding **SHIFT** and pressing the encoder for the S3 input you want to assign as Talkback input.

2 Press the encoder **In** switch to assign that input as the Talkback input (Talkback becomes lit).



Encoder display for an S3 audio input showing it assigned as the Talkback input source

Example Talkback setup:

1 Connect your Talkback mic to S3 Input 1.

2 Hold surface **SHIFT** and press the encoder for S3 input 1, then in the Direct Out settings for Input 1, enable Talkback.

3 Press the encoder **Sel** switch to cycle through and assign Input 1 (talkback) to an S3 audio output.

4 If using a secondary audio interface such as an HD OMNI, you can connect the assigned S3 talkback output to an HD OMNI input. In Pro Tools, route that input to a desired Cue send output.

You could also route that HD OMNI input to an audio track and record it to use it as a Slate input.

To configure Talkback preferences:

1 Define how you want Talkback activated by rotating the encoder under TBEngage= and choosing one of the following:
- Mix to Mons
- User (Engaging User for Talkback makes the User switch inaccessible to EuControl as a Soft Key)
- Footswitch (Engaging footswitch for Talkback makes the footswitch inaccessible to EuControl for record/play operations)
- User/Footswitch

To set polarity for footswitch Talkback engage:

1 Configure Talkback Engage for Footswitch or User/Footswitch.

2 Press the **In** switch below the TBEngage encoder to show polarity options.

3 Rotate the encoder to choose between normally open or normally closed to match your footswitch type.

4 Press **Sel** to save Talkback settings.

Connecting and Adjusting Outputs

You can toggle the monitor source between Outputs 1–2 (MAIN) and Outputs 3–4 (ALT), adjust the monitor level, and dim and mute (Cut) the outputs using the Channel Control Encoders. The default source for S3 Outputs 1–4 (and the Headphone output if MON to HP is selected) is Out 1–2. However, you can also assign tracks to S3 outputs independently.

You can also sum an output pair to mono and change the monitor source for the outputs.

To connect and route and outputs

1 Connect an audio destination such as audio monitors to Outputs 1–2 (Main) or Outputs 3–4 (Alt).

2 In your audio/video application, assign track outputs to the desired S3 hardware output(s). In the Pro Tools Output Path selector, Out 1–2 corresponds to S3 Outputs 1–2 (MAIN), Out 3-4 corresponds to S3 Outputs 3–4 (ALT), and Outs 5–6 correspond to the S3 Headphone output.



Choosing S3 Outputs in Pro Tools

To adjust outputs:

1 If necessary, access Audio Control by simultaneously pressing the **< Page** and **Page >** Channel Control Navigation switches.

2 To adjust an output pair, do any of the following under the display showing the output you want to adjust:
- To make an output pair (Main or Alt) active, press the corresponding encoder **Sel** button so it is lit. Select is highlighted in the corresponding display, and the LED above the display is lit green for the currently selected output pair.
- To toggle an output pair on/off, press the corresponding encoder **In** switch. The output pair is off (Cut) when the button is lit. Cut is highlighted in the corresponding display, and the LED above the display is flashes red.
- To adjust the output level, rotate the encoder. The relative level in dB is indicated in the display.
- To dim the output, press the encoder. Dim is shown in the display, and the LED above the display is lit orange.

To make both output pairs active, press Multi Select/SHIFT + Encoder Sel of the unselected pair. To make only one output pair active, press the desired output pair's Sel switch.

To sum an output to mono:

1 Press and hold **Multi-Select/SHIFT.**

2 Press the Encoder for the output pair you want to sum to mono. Mono appears in the corresponding display. Mono signals are sent equally to each physical output in the pair.

3 Repeat to return to stereo operation.

Changing the Monitor Source

You can change the monitor source for the outputs on the S3 using the Monitor Preferences (Mon Prefs) encoder.

To change the monitor source:

1 If necessary, access Audio Control.

2 Under the display showing Mon Prefs, press the encoder **Sel** switch to select an available monitor source as follows:

AVB 1–2 When AVB 1–2 is selected and appears in the display, Out 1-2 from Pro Tools and Core Audio are routed to Outputs 1–4 on the S3 (and the Headphone output if MON to HP is selected). This is the default monitor source setting for the S3.

In 1–2 When In 1–2 is selected and appears in the display, Inputs 1–2 on the S3 are routed to Outputs 1–4 on the S3 (and the Headphone output if MON to HP is selected). Use this to monitor an external source such as an audio interface or other playback device.

When Inputs 1–2 are designated as the Monitor Source, the 20 dB pad is automatically engaged and 48V disengaged. These settings can only be changed when the Monitor Source is set to either AVB 1–2 or to In 3–4. For more information, see **Changing the Monitor Source**.

