OWNERS MANUAL

Aardvark
Superior sound. Simplified.

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*usb*3 *WELCOME TO THE USB3*

EASY CONNECTION

No need to get out the tool kit for this one, simply connect the USB3 to your computer with the included USB cable, and you're ready to go!

MAC/PC COMPATIBLE

The USB3 works great on both Macintosh and Windows computers! For more information on PC and Mac system requirements, please refer to the System Requirements section of this manual (*pages 3-5*) .

LAPTOP COMPATIBLE

The USB3 works great on USB enabled laptop computers. Although most laptops have built in audio inputs and outputs, the quality of sound is less than impressive. With the USB3, you can add high quality inputs and outputs to your laptop, transforming it into a portable, high-end audio workstation!

PERFECT INTEGRATION
WITH YOUR OPERATING SYSTEM

Whether you are using Mac or PC, the USB3 uses the standard USB audio driver that come with your operating system. This ensures optimal performance with your OS, and compatibility with future OS updates!

HIGH QUALITY AUDIO

The USB3 has the high quality sound that customers have come to expect from Aardvark. Keeping the audio inputs and outputs away from the computer prevents unwanted noise from interfering with your audio. Our use of high end components insures precise, crystal-clear sound quality.

For musicians, using the USB3 with your favorite audio software provides the quality you need to create professional sounding audio tracks.

For Internet audio enthusiasts, the USB3 is great for listening to MP3's, and bringing in audio from outside sources for encoding.

Even voice-recognition software users will benefit from using the USB3! Customers can plug their microphones right into the USB3. The USB3's high end components provide a more accurate voice signal than standard soundcards, enhancing the software's performance.

PC SYSTEM REQUIREMENTS &
COMPATIBLE SOFTWARE

In order to use the USB3 you will need to satisfy 3 main requirements
1 That you are running a compatible operating system.
2 That you have a compatible USB host controller.
3 That you have compatible audio software.
See below for more details

☛ **NOTE:** For the most up to date information regarding hardware and software compatibility, please check our website www.aardvark-pro.com/usb3/tech

Minimum requirements:
64 MB RAM
233 MHz processor
Compatible host controller (more details below)
100 MB available HD space
Available USB port.

Operating System:
Windows 98 SE, Windows ME or Windows 2000

Processor:
Intel processors are recommended.

USB Host Controller:
Here is how to find out what USB host controller your PC uses:
Go to START > SETTINGS > CONTROL PANEL
Double click the System icon, then go to the Device Manger tab
Scroll to the bottom, and double click Universal Serial Bus Controllers
The USB controller list will appear.

These are the host controllers that are tested and known to work:
Intel 82371 AB PCI to USB Universal Host Controller
Intel 82371 AB/EB PCI to USB Universal Host Controller
Intel 82371 SB PCI to USB Universal Host Controller
Intel 82801 AA PCI to USB Universal Host Controller
Intel 82801 AB PCI to USB Universal Host Controller
Ali PCI to USB Open Host Controller

The following host controllers have been tested and are NOT compatible:
Intel 82801 BA/BAM
VIA Host controllers
OPTI Host controllers
SiS 7001

There is the chance that the host controller that your PC uses is not on either list.
If your host controller is not listed here, but is Intel based, the USB3 should function fine. If it is not an Intel controller, it may still work.

PC SYSTEM REQUIREMENTS & COMPATIBLE SOFTWARE

PC Compatible Software

☞ **NOTE**: If the program you use is not on this list, it does not necessarily mean it is incompatible. Feel free to check <u>www.aardvark-pro.com/usb3/tech</u> to see if your favorite software is compatible!

Nulsoft
· Winamp

Microsoft
· Windows Media Player

Magix
· Samplitude

Aurturia
· Storm

Sonic Syndicate
(using DirectSound drivers)
· ORION

Image Line
· Fruity Loops

Sonic Foundry:
· Vegas Audio
· Vegas Video
· ACID
   (Allows 24 bit Recording!)
· Sound Forge
   (Version 5 Allows
   24 bit Recording!)

Cakewalk:
· Pro Audio 9
· SONAR
· Guitar Tracks

Syntrillium:
· Cool Edit Pro
· Cool Edit 2000

IK Multimedia
· T-RacKs
· Groove Maker

Native Instruments
(using DirectSound drivers)
· Reaktor
· Spektral Delay
· Traktor

Propellerhead
· Rebirth
· Reason
   (using DirectSound drivers)

Almost any software that uses MME or DirectSound drivers should work fine.

Incompatible PC Software
· DigiDesign Pro Tools Free
· Nemesys Gigastudio
· Steinberg Cubase VST (Has worked in some cases)
· Emagic Logic Audio (Has worked in some cases)
· Mark Of The Unicorn (Has worked in some cases)

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MACINTOSH SYSTEM REQUIREMENTS & SOFTWARE COMPATIBILITY

In order to use the USB3 you will need to satisfy 2 main requirements
1 That you are running a compatible operating system.
2 That you have compatible audio software.
See below for more details

☞ **NOTE**: For the most up to date information regarding hardware and software compatibility, please check our website http://www.aardvark pro.com/usb3/tech

Operating System:
Any Power Macintosh running MAC OS 9.0.4 or later. This includes all Power Mac, iMac, iMac DV, PowerBook, iBook, Titanium Laptop, G3 and G4 systems.

