

Symphony I/O Mk II



Quick Start Guide

May 2019



Symphony I/O Mk II

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Overview

Introduction

Symphony I/O Mk II is the most advanced and flexible multi-channel audio interface available. Featuring Apogee's newest flagship AD/DA conversion, modular I/O (up to 32 inputs and outputs), and intuitive touchscreen display, Symphony I/O Mk II offers direct connectivity to four different platforms - Thunderbolt™, Pro Tools® HD, Waves SoundGrid® network and Dante®.

This Quick Start Guide describes the steps to set up Symphony I/O Mk II with an Apple Mac via Thunderbolt and Avid Pro Tools HD systems, Waves SoundGrid® network and Dante®.

To ensure that you're using the very latest Symphony I/O Mk II software and documentation, please download the most current package from our website:

<http://www.apogeedigital.com/support>

System Requirements

Symphony I/O Mk II Thunderbolt

- Thunderbolt equipped Mac computer, 4GB memory required, 8GB recommended
- Mac OS 10.10.5 Yosemite or higher

Symphony I/O Mk II Pro Tools HD

- Pro Tools HDX, HD Native Thunderbolt, HD PCI Native or HD Core/Accel hardware
- Pro Tools 10 software or greater, Mac or Windows OS

In the box

The following items are included in the box with Symphony I/O Mk II:

- Symphony I/O Mk II
- 3-pin IEC power cable
- Quick Start Guide
- Warranty Booklet

Note: Thunderbolt models, Thunderbolt cable not included
Pro Tools HD models, HD cable not included.

Register your product

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- Receive important product update information by email
- Take the customer satisfaction survey

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Symphony I/O Mk II



3-pin IEC power cable



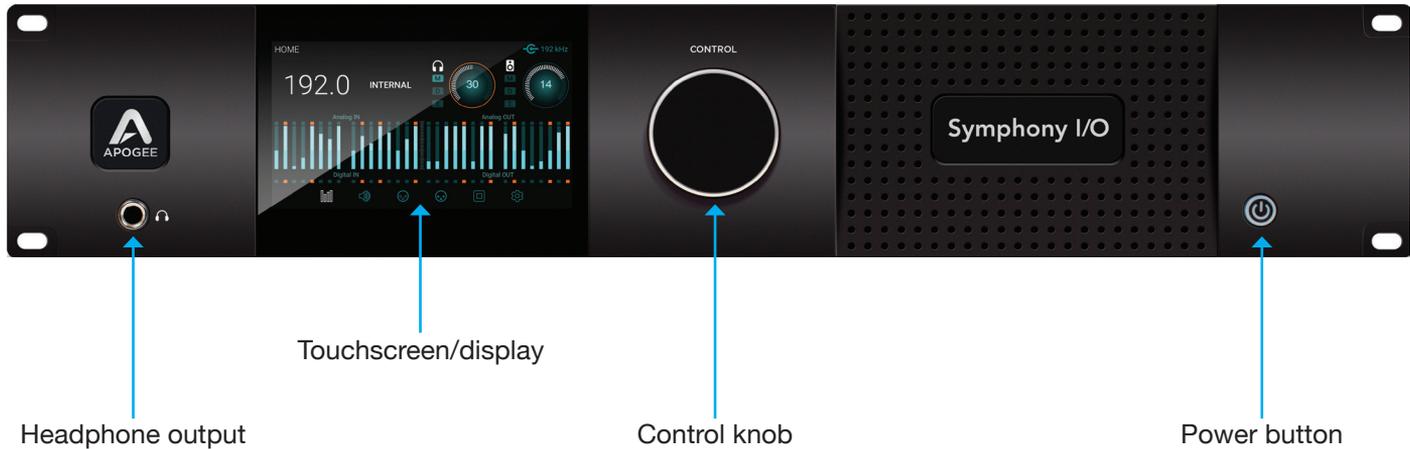
Quick Start Guide



Warranty Booklet

Product Tour

Front panel



Navigating the touchscreen



Swipe to navigate

You can swipe the screen left or right to access any of the main sections; HOME, MONITOR, INPUT, OUTPUT, DIGITAL I/O, SETTINGS.

Swiping can be disabled in SETTINGS.

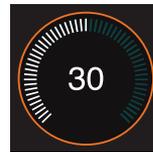


Tap section icons to navigate

You can also directly select any of the section icons on the bottom of the screen to jump directly to a section.

Navigating the touchscreen

Symphony I/O Mk II's front panel touchscreen offers convenient access to nearly every setting.



Control knob focus selection

Settings that may be controlled using the front panel control knob are displayed as a circle; i.e. Speaker and Headphone, Input calibration and Gain levels.

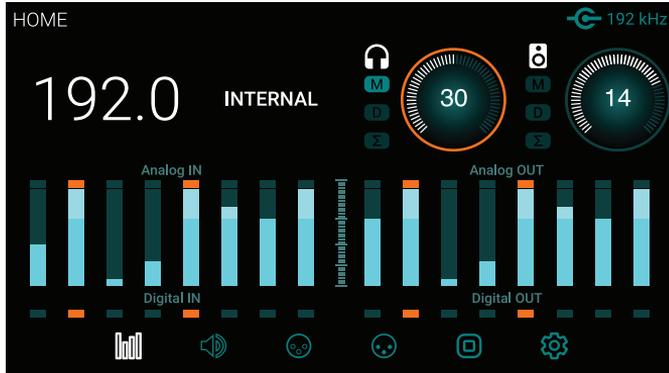
To “focus” the control knob to the desired setting, tap the circle; an orange ring indicates that the control knob is currently focused on the setting.



Muting with the control knob

Pressing the control knob mutes and un-mutes the sound coming out of Symphony I/O Mk II, and is indicated on the Home page with the “M” lit up.

Touchscreen section overview



HOME

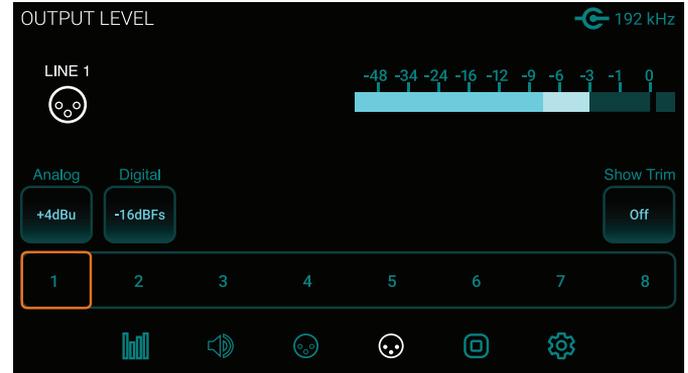
Sample Rate, Clock Source, Headphone & Speaker output levels, Meters for all I/O, and section navigation.



