TrueNAS® M-Series Unified Storage Array Basic Setup Guide

Version 1.8

Contents

TrueNAS® units are carefully packed and shipped with trusted carriers to arrive in perfect condition. If there is any shipping damage or any parts are missing, please take photos and contact iXsystems support immediately at `support@ixsystems.com` or `1-855-GREP4-iX` (1-855-473-7449) or 1-408-943-4100.

Please locate and record the hardware serial numbers on the back of each chassis for quick reference.

1 Become Familiar with the M-Series System

The TrueNAS M-Series Unified Storage Array is a 4U , 24-bay , hybrid data storage array.

M-Series Unified Storage Array
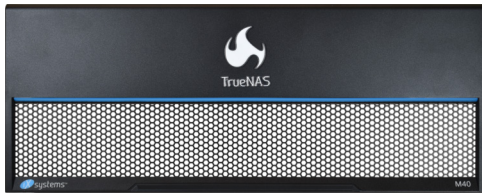
M-Series Bezel

Set of rackmount rails. The rails have a specific front end, identified by a label visible on the left above. The front ends of the rails must be installed facing the front of the rack.

Up to 24 drive trays or blank fillers.

Accessory kit with 2 IEC C13 to NEMA 5-15P power cords, 2 IEC C13 to C14 cords, and a set of velcro cable ties.

DB9 to 3.5mm serial cable

Set of hardware

# 1.1 Front Panel Indicators

Front panel indicators: power (**1**), locateID (**2**), fault (**3**), network activity (**4**). The fault indicator is on during the initial power-on self-test (POST) and off during normal operation. It turns on if the TrueNAS software issues an alert. See the Alert section in the TrueNAS User Guide (https://www.truenas.com/docs/core/system/alert/). The M-Series includes one or two TrueNAS controllers in an over-and-under configuration.
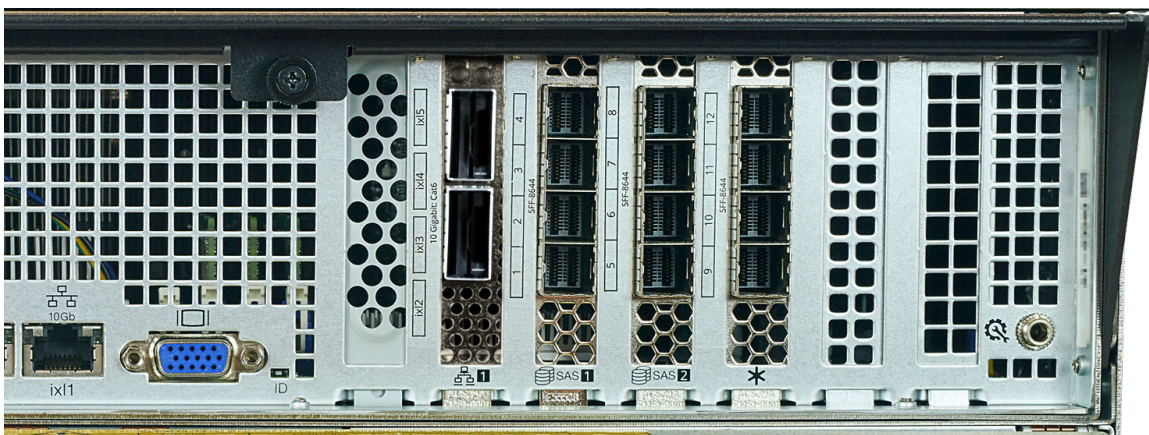
1.2 M-Series Back Panels

