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

www.audioquest.com/DragonFlyCobalt/flight

Direct or DragonTail C with computer

Lightning USB 3 Camera Kit for maximum performance & reliability

DragonTail Micro or C with Android

Headphone and Earbuds

Powered Speakers

Amplifier or Receiver

Table of Contents

DragonFly Cobalt
USB Digital-to-Analog Converter

DragonFly is a USB digital-to-analog converter (DAC) designed to deliver cleaner, clearer, more naturally beautiful sound from any computer, smartphone, or tablet. DragonFly's unique design allows for playback of any file type regardless of resolution. Natively, DragonFly is capable of decoding 24-bit/96kHz data. (*For files with higher sample rates, your computer or mobile device, in conjunction with its playback software, will resample the data to a compatible resolution. For more details, see "The Importance of Format."*)

DragonFly represents the culmination of several significant achievements.

Working closely with Microchip®, a leading provider of microcontrollers and analog semiconductors, AudioQuest and acclaimed engineer Gordon Rankin developed sophisticated software that enabled the implementation of a new, high-performance class of USB microcontroller. Thanks to their exceedingly low power consumption

and extremely low-noise power supplies, the Microchip® microcontrollers achieve unprecedented levels of efficiency and signal-to-noise ratio, regardless of bit- or sample-rate. Meanwhile, significant advances in DAC chips have allowed us to surpass the performance of even our multi-award-winning DragonFly Red.

DragonFly Cobalt uses monoClock® technology and the StreamLength® asynchronous USB code*.

With monoClock® technology, a single ultra-low-jitter clock generated from the ESS ES9038 DAC chip runs the ESS headphone amplifier as well as all microcontroller functionalities. This single ultra-low-jitter clock enables DragonFly Cobalt to produce greater resolution and clarity than DACs that employ multiple clocks.

StreamLength® asynchronous USB code ensures improved delivery of the audio samples to the DAC chip. It produces low jitter, low resource load, minimal packet errors, world-class audio playback, and reliable connectivity between our DAC and any computing device compliant with USB Host Mode (as set forth by the USB Organization). StreamLength® is compatible with the USB Audio Class (UAC) and requires no additional drivers, making DragonFly virtually plug-and-play for Apple™, Windows™, iOS™, and Android™ users.

Additionally, DragonFly is software upgradable. In today's fast-paced digital world, longevity in a hi-fi component is increasingly rare—at any price. AudioQuest believes that today's digital devices should evolve as technology itself evolves, thereby delivering musical pleasure for many years to come. With our free Desktop Device Manager

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*monoClock® and StreamLength® are registered trademarks of Wavelength Audio, ltd.

application and a few simple clicks, when new software is available DragonFly can be upgraded at no additional cost. And, to easily accommodate the increasing number of electronic devices that feature USB-C ports, DragonFly Cobalt comes equipped with our DragonTail USB A-to-C extender cable.

To stay up to date on the latest DragonFly news, please register your product at **https://www.audioquest.com/page/aq-product-registration.html.**

We encourage you to spend a few minutes reading through the Flight Manual and then sit back, relax, and get high on your favorite music!

AudioQuest

Included Inside

- DragonFly Cobalt Asynchronous USB DAC
- DragonTail USB-A to USB-C Adaptor
- Travel Pouch
- Flight Manual

Supported Operating Systems

- Apple OS 10.6.8 and later
- Apple iOS 5 and later
- Microsoft Windows 7-10
- Android 4.1 and later
- Linux capable (no support provided)

At a Glance: DragonFly Cobalt

MODEL: DragonFly Cobalt

IDENTIFICATION: AudioQuest DragonFly Cobalt v1.0

OUTPUT: 2.1Vrms @10k Ohms or higher; 16 ohms minimum for headphone

MICROCONTROLLER: Microchip PIC32MX274

DAC CHIP: ESS ES9038

HEADPHONE AMPLIFIER: ESS Sabre 9601

VOLUME CONTROL: 64-bit bit-perfect digital

MQA* ENABLED: Yes

* More information about MQA and DragonFly can be found here:
  https://www.audioquest.com/page/aq-dragonfly-series-faq.html#!/mqa

Setting Up DragonFly

DragonFly is designed to be "plug and play" with all major desktop and mobile devices and operating systems, such as Android, Apple, and Microsoft Windows 10. DragonFly requires no additional drivers to operate with any of these systems.