Minimum requirements:
64 MB RAM
233 MHz
100 MB available Hard Disk space
Standard Apple USB port

Compatible Macintosh Software

☞ **NOTE**: If the program you use is not on this list, it does not necessarily mean it is incompatible. Feel free to check www.aardvark-pro.com/usb3/tech to see if your favorite software is compatible!

Apple
·   QuickTime Player
Cakewalk
·   Metro SE
·   Metro
Bias
·   Peak LE
·   Peak
Casady & Greene
·   SoundJam

Mark of the Unicorn
·   Digital Performer
IK Multimedia
·   T-RacKs
·   Groove Maker
Native Instruments
(using Sound Manager)
·   Reaktor
·   Spektral Delay
·   Traktor

Propellerhead
·   Rebirth
·   Reason
    (using Sound Manager)
Roxio
·   Toast
·   Jam 2.5
U&i Software
·   Metasynth
·   Metatrack

Almost any software that uses the Mac OS Sound Manager should work fine.

Incompatible Macintosh Software
·   Spark 1.5 & XL
·   **Digidesign** ProTools Free
·   **Steinberg** Cubase VST (Has worked in some cases)
·   **Emagic** Logic Audio (Has worked in some cases)

▶ USB3 PACKAGE CONTENTS:

The USB3 should have the following items packaged:
- One USB3 hardware device
- One USB cable
- One Cakewalk Guitar Tracks/Metro SE CD
- The USB3 manual you are reading
- A legal agreement/Disclaimer

## ▶ GETTING FAMILIAR WITH THE USB3 HARDWARE:

1. **Left and right line outputs:** These 1/4" jacks operate at −10 dB. Their output volume is controlled by the output level fader (#5) as well as software based controls. These jacks can be plugged into a mixer, an amplifier, or powered monitors.

2. **Left and Right line inputs:** These 1/4" jacks operate at 2 dBu to 30 dBu. These inputs are designed for use with line level devices such as synthesizers, drum machines, mixer outputs, CD players, MiniDisc, etc. The recording volume of these inputs can be adjusted with the Line L,R input level knob (#8).

3. **USB connection:** This is the port used to attach the USB3 to the computer via the included USB cable.
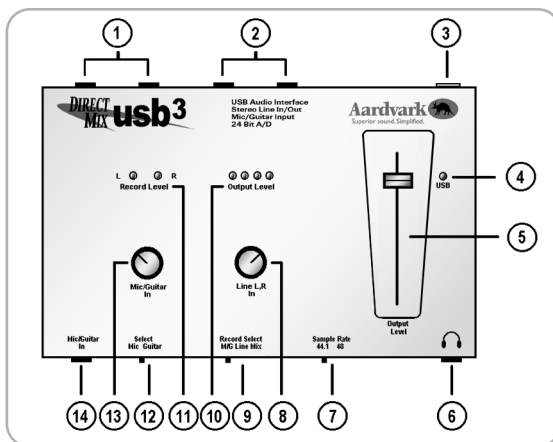
> ❗ **IMPORTANT**: If you want to disconnect the USB cable or change the sample rate you must exit all audio applications.

4. **USB Power indicator:** This light will glow when the USB3 is receiving power from the computer. This light simply indicates whether you have power coming from the USB port; this light may glow even if the USB3 is not properly installed.

5. **Output Level Fader:** This is the master output volume control of the USB3. It controls the output levels going to both the Headphones (#6) and the L/R line outputs (#1). This Fader does not change your recording levels.

6. **Headphone Output:** If you want to use headphones with the USB3, this is where you plug them in. Headphone volume is adjusted with the Output Level Fader (#5).

PRODUCT OVERVIEW

☞ **NOTE**: The headphone output works best with low impedance headphones, 160 ohms or less.

7. **Sample rate selection:** This lets you select the sample rate you want to work at, either 44.1 kHz or 48 kHz.

❗ **IMPORTANT**: If you want to disconnect the USB cable or change the sample rate you must exit all audio applications.

8. **Line L,R input level knob:** This controls the input level of recording levels of signals going to line inputs L,R (#2).

9. **Record Select Switch:** This lets you choose what inputs you want to use to record.
   - If the switch is all the way to the left, the USB3 will only record the MIC/GUITAR input (#14)

☞ **NOTE**: You will still be able to hear the L/R line inputs, even though they are not being recorded

   - If the switch is in the center, the USB3 will only record the L/R line inputs (#2)

☞ **NOTE**: You will still be able to hear the mic/guitar input, even though it is not being recorded

   - If the switch is all the way to the right, the USB3 will record the L,R line inputs, and the Mic/Guitar input simultaneously.

10. **Output level LEDs:** These four LEDs respond to the volume level of the signal being sent to the Headphone and L,R line outputs.From Left to right, this is the volume level each LED represents: -20dB (green), -12dB (green),- 6dB (green), 0 dB (red).

11. **Recording level OMNI LEDs:** These LEDs change in intensity and color as the signal gets louder. They measure the level of the audio going into the A/D (analog to digital) converter. The color of the LEDs begin with a soft green light, which glows brighter as the signal becomes louder. As the signal loudness increases, a red light will appear. If the red light is consistently on, your recording levels are too high. Intermittent flickering of the red light is usually not a problem.

