



# UAD-1™ Powered Plugins™ Installation Guide

## ***Disclaimer:***

The UAD-1 Powered Plug-ins Card and all associated software plug-ins are the sole property of Universal Audio. Any installation of a third party software product into the Mackie Digital X Bus mixer is entirely at the sole risk of the user. Even though the Digital X Bus has been tested and approved for use with several third party plug-in installers, LOUD Technologies Inc. is not liable or responsible in any way for problems or troubles that arise within the Digital X Bus as a direct result of the installation or using such third party devices. Mackie Technical Support is available for assistance with this procedure at +1 800.898.3211 (toll free in the USA and Canada) or at +1 425.487.4333 from anywhere in the world.

**IMPORTANT:** The Digital X Bus contains static-sensitive components. Anti-static precautions *must* be taken before touching anything inside the Digital X Bus. ***Use an anti-static wrist strap when performing the procedures described here.*** These are available at most computer supply stores. The use of an anti-static mat is also recommended.

## Introduction

This guide will help you install, load, authorize, and use up to three UAD-1 Powered Plug-ins Cards (hereafter referred to as “UAD-1 Cards”) into the Digital X Bus Mixer. The use of either the UAD-1 “Project Pack” or “Studio Pack” bundle is entirely at the user’s discretion.

The Digital X Bus is a VST host running on XPE (Embedded XP), and thus will only support the use of Windows™ VST plug-ins. The Digital X Bus does not support any other plug-ins format (including DirectX, VST for OS X, Audio Units (AU), or RTAS) and loading an un-supported plug-in could potentially cause errors in the Digital X Bus software.

The Digital X Bus 200 does not come with any UAD-1 Cards installed. Therefore, any Digital X Bus 200 users must purchase and install any UAD-1 Cards they wish to use. However, the Digital X Bus 400 has one UAD-1 Card installed in the mixer, along with the ability to use the “Studio Pack” bundle of UAD plug-ins. It is up to the Digital X Bus 400 user to register their cards with Universal Audio (<http://www.uaudio.com>) so they may receive the plug-in licenses to authorize the Studio Pack bundle.

## What You'll Need

- A minimum of one and a maximum of three UAD-1 Card(s).
- At least one of the following:
  1. A USB CDROM drive and at least one blank CD-R.
  2. A USB Flash Drive with a minimum size of 64MB.
- A USB or PS/2 mouse attached to your Digital X Bus.
- Your UAD-1 Serial Number, located on a sticker on the UAD-1 Card itself.
- A Mac or PC connected to the Internet.
- A Digital X Bus Mixing Console (duh!).

## Procedure Overview

The following is a brief summary of the steps required to use the UAD-1 Card(s) with the Digital X Bus. This guide details each step listed below in the following sections:

- Reading the “Getting Inside the Digital X Bus” Guide
- Installing the UAD-1 software
- Installing the UAD-1 hardware
- Verifying proper installation
- Registering UAD-1 Card(s)
- Software Licenses and Authorizations
- Using the UAD Plug-ins
- UAD Quick-Start Guide and User’s Manual
- Mackie Technical Support Information

## Getting Inside the Digital X Bus Guide

To successfully perform this installation, you must first download and read the “Getting Inside the Digital X Bus” Guide that can be found on the Digital X Bus page at the Mackie website (<http://www.mackie.com/products/digitalxbus/index.htm>). Reading this guide will ensure that you take all the necessary steps to open up the rear chassis assembly of the Digital X Bus, without causing any damage to the internal parts, cables, or circuit boards.

## Installing UAD-1 Software

The very first step is to load the UAD-1 software into the Digital X Bus. Although each UAD-1 Card comes with a UAD Software Installer CD, we strongly recommend that you download the latest UAD Software from the UA website to ensure that you will be using the most updated and recent drivers available for the UAD-1 Card. Universal Audio also makes this recommendation to their UAD-1 customers. However, this guide will cover both procedures.

**NOTE:** If you download the UAD Software from the UA website, be sure to get any corresponding documentation or release notes so you will be aware of any “known issues” with that version of software.

We also recommended that you use a 64MB USB Flash Drive (also referred to as “Pen Drive” or “Thumb Drive”) method to install any software into the Digital X Bus. USB Flash Drives are inexpensive, widely available, are re-writable, and can also be used to back up your session files, presets, snapshots, or any other files from your Digital X Bus. Also, using a USB Flash Drive will prevent you from having to purchase a USB CDROM drive and blank CD-R media.

## Using the UA Installer CD

If you must use the UAD Installer CD that came with your UAD-1 Card, you will need to have a USB CDROM drive plugged into one of the USB ports located on the inside of the Motherboard Access Area of the Digital X Bus. This step can be done with the Digital X Bus already turned on.

You should have learned about removing the Motherboard Access Plate from the “Getting Inside the Digital X Bus Guide,” mentioned earlier in this document. If not, discontinue reading this guide until you have done so.

