Apogee Ensemble

Thunderbolt™ Audio Interface

Quick Start Guide

July 2017

APOGEE

Contents

Overview 3

Introduction 3
Package Contents 4
Ensemble Product Tour 6

Getting Started 8

System Requirements 8
Install Ensemble Software 8
Apogee Control 8
Connect Ensemble to your Computer 9
Connecting Multiple Units 10
Powering the unit On/Off 12
Update Ensemble's Firmware 13
To Play Sound Out 14
Setting Up Ensemble with your DAW 15
Connect Speakers 18
Connect Headphones 19
To Get Sound In 20
Select the Input Source 21
Adjust the Input Gain 22
Toggling Phantom Power 23
Monitoring the Input Signal 24
Using your DAW to Monitor 24
Using Apogee Control for Direct Monitoring 25

Additional Support 27

Overview

Introduction

Apogee Ensemble is the all-in-one Thunderbolt™ 2 audio interface offering unsurpassed sound quality, lowest latency performance and the most comprehensive studio functionality ever. Ensemble includes 8 Advanced Stepped Gain mic preamps, monitor controller functionality including talkback, front panel Guitar I/O, two headphone outputs and digital I/O for a total of 30 x 34 I/O. Blending acclaimed innovations, groundbreaking new features and an effortless user interface, Ensemble frees you to capture inspiration when creative lightning strikes.

Features

- Thunderbolt™ 2 Mac audio interface with two Thunderbolt ports
- Analog-to-digital conversion (ADC) for recording up to 24-bit/192kHz
- Proprietary Thunderbolt audio driver and ESS Sabre32 DAC offer full 32-bit playback
    - Groundbreaking low latency performance
    - Core Audio-optimized hardware DMA Engine frees your Mac CPU
- 2 high-resolution OLED displays show levels and settings
- Input select buttons and controller knob for convenient selection of parameters and settings
- 4 assignable buttons to control:
    - Talkback mic (built-in or external)
    - Output settings such as speaker set selection, mute, dim, sum to mono
- Complete input/output control with Apogee's Control software
- Works with Pro Tools, Logic, Ableton and any Core Audio compliant app on Mac
- Designed in California – Assembled in the U.S.A.

Package Contents

The following items are included in the box with Ensemble:

Ensemble
3-pin IEC power cable
Rubber feet
Quick Start Guide
Warranty Booklet

Register your product

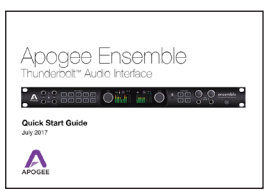
- Access Apogee's expert Technical Support for free
- Receive important product update information by email
- Take the Customer Satisfaction Survey for a chance to win Apogee gear!

