# Data Storage

3 Drive SCA U160 SCSI Lockable Backplane

## Installation Manual

RAIDBAY3

## Overview

StarTech.com's RAIDBAY3 is the perfect solution for building hot-swap SCSI RAID arrays. Up to (3) 3.5 inch drives can be installed in this all aluminum chassis, each in their own independent removable drive drawer. The frame and drawer design of the 5.25 inch full height (2 bay slots) chassis can increase the number of drives that can be installed inside a case by 33%. Front and rear ball bearing fans ensure plenty of air movement over the drives to maintain ideal operating temperatures. This ensures long service life and less downtime.

## Features

- Supports U160 Ultra3 SCSI signaling speeds
- Fits (3) 3.5 inch SCA SCSI drives into (2) 5.25 inch drive bays (full height)
- 3 Cooling fans provide a combined 75 CFM of airflow
- Drives can be hot-swapped if supported by the host RAID controller
- Several RAIDBAYs can be linked to form a larger array
- Lockable front door
- Activity LEDs for each drive
- Overheating alarm provides warning if the subsystem operating temperature exceeds 131F (55C)

## Specifications

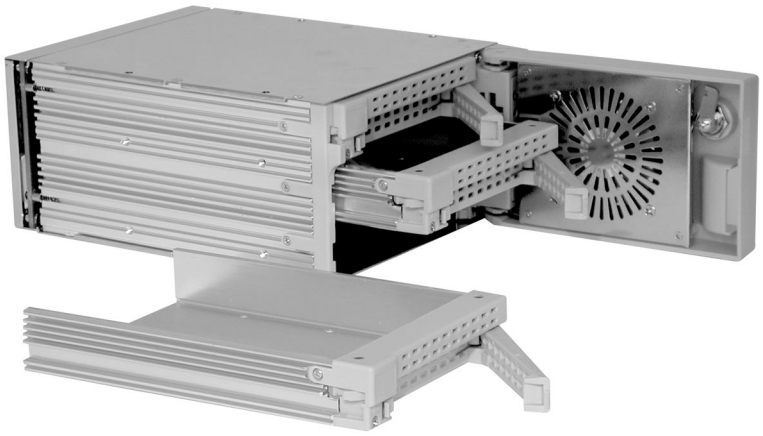
| | |
|---|---|
| **Chassis rear SCSI connectors** | (2) x Half Pitch DB68 Female |
| **Drive Connectors** | (3) x SCA80 Male |
| **Power Connectors** | (2) x LP4 Internal Power Male |
| **Front Door Fan** | (1) x 3.7 x 1 in (9.2 x 2.5cm) Dual Ball Bearing |
| **Rear Fans** | (2) x 1.75 x 1 in(4 x 2.5cm) Dual Ball Bearing |
| **Dimensions** | 236 x 146 x 86 mm (9.29 x 5.75 x 3.36 inches) |
| **Weight** | 2.2 kgs (4.85 lbs) |
| **Material** | Aluminum Frame and Tray |
| **Interface** | SCA Ultra 160 SCSI, LVD |
| **LED Indicators** | 5 LEDs (Power Source Temperature, HDDs) |