MONITOR

Headphone & speaker output levels, mute, dim, sum to mono, headphone output selection, speaker set selection and section navigation.

Touchscreen section overview



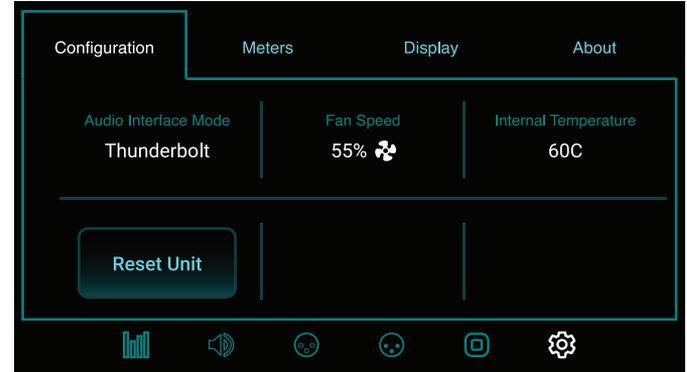
INPUT LEVEL

Analog input reference levels, calibration, Soft Limit, mic pre parameters (when 8 channel mic preamp module is installed) and section navigation.



OUTPUT LEVEL

Analog output reference levels, calibration and section navigation.



DIGITAL I/O

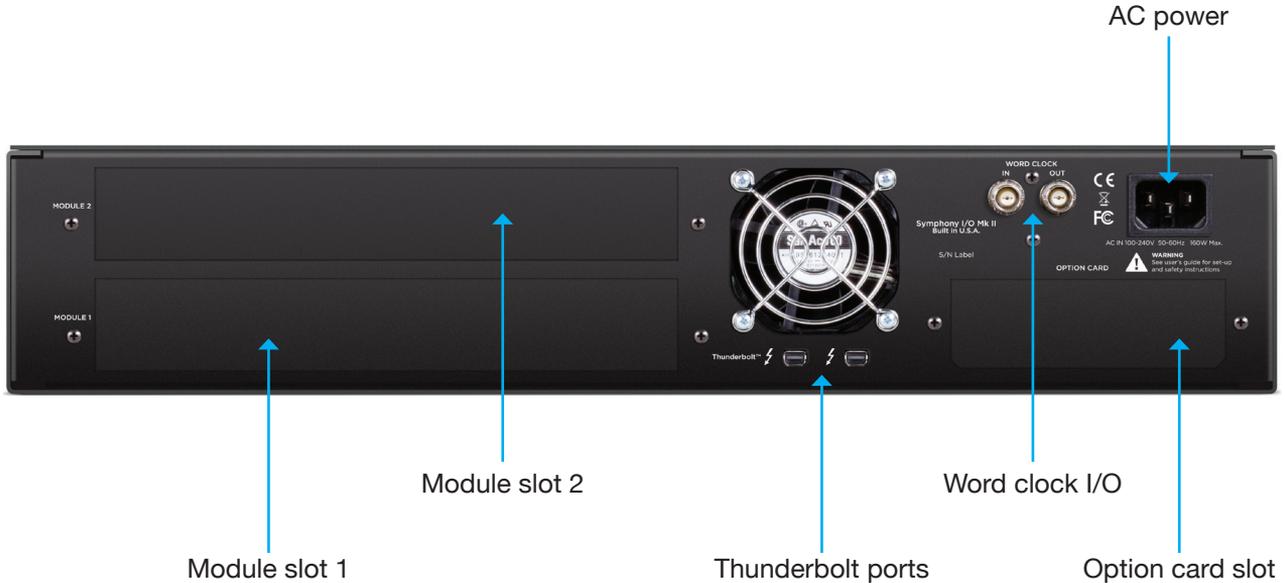
Digital format settings, Digital input signal meters, SPDIF Coax In replaces and coax output mirrors settings and section navigation.



SETTINGS

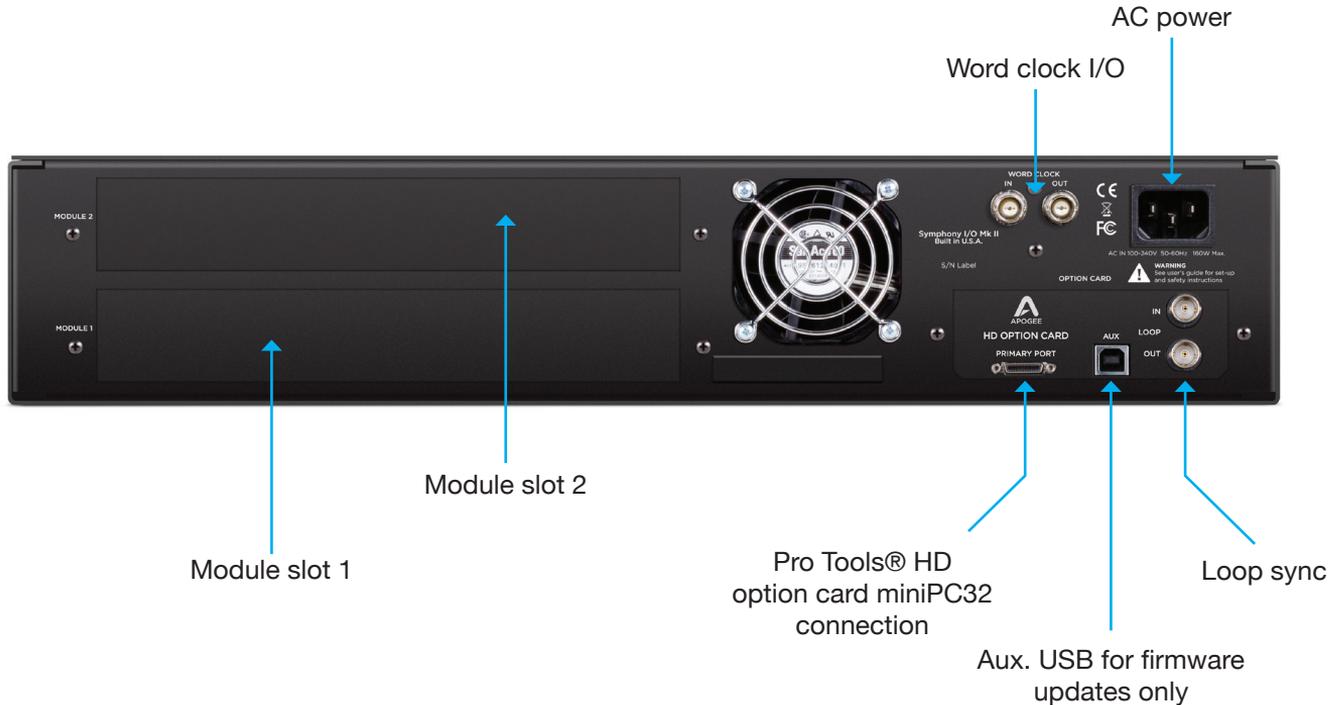
Reset, WC termination, Internal temperature, Meter characteristics, Display brightness.