Once the Motherboard Access Plate has been removed, you will notice four USB ports on the back of the motherboard that are now exposed (see Figure A).

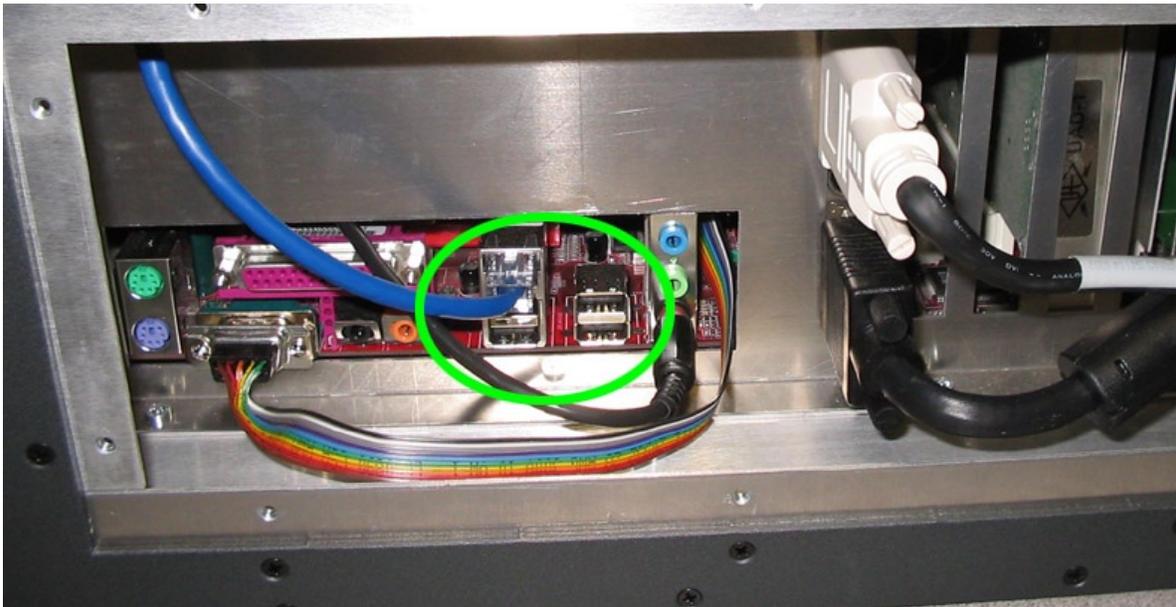


Figure A

Once your CD ROM drive has been plugged into one of these USB Ports, put the UAD Installer CD into your CD ROM drive and turn on the Digital X Bus (unless it is already powered up). Now, move ahead to the section titled “Installing the UAD Software.”

## Using the Downloaded Installer and USB Flash Drive

First, download the latest VST for Windows™ version of the UAD Software from the Universal Audio web site, which can be found at <http://www.uaudio.com/products/software/index.htm>. Follow the “UAD Software – Download Now” links to the software downloads page(s).

***Make sure you download the Windows VST version of the UAD Software...even if you are using a Mac to perform this download!***

## Windows XP Users:

The Digital X Bus does not have WinZip® or the Windows Compression Utility installed. Therefore, you need to extract the files on your regular PC before installing the software into your Digital X Bus.

- Double click on the Self Extracting file you just downloaded.
- You will see a screen pop up shown in Figure B:

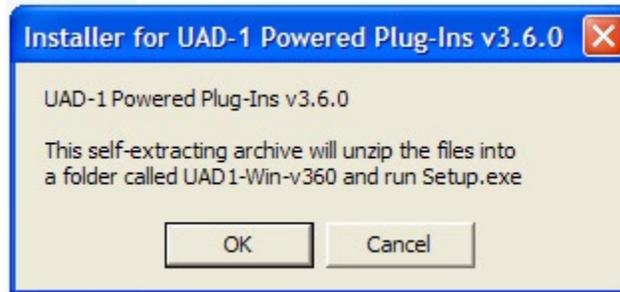


Figure B

- Select “OK” to begin the self-extraction process.
- Once everything has been extracted from the file you downloaded, you will see the UA Splash Screen displayed in Figure C:



Figure C

At this point, *make sure you select “Cancel” to quit the Installer.* Otherwise, the UAD software will be installed on your PC and not the Digital X Bus. We’d sure hate to waste your time like that...

- Next, select “Yes” when asked if you’re sure you want to quit Setup.
- You will notice that there is a folder labeled “UAD1-Win-vxxx” in the same location on your PC as the UAD software you downloaded. Copy the entire folder over to your USB Flash Drive.
- Remove the USB Flash Drive from your PC and attach it to one of the rear chassis USB ports on the rear panel of the Digital X Bus as shown in Figure D:



Figure D

Now, proceed to the section titled “Installing the UAD Software” to begin the installation on the Digital X Bus.