Register now:
www.apogeedigital.com/register

Ensemble

3-pin IEC power cable

Rubber feet

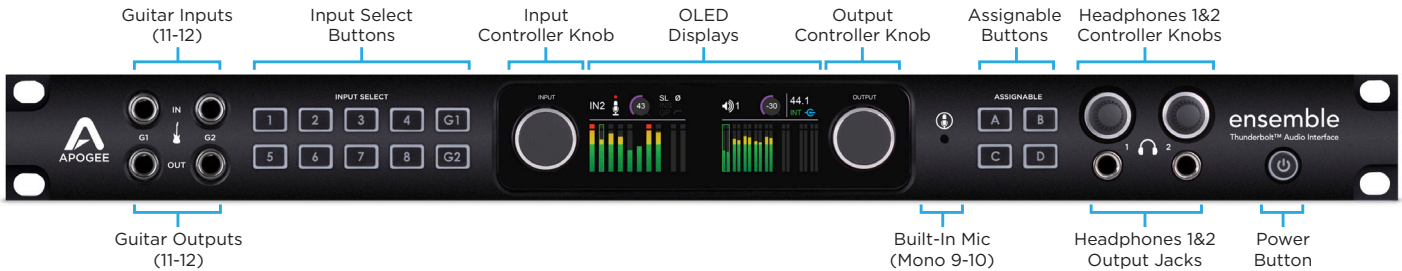


Quick Start Guide

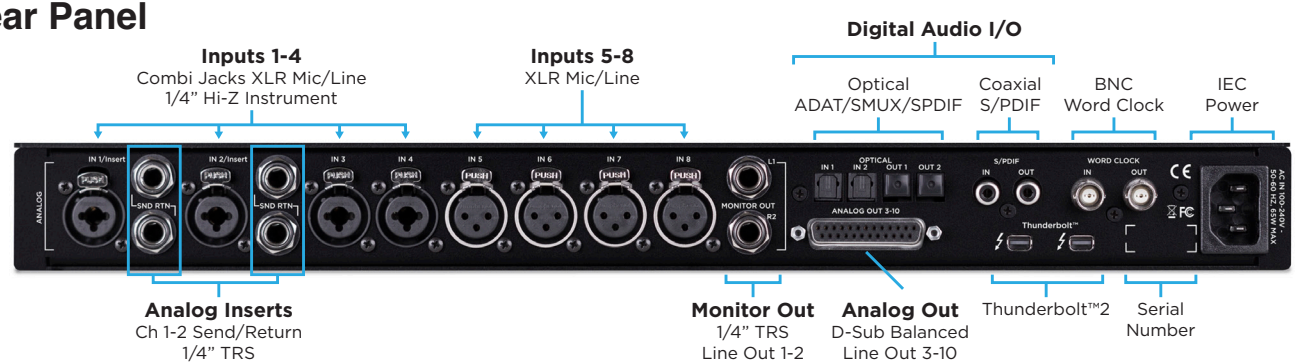
Warranty Booklet

Ensemble Product Tour

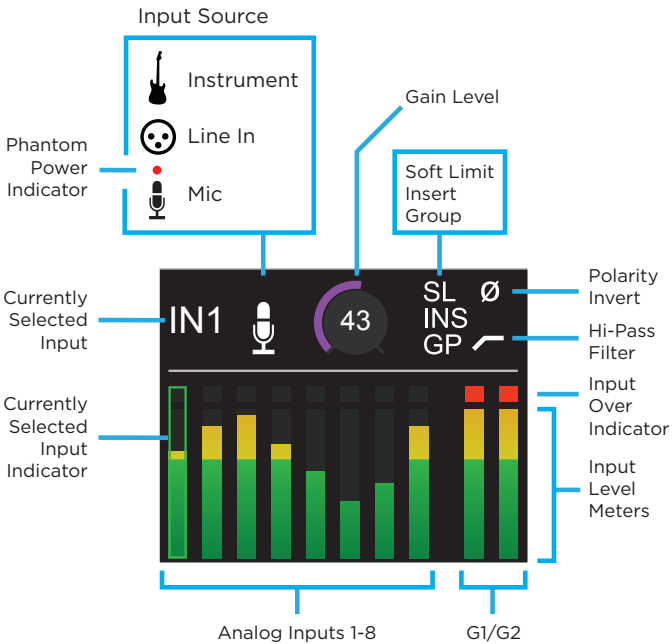
Front Panel



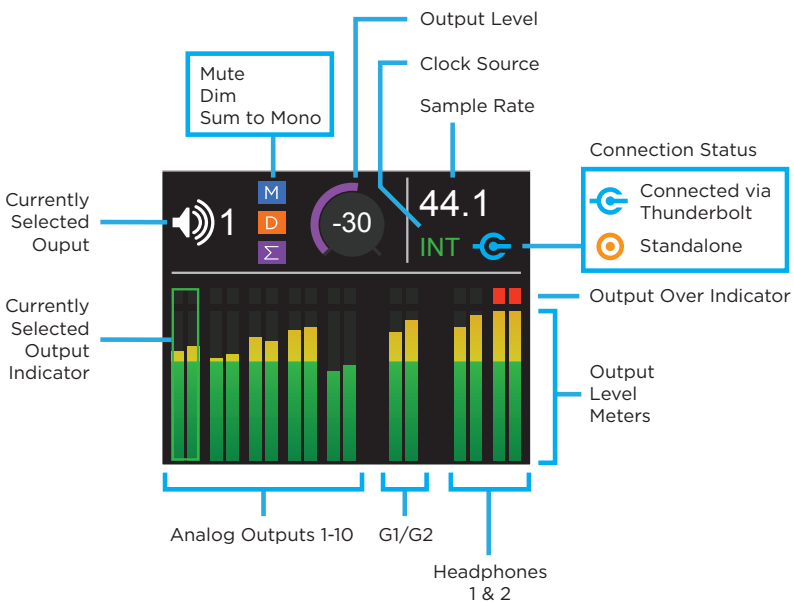
Rear Panel



Input Display



Output Display



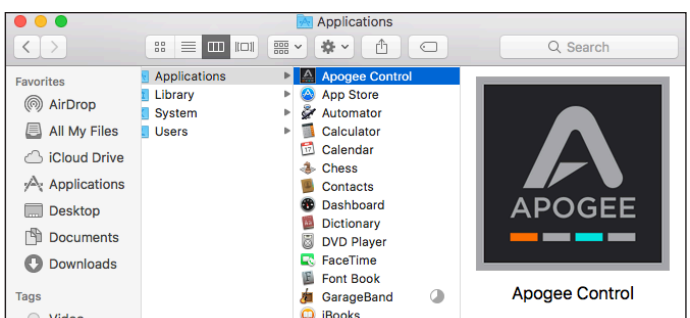
Getting Started

System Requirements

- Computer: Thunderbolt™ equipped Mac
- Memory: 4GB RAM minimum, 8GB RAM recommended
- OS X 10.10 or greater

