

Rinnai Infinity 14E (REU-VRM1420WD-NG)

Rinnai Infinity 14E Gas Water Heater Instruction Manual

Model: Infinity 14E (REU-VRM1420WD-NG)

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1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your Rinnai Infinity 14E (REU-VRM1420WD-NG) gas water heater. This is an outdoor-installed, continuous flow water heater designed to provide hot water on demand. Please read these instructions carefully before installation and operation, and keep them for future reference.

2. SAFETY INFORMATION

Important: Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

- Always ensure the unit is installed by a qualified and licensed professional in accordance with local codes and regulations.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Ensure adequate ventilation as specified in the installation instructions.
- This appliance uses natural gas (methane). Verify that the gas supply matches the appliance

requirements.

- The unit is equipped with an ionization sensor for electronic ignition.
- The casing is designed to offer complete protection against wind (up to 90 km/h), water from all directions (IPX5D protection factor), corrosion, and rust.

3. PRODUCT OVERVIEW

The Rinnai Infinity 14E is a high-efficiency, outdoor-mounted gas water heater designed for domestic hot water production. It features electronic ignition and a flow-through heating system, providing hot water only when needed, which contributes to energy savings.

Key Features:

- **Capacity:** 14 liters per minute.
- **Fuel Type:** Natural Gas (Methane).
- **Energy Class:** A for domestic hot water production.
- **Frost Protection:** Integrated frost protection down to -20°C.
- **Remote Control:** Includes a serial remote control for precise temperature adjustment.
- **Outdoor Installation:** Specifically designed for external mounting with robust weather protection.
- **Heating Power:** Minimum 2.75 kW, Maximum 28 kW.

4. TECHNICAL SPECIFICATIONS

Below are the detailed technical specifications for the Rinnai Infinity 14E (REU-VRM1420WD-NG) model.

Specification	Value
Brand	Rinnai
Model	Infinity 14E (REU-VRM1420WD-NG)
Capacity	14 Liters/minute
Power Source	Natural Gas (Methane)
Material	Alloy Steel
Item Weight	15 Kilograms
Heating Power	Min. 2.75 kW, Max. 28 kW
Style	Outdoor Installation
Energy Class (ACS)	A
Dimensions (H x W x D)	503 x 356 x 181 mm
Minimum Activation Pressure	0.1 bar
Nominal Operating Pressure	1.2 - 10 bar
Max Operating Temperature	75 °C

Dimensional Diagram and Connections:

Refer to the diagram below for detailed dimensions and connection points for water and gas lines.

