

# Addonics

TECHNOLOGIES

## Diamond Cipher AES 256-bit Drive Cartridge System

Model: DCDCS256S & DCDCS256U

User's Guide

### FCC Warning Statement

This equipment has been tested and found to comply with the limits for a class B digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try and correct the interference by one or more of the following suggestions.

Reorient or relocate the receiving antenna

Increase the distance between the equipment and the receiver

Connect the equipment to a different power outlet other than the one where receiver is connected

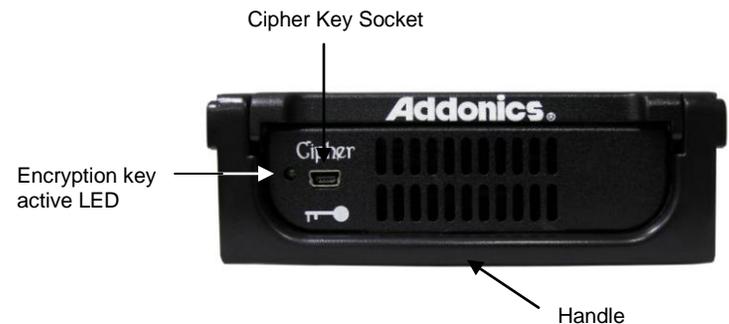
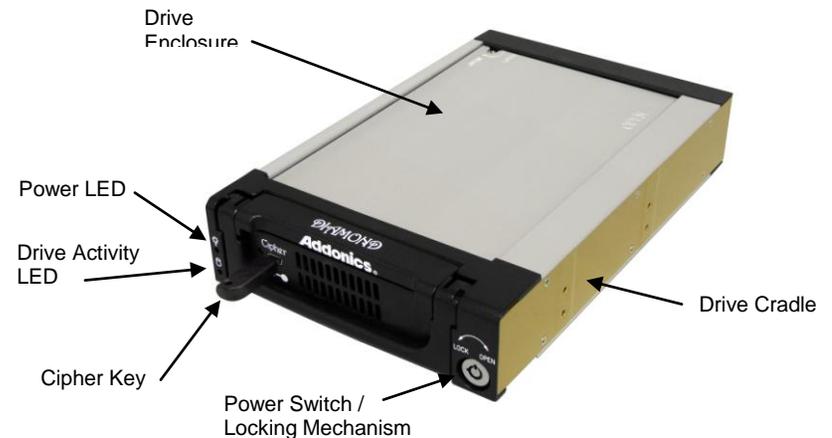
Consult a certified television or radio technician

### Enclosure and Drive Cradle Overview

The drive enclosure is the enclosure where a SATA hard drive is mounted and secured by 4 screws.

Drive cradle, also known as fixed tray, is the frame that mounts inside the drive bay of a desktop, server or any computing equipment. The drive cradle provides both power and data connection between the computer and the drive enclosure.

The Diamond cipher drive cradle fits into any standard 5 1/4" drive bay and can connect to the computer via SATA or USB 2.0. This interface allows hot swapping the hard drive without restarting or rebooting the system. The Diamond drive cradle is compatible with all Diamond drive enclosures and Diamond cipher drive enclosures. As a result you can insert SATA or IDE hard drive, encrypted or unencrypted, into the same drive cradle of a computer.



## Diamond Cipher key

Check to make sure you have the correct version of the Diamond Cipher key.

The key should match the label at the back of the drive enclosure.

Black label AES-256 stands for Diamond Cipher 256-bit key



## IMPORTANT

**There is no back door for the Diamond Cipher encrypted hard drive if the key is lost or stolen.**

To ensure there is a spare key, your Diamond Cipher bundled kit comes with one pair of Diamond Cipher keys. These 2 keys have identical encryption code. One of these keys should be kept in a safe and secure location and can be sent back to Addonics for duplicating additional keys. If you are down to the last key, be sure to make a back up of all the data stored inside your encrypted hard drive prior to sending the last key to Addonics. Addonics is not responsible for key lost in the mail or retrieval of the data inside the encrypted hard drive.