M40
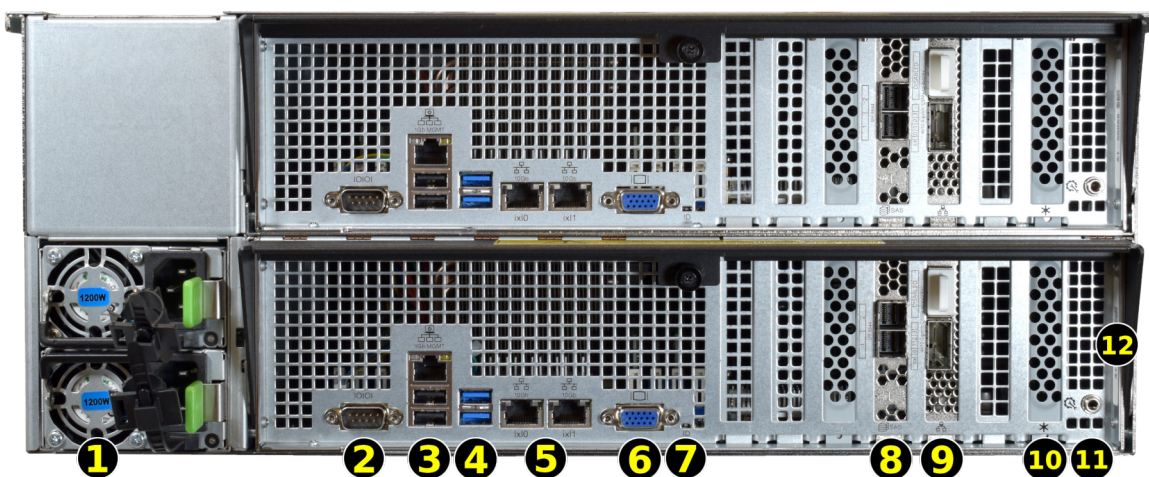
Redundant power supplies (**1**), serial port (**2**), 1Gb Ethernet Out of Band management port (must be connected to a network for IPMI remote management) and USB 2.0 ports (**3**), USB 3.0 ports (**4**),10GB Ethernet ports (**5**), VGA monitor port (**6**), ID indicator (**7**), HD Mini SAS3 connectors (**8**), networking ports (**9**), asterisk slot for Fibre Channel or additional networking (**10**), TrueNAS controller management port (**11**), TrueNAS® controller serial number (**12**).

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2 M-Series Rail Kit Assembly

2.1 Separate Cabinet Rails from Rack Rails

Each rack rail includes an inner cabinet rail that must be removed. Extend the cabinet rail as shown below until the white release tab is exposed. Slide the white release tab to the right to release the cabinet rail. Remove the cabinet rail from the rack rail. Repeat the process for the second rail.


2.2 Mount Cabinet Rails

The cabinet rails are mounted on each side of the system. Align the cabinet rail keyholes with the posts on the side of the chassis. Slide the rail towards the rear of the system until the metal tab clicks and secures the rail in place. Repeat this process on the other side.
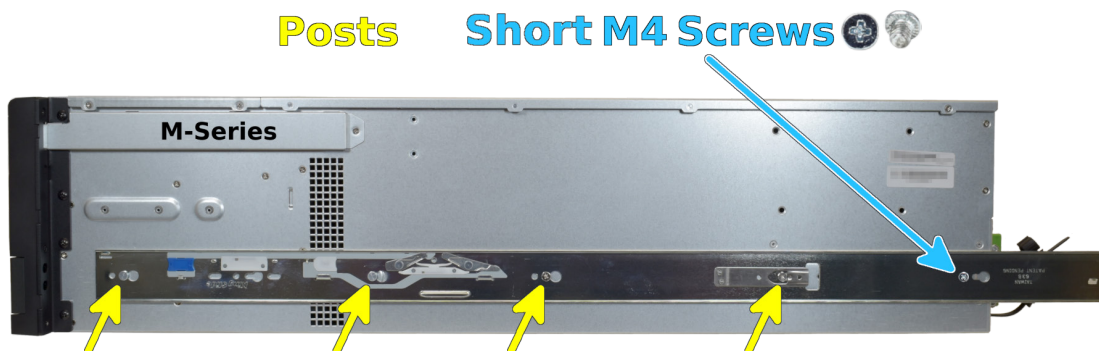

2.3 Mount the Rack Rails

A TrueNAS M-Series requires 4U of vertical rack space. The rack rails are installed in the bottom 2U of the total 4U height.