12. **Mic/Guitar select switch:** This switch is used to optimize the Mic/Guitar input (#14) for use with either microphones or guitars. If the switch is moved to the left, the impedance is optimized for microphone use(low-z), if it is moved to the right, the input impedance is optimized for guitar use (high-Z). In addition, the guitar setting utilizes our proprietary EFR™ (Enhanced Frequency Response) technology, providing high quality direct guitar recording.

13. **Mic/Guitar input level knob:** This controls the input level of recording levels of signals going to the mic/guitar input (#14).

14. **Mic/Guitar input:** If you have a microphone or a guitar, plug it in here.

usb3

PRODUCT OVERVIEW -
PC INSTALLATION INSTRUCTIONS

☛ **NOTE:** The USB3 does not work with condenser microphones or any other microphones that require phantom power. If you are not sure whether your microphone requires power or not, please check the microphone's documentation It is possible to use a separate preamp to power the mic, and then connect it to the USB3 via the line inputs on the back.

▶ ### PC INSTALLATION INSTRUCTIONS.

The USB3 operates on Windows 98 SE, Windows ME, and Windows 2000. The USB3 is not compatible with Windows 95 additionally, Windows 98 First Edition has exhibited installation problems. For information on upgrading from Windows 95 or 98first edition please go to <u>www.microsoft.com</u>.

Please make sure you have a compatible USB host controller (see page 3)

☛ **NOTE**: The USB3 drivers are not written by Aardvark. Rather, they use Microsoft's standard USB audio driver. If you run into problems related to this driver, please contact Microsoft.

1. Power up your PC, and put your Windows 98 SE, ME or 2000 CD in your CD-ROM drive. Some computers sold with Windows preinstalled may not have included the Windows 98/SE/ME CD. If this is the case, the necessary files are probably already on your hard drive and no CD is required for installation.
2. Connect the USB3 to the USB port on your PC. If your PC has multiple USB ports, it should not matter which port you use. Check to see if the USB light on the USB3 is on. If it is, Windows should automatically detect new hardware.

☛ **NOTE**: If windows does not detect the new device, and the USB light is lit, you may have to force windows to find the hardware. Go to START | SETTINGS | CONTROL PANEL select ADD NEW HARDWARE, select NEXT, and Windows should find the USB3.

3. The Add New Hardware Wizard will appear, stating that it has found a USB COMPOSITE DEVICE, click Next > to proceed.

4. Next, the Wizard will ask "What do you want windows to do?" Choose "Search for the best driver for your device (Recommended), then click Next >.

5. Windows will then ask you where you want to install the drivers from. Make sure only the CD-ROM drive checkbox is checked, then click Next >.

6. If all is well, Windows should find the location of the driver, either on the CD, or on your hard drive, and the message to the right should appear. This message may be slightly different on your computer, depending on your PCs setup. Click Next >.

7. Windows should now begin copying the necessary files to your hard drive.

8. Once these drivers finish copying, Windows will install drivers for a USB Audio Device

Add New Hardware Wizard

Windows driver file search for the device:

USB Audio Device

Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.

Location of driver:

C:\WINDOWS\INF\WDMA_USB.INF

< Back   Next >   Cancel

9. Windows will install the drivers using the same procedure indicated in installation steps 3-7. Windows will then state that it has completed installing the software that the USB3 requires and will ask you to restart

    USB3 is now fully installed!

Add New Hardware Wizard

USB Audio Device

Windows has finished installing the software that your new hardware device requires.

< Back   Finish   Cancel

PC INSTALLATION INSTRUCTIONS

▶ ## MAKING THE USB3 THE
PREFERRED MULTIMEDIA DEVICE

If you have multiple soundcards on your PC, and you would like to make the USB3 the preferred multimedia device, go to START > SETTINGS > CONTROL PANEL > MULTIMEDIA, select the AUDIO tab, and use the dropdown menus to select USB Audio Device as your preferred playback and recording device.

❗ **IMPORTANT**: Microsoft has acknowledged a bug in Windows that can cause the USB3 to not show up as a choice for preferred playback even though it does show up in the Device Manager as a USB Audio Device under "Soundcards". If you are experiencing this problem, you will need to obtain the Microsoft Hotfix #Q242937 from Microsoft Product Support. For more information, go to www.microsoft.com.

▶ ## INSTALLING CAKEWALKS GUITAR TRACKS 2:

For PC users, the USB3 comes bundled with **Cakewalk Guitar Tracks 2**™, a powerful yet simple program that allows you to record and playback up to 8 mono or stereo tracks with the USB3! You do not need to install **Guitar Tracks 2**™ in order for the USB3 to function. The USB3 will work with most available audio programs, please see page 4 for details.

Installing Cakewalk Guitar Tracks 2™

Insert the Cakewalk Guitar Tracks CD into your CD-ROM drive, and an installation guide should appear within a few seconds.

☞ **NOTE:** If the installation guide does not appear, go to MY COMPUTER, double click the CD-ROM drive, then double click AUTORUN.EXE

From here, the Cakewalk Guitar Tracks 2™ installer will walk you through the installation process.

During the installation, you will be asked for a CD-KEY. The CD-KEY is printed on the Cakewalk Guitar Tracks 2™ CD-ROM.

When installation is finished, you will need to restart your computer.