- The CIPHER key MUST be inserted at the front of the drive enclosure in order for the drive to be ACTIVATED.
- Once the drive is INITIALIZED using the Cipher Key that comes with the kit, the drive can only be accessed by the original key.
- The 2 keys that come with each Diamond Cipher bundled kit has their own unique encryption code. So the keys among different kits are not interchangeable.
- If you have multiple sets of Diamond Cipher kits and would like all the keys to have the same encryption code, you may make this request at the time of your order or mail the keys together with master key back to Addonics to recode them for you. Again be sure that you keep a spare key with you. Make a back up of your data if you are mailing in your last key.

## Keeping track of the hard drive

If you are using the Diamond Cipher drive enclosure to encrypt multiple hard drives, it is important to label your hard drive if you are taking the drive out of the enclosure. The hard drive with Diamond Cipher encryption will look like a brand new drive when attach directly to the SATA controller of a computer. There will be no partition or any hint to indicate that the drive contains encrypted data. When the drive is partitioned, all the encrypted data will be lost.

The same holds true if a hard drive already has data on it is installed into the Diamond Cipher drive enclosure. The computer detects the hard drive as a brand new drive or a drive that is unallocated. Once you proceed to partition the drive, the data that was on the hard drive will be erased and cannot be recovered.

A Diamond Cipher encrypted hard drive can be moved to another Diamond Cipher drive enclosure. But the same key used in encrypting the hard drive must be used in the new drive enclosure in order to access the drive.

**If you are installing multiple Diamond Cipher drive kits in your organization, it is important to keep track of the drive and the encryption key. Once it gets mixed up, there is no possible way to recover the data on the encrypted hard drive.**

## Hard Drive Installation Guide

### Step 1

Use a Philips screwdriver to turn the cover securing screw into the "OPEN" position.



### Step 2

Slide the aluminum cover towards the back end of the Diamond and remove it.



### Step 3

Carefully place the SATA hard drive with the label facing up into the Diamond enclosure. Push the hard drive towards the back end to secure the drive connectors onto the Diamond enclosure's SATA connector.



#### Step 4

Turn the Diamond enclosure over with the hard drive mounting holes facing up. Use the included flat head screws to secure the hard drive onto the bottom of the enclosure and turn in the screw to the "LOCK" position.



#### Powering On the Drive Cartridge System:

**Note:** Be sure the Diamond cipher key is inserted into the drive enclosure prior to turning on the power of the drive cradle. The hard drive will not be detected by the computer if the power to the drive cradle is turned on without the Cipher key. Under such condition, the power on the drive cradle will have to be turned off and turned back on again with the Cipher key already inserted into the drive enclosure in order to detect the hard drive.

#### Power Switch:

To power on the enclosure, use the key provided to turn the locking mechanism on the drive cradle into the Lock position. When the switch is turned on, the green LED located on the left side of the drive cradle would light up to indicate power. The encryption key LED will also light up. The amber LED will blink if there is drive activity.

**Note:** There are no drivers needed to use the eSATA cable as long as the drivers are installed for the Serial ATA Controller card/chip. It is plug and play.

Brand new hard drive must be partitioned and formatted first before a drive letter is assigned by the OS. When a hard drive with data on it is formatted with the Diamond cipher all the data will be erased.

Once the drive is detected by the system OS, the Diamond cipher key may be removed from the drive enclosure. The encryption key LED will turn off but the Diamond Cipher hard drive will continue operating normally (encrypting) till it is removed from the system or powered off.

#### Cable Connections

Model: **DCDCS256S**

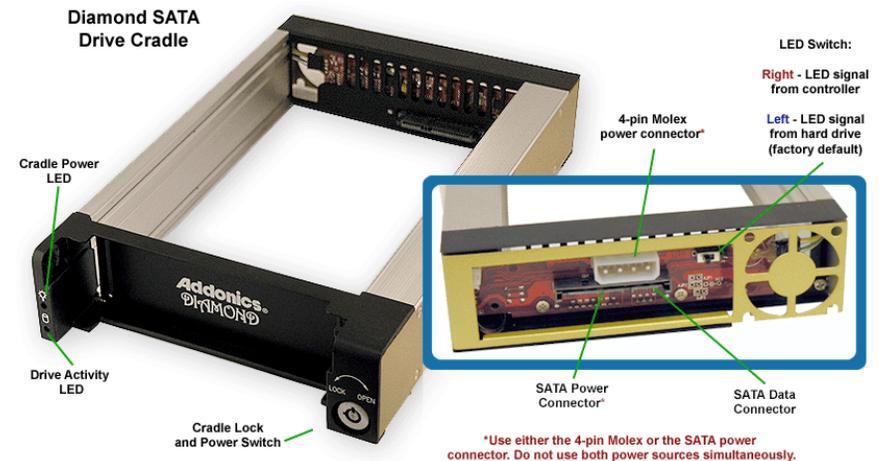
**Power:** Use either the 4-pin Molex or the 15-pin SATA power connector. Do not use both power sources simultaneously.