## Installation

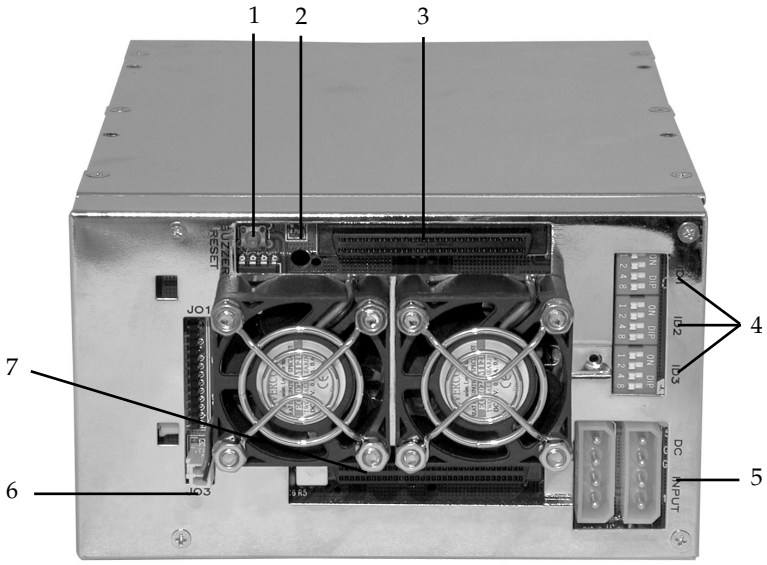
**Front Panel**


1. Reset Switch - When overheating occurs, indicated by the buzzer sounding, you must press the “Reset Switch” button once to stop the buzzer. Press the button again to reset it to the original settings.
2. Overheeating LED - When overheating occurs, the LED will be lit
3. HDD LEDs - When you power on the system, the three HDD LEDs will light up. This idicates that the hard drives are properly installed. Activity on the hard drive is indicated by a blinking LED.
4. Power LED - The LED is lit when the system is powered on.

**Case**



**Rear Panel**




1. Reset Switch (for buzzer)
2. External Reset Switch
3. SCSI Connector to Controller
4. SCSI ID Setting Switch
5. 4-Pin Power 5V/12V*
6. Buzzer
7. SCSI Connector for Terminator**

(see Appendix for more details)

## SCSI ID Settings

| SCSI ID | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| ID1 | Off | On | Off | On | Off | On | Off | On |
| ID2 | Off | Off | On | On | Off | Off | On | On |
| ID4 | Off | Off | Off | Off | On | On | On | On |
| ID8 | Off | Off | Off | Off | Off | Off | Off | Off |

| SCSI ID | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|
| ID1 | Off | On | Off | On | Off | On | Off | On |
| ID2 | Off | Off | On | On | Off | On | On | On |
| ID4 | Off | Off | Off | Off | On | Off | On | On |
| ID8 | On | On | On | On | On | On | On | On |

## Installing the Hard Drives

1. Open the front panel.
2. Remove one of the inner trays by pressing on the release button. This will cause the trays arm to swing out. Hold the arm and pull the tray out.
3. Place the hard drive into the inner tray and using the screws provided secure the hard drive to the tray.
4. Slowly slide the tray back into the slot.
5. When the tray is all the way back into the slot press the arm back in until you hear a “click” sound. This indicates that the tray and hard drive are properly installed.
6. Repeat these steps for the other two trays.
7. Connect the flat cable from the upper connector to the controller or RAID card.
8. Place the Terminator on the lower connector.
9. Installation is now complete.

# Appendix

**Functions and Definitions of Rear Panel**

1. JO1 Pin definition

| | | | |
|---|---|---|---|
| P1: +12V | P2: GND | P3: Power LED+ | P4: Power LED- |
| P5: HDD LED+ | P6: HDD LED | P7: HDD LED+ | P8: HDD LED- |
| P9: HDD LED+ | P10: HDD LED- | P11: Thermal LED (Green) | |
| P12: Thermal LED (Red) | P13: Reset Pin 1 | P14: Reset Pin 2 | |

2. JO2 Pin definition
   Reset Pin 1 and Reset Pin 2

3. JO3 Pin definition
   P1: Fan sensor (option) P2: +12V P3: GND
   JO3 are designed for external (optional) cooling connection

4. SW1, SW2 and SW3
   SCSI ID selector setting switches for HDD1, HDD2 and HDD3
   (See SCSI ID Number section for setting SCSI ID numbers)

5. SW4 Pin definition - Reset Switch button
   *Note: The function of SW4 is the same as that of the Reset button on the front panel.*
   When overheating occurs and the buzzer is sounding (and the temperature LED is red), press the Reset Switch from either the front panel or SW4 to stop the alarm. When you press the Reset Switch button, the LED on the front panel will retun to green.

6. P1 and P2 (DC power input)
   If power wattage is enough, use one DC power input. If you require more power, use both DC power inputs.

7. CON1 - 68-Pin Female connector