

Micro Data Center

User Manual

Models 714464, 714471, 714488, 714495, 714501, 714518, 714525, 714532, 714549, 714556, 714563, 714570, 714587, 714594, 714600, 714617



Model shown: 714464





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Before You Begin

Intended Readers

This technical manual is designed for technicians and network professionals who are familiar with in-depth concepts of networking management and terminologies related to IT services. The information herein deals with all aspects of installation, set-up, use, maintenance and troubleshooting of the Micro Data Center.

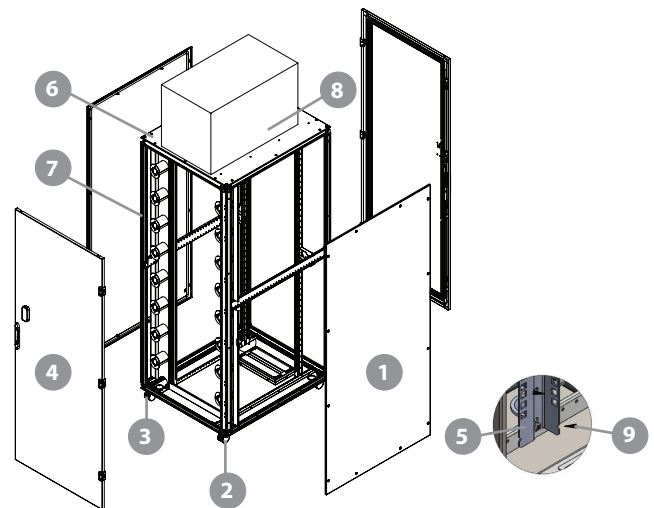
Important Safety Instructions

Follow all instructions for installing and maintaining the Micro Data Center, and read all safety and operating instructions before attempting to use this product. Adhere to all warnings on the unit and in this manual.

- **This product is designed for commercial or industrial use only.** It is not intended for use with life support or medical equipment.
- **Situate the Micro Data Center indoors,** and ensure the installation area is clean and free of dust, moisture, flammable liquids, gases, and corrosive substances.
- **The cabinet functions in temperatures that range from 0 – 55°C (32 – 130°F) with a relative humidity of 20% to 85% (non-condensing).**
- **This product must be permanently connected to and powered from a suitable, single-phase AC supply** rated in accordance with the equipment data plate when in use. **It must be grounded and protected by a circuit breaker or fuse.** A residual current device (commonly known as differential relay) must be present in order to protect anyone who installs, maintains or operates the Micro Data Center.
- **Proper ventilation is essential for the Micro Data Center.** Never block or insert objects into the ventilation holes or other openings. **Maintain a minimum clearance of 500 mm (19.7 in.) on all sides** of the Micro Data Center for proper airflow and cooling.

Product Package Contents

Number	Description	Quantity
1	Side Panels	2
2	Caster Set with Breaks	2
3	Caster Set without Breaks	2
4	Solid Doors with Gasket	2
5	Mounting Rails	4
6	Top/Bottom Covers	1
7	Aluminum Case	1
8	Air Conditioner	1
9	M5 x 12 Screws	14



Model shown: 42U



1 Product Overview

The Intellinet Micro Data Center (MDC) is a modular network and server cabinet that provides rapid, cost-effective and energy-efficient service for all your Information Technology needs. Its durable design meets the power, cooling and security requirements of your network equipment.

The Micro Data Center combines rack-mount construction and a cooling system into a single, cohesive platform, dramatically reducing the set-up and operating costs that accompany traditional data centers.

This product has an IP rating of 54 , which means it resists very small solids like dust and is protected against accidental sprays of water. It is very important that the cabinet's environment is stable, clean, and dry to ensure continuous peak performance.

2 Pre-installation Precautions

2.1 Cabinet and Casters

The Micro Data Center cabinet is available with casters to assist in transportation. If remaining stationary, place the cabinet in a safe, dry, clean, and permanent location, as moving it after setup is difficult and potentially dangerous.

2.2 Cooling Unit

An already-cabled and top-mounted air condition unit is attached to the Micro Data Center. Connect power to the cooling unit in one of two ways: 1) through any CSA-approved PDU or IP-PDU inside the cabinet; 2) with a dedicated power line to any available electrical distribution panel. Intellinet strongly recommends using a separate power line.

The temperature and humidity of the environment will affect how much condensation the cooling unit produces. A metal tube on the side of the unit diverts condensation from the Micro Data Center. Use the included PVC hose to direct the liquid to a drain (more information on this is found in section 3.3).