#### Data:

Connect the SATA cable to the SATA connector located at the back of the drive cradle and the other end to the SATA connector on your SATA host controller or onboard SATA port.

**LED cable:** Only needed if you want to get drive access signal from the SATA controller. Use the LED cable to connect the LED pin located at the back of the cradle (beside the LED switch) to the LED jumper pins on your SATA host controller or onboard SATA port to enable the drive activity LED.

**Factory default, LED signal coming from hard drive.**



Model: **DCDCS256U**

**Power:** Using the 4-pin floppy connector of the Y-cable, connect it to the floppy-type power connector on the converter. To provide power for the y-cable, connect it to one of your desktop's 4-pin molex cable.

**Data:**

**Internal Connection**

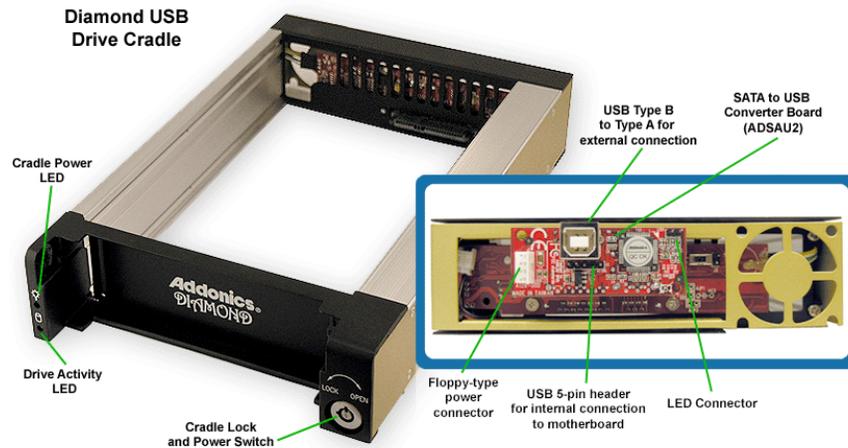
Use the USB 5-pin header cable to connect to the 5-pin connection on the converter located below the USB Type B connector to the 5-pin USB connection on your motherboard.

**External Connection**

Use the USB Type A-B data cable to connect the converter to the USB port on your system.

**LED cable:** Only needed if you want to get drive access signal from the SATA to USB2.0 converter. Use the LED cable to connect the LED pin located at the back of the cradle (beside the LED switch) to the LED jumper pins on the SATA to USB2.0 converter to enable the drive activity LED.

**Factory default, LED signal coming from hard drive.**



**Technical Support**

If you need assistance to get your unit functioning properly, please call Addonics Technical Support. Our technical staff will be happy to assist you, but they will need your help to do so. Calling the technical support staff without all the proper information can be both time consuming and frustrating. Here are some tips to help you out:

MODEL NUMBER – Please have this number on hand.

SYSTEM INFORMATION – Type of computer, peripherals, etc.

OPERATING SYSTEM – What version of Windows

WHAT'S THE TROUBLE? – Give enough information

about your problem so that we can recreate and diagnose it.

**FREE Software Drivers for all Addonics Technologies**

**Products are available 24 hours per day at the**

**World Wide Web Site: [www.addonics.com](http://www.addonics.com)**

**Contact Information**

Phone: 408-573-8580

Fax: 408-573-8588

Email: <http://www.addonics.com/sales/query/>

Internet: <http://www.addonics.com>

**TECHNICAL SUPPORT**

Phone: 408-453-6212

Hours: 8:30 am - 6:00 pm PST

Email: <http://www.addonics.com/support/query/>