In 3–4 When In 3–4 is selected and appears in the display, Inputs 3–4 on the S3 are routed to Outputs 1–4 on the S3 (and the Headphone output if MON to HP is selected). Use this to monitor an external source such as an audio interface or other playback device.



Mon Prefs encoder and display

Connecting Hardware Inserts

Inputs 3–4 and Outputs 3–4 can be used to insert external hardware on tracks in your application. When inserting hardware, be sure to connect the device to matching inputs and outputs on S3. For example, to insert a mono device, connect the input of the device to Output 3 on S3, then connect the output of the device to Input 3 on S3.

In Pro Tools, inserts are defined in the IO Setup. Go to Setup > IO..., then click the Insert tab to define the session insert paths. See the Pro Tools Reference Guide for more information.

Connecting and Adjusting Headphones

Use the front panel Headphone volume control to control overall Headphone volume. By default the stereo Headphone output mirrors the other outputs on the S3, but this can be disabled.

To toggle Headphone output mirroring:

1 If necessary, assign I/O controls to Channel Control.

2 Under the display showing Mon Prefs, press the corresponding encoder **In** switch. When Mon to HP is unlit, the Headphone output no longer mirrors Outputs 1–4.

Saving S3 Monitor Settings

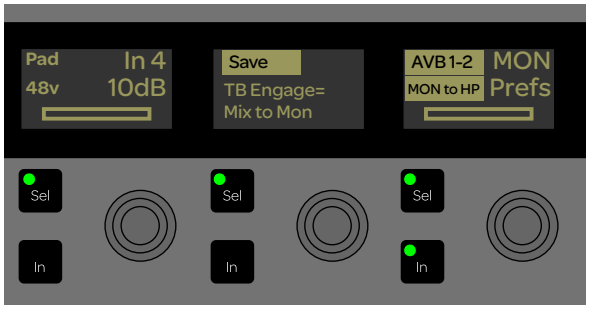
You can save the current monitor settings on your S3, including monitor preference settings, and MAIN (Outputs 1–2) and ALT (Outputs 1–2) settings.

To save the current monitor settings:

1 Make any desired adjustments to the monitor settings on the S3.

The 13th Channel Control display (TBEngage) displays Save. If you have engaged **Single Display Mode**, use the **< Page** and **Page >** switches to navigate the single Channel Control display (16) to TBEngage/Save.

2 Press the lit Encoder **Sel** switch.



Audio Control display showing Save

Saving Settings...appears in the display until saving is complete. Settings are saved until the next time you save.

Specifications

All specifications subject to change.

S3 Control Surface Audio Specifications

S3 Analog Mic Inputs, Pad Disabled

Parameter	Conditions	Value			Units
		Min.	Typ.	Max.	
Phantom Power			48		Volts
Input Sensitivity	@ 997 Hz, Gain = 10 dB (min.)		+7.979		dBu
Equivalent Input Noise (EIN)	Gain = 60 dB, 150 Ω source impedance		-126.1		dB
Frequency Response	V_{INPUT} = -12.035 dBu, 20 Hz – 20 kHz relative to 1 kHz, Gain = 10 dB (min.)	-0.021	0	-0.236	dB
Dynamic Range Unweighted	150 Ω source impedance, Gain = 10 dB (min.)		-111.2		dB
Dynamic Range A weighted	150 Ω source impedance, Gain = 10 dB (min.)		-113.8		dB
THD+N Amp	@ 997Hz, Gain = 40 dB		0.0014		%
THD+N Freq	measured at -25.242 dBu, 20 Hz – 20 kHz, Gain = 40 dB	0.0007	0.0014	0.0045	%
Common Mode Rejection Ratio	V_{INPUT} = -21.560 dBu, 20 Hz – 20 kHz, Gain = 10 dB (min.)	-71.7	-80.8	-81.4	dB
Inter-channel Crosstalk	V_{INPUT} = -12.150 dBu, 20 Hz – 20 kHz, Gain = 10 dB (min)	-120.4	-109.6	-99.2	dB
Input Impedance	@1 kHz		3.5K		ohms

S3 Analog Mic Inputs, Pad Enabled

Parameter	Conditions	Value			Units
		Min.	Typ.	Max.	
Phantom Power			48		Volts
Input Sensitivity	@ 997Hz, Gain = 10 dB (min.)		+28.322		dBu
Frequency Response	V_{INPUT} =+8.225 dBu, 20 Hz – 20 kHz relative to 1 kHz, Gain = 10 dB (min.)	-0.016	0	-0.235	dB
Dynamic Range Unweighted	150 Ω source impedance, Gain = 10 dB (min.)		-111.2		dB
Dynamic Range A Weighted	150 Ω source impedance, Gain = 10 dB (min.)		-113.9		dB
THD+N Amp	@ 997 Hz, Gain =40 dB		0.0018		%
THD+N Freq	measured at -3.808 dBu, 20 Hz – 20 kHz, Gain = 40 dB	0.0012	0.0018	0.0064	%
Common Mode Rejection Ratio	V_{INPUT} = -1.276 dBu, 20 Hz – 20 kHz, Gain = 20 dB	-59.3	-63.8	-63.9	dB
Inter-Channel Crosstalk	V_{INPUT} = +8.233 dBu, 20 Hz – 20 kHz, Gain = 10 dB (min.)	-122.1	-109.1	-98.2	dB
Input Impedance	@1 kHz		3.7k		ohms

