



Apogee Duet

User's Guide for Windows

November, 2017



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Introduction

Thank you for purchasing Duet. This User's Guide describes how to set up Duet with your Windows PC, connect speakers or headphones to play back music and connect mics and instruments to record your own creations.

Duet for Windows

The Industry Standard for Personal Recording

Apogee Duet is an award-winning audio interface, headphone amp and MIDI interface making it easy to create professional recordings anywhere on your Mac, iPhone or iPad, and your Windows PC. With Apogee's legendary digital audio conversion and world-class mic preamps, Duet is the best way to capture your music with incredible dimension and detail.

The Apogee Duet features special circuitry designed to deliver professional performance for use along with low latency USB 2.0 performance. And with the addition of MIDI I/O you can connect and power a CoreMIDI compatible keyboard/controller while using Duet with your Windows PC.

Legendary Sound Quality

Why Apogee Duet is the best choice for your studio

Apogee is an award-winning industry leader in digital recording technology with over 30 years of experience. Preferred by recording pros around the world, Apogee products like Duet, Ensemble and Symphony I/O have been instrumental in creating countless GRAMMY® and OSCAR® winning recordings and have set the industry standard in professional recording for over three decades. Duet is built solidly on this reputation.

Package Contents

The following items are included in the Duet box:

- Duet
- Breakout cable with:
 - 2 combination line/mic/instrument inputs
 - 2 balanced line outputs
- 2 meter USB cable
- Universal power supply with NA, EU, UK, AU, JP
- QuickStart Guide



QuickStart Guide



Universal Power Adapter
for US, EU and UK



2 Meter USB Cable



Breakout Cable

Note: Lightning iOS cable sold separately.

Please register your product and download the latest installer here:

www.apogeedigital.com/support

Duet panel tour



Full Color interactive OLED Display

Duet's OLED display provides full color visual feedback and metering.

Multi-function Controller Knob

Duet's multi-function controller knob allows you to easily switch between Inputs and Outputs as well as adjust their levels.

User Assignable Touchpads

Duet's two assignable touchpads can be assigned to control many of Duet's settings and parameters. Use them to setup advanced muting functions when recording yourself or to toggle between outputs.

1/4" Stereo Headphone Output

Duet includes a 1/4" stereo headphone output that is independently controlled and separate from the stereo speaker line outputs.

MIDI

Duet provides a single USB MIDI connection for your CoreMIDI compatible keyboard, synth, or DJ controller. This eliminates the need for an external MIDI interface and promotes an all-in-one music creation solution. On iPad, Duet's MIDI connection allows both Duet and a keyboard or DJ controller to be connected at the same time to the iPad's single dock port.

Analog In and Out

This port is for connecting Duet's breakout cable. The breakout cable includes 2 combination mic/instrument connectors (XLR and 1/4" built into a single connector) and 2 balanced 1/4" connectors for speakers. The elegant single cable-to-junction design allows for easy cable management and the locking connection to Duet is robust and stylish.

DC Power

Duet is capable of being powered solely by any available USB port on your Mac or PC. However there may be scenarios where connecting the external AC power adaptor is required.

Increased Duet Power Consumption Exceeds USB Bandwidth

When connecting to a computer with inadequately powered USB ports, or if the Duet requires more power than the computer can provide, the following message appears:



In this case, connect the Duet's external power supply.

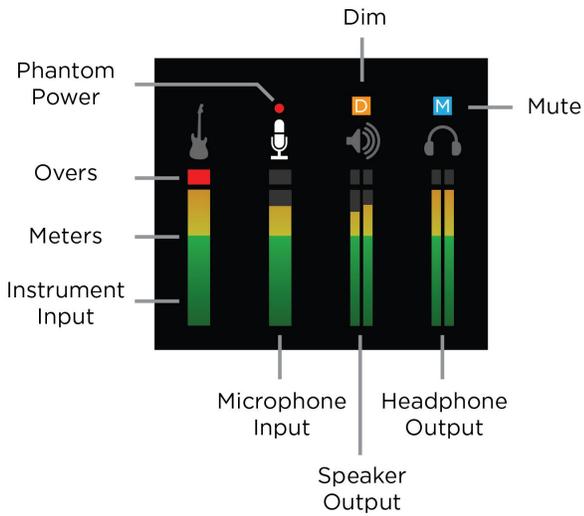
Note: When using a Windows PC, use of the external power supply is recommended, and in many cases it is required.

USB

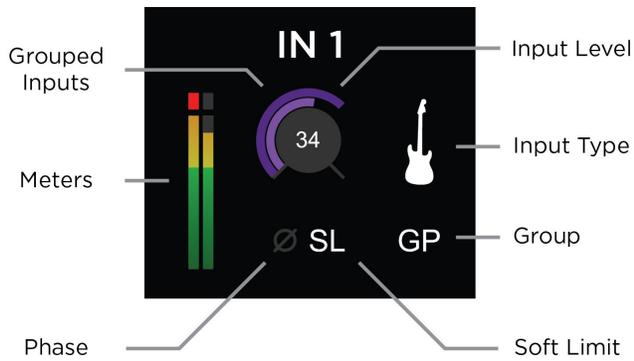
Duet includes a USB 2.0 cable providing High Speed connection.

OLED Screen Tour

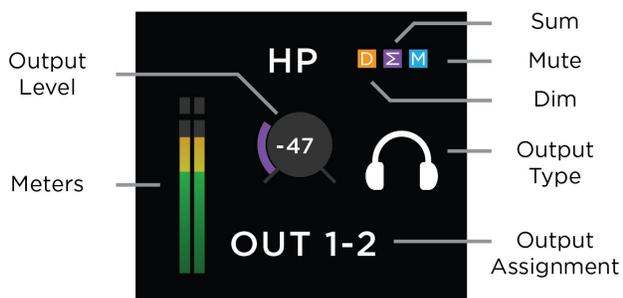
Home View



Detail View (Input)



Detail View (Output)



Getting Started

This guide explains setup and use of the Apogee Duet with Windows systems. The User's Guide for Mac & iOS devices can be found on our website at www.apogeedigital.com/support.

Connecting to your Windows PC

System Requirements

- OS : Windows 10 Enterprise, Pro or Home Editions (64-bit) Anniversary Update or greater
- Driver: Apogee USB Windows Driver
- Computer: Windows PC with Intel Core i3 processor or greater
- Memory: 8GB recommended (4GB minimum)
- Connection/power: USB port on computer; DC power recommended

Note: If you have the Duet 2, it is not compatible with the Apogee USB Windows Driver and will not work with Windows.



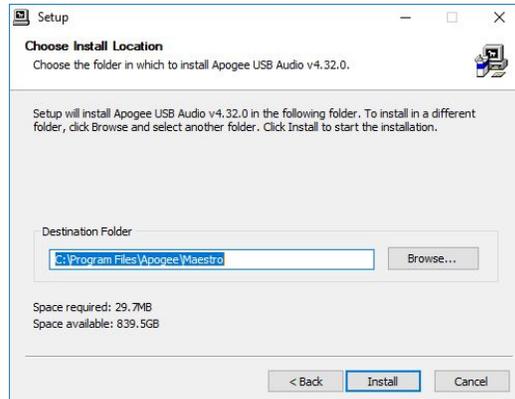
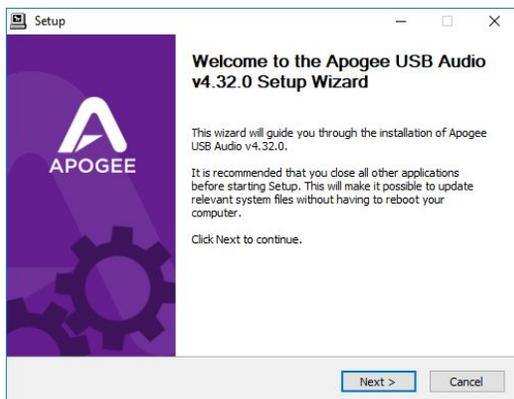
Duet 2 - Not compatible with Windows