*usb*3 *GUITAR TRACKS 2*™
QUICK START

▶ ## GETTING STARTED WITH CAKEWALK GUITAR TRACKS 2™:

This section provides information on how to get up and running with the USB3 and Cakewalk Guitar Tracks 2™.

The following information is simply an introduction to the program, aimed at showing you how to start recording tracks immediately.

☞ **NOTE**: For more in-depth information about using Cakewalk Guitar Tracks 2™, use the Help menu to access tutorials, and other valuable resources.

If you have questions or problems regarding Cakewalk Guitar Tracks 2™, please contact Cakewalk technical support at support@cakewalk.com or call 1-888-CAKEWALK.

The main screen of Cakewalk Guitar Tracks 2™ resembles a standalone multitrack with built in mixer. You can access all the basic playback and recording features from here.

GUITAR TRACKS 2™
QUICK START

In the lower right, you'll find the transport controls

Controls 1-4 and 6 will not function until your first track has been recorded.

1. Moves the transport to the beginning of the song
2. Stops playback or recording
3. Plays back recorded tracks
4. Moves the transport to end of the song
5. Records any track armed for recording.

☞ **NOTE:** this button will be grayed out if no track is armed for recording

6. Will take the transport to any position in the song.

Just to the left of the transport controls, is the master output strip.
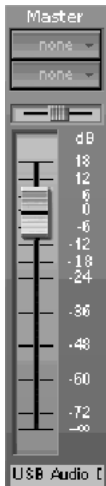
If you have plugin effects, this is where you can add them to the master mix.

This controls the panning of the master mix

This controls the overall volume of the master mix

This lets you select the preferred output device for playback. You'll want to select USB audio device.

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GUITAR TRACKS 2™
QUICK START

To the left of the Master output controls, are eight channel strips, which are used to control the eight available track

This provides volume measurements for each track

If you have effect plugins, this is where you can assign them to a track

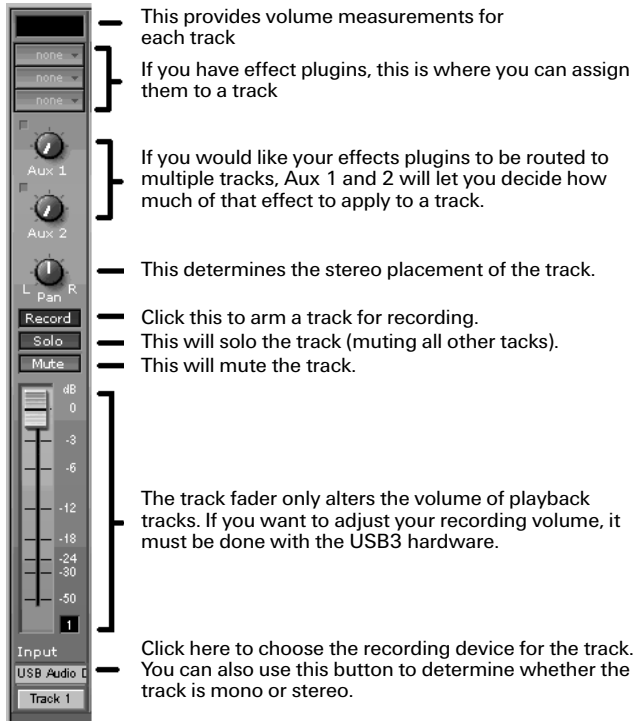If you would like your effects plugins to be routed to multiple tracks, Aux 1 and 2 will let you decide how much of that effect to apply to a track.

This determines the stereo placement of the track.

Click this to arm a track for recording.

This will solo the track (muting all other tacks).

This will mute the track.

The track fader only alters the volume of playback tracks. If you want to adjust your recording volume, it must be done with the USB3 hardware.

Click here to choose the recording device for the track. You can also use this button to determine whether the track is mono or stereo.

To record a track, simply press the button labeled Record on that track's channel strip.

Then hit the record button in the lower right corner.

Click stop to finish recording your track.

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usb 3 MACINTOSH INSTALLATION INSTRUCTIONS

❗ **IMPORTANT:** In order to install the USB3 you MUST be running MAC OS 9.0.4 or newer. Aardvark highly recommends Mac OS 9.1, which is a free upgrade for any user of 9.0.x. Aardvark is not the manufacturer of this software

1. Power up your MAC, USB installation is typically easier with the power on.

2. Using the provided USB cable, connect the USB3 to the USB port of your Mac. Do not use any of the USB ports on your keyboard as they will not provide enough power to operate the USB3

3. Go to the Apple menu in the upper left, select Sound from the Control Panels folder submenu. This will take you to the sound configuration menu.

4. On the INPUT tab, select the Line in of your USB audio device as your preferred input device. You can also use this tab to measure the input signal level.
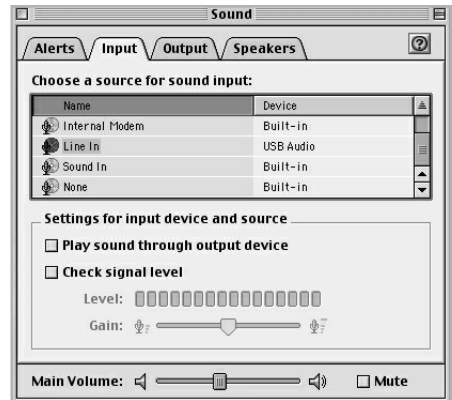
5. On the OUTPUT tab, two options will now be available. The first is "Built-in" which will play sound through external speakers connected to the Macintosh or through the Mac's built-in speakers if no external speakers are connected. The second option will play sound through the USB3's outputs, allowing you to route the output signal to external devices.

