UNITRENDS

Site Preparation Guide for Gen9 Recovery Series Appliances

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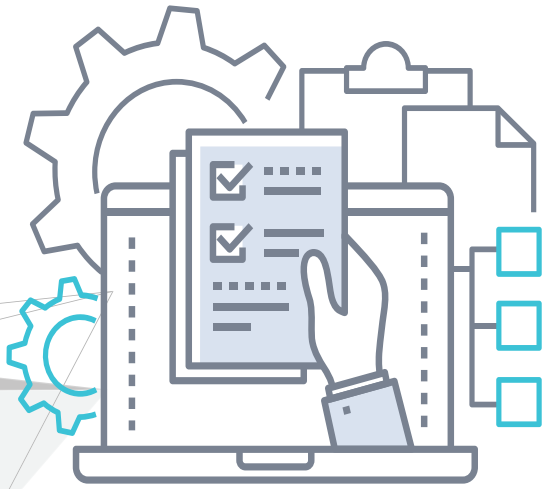

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Introduction

This document describes the preparations that should be considered before installing a Recovery Series appliance or any of the rotational archiving solutions. Proper preparation of the site will help ensure consistent and stable operation of the Unitrends solution.

Consider these site preparation requirements before installation:

- "Space and Clearance Requirements"
- "Load Bearing (Weight) Requirements" on page 10
- "Power Requirements" on page 12
- "Cooling and Environmental Conditions" on page 13
- "Configuration Requirements" on page 13

Space and Clearance Requirements

The following space requirements should be considered before installing the Unitrends hardware:

- The appliance rack-mounted chassis fits into a standard 19" rack or cabinet and is up to 28.16" deep. Rack-mounted chassis are 1-unit (1U) or 2-unit (2U) in height, and come with rails if required for racking. Attach the rails to accommodate the specific rack or cabinet used with the appliance.
- Unitrends recommends the use of cable guides to organize the power, network, and other cables.
- Each appliance requires proper airflow to cool the system's components. At least 5" of space should be maintained behind the rack at all times to ensure adequate ventilation.
- The rack or cabinet should be positioned so that there is adequate space in front of and behind the rack/cabinet to allow the front and rear doors (if applicable) to open. Allow 25" clearance for front doors and 30" for rear doors.

Rails included with each rack-mounted appliance and archive solution are described on the following tables.

Rails by appliance model

Appliance Model	Chassis Type	Rail SKU	Rail Description
9002	1U Short	770-BBHI	Static Ready Rails, Stab-in
9004	1U Short	770-BBHI	Static Ready Rails, Stab-in
9006	1U Short	770-BBHI	Static Ready Rails, Stab-in
9008	1U Short	770-BBHI	Static Ready Rails, Stab-in

Appliance Model	Chassis Type	Rail SKU	Rail Description
9010	1U Short	770-BBHI	Static Ready Rails, Stab-in
9012	1U Short	770-BBHI	Static Ready Rails, Stab-in
9016S	1U	770-BCJI	Sliding Ready Rails for 1U
9020S	1U	770-BCJI	Sliding Ready Rails for 1U
9024S	1U	770-BCJI	Sliding Ready Rails for 1U
9032S	2U	770-BBBQ	Sliding Ready Rails II for 2U
9040S	2U	770-BBBQ	Sliding Ready Rails II for 2U
9060S	2U	770-BBBQ	Sliding Ready Rails II for 2U
9080S	2U	770-BBBQ	Sliding Ready Rails II for 2U
9100S	2U	770-BBBQ	Sliding Ready Rails II for 2U
9120S	2U	770-BBBQ	Sliding Ready Rails II for 2U
Archive Solution			
Recovery-Archive	1U, full rack	Supermicro SC813MTQ-350CB	Supermicro MCP-290-00056-0N

Rail specifications

Appliance Model	Rail SKU	Rack Types Supported Y (yes) or N (no)	Rail Adjustability Ranges (mm)	Rail Depth (mm)
9002	770-BBHI	• 4-Post – Square: Y Round: Y Threaded: Y[2] • 2-Post – Flush: Y[2] Center: Y[1]	• Square: 608 min to 879 max • Round: 594 min to 872 max • Threaded: 610 min to 898 max	622[4] without CMA/SRB