Duet for iPad & Mac - Compatible with Windows

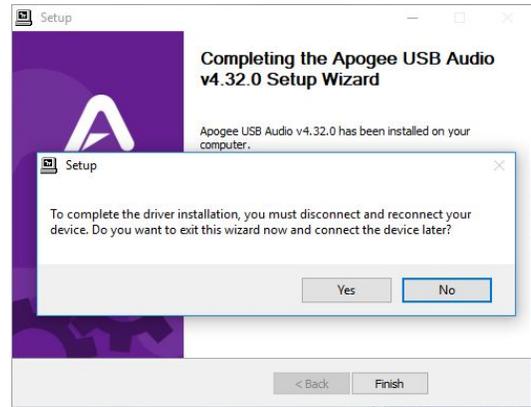
Install Apogee USB Windows Software

1. Connect Duet to a USB port on your Windows PC using the supplied USB 2 cable.
2. Go to www.apogeedigital.com/support/software-downloads
3. Download the latest Apogee USB Windows software installer, double-click the installer icon and follow on-screen instructions. Some, but not all, steps are shown below

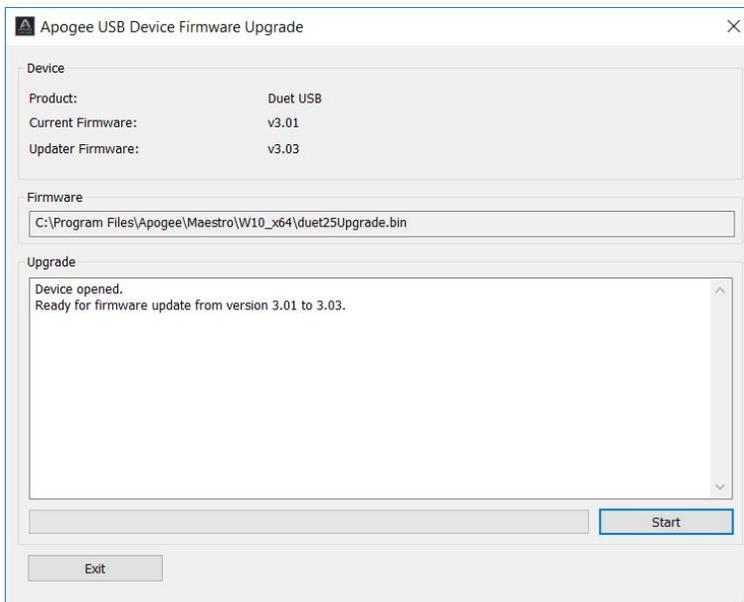


4. Click Finish to complete the installation.

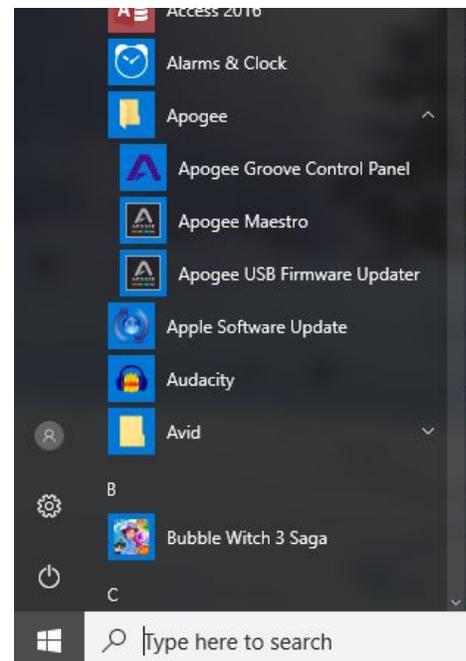
If your Apogee hardware interface isn't connected, connect it now, then click Finish.



5. Immediately following the software installation, the firmware updater will launch and verify that the Apogee interface's firmware is up-to-date. Click Start if an update is required, otherwise click Exit to close the Firmware Updater app.



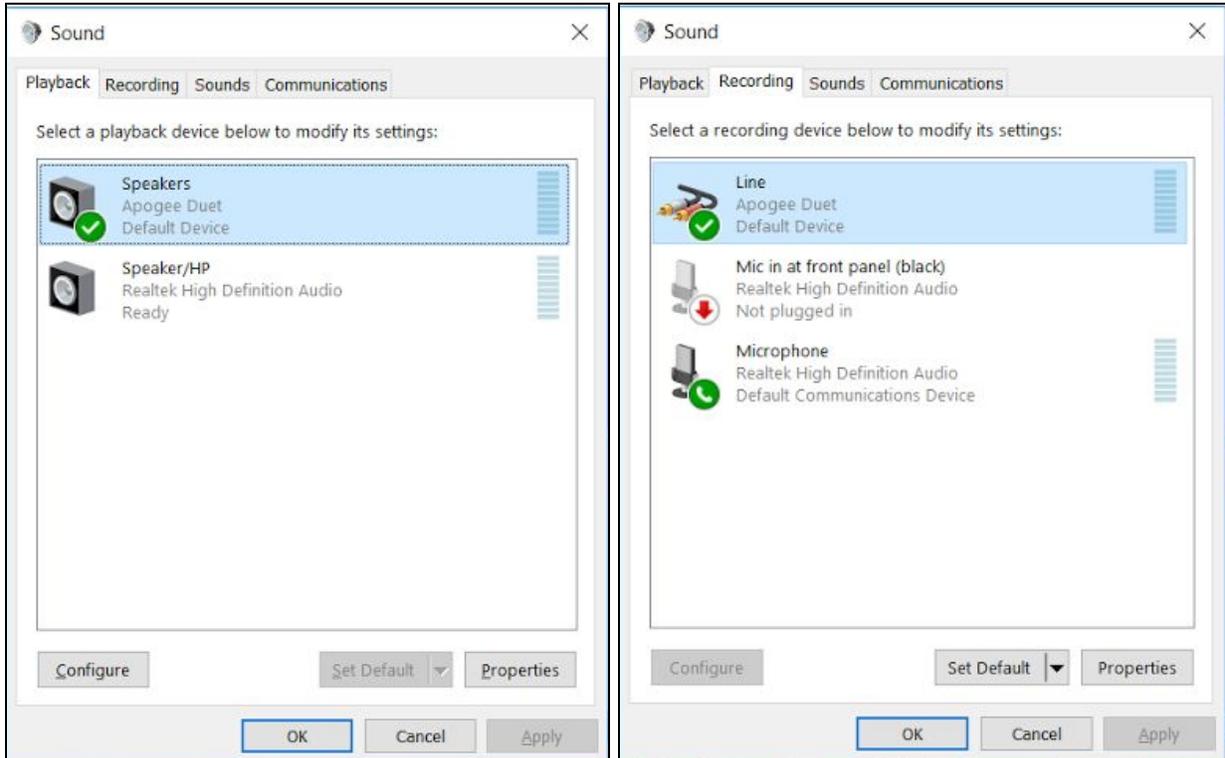
6. Once installation is complete, Apogee Maestro software and the Apogee USB Firmware Updater may be opened via the Windows Start menu.



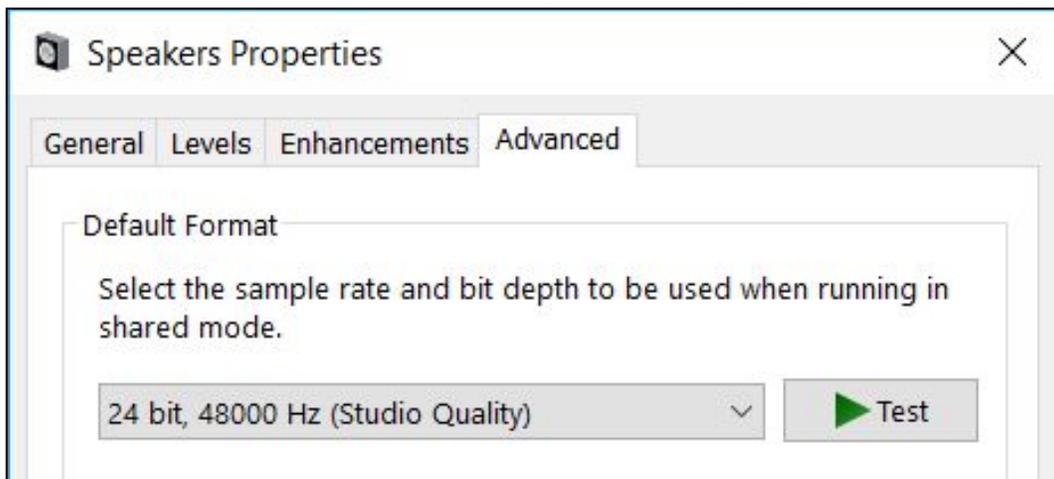
Choosing Duet for Windows Sound I/O

After connecting Duet, install the software and restart your Windows, in the windows search bar, type sound to open the sound control panel.