Install Ensemble Software

1. Go to http://www.apogeedigital.com/support/ensemble-thunderbolt
2. Download the latest Ensemble software installer.
3. Open the downloaded .dmg file and double-click Installer.pkg that's inside.
4. Follow the prompts. You will be required to restart your computer.



Apogee Control

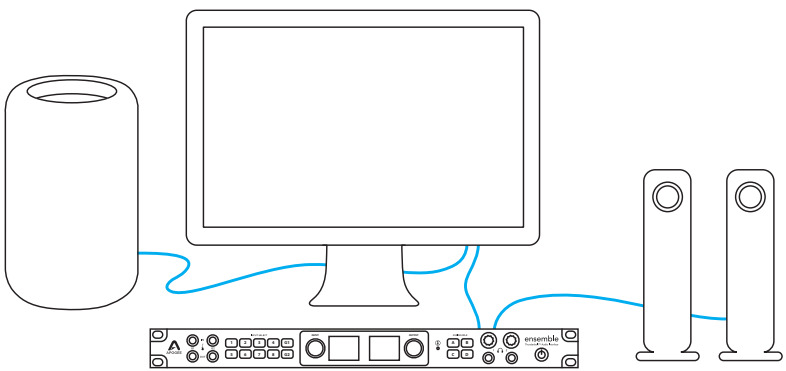
Apogee Control is a controller software for the Ensemble & Element Thunderbolt interfaces. All of Ensemble's settings and parameters can be controlled from this application. When installing the latest Ensemble software from the Apogee Website, Apogee Control is placed in your Mac's Application folder.

Connect Ensemble to your Computer

Ensemble features two Thunderbolt™ 2 connections to enable daisy-chaining of other Thunderbolt peripherals to your computer.

1. Using a certified Thunderbolt cable, connect Ensemble to a Thunderbolt port on your computer.
2. Connect other certified Thunderbolt devices to Ensemble's remaining Thunderbolt port.

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:



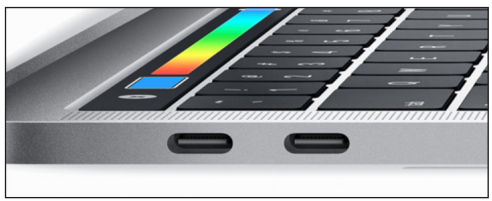
✖ Mini Display Port

✔ Thunderbolt Port

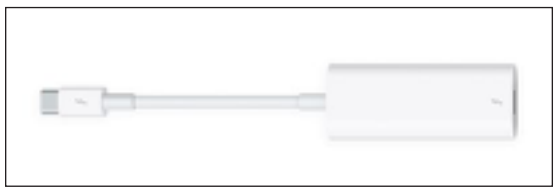
Note: Apogee cannot guarantee performance if utilizing an uncertified Thunderbolt device in the same chain as Ensemble. To see if a device is certified, please go to:

https://thunderbolttechnology.net/products

For Macs equipped with a Thunderbolt-3 USB-C port, Apple's Thunderbolt 3 to Thunderbolt 2 adapter can be used.



