



- EN** Instructions in English are available at the link below.
- ES** Las instrucciones de instalación en el español se encuentran disponibles en el enlace que se indica a continuación.
- FR** Les instructions d'installation en français sont disponibles au lien suivant.
- DE** Eine Anleitung in englischer Sprache ist unter dem unten stehenden Link verfügbar.
- NL** Instructies in het Nederlands zijn beschikbaar via onderstaande link.
- ZH** 安裝說明請詳見下列網址連結。
- JA** 日本語 のインストールガイドは下記リンク先でご覧いただけます。
- KO** 한국어로 작성된 설치 지침은 아래 링크에서 볼 수 있습니다.
- RU** Инструкции по установке на русском языке можно найти по ссылке ниже.
- IT** Le istruzioni per l'installazione in italiano sono disponibili nel link indicato in basso.
- PT** Pode encontrar as instruções de instalação em português através do link em baixo.
- PL** Instrukcja w języku polskim są dostępne w linku poniżej.
- TH** คำแนะนำในการติดตั้งไทยมีจัดไว้ให้ผ่านลิงค์ต่อไปนี้

 <https://www.audioquest.com/resource/1039/Beetle-Manual-2018.pdf>

## Table of Contents

Introduction	6	Optical	15
Specifications	7	Connecting an Optical-Enabled Device	15
What's Included?	7	USB	17
Supported Operating Systems	7	Setup for USB and Optical (Mac)	17
Setting Up Beetle	8	Setup for USB and Optical (Windows)	22
Bluetooth	10	For Use with Apple Mobile Devices (USB)	29
Pairing Apple OS X	11	For Use with Android Devices (USB)	30
Unpairing Apple OS X	11	Desktop Device Manager Application	32
Pairing Microsoft Windows 7   8.1   10	12	Naming Your Beetle	35
Unpairing Microsoft Windows 7   8.1   10	12	Clearing Bluetooth Addresses	35
Pairing iOS	13	More Products to Enhance Beetle's Performance	37
Unpairing iOS	13		
Pairing Android	13		
Unpairing Android	14		
Bluetooth Isn't Working. Why?	15		

# Beetle – Flight Manual

## Optical–Bluetooth–USB DAC

In designing Beetle, our goal was to create a product that would sensibly and intelligently address our customers' various connectivity needs—both wired and wireless—while remaining true to our quest for the best possible sound. It wouldn't be enough to merely offer inputs, such as Bluetooth, USB, and Optical. We wanted to investigate and implement the best possible methods of optimizing each input, independent of one another. To that end, Beetle provides the following:

- **Optical:** ESS's patented Time Domain Jitter Eliminator® significantly reduces jitter over Optical, raising both time-domain accuracy and signal-to-noise ratio to state-of-the-art levels.
- **Asynchronous Bluetooth:** Asynchronous data transfer preventively ensures the lowest possible level of jitter over Bluetooth. In this mode, Beetle is in total control of the incoming datastream.
- **Asynchronous USB:** Like our award-winning DragonFly USB DAC + headphone amplifier, Beetle implements Streamlength® Asynchronous USB transfer code—the most sophisticated software solution of its kind currently available.

In addition to the great care and extraordinary engineering applied to Beetle's inputs, AudioQuest has spent the better part of three years co-developing the most advanced microcontroller solutions currently available. Beetle is the first AudioQuest product to be built on the extremely efficient, ultra-low-noise Microchip® microcontroller platform.

## Specifications

**Maximum Output:** 1.35 volt

**Bluetooth Version:** 4.0 A2DP 2.6 (software upgradable via Desktop Device Manager)

### Volume Control

- USB and Bluetooth: 64-bit (Bit-Perfect Digital) Volume Control
- Optical: Unity Gain

### Sample Rates

- Bluetooth: Up to 48kHz @ 384kbps (blue LED when paired)
- Optical: 32kHz–96kHz; 16 bit–24 bit (red LED)
- USB: 44.1kHz (green LED); 48kHz (blue LED); 88.2kHz (amber LED); 96kHz (magenta LED). 16 bit–24 bit.

## What's Included?

In the box, you will find the following:

- Beetle Optical–Bluetooth–USB digital-to-analog converter
- Regulated Analog-Linear Power Supply
- Flight Manual

## Supported Operating Systems

- Apple OS X®
- Apple iOS®
- Microsoft Windows® (7, 8.1, 10)
- Android™

## Setting Up Beetle

- 1. Power and Data:** Beetle's USB port is designed to accept power from the included external power supply, or both power and data from a computer or handheld mobile device. Beetle's analog-linear power supply (included) should be used whenever Beetle is *not* connected to a computer's USB bus.
- 2. To connect Beetle** to a system, a portable device, or to powered speakers, a cable or an adaptor with a 3.5mm plug on the sending end is required. Insert the cable's 3.5mm plug into Beetle's analog output, and then plug the other end into your audio system. AudioQuest offers a complete line of 3.5mm-equipped Bridges & Falls analog interconnects, including 3.5mm-to-3.5mm, 3.5mm-to-RCA, and 3.5mm-to-DIN cables, as well as a 3.5mm-to-RCA adaptor that can be used in combination with RCA-to-RCA cables. For more information, visit [www.audioquest.com/analog-interconnects/](http://www.audioquest.com/analog-interconnects/).
- 3. Adjusting the volume:** Beetle is equipped with a bit-perfect (64-bit precision) digital volume control, enabling high-precision adjustment of output volume while in either the USB or Bluetooth mode. This ensures playback and adjustability with no sacrifice to the authenticity of the originating file.