Note: DragonFly employs a bit-perfect digital volume control that resides *inside* of the DAC chip itself—a sophisticated implementation that ensures maximum fidelity, dynamic contrast, and signal-to-noise ratio. With DragonFly connected to a PC or mobile device, adjusting the host's system volume control will, through proxy, control the DragonFly's onboard volume.

The Importance of Format

CDs operate at a sampling frequency of 44.1kHz. Compressed MP3 and AAC music files and audio streams are typically encoded at one of three different quality levels—128kbps, 256kbps, or 320kbps—and are most often reconstructed as 44.1kHz files. Similarly, many music downloads and CDs ripped as Apple Lossless or FLAC files are reconstructed to 44.1kHz. For these reasons, DragonFly will often produce the best results when your computer is set to output a sample rate of 44.1kHz. If you have higher resolution files, however, 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 DragonFly Cobalt'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 x 96000.0 = 192000.0).

There are many applications available (such as Roon, BitPerfect, Foobar, JRiver, Audirvana, Decibel, Amarra, etc.) that will automatically set the sample rate of DragonFly to that of the file, eliminating the need for manual setting of the sample rate.

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

Red: Standby   **Yellow:** 88.2kHz
Green: 44.1kHz   **Light Blue:** 96kHz
Blue: 48kHz   **Purple:** MQA

Note: DragonFly is an MQA renderer only and must be partnered with appropriate software to unfold MQA files. For MQA capabilities, please consult the user manual of your playback device and music-player application.
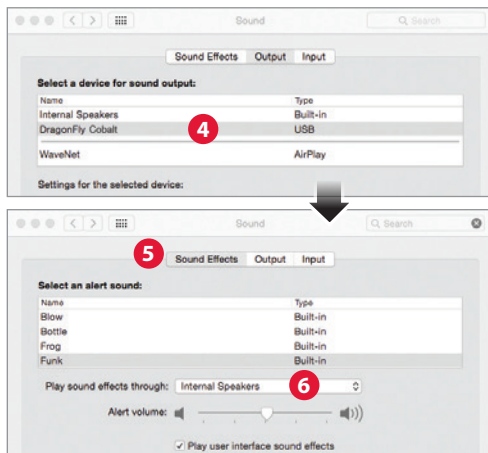
For Use with Apple OS X® (10.6.8 or newer)

(For Windows setup, skip to page 12; for Apple Mobile device setup, skip to page 14, for Android setup, skip to page 15.)

DragonFly is compatible with Mac 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

Using "System Preferences" to send audio to DragonFly, while keeping alerts and sound effects on the computer's speakers:
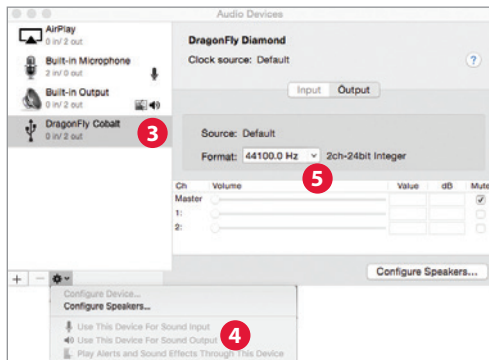
1. Insert DragonFly into your computer's USB port.
2. Open "System Preferences" from the Dock or from the Apple® dropdown menu (top left).
3. Click on the "Sound" icon.
4. In the Sound panel, click on the "Output" tab. Select "AudioQuest DragonFly Cobalt"

5. Click on the Sound panel's "Sound Effects" tab.

6. In the "Play sound effects through" menu, select "Internal Speakers."

7. Close the window.

8. **In order to connect DragonFly Cobalt to Macbook and Macbook Pro computers that are equipped with USB Type-C ports only, please use the enclosed USB-C to USB-A adaptor.**