Important Considerations:

- Place the MDC in a well-ventilated area.
- If the Micro Data Center is situated near a window that can be opened, ensure that the unit is not regularly exposed to sources of water and moisture.
- The cooling unit may generate a significant amount of noise. For a quieter working environment, place the Micro Data Center in a separate area, away from workers.
- After the product has been installed, the user should continue to monitor and ensure that its environmental conditions do not exceed operating limits.

2.3 Mains Power Supply Line

A clean, unloaded and direct, single phase power supply line is required to supply all the power needed for any equipment connected to the Micro Data Center. This power supply must be protected from spikes and surges.



3 Installation

Only professional or technical staff should complete the installation of the Micro Data Center.

3.1 Required Setup Equipment

The following tools are required to set up the Micro Data Center:

- Pallet jack (recommended)
- Utility knife
- Number-4 Allen key ratchet or wrench (to adjust M6x12 screws holding cabinet rails)
- T25 Torx screwdriver ratchet or wrench (to adjust M5x25 screws holding side support rails of 42U edition)
- Measuring tape and marker to write on metal surfaces (recommended)
- Spirit level (recommended)
- Flathead and Phillips screwdrivers

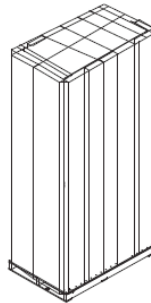
3.2 Cabinet Installation

Caution: Read and abide by the related safety information for all equipment.

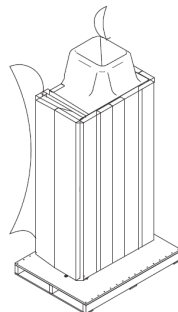
3.2.1 Unpacking the Micro Data Center

Upon receiving the Micro Data Center, examine the packaging for any signs of mishandling or damage. If damage is found, take pictures or a video of the evidence and notify your product dealer and shipping carrier. Do not continue to unpack the product unless otherwise directed. Note that the Limited Warranty is invalid when damage occurs during transportation—the carrier is responsible for resolving repair and replacement costs.

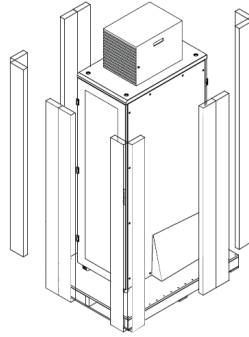
The Micro Data Center stands on a wooden pallet with thick cartons on the top and sides to protect the cabinet against damage. Nylon or bubble pack lies underneath the cartons and covers the data center itself to protect against dust, insects, and other small potential intrusions.



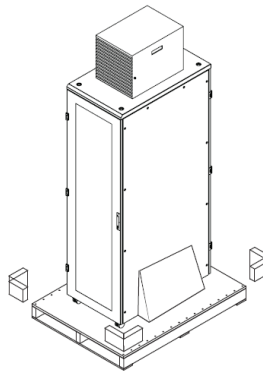
Step 1: Using a Phillips screwdriver and a hammer where appropriate, remove all wooden pieces.



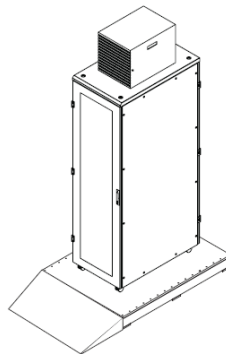
Step 2: Using a utility knife or cutting tool, remove the nylon slowly, taking care not scratch the cabinet.



Step 3: Remove all carton pieces surrounding the Micro Data Center; no tool is necessary.



Step 4: Remove the corner blocks with a Phillips screwdriver.



Step 5: Locate the wooden ramp and put it in front of the pallet. Release the brakes on the casters (if available) and guide the cabinet carefully down the ramp to the floor. Place it at its destination. NOTE: The Micro Data Center cabinet must be removed from the shipping crate using a minimum of two people. To prevent toppling, do not tip the cabinet more than 10 degrees, either from a level surface or when rolling it down the ramp.



≥ 18 kg (40 lbs.)
< 32 kg (71 lbs.)



≥ 32 kg (71 lbs.)
< 55 kg (121 lbs.)



≥ 55 kg (121 lbs.)
< 100 kg (221 lbs.)