The inner rack rail must be unlocked and retracted before installing the rail in the rack. Rotate the release lever on the back of the inner rail clockwise as shown on the arrow label (**1**). Push the inner rail towards the back of the rail assembly until it stops (**2**).
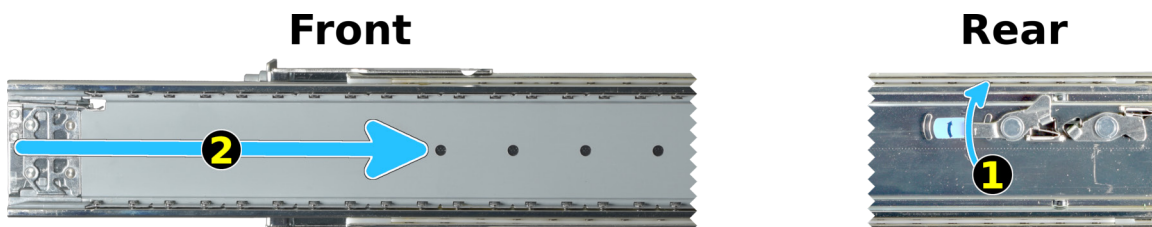
Place the rail in the rack with the front end towards the front of the rack, aligning the pins with the mounting holes in the front of the rack. Push the pins into the holes until the latch clicks.
At the rear end of the rail, align the pins with the rack holes, making sure the rail is level. Swing the gray latch handle outwards (**1**) and pull it to extend the rail rearwards until the rail pins are fully seated in the rack holes (**2**). Release the latch to allow it to lock in place. Repeat the process for the second rack rail.
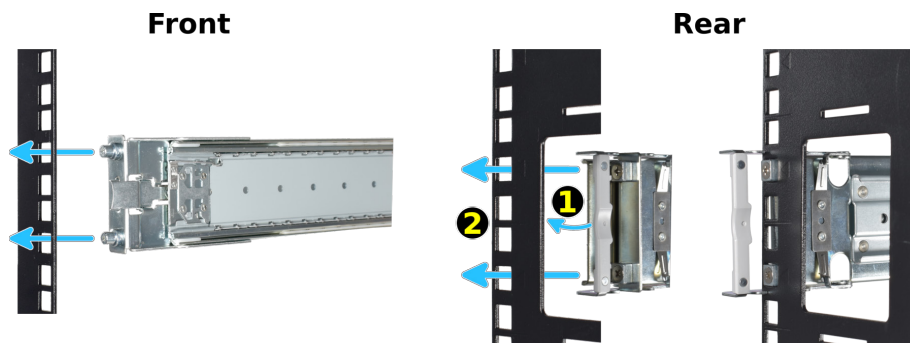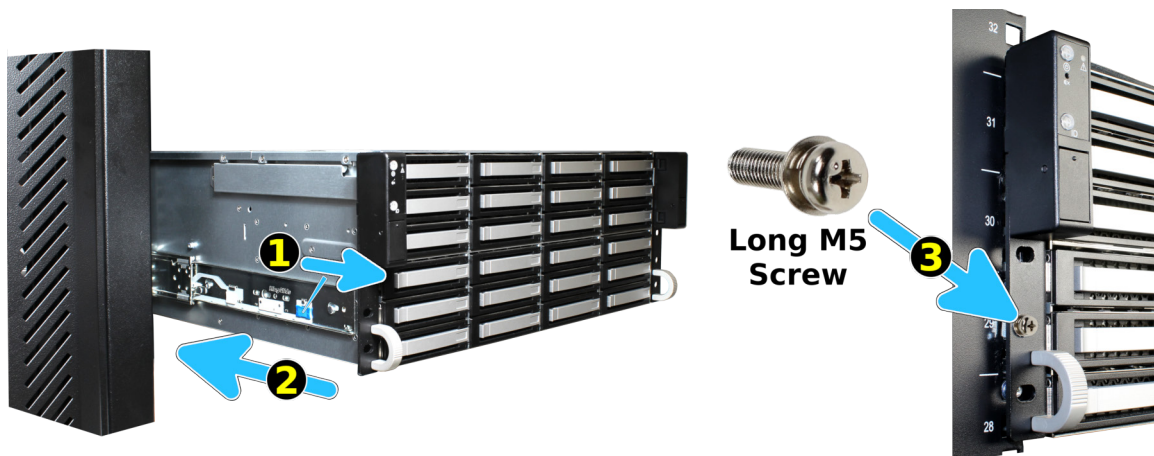
2.4 Mount the Unit in the Rack

Caution: Two people are required to safely lift the chassis for rack installation or removal. Do not install drives until after the chassis has been installed in the rack, and remove all drives before removing the chassis from the rack.

