

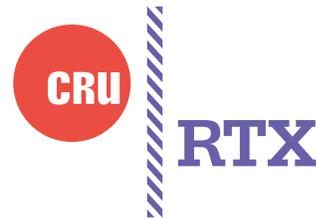


Protecting  
Your Digital  
Assets

# RTX™ 2-bay 3QJ, 3QJP, and 3SJ

## User Manual

covers models: RTX220-3QJ, RTX221-3QJ, RTX Secure 222-3QJ, RTX220-3QJp, RTX221-3QJp, RTX Secure 222-3QJp, RTX220-3SJ, RTX221-3SJ, and RTX Secure 222-3SJ.



### Features

- Rugged, metal chassis with integrated handle for portability
- Bay interfaces designed to handle thousands of insertions
- 3 year warranty
- -3SJ models feature USB 3.0 and eSATA connections
- -3QJ and -3QJp models feature USB3.0, eSATA/USB2.0, and dual FireWire 800 connections
- On demand write-protect top or bottom bay (RTX-QJp)

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## 1. Pre-Installation Steps

### 1.1 Box Contents

Depending on which configuration and accessories you purchased, the package may include fewer items than what are listed here. Please contact CRU if any items are missing or damaged:

RTX Unit	1
USB 3.0 A to B cable	2
eSATA cable (RTX-3QJ and RTX-3QJp only)	2
FireWire 800 cable	2
Power cord	1
Packet of keys for locks	1
Encryption keys (Secure models only)	4
Quick Start Guide and Warranty Info	1

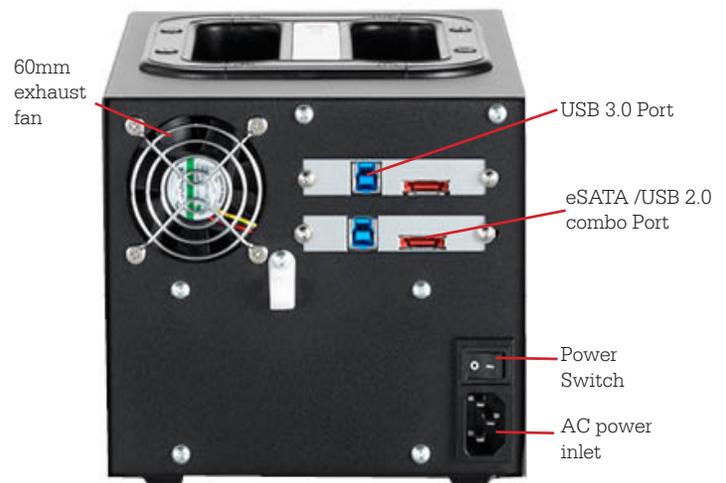
## 1.2 Identifying Parts

Take a moment to familiarize yourself with the parts of RTX. This will help you to better understand the following instructions.

Front of RTX-3SJ



Rear of RTX-3SJ



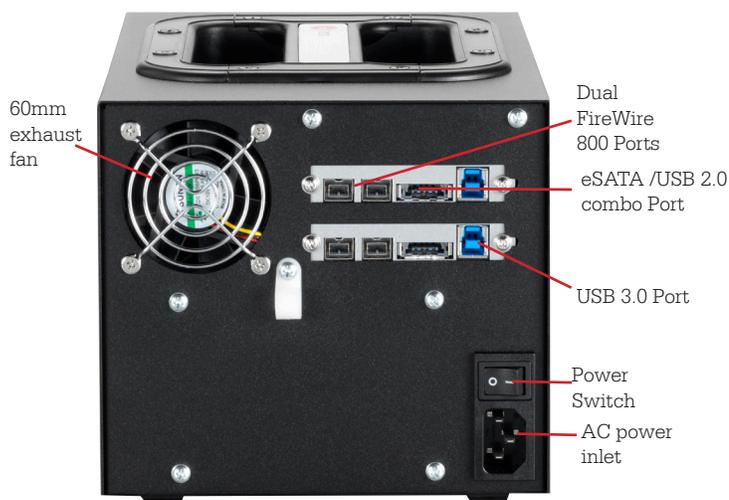
Front of RTX-3QJ



Front of RTX-3QJp



Rear of RTX-3QJ and 3QJp



### 1.3 Warnings and Notices



Please read the following before beginning installation.