Rear panel - Thunderbolt™ model



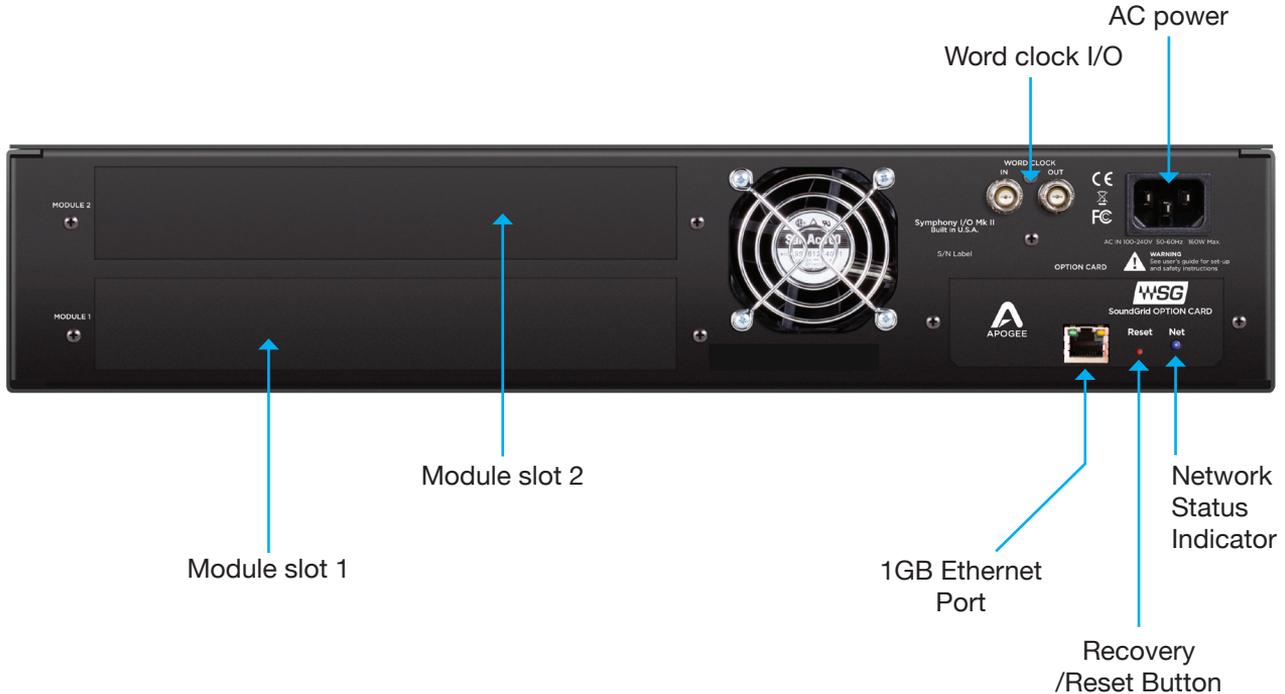
Chassis shown without I/O modules installed

Rear panel - HD model



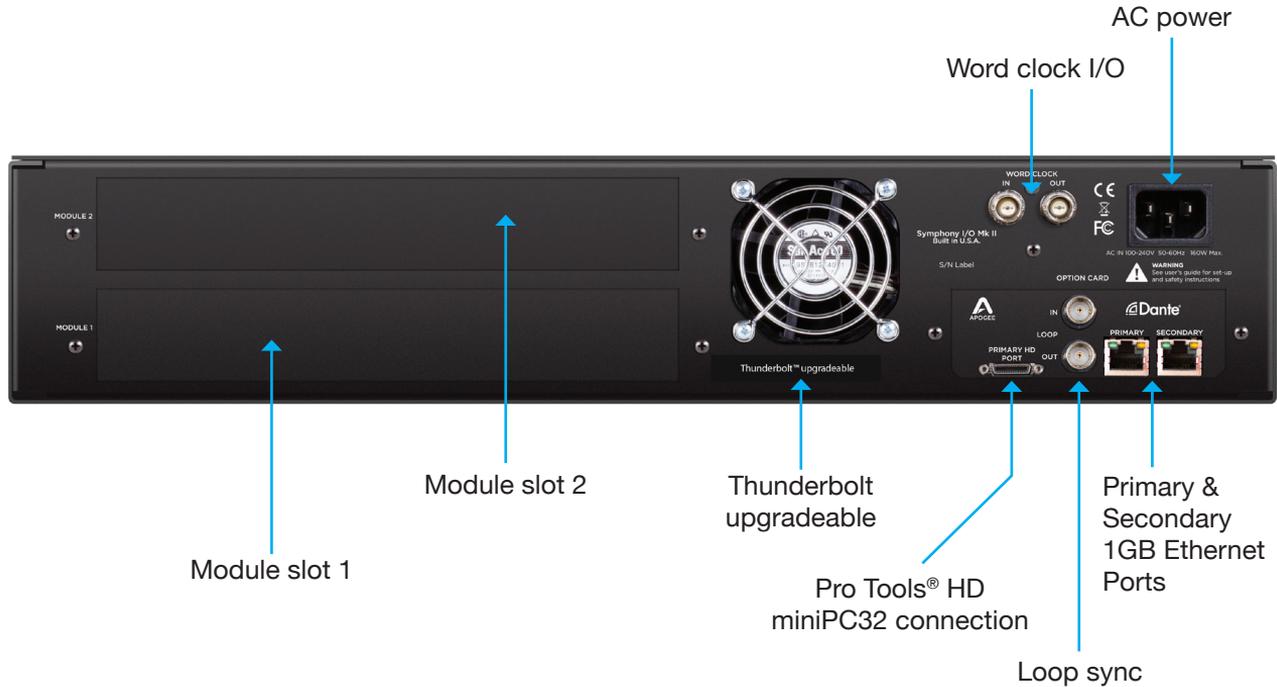
Chassis shown without I/O modules installed