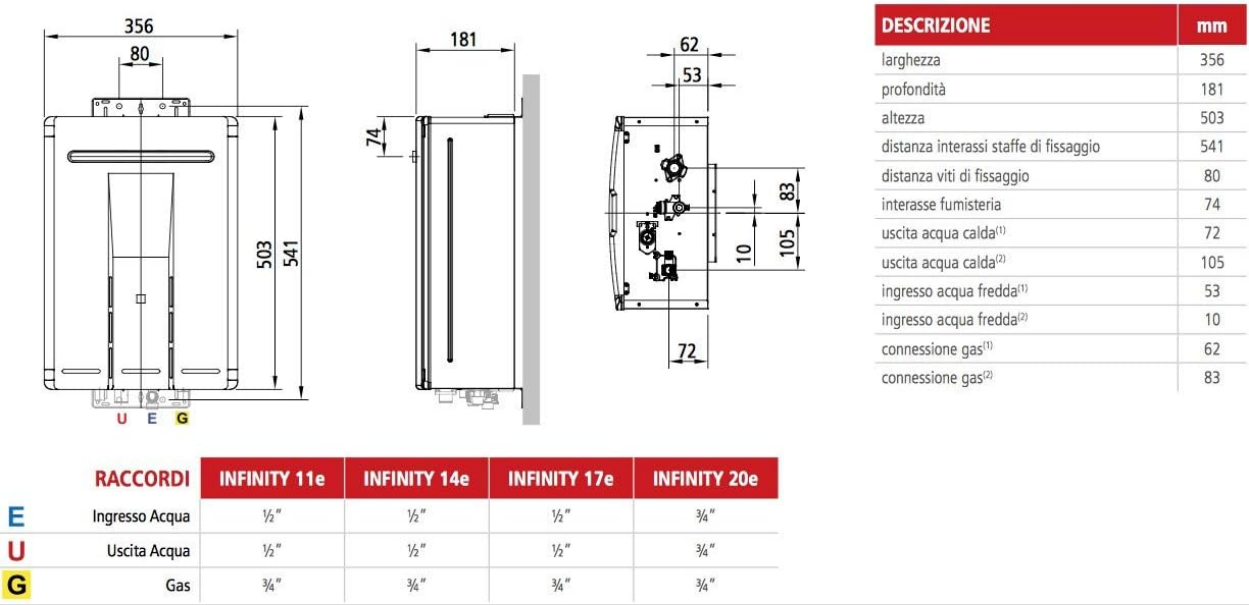


Figure 1: Dimensional diagram showing the height, width, depth, and connection points for the Rinnai Infinity 14E. Key connections include cold water inlet (Ingresso Acqua Fredda), hot water outlet (Uscita Acqua Calda), and gas inlet (Gas).

Energy and Performance Data:

The following table provides an overview of the energy class and performance characteristics for the Infinity 14E model.

DOMESTICO		INFINITY 11e		INFINITY 14e		INFINITY 17e		INFINITY 20e	
		Esterno flusso forzato							
		REU-VRM1120WD-NG (gas metano o aria propano)		REU-VRM1420WD-NG (gas metano o aria propano)		REU-VRM1720WD-NG (gas metano o aria propano)		REU-VRM2024WD-NG (gas metano o aria propano)	
CODICE		REU-VRM1120WD-LPG (gpl o propano)		REU-VRM1420WD-LPG (gpl o propano)		REU-VRM1720WD-LPG (gpl o propano)		REU-VRM2024WD-LPG (gpl o propano)	
Profilo / Classe energetica		M 		XL 		XL 		XL 	
Consumo annuo di energia elettrica (kWh/annum) e combustibile (GJ/annum)		6	6	9	18	10	19	10	18
Installazione		Esterna - Appartamento							
Tipologia apparecchio		Flusso forzato - Tipo A ₃							
Dimensioni (mm) - Peso (Kg)		503x356x181 - 15						503x356x181 - 16	
Portata termica metano Min/Max (kW)		2,75/22		2,75/28		2,75/33		3,46/39	
Portata d'acqua Δt 25°C min - Max (l/min)		2,4/11 (20l/min con ΔT = 14°C)		2,4/14 (20 l/min con ΔT = 18°C)		2,4/17 (20 l/min con ΔT = 20°C)		2,4/20 (24 l/min con ΔT = 20°C)	
Temperatura Max di funzionamento (°C)		75							
Pressione Min di attivazione (bar)		0,1							
Pressione nominale di funzionamento min - Max (bar)		1,2 - 10							
Consumo elettrico normale /stand-by / antigelo (W)		29 / 2 / 74		35 / 2 / 74		44 / 2 / 74		48 / 2 / 74	

Figure 2: Table detailing energy class (XL A), annual energy consumption, and water flow rates at different temperature rises for the Rinnai Infinity 14E and other models.

Product Data Sheet:

A detailed product data sheet with further technical information is provided below.

SCHEDA PRODOTTO			
			Unità
Nome fornitore	Rinnai Italia srl	Rinnai Italia srl	
Modello prodotto	REU-VRM1120WD-E	REU-VRM1420WD-E	
Profilo di carico	M	XL	
Classe efficienza energetica - riscaldamento dell'acqua	A	A	
Efficienza energetica - riscaldamento dell'acqua ($\eta_{s,w}$)	79,4	82,3	%
Consumo annuo di energia (AEC)	6	9	kWh/annum
Consumo annuo di carburante (AFC) - (Hs)	6	18	GJ/annum
Impostazione di temperatura del termostato di fabbrica *	55	55	°C
Livello di potenza sonora all'interno (L_{wA})	-	-	dB
Valori ottenuti con apparecchio impostato a 60°C - gas G20-20mbar - potere calorifico superiore (Hs) - secondo Reg. UE 812/2013. * 40°C con comando remoto collegato.			
			Unità
Nome fornitore	Rinnai Italia srl	Rinnai Italia srl	
Modello prodotto	REU-VRM1720WD-E	REU-VRM2024WD-E	
Profilo di carico	XL	XL	
Classe efficienza energetica - riscaldamento dell'acqua	A	A	
Efficienza energetica - riscaldamento dell'acqua ($\eta_{s,w}$)	80,2	81,4	%
Consumo annuo di energia (AEC)	10	10	kWh/annum
Consumo annuo di carburante (AFC) - (Hs)	19	18	GJ/annum
Impostazione di temperatura del termostato di fabbrica *	55	55	°C
Livello di potenza sonora all'interno (L_{wA})	-	-	dB
Valori ottenuti con apparecchio impostato a 60°C - gas G20-20mbar - potere calorifico superiore (Hs) - secondo Reg. UE 812/2013. * 40°C con comando remoto collegato.			