**For Bluetooth or USB (before playback begins):** To ensure bit-perfect playback and volume adjustability, set the volume control of the playback application (such as iTunes or Tidal) to 100%. Adjust the volume from the OS system's volume control by using the volume up/down keys or buttons on an Apple computer, Windows PC, or mobile device. (We recommend beginning with the volume set to 50%.)

**For Optical:** By the very nature of the Optical (S/PDIF) interface, it is not possible to send volume control commands along the signal. Therefore, for optical playback, we cannot enable or adjust the digital volume control within the Beetle. We suggest controlling the volume from your preamplifier or receiver. That said, most applications, such as iTunes, Tidal, Spotify, etc., have a built-in volume selector. Adjusting the volume in any of these applications will affect the overall output of Beetle. (We recommend beginning with volume set to 50%.)

### Beetle has the following inputs:

- Asynchronous Bluetooth – when activated, Beetle's LED will turn blue for 10 seconds.
- Optical – when activated, Beetle's LED will turn red for 10 seconds.
- Asynchronous USB audio – when activated, Beetle's LED will change color for 10 seconds, in accordance with the host device's output sampling rate:

**Green** = 44.1kHz; **Blue** = 48kHz;

**Amber** = 88.2kHz; **Magenta** = 96kHz.

**Note:** Red = Standby. Any input, while active, will have exclusive control over Beetle. If, after 60 seconds, an input is not seen as active, it will time out, at which point access to any input will be available and granted on a first-come, first-served basis.

## Bluetooth®:

- Bluetooth offers extraordinary convenience and reliability within a range of approximately 30 feet between paired devices. Additionally, every major computer, tablet, and smartphone manufacturer worldwide supports Bluetooth, making it a very viable wireless solution.
- **Asynchronous Bluetooth:** The asynchronous transfer protocol, as applied to digital audio, allows the clock in an outboard digital-to-analog converter (DAC) to override the clock in a host computer, thereby significantly reducing the digital-audio distortion known as jitter. While asynchronous transfer has become a popular (and often preferred) technology in USB DACs, the same strategy can be applied to Bluetooth transmission. By sending audio data asynchronously over Bluetooth, we can greatly reduce the susceptibility to jitter. We believe Beetle is the first Bluetooth DAC to implement this notable advantage.

## Pairing and Unpairing a Bluetooth Device to Beetle

In this section, we'll explain pairing from the following operating systems:

### Desktop:

- Apple OS X
- Microsoft Windows (7, 8.1, 10)

### Mobile:


- Apple iOS (iOS 5 or newer)
- Android (Android 1.5 OS or newer)


## Pairing Apple OS X

In order to pair Beetle with an Apple computer running on OS X:

1. Select System Preferences.
  - a. Select Bluetooth. Make sure Bluetooth is selected to "On."
  - b. When "AudioQuest Beetle" appears in the Devices, select "pair."
  - c. Quit System Preferences. You can now play music to Beetle and use the computer's system volume controls to manage the Beetle's internal volume control.
2. Open Audio Midi Setup.
  - a. Select input.
  - b. Select and highlight "AudioQuest Beetle."
  - c. On the lower left hand side is a dropdown menu, represented by a gear symbol. Open this dropdown menu.
  - d. Select "Use this Device for Sound Output."


## Unpair OS X

On the top of your Apple's screen is a taskbar. Towards the right side of the taskbar, you'll see a Bluetooth symbol .


1. Click on the Bluetooth symbol .
2. Scroll over "AudioQuest Beetle" and select "Disconnect."


## Pairing Microsoft Windows 7 | 8.1 | 10

In order to pair Beetle with a computer running on Windows:

1. Select the Start button  located in the lower left-hand corner of your screen.
  - a. Select "PC Settings."
  - b. Select "PC and Devices."
  - c. Select "Bluetooth." Turn Bluetooth "On."
    - i. AudioQuest Beetle "Ready To Pair"
  - d. Select the "Pair" button next to Beetle.
2. Open the Control Panel.
  - a. Select Hardware and Sound. A Sound window will appear.
  - b. Select the first tab, titled "Playback."
  - c. Select and highlight "AudioQuest Beetle" and then select "Set Default."

