

TrueNAS® R30 Basic Setup Guide

Version 1.0



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1 Introduction

The TrueNAS R30 is a 1U, 16-bay, NVMe data storage array. It has redundant power supplies.

Your system comes with the TrueNAS operating system preloaded.

Review the safety considerations and hardware requirements before installing an R30 system into a rack.

1.1 Safety

1.1.1 Static Discharge

Static electricity can build up in your body and discharge when touching conductive materials. Electrostatic Discharge (ESD) is harmful to sensitive electronic devices and components. Keep these safety recommendations in mind before opening the system case or handling non-hot-swappable system components:

- Turn off the system and remove power cables before opening the case or touching internal components.
- Place the system on a clean, hard work surface like a wooden tabletop. Using an ESD dissipative mat can also help protect the internal components.
- Touch the metal chassis with your bare hand to dissipate static electricity in your body before touching any internal components, including components not yet installed in the system. Using an anti-static wristband and grounding cable is another option.
- Store all system components in anti-static bags.

You can find more preventative tips and details about ESD at <https://www.wikihow.com/Ground-Yourself-to-Avoid-Destroying-a-Computer-with-Electrostatic-Discharge>.

1.1.2 Handling the System

We recommend at least two people lift a TrueNAS system.

Hold the system from the sides or bottom whenever possible. Always be mindful of loose cabling or connectors and avoid pinching or bumping these elements whenever possible.

This document uses “left” and “right” according to your perspective when facing the front of a system or rack.

1.2 Requirements

We recommend these tools when installing a TrueNAS R30 in a rack:

- #2 Phillips head screw driver
- Flat head screw driver
- Tape measure
- Level

2 R30 Components

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

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

Carefully unpack the shipping boxes and locate these components:



R30 Unified Storage Array with up to 16 NVMe drives installed in trays



Set of rackmount rails with mounting hardware



Accessory kit:



- 2 IEC C13 to NEMA 5-15P power cords
- 2 IEC C13 to C14 cords
- Set of velcro cable ties
- Fasteners:
- 48 #6-32x4mm drive tray screws.
- 4 #6-32x4L chassis rail screws.
- 2 Ear Extenders

2.1 Front Indicators

The R30 has front panel indicators for power, locate ID, and fault. The fault indicator is on during the initial power-on-self-test (POST) and turns off during normal operation. It turns on if the TrueNAS software issues an alert.

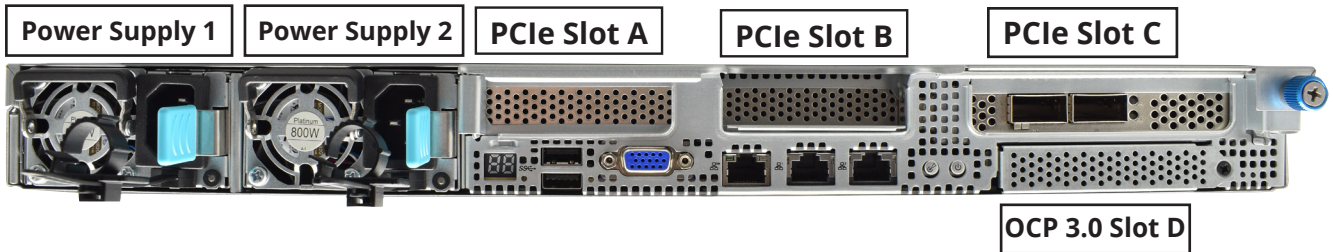


Light	Color and Indication
	Green: System on and ready
	Flash Green: LAN1 & LAN3 connected
	Flash Green: LAN2 & LAN4 connected
	Blue: Locate ID active

Light	Color and Indication
	Location Button
	Amber: Hardware message event to be viewed
N/A	Recessed Reset Button