Select Apogee Duet under both the Playback and Recording Tab.



Click Properties under both tabs, click the Advanced tab, and set the Default Format to match your recording project. Click Apply



Sample Rate Considerations

When setting the Sound Control Panel sample rate, it's crucial to match this rate with the rate of DAW sessions that are running simultaneously. So, if you open an Ableton session at 96kHz, you should set the Sound Control Panel rates to 96kHz as well. This will ensure that you can play the session and audio from apps like Youtube, Spotify and others without freezes or crashes.

Making Connections

Analog Inputs

1. Connect the provided breakout cable to the Analog I/O port on the rear of the unit.



2. Connect your analog input source(s) to either of the 2 combination connectors on Duet's breakout cable:



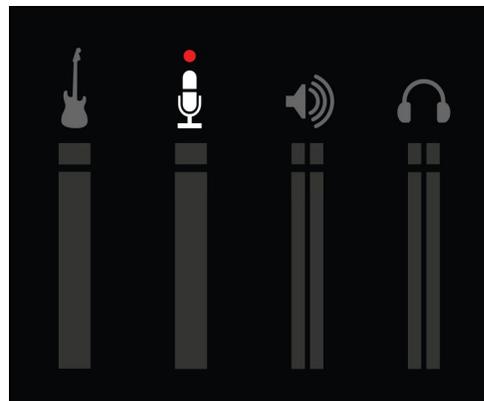
Microphone: XLR connection to Duet's combination connector

+4 dBu/-10 dBV line level device: XLR connection to Duet's combination connector

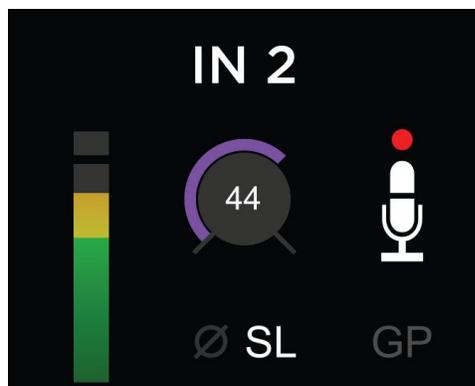


Instrument: 1/4" connection to Duet's combination connector

3. Open the Apogee Maestro software and select the appropriate input source setting for your XLR or 1/4" input.
See [Configuring the Input Section](#)>
4. To adjust the input gain level, press Duet's Multi-function Controller Knob until the desired input icon is lit on the Duet's display.



Then turn the knob clockwise to increase the input gain level.



[Learn more about adjusting input/output levels here](#)>

Analog Outputs

1. Connect the provided breakout cable to the Analog I/O port on the rear of the unit



2. Connect your left and right speakers to the respective 1/4" TRS balanced output connectors on Duet's breakout cable.



3. Connect headphones to the 1/4" headphone jack on Duet's front panel.



4. To adjust the volume, press Duet's Multi-function Controller Knob until the speaker or headphone icon is lit on the display's Home View and turn the knob clockwise to increase the volume.



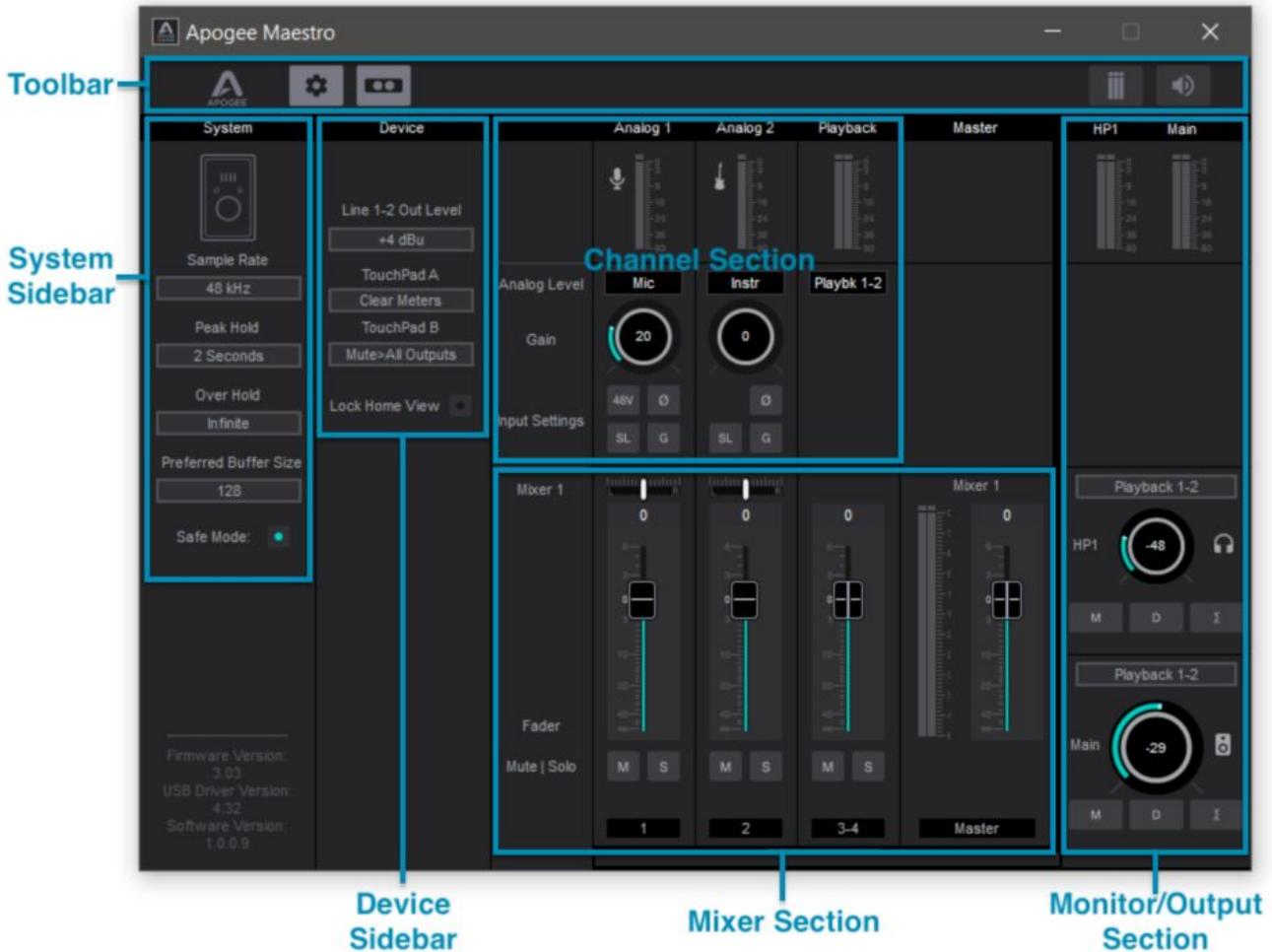
5. Playback audio from iTunes to verify output.