Thunderbolt 3 Ports

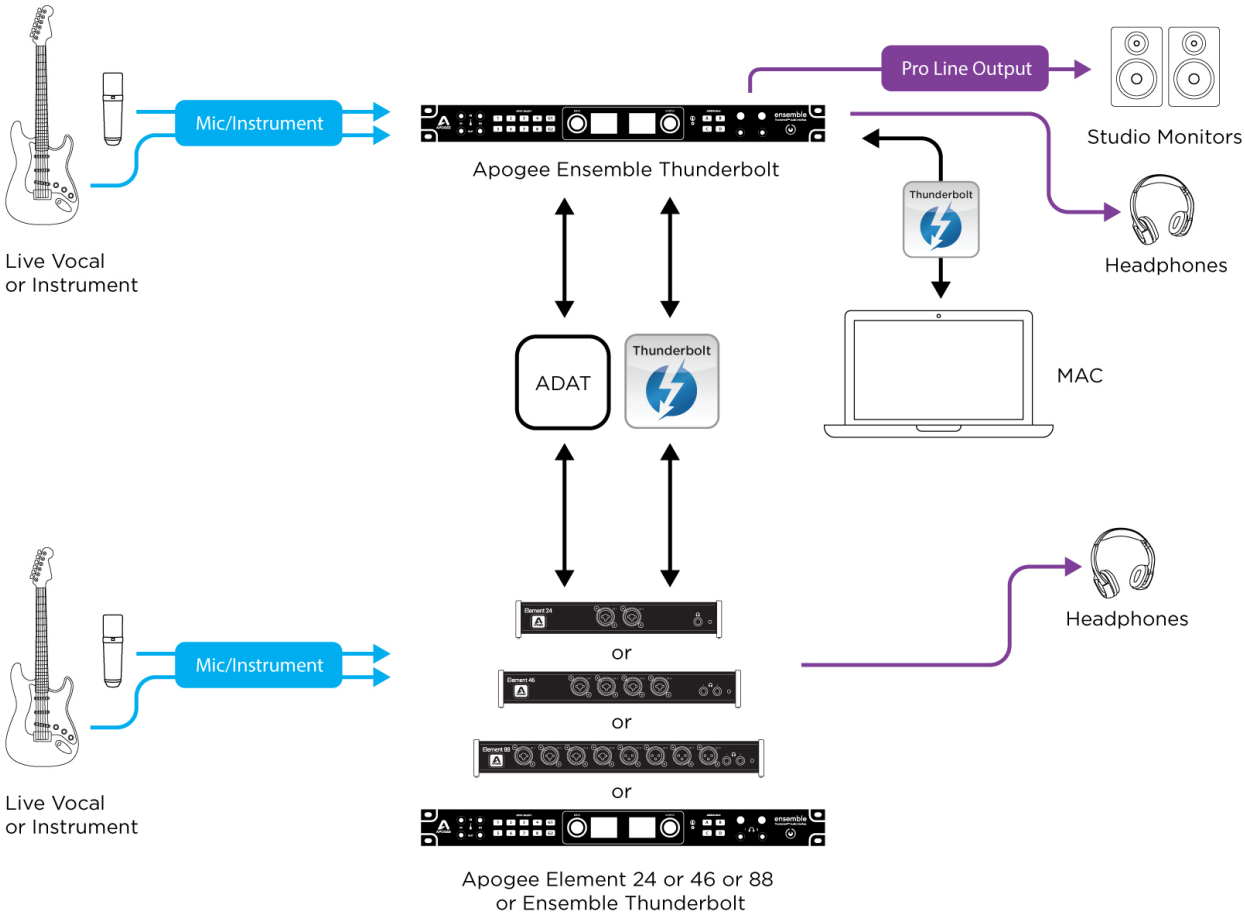


Thunderbolt-3 to Thunderbolt-2 adapter

Connecting Multiple Units

The Ensemble can be combined with a second Ensemble Thunderbolt or any Element Thunderbolt interface. Here's how:

1. Connect optical cables to all available ports. The connection should go from the OUT ports of one device, to the IN ports of the other.
2. Connect the power cables to both devices.
3. Using a certified Thunderbolt cable, connect your primary Ensemble to a Thunderbolt port on your computer.
4. Using a second Thunderbolt cable, connect from the remaining Thunderbolt port of the primary Ensemble to an available Thunderbolt port on the other Ensemble or Element.


Mic/Instrument
Live Vocal
or Instrument
Apogee Ensemble Thunderbolt
Pro Line Output
Studio Monitors
Thunderbolt
Headphones
ADAT
Thunderbolt
MAC
Mic/Instrument
Live Vocal
or Instrument
or
or
or
Headphones
Apogee Element 24 or 46 or 88
or Ensemble Thunderbolt

Powering the Unit On

1. Ensure any speakers or amplifiers connected to the outputs are turned off, or the volume turned to the minimum setting.

2. Press Ensemble'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 Ensemble's outputs.

Powering the Unit Off

Powering the Ensemble off is the reverse of powering the unit on.

1. Power off, or turn the volume to minimum, any speakers or amplifiers connected to Ensemble's outputs.

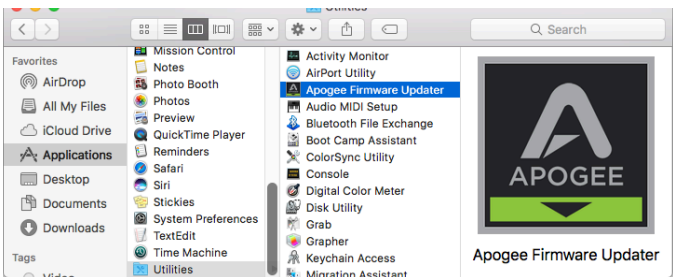
2. Press Ensemble's Power button.