S3 Analog Line Inputs

Parameter	Conditions	Value			Units
		Min.	Typ.	Max.	
Input Sensitivity	@ 997Hz, Gain = 10 dB (min.)		+18.471		dBu
Equivalent Input Noise (EIN)	Gain = 18 dB, 150 Ω source impedance		-93.9		dB
Frequency Response	V_{INPUT} =-1.520 dBu, 20 Hz – 20 kHz relative to 1 kHz, Gain = 10 dB (min.)	-0.018	0	-0.233	dB
Dynamic Range Unweighted	150 Ω source impedance, Gain = 10 dB (min.)		-110.4		dB
Dynamic Range A weighted	150 Ω source impedance, Gain = 10 dB (min.)		-113		dB
THD+N Amp	@ 997Hz, Gain =40 dB		0.0010		%
THD+N Freq	measured at +12.193 dBu, 20 Hz – 20 kHz, Gain = 40 dB	0.0005	0.0010	0.0016	%
Common Mode Rejection Ratio	V_{INPUT} = -1.523 dBu, 20 Hz – 20 kHz, Gain = 0 dB	-64.4	-66.8	-67.0	dB
Inter-Channel Crosstalk	V_{INPUT} = -1.520 dBu, 20 Hz – 20 kHz, Gain = 0 dB (min.)	-117.8	-110.1	-98.3	dB
Input Impedance	@1 kHz		5.1k		ohms

S3 Analog Outputs

Parameter	Conditions	Value			Units
		Min.	Typ.	Max.	
Output Sensitivity	@ 997 Hz		+24.201		dBu
Output Impedance	@1 kHz		103.5		ohms
Residual Output Noise	20 Hz – 20 kHz		-88		dBu
Round Trip Latency	Console input to Console output		3.2		ms

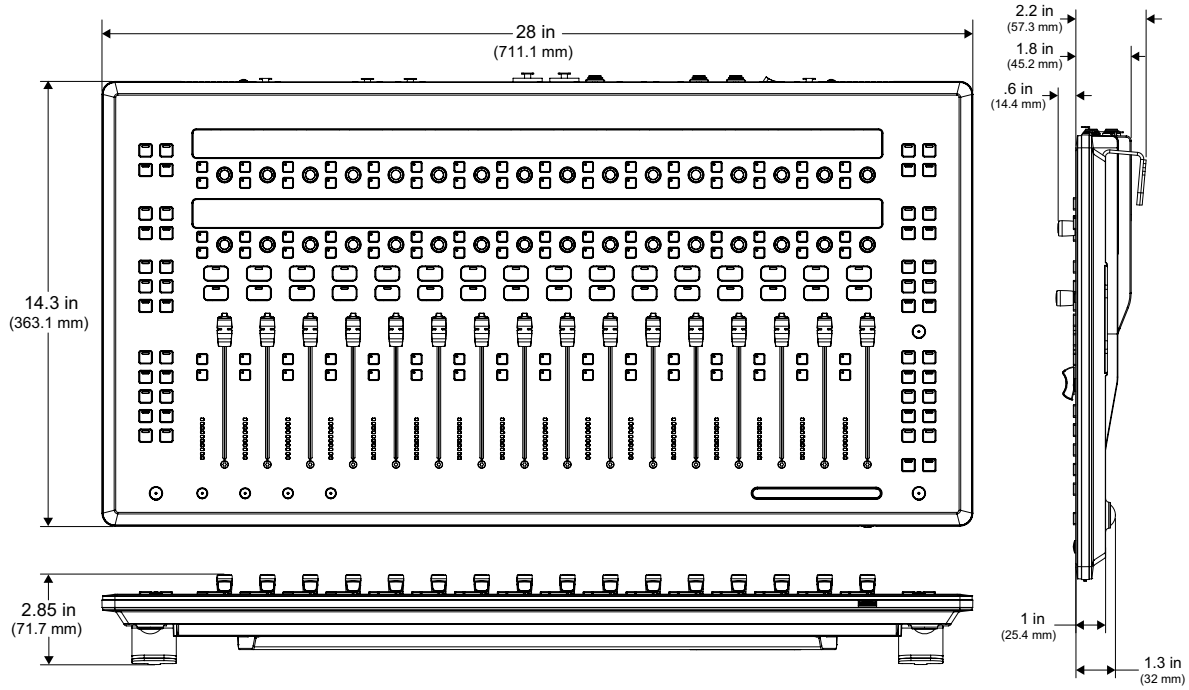
S3 Headphone Output

Parameter	Conditions	Value			Units
		Min.	Typ.	Max.	
Output Impedance	@1 kHz		1		ohms
Output Sensitivity	32 Ω load @ 997 Hz, max output		+17.932		dBV
Max RMS Power Output	+20.157 dBu 32 ohm headphones +19 dBu 600 ohm headphones		1.940 163.1		mW

