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› [MIZUDO Natural Gas Tankless Water Heater HW180A0W-NG Instruction Manual](#)

MIZUDO HW180A0W-NG

MIZUDO Natural Gas Tankless Water Heater HW180A0W-NG Instruction Manual

Model: HW180A0W-NG

1. INTRODUCTION

This manual provides essential information for the safe installation, operation, and maintenance of your MIZUDO Natural Gas Tankless Water Heater, Model HW180A0W-NG. Please read this manual thoroughly before installation and use, and retain it for future reference.

The MIZUDO HW180A0W-NG is an indoor, direct vent tankless water heater designed to provide continuous hot water for residential whole-house applications. It features a maximum flow rate of 7.9 GPM and a heat output of 180,000 BTU, along with Wi-Fi and app control capabilities.





Figure 1: MIZUDO HW180A0W-NG Natural Gas Tankless Water Heater, front view.

2. SAFETY INFORMATION

Your safety and the safety of others are paramount. This appliance must be installed and serviced by a qualified professional in accordance with all local codes and regulations. Failure to follow these instructions could result in property damage, personal injury, or death.

2.1 Important Safety Features

- **CSA Certified:** This water heater is CSA approved, ensuring compliance with North American safety standards.
- **Advanced Sealed Combustion System:** Draws combustion air from outside, maintaining indoor air quality and preventing carbon monoxide leakage.
- **Fully Enclosed Design:** Enhances safety by preventing CO leakage into the living space.
- **Freeze Prevention:** Automatic protection against freezing temperatures.

- **Dry-Fire Safeguard:** Prevents operation without water flow.
- **Auto-Relight:** Automatically attempts to reignite if the flame goes out.
- **Flue Obstruction Detection:** Shuts down the unit if a flue blockage is detected.
- **Emergency Shutoff:** Provides an immediate shutdown mechanism in case of malfunction.
- **IPX4 Waterproof:** Suitable for installation in environments where splashing water may occur, such as bathrooms.



Figure 2: CSA Certification and integrated safety protections.

3. SETUP AND INSTALLATION

Installation must be performed by a licensed professional. Ensure all local codes and regulations are met. This unit is designed for indoor installation with a direct vent system.

3.1 Site Requirements

- **Ventilation:** Requires a dual-wall direct vent pipe to supply oxygen from outdoors and exhaust combustion fumes.
- **Space:** The compact design (25" x 16.3" x 7.3") requires less space than traditional tank heaters. Ensure adequate clearance for servicing.
- **Power Supply:** Standard 120V AC, 60Hz electrical outlet.
- **Water Connections:** $\frac{3}{4}$ " NPT connections for water inlet and outlet.
- **Gas Connection:** Ensure the gas line matches or exceeds the BTU rating of the unit (180,000 BTU).

3.2 Installation Steps (Overview)

1. Mount the unit securely on a wall using the provided assembly kit.
2. Connect the water inlet and outlet lines.
3. Connect the natural gas supply line.
4. Install the direct vent system according to manufacturer instructions and local codes.
5. Plug the unit into a 120V AC power outlet.
6. Perform leak checks and initial startup procedures as detailed in the full installation guide.

Installation Instructions



Figure 3: Overview of installation connections and potential indoor locations (Ensuite, Laundry, Bathroom, Kitchen).

Figure 4: Illustration of the dual-wall direct vent pipe, showing outdoor air intake and exhaust of combustion fumes.

4. OPERATING INSTRUCTIONS

The MIZUDO tankless water heater is designed for user-friendly operation, including smart control features.

4.1 Initial Startup

After professional installation and verification of all connections, turn on the water supply, gas supply, and electrical power. The unit will perform a self-check and be ready for operation.

4.2 Temperature Control

The unit features precise temperature control to maintain a consistent hot water supply. The maximum temperature setting is 149°F. Adjust the temperature using the controls on the unit or via the smartphone app.