## Unpair Windows

On the lower right-hand side of your computer's home screen dock, you'll find several icons such as Wi-Fi and Battery Life. To the far left of these icons is an upward-pointing triangle or arrow. Select this icon. Several symbols will appear, including a Bluetooth symbol .

1. Select the Bluetooth symbol .
2. Select "AudioQuest Beetle" and then select "Disconnect."


## Pairing iOS

On your mobile devices screen, select the "Settings" icon.

1. Select Bluetooth. Make sure Bluetooth is on.
2. Under "OTHER DEVICES," "AudioQuest Beetle" will appear.
  - a. Select "AudioQuest Beetle."

## Unpairing iOS

On your mobile devices screen, select the "Settings" icon.

1. Select Bluetooth.
2. Under "MY DEVICES," select the blue "i" (for information) 
  - a. Select "Disconnect," then select "Forget This Device" and, finally, select "Forget Device" (in red).


## Pairing Android

On your mobile devices screen, select the "Settings" icon.

1. Select the "CONNECTIONS" tab.
2. Select Bluetooth. Make sure Bluetooth is turned to "On."
3. Under "Available Devices," select "AudioQuest Beetle."

## Unpairing Android

On your mobile devices screen, select the “Settings” icon.

1. Select the “CONNECTIONS” tab.
2. Select Bluetooth. Select “AudioQuest Beetle.”
  - a. An icon that looks like a gear will appear next to the Beetle. Select this icon .
  - b. Select “Unpair.”

## Bluetooth Isn't Working. Why?

- If either USB or Optical are currently receiving data, the active input will hold exclusive control over Beetle, thus ensuring uninterrupted streaming. Note: This holds true even when the Host is correctly paired to Beetle.
- Another Host device may already be paired with Beetle. No Power: If Beetle does not appear in your Host's BT settings, ensure that Beetle has power and is turned on. (*Is there any light coming from the front window? If not, Beetle is likely not powered.*)
- Your Host device's Bluetooth function may be turned off or Beetle may be out of sufficient range.

## Optical:

- Many of today's modern source devices generate a tremendous amount of noise, which finds its way into the audio signal and/or onto the ground plane, thereby significantly degrading the overall sound of any audio system. Symptomatically, noise will reduce dynamic contrast; destroy inner detail and texture; and leave music sounding flat, lifeless, and fatiguing. Fortunately, noise is only *electrical* in nature. When music is played through an Optical connection, it is optically isolated from these potentially harmful noise currents, thus preventing the noise from transferring over to Beetle, leaving the datastream with only the music.

## Connecting Beetle to an Optical-Enabled Device:

- To connect a source component to Beetle via Optical, you'll need an appropriate Optical cable. Beetle uses a full-size optical input. Most source devices will also accept a full-size connector. However, most computers and mobile devices use a 3.5mm optical connector, often referred to as a “mini-Optical.” This 3.5mm port appears identical to, and often shares, the headphone port. AudioQuest offers a complete line of high-performance Optical cables. For more information, scroll down to the Optical Fiber-Optic section at [www.audioquest.com/digital-interconnects/](http://www.audioquest.com/digital-interconnects/).
- Once you've selected the correct cable, use it to connect Beetle to your desired source.



- **Configuring Digital Output:** Many televisions, streaming devices (such as Apple TV, Amazon Fire TV), television set top boxes, satellite receivers, and DVD and Blu-ray disc players have optional settings for properly configuring “Digital Out” or “Sound.” Typically, the menu can be accessed by selecting “Setup” or “Settings” from the device’s remote control.
- Digital Output: Many devices have multiple options for output, such as Optical, HDMI, or Coax. While some devices will select the output automatically, most devices will ask the user to choose a specific output path for the digital signal. In this case, please select “Optical” or “Toslink.”
  - Music-only streamers, such as Sonos or Bluesound, automatically output a signal across the Optical output; they do not require user selection.
- Digital Output Format: Often, there are two or three options for Digital Output Format, including Bit Stream, Automatic, and LPCM. Beetle is designed to accept LPCM. Please select this as your preference.
- Maximum Sample Rate: The maximum sample rate that Beetle will accept is 96kHz.
- Speaker configuration: Because Beetle is a two-channel stereo-only device, only the main left and right speakers should be switched to “On.” If your source device provides options for “Size,” such as “Small” or “Large,” please select “Large” (or “Full-range”). Do not enable secondary speaker options, such as Sub, Center, Side, or Rear.
- Once you have made these selections and optimizations, Beetle is ready to transmit audio.

## Apple OS X® Setup (10.6.8 or newer)

For Windows Setup, skip to page 22.

For Apple Mobile Setup, skip to page 29.

For Android Setup, skip to page 30.

Beetle is compatible with Apple OS X, versions 10.6.8 and later. OS X menus may appear slightly different from the screenshots shown below. Some have changed over the life of OS X, but their functionality has remained the same.