#### 1.3.1 General Care

- Proper grounding is strongly recommended to prevent electrical damage to the unit or other connected devices, including the computer host. Avoid all dramatic movement, tapping on the unit, and vibration.
- Avoid placing the unit close to magnetic devices, high voltage devices, or near a heat source. This includes any place where the product will be subject to direct sunlight. Do NOT allow water to make contact with the unit.
- Before starting any type of hardware installation, please ensure that all power switches have been turned off and all power cords have been disconnected to prevent personal injury and damage to the hardware.
- To avoid overheating, the unit should be operated in a well-ventilated area.
- Remove the drives before transporting the unit to prevent damage to the drive interfaces.

#### 1.3.3 Encryption (RTX Secure Models Only)

- Though the Security Key port is mechanically identical to the standard Mini-USB port, inserting Security Keys into any other Mini-USB port may damage the keys and render them useless. Please only use Security Keys in RTX products.
- Likewise, inserting a Mini-USB cable or other device into the unit's Security Key port on the carrier may cause internal damage and potentially lead to loss of data.
- Any time power is cycled on the unit, the Security Key should be installed prior to recycling the power in order to access the data on the drive.

## 2 Installation Steps

### 2.1 TrayFree Bay Drive Installation

Note: This section refers only to RTX220-3SJ, RTX220-3QJ, and RTX200-3QJp

- Pull on the ejection handle to open the door.
- Slide in your SATA hard drive, connector-end first with the label facing up.
- Shut the door by pushing on the handle.

### 2.2 Drive Installation for RTX with Removable Carriers

Note: This section refers only to RTX221-3SJ, RTX Secure 222-3SJ, RTX221-3QJ, RTX Secure 222-3QJ, RTX221-3QJp, and RTX Secure 222-3QJp models.

- Slide the drive carrier out of the RTXunit.
- The carrier's cover is held in place by a screw on the rear of the unit. Remove the screw and then remove the cover.
- Slide the drive in from the front of the carrier.
- Mate the connection on the drive with the connection on the drive carrier circuit board.
- Flip the drive/carrier assembly over and secure the drive in place with the provided screws.
- Attach the Temperature Control Cooling Sensor to the top of the drive with a piece of tape.
- Replace the carrier cover and secure the screw on the rear of the carrier.
- Slide the carrier into the RTX unit.

### 2.3 Host Connections

RTX-3SJ, -3QJ, and -3QJp units can connect to your computer via USB 3.0, USB 2.0, or eSATA. RTX-3QJ and -3QJp units can also connect via FireWire 800. Choose one of these types to use and plug it into the unit. Each bay requires its own data connection.

## 3 Operating Your RTX unit

Connect the data cables to the RTX and your computer. Plug in the power cord to a grounded electrical outlet. Insert hard drives into the unit and turn on the power.

- For RTX220-3SJ, 3QJ, and 3QJp, the drives will spin up automatically
- For RTX221-3SJ, -3QJ, and -3QJp and RTX Secure 222-3SJ, -3Qj, and -3QJp, use the included set of keys to turn the key lock 90 degrees clockwise to power on each hard drive.

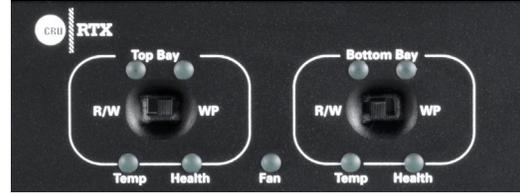
Your RTX unit is now ready to use! If the hard drive is already formatted, it can be used right away.