[Learn more about adjusting input/output levels here>](#)

Apogee Maestro Software

All features and settings of the Apogee Duet interface can be controlled from the Apogee Maestro software. It is broken down into several sections:

Primary Window



- Toolbar
- System Sidebar
- Device Sidebar
- Channel Section
- Mixer Section
- Monitor Output Section

Toolbar



- | | |
|--------------------------|------------------------|
| 1. System Sidebar Button | 3. Clear Meters Button |
| 2. Device Sidebar Button | 4. Mute All Button |

System Sidebar

Provides System-wide settings that apply to your recording system as a whole



- Sample Rate** - Sets the Duet's Sample Rate. In most cases this setting will be overridden by software running on the computer (i.e. When a DAW session project is open). If no audio apps are open, then the sample rate can be freely set. As soon as an audio app is open, sample rate is forced to either the systems sample rate ([Sound>Properties>Advanced](#)) or the DAW's sample rate.
 Note: It's recommended that users set the DAW and the Systems Sample Rate to the same where possible.
- Peak Hold** - Sets the time that peak indications are held on the level meters.
- Over Hold** - Sets the time that over indications are held on the level meters.
- Preferred Buffer Size** - Set the desired I/O buffer size for the ASIO driver with this drop down menu. See "[How do I set my Software's IO Buffer](#)" for more details.
 Note: The lowest Buffer Size settings 8 and 16 may not be compatible with all DAWs and may result in the DAW crashing or the actual buffer being set to 32.

- Safe Mode** - When Safe Mode is off, output latency (i.e. the size of the playback side buffer) is reduced in order to lower overall throughput latency.

- Experiment with the Preferred Buffer Size and Safe Mode to arrive at the lowest throughput latency without clicks and pops or CPU overloads.

Device Sidebar

Provides settings specific to the connected Device



1. Line 1-2 Out Level

- a. Choose **+4dBu** when connecting to “pro” gear, such as an external mic pre, compressor, or EQ, with outputs at a +4dBu nominal level.
- b. Choose **-10dBV** when connecting to “semi-pro”, hi- , or musical instrument gear with outputs at a -10 dBV nominal level.

2. Touchpad A - Assign a function from the drop-down menu that will be performed when this Touchpad is activated.

3. Touchpad B - Assign a function from the drop-down menu that will be performed when this Touchpad is activated.

4. Lock Home View - When Lock Home view is selected, the OLED display doesn't jump to the Detail view when the Controller knob is turned. If Lock Home view is not selected, the OLED display shows details for the selected input or output when the Controller knob is turned.

Channel Section

Displays the Analog inputs & Playback Channels



1. **Channel Top Label** - Indicates the channel source.
2. **Input Icon** - This picture changes with the input type selected from the Analog Level drop-down.
3. **Input Channel Level Meter** - Shows the post-gain digital signal level coming into the channel.
4. **Analog Level** - Use this drop down menu to select the type of analog input you are using.

5. **Gain Control** - Use to adjust the gain of the microphone preamp.
 - Not available when the input is set to +4dBu or -10dBV

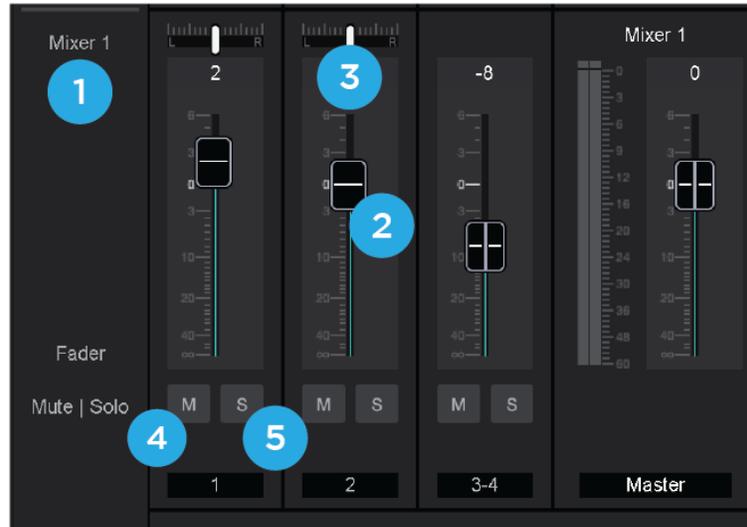
6. **Input Settings** - Provides options for the various inputs:

-  **Phantom Power (48V)**: Use this button to enable 48 volt phantom power on the corresponding Analog In channel. Condenser mics require 48 volt phantom power to operate.
-  **Group** : The input gain controls of adjacent odd-even channels are adjusted simultaneously. Any level offsets that exists before inputs are grouped will be preserved after a group is chosen.
-  **Soft Limit** : Select "On" to engage. This option begins to attenuate transient peaks at a threshold of -4dBfs.
-  **Polarity Invert** : Use this button to invert the polarity of the input signal.

7. **Playback Select** - Use this drop down menu to select which software playback channels are fed to the Maestro Mixer.

Mixer Section

The mixer section provides a Direct Monitor mixer for workflows that utilize the low-latency Direct Monitoring features of your Duet interface.



1. **Mixer 1** - Signal from each channel can be sent through this mixer by raising the corresponding Mixer 1 Channel Fader.
 - This mixer's Master signal can then be selected as a source for the Headphones or Speaker outputs, providing a low-latency direct monitoring signal path.
2. **Channel Fader** - Sets the level of the channel signal that goes to the Mixer Master.
3. **Mixer Channel Pan Control** - Steers the channel's signal to the left or right sides of the Mixer Master.
 - ctrl-click to reset the pan to center (0)
4. **Channel Mute button** - Cut the signal routing to the mixer stereo output. Command-click to cut all channels
5. **Channel Solo button** - Mute all channels that do not have this solo button engaged in this mixer.

Monitor Output Sidebar

The Monitor/Output section provides controls for routing signal to the outputs, and controlling the analog output volume.



1. **Output Level Meters** - This meter displays the level of the analog output before D/A conversion. Therefore, it is not affected by the output level control.
2. **Output Level** - Set's the listening level of the output.
3. **Output Source Selector** - Selects the sound source for each output. The options are:
 - a. **Playback** - Sends a playback channel stereo signal directly to this output, bypassing the mixer.
 - b. **Mixer** - to send the output of the low latency mixer to the hardware output.
4. **Mute** - Click this button to mute the output.
5. **Output Dim** - Reduces the output listening level by -15dB.
6. **Sum-To-Mono** - Collapse left and right signals to mono at the output. This combined signal is sent through both Left and Right Outputs and is useful for verifying the mono-compatibility of a stereo mix.

Operation

In this section you'll find answers to questions that might arise while you're recording with Apogee Duet on your Windows PC.

Setting up an Input

1. Connect a 1/4" instrument, XLR Microphone, or XLR Line-Input to the Duet's [input plugs](#).
2. Open Apogee Maestro
3. Select the Analog Level setting that corresponds to the device you have connected to the Duet's input.

- When using the 1/4" input, the Analog setting must be "Instr"
- When using the XLR input, the Analog setting may be "Mic", "+4dBu", or "-10dBV".



+4 dBu or -10dBV: XLR line level.

- Choose **+4dBu** when connecting to "pro" gear, such as an external mic pre, compressor, or EQ, with outputs at a +4dBu nominal level.
- Choose **-10dBV** when connecting to "semi-pro", hi-, or musical instrument gear with outputs at a -10 dBV nominal level.

Mic: XLR microphone (dynamic, condenser or ribbon).

- Choose **Mic** when connecting microphones, direct boxes, or any devices that needs to run through a microphone preamplifier.

Instr: 1/4" Instrument (electric guitar, bass, keyboards)

4. Select your desired [input settings](#).
Note: If using a condenser microphone, 48V phantom power must be activated
5. Adjust the Gain control.
 - Set the Gain so the input level meter shows strong signal on your loudest input, but not high enough to cause the Over indicator to light.
 - Alternatively you can adjust the [Input Gain via the Duet's Knob](#)

Note: You will not hear the input signal yet.

- You must either set up a track in a recording program like Ableton Live, Pro Tools, or Cubase, and activate the input monitoring function of that program.
- or you can activate the [direct monitoring function](#) built into the Duet.

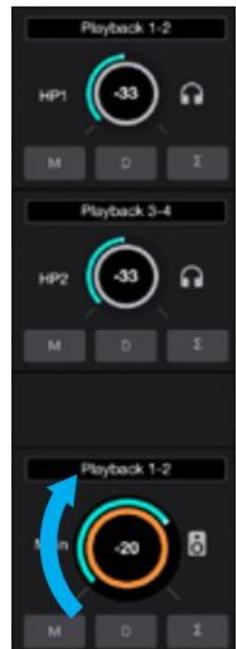


Setting up the Outputs

1. Connect Headphones to the Duet's Headphones jack, or speakers to the Out-L and Out-R plugs on the I/O Breakout Cable



2. Open Apogee Maestro
3. In the Monitor/Output Sidebar, adjust the Main and HP1 level knobs to the desired listening volume.
4. For each output, there is a separate Output Source Selector. Set this to:
 - a. **Playback** if listening to iTunes, YouTube or other playback-only programs.
 - When set to Playback, the output signal comes directly from your computer program.