2.2 Rear Components and Ports

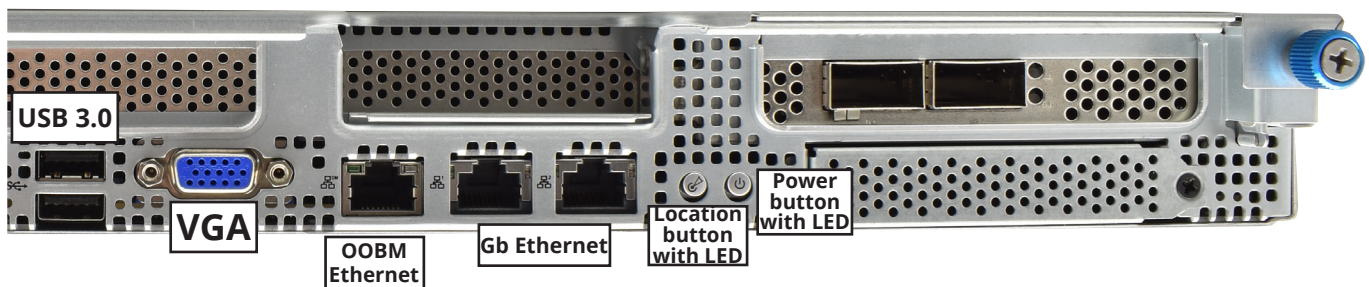
The back panel has redundant power supplies and various connection ports.



PCIe Expansion

Slot A	Slot B	Slot C	Slot D
x16 Gen 4 (Half Height*)	x8 Gen 4 (Half Height*)	x16 Gen 4 (Full Height)	OCP 3.0 (Not Used)

*Half-height cards must be fully PCIe compliant.



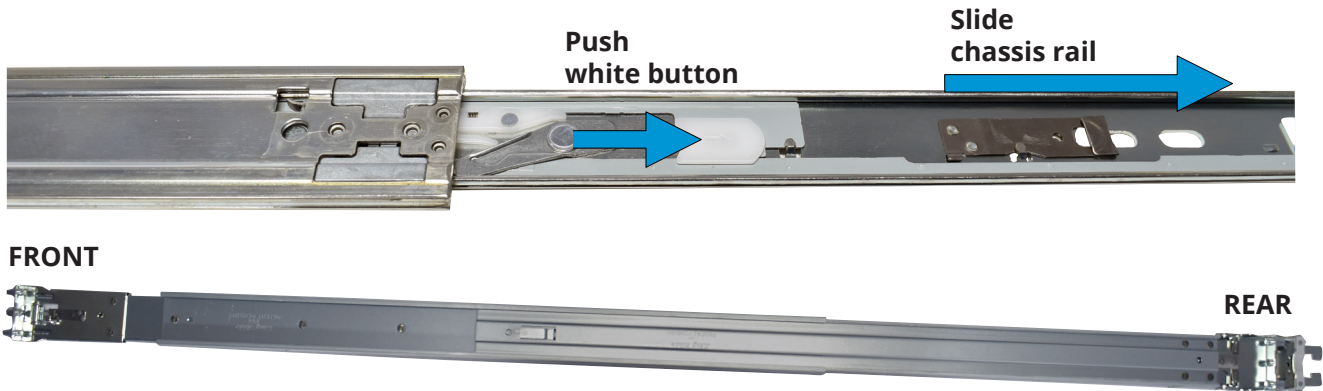
3 Rack the R30

We recommend double-checking your system's rack rail placement.

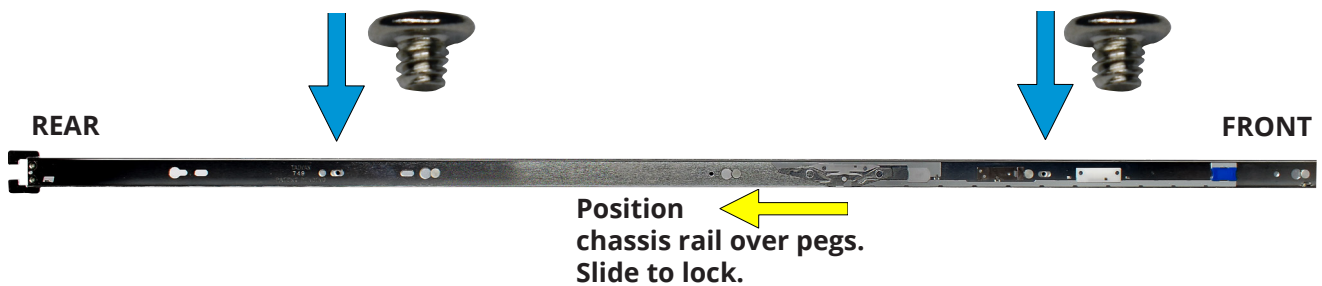
The R30 requires an EIA-310 compliant rack. To properly install the rack rails, the front and rear vertical rack posts need to be spaced between **23" - 35.75" (584mm - 908mm)** apart.