### Mac OSX Users:

- Double-click on the file you downloaded from the UA website.
- You will notice that OSX has created a folder on your desktop named “UAD1-Win-vxxx”; copy that entire folder over to your USB Flash Drive.
- Remove the USB Flash Drive from your Mac and insert it into any of the USB ports located on the rear panel of the Digital X Bus (as shown on the previous page).
- Proceed to the section titled “Installing the UAD Software” to begin the installation on the Digital X Bus.

If you’re not running OSX on your Mac, it’s time to get with the program. Seriously.

## Installing the UAD Software

- Go to File > Launch 3rd Party Application.
- Select “Root Directory” in the pull-down menu along the top of that window.
- Select either your CD-ROM drive (shown with a small icon of a compact disc) or your Flash Drive, and select “Open.”

**Note:** The “C:” and “D:” options are the two partitions for the internal hard drive. Anything else in the Root Directory of this window is either a CD-ROM or Flash Drive.

- Browse your attached drive to find the “Setup.exe” file, using the “Up,” “Open,” or by double-clicking on the actual file or folder.
- Highlight “Setup.exe” and select “Open.”
- Select “OK” to agree to the terms of the Disclaimer.
- Select “Yes” when you see the “Are You Sure?” pop up window.
- Now you will see the Universal Audio splash screen window pop up, which will look the same as the one in Figure C. Select “Next.”
- Select “Next” at the Welcome window.
- Select “Yes” to accept the UA Software License Agreement
- Make sure that only “Install VST Plugins” is checked in the Installation Type window, and then select “Next.”
- When prompted to install mono versions of the plug-ins, make sure “No” is checked and then “Next.”
- Specify “C:\Program Files\Steinberg\Vstplugins” as the destination directory and then select “OK.”

**Note:** The Digital X Bus uses the exact same default folder as Windows™ XP when installing VST plug-ins. This default folder should already be showing at the pervious step.

- Confirm the information and select “Next” to begin the actual installation.
- After the Installer has completed loading all the software, you will see a pop up window shown in Figure E:

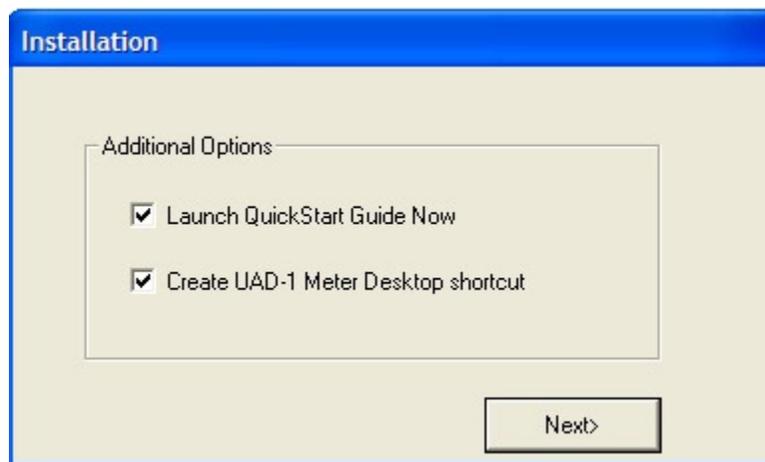


Figure E

Make sure you *de-select* both the “Additional Options” check boxes in this window; then, select “Next.”

- A standard Windows folder will automatically open with all the associated pointers and files with the UAD-1 Card. Close this window using your mouse by clicking the red colored “X” in the upper right hand corner.

- You'll then see another pop-up window shown in Figure F:

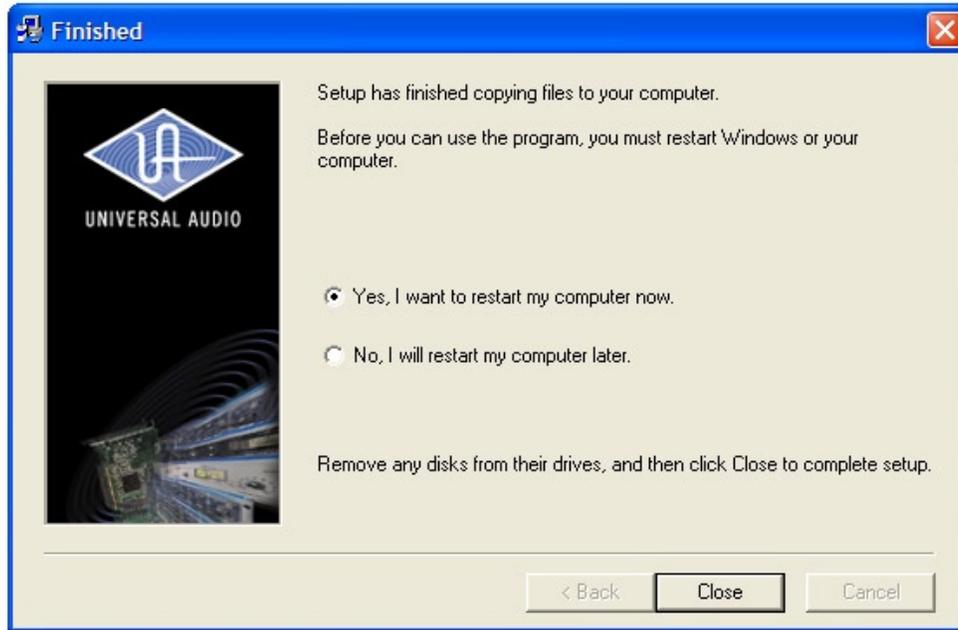


Figure F

Select “No, I will restart my computer later” and select the Close button.