- b. **Mixer** if you want to hear your Input signal mixed with Playback from the computer.
 - When set to Mixer, the output signal comes from the [Maestro Software's Mixer](#). The mixer combines your analog input signals and playback signals together before sending them to your outputs.
 - Alternatively, adjust the Speaker & Headphones [Output Level via the Duet's Knob](#)

Reference

Monitoring Strategies

There are two ways to monitor your input signal:

- 1) Through a Digital Audio Workstation (DAW) recording software
- 2) Using the low-latency Maestro Mixer

Monitoring through your DAW

The preferred method of monitoring your input signal, you rely on your DAW's input monitoring function to pass the Duet's input signal along to the Duet's Output. The advantage of this method is:

- Simplicity. Everything is done in the DAW using it's mixers & routing options.
- Any effects plugins applied in the DAW is heard

The possible disadvantages are:

- Latency delay if high buffer settings are used

What is Latency?

While recording, if you notice a delay between the moment you play or sing a note and when you hear it in your headphones or speakers, you are experiencing latency. For more info, refer to the [Why Use a Low Latency Mixer chapter](#).

Each DAW software is a bit different. Basic setup instructions for the most common DAW's are provided in the [Software Setup chapters](#) of this guide; but refer to your DAW software's documentation for thorough instructions on how to setup a track with input monitoring turned on.

How do I set my software's I/O buffer?

The I/O Buffer setting found in most audio software is one of the most crucial, but often ignored, settings in a Mac-based recording system.

When choosing a buffer setting, a compromise between the latency through the application and the amount of computer processor power accessible to the application must be made.

A lower Buffer setting results in lower latency but less available processing power. If the application can't access enough processor power, processor overruns may occur, resulting in audible clicks and pops or error messages that interrupt playback and recording.

A higher Buffer setting, on the other hand, results in greater amount of accessible processor power (i.e. less chance of overruns) but increases the latency. Determining the best setting requires some trial-and-error in order to find the best compromise.

Keep in mind that as tracks and plug-ins are added to a software session, processor requirements increase. Thus, the buffer setting that works during the early stages of a session might result in processor overruns during later stages.

The best strategy is to set the buffer to a lower setting during recording and accept certain limitations on plug-in usage, and then raise the buffer during mixing to utilize the computer's full processor power when latency isn't an issue.

With the processing power of today's Macs, you may find that adjustment of the Buffer isn't necessary, and you can leave it at a setting for low latency and still access a sufficient amount of processing power when adding tracks and plug-ins. If you do encounter clicks, pops or software errors, don't hesitate to experiment with the Buffer setting.

Monitoring through the Apogee Maestro Low-Latency Mixer

This method does not require a DAW to be opened, and is great for those who just want to hear their input signal directly. It is also useful in conjunction with a DAW when experiencing high latency issues.

The advantages of this method is:

- Do not need to open any other software to hear your input
- Direct low-latency monitoring through the Duet hardware

The disadvantages are:

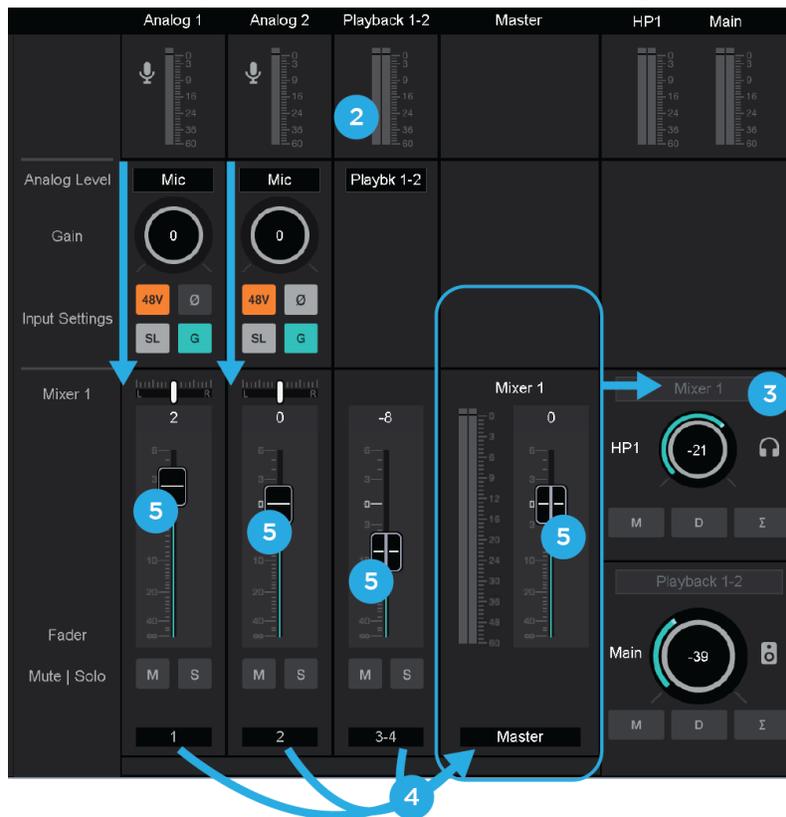
- Complexity. You will be configuring the Maestro software mixer as well as your DAW's mixers and settings simultaneously.
- DAW effects plugins applied to the input are not heard during recording

How to configure Low Latency Mixer

1. In your audio software, turn off software monitoring or simply mute the recording track.
2. In your audio software, set up a mix of all playback tracks and route the mix to Out 1-2 . It's suggested to set the audio software Master fader to 0 dB.
3. In Maestro, set the Output Selection to **Mixer**. This sends the output of Maestro's low latency mixer to the output assigned, rather than sending your audio software's output.



4. After configuring Duet's inputs, the input signal will route through the Mixer faders > to the Mixer 1 Master > then to any of the Duet's outputs that is assigned "Mixer 1".



5. Use the Mixer's Input and Playback 1-2 faders to establish a balance between the input and playback signals. If you've found a good balance but the Mixer Master's Over indicators light, reduce the Mixer Master fader.

Why use a Low Latency Mixer?

A bit of background information concerning latency and computer-based digital recording setups will help you better understand these functions.

When recording with most computer-based digital audio applications, the delay between the input and output of the recording system often disturbs the timing of the musicians performing. This delay, known as latency, means that the musician hears the notes played a few milliseconds after having actually played them. As anyone who has spoken on a phone call with echo knows, relatively short delays can confuse the timing of any conversation, spoken or musical.

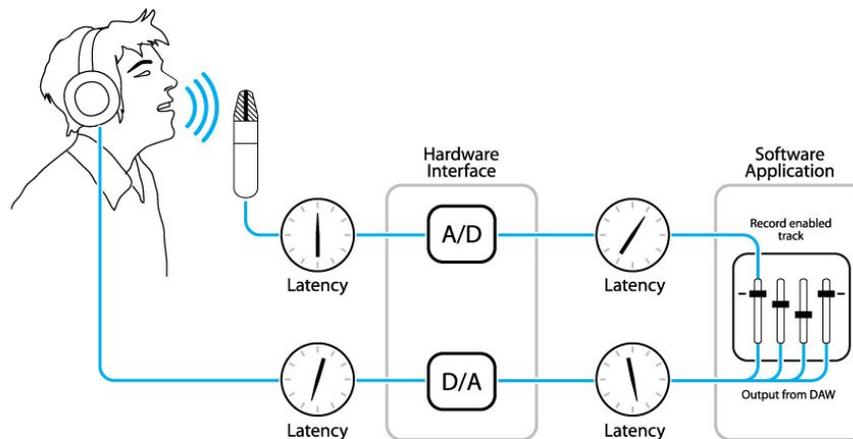


Figure A

To illustrate the effect of latency, **Figure A** depicts the typical signal path of a vocal overdub session. A vocalist sings into a microphone, which is routed to an analog to digital converter, then to the audio software application for recording. In the software application, the vocalist's live signal is mixed with the playback of previously recorded tracks, routed to a digital to analog converter, and finally to the vocalist's headphones. A slight delay accumulates at each conversion stage, while a much greater amount of delay occurs through the software application, resulting in the vocalist hearing his performance in headphones delayed by several milliseconds.

