

Site Preparation Guide for  
Recovery Series Appliances

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# 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:

- ["Space and Clearance Requirements"](#)
- ["Load Bearing \(Weight\) Requirements" on page 5](#)
- ["Power Requirements" on page 6](#)
- ["Cooling and Environmental Conditions" on page 7](#)
- ["Configuration Requirements" on page 8](#)

## 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), 2-unit (2U), 3-unit (3U), or 4-unit (4U) 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 here:

Model	Chassis Type	Chassis Number	Standard Rail Set	Min to Max Depth of Rail Set Extension
<b>Appliances</b>				
Recovery-602	1U*	Supermicro 512L-200B	N/A	N/A
Recovery-604	1U*	Supermicro 512L-200B	N/A	N/A
Recovery-606	1U*	Supermicro 512L-200B	N/A	N/A
Recovery-608	1U*	Supermicro 512L-200B	N/A	N/A
Recovery-814S	1U**	Supermicro 815TQC-R504WB	Supermicro MCP-290-00054-0N	25.6" Min / 33.0" Max

Model	Chassis Type	Chassis Number	Standard Rail Set	Min to Max Depth of Rail Set Extension
Recovery-818S	1U**	Supermicro 815TQC-R504WB	Supermicro MCP-290-00054-0N	25.6" Min / 33.0" Max
Recovery-824S	2U	Supermicro 826BE1C-R920LPB	Supermicro MCP-290-00053-0N	26.5" Min / 36.4" Max
Recovery-926S	2U	Supermicro 826BE1C-R920LPB	Supermicro MCP-290-00053-0N	26.5" Min / 36.4" Max
Recovery-928S	2U	Supermicro 826BE16- R920LPB	Supermicro MCP-290-00053-0N	26.5" Min / 36.4" Max
Recovery-938S	3U	Supermicro 836BE1C-R920B	Supermicro MCP-290-00053-0N	26.5" Min / 36.4" Max
Recovery-944S	4U	Supermicro 847BE2C-R1K28LPB	Supermicro MCP-290-00057-0N	26.5" Min / 36.4" Max
Recovery-946S	4U	Supermicro 847BE2C-R1K28LPB	Supermicro MCP-290-00057-0N	26.5" Min / 36.4" Max
<b>Archive Solution</b>				
Recovery-Archive	1U**	Supermicro 813MTQ-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
<b>Appliances</b>			
Recovery-602	Rackmount: 14"D x 17.2"W x 1.7"T	14 lbs	18 lbs
Recovery-604	Rackmount: 14"D x 17.2"W x 1.7"T	14 lbs	18 lbs
Recovery-606	Rackmount: 14"D x 17.2"W x 1.7"T	14 lbs	18 lbs
Recovery-608	Rackmount: 14"D x 17.2"W x 1.7"T	14 lbs	18 lbs
Recovery-814S	Rackmount: 25.6"D x 17.2"W x 1.7"T	32 lbs	45 lbs



Model	Format	Weight	Shipping Weight
Recovery-818S	Rackmount: 25.6"D x 17.2"W x 1.7"T	32 lbs	45 lbs
Recovery-824S	Rackmount: 25.5"D x 17.2"W x 3.5"T	69 lbs	76 lbs
Recovery-926S	Rackmount: 25.5"D x 17.2"W x 3.5"T	69 lbs	76 lbs
Recovery-928S	Rackmount: 25.5"D x 17.2"W x 3.5"T	69 lbs	76 lbs
Recovery-938S	Rackmount: 25.5"D x 17.2"W x 7.0"T	93 lbs	100 lbs
Recovery-944S	Rackmount: 27.5"D x 17.2"W x 5.2"T	122 lbs	154 lbs
Recovery-946S	Rackmount: 27.5"D x 17.2"W x 5.2"T	122 lbs	154 lbs
<b>Archive Solution</b>			
Recovery-Archive	Rackmount: 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	Amperage Input Range	Max Wattage*	BTUs **
<b>Appliances</b>						
Recovery-602	200W	100 - 240VAC	50-60HZ	3A-1.5A	300 Watts	1023
Recovery-604	200W	100 - 240VAC	50-60HZ	3A-1.5A	300 Watts	1023
Recovery-606	200W	100 - 240VAC	50-60HZ	3A-1.5A	300 Watts	1023
Recovery-608	200W	100 - 240VAC	50-60HZ	3A-1.5A	300 Watts	1023
Recovery-814S	500W	100 - 240VAC	50-60HZ	6.1A-2.6A	610 Watts	2081
Recovery-818S	500W	100 - 240VAC	50-60HZ	6.1A-2.6A	610 Watts	2081
Recovery-824S	920W	100 - 240VAC	50-60HZ	11A-4.2A	1100 Watts	3750
Recovery-926S	920W	100 - 240VAC	50-60HZ	11A-4.2A	1100 Watts	3750
Recovery-928S	920W	100 - 240VAC	50-60HZ	11A-4.2A	1100 Watts	3750
Recovery-938S	920W	100 - 240VAC	50-60HZ	11A-4.5A	1100 Watts	3750
Recovery-944S	1280W	180 - 240VAC	50-60HZ	8-6A	1440 Watts	4913

Model	Power Supply	Input Voltage Range	Input Freq Range	Amperage Input Range	Max Wattage*	BTUs **
Recovery-946S	1280W	180 - 240VAC	50-60HZ	8-6A	1440 Watts	4913
<b>Archive Solution</b>						
Recovery-Archive	350W	100 - 240VAC	50-60HZ	4.2A-1.8A	420 Watts	1435
*Maximum wattage consumed while under load **Amount of heat, in BTUs, that the system generates while operating						

## 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 equipment in direct sunlight may cause the appliance to overheat.

The Unitrends environmental specifications for rack-mounted appliances include:

Chassis Specs for Rack-mounted Models	Description
Non-operating environment	<ul style="list-style-type: none"> <li>-40° C to 60° C (-40° F to 140° F)</li> <li>5% to 90% non-condensing humidity</li> <li>Maximum humidity gradient 10% per hour</li> </ul>
Operating environment	<ul style="list-style-type: none"> <li>5° C to 35° C (41° F to 95° F)</li> <li>8% to 90% non-condensing humidity</li> <li>Maximum humidity gradient 10% per hour</li> </ul>
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)
*To estimate the amount of heat a cooling system must dissipate, first calculate the heat generated by the appliance by converting the appliance's power requirement from Watts to BTU/hour (power requirement in Watts multiplied by 3.412)	

# 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>.