*usb*3 *MACINTOSH INSTALLATION INSTRUCTIONS*

▶ ## POTENTIAL INSTALLATION PROBLEMS:

Insufficient power:

If the suggestions provided by this error message do not get rid of the problem, first try to disable unnecessary USB devices. If that does not help, you may need to purchase a powered USB hub, which will provide the necessary power to run the USB3. One of the better powered USB hubs is made by Belkin. For more information, check out http://www.belkin.com.

> The USB device "Direct Mix USB 3" cannot operate because it needs more power than is available.
> **To correct this problem, you can:**
> **1) Plug the device into an electrical outlet if it has a power cord.**
> **2) Unplug the device and plug it into another USB port on your computer or other device that is plugged into a power cord.**
>
> [OK]

The Mac does not recognize the USB audio device:

In order to use a USB audio device on Mac computers, you need to be on Mac OS 9.0.4 or newer. If you already have Mac OS 9.0.4 loaded, we recommend that you upgrade to Mac OS 9.1, this is a free upgrade from 9.0.x.

Mac OS updates can be found at http://www.apple.com.

MACINTOSH INSTALLATION INSTRUCTIONS

▶ ## USB3 BUNDLED MAC SOFTWARE:

For Macintosh users, the USB3 comes bundled with **Cakewalk Metro SE**™, a powerful Audio and MIDI sequencer for Macintosh. You do not need to install **Metro SE**™ in order for the USB3 to function. The USB3 will work with most available audio programs, please see page 5 for details.

To help you learn how to use the program, the Metro SE™ CD-ROM includes a comprehensive PDF manual. You can reference this PDF from the Metro SE™ CD, or print it out to have a hard copy.

If you have questions or problems regarding Metro SE™, please contact Cakewalk technical support at **metro.support@cakewalk.com** or by phone at: 1-888-CAKEWALK.

▶ ## INSTALLING METRO SE™:

Insert the Cakewalk Metro SE™ CD-ROM into your CD-ROM drive, and the contents of the CD should appear on your screen.

Double Click the Install Metro program to begin installation.

usb3
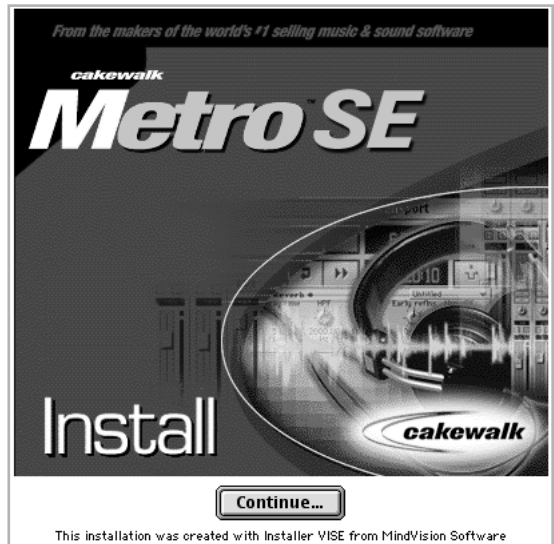
MACINTOSH INSTALLATION INSTRUCTIONS

Metro SE™ will ask if you want to perform an Easy or Custom install. For must users, it is best to choose the easy install.

After installing Metro SE™, you may be asked to install OMS as well. OMS is included on the Metro SE™ CD. To install OMS, simply insert the Metro SE™ CD-ROM, and run the OMS installer.
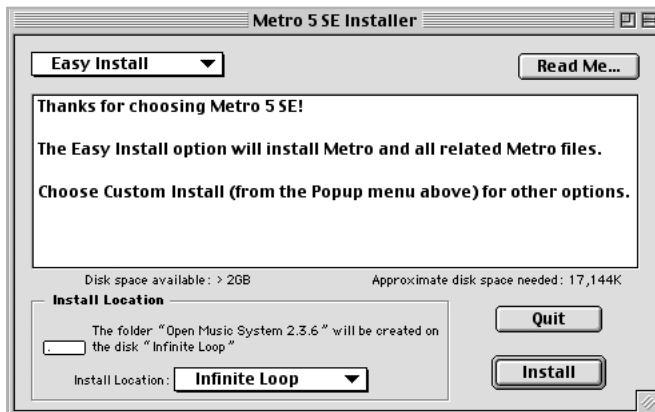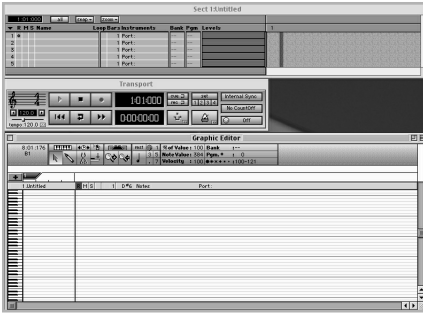

When using Metro SE™ for the first time, you may be asked to setup OMS. You can ignore these requests. OMS is a MIDI utility, and the USB3 is strictly audio. There is no need to configure OMS to get the USB3 to work properly.