Extend both inner rack rails outwards from the rack until they lock in place. Align the cabinet rails with the inner rack rails and slide them into the rack rails until they are fully seated.
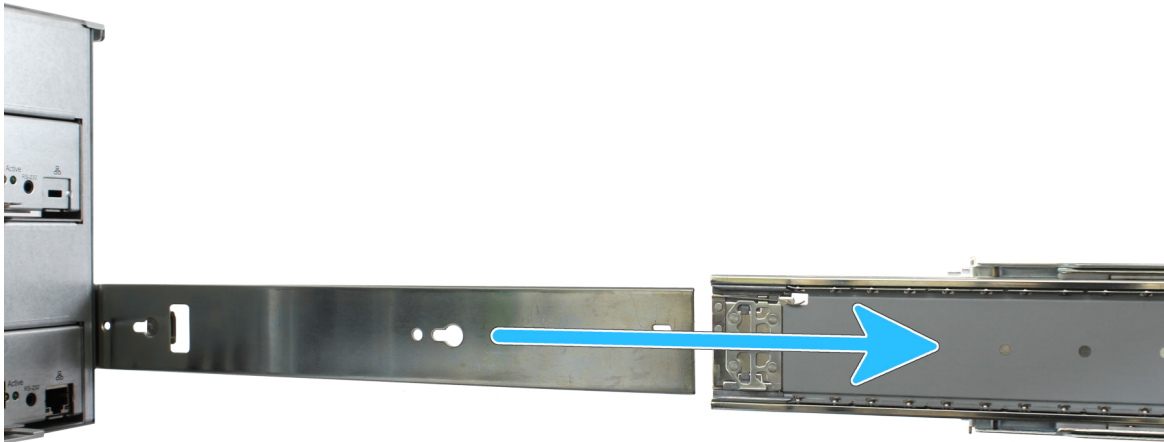
When both cabinet rails are secured in the rack rails, gently push the chassis until it stops half way in. Slide the blue release tabs on both cabinet rails towards the front of the system (**1**) while pushing the unit into the rack. Push the chassis into the rack until it is flush with the front of the rack (**2**).

Anchor the unit in the rack on both sides with long M5 screws. The screw hole is behind a small door on each ear.

3 Install Drive Trays

TrueNAS appliances only support qualified hard drives and SSDs. Contact the Sales Team if you need more drives or replacements. Adding unqualified drives to the system voids the warranty. Call Support if drives are improperly installed in trays.
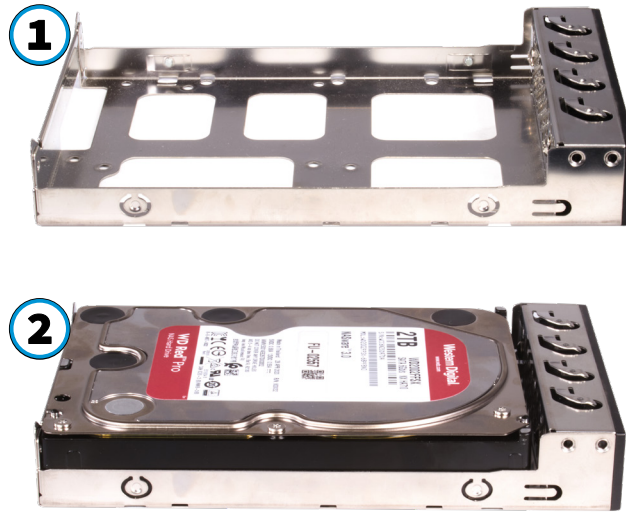
Place the tray on a flat survace (**1**) and mount the hard drive into the tray with the connector to the rear of the tray (**2**).

Drives are mounted in drive trays, which are then installed in drive bays in the M-Series chassis.

Each drive bay in the chassis has two indicator lights to the right of the tray. The upper light is blue when the drive is active or a hot spare. The lower light is solid red if a fault has occurred.

Press the silver button on the drive tray to open the latch. Carefully slide the tray into a drive bay until the right side of the latch-touches the metal front edge of the chassis, then gently swing the latch closed until it clicks into place.

All drive bays must be filled to maintain proper air flow for cooling. If fewer than 24 drives are connected, filler blanks must be placed in the empty bays.

4 Connect Expansion Shelves

Refer to the installation instructions included with expansion shelves for details on connections. The "SAS Connections Guide" (https://www.truenas.com/docs/hardware/expansionshelves/sasconnections/) on the TrueNAS Documentation Hub also has a catalog of connection diagrams.