If the hard drives are brand new, or their file systems are not compatible with your operating system, the drive will need to be formatted before being used.

If any of the drives are inaccessible after powering on the unit, try the following steps:

- Turn off the power.
- Remove the drive(s) in question.
- Reinsert the drive(s).
- Turn on the power.

## 4. Write Protection Mode Selection (RTX-3QJp)



- R/W (Read/Write)**

RTX-3QJp bay will operate like a standard external hard drive, performing standard read and write functions. The drive bay must be set to R/W mode in order to format the hard drive. If the bay is set to WP mode, new drives cannot be formatted for use.

- WP (Write-Protect)**

RTX-3QJp will protect the data already on the hard drive. The data on the drive can be read but cannot be altered.

**Note:** When changing the mode of operation the new setting will not take effect until the power is cycled or a drive is removed or added. The mode LED will then change to indicate the new mode.

## 5 LED Behavior

### 5.1 RTX220-3SJ

LED	Behavior
Drive Power	Glow <b>green</b> when the drive is in the unit and receiving power.
Drive Activity	Glow <b>amber</b> when the drive is being accessed, either reading or writing from the drive.

### 5.2 RTX221-3SJ and RTX222 Secure-3SJ

LED	Behavior
Drive Power	Glow <b>green</b> when the drive is in the unit and receiving power. Flashes <b>green</b> in the event of a fan failure.
Drive Activity	Glow <b>amber</b> when the drive is being accessed, either reading or writing from the drive.
Key Error (Secure models only)	Flashes <b>red</b> when the Security key is not present or not functioning. Glow <b>red</b> when there is an encryption engine error. Contact Technical Support
Encryption (Secure models only)	Glow <b>green</b> when the encryption key is present and encryption is enabled.

### 5.3 RTX220-QJ

LED	Behavior
Drive Power	Glow <b>green</b> when the drive is in the unit and receiving power.
Drive Activity	Glow <b>amber</b> when the drive is being accessed, either reading or writing from the drive.
Disk Temp	Glow <b>red</b> when when SMART drive info indicates temperature above 55 C.
Disk Health	Glow <b>red</b> when SMART feature reports that the drive is failed or failing
Fan	Glow <b>red</b> when fan fails to activate

### 5.4 RTX221-3QJ and RTX222 Secure-3QJ

LED	Behavior
Drive Power	Glow <b>green</b> when the drive is in the unit and receiving power. Flashes <b>green</b> in the event of a fan failure.
Drive Activity	Glow <b>amber</b> when the drive is being accessed, either reading or writing from the drive.
Key Error (Secure models only)	Flashes <b>red</b> when the Security key is not present or not functioning. Glow <b>red</b> when there is an encryption engine error. Contact Technical Support.
Encryption (Secure models only)	Glow <b>green</b> when the encryption key is present and encryption is enabled.
Disk Temp	Glow <b>red</b> when when SMART drive info indicates temperature above 55 C.
Disk Health	Glow <b>red</b> when SMART feature reports that the drive is failed or failing
Fan	Glow <b>red</b> when fan fails to activate

### 5.5 RTX220-3QJp

LED	Behavior
Drive Power	Glow <b>green</b> when the drive is in the unit and receiving power.
Drive Activity	Glow <b>amber</b> when the drive is being accessed, either reading or writing from the drive.
Disk Temp	Glow <b>red</b> when when SMART drive info indicates temperature above 55 C.
Disk Health	Glow <b>red</b> when SMART feature reports that the drive is failed or failing
Fan	Glow <b>red</b> when fan fails to activate
Read/Write	Glow <b>red</b> when the unit is in Read/Write mode
Write Protect	Glow <b>red</b> when the unit is in Write-protect mode