Setting up the "Audio MIDI Setup" so computer audio plays through DragonFly:

1. Open the "Applications" folder, and then the "Utilities" folder.

2. Within Utilities, double-click to open "Audio MIDI Setup."

3. Within the "Audio Devices" panel, click on "AudioQuest DragonFly Cobalt"

4. Select, "Use this device for sound output"

5. Use the "Format" dropdown menu to choose a sample rate—most likely 44.1kHz. (See "The Importance of Format.")
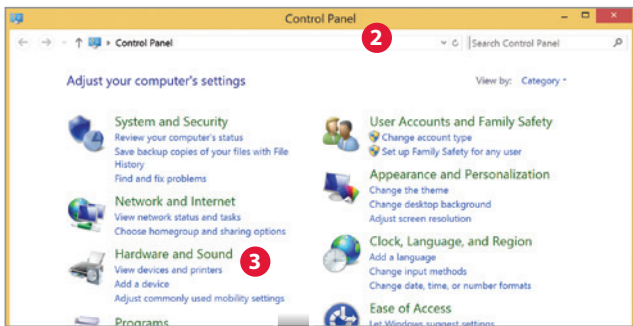

Plug in earbuds, headphones, or use a cable to connect DragonFly to your powered speakers or amplifier, and you are ready to listen!

For Use with Windows® 7-10

Setup for USB

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

1. Insert DragonFly into your computer's USB port.

2. In the Cortana search bar at the bottom left of the Windows 10 desktop, type in "Control Panel" and hit enter key to launch the panel.

3. Open "Hardware and Sound" panel.

4. Select "Sound."

5. For USB: The AudioQuest DragonFly is added as "Speakers." Ensure it is the "Default Device."
Select "Speakers."

6. 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 "The Importance of Format.")

    b. For "Exclusive Mode," check both options, then click "OK."

7. To connect DragonFly to Windows computers with USB-C ports, use the included DragonTail USB-C to USB-A adaptor.

For use with Apple Mobile devices

DragonFly will work with Apple's mobile handheld devices (running on iOS 5 or newer). In order to connect DragonFly to an iPhone or legacy iPad, an Apple Lightning-to-USB Camera Adapter is required. However, if you would like to connect DragonFly to the latest iPad Pro, which features a USB-C port, then please use the included DragonTail USB-C to USB-A adaptor.

Note: In our tests, Apple's Lightning-to-USB 3 Camera Adapter (with charging port) sounds better and is more reliable than Apple's less expensive Lightning-to-USB Adapter, while also providing the ability to charge during playback. For more information, visit ***http://www.apple.com/shop/product/MK0W2AM/A/lightning-to-usb-3-camera-adapter***

1. Plug the Camera Adapter/Connector into your Apple mobile device.
2. Plug DragonFly into the Camera Adaptor/Connector's USB port.
3. Turn down the volume on your 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

Android devices that run Jelly Bean operating system (4.1 or newer) support USB audio output, and your DragonFly is pre-loaded with the latest firmware, which includes being optimized for use with Android devices.

Note: *If* your DragonFly seems to have too little output, then there's more to do: Despite Android's support of USB audio output, there are still hardware manufacturers that do not completely adhere to the USB audio class specification. If you experience this, we recommend the USB Audio Player Pro application (UAPP; currently $7.99 US): *https://play.google.com/store/apps/details?id=com.extreamsd.usbaudioplayerpro.*

UAPP includes its own USB audio device driver that is compliant with the USB Organization's USB Audio Host Mode Class specification. Further, it is compatible with various audio formats and will manage music on both the Android's internal memory and inserted SD cards. With the phone connected to the Wi-Fi network, this application can also find and connect to DLNA servers/libraries. USB Audio Player PRO Version 5 now supports audio from Google Music, Tidal (including Tidal Masters), Qobuz, and Shoutcast, and includes an MQA Core Decoder, which will unfold MQA streams from 44.1/48kHz to 88.2/96 kHz and can be combined with DragonFly for further unfolding of even higher sample rates.