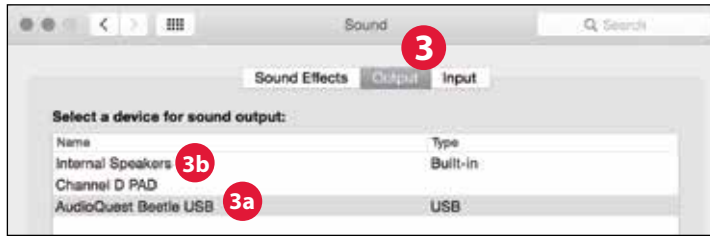
### Setup For USB and Optical

Using “System Preferences” to send audio to Beetle, while keeping alerts and sound effects on the computer’s speakers: Insert a USB cable between Beetle and your computer’s USB port.

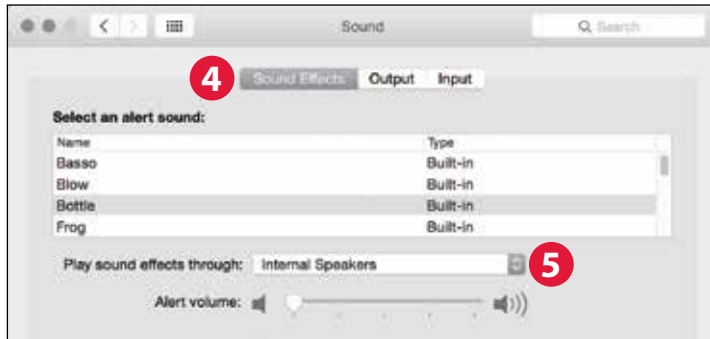
1. Open “System Preferences” from the Dock or from the Apple® dropdown menu (top left).
2. Click on the “Sound” icon.



- In the Sound panel, click on the “Output” tab.
  - For USB, Select “AudioQuest Beetle.”
  - For Optical, Select “Internal Speakers”



- Click on the Sound panel’s “Sound Effects” tab.




- In the “Play sound effects through” menu, choose:
  - For USB, Select “Internal Speakers.”
  - For Optical, Select “Internal Speakers” and be sure to turn the volume all the way down (left) to mute.
- Close the window.

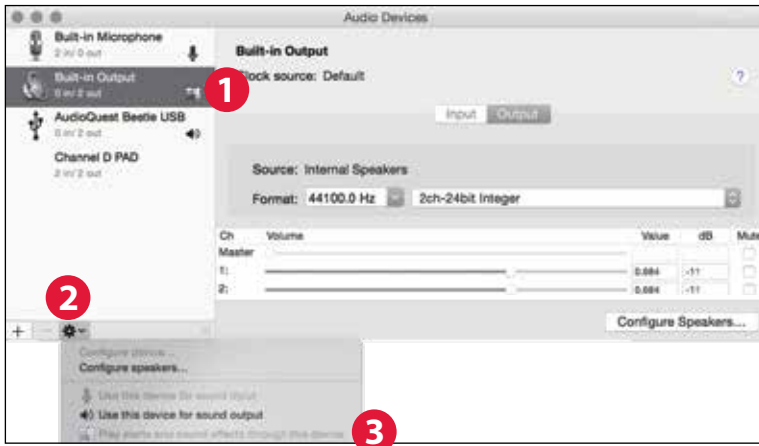
**Setting up the “Audio MIDI Setup”** so computer audio plays through Beetle:

- Open the “Applications” folder, and then the “Utilities” folder.
- Within Utilities, double-click to open “Audio MIDI Setup.”
- For USB:** Within the “Audio Devices” panel, click on “AudioQuest Beetle.”
  - For Optical:** Within the “Audio Devices” panel, click on “Built-in Output.”
- Use the “Format” dropdown menu to choose a sample rate—most likely 44100.0 Hz. (See “Why is ‘Format’ important,” on page 21.)



**Making certain that sound effects are routed** to the computer's speakers and not to Beetle:

1. In the already open "Audio Devices" window, click first to highlight "Built-In Output."
2. Click on the gear icon drop-down menu.
3. Check that "Play alerts and sound effects through this device" is grayed out.
4. If it is not, click to select it so the  now appears next to "Built-In Output."



Plug in earbuds, headphones, or use a cable to connect Beetle to your powered speakers or amplifier, and you are ready to listen!

## Why is "Format" important?

CDs operate at a sampling frequency of 44100.0 Hz. Compressed MP3 and AAC music files and audio streams are typically encoded at three different quality levels—128kbps, 256kbps (iTunes Plus), and 320kbps—and are most often reconstructed as 44100.0 Hz files. Similarly, many music downloads and CDs ripped as Apple Lossless or FLAC files are reconstructed to 44100.0 Hz. If you have higher resolution files, it is important to choose the correct higher sample rate in order to maximize the benefit of those files. For the best performance with sampling rates above Beetle's 96kHz ceiling, files should be played at a rate mathematically related to their native resolution. For instance, a 192kHz file should be played at 96kHz (i.e.,  $2 \times 96000.0 = 192000.0$ ).