### 5.6 RTX221-3QJp and RTX222 Secure-3QJp

LED	Behavior
Drive Power	Glow <b>green</b> when the drive is in the unit and receiving power. Flashes <b>green</b> in the event of a fan failure.
Drive Activity	Glow <b>amber</b> when the drive is being accessed, either reading or writing from the drive.
Key Error (Secure models only)	Flashes <b>red</b> when the Security key is not present or not functioning. Glow <b>red</b> when there is an encryption engine error. Contact Technical Support.
Encryption (Secure models only)	Glow <b>green</b> when the encryption key is present and encryption is enabled.
Disk Temp	Glow <b>red</b> when when SMART drive info indicates temperature above 55 C.
Disk Health	Glow <b>red</b> when SMART feature reports that the drive is failed or failing
Fan	Glow <b>red</b> when fan fails to activate
Read/Write	Glow <b>red</b> when the unit is in Read/Write mode

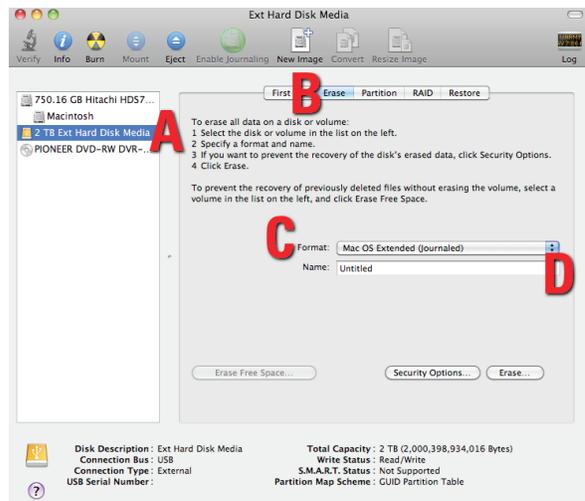
## 6 Usage with Mac and Windows Operating Systems

### 6.1 Usage with Mac OS X

#### 6.1.1 Formatting a Drive

To format, use Disk Utility (pictured below), which can be found in the Applications folder.

- Click on the drive in the window to the left.
- Click the Erase tab in the window to the right.
- Select the format type. Most users prefer MacOS Extended with Journaling (HFS+), which is required for compatibility with Time Machine (OS 10.5 or newer). If you need to use your RTX with both Mac and Windows computers, select MS-DOS File System instead.
- Enter a name for the new volume and then click Erase to start the process.



## 6.1.2 Mounting and Unmounting Volumes

If the hard drive installed in the RTX is already formatted, an icon representing the drive's volume will appear (mount) on the desktop. You can begin using the volume right away. If the drive is unformatted, a message will appear on the desktop saying that the disk is unreadable. Use OS X's Disk Utility to easily format the drive (see section above).

Unmount the volume before powering down the unit by dragging the volume's icon to the Trash, or by selecting the volume then pressing Command-E. Disconnecting the unit without first unmounting the volume can result in data loss.



## 6.1.3 Creating a Boot Drive

To activate this feature, you must first install OS X on the hard drive in your carrier. The easiest way to do this is to clone an existing system drive using a utility such as Carbon Copy Cloner or Super Duper. Next, go to System Preferences and then Startup Disk. A window will list the available bootable volumes. Select the volume from which you wish to boot. Another method is to hold down the Option key during boot up. A screen should appear that allows you to select the volume you wish to use. This is useful if you are only sporadically booting from the RTX hard drive.

## 6.2 Usage with Windows Operating Systems

### 6.2.1 Formatting a Drive

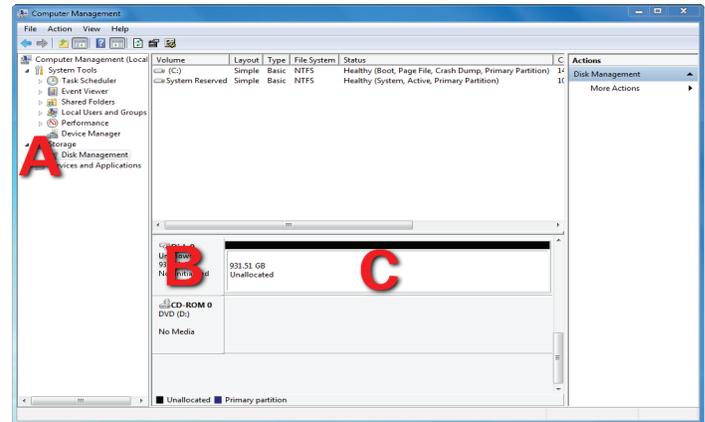
When you first mount a drive to a Windows operating system, a pop-up window will ask you if you would like to format it. Click Format Disk and skip to Step E. If the prompt does not pop up, use the Disk Management utility by following these steps:

