

Thunderbolt 2[™] 4-Bay 3.5" SATA Hard Drive Enclosure with RAID

S354SMTB2R



*actual product may vary from photos

DE: Bedienungsanleitung - de.startech.com

FR: Guide de l'utilisateur - fr.startech.com

ES: Guía del usuario - es.startech.com

IT: Guida per l'uso - it.startech.com

NL: Gebruiksaanwijzing - nl.startech.com

PT: Guia do usuário - pt.startech.com

For the most up-to-date information, please visit: www.startech.com

FCC Compliance 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 and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

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.

Changes or modifications not expressly approved by StarTech.com could void the user's authority to operate the equipment.

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (B)/NMB-3(B)

Use of Trademarks, Registered Trademarks, and other Protected Names and Symbols

This manual may make reference to trademarks, registered trademarks, and other protected names and/or symbols of third-party companies not related in any way to StarTech.com. Where they occur these references are for illustrative purposes only and do not represent an endorsement of a product or service by StarTech.com, or an endorsement of the product(s) to which this manual applies by the third-party company in question. Regardless of any direct acknowledgement elsewhere in the body of this document, StarTech.com hereby acknowledges that all trademarks, registered trademarks, service marks, and other protected names and/or symbols contained in this manual and related documents are the property of their respective holders.

Thunderbolt and the Thunderbolt logo are trademarks of Intel Corporation in the U.S. and/or other countries.



Table of Contents

Introduction	1
Packaging Contents	1
Recommended System Requirements	1
Product Diagram	2
Front View	2
Rear View	2
Getting Started	3
Step 1. Installing your hard drives	3
Step 2. Connect the Thunderbolt Enclosure to your computer system	6
Step 3. Your Thunderbolt Enclosure is now ready to use!	7
Step 4 Install the RAID management software for hardware RAID configuration	8
Software Installation	9
Mac OSX	9
Windows 8/8.1, 7, Vista (32/64 bit)	10
Software Operation	12
Create a RAID Array	12
Create a HyperDuo Array	15
Managing Your Array	17
Technical Support	22
Mayor att. Information	22

i



Introduction

Packaging Contents

- 1 x Thunderbolt 4-bay 3.5 in. hard drive RAID enclosure
- 1 x 2m Thunderbolt cable
- · 3 x Allen keys
- 1 x universal power adapter (NA/JP, EU, UK, ANZ)
- 1 x instruction manual

Recommended System Requirements

• 1X Computer system with:

Available Thunderbolt port

Apple® Mac® OSX

Microsoft® Windows 8/8.1, Server 2008 R2 (32/64-bit)

4X 3.5" SATA Hard Drives

Product Diagram

Front View

- 1. Drive Door
- 2. Drive LEDs
- 3. Faceplate screws



Rear View

- 1. Built-in drive fan
- 2. Power switch
- 3. Power adapter port
- 4. Thunderbolt ports





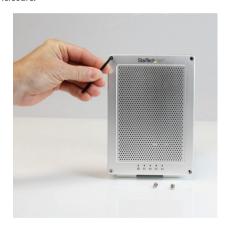
Getting Started

Step 1. Installing your hard drives.

WARNING:

Hard drives and storage enclosures require careful handling, especially when being transported. If you are not careful with your hard disk, lost data may result. Always handle your hard drive and storage device with caution. Be sure that you are properly grounded by wearing an anti-static strap when handling computer components or discharge yourself of any static electricity build-up by touching a large grounded metal surface (such as the computer case) for several seconds.

1. Using the included Allen key, remove the four screws from the front faceplate of the Hard Drive Enclosure.



2. Grasp the drive door and gently pull it outward to reveal the drive bays.



3. On each of your four 3.5in hard drives, place HDD mounting brackets from each of your HDD mounting kits on either side of the drives, aligning the pegs with the hard drive mounting holes. Then with your hard drive labels facing upward, slide each of your four 3.5in hard drives into an available drive bay with the SATA connector facing inward, using the HDD bracket to align the slot.