3.1 Attach Chassis Rails

Each rail has two components, the outer rack rail and the inner chassis rail. To protect during shipping, the chassis rail is inserted into the rack rail and must be removed before attaching a system. Completely expand the rail. Slide the chassis rail forward until the metal catch stops it. Push in the catch and slide the chassis rail forward until it is free of the rack rail.



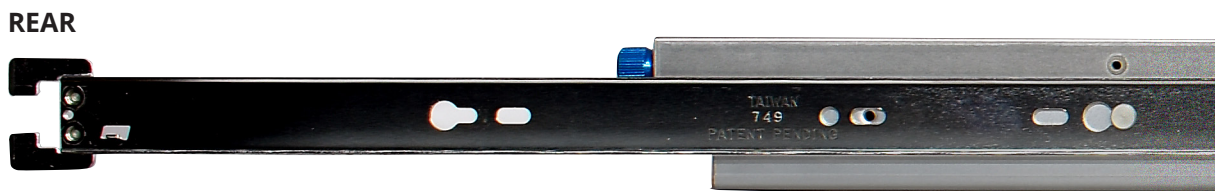
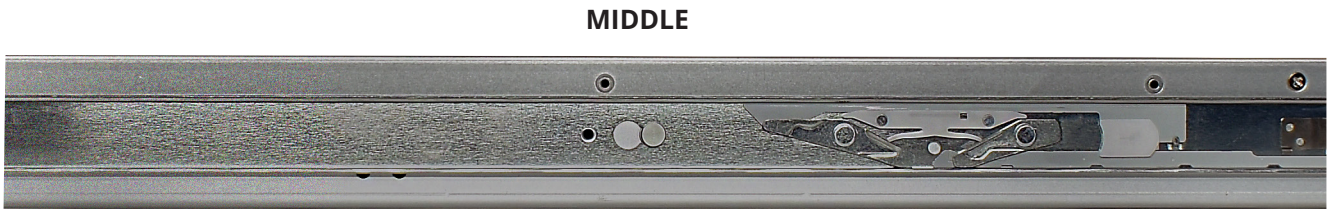
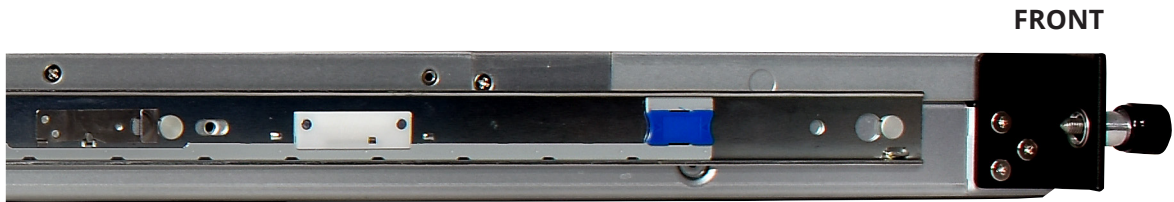
The chassis rail attaches to the side of the R30. Align the chassis rail with the pegs on the side of the R30. Slide rail back to lock in place. Use the screw hole at the front of the chassis and at the rear of the chassis to secure the rail to the side of the R30. Attach the chassis rail to the side of the R30 using the 2 chassis rail screws and a #2 screwdriver.



Follow this procedure to slide out and attach the second chassis rail to the other side of the system.