If you are not satisfied with this solution, the DragonFly can be returned to your dealer who will gladly refund your purchase price.

Connecting your Android device to DragonFly:

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 used. See *http://www.audioquest.com/dragontail/dragontail-for-android-devices*

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). For more information, go to the USB Cables section at *http://www.audioquest.com/digital-interconnects/*. 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.) If you would like to connect DragonFly to one of the increasing number of Android devices equipped with a USB-C port, then please use the included DragonTail USB-C to USB-A adaptor.

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.
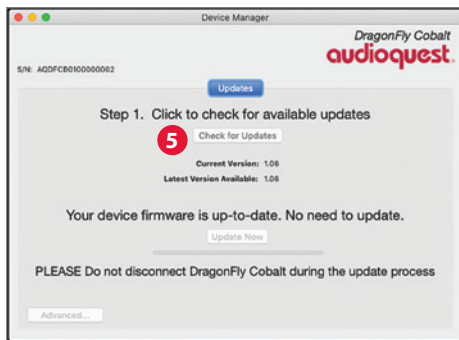
5. Adjust volume to desired level.

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 identify your DragonFly's serial number and software version to ensure that the device is up to date.

In order to install the AudioQuest Desktop Device Manager Application:

1. Go to: *http://www.audioquest.com/page/aq-digitalupdates.html* 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 DragonFly device to your computer. 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.

Device Manager

DragonFly Cobalt
audioquest.

S/N: AQDFCB0100000002

Updates

Step 1. Click to check for available updates

5 Check for Updates

Current Version: 1.06
Latest Version Available: 1.06

Your device firmware is up-to-date. No need to update.

Update Now

PLEASE Do not disconnect DragonFly Cobalt during the update process

Advanced...

6. PLEASE DO NOT DISCONNECT YOUR DRAGONFLY DURING THE UPDATE PROCESS. Doing so can leave the DragonFly in a non-functional state. If, for any reason, your DragonFly is disconnected during the update process, or your computer unexpectedly shuts down during the update process, your DragonFly may be rendered unusable.

7. Once the update process is complete, the Device Manager Application will display the following message: *The update is complete and it is safe to disconnect your device*.

8. Once you have checked for updates and/or made your desired changes, disconnect the DragonFly and quit the Device Manager Application. Your DragonFly is ready to use.

Take DragonFly Higher

JitterBug USB Filter

Our JitterBug USB filter employs dual discrete noise-dissipation circuits to reduce the noise and ringing that plague both the power and data lines of USB ports throughout your audio system. It can be used with hard drives, NAS devices, routers, streamers, computer peripherals, and even with mobile devices into a car stereo!

Bridges & Falls Analog Cables

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. With the appropriate Bridges & Falls cable, you can connect DragonFly to powered loudspeakers or a complete high-performance audio system! AudioQuest offers a comprehensive selection with a wide variety of modern connector configurations, such as 3.5mm to: •3.5mm •RCA •DIN

DragonTail
A (female) ↔ A (male)

DragonTail
Micro-B/OTG ↔ USB A

DragonTail
A (female) ↔ C (male)

DragonTail USB Extender Cable

DragonTail is a USB extender cable that either allows a USB device (such as DragonFly or a flash drive) to more easily and safely fit next to other occupied computer ports, or to easily connect with various smartphones. Regardless of the digital interface—whether micro-USB/OTG-to-USB A, USB A (female)-to-USB A (male), USB A (female)-to-USB C (male), etc.—we will design a DragonTail for the associated device and application.

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 semi-solid conductors with silver plating that comprises 5% of the total conductor metal and foamed-polyethylene insulation to maintain critical signal-pair geometry. In addition, as with all AudioQuest cables, DragonTail's signal-carrying conductors are controlled for low-noise directionality, resulting in more engaging, immersive sound.

For many devices that support USB C only, our newest DragonTail USB-C to USB-A adaptor cable allows users to enjoy the benefits of DragonFly.

DRAGONFLY COBALT

USB DAC + Preamp + Headphone Amp