4. Place the drive door back over the drive bays so that the four screw holes are lined up.



5. Using the included Allen key, drive each of the four screws back into the enclouse through the front place plate.



Step 2. Connect the Thunderbolt Enclosure to your computer system.

1. Connect the included Thunderbolt cable from one of the Thunderbolt ports on the back of the enclosure, to an available Thunderbolt port on your computer system.



Notes:

- Either Thunderbolt port may be used to connect the enclosure to the host computer system. The remaining Thunderbolt port may be used to daisy chain to an additional device such as another enclosure, or Display.
- If daising chaining Thunderbolt 1 devices, please ensure the Thunderbolt Hard Drive Enclosure is the first down stream device, as Thunderbolt 2 performance will be throttled by a Thunderbolt 1 device.
- 2. Connect your power adapter from the power adapter port on the back of the enclosure into an available power outlet.
- 3. Turn on the enclosure, by placing the power switch in the "ON" postion .





Step 3. Your Thunderbolt Enclosure is now ready to use!

The hard drives installed in your Thunderbolt Enclosure will now appear in in your computer systems just as if they were installed internally.



Notes:

The Thunderbolt Enclosure supports Hardware RAID. By default the Thunderbolt enclosure is configured for JBOD RAID operation.



Step 4 (Optional). Install the RAID management software (Marvell Storage Utility or MSU) on your computer to configure Your Thunderbolt Enclosure for Hardware RAID operation.

Note: The Thunderbolt enclosure also supports software RAID configured within the Windows and Mac OSX operating systems.

Supported Hardware RAID modes:

JBOD

In JBOD, no RAID configuration is set and all drives appear as individual disks.

RAID1

In RAID1 two drives appear as an individual disk and data is written identically to both. This level protects your data from individual drive failure as a backup of all data is written instantly.

RAID0

In RAID0 two drives appear together as a larger individual disk the size of both drives combined. This level can improve your performance as read and write operations are performed in parallel on separate disks.

RAID 1+0

In RAID 1+0 two drives appear together as a larger individual disk the size of both drives combined, with the added benefit of improved performance. However, the data is then backed up to the remaining two drives for added security.

Hyper Duo

The HyperDuo can quickly access data from a Solid-State Drive (SSD), while safely storing all remaining data on SATA Hard Drives (HDD) with larger capacities, allowing for SSD performances at HDD capacity levels.

For complete Software installation and operating instructions, please download the full product manual from: StarTech.com/Support.



Technical Support

StarTech.com's lifetime technical support is an integral part of our commitment to provide industry-leading solutions. If you ever need help with your product, visit www.startech.com/support and access our comprehensive selection of online tools, documentation, and downloads.

For the latest drivers/software, please visit www.startech.com/downloads

Warranty Information

This product is backed by a two year warranty.

In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

Limitation of Liability

In no event shall the liability of StarTech.com Ltd. and StarTech.com USA LLP (or their officers, directors, employees or agents) for any damages (whether direct or indirect, special, punitive, incidental, consequential, or otherwise), loss of profits, loss of business, or any pecuniary loss, arising out of or related to the use of the product exceed the actual price paid for the product. Some states do not allow the exclusion or limitation of incidental or consequential damages. If such laws apply, the limitations or exclusions contained in this statement may not apply to you.





Hard-to-find made easy. At StarTech.com, that isn't a slogan. It's a promise.

StarTech.com is your one-stop source for every connectivity part you need. From the latest technology to legacy products — and all the parts that bridge the old and new — we can help you find the parts that connect your solutions.

We make it easy to locate the parts, and we quickly deliver them wherever they need to go. Just talk to one of our tech advisors or visit our website. You'll be connected to the products you need in no time.

Visit www.startech.com for complete information on all StarTech.com products and to access exclusive resources and time-saving tools.

StarTech.com is an ISO 9001 Registered manufacturer of connectivity and technology parts. StarTech.com was founded in 1985 and has operations in the United States, Canada, the United Kingdom and Taiwan servicing a worldwide market.