

# Addonics

TECHNOLOGIES

## Ruby Cipher AES 256-bit Drive Cartridge System

RCDCS256S & RCDCS256U

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

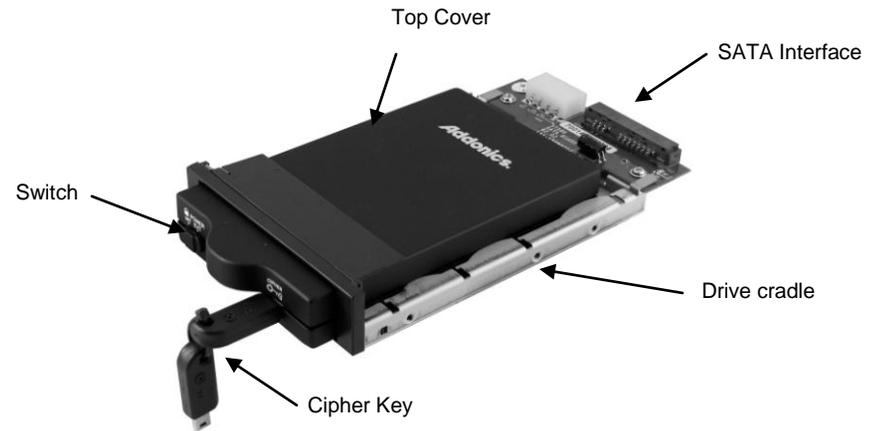
Consult a certified television or radio technician

### 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 Ruby cipher drive cradle fits into any standard 3 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 Ruby drive cradle is compatible with all Ruby drive enclosures and Ruby cipher drive enclosures.



### Ruby Cipher key

Check to make sure you have the correct version of the Ruby Cipher key. The key should match the label at the back of the drive enclosure.



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

## **IMPORTANT**

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

To ensure there is a spare key, your Ruby Cipher bundled kit comes with one pair of Ruby 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 Ruby Cipher bundled kit has their own unique encryption code. So the keys among different kits are not interchangeable.
- If you have multiple sets of Ruby 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.

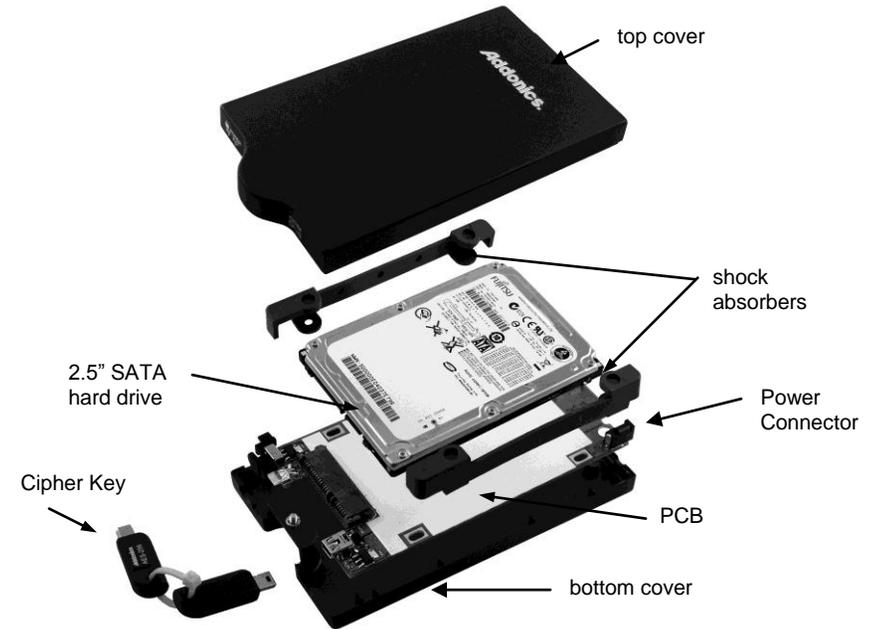
## **Keeping track of the hard drive**

If you are using the Ruby 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 Ruby 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 Ruby 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 Ruby Cipher encrypted hard drive can be moved to another Ruby 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 Ruby 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.**



### **Step 1**

Separate the top from the bottom cover of the drive enclosure by loosening the screw as shown on the photo.



**Step 2** Align the SATA connector in the 2.5" hard drive with the SATA connector on the PCB.

**Step 3** Wrap the shock absorbers around the hard drive and PCB.

**Step 4** Turn over the PCB and secure the hard drive to the PCB with the mounting screws that come with the kit.

**Step 5** Mount the board to the bottom cover.





**Step 6** Put the top cover on by holding it in near vertical position and sliding the two metal clips inside the two small slots on the rear of the bottom cover.

**Step 7** Lower the front of the top cover and making sure the two covers lined up properly. Tighten the small retaining screw on the front of the bottom cover to close the enclosure.

### Ruby Enclosure



Switch      Power LED and Drive Access LED      Cipher Slot

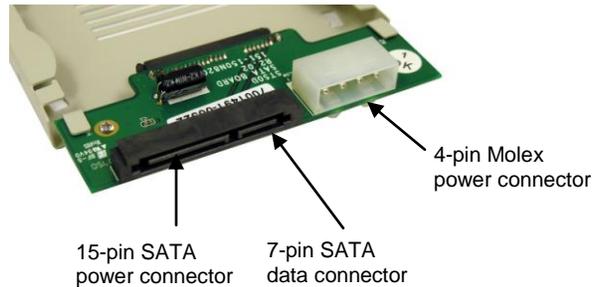
#### Switch:

**INT:** This mode is used when the enclosure is placed inside a drive cradle. For drive cartridge system kits, this is the mode used.