Rear panel - Waves SoundGrid® model



Chassis shown without I/O modules installed

Rear panel - Dante® model



Chassis shown without I/O modules installed

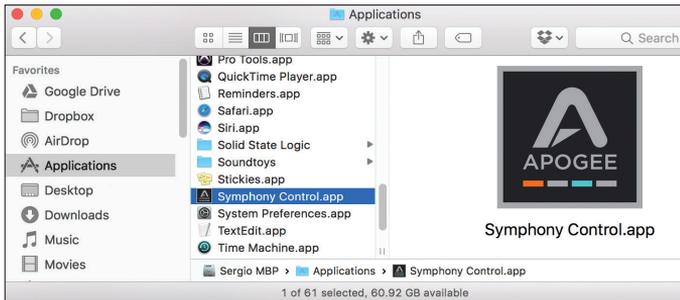
Thunderbolt - Setup

System Requirements

- Computer: Thunderbolt™ equipped Mac
- Memory: 4GB RAM minimum, 8GB RAM recommended
- OS X 10.10.5 Yosemite or higher
- Thunderbolt cable (sold separately)

Install Symphony I/O Mk II Software

1. Go to <http://www.apogeedigital.com/support/symphony-io-mk-ii>
2. Download the latest Symphony I/O Mk II Thunderbolt software installer.
3. Open the downloaded .dmg file and double-click Symphony I/O Mk II Thunderbolt Software Installer.pkg
4. Follow the prompts. You will be required to restart your computer.



Symphony Control

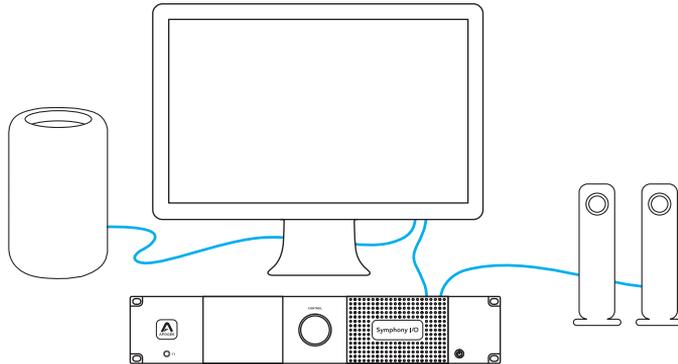
Symphony Control is a controller software for Symphony I/O Mk II Thunderbolt. All settings and parameters can be controlled from this application. When installing the latest software from the Apogee Website, Symphony Control is placed in your Mac's Application folder.

Connecting to your computer

Symphony I/O Mk II Thunderbolt features two connections to enable daisy-chaining of other Thunderbolt peripherals to your computer.

1. Using a certified Thunderbolt cable, connect Symphony I/O Mk II to a Thunderbolt port on your computer.
2. Connect other certified Thunderbolt devices to Symphony I/O Mk II's remaining Thunderbolt port.
3. If your computer has a Thunderbolt 3 Port, you may connect to Symphony I/O MkII using an Apple Thunderbolt 3 to Thunderbolt 2 adapter cable.

Make sure that your Mac has the Thunderbolt logo. The Mini DisplayPort, featured on many pre-Thunderbolt Macs, is the exact size of a Thunderbolt port but does NOT support Thunderbolt devices. See the difference below:



✘ Mini Display Port



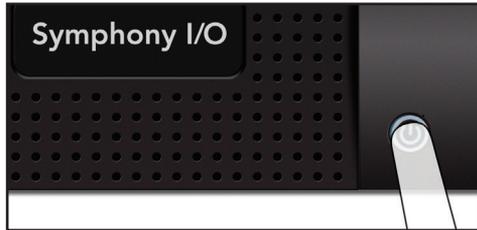
✔ Thunderbolt Port

Note: Apogee cannot guarantee performance if utilizing an uncertified Thunderbolt device in the same chain as Symphony I/O Mk II. To see if a device is certified, please go to:

<https://thunderbolttechnology.net/products>

Powering On

1. Ensure any speakers or amplifiers connected to the outputs are turned off, or the volume turned to the minimum setting.
2. Press Symphony I/O Mk II's Power button.



After a moment, the unit will power up.

3. Power on or raise the volume level of any speakers or amplifiers connected to Symphony I/O Mk II's outputs.

Powering Off

Powering Symphony I/O Mk II off is the reverse of powering the unit on.

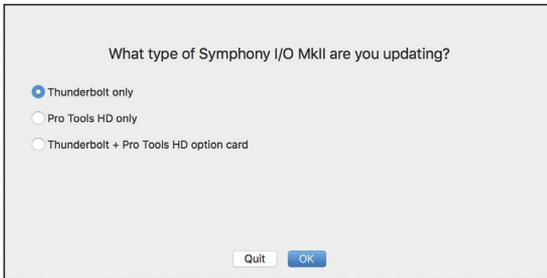
1. Power off, or turn the volume to minimum, any speakers or amplifiers connected to Symphony I/O Mk II's outputs.
2. Press Symphony I/O Mk II's Power button.

Note: Thunderbolt peripherals will continue to operate when unit is powered off.

Update Firmware



After the software installation, you may be prompted to update the firmware.

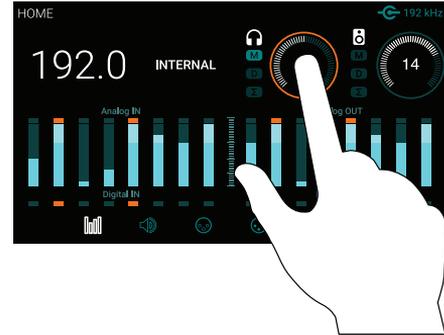


1. If a firmware prompt does not appear, manually open Symphony IO MkII Firmware Updater.app located in your Mac's Application's Utilities folder.
2. Select which type of Symphony IO MkII you are updating, and click OK
3. Follow the prompts and instructions provided by the firmware updater

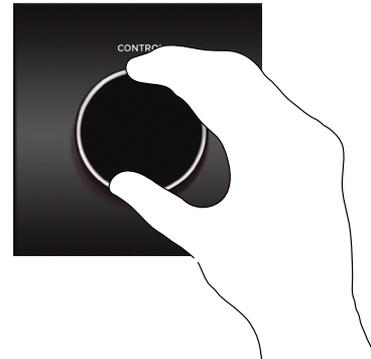
Connecting headphones



1. Connect headphones to the front panel headphone output.
2. To control the volume of the headphone output tap the headphone level ring on the HOME screen or the MONITOR screen.