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

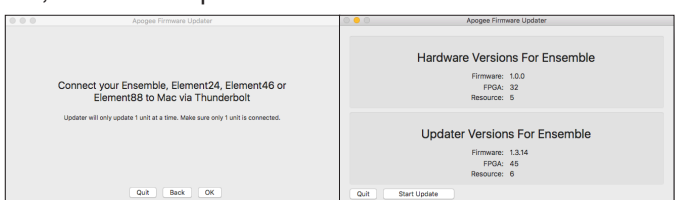
Update Ensemble's Firmware.

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

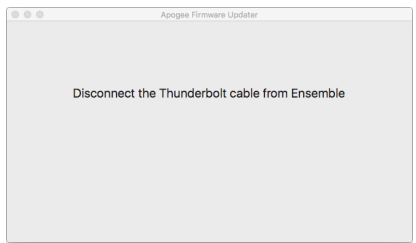
1. Open Apogee Firmware Updater.app located in your computer's Applications > Utilities folder.



2. Make sure only one Apogee Device is connected, click OK, then Start Update.



3. Follow any prompts that may appear.



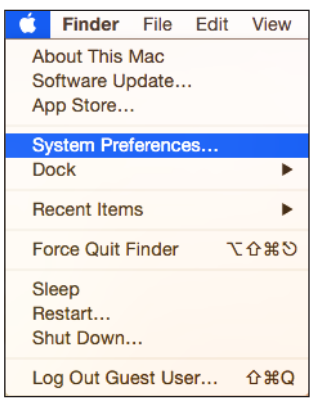
4. When complete, the Hardware & Updater versions will match, and you can quit the updater.

To Play Sound Out

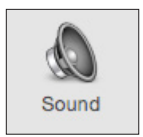
Select Ensemble for Mac System Sound Output

To get sound from general audio applications such as iTunes and Safari to play out of Ensemble, it must be selected as the output device in Mac System Preferences:

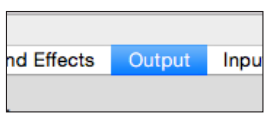
1. Select the icon in the upper-left corner of your Mac's display.



2. From the drop-down menu, select "System Preferences...".

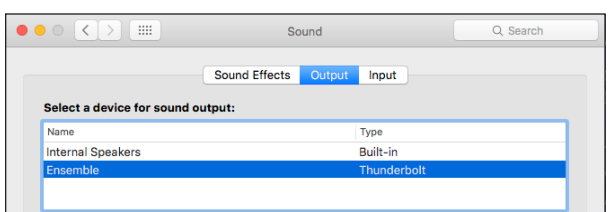


3. In the System Preferences control panel, select "Sound".



4. At the top of the Sound Preferences panel, select the "Output" tab.

5. Under "Select a device for sound output:" select Ensemble.

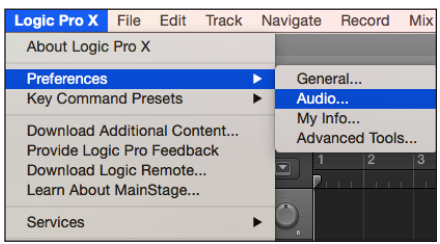


Setting Up Ensemble with your DAW

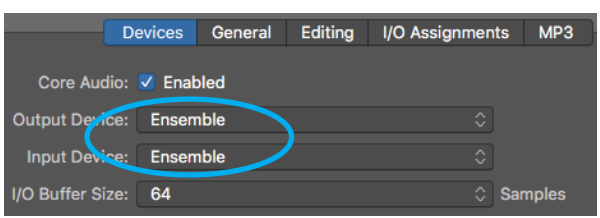
Most professional applications have their own audio preferences that are separate from the Mac System Preferences. Basic steps for setting up Ensemble are provided. For more detail on this topic, refer to the documentation that comes with your recording program.

Select Ensemble in Logic Pro X

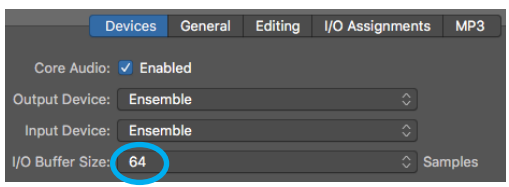
1. Go to Logic Pro X > Preferences > Audio.



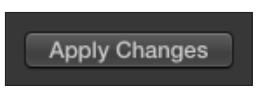
2. In the Devices Tab, select “Ensemble” in the Output Device and Input Device drop-down boxes.