- Right-click on the My Computer icon on the desktop (Windows XP) or the Computer button in the Start Menu (Windows Vista, 7, Server 2008, Server 2008 and Server 2012 product families), then select Manage. In the left pane of the Computer Management window that opens, left-click on Disk Management (labeled 'A' in the picture below). For Windows 8.1 and RT 8.1 press WINKEY + X, then select Disk Management from the menu that pops up.

- The drive should appear in the list of Disks in the lower pane. You may need to scroll down to see it. If the drive is already formatted, you can identify it easily by its volume name. If the Device Properties Box (labeled 'B' in the picture below) says "Not Initialized", you'll need to initialize the disk before formatting it.

Right-click on the Device Properties Box and select Initialize Disk. If you are prompted to select a partition type, select GPT. Only select MBR if you are formatting a bootable disk for use on a system with a legacy BIOS or are using the RTX with Windows XP.

- To format the volume, right-click the Drive Properties Box (labeled 'C' in the picture below) and select New Partition... (Windows XP) or New Simple Volume... (Windows Vista, 7, 8.1, RT 8.1, Server 2008, and Server 2012 product families)



- Unless you wish to customize the settings in these dialog prompts, Click Next on the Select Partition Type (shows up in Windows XP only), Specify Volume/Partition Size, and Assign Drive Letter or Path dialog prompts, leaving the default settings.
- You will now see a window that allows selection of a file system. Choose NTFS and enter a name for the new volume. Be sure to check the box labeled Quick Format, which will ensure that the formatting process takes less than a minute.
- Click Next and then Finish to start the format process. When the format is complete, the Drive Properties Box will update to show the new volume name. The new volume can now be found by double-clicking on the My Computer icon on the desktop (Windows XP), by clicking on the Computer button in the Start Menu (Windows Vista, 7, Server 2008 product family), by clicking on Computer in the navigation pane of a File Explorer window (Windows Server 2012), or by opening a File Explorer window (Windows 8.1, RT 8.1, Server 2012 R2).

## 6.2.2 Mounting and Unmounting Volumes

If the hard drive inside of the RTX carrier is already formatted, you can begin using the volume right away. When the RTX-3QR is properly connected and turned on, a window may open to allow you access to the volume. If no window appears, find the volume by double-clicking on the My Computer icon on the desktop (Windows XP), by clicking the Computer button in the Start Menu (Windows Vista, 7, Server 2008 product family ), by clicking on Computer in the navigation pane of a File Explorer window (Windows Server 2012 ), or by opening a File Explorer window (Windows 8.1, RT 8.1, Server 2012 R2 ).

### Unmounting a USB or Firewire Volume

Unmount the RTX-3QR before powering it down by left-clicking the green arrow icon on the task bar (in Windows XP) or the USB plug icon with the green checkmark on the Desktop task bar (Windows Vista, 7, 8.1, RT 8.1, Server 2008 and 2012 product families ), and then selecting the proper device from the menu that pops up. You may have to click on the Show Hidden Icons arrow on the task bar to find the correct icon. Windows will indicate when it is safe to disconnect the RTX. Disconnecting the RTX without first ejecting it can result in data loss.