3. Adjust the volume by turning the control knob.



Connecting speakers



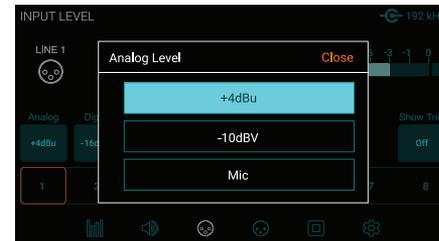
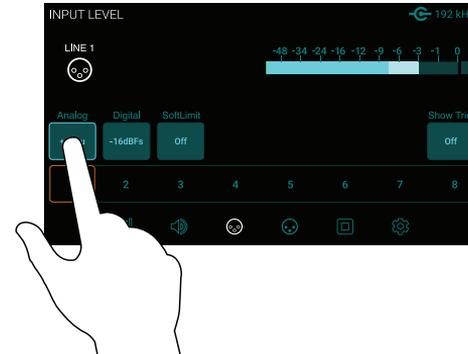
1. Connect a DB25 breakout cable (not included) to the Analog OUT connector on Module 1 (bottom slot)
2. Connect breakout cable outputs 1-2 to your speakers. Connect outputs 3-4 and 5-6 to alternate speaker sets if desired.
3. Tap the speaker level focus ring on the HOME screen or the MONITOR screen to set your output level.



Connecting inputs



1. Connect an 8 channel DB25 breakout cable (not included) to Analog IN on the lower I/O Module (Module Slot1) and plug in the desired input source.
2. On the front panel touchscreen, tap the INPUT icon to navigate to the INPUT page.
3. Select the corresponding input channel then tap the Analog Level button to select the desired level +4dB, -10dB or Mic if you have an 8 channel mic preamp module installed.
4. To adjust the line input trim, press the Show Trim button and tap the trim focus ring to enable the control knob. If you have an 8 channel mic preamp module installed tap the gain focus ring to enable the control knob and adjust the mic pre gain.

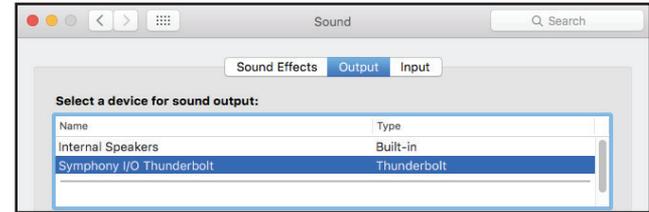


Playback from iTunes

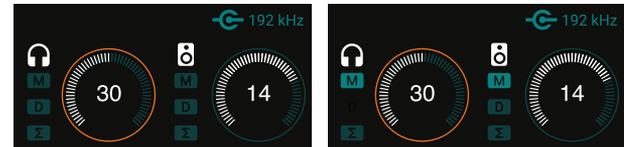
To route audio from general audio applications such as iTunes and Safari through Symphony I/O Mk II, you must set up Symphony I/O Mk II as the default output device in Mac System Preferences.

NOTE: Make sure you have already installed the most recent Symphony I/O Mk II Software from the Apogee website before proceeding.

1. Click the  icon in the upper-left corner of your Mac's display.
2. From the drop-down menu, select "System Preferences..."
3. In the System Preferences control panel, select "Sound"
4. At the top of the Sound Preferences panel, select the "Output" tab
5. Under "Select a device for sound output:" click Symphony I/O Thunderbolt



Now sound from iTunes or Safari can be played through Symphony I/O Mk II's default outputs.



Outputs un-muted

Outputs muted

If you do not hear sound verify the output has not been muted by looking at the M icon below the headphone or speaker icon on the HOME screen. To un-mute headphones or speakers, simply press the control knob with the desired output selected.

Setting Up Symphony I/O Mk II with Logic Pro X

Most professional applications have their own audio preferences that are separate from the Mac System Preferences. Basic steps for setting up Symphony I/O Mk II are provided. For more detail on this topic, refer to the documentation that comes with your recording program.

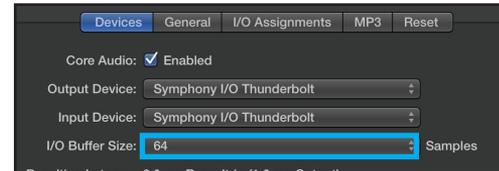
1. Go to Logic Pro X > Preferences > Audio.



2. In the Devices Tab, select “Symphony I/O Mk II” in the Output Device and Input Device drop-down boxes.



3. Start by setting the I/O Buffer Size to “64 Samples”. Adjust the setting based on your computer’s performance.



4. Select “Apply Changes” and close the Preferences window.

Symphony Control software

Symphony Control software provides complete control and monitoring of all Symphony I/O Mk II functions and settings, from levels to direct monitoring to routing and more.

See page 16 for Symphony Control installation instructions (Thunderbolt models only).

Complete information for Symphony Control can be found in the User's Guide which can be downloaded at: www.apogeedigital.com/support/



Pro Tools® Setup

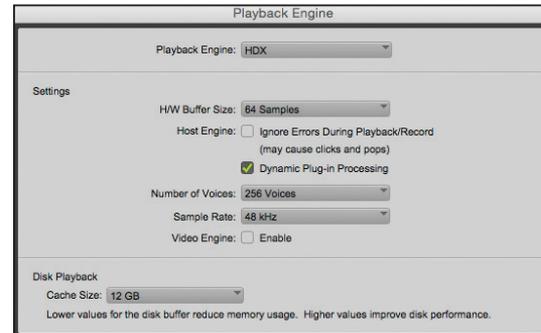
Connecting to Avid HDX, HD Native Thunderbolt and HD Core/Accel Hardware

The following instructions refer to Symphony I/O Mk II Pro Tools HD models. No software installation is required or provided with Symphony I/O Mk II HD. All Symphony I/O Mk II hardware settings can be made from the front panel touchscreen.

To connect a single Symphony I/O Mk II to your Pro Tools HDX or HD Native hardware, simply connect Symphony I/O Mk II's Option card HD port directly to any available port.

Instructions to add additional Avid or Apogee interfaces can be found in the User's Guide.