In addition, Metro SE™ may provide a menu, asking if you want to change ports. Like OMS, you can safely ignore this.

GETTING STARTED IN METRO SE

Once you get through setting up the ports and OMS, Metro SE™ will open as several windows, including the Transport, the Track View, and the Graphic Editor.

Go to the "setup" menu, choose "Digital Audio".

To use the USB3 as your input device, configure the setup screen as shown.

Once your audio devices are set up, head over to the track view .

The first few tracks should be visible, more tracks can be found by simply scrolling down.

To arm a track for recording, simply click the "R" column for that track.
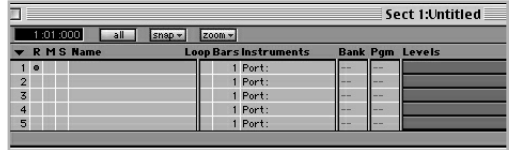
Once the track is armed for recording, simply click the RECORD button on the Transport.

After recording a track, the audio you recorded should show up in the Graphic Editor.

TROUBLESHOOTING:

As straightforward as the USB3 is, there is always the possibility that you may run into problems. This section provides information on some of the issues that may arise.

❗ IMPORTANT: If you have tech support issues regarding installation or performance of the USB3 drivers, please contact the manufacturer of your operating system or motherboard. The USB3 software is not written by Aardvark. Rather, it uses the Standard USB audio drivers that come with your operating system (Windows 98SE, Windows ME, Windows 2000, or Mac OS). If you are having trouble with the software you are recording with (Cakewalk, etc.) please contact the company that writes the software.

For any issues regarding the USB3 hardware itself, please refer to our website. http://www.aardvark-pro.com/usb3/tech

PROBLEM: Inputs do not appear to work

SOLUTION: First, be sure that the input levels are set to a high enough volume. For the Mic/Guitar input on the front, use the Mic/Guitar in knob to boost the incoming volume. For the 1/4" jacks on the back, use the Line L,R in knob to boost the incoming volume. After adjusting your input volume, check to see if the Record Level lights are responding. If they are, your inputs are working! If you still can't hear your inputs make sure the output level slider is turned up.

PROBLEM: The lights that measure my recording level don't seem to work.

SOLUTION: Be sure your recording levels are set high enough as stated in the previous question. If the levels are set properly, Be sure the Record Select M/G Line mix switch is set in the proper position. If should be to the left if you want to record the Mic/Line input, it should be in the center if you want to record the L/R line inputs on the back, or it should be to the right if you want to record the Mic/Guitar and line inputs simultaneously.

PROBLEM: The USB3 does not show up as a selection for preferred playback but it does show up in the Device Manager as a USB Audio Device under "Soundcards".

SOLUTION: You will need to obtain the Microsoft Hotfix #Q242937 from Microsoft Product Support. For more information go to www.microsoft.com.

TROUBLESHOOTING:

PROBLEM: My inputs work, but they are not recorded by my audio software

SOLUTION: First, check to make sure the input select switch is in the appropriate position. If changing the input selector switch does not solve the problem, then the audio software you are using may have a different device assigned to record and play back audio. Even if you do not have another sound card installed, many programs require that you explicitly designate the USB3 as the preferred recording and playback device before it will work in the program.

PROBLEM: I can't hear MIDI files

SOLUTION: The USB3 is strictly an audio card, and does not play MIDI files. In order to hear MIDI files, you need an additional wavetable soundcard or MIDI interface.

PROBLEM: I can't hear audio CD's through the USB3

SOLUTION: In order to hear Audio CDs through the USB3, your CD-ROM drive must support digital audio extraction. Contact the manufacturer of your CD-ROM drive to see if this is the case. You can also obtain a free alternate Windows system file that will allow real-time conversion from audio CDs, for more info visit www.sonicspot.com and search for "CDFS"

PROBLEM: I'm playing a video game on my computer and some of the sounds are not working properly.

SOLUTION: The USB3 is a professional audio interface that only operates at 44.1 and 48 KHz sample rates. Many game sounds are recorded at lower sample rates.

PROBLEM: Playback on the USB3 is too quiet

SOLUTION: First, be sure the Master Volume is turned up. Also, if you are a PC user, Go to Start > Programs > Accessories > Entertainment > Volume Control. This will bring up the volume mixer for the USB3, which may need to be turned up.

Does the USB3 record 16 Bits or 24 bits?

Both, but keep reading. Unlike many USB audio devices, the USB3 has high-end 24 Bit A/D converters inside the unit and is fully 24 bit compatible and will record 24 bits using the right software. However, most standard audio software can only record 16 bits using the standard USB audio driver provided by the operating system. Most software companies are working to update this and when ready should vastly expand the possibilities of the USB3. However, it is important to note that by using only the audio software that comes with the USB3, you will only be able to record at16 bits.

If you want to record 24 bits with the USB3 today, there are solutions already available. If you are a PC user, than some software from Sonic Foundry (www.sonicfoundry.com) such as ACID or Sound Forge 5.0 will allow you to record 24 bits with the USB3.

Keep in mind that all CD's are recorded at 16 bit, so the USB3 is perfect for high-resolution, professional CD recording. Ultimately, even if you don't need to use the 24 bit capability right out of the box, it's nice to know the 24 bit option is there.