**EXT:** This mode is used if the enclosure is used as an external hard drive.

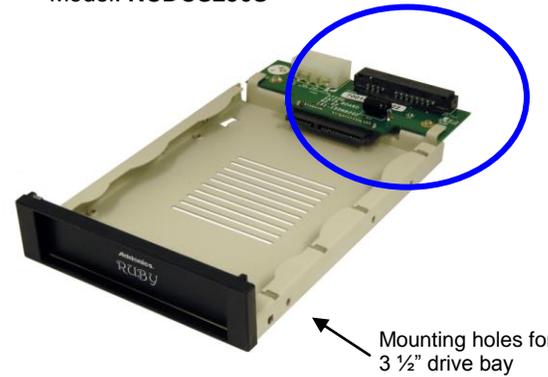
### Ruby Drive Cradle

**Note:** You can only use one power connector at a time. Either use the 4-pin Molex or 15-pin SATA connector but do not simultaneously use them.



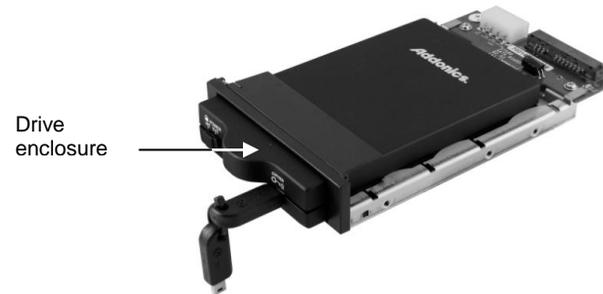
15-pin SATA power connector      7-pin SATA data connector      4-pin Molex power connector

Model: **RCDCS256S**



Mounting holes for 3 1/2" drive bay

**\*Note:** The Ruby Drive Cartridge System with the SATA interface must be connected to a SATA controller with hot swap capability in order to add and remove drive cartridge without rebooting. Please consult your motherboard or the add-in card manufacturer to determine hot swap support on your SATA controller. All of the Addonics SATA Host Controllers are hot swap capable.



Drive enclosure

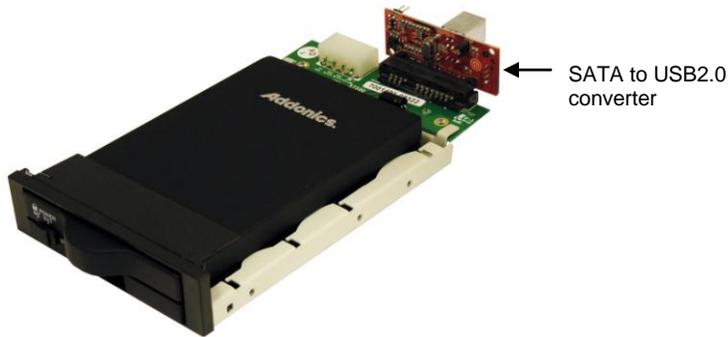
**Step 1:** Connect a SATA cable to the 7-pin SATA data connector to the SATA interface of the cradle.

**Step 2:** Connect a 15-pin SATA power cable from your system's power supply to the SATA interface of the cradle. This power connection provides power to the ruby drive cartridge system.

**Step 3:** Slide the Ruby enclosure inside the cradle. Insert the Cipher key. To turn ON the drive enclosure, place switch on INT position.

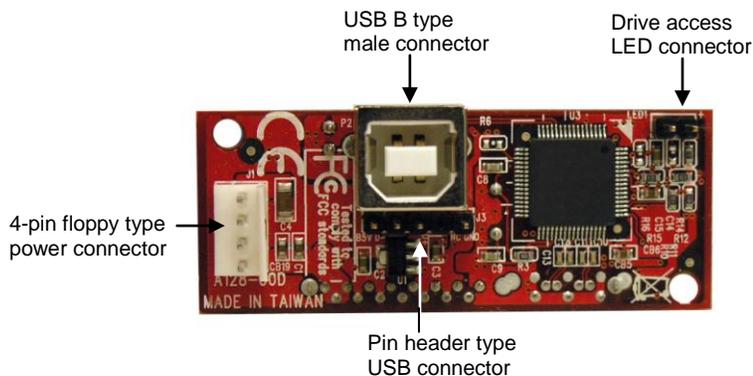
Model: **RCDCS256U**

This Ruby model will hot-swap.



**Step 1:** Connect the SATA to USB2.0 converter to the SATA interface of the cradle.

**Step 2:** Connect the Y-cable that came with converter to the 4-pin floppy connector on the converter. The other end would connect to your system's power supply. This power connection provides power to both converter and the ruby drive cartridge system.



**Step 3:** For data connection, you can either use the USB pin header cable to connect from the pin-header type USB connector on the converter to the USB pin-header on the motherboard. Or connect to the USB B type male connector on the converter to an internal USB port.

**Step 4:** Slide the Ruby enclosure inside the cradle. Insert the Cipher key. To turn ON the drive enclosure, place switch on INT position.

## 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/>