Note you can not connect Symphony I/O Mk II to an Avid interface. Avid interfaces and Symphony I/O Mk II interfaces must be connected to separate ports.

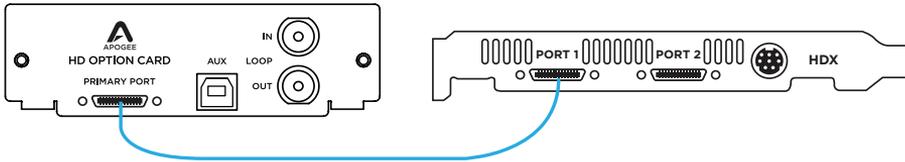


Once hardware connections have been made, launch Pro Tools software.

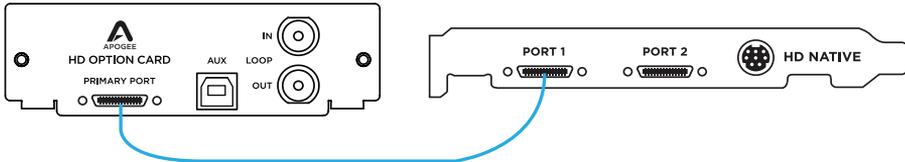
If a single I/O Module is installed, then Symphony I/O Mk II appears in Pro Tools Hardware Setup as a single HD I/O.

If two I/O Modules are installed, then Symphony I/O Mk II appears in Pro Tools Hardware Setup as two HD I/Os.

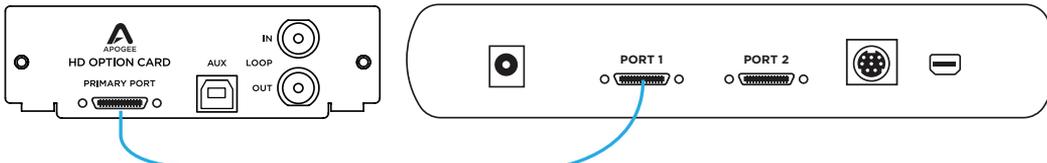
Symphony I/O Mk II to Pro Tools HDX



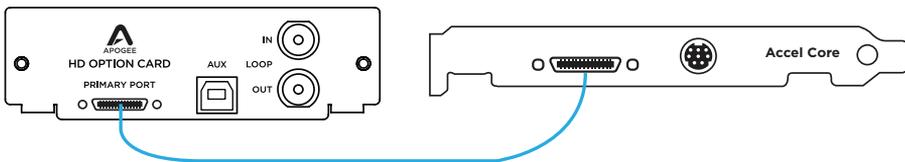
Symphony I/O Mk II to Pro Tools HD Native PCI



Symphony I/O Mk II to Pro Tools HD Native



Symphony I/O Mk II to Pro Tools Accel Core (requires adapter, not included)



Waves SoundGrid Setup

Registration

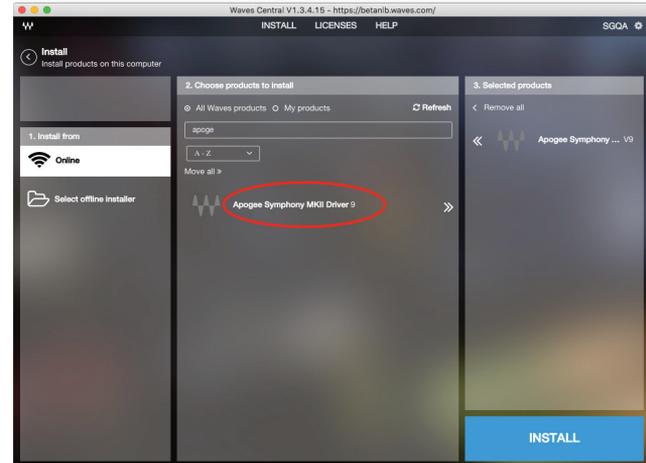
You must have a Waves account in order to access the software, drivers, and any licenses needed for the WSG system. To register your device, log into your Waves account at www.waves.com

If you own Waves plugins, please register, install and activate them prior to following the instructions.

Note: SoundGrid and Native applications support v9.3 and higher plugins only (installer V9r19 and above).

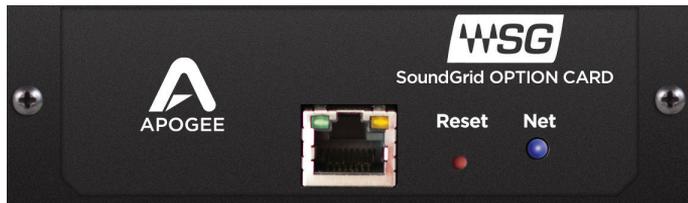
Install Software

Go to Waves.com > Downloads > Latest Version and Download Waves Central for Mac or PC, as needed. Run the installer and follow the onscreen instructions when finished.



1. Launch Waves Central.
2. Click on Install Products, select Online, then the All Waves Products radio button.
3. Type Apogee into the search box and the driver will appear.
4. Make sure that Apogee Symphony MKII Driver is selected (this will automatically install SoundGrid Studio), then click on the Install button.
5. When complete, restart your computer.

Connection to SoundGrid



Connect Apogee Symphony I/O MkII WSG to your computer:

- If you do not have a WSG server or any other WSG devices, connect from the WSG Option Card's ethernet port on your Symphony I/O MkII directly to your computer's Ethernet port using a CAT5e or CAT6 cable.
- If you are using multiple devices—for example Symphony I/O MkII and a SoundGrid Server, or multiple WSG interfaces— connect them all to a SoundGrid-compatible ethernet switch, and connect the switch to your computer's Ethernet port.

See <http://www.waves.com/hardware/soundgrid-switches> for a list of approved switches.

Simple Recording/Playback Setup with the SoundGrid Studio Application

Use the SoundGrid Studio Application as your setup application.

Note: *The first time you run and configure your Apogee Symphony I/O MkII WSG, you may be prompted to update the firmware of your device. Follow the onscreen instructions.*

There are also built-in templates to assist you with configuration. Select the template that best meets your setup. Finally, check in the PATCH tab at the top of the SoundGrid Studio application that your Symphony I/O MkII is patched to the driver. If you do not have a Waves SoundGrid server, you will not have an eMotion Mixer and will need to go to the “Device to Device” section of the Patch tab and make sure the ASIO or CoreAudio driver of your computer is patched to the Sym MKII channels for both inputs and outputs. If you've selected one of the preset templates, this will be done automatically. If you've adjusted the number of driver channels, you may need to patch additional channels.