- The software will automatically attempt to open the UAD QuickStart guide. Since the Digital X Bus does not support PDF files, you will see an error message. Click “OK” and don’t worry about it.
- Go to File > Shutdown.
- Decide whether or not you want to save your current session file, and select the appropriate button.
- When you get the Shutdown window, select “Shutdown” and wait.
- Once both screens have powered off completely, shut off the hardware power switch that is located right next to the power (IEC) cord on the rear panel.
- Grab a cold one (not included) and congratulate yourself on completing the first phase of this process. Proceed to the next section, “Installing the UAD-1 Hardware.”

## Installing the UAD-1 Hardware

Here comes the fun part:

- Write down the Serial Number of each UAD-1 Card, which can be found on the white sticker that has been stuck to the actual card itself. You will need this Serial Number in order to register your UAD-1 Card(s) with the Universal Audio website.
- Make sure you have read completely the “Getting Inside the Digital X Bus Guide.” If not, do it now before proceeding. We’re not kidding.

**Note:** Accidental damage to the Digital X Bus as a result of a UAD-1 installation is not covered under your product warranty...so be VERY careful as you do this procedure.

- Get to the point where you have direct access to the motherboard of the Digital X Bus.
- Locate the metal bracket (roughly 10-12 inches long) that covers all the PCI slots on the motherboard. You need to remove it in order to install the UAD-1 Card(s) into the PCI slot(s).
- (Only on some models:) If there is a black tie wrap securing any cables to the bracket, remove it with a pair of clippers so the cables are no longer secured to the bracket before proceeding.

**Note:** It is crucial that any cables that were secured by the tie wrap in the previous step are re-attached and secured with a new tie wrap once this procedure has been completed.

- Using a small-pointed Philips screwdriver, remove the five screws as indicated by the yellow circles in Figure G:

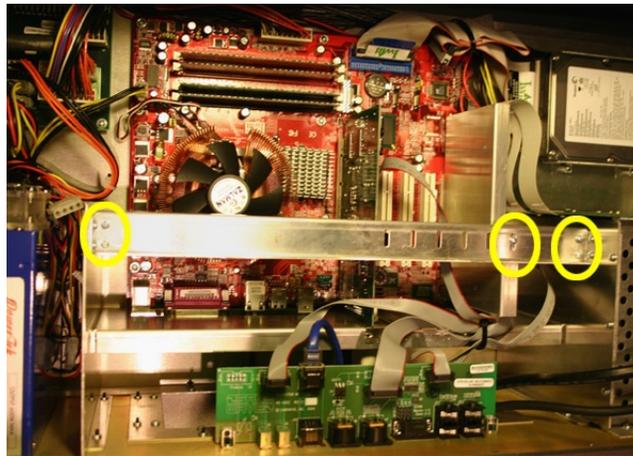


Figure G

Make sure you only remove the screws holding the metal bracket to the side “L” shaped brackets...do not remove the small, “L” shaped brackets to either side of the main metal bracket.

- Carefully remove the metal bracket as shown in Figure H:

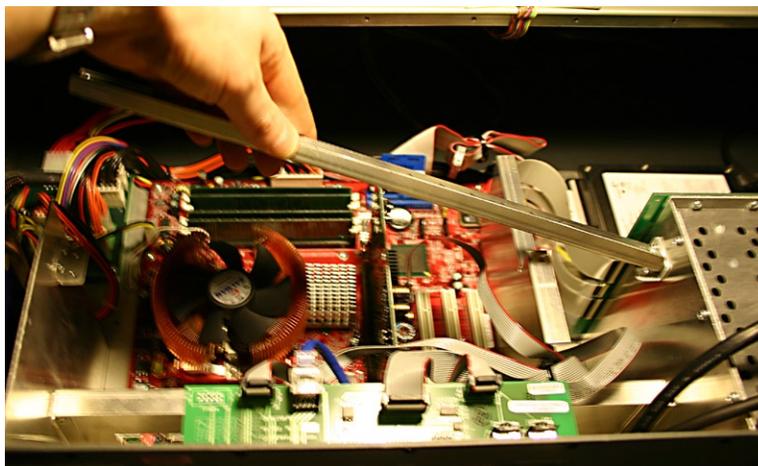


Figure H

**Note:** As soon as you remove the metal bracket, the Digital X Bus PCI Card will lean slightly over because it is no longer secured to that bracket. This is normal. Just make sure you *avoid bumping or touching that PCI card* until you are ready to put the metal bracket back into the console.

