Site Preparation Guide for Recovery Series Appliances

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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:

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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 36.4" deep. Rack-mounted chassis are 1-unit (1U) or 2-unit (2U) in height, and come with universal 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 page.

Model	Chassis Type	Chassis Number	Standard Rail Set	Min to Max Depth of Rail Set Extension
Recovery-8002	1U*	Supermicro SC512L-200B	N/A	N/A
Recovery-8004	1U*	Supermicro SC512L-200B	N/A	N/A
Recovery-8006	1U*	Supermicro SC512L-200B	N/A	N/A
Recovery-8008	1U*	Supermicro SC512L-200B	N/A	N/A
Recovery-8010	1U*	Supermicro SC512L-200B	N/A	N/A
Recovery-8012	1U*	Supermicro SC512L-200B	N/A	N/A
Recovery-8016S	1U**	Supermicro SC813MFTQC-350CB	Supermicro MCP-290-00102-0N	25.6" to 33.05"
Recovery-8020S	1U**	Supermicro SC813MFTQC-350CB	Supermicro MCP-290-00102-0N	25.6" to 33.05"
Recovery-8024S	2U	Supermicro SC826BE1C-R920LPB	Supermicro MCP-290-00053-0N	26.5" to 36.4"
Recovery-8032S	2U	Supermicro SC826BE1C-R920LPB	Supermicro MCP-290-00053-0N	26.5" to 36.4"
Recovery-8040S	2U	Supermicro SC826BE1C-R920LPB	Supermicro MCP-290-00053-0N	26.5" to 36.4"
Recovery-8060S	2U	Supermicro SC826BE1C-R920LPB	Supermicro MCP-290-00053-0N	26.5" to 36.4"
Recovery-8080S	2U	Supermicro SC826BE1C-R920LPB	Supermicro MCP-290-00053-0N	26.5" to 36.4"
Recovery-8100S	2U	Supermicro SC826BE1C-R920LPB	Supermicro MCP-290-00053-0N	26.5" to 36.4"
Recovery-8120S	2U	Supermicro SC826BE1C-R920LPB	Supermicro MCP-290-00053-0N	26.5" to 36.4"
Archive Solution				
Recovery-Archive	1U**	Supermicro SC813MTQ-350CB	Supermicro MCP-290-00056-0N	19.0" Min / 26.4" Max
	*Short rack **Full rack			

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.

Model	Format	Weight	Shipping Weight
Recovery-8002	14" x 16.8" x 1.7"	16lbs	20lbs
Recovery-8004	14" x 16.8" x 1.7"	16lbs	20lbs
Recovery-8006	14" x 16.8" x 1.7"	16lbs	20lbs
Recovery-8008	14" x 16.8" x 1.7"	16lbs	20lbs
Recovery-8010	14" x 16.8" x 1.7"	16lbs	20lbs
Recovery-8012	14" x 16.8" x 1.7"	16lbs	20lbs
Recovery-8016S	19.85" x 17.2" x 1.7"	27lbs	35lbs
Recovery-8020S	19.85" x 17.2" x 1.7"	27lbs	35lbs
Recovery-8024S	25.5" x 17.2" x 3.5"	57lbs	76lbs
Recovery-8032S	25.5" x 17.2" x 3.5"	56lbs	75lbs
Recovery-8040S	25.5" x 17.2" x 3.5"	56lbs	75lbs
Recovery-8060S	25.5" x 17.2" x 3.5"	57lbs	76lbs
Recovery-8080S	25.5" x 17.2" x 3.5"	58lbs	77lbs
Recovery-8100S	25.5" x 17.2" x 3.5"	56lbs	75lbs
Recovery-8120S	25.5" x 17.2" x 3.5"	57lbs	76lbs
Archive Solution			
Recovery-Archive	19.8"D x 17.2"W x 1.7"T	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:

Model	Power Supply	Input Voltage Range	Input Freq Range	Input Current Range	Max Wattage	BTUs/hr
Recovery-8002	200W	100 - 240VAC	50-60HZ	3-1.5A	244W	833
Recovery-8004	200W	100 - 240VAC	50-60HZ	3-1.5A	244W	833
Recovery-8006	200W	100 - 240VAC	50-60HZ	3-1.5A	244W	833
Recovery-8008	200W	100 - 240VAC	50-60HZ	3-1.5A	244W	833
Recovery-8010	200W	100 - 240VAC	50-60HZ	3-1.5A	244W	833
Recovery-8012	200W	100 - 240VAC	50-60HZ	3-1.5A	244W	833
Recovery-8016S	350W	100 - 240VAC	50-60HZ	5-2.5A	438W	1495
Recovery-8020S	350W	100 - 240VAC	50-60HZ	5-2.5A	438W	1495
Recovery-8024S	Redundant 920W	100 - 240VAC	50-60HZ	11-4.4A	979W	3340
Recovery-8032S	Redundant 920W	100 - 240VAC	50-60HZ	11-4.4A	979W	3340
Recovery-8040S	Redundant 920W	100 - 240VAC	50-60HZ	11-4.4A	979W	3340
Recovery-8060S	Redundant 920W	100 - 240VAC	50-60HZ	11-4.4A	979W	3340
Recovery-8080S	Redundant 920W	100 - 240VAC	50-60HZ	11-4.4A	979W	3340
Recovery-8100S	Redundant 920W	100 - 240VAC	50-60HZ	11-4.4A	979W	3340
Recovery-8120S	Redundant 920W	100 - 240VAC	50-60HZ	11-4.4A	979W	3340
Archive Solution						
Recovery-Archive	350W	100 - 240VAC	50-60HZ	4.2-1.8A	420 Watts	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 60° C (-40° F to 140° F) • 5% to 95% non-condensing humidity • Maximum humidity gradient 10% per hour
Operating environment	• 5° C to 35° C (41° F to 95° F) • 8% to 90% non-condensing humidity • Maximum humidity gradient 10% per hour
Cooling clearance*	12" clearance recommended for ventilation
Storage altitude	-16m to 10,600m (-50 ft to 35,000 ft)
Operating altitude	-16m to 3,048m (-50 ft to 10,000 ft)

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.