Appliance Model	Rail SKU	Rack Types Supported Y (yes) or N (no)	Rail Adjustability Ranges (mm)	Rail Depth (mm)
9004	770-BBHI	• 4-Post – Square: Y Round: Y Threaded: Y[2] • 2-Post – Flush: Y[2] Center: Y[1]	• Square: 608 min to 879 max • Round: 594 min to 872 max • Threaded: 610 min to 898 max	622[4] without CMA/SRB
9006	770-BBHI	• 4-Post – Square: Y Round: Y Threaded: Y[2] • 2-Post – Flush: Y[2] Center: Y[1]	• Square: 608 min to 879 max • Round: 594 min to 872 max • Threaded: 610 min to 898 max	622[4] without CMA/SRB
9008	770-BBHI	• 4-Post – Square: Y Round: Y Threaded: Y[2] • 2-Post – Flush: Y[2] Center: Y[1]	• Square: 608 min to 879 max • Round: 594 min to 872 max • Threaded: 610 min to 898 max	622[4] without CMA/SRB
9010	770-BBHI	• 4-Post – Square: Y Round: Y Threaded: Y[2] • 2-Post – Flush: Y[2] Center: Y[1]	• Square: 608 min to 879 max • Round: 594 min to 872 max • Threaded: 610 min to 898 max	622[4] without CMA/SRB

Appliance Model	Rail SKU	Rack Types Supported Y (yes) or N (no)	Rail Adjustability Ranges (mm)	Rail Depth (mm)
9012	770-BBHI	• 4-Post – Square: Y Round: Y Threaded: Y[2] • 2-Post – Flush: Y[2] Center: Y[1]	• Square: 608 min to 879 max • Round: 594 min to 872 max • Threaded: 610 min to 898 max	622[4] without CMA/SRB
9016S	770-BCJI	• 4-Post – Square: Y Round: Y Threaded: Y[2] • 2-Post – Flush: Y[2] Center: Y[1]	• Square: 608 min to 879 max • Round: 594 min to 872 max • Threaded: 610 min to 898 max	622[4] without CMA/SRB
9020S	770-BCJI	• 4-Post – Square: Y Round: Y Threaded: Y[2] • 2-Post – Flush: Y[2] Center: Y[1]	• Square: 608 min to 879 max • Round: 594 min to 872 max • Threaded: 610 min to 898 max	622[4] without CMA/SRB
9024S	770-BCJI	• 4-Post – Square: Y Round: Y Threaded: Y[2] • 2-Post – Flush: Y[2] Center: Y[1]	• Square: 608 min to 879 max • Round: 594 min to 872 max • Threaded: 610 min to 898 max	622[4] without CMA/SRB

Appliance Model	Rail SKU	Rack Types Supported Y (yes) or N (no)	Rail Adjustability Ranges (mm)	Rail Depth (mm)
9032S	770-BBBQ	• 4-Post – Square: Y Round: Y Threaded: Y[3] • 2-Post – Flush: N Center: N	• Square: 631 min to 868 max • Round: 617 min to 861 max • Threaded: 631 min to 883 max	• 714[5] without CMA/SRB • 845 with CMA/SRB
9040S	770-BBBQ	• 4-Post – Square: Y Round: Y Threaded: Y[3] • 2-Post – Flush: N Center: N	• Square: 631 min to 868 max • Round: 617 min to 861 max • Threaded: 631 min to 883 max	• 714[5] without CMA/SRB • 845 with CMA/SRB
9060S	770-BBBQ	• 4-Post – Square: Y Round: Y Threaded: Y[3] • 2-Post – Flush: N Center: N	• Square: 631 min to 868 max • Round: 617 min to 861 max • Threaded: 631 min to 883 max	• 714[5] without CMA/SRB • 845 with CMA/SRB
9080S	770-BBBQ	• 4-Post – Square: Y Round: Y Threaded: Y[3] • 2-Post – Flush: N Center: N	• Square: 631 min to 868 max • Round: 617 min to 861 max • Threaded: 631 min to 883 max	• 714[5] without CMA/SRB • 845 with CMA/SRB