Some programs (such as NPR) use 48000.0 Hz. These 24-bit/48000.0 Hz files can sound amazingly close to higher sample-rate files. Some "high-res" files use 88200.0 Hz because it is a multiple of the CD standard sample rate (i.e.,  $2 \times 44100.0 = 88200.0$ ). Some "high-res" files use 96000.0 Hz because it is a multiple of the sample rates used on DVDs, Blu-rays, and in the computer world (i.e.,  $2 \times 48000.0 = 96000.0$ ).

Beetle's LED lights up in different colors to indicate status or sample rate:

**Red:** Standby    **Green:** 44100.0 Hz    **Blue:** 48000.0 Hz  
**Amber:** 88200.0 Hz    **Magenta:** 96000.0 Hz

## Windows 7, 8.1 and 10

Be sure to check that your computer's OS and device drivers are up to date. For more information please consult Microsoft for software updates and the manufacturer of your computer for device driver updates.

### Setup For USB and Optical

Using "Control Panel" "Sound" settings to send audio to Beetle, while keeping alerts and sound effects on the computer's speakers:

1. Insert an optical or USB cable in between Beetle and your computer's USB port.
2. Go to Start menu and launch "Control Panel."
3. Open "Hardware and Sound" panel.



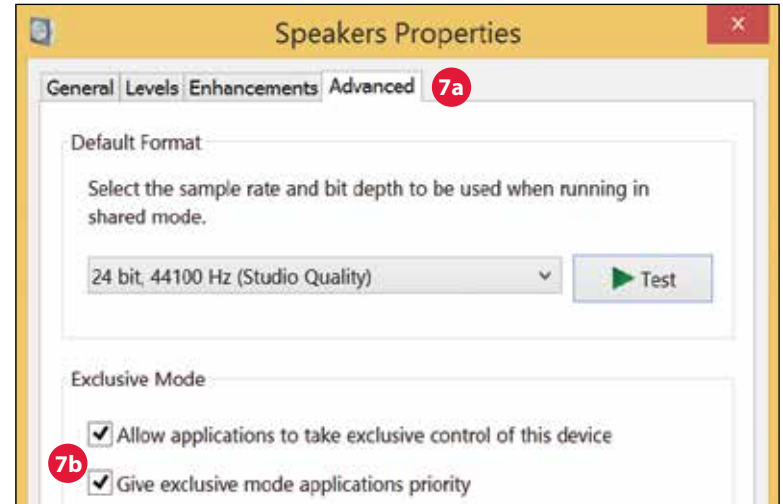
4. Select "Sound."



5. **For USB:** The AudioQuest Beetle is added as “Speakers.” Ensure it is the “Default Device.” Select “Speaker.”
6. **For Optical:** Select, “Digital Audio (S/PDIF).”

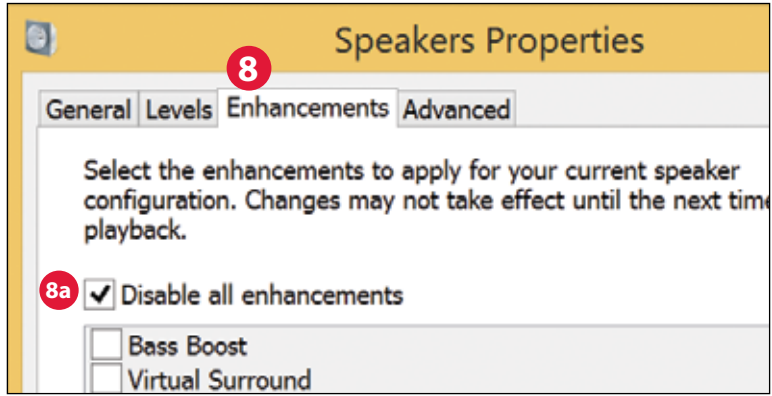


7. Click “Properties” button for more setup options.
  - a. Click “Advanced” tab. Use the dropdown menu to choose the sample rate—most likely 24-bit/44100.0 Hz. (See “Why is ‘Format’ important,” on page 27.)
  - b. For “Exclusive Mode,” check both options then click “OK.”



**8. For Windows 8.1 and 10:** Click “Enhancements” button.

- a. Select, “Disable All Enhancements”.



**9. For Windows 7:** Setting chimes and alerts to play through the computer’s speakers and not Beetle:

- a. Select “Sounds” tab. For “Sounds Scheme,”
- b. Select “No Sounds.” This prevents chimes and computer alerts from playing back through Beetle.
- c. Enter “Beetle” as your “Sound Scheme” (optional). Click “OK.” Close window.