The following images are enlarged to show detail:



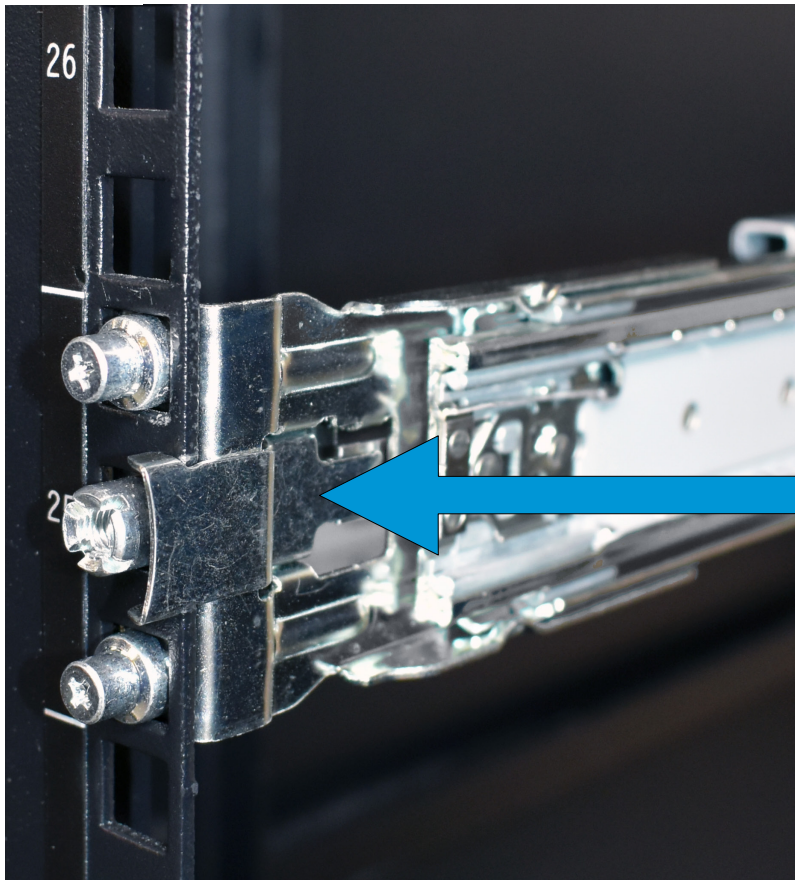
3.2 Install Rack Rails

Before installing the rack rail, make sure the rack has enough space for the system. The R30 needs 1U of space for both the system and rack rails.

Take a rack rail and align the end marked "FRONT" with the front of the rack. The "FRONT" text must be pointed **inside** the rack so the chassis rails can slide into the rack rails. In this example the left front rack rail is shown.

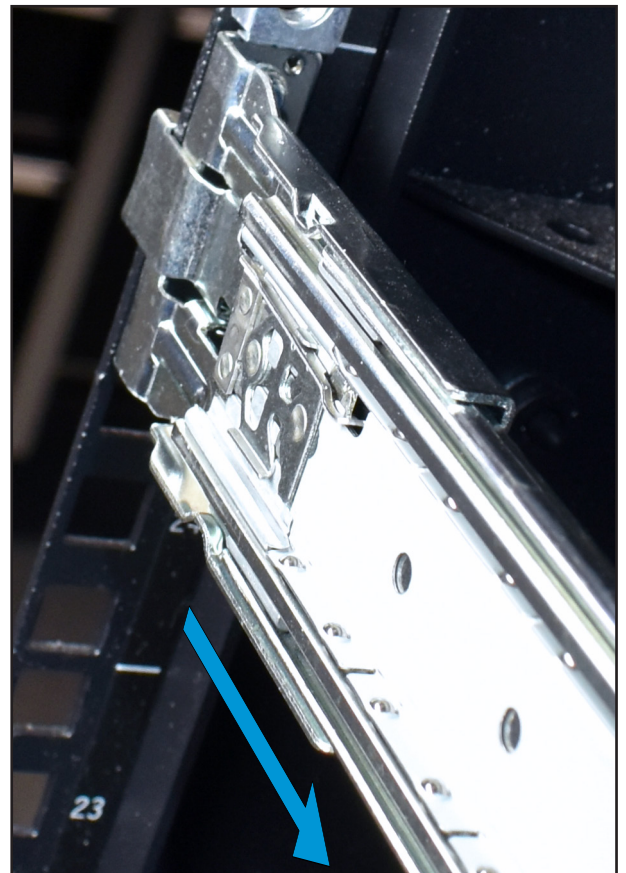
Align the rail front pegs with the rack attach points and press the rail retention clip to open it. This allows the rail front pegs to enter the rack attach points. Push the rail front pegs into the rack attach points.

