

M-Series SATADOM Replacement Guide

Version 1.0



1 M-Series SATADOM Replacement Guide

1.1 Introduction

The M-Series uses mirrored SATA interface Disk on Module (SATADOM) devices to store the operating system. This guide shows how to replace and configure a new SATADOM device in an M-Series TrueNAS controller.

1.2 Contacting iXsystems

For assistance, please contact iX Support:

Contact Method	Contact Options
Web	https://support.ixsystems.com
Email	support@ixsystems.com
Telephone	Monday - Friday, 6:00AM to 6:00PM Pacific Standard Time: <ul style="list-style-type: none">• US-only toll-free: 855-473-7449 option 2• Local and international: 408-943-4100 option 2
Telephone	After Hours (24x7 Gold Level Support only): <ul style="list-style-type: none">• US-only toll-free: 855-499-5131• International: 408-878-3140 (international calling rates will apply)

1.2.1 SATADOM Replacement Kit



The SATADOM replacement kit includes two SATADOM devices for installation in a single TrueNAS Controller. The operating system and configuration specified when the kit was ordered has already been installed on these devices.

1.2.2 Prepare the M-Series

Back up the system configuration before proceeding. Follow the instructions in the *System* → *General* → *Save Config* section of the TrueNAS® *User Guide* (<https://www.ixsystems.com/documentation/truenas>) to save a backup of the configuration to external media. Be sure to set the option to export the password secret seed.

Security Notice

Protect the downloaded TrueNAS® system configuration file! All passwords and system settings are contained in this file.

For systems with a single TrueNAS controller, shut down the TrueNAS® system and disconnect both power cables. Record the locations of the attached network cables, then disconnect them. Proceed to [removing the controller](#) (page 2).

High Availability (HA) systems have an active TrueNAS controller and a standby TrueNAS controller. On a failover, the standby controller takes over and the active controller goes to standby. To avoid service disruption, SATA-DOMs must only be replaced on the current standby controller. If SATA-DOMs in the active TrueNAS controller are to be replaced, force a failover by shutting down the active TrueNAS controller. The controllers switch roles, active going to standby and standby to active. Then the SATA-DOMs in the formerly active controller can be replaced.

Use one of these methods to find the HA state and serial number of each TrueNAS controller:

1. Log in to the web interface. The *Dashboard* displays the status and serial number of each TrueNAS controller.
2. Connect to the TrueNAS controller through IPMI, SSH, or a keyboard and monitor directly attached to the TrueNAS controller. See the *Network* → *IPMI* or *Services* → *SSH* sections of the TrueNAS® *User Guide* (<https://www.ixsystems.com/documentation/truenas>)> for details about those types of connections.

After connecting to the TrueNAS controller, enter `9` in the Console Setup menu to go to the Shell. Enter `hactl status` to show the current status of the connected TrueNAS controller. Entering `dmidecode -t1` shows the TrueNAS controller serial number.

To check for TrueNAS controller SATA-DOM errors, open the system *Shell* and enter `zpool status freenas-boot`. Any errors returned from this command means the TrueNAS controller SATA-DOMs should be replaced. Record the serial number of the TrueNAS controller that has the faulty SATA-DOMs.

Find the M-Series storage array and match the serial numbers on the back of the array with the serial number of the TrueNAS controller that has faulty SATA-DOMs. If there are no serial number labels on the back of the array, please [contact ixsystems Support](#) (page 1) for assistance with this procedure.

1.3 TrueNAS Controller Removal



Completely unscrew the locking thumbscrew securing the TrueNAS controller handle (#1). This thumbscrew is captive. It will not fall out. **Do not pull or press on any portion of the TrueNAS controller except the black release handle.** Pull the black release handle down to release the TrueNAS controller (#2).

Use both hands to **grasp the TrueNAS controller only by the sides, bottom, or handle.** Slide the TrueNAS controller out (#3).

1.4 Replace the SATADOM

Locate the SATADOMs in the TrueNAS controller.