Note: *Depending on the number of channels you are recording or playing back and on the computer you are using, you might need to raise your network and/or driver buffer-size setting in the Settings page (PC) or directly in your DAW (Mac).*

For more detailed information on using Symphony I/O MkII with Waves SoundGrid, Register your product(s) and download the Symphony I/O Mk II Waves SoundGrid User's Guide go to: <https://apogeedigital.com/support>

Dante/PTHD Setup

System Requirements

macOS version 10.11.6

Windows 10

Dante Controller software - free download from:

<https://www.audinate.com/products/software>

Optional software:

Apogee Network Control software - (Register to download)

<https://apogeedigital.com/support/register>

Dante Via, Dante Virtual Soundcard, Dante Domain Manager

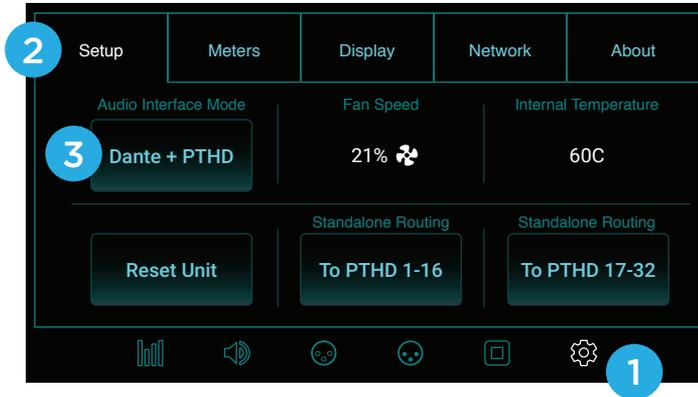
Install Software

There are multiple software applications available for a Symphony I/O Dante/Pro Tools HD system.

Each application provides specific functionality as described below:

- Dante Controller - Use Dante Controller to route Symphony I/O audio streams to and from other devices on the Dante network. Also used for network specific parameters such as network clocking, Ethernet connector mode, and custom names.
- Apogee Network Control - Apogee Network Control offers remote control of Symphony I/O hardware settings over the Dante network. For example, when a Mic Pre IO Module is installed, all mic pre settings may be made remotely. This software is not mandatory for operation, as all settings may also be made from the front panel OLED screen.
- Dante Virtual Soundcard
- Dante Via
- Dante Domain Manager

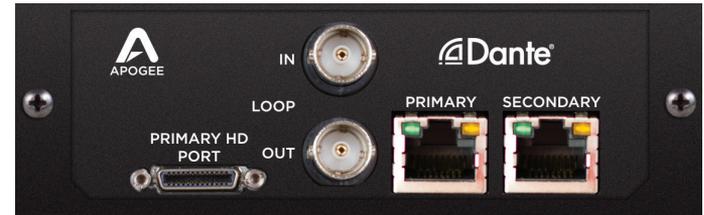
Choosing Symphony I/O Audio Interface Mode (AIM)



1. Tap the Settings icon.
2. Tap the Setup tab at the top of the screen.
3. Tap the Audio Interface Mode button, then tap “Yes” in the on-screen prompt. If the Thunderbolt option card is installed, the button toggles through the available AIMs in the order Dante - Dante + PTHD - Thunderbolt. Thus, it may be necessary to set the Audio Interface Mode twice to arrive at the desired AIM.

The very first step to setting up your system is to choose Symphony I/O’s audio interface mode, or AIM. A Dante/PTHD-equipped Symphony I/O may operate in two distinct AIMs: Dante (Only) and Dante + PTHD. If the Thunderbolt option card is installed, a third Thunderbolt AIM is available. Choose the AIM from the front panel OLED.

Connecting to the Dante Network



Using a Cat 5E or 6 Ethernet (RJ45) cable, connect the Dante option card Primary port to your Dante network.

Using Dante AIM



For the purposes of getting started quickly, it's recommended to set the Symphony I/O clock source to Dante Clock from the front panel OLED. Tap the Meter icon, then tap the clock source button, then choose Dante Clock in the scroll down list, then tap OK. When Symphony I/O is set to Dante AIM, routing between the I/O modules and the Dante network is fixed in a “one-to-one” setting as shown.

1. I/O Module inputs 1 to 32 are routed to Dante Transmit channels 1-32 (think transmit to the Dante network);
2. Dante Receive channels 1-32 (think receive from the network) are routed to I/O Module outputs 1-32.

Routing between Symphony I/O and other Dante-connected devices is set in the Dante Controller Routing tab.

The Pro Tools HD connector offers no functionality in this mode.



Connecting to Pro Tools HD

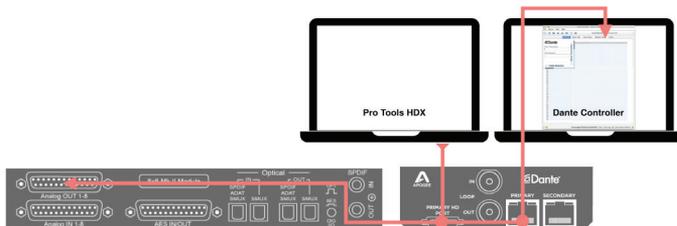
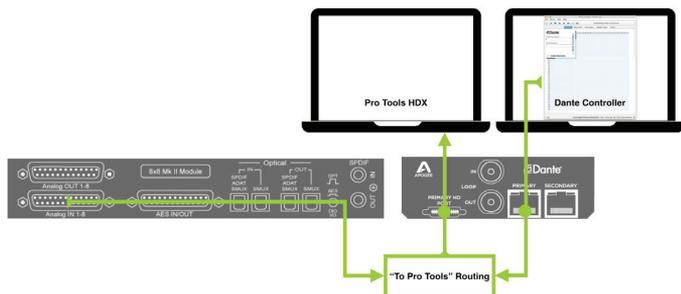
See page 26 for Pro Tools HD connections.

Using Dante + PTHD AIM

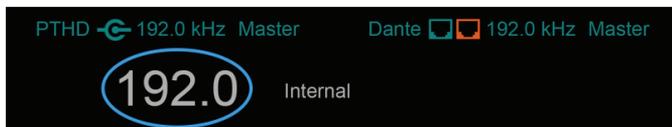
For the purposes of getting started quickly, it's recommended to set the Symphony I/O clock source to **Dante Clock** from Pro Tools. In the Dante + PTHD AIM, routing is configured from the perspective of signals routed to and from the Pro Tools session:

Inputs to the Pro Tools session may be routed from either the Dante Receive channels or the unit's I/O Module inputs. Selection of the source may be made in banks of 8 from the front panel OLED in Settings Gear > Settings tab. For example, to route I/O module inputs 1-8 and Dante 9-16 to the Pro Tools session, set Routing to **Analog 1-8, Dante 9-16**.