FRONT



Release the spring plate of the rail retention clip to secure the rail front pegs in the proper attach points.

FRONT

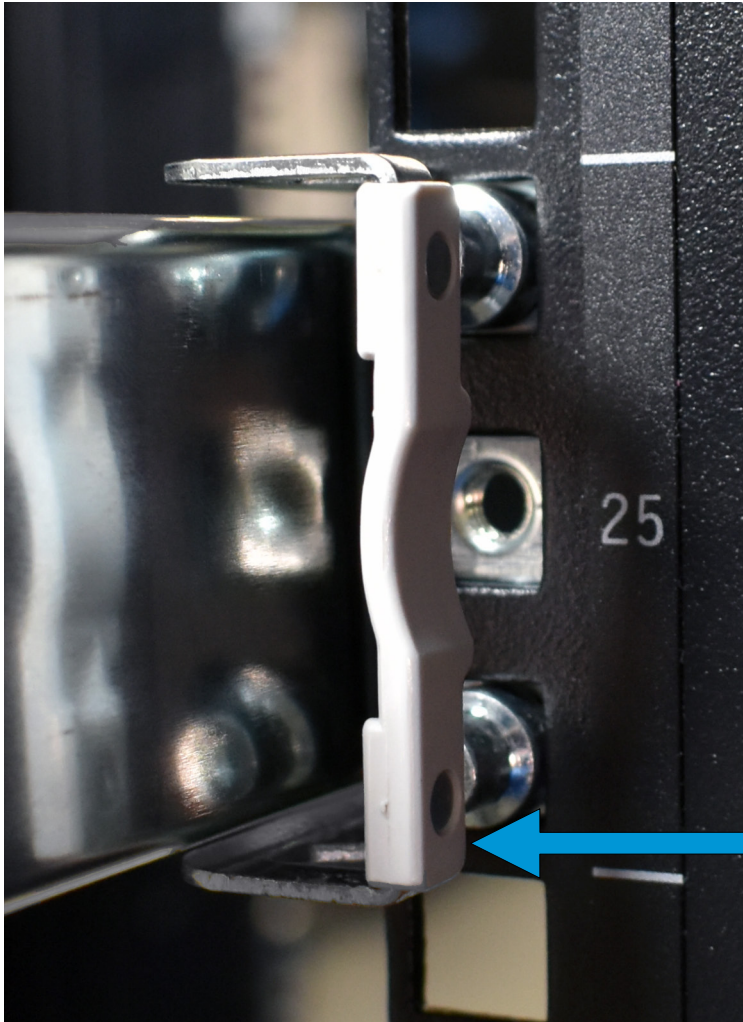


The rail kit also includes two retention screw hole extenders that can be screwed into the middle rail attach point.

The rail rear pegs attach next. Keeping the rail level, slide the inner rack rail toward the rear of the enclosure.

With the front of the rail installed, extend the back of the rack rail towards the equivalent attach points on the rear rack post. Make sure the rail remains level from the front to the back. With the rear attach points in place, secure the rear of the rail to the rack by depressing the spring clip. Follow this process for the other rack rail.

Rear Rack Rail Clip (outside view)



Rear Rack Rail Clip (inside view)



REAR

Press the spring clip on the rear of the rack rail to permit the attach points to pass through the corresponding openings. Release the clip to secure.