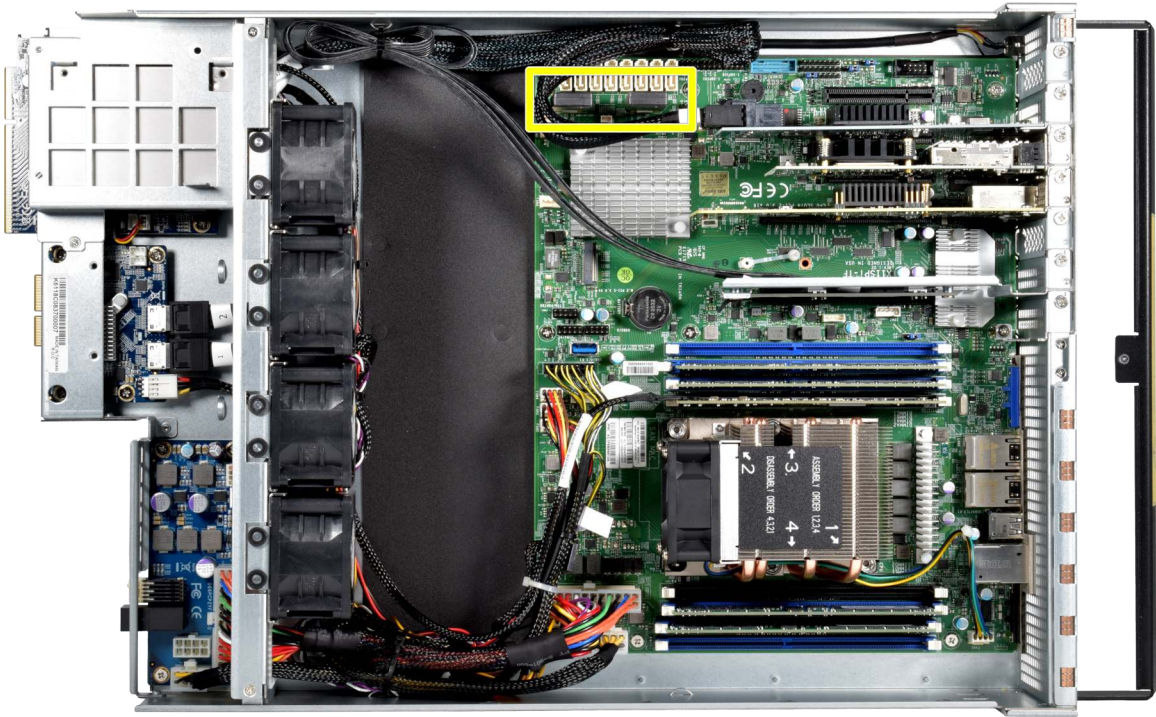


Fig. 1: M40 SATADOMs

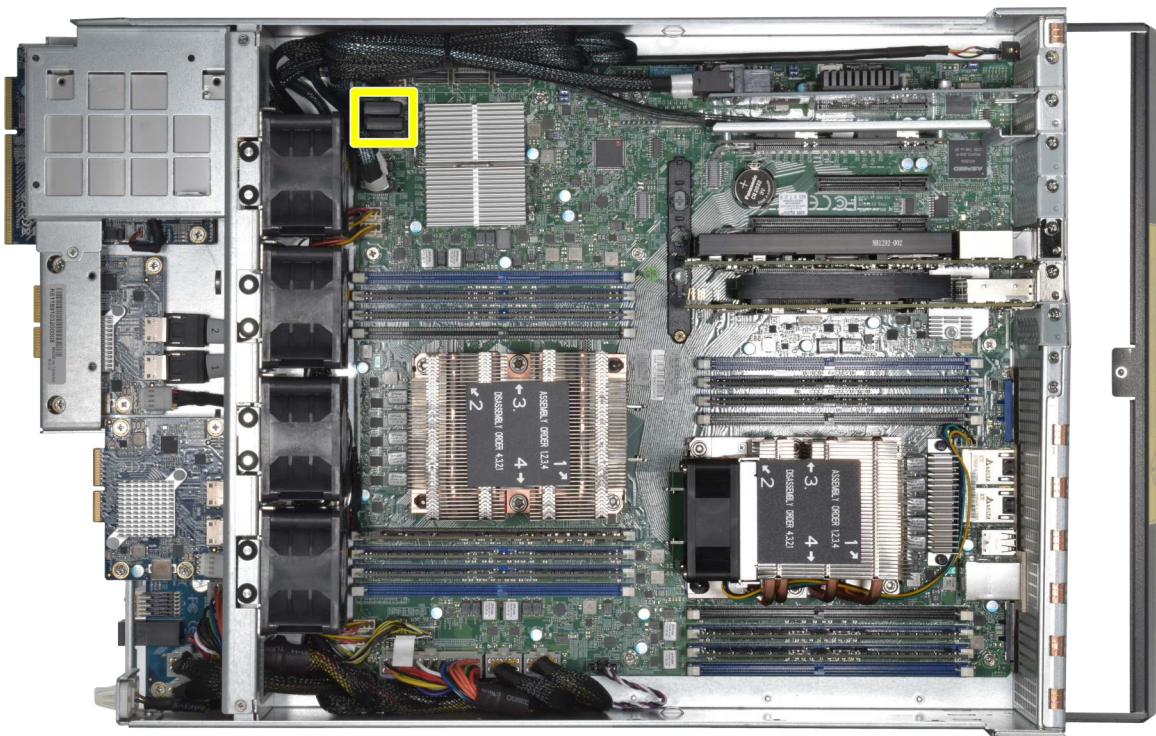


Fig. 2: M50 SATADOMs

Replacement SATADOMs must be installed in the same powered SATA ports used by the original SATADOMs. To remove the existing SATADOMs, squeeze the metal retention clip and gently lift the SATADOM away from the motherboard. Remove both SATADOMs and place them in a separate location to avoid mixing them up with the new parts.

Install the new SATADOMs into the same ports. Note that SATA ports are keyed so the SATADOMs only fit one way. If they cannot be installed with a gentle push, examine the connectors and turn the SATADOM so they are aligned. Push the SATADOM gently into the port until it latches, then repeat for the second SATADOM.

1.5 TrueNAS Controller Installation

Use both hands to lift and carry the TrueNAS controller from the bottom.

Insert the TrueNAS controller into the chassis. **Press only on the bottom, sides, or handle of the TrueNAS controller**, sliding it into the chassis until it stops. Lift the black release handle to lock the TrueNAS controller into place. Tighten the locking thumbscrew.

1.6 Final Steps

Reconnect any detached cables and power on the unit. Connect to the web interface and reactivate the TrueNAS® license. Verify the system configuration is present on the new SATADOMs.

If the system configuration must be reapplied from the backup, see the instructions in the *System* → *General* section of the TrueNAS® [User Guide](https://www.ixsystems.com/documentation/truenas) (<https://www.ixsystems.com/documentation/truenas>).