You should now see four empty PCI slots that lie between the seated PCI card that connects to the I/O Card Cage, and the Video Card seated in the AGP Slot as shown in Figure I:



Figure I

Next, install your UAD-1 Card into Slot 1, 2, or 4 as shown by the “OK” designations in Figure J:

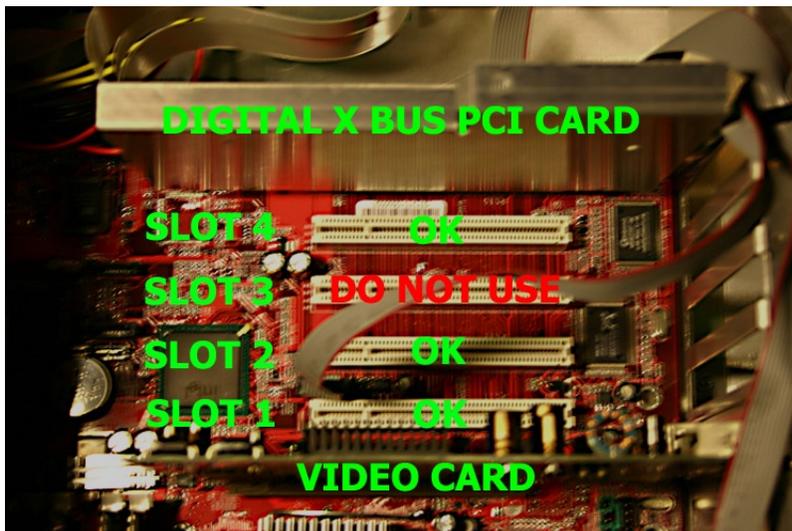


Figure J

**BE VERY CAREFUL NOT TO KNOCK OR BANG AGAINST THE DIGITAL X BUS PCI CARD DURING THIS PROCESS OR YOU WILL POTENTIALLY DAMAGE YOUR MIXER!**

The Digital X Bus can support a maximum of three UAD-1 Cards. If you install a UAD-1 into Slot 3 (shown above), it will not show up to the Digital X Bus software, and you will have wasted your time. Don't say we didn't warn you.

**Note:** Before inserting UAD-1 Card(s) into the PCI slots, be aware that **YOU ASSUME ALL RISKS FOR THIS INSTALLATION**. And since we don't want you to do anything you might regret, please take note of the following:

- *Be extremely careful* of all surrounding cables and components.
- *Do not touch* any circuit boards directly unless you are properly grounded to the corresponding chassis' beforehand.
- *Do not force anything*...chances are, if something doesn't seem to fit, then you're not performing this installation correctly.
- *Put everything back* the way it was before you started.

Now that we've gotten that out of the way, let's keep going:

- Carefully align the PCI connector of the first UAD-1 Card with Slot 1.
- Set the UAD-1 Card perpendicular to the motherboard and press down on the card while making sure the metal back plate on each UAD-1 Card slides vertically between the edge of the motherboard and the rear metal panel. You should feel it lock into place.
- Visually inspect the edges of the Card and the connection to the PCI slot to be sure it isn't interfering with any surrounding cables or components.
- If you have a second or third UAD-1 Card, go ahead and repeat this process for the second UAD-1 into Slot 2, and then the third UAD-1 into Slot 4 (notice you skip Slot 3).

The process should look something like Figure K:

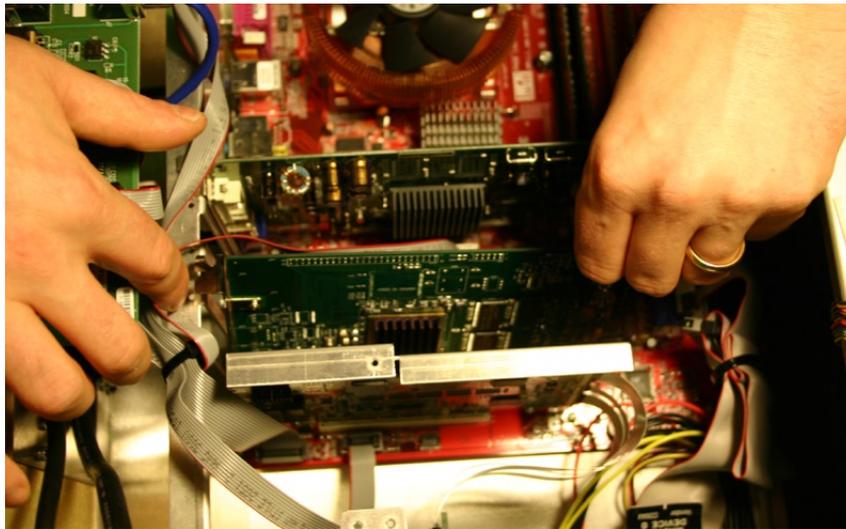


Figure K

Notice there is another tie wrap that secures some small ribbon cables to the top of the rear metal panel. You can cut that tie wrap with a pair of clippers if it is interfering with your UAD-1 installation, as shown in Figure L (next page):