Rear Rack Rail Extended (inside view)



3.3 Install the R30 in the Rack

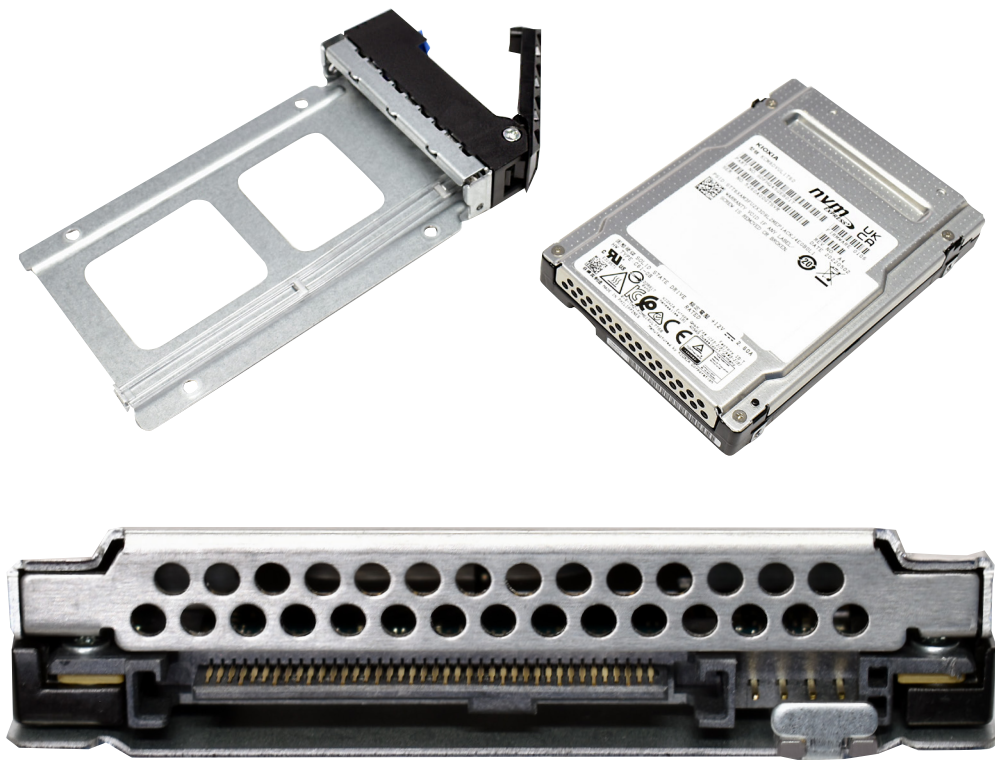
Team-lift the system and align the chassis rails with the rack rails. Slide the ends of the chassis rails into the rack rails and push the system forward until the metal safety catches click into place. Pull the blue safety catches towards the front of the system and continue to gently push the system into the rack.



The rail kit includes additional thumb screws that can be used to secure the system to the rack rails using the screw holes in each chassis ear.

4 Replace Drives

The R30 ships with all the storage drives needed to fully populate the enclosure. Drives ship mounted in drive trays. In order to replace one of the front storage drives, follow the steps outlined below.



The R30 has 12 front drive bays and 4 internal drive bays which support up to 16 hot-swappable 2.5" NVMe drives.



4.1 Remove Drives

Press the blue spring lock to release the drive cover. Swing the tray lever outwards.

