

FreeNAS® Mini and FreeNAS Mini XL Hardware Upgrade Guide

Hardware Upgrade Guide

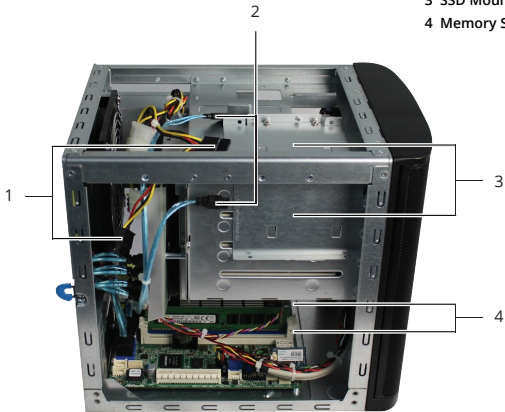
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Thank you for purchasing this upgrade for your FreeNAS Mini or XL!

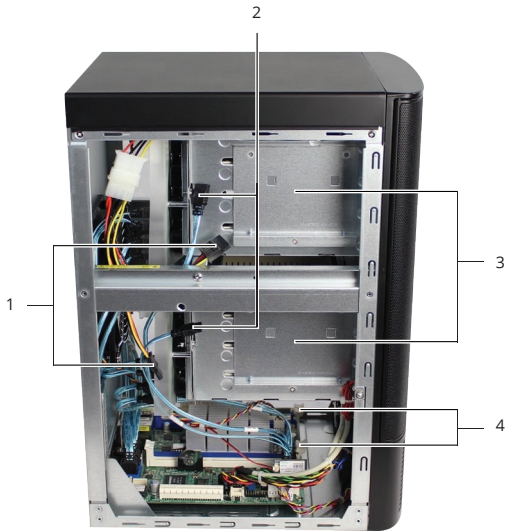
This guide shows how to install the new upgrade components.

PARTS LOCATION

- 1 SSD Power Cables
- 2 SSD Data Cables
- 3 SSD Mounting Trays
- 4 Memory Slots



FREENAS MINI



FREENAS MINI XL

PREPARATION

A Philips screwdriver will be needed for internal screws. Shut down the FreeNAS system and unplug the power cable. Make a note of where the data cables are connected and unplug them also. If a “Tamper Resistant” sticker is present, removing or cutting it to remove the case will not affect the warranty on the unit.

OPENING THE FREENAS MINI CASE

Unscrew the four thumbscrews on the rear of the Mini:



Slide the black metal cover off the back of the chassis.

OPENING THE FREENAS MINI XL CASE

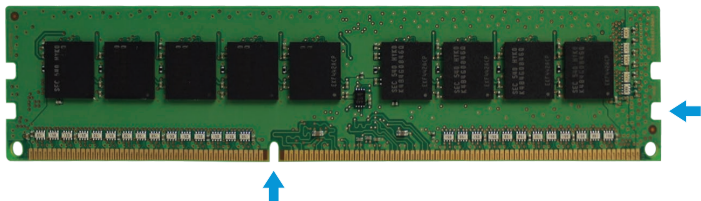
The FreeNAS Mini XL has two side panels which are removed separately. For an SSD upgrade, remove the two thumbscrews on the right, then slide the panel back and remove it from the chassis.



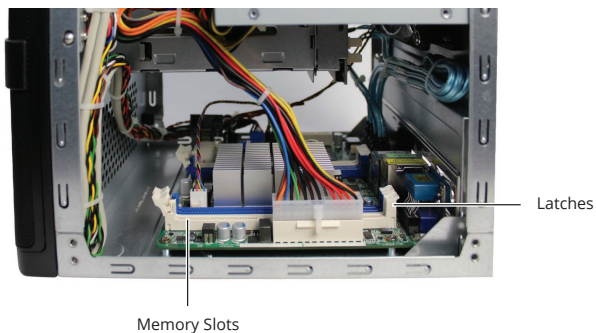
For a memory upgrade, remove all four thumbscrews, then slide each panel back and remove it from the chassis.