## Why is “Format” important?

CDs operate at a sample frequency of 44100 Hz. Compressed MP3 and AAC music files and audio streams are typically encoded at three different quality levels—128kbps, 256kbps (iTunes Plus), and 320kbps—and are most often reconstructed as 44100.0 Hz files. Similarly, many music downloads and CDs ripped as Apple Lossless or FLAC files are reconstructed to 44100 Hz. If you have higher resolution files, it is important to choose the correct higher sample rate in order to maximize the benefit of those files. For the best performance with sampling rates above Beetle’s 96kHz ceiling, files should be played at a rate mathematically related to their native resolution. For instance, a 192kHz file should be played at 96kHz (i.e.,  $2 \times 96000.0 = 192000.0$ ).

Some programs (such as NPR) use 48000 Hz. These 24-bit/48000 Hz files can sound amazingly close to higher sample-rate files. Some “high-res” files use 88200 Hz, but Windows 7 is not currently compatible with this sample rate. To play 88200 Hz music files, Windows 7 users must select 44100 Hz, 48000 Hz, or 96000 Hz, with 44100 recommended as optimal because it is a direct multiple of the native sample rate (i.e.,  $2 \times 44100.0 = 88200.0$ ). Windows 8 will play all sample rates. Windows-compatible third-party music players, such as JRiver and foobar2000 will play 88200 Hz files at their native sample rate. For support or more information about these music players, please visit [jriver.com](http://jriver.com) or [foobar2000.org](http://foobar2000.org). Some “high-res” files use 96000 Hz because it is a multiple of the sample rates used on DVDs, Blu-rays and in the computer world (i.e.,  $2 \times 48000.0 = 96000.0$ ).

Beetle’s LED lights up in different colors to indicate status or sample rate:

**Red:** Standby   **Green:** 44100 Hz   **Blue:** 48000 Hz  
**Amber:** 88200 Hz   **Magenta:** 96000 Hz

**Setting chimes and alerts** to play through the computer's speakers and not Beetle:

1. Click "Sounds" tab.
2. For "Sounds Scheme," select "No Sounds." This prevents chimes and computer alerts from playing back through Beetle.
3. Enter "Beetle" as your "Sound Scheme" (optional).
4. Click "OK." Close window.

Plug in earbuds, headphones, or use a cable to connect Beetle to your powered speakers or amplifier, and you are ready to listen!

Visit <http://www.audioquest.com/computer-audio> for advanced computer audio setup guides that include tips, tweaks, and techniques for getting the best sound from various music applications such as iTunes, Roon, JRiver, foobar2000, Pure Music, Decibel, and Bit Perfect.

## For use with Apple mobile devices (USB):

Beetle will work with Apple's handheld (phone and tablet) devices. In order to connect Beetle to an iPhone or iPad and play music, an Apple Lightning-to-USB Camera Adapter or Camera Connection Kit is required:

- For Lightning devices, go to <http://www.apple.com/shop/product/MD821AM/A/lightning-to-usb-camera-adapter>
  - For 30-pin (legacy) devices, go to <http://www.apple.com/shop/product/MC531AM/A/apple-ipad-camera-connection-kit>
1. Plug the Camera Adaptor/Connector into your Apple Mobile Device.
  2. Once the appropriate Camera Adaptor/Connector is connected, an AudioQuest USB A-to-Micro cable can be used to connect the Apple Camera Adapter/Connector to Beetle. AudioQuest offers a number of USB cable options. For more information, go to the USB Cables section at <http://www.audioquest.com/digital-interconnects/>.
  3. Turn down the volume on your Apple Mobile device to at least 50%.
  4. Select your desired music/media app, and then select your desired song or stream.
  5. Adjust volume to desired level.

## For Use with Android Devices (USB):

Beetle will work with most Android devices running on Android 4.1 OS and newer, provided that the device manufacturer has adhered to the USB specification and implementation, and supports audio over USB, otherwise known as USB Host Mode. To verify that your Android device complies with isochronous USB audio, download and run USB Host Check: <https://play.google.com/store/apps/details?id=org.tauruslabs.usbhostcheck>.

In our early pre-production testing, we found that some Android (4.1 OS and newer) devices do not provide native support for audio over USB. If you find that your Android 4.1 (or newer) device does not support audio over USB, we ask that you please contact the manufacturer of your device. To determine whether your device supports audio over USB, consult the user manual or visit the manufacturer's website.

For a reliable media player that has its own built-in USB device driver, ensuring reliable connectivity to all USB DACs, we suggest the following application: <http://www.extreamsd.com/index.php/2015-07-22-12-01-14/usb-audio-driver>. This application is compatible with various audio formats and will manage music on both the Android's internal memory and inserted SD cards. Additionally, with the phone connected to the Wi-Fi network, this application can find and connect to DLNA servers/libraries. As of Version 2.2.5, USB Pro Player now supports playback for Tidal Streaming.