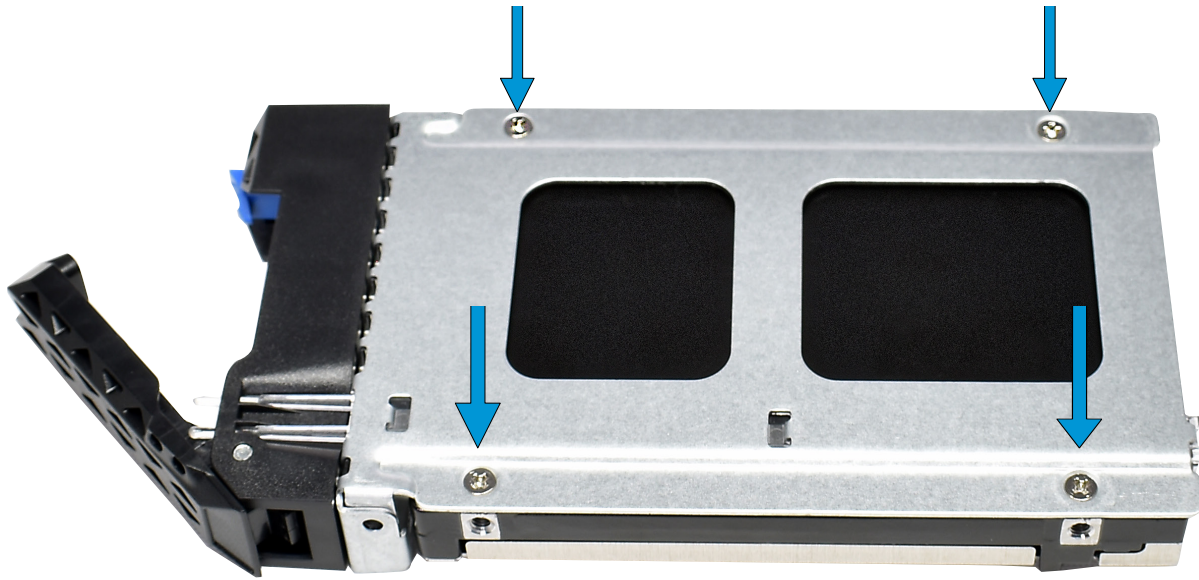


Pull the drive tray toward you to remove it from the chassis.



4.1.1 Install Drives

Insert the 2.5" drive in the drive tray. Fasten the 2.5" drive to the drive tray using four screws.



Insert the drive tray and drive back into the bay. When the drive tray reaches the end of the bay push the tray lever closed. The spring lock clicks. The drive tray and drive are secured in place.

Warning: The LED pins are flexible. The drive must be fully seated into the bay before closing the tray lever. LED pin damage can result if the drive is not seated properly before closing the tray lever.

5 Connect Cables

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

Start by connecting cables to the various ports on the back of the R30. Make sure to leave enough flex in the cables so that they don't pull out of place when the enclosure slides out of the rack.

Note: The R30 accepts 110v and 200-240v power input.

Connect a power cord to the back of one power supply. Extend the plastic retention clamp, open it, fit it over the power cable, and push it down to lock it into place. Repeat the process to connect the second power supply and secure the cord.



6 Connecting to the TrueNAS Web Interface

Powering on the system and allowing it to boot to the system console will display the IP address of the TrueNAS R-Series graphical web interface, *192.168.100.231* in this example:

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

The TrueNAS web interface uses default credentials for first-time logins:

Username: *root*
Password: *abcd1234*

After logging in, you can change the root account password in **Account > Users** to increase system security.

When more than one TrueNAS device is connected to the network, mDNS can experience name conflicts. Give each TrueNAS device a unique hostname like *truenas1.local* and *truenas2.local* to avoid this problem. The hostname is changed in **Network > Global Configuration > Hostname** in the TrueNAS web interface.

Out of band logins have separate credentials from the TrueNAS web interface. The credentials are randomized and attached to the back of the TrueNAS chassis. For more details, see <https://www.truenas.com/docs/sb-327>.

For additional details about out of band management, see the R-Series Out of Band Management guide: <https://www.truenas.com/docs/hardware/rseries/rseriesoobm/>

7 Additional Resources

The TrueNAS Documentation Hub has complete software configuration and usage instructions. Click **Guide** in the TrueNAS web interface or go directly to:

<https://www.truenas.com/docs/>

Additional hardware guides and articles are in the Documentation Hub's Hardware section:

<https://www.truenas.com/docs/hardware/>

The TrueNAS Community forums provide opportunities to interact with other TrueNAS users and discuss their configurations:

<https://www.truenas.com/community/>

8 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: 1-855-473-7449 option 2• Local and international: 1-408-943-4100 option 2
Telephone	Telephone After Hours (24x7 Gold Level Support only): <ul style="list-style-type: none">• US-only toll-free: 1-855-499-5131• International: 1-408-878-3140 (International calling rates will apply)