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



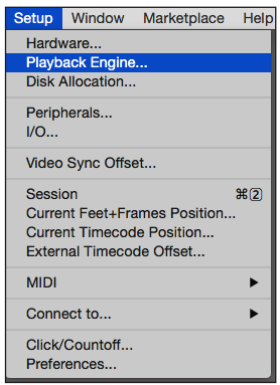
4. Select “Apply Changes” and close the Preferences window.



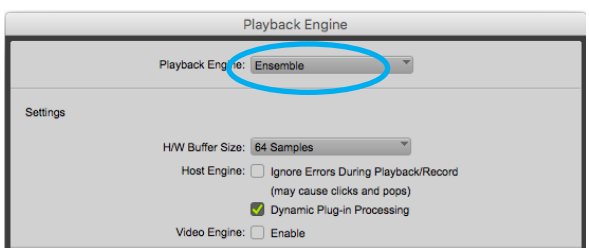
Note: “Apogee Thunderbolt” when using multiple units.

Select Ensemble in Pro Tools

1. Go to Setup > Playback Engine.

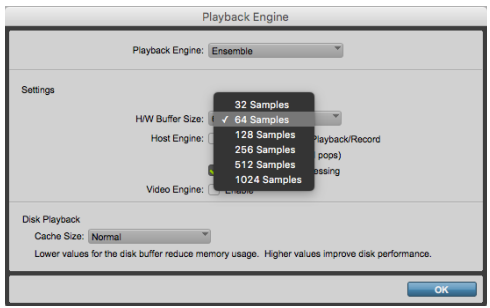


2. In the Playback Engine drop-down box, select “Ensemble”.

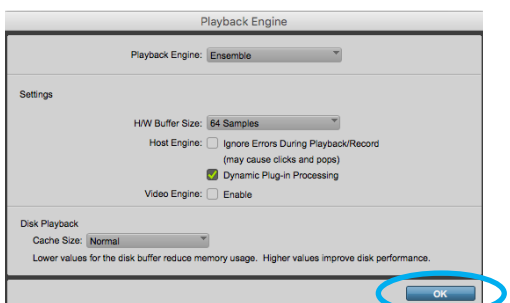


Note: “Apogee Thunderbolt” when using multiple units.

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

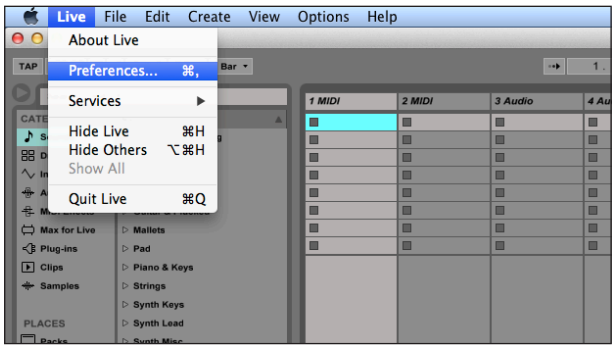


4. Select OK.
Pro Tools will restart.

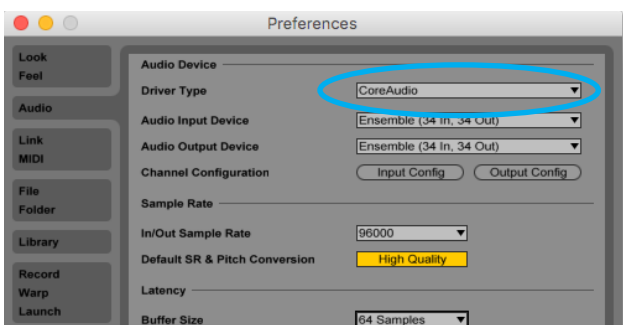


Select Ensemble in Ableton Live

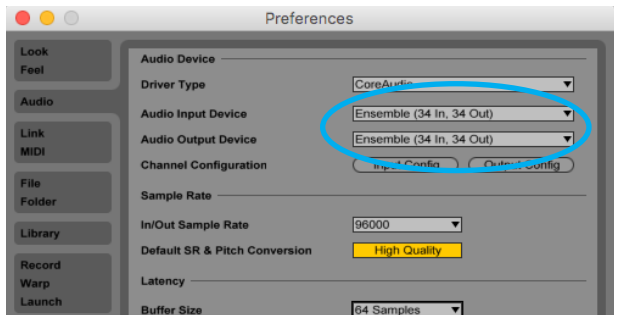
1. Go to Live > Preferences. Select the Audio tab.