Appliance Model	Rail SKU	Rack Types Supported Y (yes) or N (no)	Rail Adjustability Ranges (mm)	Rail Depth (mm)
9100S	770-BBBQ	• 4-Post – Square: Y Round: Y Threaded: Y[3] • 2-Post – Flush: N Center: N	• Square: 631 min to 868 max • Round: 617 min to 861 max • Threaded: 631 min to 883 max	• 714[5] without CMA/SRB • 845 with CMA/SRB
9120S	770-BBBQ	• 4-Post – Square: Y Round: Y Threaded: Y[3] • 2-Post – Flush: N Center: N	• Square: 631 min to 868 max • Round: 617 min to 861 max • Threaded: 631 min to 883 max	• 714[5] without CMA/SRB • 845 with CMA/SRB

Note1: Mounting Screws not included rack

Note2: Mounting screws not included, minor conversion required

Note3: Mounting screws not included, minor conversion required, mounting screw head diameter must be 10 mm or less

Note4: Rail depth represents cabinet assembly only and does not represent inner rail component that attaches to chassis

Note5: With CMA brackets removed

Load Bearing (Weight) Requirements

To prevent tipping, make certain that the rack is secure before installing the chassis. Unitrends strongly recommends the use of two people when placing the rack-mounted chassis into the rack or cabinet.

The following table provides load bearing requirements for each appliance and archive solution:

Note: If the appliance protrudes the rack about 1/2" to 1", the front rail may need adjusting. The front rail must be properly aligned (fourth hole from the front) to ensure a secure fit.

Appliance Model	Format	Weight	Shipping Weight
9002	17.08" x 23.45" x 1.68" 434.00mm x 595.63mm x 42.8mm	26.89 lbs 12.2kg	40 lbs 18.14kg
9004	17.08" x 23.45" x 1.68" 434.00mm x 595.63mm x 42.8mm	26.89 lbs 12.2kg	40 lbs 18.14kg
9006	17.08" x 23.45" x 1.68" 434.00mm x 595.63mm x 42.8mm	26.89 lbs 12.2kg	40 lbs 18.14kg
9008	17.08" x 23.45" x 1.68" 434.00mm x 595.63mm x 42.8mm	26.89 lbs 12.2kg	40 lbs 18.14kg
9010	17.08" x 23.45" x 1.68" 434.00mm x 595.63mm x 42.8mm	26.89 lbs 12.2kg	40 lbs 18.14kg
9012	17.08" x 23.45" x 1.68" 434.00mm x 595.63mm x 42.8mm	26.89 lbs 12.2kg	40 lbs 18.14kg
9016S	17.08" x 27.26" x 1.68" 434.00mm x 692.62mm x 42.8mm	36.92lbs 16.75kg	53 lbs 24.04kg
9020S	17.08" x 27.26" x 1.68" 434.00mm x 692.62mm x 42.8mm	36.92lbs 16.75kg	53 lbs 24.04kg
9024S	17.08" x 27.26" x 1.68" 434.00mm x 692.62mm x 42.8mm	36.92lbs 16.75kg	53 lbs 24.04kg

Appliance Model	Format	Weight	Shipping Weight
9032S	17.08" x 28.16" x 3.40" 434.00mm x 715.50mm x 86.8mm	72.97 lbs 33.1kg	88 lbs 39.92kg
9040S	17.08" x 28.16" x 3.40" 434.00mm x 715.50mm x 86.8mm	72.97 lbs 33.1kg	88 lbs 39.92kg
9060S	17.08" x 28.16" x 3.40" 434.00mm x 715.50mm x 86.8mm	72.97 lbs 33.1kg	88 lbs 39.92kg
9080S	17.08" x 28.16" x 3.40" 434.00mm x 715.50mm x 86.8mm	72.97 lbs 33.1kg	88 lbs 39.92kg
9100S	17.08" x 28.16" x 3.40" 434.00mm x 715.50mm x 86.8mm	72.97 lbs 33.1kg	88 lbs 39.92kg
9120S	17.08" x 28.16" x 3.40" 434.00mm x 715.50mm x 86.8mm	72.97 lbs 33.1kg	88 lbs 39.92kg
Archive Solution			
Recovery-Archive	19.8" x 17.2" x 1.7"	21.6 lbs	31 lbs

Power Requirements

The specifications listed in this section assume that appliances are fully configured. There should be sufficient power capacity to service each appliance.