5 Connect Network Cables

Connect network cables before powering on the M-Series. Cable specifications and requirements vary by configuration, so they are not included with the system.
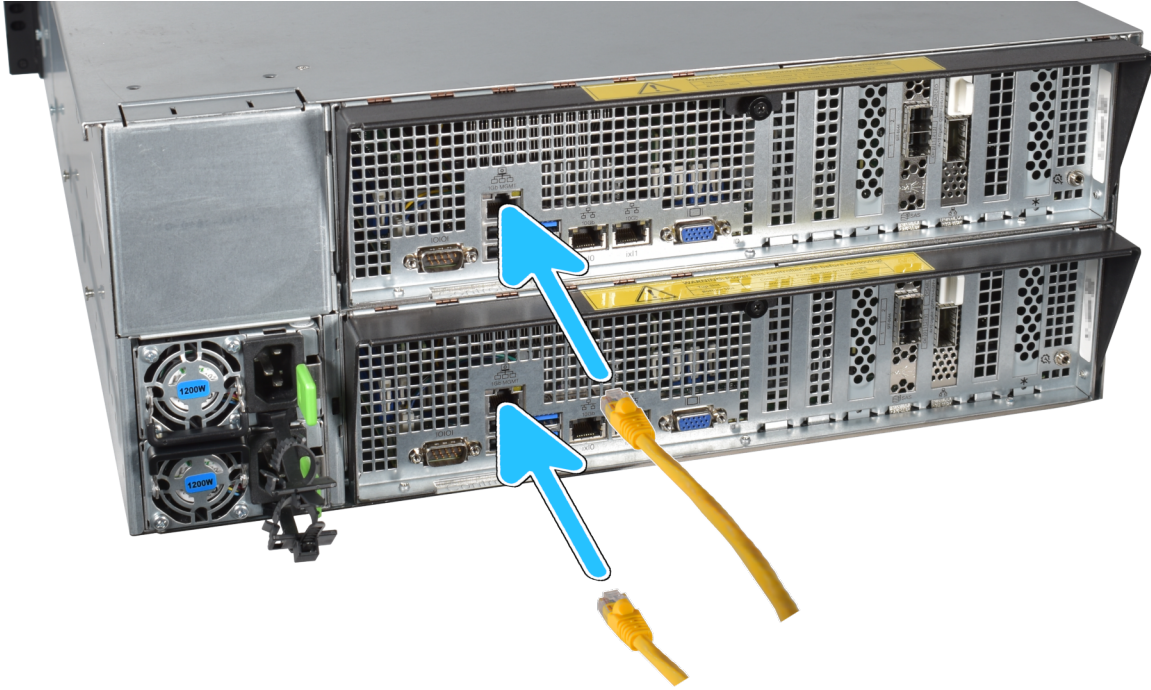

Connect network cables from the local switch or management network to the Out-of-Band (OOB) IPMI management port on each TrueNAS controller. Network ports are preconfigured to customer specifications before shipment. See "11 Contacting iXsystems" on page 10 for assistance when connecting them to the local network.

6 Connect Power Cord

Do not plug the power cords into a power outlet yet.

Connect a power cord to the back of one power supply, pressing it into the plastic clamp and pressing on the tab to lock it in place. Repeat the process for the second power supply and cord.
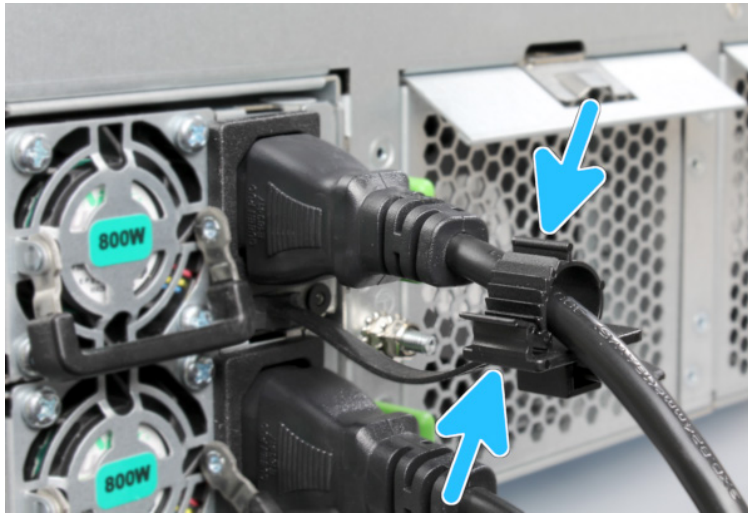
After both power cords have been connected to the M-Series, they can be plugged in to power outlets. The system is configured to automatically power on when connected to a power outlet. This design ensures that the M-Series comes back on when power is restored after a power failure.

7 Install Bezel (Optional)

The included bezel is not required for operation. To attach the bezel, slide the right side of the bezel into the attachment points on the right ear. Push the left side of the bezel into the left ear latch until it locks in place.