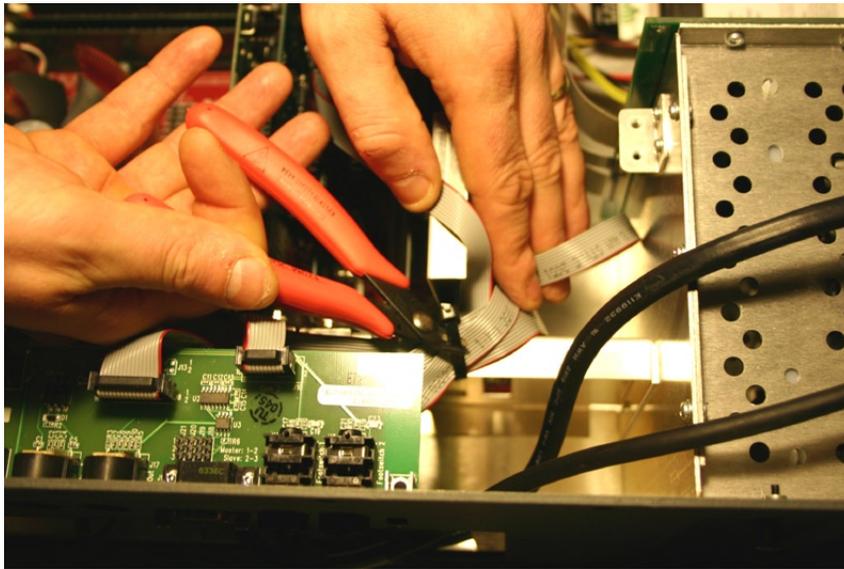


Figure L

If that tie wrap is not interfering with the UAD-1 installation, leave it be. But, if you need to cut that tie wrap, BE VERY CAREFUL not to cut any of the ribbon cables. Because that would be bad...as bad as losing the list (private joke).

- Once all UAD-1 Cards are installed, screw back in the metal bracket you originally removed and tie wrap the cables back to it (if you had to remove them). Make sure the bracket is aligned exactly the same way it was before you removed it. You can tell by visually aligning the screw hole that connects the bracket the Digital X Bus PCI Card, and screwing that screw in first.

Figure M below shows a completed installation of three UAD-1 Cards:

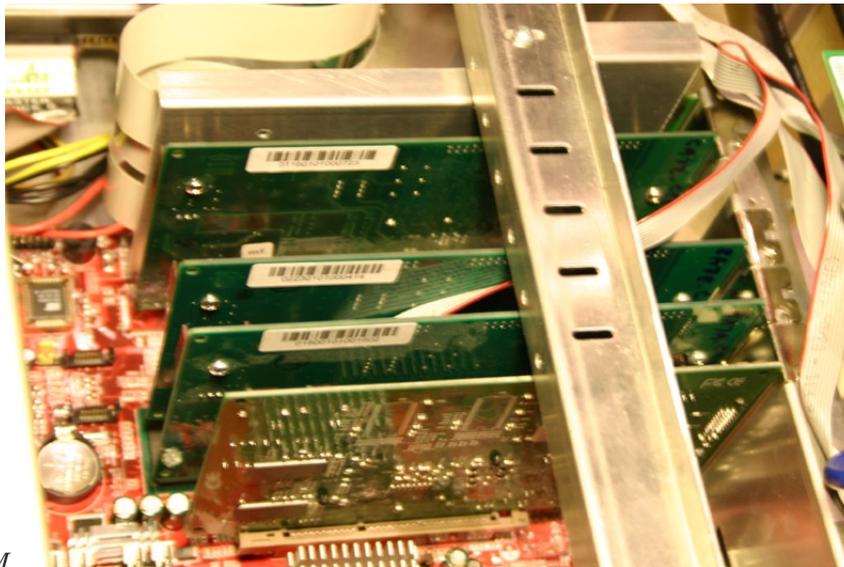


Figure M

- Following the steps in the “Getting Inside the Digital X Bus Guide” (backwards), re-assemble the rear chassis back into the mixer and re-attach all the associated cables.

You can proceed to the next section (“Verifying Proper Installation) before screwing in all the black Philips screws around the rear chassis, just to make sure everything went OK. It’s much quicker to get back inside the mixer if you don’t have to go through all the screwing and un-

screwing all over again. Of course, like everything else in this procedure, that is also at your own risk.

You also have the option of leaving the Motherboard Access Plate off of the mixer, which will give you easier accessibility to the ports in the Motherboard Access Area. That is entirely up to you.

## Verifying Proper Installation

To verify the UAD-1 installation worked OK, you need to open the UAD-1 Performance Meter from the “Launch 3rd Party Application” dialog. You will need your mouse hooked up and working to use the UAD-1 Performance Meter.