2. In Driver Type, select “CoreAudio”.

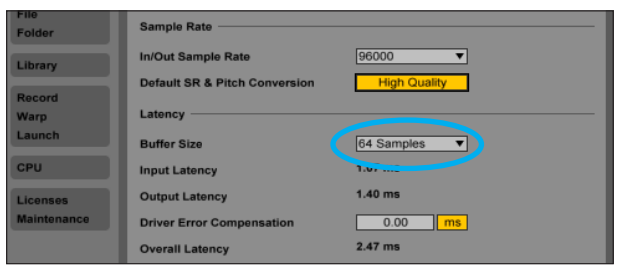


3. In Audio Input & Audio Output Device, select “Ensemble”.



Note: “Apogee Thunderbolt” when using multiple units.

4. Start by setting the buffer size to “64 samples”. Adjust the setting based on your computer’s performance.

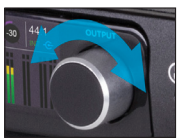


Connect Speakers

The balanced Monitor Outputs 1 & 2 on Ensemble's rear panel are specifically designed for connecting studio monitors.

1. Using 1/4" TRS cables, connect the left monitor speaker to Monitor Out 1, and the right monitor speaker to Monitor Out 2.

From the Front Panel



2. Turn the Output knob to adjust the volume to your speakers.

3. Press the Output knob to toggle the monitor output mute on and off.

From Apogee Control

2. Open Apogee Control and locate the volume knobs in the bottom-right corner of the Primary Window.

3. Drag the Main volume knob up or down to adjust the speaker volume level.

4. Click the mute button next to the Main volume knob to toggle the speaker output's mute on or off.

Connect Headphones

Ensemble provides two headphone output jacks on the front panel. By default, these headphone outputs mirror the main monitor outputs 1 & 2.

1. Connect to the headphone output with a 1/4” Stereo headphone plug.

From the Front Panel

2. Turn the corresponding Headphone Output knob to adjust the volume to your headphones.

3. Press the Headphone Output knob to toggle the Headphone Output mute on and off.

From Apogee Control

2. Open Apogee Control and locate the volume knobs in the bottom-right corner of the Primary Window.

3. Drag the Headphone 1 or Headphone 2 volume knob up or down to adjust the headphone volume level.

4. Click the mute button next to the Headphone 1 or Headphone 2 volume knob to toggle the Headphone output mute on or off.

To Get Sound In

Ensemble is equipped with eight premium-quality Advanced Stepped Gain microphone preamps and four instrument inputs on the rear panel, as well as two guitar inputs on the front panel.

Connect a **microphone or line level input** to any of the eight XLR inputs on Ensemble Thunderbolt's rear panel.

Connect a **high impedance (Hi-Z)** instrument such as a **keyboard or guitar** with a 1/4" cable to one of the combi connectors on the rear panel.

Connect to one of the two **Hi-Z guitar inputs** on the front panel.

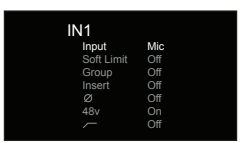
Select the Input Source

From the Front Panel

1. Press the desired Input Select button.

2. Turn the Input knob to highlight “Input”.

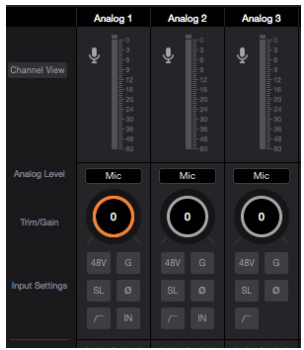
3. Press the Input knob to change the input source.



- Set to “Mic” if connecting a microphone.
- Set to “Inst” if connecting instruments.
- Set to “+4dBu” or “-10dBV” if connecting a line level signal such as an external preamp or mixer.

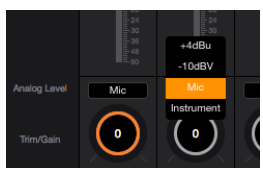
4. Press the Input Select button to return to the Input level meter screen.

From Apogee Control



1. Open Apogee Control and locate the Input you want to adjust in the Channel Section.

2. To the right of Analog Level, click the box in the desired input channel to select your input source.



- Set to “Mic” if connecting a microphone.
- Set to “Inst” if connecting instruments.
- Set to “+4dBu” or “-10dBV” if connecting a line level signal such as an external preamp or mixer.

NOTE: G1 and G2 are always instrument inputs and therefore have no option to change the input source.

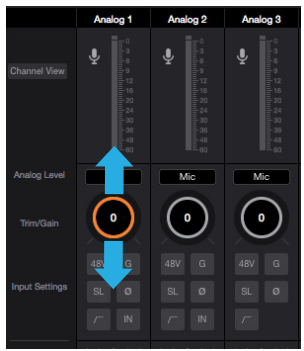
Adjust the Input Gain

From the Front Panel

1. Press the desired Input Select button.

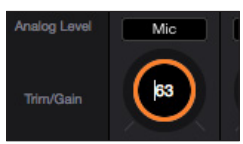
2. Turn the Input knob.