The proper power protection must be provided for each on-site appliance. Uninterruptible power supplies (UPS) must be adequately sized to support the appliance. Additionally, UPS must supply enough current to the appliance while it is charging.

The following table provides power requirements for each appliance and archive solution:

Appliance Model	Power Supply	Input Voltage Range (Auto Sensing)	Input Freq Range	Input Current Range	BTUs/hr
9002	Single Wired, 250W	100-240VAC	50-60HZ	4.0-2.0A	1039
9004	Single Wired, 250W	100-240VAC	50-60HZ	4.0-2.0A	1039
9006	Single Wired, 250W	100-240VAC	50-60HZ	4.0-2.0A	1039
9008	Single Wired, 250W	100-240VAC	50-60HZ	4.0-2.0A	1039
9010	Single Wired, 250W	100-240VAC	50-60HZ	4.0-2.0A	1039
9012	Single Wired, 250W	100-240VAC	50-60HZ	4.0-2.0A	1039
9016S	Single Hot Plug (1+0), 550W	100-240VAC	50-60HZ	7.4-3.7A	2107
9020S	Single Hot Plug (1+0), 550W	100-240VAC	50-60HZ	7.4-3.7A	2107
9024S	Single Hot Plug (1+0), 550W	100-240VAC	50-60HZ	7.4-3.7A	2107
9032S	Dual Hot Plug (1+1), 750W	100-240VAC	50-60HZ	10.0-5.0	2891
9040S	Dual Hot Plug (1+1), 750W	100-240VAC	50-60HZ	10.0-5.0	2891
9060S	Dual Hot Plug (1+1), 750W	100-240VAC	50-60HZ	10.0-5.0	2891
9080S	Dual Hot Plug (1+1), 750W	100-240VAC	50-60HZ	10.0-5.0	2891

Appliance Model	Power Supply	Input Voltage Range (Auto Sensing)	Input Freq Range	Input Current Range	BTUs/hr
9100S	Dual Hot Plug (1+1), 750W	100-240VAC	50-60HZ	10.0-5.0	2891
9120S	Dual Hot Plug (1+1), 750W	100-240VAC	50-60HZ	10.0-5.0	2891
Archive Solution					
Recovery-Archive	350W	100-240VAC	50-60HZ	4.2-1.8A	1435

Cooling and Environmental Conditions

Unitrends appliances have been designed to operate within the environmental conditions listed below. Conditions that exceed recommended temperatures may result in severe damage caused by heat buildup. Proper air circulation will help prevent hot spots and ensure optimal performance. Unitrends recommends the use of a temperature alarm system for appliances that operate in an unattended environment.

Note: Installing the appliance in direct sunlight may cause it to overheat.

The Unitrends environmental specifications for rack-mounted appliances include:

Chassis Specs for Rack-mounted Models	Description
Non-operating environment	• -40° C to 65° C (-40° F to 149° F) • 5% to 95% Relative Humidity with 33° C (91° F) Maximum Dew Point
Operating environment	• 10° C to 35° C (50° F to 95° F) • 10% to 80% Relative Humidity with 29° C (84.2° F) Maximum Dew Point
Cooling clearance	12" clearance recommended for ventilation

Configuration Requirements

- **IT Personnel Considerations:** An administrator with network and client system access is expected to be available to assist with the implementation. This person will be responsible for installing and configuring agent software and will help with the planning and implementation of the overall Unitrends data protection solution. Additionally,

someone responsible for administering and managing the appliances should be available during the installation process.

- **Network Considerations:** Ethernet network configurations must be capable of supporting the added demands of a Unitrends appliance. Ethernet switch ports must be available prior to installation.
- **On-premise to Off-premise Connections:** If hot backup copy will be implemented, adequate bandwidth for transferring data between the on-premise system and the off-premise system is critical. Generally, a T1 line can transfer between 400MB to 500MB of data per hour without secure shell compression. OpenVPN is recommended for connection between the two systems. Additionally, firewall access (if applicable) must be granted in order to allow the two appliances to communicate on designated ports.

Configuring the System

Configure the system as described in the *Quick Start Guide for Recovery Series Appliances*, available at https://www.unitrends.com/docs/user-guides/quick-start-guide.