S3 Control Surface Mechanical Specifications

Parameter	Specification
Height (front) Height (back)	1.3 inches (32.0 mm) 2.8 inches (71.7 mm)
Maximum Width	28 inches (711.11 mm)
Maximum Depth	14.3 inches (363.11 mm)
Weight	13.8 lbs (6.2 kg)
Power Requirements	100–240 V, 50–60 Hz, 200 W
Power Connectors	External PSU AC Input: IEC, 3-pin North American standard External PSU DC Output: Kycon KPPX–4P; 12V, 7.5A max current
Audio Connectors (x8)	XLR3–M balanced (x2), XLR3–F balanced (x2), 1/4-inch TRS balanced (x4)
Headphone Connector	1/4-inch TRS unbalanced
Network Connectors (x2)	RJ-45 Neutrik etherCON
USB Ports (x2)	USB 2.0 (for connecting mouse and keyboard only)
Footswitch Connector	1/4-inch TRS
Light Connectors (x2)	XLR3–F, LED console light required

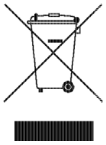
Dimensions


28 in
(711.1 mm)
14.3 in
(363.1 mm)
2.85 in
(71.7 mm)
2.2 in
(57.3 mm)
1.8 in
(45.2 mm)
.6 in
(14.4 mm)
1 in
(25.4 mm)
1.3 in
(32 mm)

Appendix A: Compliance Information

Environmental Compliance

Disposal of Waste Equipment by Users in the European Union



This symbol on the product or its packaging indicates that this product must not be disposed of with other waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city recycling office or the dealer from whom you purchased the product.

Proposition 65 Warning

⚠ *This product contains chemicals, including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.*

Perchlorate Notice

This product may contain a lithium coin battery. The State of California requires the following disclosure statement:
"Perchlorate Material – special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate."

Recycling Notice



EMC (Electromagnetic Compliance)

This model Pro Tools | S3 complies with the following standards regulating interference and EMC:

- FCC Part 15 Class B
- EN 55022 Class B
- EN 55024 Class B
- AS/NZS CISPR 22 Class B
- CISPR 22 Class B

FCC Compliance for United States

Radio and Television Interference

Communication Statement
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any modifications to the unit, unless expressly approved by Avid, could void the user's authority to operate the equipment.

Australian Compliance



Canadian Compliance

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

CE Compliance

(EMC, Safety, and ROHS)



Avid is authorized to apply the CE (Conformite Europenne) mark on this compliant equipment thereby declaring conformity to EMC Directive 2004/108/EC, Low Voltage Directive 2006/95/EC and RoHS Directive 2011/65/EC..

Korean EMC Compliance

이 기기는 가정용 (B 급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며 , 모든 지역에서 사용할 수 있습니다 .

Safety Compliance

Safety Statement

This equipment has been tested to comply with USA and Canadian safety certifications in accordance with the specifications of UL Standards: UL60950-1:2007, 2nd Edition and canadian CAN/CSA C22.2 60950-1-07, 2nd Edition. Avid Inc. has been authorized to apply the appropriate UL and CUL mark on its compliant equipment.

Warning



Important Safety Instructions

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this equipment near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other equipment (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect power cords from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the equipment.

11) Only use attachments/accessories specified by the manufacturer.

12) For products that are not rack-mountable: Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the equipment. When a cart is used, use caution when moving the cart/equipment combination to avoid injury from tip-over.

13) Unplug this equipment during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the equipment has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the equipment, the equipment has been exposed to rain or moisture, does not operate normally, or has been dropped.

15) For products that are a Mains powered device:
The equipment shall not be exposed to dripping or splashing and no objects filled with liquids (such as vases) shall be placed on the equipment.

Warning! To reduce the risk of fire or electric shock, do not expose this equipment to rain or moisture.

16) For products containing a lithium battery:
CAUTION! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

17) For products with a power switch:
The main power switch is located on the back panel of S3. It should remain accessible after installation.

18) The equipment shall be used at a maximum ambient temperature of 40° C.



Technical Support (USA)
Visit the Online Support Center
at www.avid.com/support

Product Information
For company and product information,
visit us on the web at www.avid.com