- Select File>Launch 3rd Party Application.
- Select “Root” from the top pull down menu.
- Browse to the “C:\Program Files\Universal Audio\Powered Plugins” folder.
- Select “UADPerfMon.exe” and select “Open.”
- Select “OK” for the Disclaimer pop-up window.
- Select “Yes” for the “Are You Sure?” pop-up window.

Wait for a few seconds, and you will see the UAD Performance Meter open on your screen as shown in Figure N:

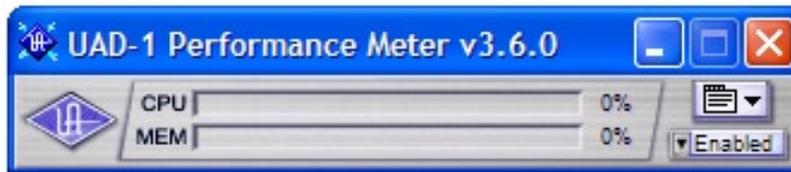


Figure N

With your mouse, click the small icon of the folder just above the “Enabled” text and select System Information as shown in Figure O:

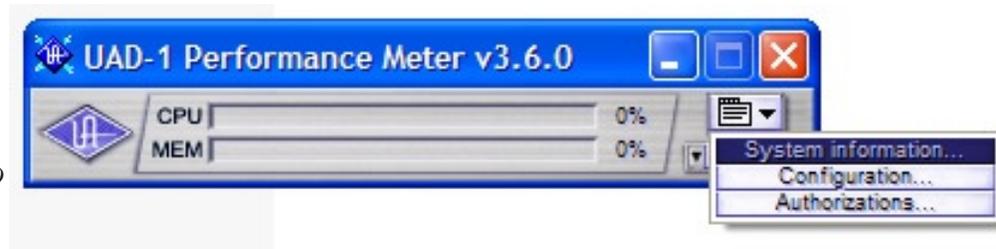


Figure O

That will open the UAD-1 System Information Window, which will display all active UAD-1 cards you have installed, their DMA settings, and so on. At this point, just make sure you can see all the cards you installed. That verifies that your UAD-1 Cards are functioning properly and they are communicating with the UAD software.

If the UAD System Information Window cannot see your UAD-1 Card(s), try fully re-booting the mixer and checking again. As long as the card isn't damaged or wasn't during installation, all should be well. Feel free to contact Mackie Technical Support if you're still having problems.

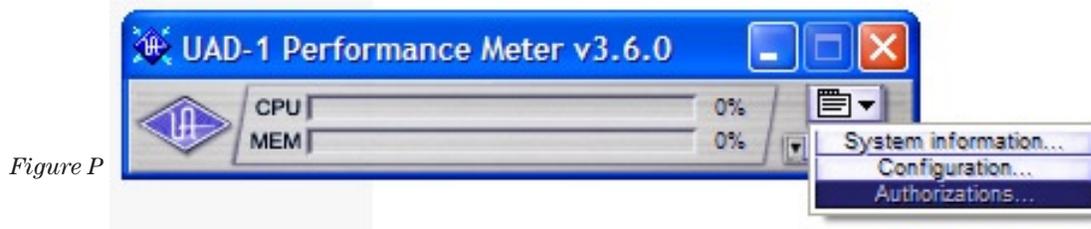
## Registering Your UAD-1 Card(s)

Registration of the UAD-1 Card is done between you and Universal Audio. LOUD Technologies Inc. does not have the means to register your card with Universal Audio, so this is something you will need to do on your own. It is not required to register your UAD-1 Card, but it is strongly recommended so you can acquire additional software licenses as needed and receive updates about newer versions of the UAD-1 software.

**Note:** Since the Digital X Bus does not have an active connection to the Internet, you will have to write down all the numbers described below for each UAD-1 card you are using with the Digital X Bus, and then take those numbers to go register at the Universal Audio website at <http://www.uaudio.com>

### Hardware ID Number

To get your Hardware ID number(s), follow the steps listed out in the previous section (“Verifying Proper Installation”) to open the UAD Performance Meter. Once it is open, click on the small folder icon on the right side of the Performance Monitor, and select “Authorizations” from the pull down menu as shown in Figure P:



That opens the UAD-1 Authorization Panel, which displays the Hardware ID Number for each UAD-1 card you have installed in the Digital X Bus. Make sure you write down each Hardware ID Number for each UAD-1 Card you have installed, and save it for later.

### UAD-1 Serial Number

As mentioned in the “Installing the UAD-1 Hardware” section, your UAD-1 Serial Number is located on a small barcode sticker that has been applied to the rear side of the actual UAD-1 Card. Hopefully, by this time, you have already written down that number so you don’t have to get back inside the Digital X Bus again. If not, you will need to be able to see the actual card and read the Serial Number from that sticker. Make sure to write down the Serial Number for each UAD-1 Card you have installed.

We recommend you keep your Hardware ID Number(s) and your Serial Number(s) in a safe place in case you need them again in the future.