Will the USB3 make my audio sound better?

Yes. Especially if you are using the standard audio hardware that came with your computer. Aardvark uses high quality components and completely shields your audio from any unwanted computer noise. The result is clean, detailed, professional sounding audio.

I already have a regular soundcard, do I need to deactivate it to use the USB3?

There is no need to deactivate your computer's other soundcard. The USB3 seamlessly integrates with other multimedia devices. You can configure Windows to recognize either the USB3 or your other soundcard as the preferred multimedia device.

Can I play MP3 files through the USB3?

Absolutely! Professional design and high-end components make the USB3 perfect for enjoying MP3 audio. Most MP3 players will automatically play out of the computer's preferred audio device, so just make sure that's set to the Aardvark USB3 and you should be able to listen to any MP3 file through the line outputs or even through the convenient headphone output right on the front of the unit.

FREQUENTLY ASKED QUESTIONS

Can I play my audio CD's through the USB3?

If your CD-ROM drive supports 'Digital Audio Extraction', then you will be able to play your audio CD's through the USB3. To find out if your CD-ROM supports this feature, you can check the CD Music Tab by going to; Start->Settings->Control Panel->Multimedia->CD Music Tab.

You can also obtain a free alternate Windows system file that will allow real-time conversion from audio CDs, for more info visit www.sonicspot.com and search for "CDFS"

Can I use the USB3 with the standard audio software that comes with my Mac or PC?

Yes. The USB3 will work with almost any audio software, including many of the standard audio players that come with the computer. This includes Windows Media Player & WinAmp for the PC, and Quicktime, MacAmp & SoundJam on the Mac. Using the USB3 with your computer should yield much better sound quality than your 'included' soundcard both for recording and playback. Just make sure that your sample rate is set to either 44.1 kHz or 48 kHz.

What is USB?

Universal Serial Bus (USB) is a standard means for connecting devices to a computer. Almost all new computers, Mac or PC, should have several USB I/O ports. The USB can work with a computer keyboard, a mouse, digital cameras and many other devices that need to get information to or from the computer. The USB3 audio interface uses this standard port to easily get audio in and out of the computer.

How does the USB3 work in getting audio to and from the computer?

The USB3 is an audio interface that uses the common USB connection to get audio to and from the computer. This USB connection allows the USB3 to transfer 2 channels (Left & Right) of audio to the computer (RECORD) and at the same time transfer 2 channels of audio (Left & Right) from the computer (PLAY). The USB3 also receives all of its power from the USB connection.

Imagine having 5 cables connected to your computer: one for each the Left & Right Input; 1 each for the Left & Right Output, and an AC power cord connected to the wall. This is the functionality that the one simple USB connection provides.

Why does the USB3 come with Cakewalk Audio Software CD?

The USB3 is a set of high quality inputs and outputs for your computer. An additional program, such as Cakewalk Guitar Tracks 2™ for the PC or Metro SE™ for the Macintosh, is required to record, edit, mix and play audio from the computer. There are many different companies that make this kind of audio software. So the USB3 acts as just a high quality I/O and hardware mixer interface, all the actual audio recording is done using audio software.

Is the USB3 Full Duplex?

Yes. The USB3 is full Duplex, which means that you can record audio to the computer and playback audio from the computer at the same time. Most professional audio interfaces have this feature because you can overlay tracks onto the computer much easier when you can play back the software audio tracks while recording new ones at the same time. This is perfect for a software based home studio and really lets you get the most out of your system.

Why did you choose 1/4" jacks for all the audio I/O?

1/4" jacks are a professional audio standard that not only provide good quality, but are also very easy to connect Guitars, Microphones, Line level and headphones directly into the USB3. These 1/4" jacks are also easily adapted to fit any other kind of jack style you need. Many devices use RCA, 1/8" or XLR connectors, all of which integrate perfectly into the USB3 with some readily available adapters.

How can I connect my XLR microphone to the USB3?

Many microphones have a 3-prong XLR connector. You can use a mic cable that has an XLR jack to connect to the microphone on one end and a 1/4" jack on the other end of the cable to connect into the USB3. You can also use a simple XLR to 1/4" adapter and it will work perfectly. Make sure the Mic/Gtr switch on the front is turned over to Mic.

Are there separate amplifiers for the microphone and the guitar inputs?

Absolutely. This gives you better quality for both your mic input and your guitar input. This is different than many devices that use the same amplifier for both mic & guitar input. Aardvark has different amplifiers for the Microphone input and a custom designed E.F.R.™ circuitry for the guitar input. Our mic preamp is very quiet, allowing you to get the most out of your microphones, so your vocals will sound clean and crisp and will be absolutely noise-free.

The exclusive E.F.R.™ Circuitry (Enhanced Frequency Response) is activated when you change the Mic/Guitar Switch to Guitar. The guitar sound produced from the E.F.R.™ input will be an eye-opener for many guitar players. The special E.F.R.™ circuitry, custom made just for guitar players, creates a tone that's warmer and richer with a spectral clarity that results in great sounding guitar tracks.

Is there phantom power on the USB3?
No. Phantom power is commonly needed for professional condenser type microphones. The USB3 does not provide phantom power, so if you need to use condenser microphones, you will need to use an outboard pre-amp, and then come into the Line Inputs (L,R) on the back of the USB3.