## In order to connect your Android device to Beetle:

1. Android devices use a USB format known as OTG (On The Go). OTG USB ports require a unique 5-pin USB micro to 4-pin USB A (Female) adaptor. In order to connect an Android device and/or USB cable to a DAC, an OTG adaptor must be installed into the Android device. See [www.audioquest.com/dragontailOTG](http://www.audioquest.com/dragontailOTG).
2. Select the appropriate cable for your Android device. AudioQuest offers a wide range of high-performance USB cables, with connectors suitable for Android devices (such as USB Micro and USB Mini and DragonTail OTG). For more information, go to the USB Cables section at <http://www.audioquest.com/digital-interconnects/> and <http://www.audioquest.com/DragonTailOTG>. In some rare cases, a proprietary connection or adaptor will be required to transmit audio over USB. (Consult your device's user manual or visit the manufacturer's website.)
3. Turn down the volume on your Android device to at least 50%.
4. Select your desired music/media app, and then select your desired song or stream.
5. Adjust volume to desired level.



## Desktop Device Manager Application

### Available for Mac OS X and Windows 7, 8.1, and 10

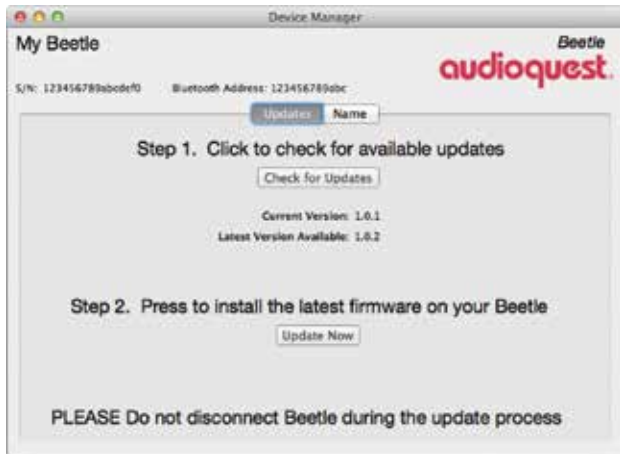
The AudioQuest Desktop Device Manager Application allows you to perform the following tasks:

- Identify your Beetle's serial number and software version to ensure that the device is up to date.
- Change the name of your Beetle.
- Clear Bluetooth addresses from your Beetle's memory.

#### In Order to Install the AudioQuest Desktop Device Manager Application:

1. Go to: <http://www.audioquest.com/Beetle/app> and download the latest Device Manager available for your operating system.
2. Double-click the installer icon and follow the onscreen instructions until complete. The application's icon will appear on your desktop.
3. To run the Device Manager Application, double-click the application's icon.
4. A window will appear, asking you to connect a Beetle device to your computer (via USB). Once you have done so, a new window will appear, with tabs and controls that allow you to set various preferences.
5. The Device Manager Application will automatically check for available software updates. However, if you'd like to manually check for updates, you can do so whenever you wish by clicking the "Check for Updates" button. If an update is available, the "Update Now" button will be enabled. Click this button to start the update process.

- PLEASE DO NOT DISCONNECT YOUR BEETLE DURING THE UPDATE PROCESS. Doing so can leave the Beetle in a non-functional state. If, for any reason, your Beetle is disconnected during the update process, or your computer unexpectedly shuts down during the update process, your Beetle may be rendered unusable. To reset your Beetle, click the Advanced button. (See below.)
- **RESETTING YOUR BEETLE:** With your Beetle connected to your computer's USB port via USB cable, click the Advanced button, located in the lower left hand corner of the Device Manager window. Select "Reset Now." You will be asked to "Confirm" or "Cancel" this action. Select "Confirm" and wait for the application to finish the reset process. Again, please do not disconnect your Beetle during the reset process. If, for any reason, your Beetle is disconnected during the reset process, simply reconnect Beetle via USB cable and perform the reset process again.
- Once the update/reset process is complete, the Device Manager Application will display the following message: *The update is complete and it is safe to disconnect your device.* However, at this time, you may choose to change the name of your Beetle. With Beetle still connected to your computer via USB cable, use the Name tab to view and change the name of your device. (See "Naming Your Beetle" below.)
- Once you have checked for updates and/or made your desired changes, disconnect the Beetle and quit the Device Manager Application. Your Beetle is ready to use.



## Naming Your Beetle

- All Beetles are shipped with the default name, “AudioQuest Beetle.” However, in situations where two or more Beetles are used within range of one another, it may be useful to personalize each device, thus allowing users to easily distinguish one Beetle from another. With your Beetle connected to your computer via USB cable and with the Desktop Device Manager running, simply click on the Name tab. Highlight or delete the existing name and type in the new name of your choice.