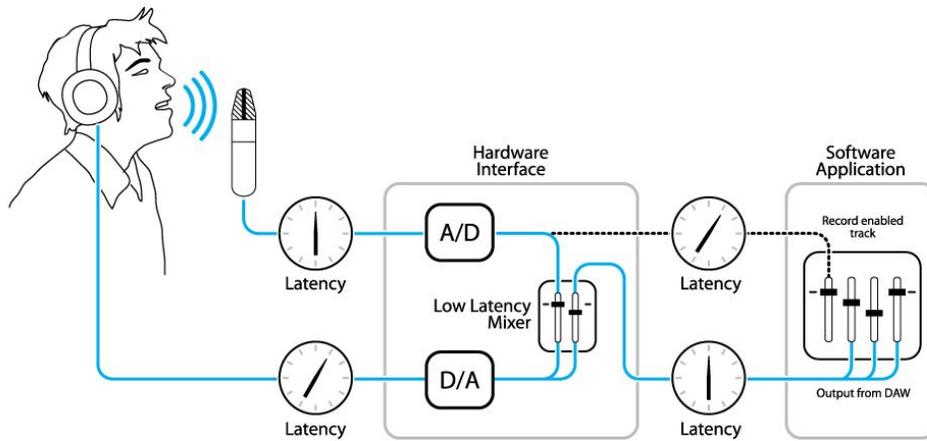


Figure B

By routing the hardware input directly to the hardware output and mixing in playback as shown in Figure B, it's possible to provide the vocalist a headphone monitoring signal with a much shorter delay. First, the signal being recorded (in this case, a vocal mic) is split just after the A/D stage and routed to both the software application for recording and directly back to the hardware outputs without going through the latency-inducing software. This creates a low latency path from mic to headphones. Next, a stereo mix of playback tracks is routed to the low latency mixer and combined with the hardware input(s). This allows the performer to hear himself while listening to playback tracks without a confusing delay in order to comfortably record overdubs.

Note that the software application's mixer is used to set a stereo mix of playback tracks while the low latency mixer is used to set the balance between the stereo playback mix and the hardware inputs.

Touchpads

The 2 [touchpads](#), located on either side of the encoder knob, allow you to quickly access output functions such as “Mute Outputs”, “Dim Outputs”, “Sum to Mono” or “Toggle Headphone Source”. Each are assignable using a [drop-down menu within Apogee Maestro](#). This unique feature allows you to select the function you want and access it directly from Duet without having to look at software. Touchpads on Duet will be set by default to Mute all Outputs and Clear Meters.

Soft Limit

Soft Limit is Apogee's proprietary analog process for taming transients before A/D conversion. By gently rounding transients in a transparent manner, it's possible to maximize level BEFORE the A/D conversion stage and prevent unwanted distortion from clipping.

When to use Soft Limit

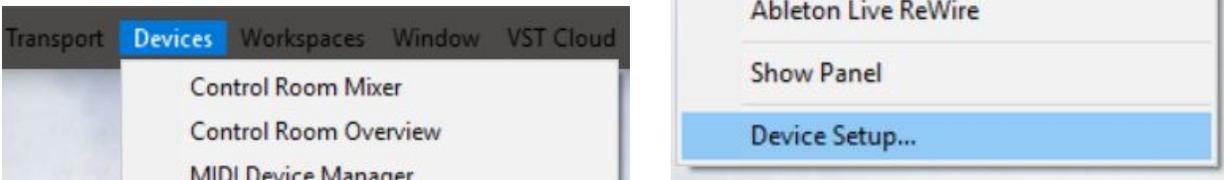
Soft Limit is an analog process that instantaneously rounds transient peaks beginning at -4dbfs. For all intents and purposes attack and release times may be considered instantaneous. As with any peak reduction device working at such fast time constants, Soft Limit is most effective with signals whose peak information is much greater than its average (or RMS) information, such as drums, percussion and plucked instruments. Soft Limit may not be the appropriate choice for limiting signals whose crest factor (peak to RMS ratio) is low, such as bass or organ.

DAW Software Setup

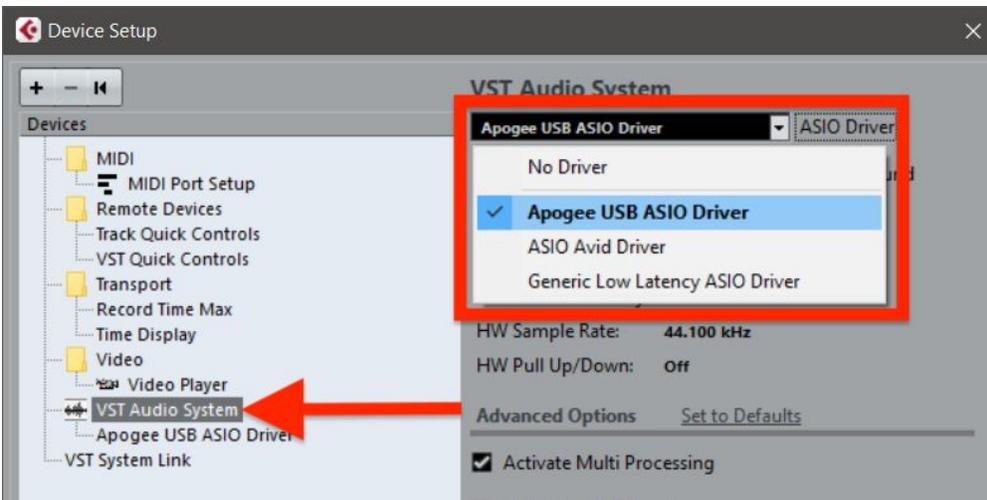
The following instructions describe how to select Apogee Duet in a few popular recording softwares:

Windows OS: Select Apogee Duet in Cubase

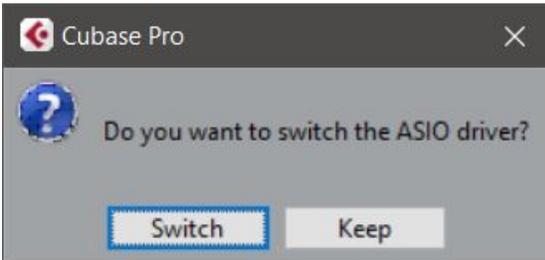
1. Open Devices > Device Setup...



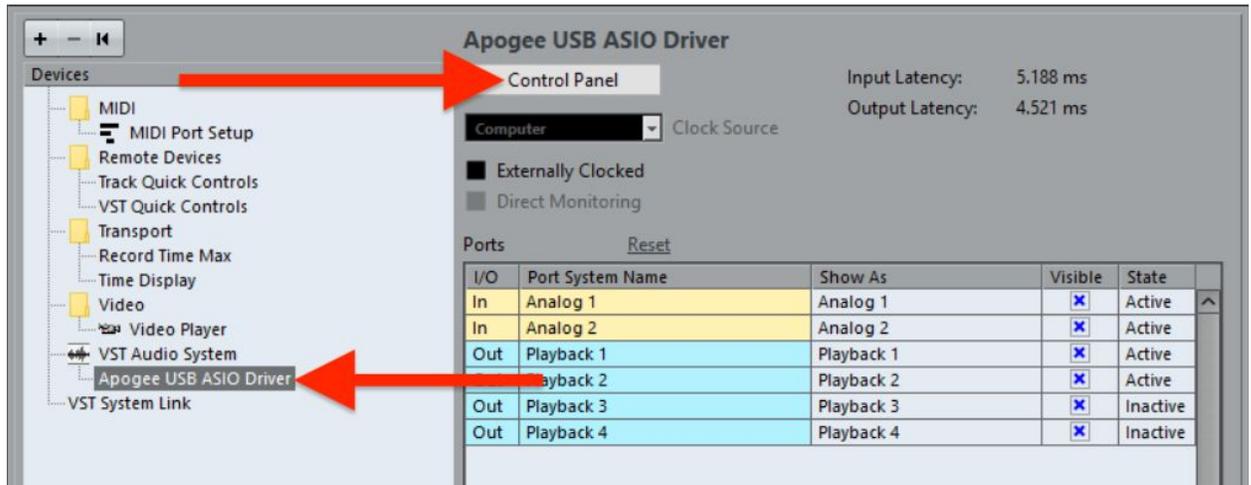
2. Select VST Audio System, then in the ASIO Driver drop-down, select "Apogee USB Audio Driver".