Aardvark also makes PCI card based audio interfaces, some of which use the XLR mic input and have Phantom power. For more information, check out the Q10 and the Direct Pro 24/96. Both of these systems have phantom power as well as many other professional features you may need: www.aardvark-pro.com

Can I transfer audio files into other audio software?
Yes. The audio software that comes with the USB3 records in a standard audio formats so it's easily transferred and used by any other programs. For the Macintosh, the Cakewalk Metro SE that comes with the USB3 can record in the standard ".AIFF" Macintosh format. For Windows users, Cakewalk Guitar Tracks 2 can record in the Windows standard ".WAV" file. Both of these formats are very easily recognized by other audio software applications so it will be easy to transfer tracks recorded by the USB3 into almost any software you choose, including CD burning software or multimedia and internet streaming software.

☞ **NOTE:** Just because you can easily transfer the audio files that were recorded by the USB3 into another program for editing, does not necessarily mean that the USB3 can actually record and play with any recording software. If you plan on using the USB3 with another recording software application, make sure you check the current listing of compatible recording software at: www.aardvark-pro.com/usb3/tech

FREQUENTLY ASKED QUESTIONS

How many channels can the USB3 play and record?

The USB3 can record on the computer 2 channels (L,R) and playback from the computer 2 channels (L,R) simultaneously. The recording software will certainly allow you to mix and edit many more channels, allowing you the ability to keep all your individual tracks separate. For example, the Guitar Tracks 2™ recording software allows you to have up to 8 individual tracks that can be edited, mixed and played through the USB3. Any recording software will let you mix the software tracks down into 2 channels for playback through the USB3. This means you can build your mix 2 tracks at a time, mix & edit all the separate channels in your software while you're monitoring the stereo output though the USB3 audio line outputs or its headphone output.

How many channels can I mix with the USB3?

The USB3 can mix up to 5 channels for monitoring via the USB3: One (1) from the Mic or Guitar Input, two (2) from the stereo Line (L,R) 1/4' Inputs, and two (2) from the stereo playback channels from the recording software.

Does the USB3 work as a stand alone device?

No. The USB3 gets all of its power from the computer it's connected to via the USB cable, so it cannot be used unless it is connected to a computer. On the top right of the unit, there is an LED labelled "USB" which indicates that the unit on and getting power.

I'm mainly a guitar player, how can I use the USB3?

If you are a guitar player you will find some excellent uses for the USB3 listed below.

1) You can now start recording tracks on any computer: Desktop or Laptop. Mac or PC. It's easy to carry around so all you need is the USB3, a USB cable, headphones and a guitar and your up and running.

2) The custom designed EFR™ Circuitry is specially tailored to give you a unique sound that really warms up your guitar. You can use the EFR™ Guitar input to record to the computer, or you can just monitor directly to headphones or speakers to hear yourself play.

3) As long as the USB3 is connected to the computer so it gets power, you can use it just like a small audio mixer. The USB3 lets you record and play your tracks from the computer, mix with vocals and keyboards and easily lets you monitor everything all at once.

FREQUENTLY ASKED QUESTIONS

What is the best way to listen to audio with the USB3?
The USB3 gives you 2 possibilities. The headphone jack on the front is easiest if you want to listen to it with headphones. You can also simultaneously take the Line Outputs on the back of the unit to a mixer, powered speakers or an amplifier to listen to your music. Both the line outputs and the headphone output are always identical in what is monitored, and both can be adjusted with the level slider on the top of the USB3. If you have speakers or headphones with connections that are 1/8" or RCA jacks, it's easy to get adapters to fit into the 1/4" professional connections of the USB3.

How can I plug both a guitar and a microphone into the USB3?
You can record both a microphone input and a guitar input at the same time even though the USB3 shares an input for the mic and guitar input. To do this, you will need an external amplifier, a mic preamp for microphones or a DI box or other Hi-Z interface for the guitar, and then take the line level signal out of that into one of the two 1/4" line inputs on the back of the USB3.

If you want to use our proprietary EFR™ Guitar Input circuitry, then you'll need an external mic preamp and take the line level output of the mic preamp into one of the USB3 line inputs.

I have a PC, how many IRQs does the USB3 require?
The USB3 needs one (1) dedicated IRQ to work properly. Sometimes, the USB3 can share an IRQ, but this typically results in audio dropouts and other unwanted glitches in your audio. For optimum performance make sure the USB3 has it's own dedicated IRQ.

Can I use the USB3 with laptops?
Yes. It will work with either Mac or PC laptops. It's important to note that with some "loaded" PC laptops, there may not be any IRQ's left, which the USB3 needs. Just make sure there is an IRQ available for the USB3 and it will work perfectly.

It's also important to note that some laptops force the USB port into an IRQ that cannot be changed, which makes it incompatible with the USB3 and other USB audio devices. These IRQ conflicts can be avoided by using a laptop that provides Floating IRQs. Gateway (http://www.gateway.com) and Winbook (http://www.winbook.com) are among the manufacturers that provide some laptops with floating IRQs. However, most laptop manufactures now have solutions, so just make sure that the laptop you plan on using with the USB3 has Floating IRQs. If you are not sure, call the laptop manufacturer and they should be able to tell you if the laptop you have has Floating IRQs.