From Apogee Control



1. Open Apogee Control and locate the Input you want to adjust in the Channel Section.

2. On the desired input channel, drag the Gain knob up or down to adjust the gain level.



3. Alternatively, you can type a gain value in the box inside the knob.

Toggling Phantom Power

Phantom power is required to use condenser microphones.

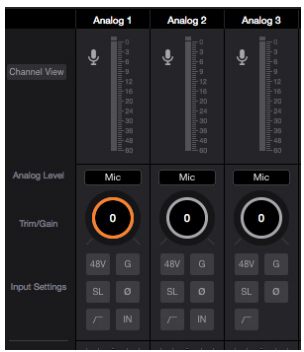
From the Front Panel

1. Press the desired Input Select button.

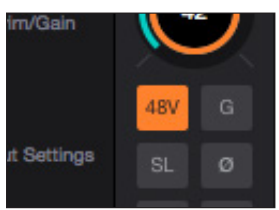
2. Turn the Input knob to highlight “48v”.

3. Press the Input knob to toggle “ON” or “OFF”.

From Apogee Control



1. Open Apogee Control and locate the Input you want to adjust in the Channel Section.



2. At the bottom of the desired input channel, click the “48” button to toggle phantom power on or off.

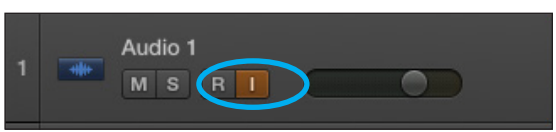
Monitoring the Input Signal

Using your DAW to Monitor

By default, Ensemble assumes monitoring will be handled by your recording software or DAW. Basic steps on enabling the monitor feature for the most popular recording programs are below. For more detailed information on this topic, see the documentation that comes with your recording program.

Enable Input Monitor in Logic Pro X

Select the “I” button in each track you’d like to input monitor.



Enable Input Monitoring in Pro Tools

Record enable the track to activate input monitoring (Pro Tools Native).

Enable Input Monitoring in Ableton Live

In the track I/O section, set the Monitor switch to “Auto”, or “In”.

Using Apogee Control's Mixer 1 for Direct Monitoring

If you do not have any recording software open, or do not want to use its monitoring function due to issues such as high latency, then you can use one of the Low Latency Mixers built into Apogee Control to monitor your signal instead.

1. Disable input monitoring in your DAW.

2. Open Apogee Control and go to the Output Section of the Primary Window.

3. To monitor using speakers connected to Ensemble's Monitor Out 1&2:

Click the box above the Main Output Volume knob

Choose "Mixer 1" from the drop-down box.

Now the signal from the Mixer 1 will be sent to your speakers.

4. To monitor using headphones connected to Headphone Output 1:

Click the box above the Headphones 1 knob.

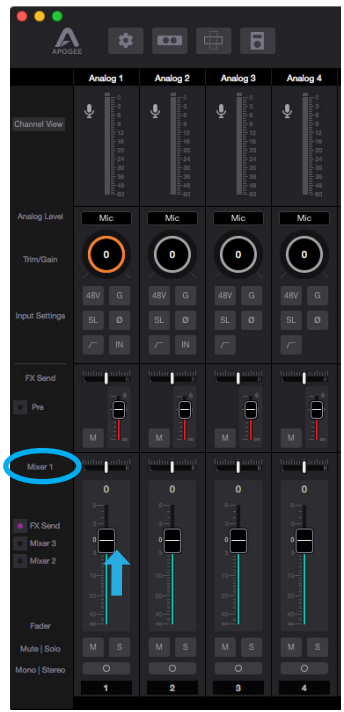
Choose "Mixer 1" from the drop-down box.

Now the signal from the Mixer 1 will be sent to your headphones.

Using Apogee Control's Mixer 1 for Direct Monitoring (Cont'd)

You can control the amount of input signal verses software playback volume heard using the Mixer controls:

5. Find "Mixer 1" in the Apogee Control Primary Window.



6. Adjust the level of input heard by adjusting the Fader.

7. Adjust the audio playback level from software with the Playback 1-2 Fader.

Additional Support

For more information

- Ensemble User's Guide
- Apogee KnowledgeBase and FAQs
- Apogee Product Registration
- How to contact Apogee Technical Support

Please visit: www.apogeedigital.com/support

Designed in California
Made in U.S.A.

Apogee Electronics Corp. Santa Monica, CA
www.apogeedigital.com

7010-0072-0160
Revision 2.0