

What You'll Need

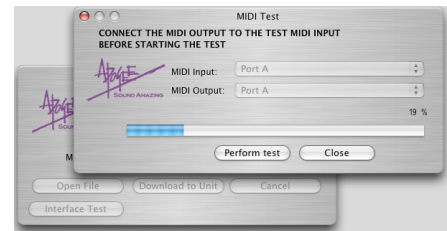
- Standard MID Interface, including all drivers necessary for proper operation on a Mac OS X (10.2 or higher) or Windows XP computer.
- ApogeeUpdater application, available for Mac OS X and Windows XP.
- Firmware file – download the firmware file and the ApogeeUpdater from our website here: <http://www.apogeedigital.com/downloads/>
- Patience to follow each step precisely; note that it is possible to render the unit inoperable if instructions are not followed.

Verify Unit Firmware Version

Before proceeding, verify the current firmware version of the unit to be updated by holding down the **PREV** button while powering up the unit. The current firmware is indicated in the Sample Rate Display.

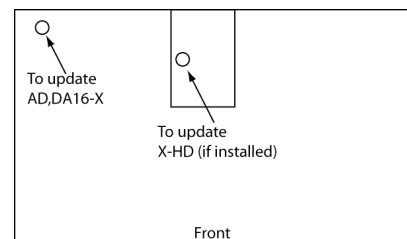
Verify MIDI Interface

- First, verify that the MIDI interface is operating correctly with your computer and operating system, following the interface manufacturer's guidelines.
- Open the ApogeeUpdater application and click on the **Interface Test** button.
- In the **MIDI Test** window (shown at right), select a MIDI Input and MIDI Output from the interface to be tested. Using a standard MIDI cable, physically connect the selected output to the selected input. This connection creates a loop through the interface, allowing the ApogeeUpdater to verify if MIDI data is correctly transmitted through the interface.
- Press the **Perform Test** button – progress of the test may be observed in the Status Bar and the percentage indicator above the Bar. If the unit passes, the message “**MIDI Interface successful**” is displayed. If the message “**Your MIDI Interface failed the test**” is displayed, verify the proper operation of the interface with the computer and operating system.



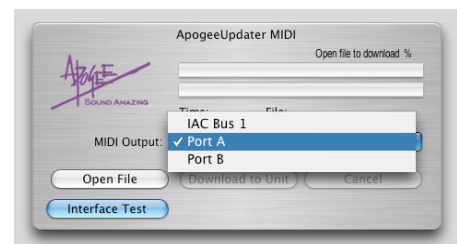
Make Connections

- Unplug the unit and remove the top cover.
- Connect a MIDI cable from the MIDI Interface's output to the unit's MIDI Input connection, found adjacent to the AC Input on the *inside* of the unit. Do *not* use the MIDI connector found on an installed X-HD card (see the diagram at right).



Load Firmware into ApogeeUpdater App

- After downloading the firmware file from the link above, unzip the file.
- In the ApogeeUpdater app, click on the **Open File** button and navigate to the unzipped file.
- Select the file and press **OPEN** (OPEN will remain grayed out until a valid .apo file is selected).
- Once the firmware file has been loaded, click on the **MIDI Output** drop-down selection and select the interface output connected above (as shown at right).

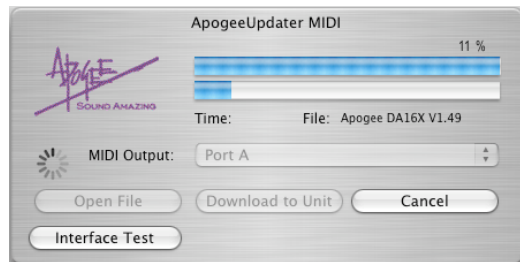


Engage “Download Mode” on Unit

- Connect the AC Input to the unit to be updated. Please be aware that lethal voltages are present inside the AD and DA-16X.
- Hold down both the **PREV** and **NEXT** buttons while powering up the unit; release the buttons when the unit is powered on. The 16 signal LEDs will display a “ping-pong” pattern to indicate that the unit is expecting data at its MIDI Input.
- **ONCE DOWNLOAD MODE IS ENGAGED, DO NOT POWER DOWN THE UNIT UNTIL THE PROCEDURE IS COMPLETE.** If power is lost or some other anomaly occurs, push the power button **ONCE** to turn on the unit, and **WAIT** for 30 seconds. The unit should revert to the original firmware.

Update!

- In the ApogeeUpdater app, press the **Download to Unit** button.
- Update progress is displayed by the two Status Bars; the first bar displays the erasure of old firmware, while the second bar displays the installation of new firmware. Once installation of firmware commences, the percentage of firmware installed is displayed in the ApogeeUpdater app (as depicted at right) as well as by the unit’s Sample Rate Display.



- **WHEN THE PERCENTAGE INDICATOR REACHES 100%, DO NOT TOUCH OR POWER CYCLE THE UNIT; DOING SO WILL RENDER THE UNIT INOPERABLE. WAIT FOR THE UNIT TO RESET ITSELF.**

Re-verify Unit Firmware Version

- Verify that the new firmware version has been correctly installed by holding down the **PREV** button while powering up the unit. The firmware version is indicated in the Sample Rate Display.

Reset Unit

- Reset the unit by holding the **DOWN** button while powering on the unit. Remove the AC Input cable, detach the MIDI cable from the unit MIDI Input, and re-install the unit’s top cover.

Troubleshooting

- If after pressing **Download to Unit**, the unit’s LEDs continue the “ping-pong” pattern – 1) be sure that the proper MIDI connector is being used, 2) check the MIDI cable connections.
- If the unit stops updating after reaching a certain percentage – 1) check MIDI cable connections, 2) re-verify the interface using the **Interface Test**.
- If **Interface Test** fails but the interface appears to otherwise operate correctly, the interface may be incompatible with the ApogeeUpdater app due to proprietary “latency reduction” data in the MIDI stream.