## Clearing Bluetooth Addresses (Persistent Storage)

- Your Beetle can store up to 8 Bluetooth addresses in its memory, i.e., persistent storage. Once the memory is full, no new Bluetooth devices can be paired. Therefore, if your Beetle is often used in public settings, with shared access by multiple users and multiple Bluetooth devices, it may be necessary to periodically clear all Bluetooth addresses from your Beetle. With your Beetle connected to your computer via USB cable and with the Desktop Device Manager running, click the Advanced tab, then click the “Reset Now” button. Clicking this button will clear your Beetle’s persistent memory, thereby erasing all host device addresses that it has stored. Note: Persistent storage is also the means by which your Beetle retains its name. Therefore, the “Reset Now” button will also clear the name assigned to the Beetle. Once you’ve reset your Beetle, you can select the Name Tab to rename it.

Special thanks go to the talented engineers at Microchip, who in collaboration with Gordon Rankin, have helped us reach new heights in audio reproduction. We would also like to thank the exceptional people at ESS for welcoming our modest input throughout the development of leading-edge DAC solutions. Partners like these, all of whom have continuously exceeded our expectations, make the journey far more rewarding and enjoyable. The significance of their engineering contributions to our goals of defining and realizing the most intelligent, reliable audio products possible cannot be overstated. We look forward to continuing our work with Gordon, Microchip, and ESS, developing new and exciting products that achieve high levels of performance and value, while thoughtfully addressing the ever-evolving needs of our customers.

And, thank *you* for selecting Beetle. We hope it brings you many years of musical enjoyment.

## More Products to Enhance Beetle's Performance



### JitterBug

While Beetle's included outboard analog-linear power supply offers pure, clean power for those preferring to stream music over Optical and/or Bluetooth, USB users will have to rely on the power provided by the host computer or mobile device. These sources offer impressive flexibility along with access to applications and websites from all over the world, but they also leave the USB connection vulnerable to sound-degrading noise currents and parasitic resonances.

Fortunately, AudioQuest has developed a solution for dealing with these liabilities. JitterBug's dual-circuitry measurably reduces unwanted noise currents and parasitic resonances. It also reduces jitter and packet errors (in some cases, packet errors are completely eliminated.) The result is clearer, more compelling sound, music, and dialogue—a better audio experience.



### Bridges & Falls

Getting the music from your Beetle to your media system can sometimes be a challenge. Fortunately, AudioQuest has made this easy. Determining the correct connection for your device, and finding a cable that's commensurate in performance with your needs and desires, should be painless. Bridges & Falls cables honor the fact that today's components require more connectivity options

than ever before, while taking full advantage of the efficiencies in making single-ended stereo cables in a single jacket. AudioQuest offers a comprehensive selection with a wide variety of modern connector configurations, such as 3.5mm to: •3.5mm •RCA •DIN.



## USB

As well known as AudioQuest is for its groundbreaking line of low-distortion, high-performance analog cables, our more recent entrance into the world of high-speed digital cables, such as HDMI, Thunderbolt, Ethernet and USB, has garnered near-universal acclaim from reviewers, manufacturers, dealers, and audio/video enthusiasts. Available in three distinct models, AudioQuest USB cables set the category standard for performance and value.



## Optical

Because many of today's media devices lack an analog out, the Optical digital output has made a significant resurgence. Television sets, Apple TV media players, and PlayStation and Xbox gaming consoles are just a few examples of popular devices that offer only digital audio outputs. Meanwhile, many of today's devices that do offer an analog option sacrifice performance for convenience—they may make sound, but they don't make music.

In short, Optical isn't only time-tested and ubiquitous, it's more important than ever. With that in mind, AudioQuest offers a complete line of serious, high-performance OptiLink cables, designed to maximize the entertainment experience.



## DragonTail USB Extender Cable

DragonTail is a USB extender cable that allows a USB device (such as DragonFly or a flash drive) to more easily and safely fit next to other occupied computer ports. Most importantly, like all AudioQuest products, DragonTail is designed and manufactured for low distortion and maximum performance. Sharing design elements with our Carbon USB cable, DragonTail uses solid conductors with silver plating that comprises 5% of the total conductor metal, foamed-polyethylene insulation to maintain critical signal-pair geometry, and direct-silver-plated USB contacts. In addition, DragonTail's signal-carrying conductors are controlled for digital-audio directionality for more engaging and immersive sound.



## DragonTail USB Adaptor For Android™ Devices

DragonTail for Android is a USB adaptor designed to activate USB Host Mode on any for Android-enabled Android device, allowing the device to transmit audio over USB to an outboard digital-to-analog converter (DAC). Use DragonTail for Android to connect any For Android-enabled Android device to a USB DAC, such as DragonFly Red or DragonFly Black, for improved audio performance. Like DragonTail, DragonTail for Android shares design elements with our Carbon USB cable, including solid conductors with silver plating that comprises 5% of the total conductor metal, foamed-polyethylene insulation, and signal-carrying conductors that have been controlled for low-noise directionality.

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