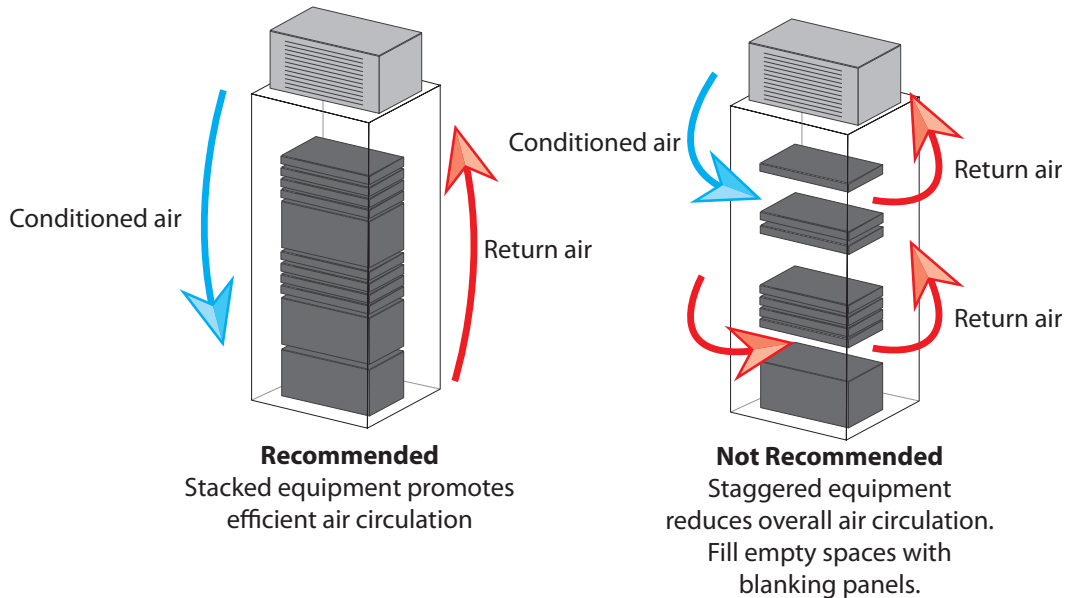
CAUTION: Use safe practices when lifting.



3.2.2 General Information about First Cabinet Installation or Relocation

Always observe the following precautions upon initial installation or when relocating the cabinet:

- **Before adding and removing equipment, make sure the cabinet is stationary and the casters (if present) are locked.**
- **To add: start with the heaviest equipment at the bottom** of the cabinet, and move up to the **lightest at the top.**
- **To Remove: start with the lightest equipment from the top** of the cabinet, **then** move down to the **heaviest equipment at the bottom.**
- **For proper airflow:** See the graphic below for proper equipment stacking. Stack the equipment in your cabinet accordingly.

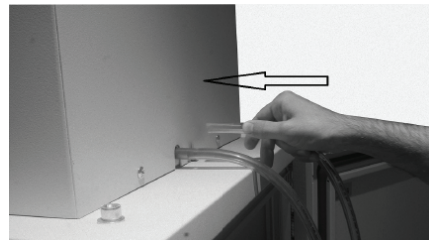


3.3 Proper Connections for the Cooling Unit

For both 2 kW and 4 kW models, use only a Type-B circuit breaker that is rated with a short-circuit capacity greater than or equal to 4.5 kA. For the 2 kW edition, use a 10- to 16-amp fuse. For the 4 kW edition, use a 20- to 25-amp fuse.

The cooling unit is ready and operational once it's connected to the power source. Since there is no embedded on/off switch, the cooling unit starts immediately. The factory temperature setting is usually set at 35°C (95°F). NOTE: Refer to the cooling unit's user manual for the detailed information on how to operate and adjust the default settings.

The cooling unit comes with a 2.5 m (99 in.) special PVC hose (12 mm [0.5 in.] inner and 17 mm [0.66 in.] outer dimensions).



Connect the hose to the drain nipple, and feed the other end of the hose directly to an available drain, gutter, or spout. If the drain is located more than 2 m / 80 in. away from the cabinet, the installer should extend the PVC hose.



4 Maintenance

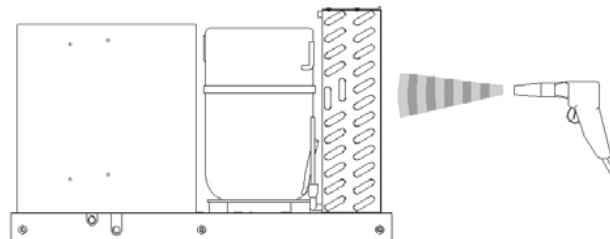
With regular but minimal care and maintenance, the Micro Data Center operates and functions like new.