UPGRADING MEMORY

A memory upgrade includes two dual inline memory modules:



The FreeNAS Mini and Mini XL have four memory slots, a blue and white pair on the same side as the power connector, and another blue and white pair on the opposite side of the chassis:



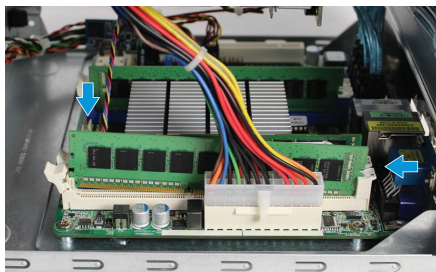
One end of each memory slot has a hinged latch, while the other end has a fixed latch.

INSTALLING MEMORY

Memory is installed in pairs in the same color sockets, blue first, then white. Most systems will already have memory in the blue sockets, and upgrade memory will be installed in the white sockets.

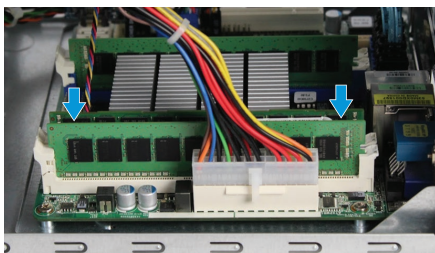
Touch the metal chassis of the Mini to discharge any static, then open the plastic package containing a memory module. Avoid touching the gold edge connector. Line up the notch in the bottom of the memory module with the key in the socket. The notch is offset to one end. If the notch does not line up with the key built into the socket, flip the memory module around end-to-end.

Gently insert the the memory module into the memory slot, putting the notch on the end of the module under the fixed latch.



Gently guide the module into the slot, pressing down on both ends of the module until the hinged latch swings in, locking into place.

Repeat for the second memory module, which goes in the same color of slot on the other side of the chassis.



SOLID STATE DISK (SSD) UPGRADE

The SSD upgrade includes one or two SSD drives and mounting screws. Each SSD can be mounted in either tray, it makes no difference to system operation.

FREENAS MINI SSD MOUNTING

The FreeNAS Mini has two SSD trays, one on the top and one on the side ([see the Parts Location diagram on page 2](#)). Remove the two screws securing an SSD tray, then slide the tray forward to remove it.

Mount an SSD in the tray with four small screws, one at each corner:



Replace the tray on the chassis, sliding it back into place, then attach with the original screws. Repeat the process if a second SSD is being installed.



FREENAS MINI XL SSD MOUNTING

The FreeNAS Mini XL has two SSD trays on the side ([see Parts Location diagram on page 2](#)). Remove the single screw securing an SSD tray, then slide the tray toward the front to remove it.

Mount an SSD in the tray by placing the holes on one side of the SSD onto the two pins in the tray. Then use two screws from the upgrade kit to secure it from the back:



Replace the tray on the chassis, sliding it back into place and securing with the original screws. Repeat the process if a second SSD is being installed.



FREENAS MINI AND MINI XL SSD CONNECTION

Attach a power cable and a data cable to each SSD. The connectors both have L-shaped keys that only allow them to be connected one way.



Gently slide the connectors onto the drive until they stop.

Make sure the cables are not rubbing against a sharp metal edge or sticking out where they will be snagged when the case is slid back on.

CLOSING THE CASE

Replacing the case is the opposite of removal. Slide the case back on, being careful not to pinch any cables, and replace the thumbscrews in the back.

OTHER RESOURCES

Upgrade installation video:

<https://youtu.be/sIY1HZHa5NE>

SSD Configuration link: (configuring FreeNAS for ZIL and L2ARC)

<http://doc.freenas.org/9.10/storage.html#extending-a-zfs-volume>

For other installation or configuration assistance, please contact iXsystems:

info@ixsystems.com

855-GREP-4-IX (US) | 408-943-4100 (non-US) | ixsystems.com

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