



## Replacing a 4U SAS Expander Module

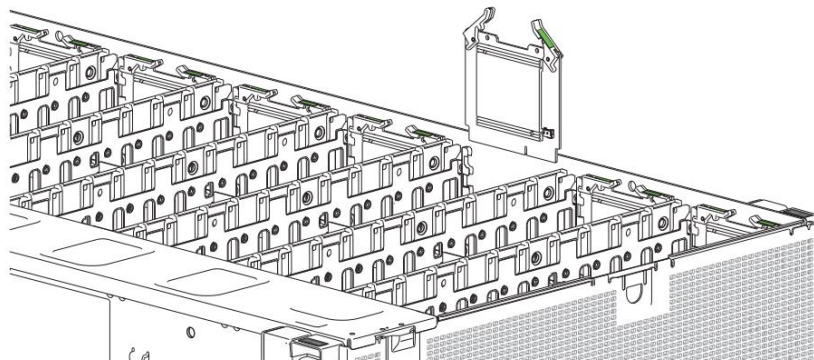
SEAGATE

Exos Corvault 4U106, Exos E 4U106 storage systems, and Exos AP 4U100 Integrated Storage Servers

This document contains the steps in replacing a SAS expander module in a 4U enclosure. More detailed information is found in the Hardware Maintenance and Installation Guide (HMIG) for the Exos Corvault 4U106, Exos E 4U106 storage systems, and Exos AP 4U100 Integrated Storage Servers. You can find the documents located at <https://www.seagate.com/support/data-storage-systems>.

**To remove and replace a SAS expander module:**

- 1. If you plan on removing all SAS expander modules, properly shut down the storage enclosure.**
  - 2. Retrieve the new SAS expander module in its static-protected container, ready to access and use it upon removal of the faulty one.**
  - 3. (Optional) As an extra safety measure while installing drive modules, support the storage enclosure with a mechanical lift to avoid any potential issues caused by downward forces.**
  - 4. Facing the front of the rack cabinet, loosen the storage enclosure chassis flanges by twisting the top captive thumbscrew on each side of the storage enclosure to the left.**
  - 5. Lower the pull handles then gently and steadily pull the storage enclosure out on its rails until it locks in the service position.**
  - 6. After locating the main bay cover's front or rear latch, depending on the location of the SAS expander module you need to replace, push on the tab, release it by pressing the latch away from the front or rear panel and toward the hinge, then resting the open half of the cover on the closed half.**
  - 7. Locate the SAS expander module you need to replace from its location against the chassis sidewall and opposite the auxiliary bay.**
- NOTE:** The fault LED for each SAS expander module is on the component side of SAS expander module and has a steady or blinking amber LED if a fault condition exists. Otherwise, it is off to indicate the SAS expander module is functioning normally.
- 8. Grasping a release latch in either hand, simultaneously lift both release latches away from center until it disengages from the SAS riser sideplane.**
  - 9. Lift straight up on the SAS expander module, carefully removing it from its slot and set it aside.**



Removal of a SAS expander module

- 10. While maintaining proper static protection, remove the new SAS expander module from its static-protected container.**
- 11. Inspect the SAS expander module carefully to make sure it is not damaged in any way, paying particular attention to the connectors.**
- 12. Using the same orientation, make sure the SAS expander module has the smooth side to the main bay and the component side to the chassis, then press downward into its empty slot until you feel it connect to the SAS riser sideplane.**
- 13. If you are replacing all SAS expander modules, repeat the entire process for each of them.**
- 14. Verify the SAS expander module fault LED is off.**
- 15. Return to the front panel of the storage enclosure and verify that the Fault-Main Bay LED is not steady amber.**
- 16. Close the half of the main bay cover you opened, latching it firmly in place.**
- 17. (Optional) Lower and remove the mechanical lift.**
- 18. Facing the front panel, locate and depress both safety lock switches to release the rails.**
- 19. Carefully exert even pressure on both sides of the storage enclosure front and continue insertion all the way into the rack until it locks in the storage position. Do not force insertion, which could damage the rails.**
- 20. Secure the storage enclosure chassis flanges to the rack cabinet, fastening the top captive thumbscrew on each side until tight.**