To remove the bezel, push the left ear release tab away from the bezel to release. Swing the bezel out to remove.

8 TrueNAS Controller Installation and Removal

Warning: To avoid the potential for data loss, iXsystems must be contacted **before** replacing a controller or upgrading to High Availability. See section "11 Contacting iXsystems" on page 10.

To avoid data loss in an NVDIMM SLOG, TrueNAS controllers must be properly shut down and powered off before they are removed from the chassis.

Touch the chassis metal top or sides before beginning work. Observe proper antistatic procedures when working with TrueNAS controllers or other electronic components.

8.1 Adding a Second TrueNAS Controller

M-Series systems with only one TrueNAS controller have an internal shipping brace that must be removed before adding a second TrueNAS controller.
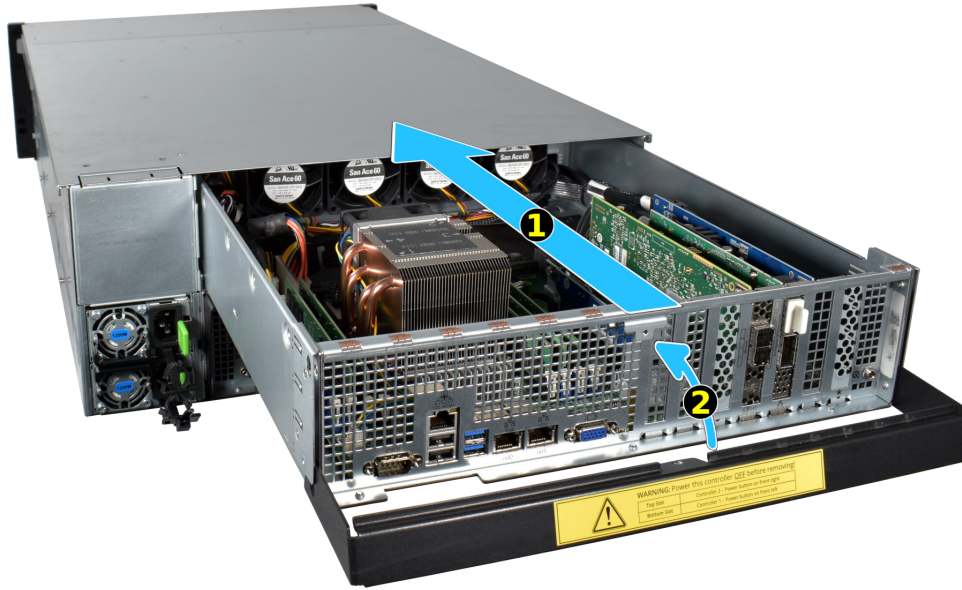

Remove the cover plate thumbscrew (**1**) and controller slot cover (**2**).

Unscrew the retention screw (**1**) and remove the brace (**2**) from the M-Series chassis. Replace the retention screw (**1**). Confirm there are no obstructions in the TrueNAS controller slot, then continue with the TrueNAS controller installation in the next section.

8.2 TrueNAS Controller Installation

Use both hands to lift and carry the TrueNAS controller from the bottom only. 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 (**1**). Lift the black release handle to lock the TrueNAS controller in place (**2**). Tighten the thumb screw to lock the handle.

8.3 TrueNAS Controller Removal

Unlock the TrueNAS controller handle by turning the thumb screw counter clockwise until it releases the handle (**1**). **Do not pull or press on any portion of the TrueNAS controller except the black release handle.** Pull the black release handle down (**2**) to release the TrueNAS controller. Use both hands to **grasp the TrueNAS controller only by the sides, bottom, or handle**. Slide the TrueNAS controller out (**3**).

9 Perform TrueNAS Initial Software Configuration

The console displays the IP address of the TrueNAS M-Series graphical web interface, *192.168.100.231* in this example:

```
The web user interface is at:
http://192.168.100.231
```

Enter the IP address into a browser on a computer on the same network to access the web user interface.

10 User Guide

The TrueNAS User Guide has complete software configuration and usage instructions. It is available by clicking **Guide** in the TrueNAS web interface or going directly to https://www.truenas.com/docs/core/.

11 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: ・US-only toll-free: 1-855-473-7449 option 2 ・Local and international: 1-408-943-4100 option 2
Telephone	Telephone After Hours (24x7 Gold Level Support only): ・US-only toll-free: 1-855-499-5131 ・International: 1-408-878-3140 　(International calling rates will apply)