Figure 3: Product data sheet for Rinnai water heaters, including the Infinity 14E (REU-VRM1420WD-E), showing supplier name, product model, load profile, energy efficiency class, annual energy consumption, and factory thermostat setting.

5. SETUP & INSTALLATION

The Rinnai Infinity 14E is designed for outdoor installation. Proper installation is critical for safety and optimal performance. Always engage a qualified and licensed technician for installation.

Installation Requirements:

- **Location:** Must be installed outdoors, protected from direct impact but designed to withstand various weather conditions (wind up to 90 km/h, IPX5D water protection).
- **Mounting:** Securely mount the unit to a stable wall or structure using appropriate fasteners. Refer to Figure 1 for mounting bracket distances and overall dimensions.
- **Gas Connection:** Connect to a natural gas (methane) supply. Ensure all gas connections are leak-free and comply with local gas regulations. The gas inlet connection is 3/4 inch.
- **Water Connections:** Connect the cold water inlet (1/2 inch) and hot water outlet (1/2 inch) lines. Ensure proper isolation valves are installed for maintenance.
- **Electrical Connection:** The unit requires an electrical connection for electronic ignition and control. Ensure the power supply meets the appliance's requirements.
- **Clearances:** Maintain adequate clearances around the unit for ventilation and servicing as specified in the full installation manual.
- **Frost Protection:** The unit includes integrated frost protection, but in extremely cold climates, additional measures may be required.

6. OPERATION

The Rinnai Infinity 14E is designed for user-friendly operation, primarily controlled via its remote control.

Starting the Unit:

1. Ensure the gas supply valve is open.

2. Ensure the water supply valves are open.
3. Verify the unit is powered on.
4. When a hot water tap is opened, the unit will automatically detect water flow and ignite to heat the water to the set temperature.

Temperature Control:

- Use the provided serial remote control to set your desired hot water temperature.
- The unit provides precise temperature control, eliminating the need for manual mixing of hot and cold water at the tap, ensuring comfort and preventing scalding.
- The maximum operating temperature is 75°C.

Shutting Down:

- To temporarily stop hot water production, simply close all hot water taps. The unit will enter standby mode.
- For extended periods of non-use or maintenance, turn off the gas supply valve, water supply valves, and disconnect electrical power.

7. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your Rinnai Infinity 14E water heater. All maintenance should be performed by a qualified service technician.

Recommended Maintenance:

- **Annual Inspection:** Have a qualified technician inspect the unit annually. This includes checking gas and water connections for leaks, inspecting the heat exchanger, cleaning filters, and verifying proper combustion.
- **Exterior Cleaning:** Keep the exterior of the unit clean and free from obstructions. Do not use abrasive cleaners.
- **Ventilation:** Ensure that the air intake and exhaust vents are clear of debris, leaves, or other blockages.
- **Descaling:** In areas with hard water, periodic descaling of the heat exchanger may be necessary to maintain efficiency. This should only be performed by a qualified technician.

8. TROUBLESHOOTING

If you experience issues with your Rinnai Infinity 14E, consult the following basic troubleshooting guide. For complex problems, always contact a qualified service technician.

Common Issues:

- **No Hot Water:**
 - Check if the gas supply is on.
 - Ensure water supply valves are fully open.
 - Verify electrical power to the unit.
 - Check for error codes on the remote control or unit display.
- **Inconsistent Water Temperature:**

- Ensure the remote control temperature setting is correct.
- Check for adequate water flow rate; very low flow might prevent proper heating.
- Consider if descaling is needed in hard water areas.

- **Unit Not Igniting:**

- Confirm gas supply.
- Check for blockages in the air intake or exhaust.
- Listen for ignition sounds; if none, there might be an issue with the igniter or gas valve.

- **Error Codes Displayed:**

- Note down the specific error code.
- Consult the full service manual or contact Rinnai customer support with the error code for diagnosis.

If you cannot resolve the issue using these steps, contact a certified Rinnai service technician.

9. WARRANTY & SUPPORT

For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Rinnai website for your region. Warranty coverage typically includes defects in materials and workmanship for a specified period.

Customer Support:

- For technical assistance, service requests, or to locate an authorized service provider, please contact Rinnai customer support.
- Have your product model number (Infinity 14E or REU-VRM1420WD-NG) and serial number ready when contacting support.
- Contact information can typically be found on the Rinnai website or in your product documentation.