### Unmounting an eSATA Volume

If you purchased an eSATA host card that supports hot-swapping, follow the instructions for unmounting a USB or FireWire volume above. Many eSATA hosts do not support this feature. However, freeware utilities are available on the Internet that provide a similar function. You may download one of these utilities or follow these instructions: Ensure no file transfers are taking place by making sure the Drive Activity LED is not blinking, as disconnecting the unit while a file transfer is in progress can result in data loss. Then disconnect power to RTX. You may need to restart your computer in order to remount RTX.

## 7 Encryption (RTX Secure models only)

- RTX Secure uses full disk hardware encryption to encrypt the entire contents of the drive—including the boot sector, operating system and all files—without performance degradation.
- The Security Key must be installed prior to powering on the RTX Secure for the data to be decrypted on the drive. If the key is externally connected to the Mini-USB Security Key Port and is not internally installed, then once it has been accepted, it may be removed and stored in a safe location. Always store Security Keys apart from the data so that in the event that the drive is lost or stolen, the data is protected.
- When a drive is formatted using an encryption key, the same or a duplicate key must be used in order to access the data. There is no “back door” to access the data, lost keys make data recovery virtually impossible.

## 8. Technical Specifications

Product Models:	RTX220-3SJ, RTX221-3SJ, RTX Secure 222-3SJ, RTX220-3QJ, RTX221-3QJ, RTX Secure 222-3QJ, RTX220-3QJp, RTX221-3QJp, RTX Secure 222-3QJp
Data Interface and Speeds:	<ul style="list-style-type: none"> <li>• USB 3.0: Up to 5 Gbps</li> <li>• eSATA: up to 2400 Mbps</li> <li>• Dual FireWire 800: up to 800 Mbps (QJ and QJp models only)</li> <li>• USB 2.0: up to 480 Mbps</li> </ul>
Drive Types Supported:	3.5" SATA hard drives
Shock Absorbing Bays:	Yes (RTX220-3SJ, RTX220-3QJ, and RTX220-3QJp models only)
Lockable Bays:	Yes
Power LED:	Yes
Access LED:	Yes
Power Switch:	2 position: On / Off
Power Supply:	Input: 100-240VAC Output: 120 Watts
Cooling Fan:	60mm exhaust fan
External Material:	All-aluminum construction
Shipping Weight:	8.5 pounds without drives, 11.5 pounds with drives
Dimensions:	278mm L x 174mm W x 160mm H
Compliance:	<ul style="list-style-type: none"> <li>• EMI Standard: FCC Part 15 Class A</li> <li>• CE</li> <li>• EMC Standard: EN55022, EN55024</li> <li>• RCM</li> </ul>
Warranty:	3 Years
Support	Your investment in CRU products is backed up by our free technical support for the lifetime of the product. If you need to contact us for any reason, please visit <a href="http://cru-inc.com/support">cru-inc.com/support</a> or call us at 1-800-260-9800 or +1-360-816-1800.

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### Product Warranty

CRU warrants this product to be free of significant defects in material and workmanship for a period of three years from the original date of purchase. CRU's warranty is nontransferable and is limited to the original purchaser.

### Limitation of Liability

The warranties set forth in this agreement replace all other warranties. CRU expressly disclaims all other warranties, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose and non-infringement of third-party rights with respect to the documentation and hardware. No CRU dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty. In no event will CRU or its suppliers be liable for any costs of procurement of substitute products or services, lost profits, loss of information or data, computer malfunction, or any other special, indirect, consequential, or incidental damages arising in any way out of the sale of, use of, or inability to use any CRU product or service, even if CRU has been advised of the possibility of such damages. In no case shall CRU's liability exceed the actual money paid for the products at issue. CRU reserves the right to make modifications and additions to this product without notice or taking on additional liability.

FCC Compliance Statement: "This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at this own expense.

In the event that you experience Radio Frequency Interference, you should take the following steps to resolve the problem:

- 1) Ensure that the case of your attached drive is grounded.
- 2) Use a data cable with RFI reducing ferrites on each end.
- 3) Use a power supply with an RFI reducing ferrite approximately 5 inches from the DC plug.
- 4) Reorient or relocate the receiving antenna.