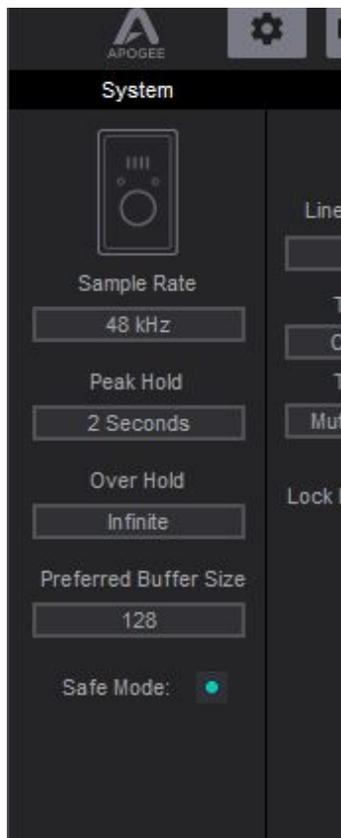
3. If prompted to switch ASIO driver, select SWITCH.



4. Buffer Size is set in the Apogee Maestro software. select Apogee USB ASIO Driver, then Control Panel. Apogee Maestro will appear.

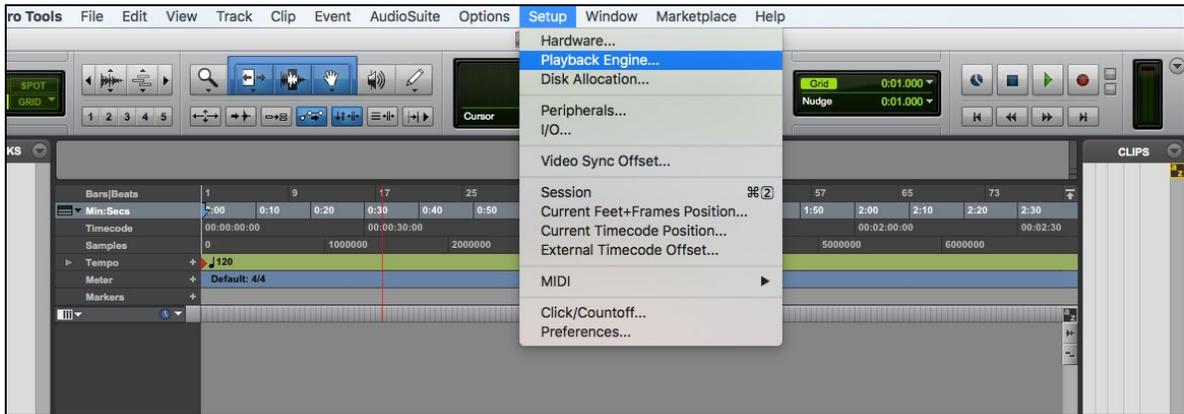


To start, set buffer to 128 Samples and keep Safe Mode on. These settings may need to be adjusted based on your computer's performance.

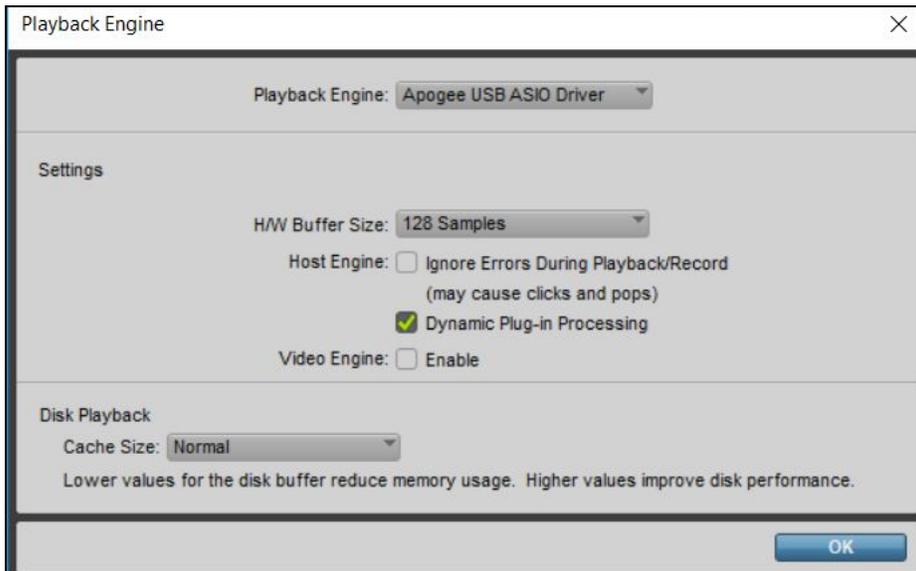


Windows OS: Select Apogee Duet in Pro Tools

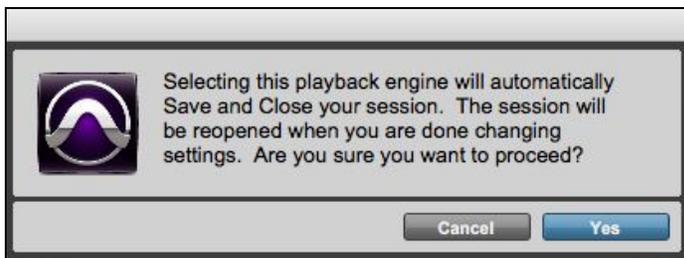
1. Choose **Setup** menu > **Playback Engine**.



2. Choose **Duet USB** for **Current Engine**.



3. Set the H/W Buffer Size to 128 Samples and keep Safe Mode on. These settings may need to be adjusted based on your computer's performance. Click OK.
4. If the following dialog box appears, **Click Yes**.

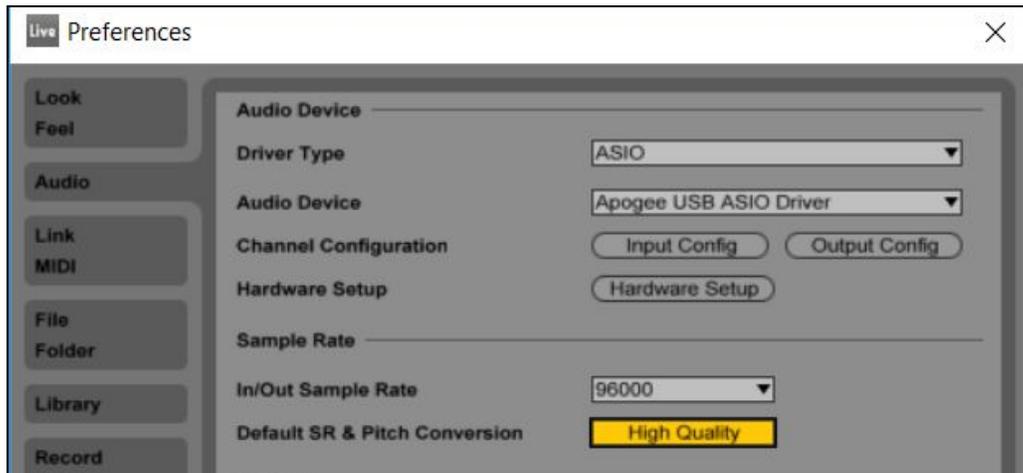


Windows OS: Select Apogee Duet in Ableton Live

1. In Ableton Live, go to the Options menu and choose Preferences.



2. Click on the Audio tab.
3. Select Driver Type: ASIO
4. Select Audio Device: Apogee USB ASIO Driver
5. Set desired Sample Rate



6. Buffer Size is set in the Apogee Maestro software. Click Hardware Setup to access Maestro. To start, set buffer to 128 Samples and keep Safe Mode on. These settings may need to be adjusted based on your computer's performance.
7. Close the Preferences window after making settings.