A/C Unit

Caution! Before beginning any maintenance work, disconnect the cooling unit from power.

The amount of work required to maintain the cooling unit is low. No filter change is required. Aside from the tasks in the table listed below, regularly use a compressed air can at a maximum pressure of four bars to remove dust and debris from the internal components of the a/c unit.

Task	Frequency
Check the external air-to-heat exchanger and clean if necessary	Every three months
Check the PVC drain hose for buildup and clean if necessary	Every three months
Check the fans for signs of overheating and abnormal vibration	Every six months



An authorized specialist using only original machine parts must complete all repairs.

5 Troubleshooting the Cooling Unit

Malfunction	Conditions	Causes	Solution
The unit fails to cool the cabinet.	No component works.	The unit is not receiving power.	Ensure the power cable is connected to the plug and that the cubicle doors are closed.
	The internal fan works; the external fan and compressor do not work.	The temperature inside the cabinet is lower than what thermostat is adjusted to.	Verify functionality when testing: lower the thermostat setting until the compressor and external fan start working, and then reset the thermostat.
	The compressor, external, and internal fans all work.	The adjustment thermostat has failed.	Call a/c company to change the thermostat.
		The cooling unit has no refrigerant.	Call an a/c or refrigeration company to have the cooling unit recharged.
		The compressor mechanically fails.	Call an a/c company or refrigeration company to fix the failure.
	The compressor and external fan work, but the internal fan does not work.	The internal fan capacitor has failed.	Call an a/c company or electronics expert to change the capacitor for the internal fan.



Malfunction	Conditions	Causes	Solution
		The internal fan fails.	Call an a/c company or electronics expert to change the internal fan.
	The external and internal fans work, but the compressor does not work.	The compressor's amperometric protector has failed (external to the compressor, where present).	Call an expert to change the amperometric protector.
		The relay for the compressor to start has failed.	Call an expert to change the relay to start the compressor.
		The capacitor for the compressor to start has failed.	Call an expert to change the capacitor to start the compressor.
		The compressor has a motor electrical failure.	Call an a/c or refrigerant company to fix the compressor.
		The high-pressure safety switch has failed.	Call an a/c or refrigerant company to fix the high-pressure safety switch.
		The compressor contactor has failed (where present).	Call an expert to change the contactor.
The cabinet does not get cool enough.	The external/internal fans and the compressor are working.	The cooling unit is insufficiently sized to remove the heat inside the cabinet.	Exchange the cooling unit with another of greater capacity.
	The internal fan works, but the external fan and compressor work irregularly.	The antifreeze thermostat has been triggered (where present).	Clean the evaporator coil. Check and clear any obstacles that hinder airflow inside the enclosure to the cooling unit.
		There is insufficient refrigerant in the cooling unit.	Call an a/c or refrigerant company to recharge the cooling unit.
		The thermostat is set incorrectly.	Ensure the thermostat is set to the correct temperature.
	The external and internal fans work, but the compressor works irregularly.	The high-pressure safety switch or thermal protector inside the compressor is triggered because: - the ambient temperature exceeds the maximum working limit. - the condenser is either dirty or clogged.	- Ventilate the area where the Micro Data Center is installed to lower the ambient temperature. - Clean the condenser with compressed air and call an a/c or refrigerant company.
Too much condensation is forming.	The cabinet door is closed.	The connecting seal between the cabinet and the cooling unit has deteriorated.	Check the seals and fix if necessary.



Additional Information

WASTE ELECTRICAL & ELECTRONIC EQUIPMENT

DISPOSAL OF ELECTRIC AND ELECTRONIC EQUIPMENT

(APPLICABLE IN THE EUROPEAN UNION AND OTHER EUROPEAN COUNTRIES WITH SEPARATE COLLECTION SYSTEMS)

ENGLISH



This symbol on the product or its packaging means that this product must not be treated as unsorted household waste. In accordance with EU Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE), this electrical product must be disposed of in accordance with the user's local regulations for electrical or electronic waste. Please dispose of this product by returning it to your local point of sale or recycling pickup point in your municipality.

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WARRANTY INFORMATION

ENGLISH: For warranty information, go to intellinet-network.com/warranty.

DEUTSCH: Garantieinformationen finden Sie hier unter intellinet-network.com/warranty.

ESPAÑOL: Si desea obtener información sobre la garantía, visite intellinet-network.com/warranty.

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