Output routing *from* the Pro Tools session to both Dante Transmit channels and I/O module outputs is fixed as shown below. Pro Tools session outputs 1-32 are always routed to both I/O module outputs 1-32 and Dante Transmit channels 1-32.



Dante Clocking & Front Panel Status



Device Sample-Rate

The current sample-rate of the Device.

Dante AIM

White and Solid

- Device Sample-Rate matches Dante Sample-Rate.

White and Flashing

- Device Sample-Rate doesn't match Dante Sample-Rate.

Solution: if you're attempting to clock the Device using an external clock, adjust either the sample-rate of the external clock-source you're using to clock the Device or adjust the sample-rate of the Device in Dante so that both sample-rates match. If you're not clocking externally and it's still flashing, trying power-cycling the Device and quitting/relaunching Dante Controller and then attempt to set the sample-rate again.

Dante+PTHD AIM

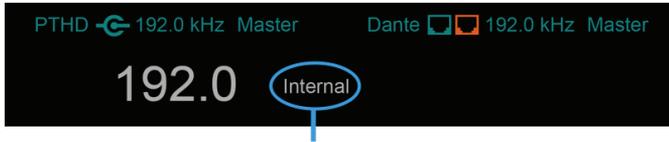
White and Solid

- Device Sample-Rate matches PTHD Sample-Rate.

White and Flashing

- Device Sample-Rate doesn't match PTHD Sample-Rate.

Solution: adjust either the sample-rate of the external clock-source you're using to clock the Device or adjust the sample-rate of Pro Tools HD so that both sample-rates match.



Device Clock Source

The clock source of the Device: Appears as a button when in Dante-only AIM. Tapping this button is how you would change the clock-source. In Dante+PTHD AIM, you must change clock-source from the clock-source menu in the PTHD Hardware Setup window.

Dante-only AIM:

- Dante Clock (default)
If you're using an external clock-source, you typically would only want to clock the Dante Clock Master externally and leave all the other Devices set to Dante Clock.
- Internal
- Word Clock
- SPDIF Cx
- Optical (available in Devices with an 8x8 or 2x6 module)
- AES (available in Devices with an 8x8 or 2x6 module)

Dante+PTHD AIM: Pro Tools Loop Master

- Internal (default)
- Dante Clock (select Optical [Enc] from HD I/O #1 in PTHD Clock Source menu)
- Word Clock (select the Word Clock from HD I/O #1 at the very bottom PTHD Clock Source menu)
- SPDIF Cx (select AES/EBU [Enc] from HD I/O #1 in PTHD Clock Source menu)
- Optical (whether the optical format is set for ADAT or SPDIF, select ADAT 1-4 or ADAT S/MUX 1-4 from HD I/O #1 in PTHD Clock Source menu)
- AES (select a pair of AES/EBU from HD I/O #1 in PTHD Clock Source menu. Note- don't select AES/EBU [Enc], as that will set the clock-source to SPDIF Cx)

Dante+PTHD AIM: Pro Tools Slave

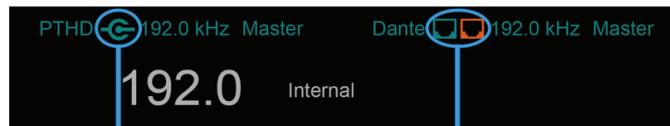
- Loop (can't be changed)

Dante Clocking & Front Panel Status Continued



Indicates the Device is in Dante+PTHD AIM.

Indicates the Device is in either Dante-only AIM or Dante+PTHD AIM.



PTHD Status Icon

Blue: Connected to and receiving information from PTHD.

Orange: Not receiving information from PTHD.

Ethernet Port Status Icons

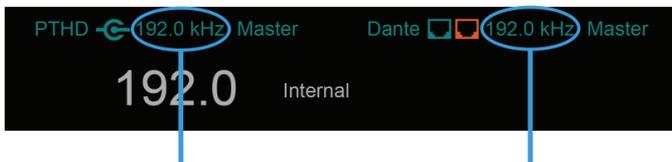
Single icon: Device is in Switched mode*

Two icons: Device is in Redundant mode. The icon on the left is the Primary port, which should be connected to the Primary Network. The icon on the right is the Secondary port, which should be connected to the Secondary Network.

Blue: The port is connected to a network device.

Orange: The port is not connected to a network device.

* Switched mode allows you to use the 2nd port to daisy-chain Devices. Redundant mode allows you to use the 2nd port to connect to a redundant network. To change between Switched and Redundant mode, you can do so in the Network Config tab of the Device View in Dante Controller.



PTHD Sample-Rate

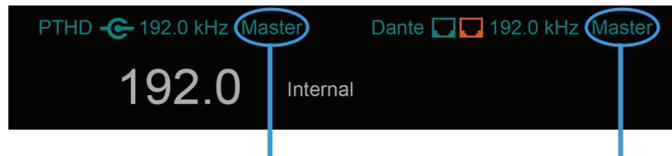
Displays the current sample-rate from PTHD. This should always match the Device's actual sample-rate (displayed below in larger white text)

Dante Sample-Rate

Displays the current sample-rate from the Dante network.

In Dante-only AIM, this will always be displayed as blue.

In Dante+PTHD AIM, blue indicates that the Dante sample-rate matches the PTHD sample-rate and orange indicates a mismatch between the Dante sample-rate and the PTHD sample-rate.



PTHD Loop Master Indicator

Appears on the PTHD Loop Master. Only one Device can be Loop Master at a time. Setting a different Device to be Loop Master requires setting the clock-source of the primary "HD I/O" to Internal in the Hardware Setup menu of PTHD.

Dante Clock Master Indicator

Appears on the Dante Clock Master. Only one Device can be Dante Clock Master at a time. To set another Device as Clock Master, check its Preferred Master checkbox in the Clock Status tab of Dante Controller and un-check the box for the previous Preferred Master.

In Dante+PTHD AIM, you should typically make the Device that's PTHD Loop Master the Dante Clock Master as well.



Designed in California
Built in U.S.A.

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