Troubleshooting



Looking for answers?

Ask the www.apogeedigital.com/knowledgebase

Duet FAQs

Q: I've connected my guitar, but I'm not getting any input. What should I check?

A: On the Input tab of Maestro, be sure to set Analog Level to Instrument (Inst).

Q: I'm not getting any output from audio software applications. What should I check?

A: If you have chosen Mixer for the output then the Playback 1-2 fader must be raised to send audio software outputs to Duet's outputs.

Q: I want Maestro to open automatically each time I connect Duet. What should I set?

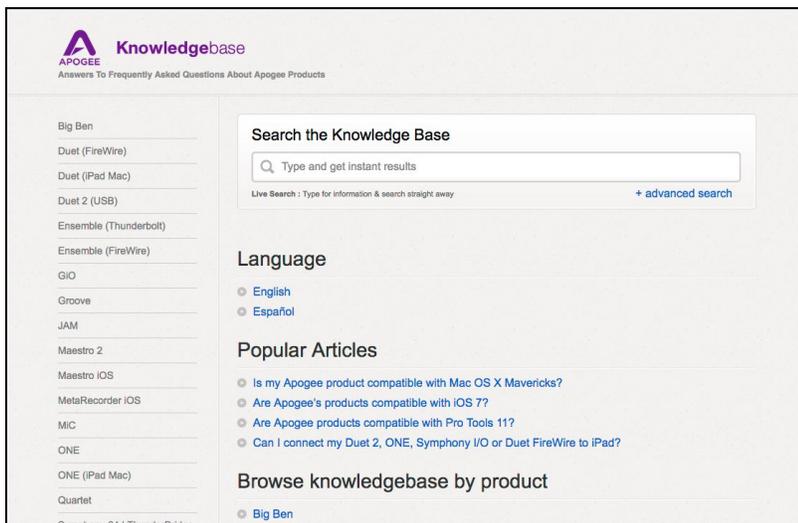
A: This feature is only available on OS X

Q: How do I reset Duet?

A: To reset Duet unplug the USB cable, hold down Controller knob, reconnect the USB cable and maintain the controller knob in the down position until the unit has completely initialized. Here's a [video demonstrating this](#).

Q: I am hearing a delay between what I play and what I hear in my headphones. Can I do anything about this?

A: Using the low latency mixer found in the Apogee Maestro application may help. Click on the mixer tab to configure it to your desired settings. Be sure to set your desired output to "mixer" on the output page.



Visit www.apogeedigital.com/knowledgebase for the most up to date information.

Additional Support

For more information:

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

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

Duet Specifications

| | |
|-------------------------------|--|
| Computer Connectivity | USB 2.0 High Speed |
| Roundtrip Latency performance | 32 buffer @ 96kHz = 3.5 ms 64 buffer @ 44.1kHz = 4.2 ms |
| Power | USB Bus Power or DC power supply |
| Bit resolution/sample rate | 24-bit/44.1-192kHz |
| Input Channels | 2 Analog Inputs |
| Output Channels | 2 Line/Speaker outputs + stereo headphone output |
| Speaker Outputs | Balanced |
| Independent Headphone Out | Yes |
| Microphone Preamps | 2 |
| Microphone Preamp Gain | up to 75dB |
| Line Level Input | +4 dBu, -10 dBV |
| OLED Display | Yes |
| Touch Pads | 2 software assignable |
| Metering | Full Color OLED |
| Phantom Power | Yes |
| Phase Invert | Yes |
| Soft Limit | Yes |
| Group Inputs | Yes |
| Mute Outputs | Yes |
| Sum to Mono | Yes |
| Dim Outputs | Yes |
| Core Audio Compatible | Yes |

Warranty & Notifications

Registration and Warranty Information

To receive free tech support, important information and product updates first...

Register your new Apogee product here:

www.apogeedigital.com/register/

If you do so, Apogee can contact you with any update information. As enhancements and upgrades are developed, you will be contacted at the registration address. Firmware updates are free for the first year of ownership unless otherwise stated.

APOGEE ELECTRONICS CORPORATION warrants this product to be free of defects in material and manufacture under normal use for a period of 12 months. The term of this warranty begins on the date of sale to the purchaser from an authorized Apogee reseller (proof of purchase in the form of a receipt may be required). Units returned for warranty repair to Apogee or an authorized Apogee warranty repair facility will be repaired or replaced at the manufacturer's option, free of charge.

ALL UNITS RETURNED TO APOGEE OR AN AUTHORIZED APOGEE REPAIR FACILITY MUST BE PREPAID, INSURED AND PROPERLY PACKAGED, PREFERABLY IN THEIR ORIGINAL BOX.

Apogee reserves the right to change or improve design at any time without prior notification. Design changes are not implemented retroactively, and the incorporation of design changes into future units does not imply the availability of an upgrade to existing units. This warranty is void if Apogee determines, in its sole business judgment, the defect to be the result of abuse, neglect, alteration or attempted repair by unauthorized personnel. The warranties set forth above are in lieu of all other warranties, expressed or implied, and Apogee specifically disclaims any and all implied warranty of merchantability or of fitness for a particular purpose. The buyer acknowledges and agrees that in no event shall the company be held liable for any special, indirect, incidental or consequential damages, or for injury, loss or damage sustained by any person or property, that may result from this product failing to operate correctly at any time.

Warranty Exclusions

- Used products purchased through a third party or online.
- Products with missing or defaced serial numbers.
- Products damaged by environmental factors, such as oxidation and/or damages caused by natural disaster.
- Units that have **NOT** been opened by user within the one year warranty period.
- Physical Damages which include, but not limited to the following:
- Unauthorized modifications
 - Misuse, neglect or improper assembly
 - Transport damages due to improper packaging or carrier
 - Burns resulting from faulty or failed electric power

- Missing/bent parts
- Cracked components
- Liquid/water damage

USA: Some states do not allow for the exclusion or limitation of implied warranties or liability for incidental or consequential damage, so the above exclusion may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Service Information

Your Apogee product contains no user-serviceable components; refer to qualified service personnel for repair or upgrade. Your warranty will be voided if you tamper with the internal components. If you have any questions with regard to the above, please contact Apogee.

In the event your Apogee product needs to be upgraded or repaired, it is necessary to contact Apogee prior to shipping, and a Return Merchandise Authorization (RMA) number will be assigned.

Warnings

FCC warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to take whatever measures necessary to correct the interference at his own expense.

Copyright Notice

Duet is a computer-based device, and as such contains and uses software in ROMs. This software, and all related documentation, including this User's Guide contain proprietary information which is protected by copyright laws. All rights are reserved. No part of the software and its related documentation may be copied, transferred, or modified. You may not modify, adapt, translate, lease, distribute, resell for profit or create derivative works based on the software and its related documentation or any part thereof without prior written consent from Apogee Electronics Corporation, U.S.A.

Software Notice

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Declarations of Conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits of 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. 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 to correct the interference by one or more of the following measures:

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

NOTE: The use of non-shielded cable with this equipment is prohibited.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

Apogee Electronics Corp.
1715 Berkeley Street
Santa Monica, CA 90404, USA

Industry Canada Notice

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.

Declaration of Conformity – CE

Apogee Electronics Corporation hereby declares that the product, the Duet, to which this declaration relates, is in material conformity with the following standards or other normative documents:

- EN50081-1/EN55022; 1995
- EN50082-1/IEC 801-2, 3, 4; 1992

following the provisions of:

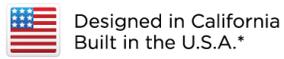
- 73/23/EEC – Low Voltage Directive
- 89/336/EEC – EMC Directive

Declaration of Conformity – Japan

Apogee Electronics Corporation hereby declares that Duet, to which this declaration relates, is in material conformity with the VCCI Class A standard.

Declaration of Conformity – Australia

Apogee Electronics Corporation hereby declares that the Duet is in material conformity with AN/NZS standard requirements.



*Apogee products are built in the U.S.A. using domestic and foreign parts and components.

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

Part #: 7010-0063-0160 Rev 2