### Registering with Universal Audio

Once you have the codes described above, you need to get on a Mac or as PC connected to the Internet.

Then, type in <http://www.uaudio.com> and go to Registration Page. There, you need to follow all the instructions to register your UAD-1 Card(s). You will also have the option of purchasing additional software licenses, depending on your needs.

## Note for Digital X Bus 400 Owners

As a Digital X Bus 400 owner, you have the full Universal Audio Studio Pack® of plug-in licenses available to use. Even though the UAD-1 comes pre-loaded in the Digital X Bus 400, the software licenses for the Studio Pack software bundle do not.

To get your free software licenses, you will need to go through this registration process and then download your software license key file (.reg file) from the Universal Audio website.

See the next section (“Software Licenses and Authorization”) for more information in getting your software licenses into the Digital X Bus.

## Software Licenses and Authorization

You can purchase additional software licenses for your UAD-1 Card(s) at any time directly from the Universal Audio website. Purchasing additional licenses is not required, but many UAD-1 users have chosen to do so because of the wide variety of software plug-ins available from Universal Audio.

It is required that you register your card(s) with Universal Audio in order to purchase additional licenses. Once you register your card(s), you will have created a personal account with Universal Audio that helps keep track of your hardware ID numbers and serial numbers, as well as any software licenses you have purchased. All this is located at the following URL:

<http://my.uaudio.com>

That is the same location for you to buy more software licenses as needed. All the instructions to buy licenses are clearly listed out at that website, and any questions about purchasing additional software licenses for your UAD-1 Card(s) must be directed at Universal Audio.

Once you purchase more licenses, you will receive a registry file (.reg file) that you need to copy from your Mac or PC to a USB Flash Drive (or burn it to a CD-R) in order to get it into the Digital X Bus. Again, we recommend the use of USB Flash Drives over CD-R’s and USB CD-ROM drives.

Once you have copied that registry file over to your Flash Drive or CD-R, simply remove it from your Mac or PC and attach it to the Digital X Bus. As explained in the section titled “Using the UA Installer CD,” if you decide to use a CD-R, you will need to have a USB CD-ROM drive attached to your Digital X Bus.

Follow this procedure to add the registry file into your Digital X Bus:

- Select File>Add UAD License(s)...
- Select “Root” from the top pull down menu.
- Highlight either your USB Flash Drive or your CDROM drive and select “Open.”
- Highlight the registry file you received from the UA website, and select “Add.”

You will then see a pop-up window informing you that the UA software licenses have been added to your registry. This completes the process.

To confirm that your new software licenses are functioning properly, you can open up the UAD Performance Monitor (as explained in the section titled “Verifying Proper Installation”), select “Authorizations”, and confirm the plug-in(s) that have been authorized. Of course, the quick way to check is to actually load a plug-in in the Effects Rack to see if it runs or not (see next section, “Using UAD-1 Plugins”).

## Using UAD-1 Plugins

The process of using UAD-1 plugins inside the Digital X Bus is exactly the same as using any other VST plug-in:

- Select Windows > Effects Rack (or press the Macro #1 shortcut button on the console).
- Select the “New Plugin” button on the top of the Effects Rack.
- Scroll to whichever UAD plug-in you want to use and select “OK”; that plugin will then load into your Effects Rack.
- Patch in whatever inputs you want to feed that UAD plugin right from the Effects Rack, or you can select that UAD plugin as an insert from any channel’s Assign Window.
- If using the UAD plugin as a parallel processor, make sure you patch in your returns from that UAD plugin to one or two available channels on the Digital X bus...otherwise, you won’t hear the effect.

The wonderful people at Universal Audio designed their plug-ins so they can be controlled from third party control interfaces. This means that you have the option of using the Digital X Bus rotary encoders to control the parameters of any UAD plugin. Some of the plugins actually support the use of the touch screens to control them as well. However, for the most accurate control of the plugin, we recommend using either your mouse or the hardware encoders that are aligned underneath the Effects Rack.

## UAD Quick-Start Guide and User’s Manual

Again, be aware that you cannot open PDF files directly on the Digital X Bus. If you need to use the UAD Quick-Start Guide or User’s Manual, you need to either have the file(s) open and visible on your Mac or PC, or you can print them out and have those papers handy when you’re using the UAD plugins on your Digital X Bus.

For your convenience, we have posted the UAD-1 Quick-Start Guide and User’s Manual as downloads from the Digital X Bus section of the Mackie website. You can also get this documentation directly from the Universal Audio website.

## Mackie Technical Support Information

If you have any troubles or problems getting your UAD-1 up and running in your Digital X Bus, please contact the Mackie Technical Support Team at:

+1 800.898.3211 (toll free in the USA and Canada)

+1 425.487.4333 (from anywhere in the world)

Or, drop us an email at [techmail@mackie.com](mailto:techmail@mackie.com) and we'll get back to you as quickly as we can. We're here to help you!

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