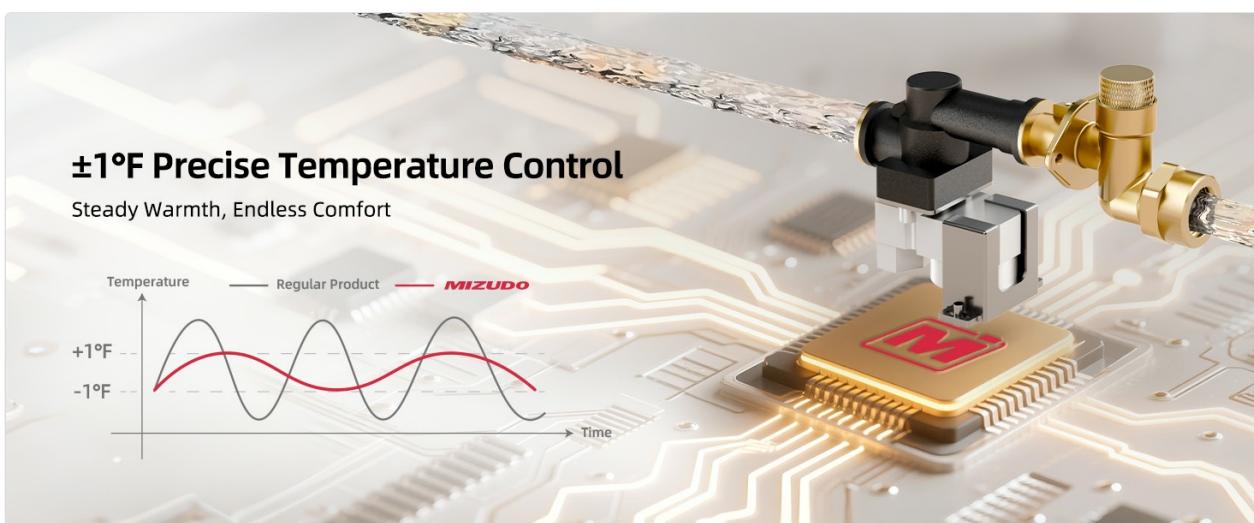


Figure 5: Temperature stability comparison, showing MIZUDO's precise ±1°F temperature control.

4.3 Wi-Fi and App Control

The MIZUDO tankless water heater can be controlled remotely via a smartphone application. This allows for:

- Switching the device on/off.
- Adjusting the water temperature.
- Setting ECO mode for energy efficiency.
- Viewing consumption reports.
- Accessing troubleshooting information.

Refer to the separate Wi-Fi setup guide for detailed instructions on connecting your device to the app.

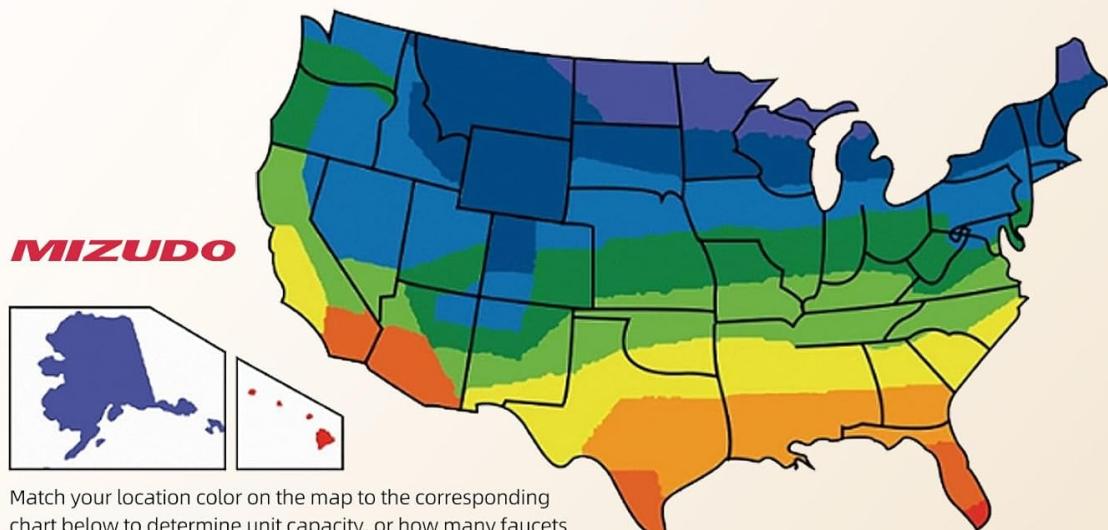


Figure 6: Remote operation via smartphone app, showing temperature adjustment and consumption reports.

4.4 Flow Rate

The unit delivers up to 7.9 GPM of continuous hot water, supporting multiple usage points simultaneously. The minimum activation flow rate is 0.53 GPM (2 L/min).

North America Ground Water Temperature Map



Model: 180,000 BTU			Application Key
Inlet Temp (°F)	GPM	Approx Usage	Outlet Water Temperature
37°F	4.1	3	110°F
42°F	4.4	3	
47°F	4.7	3	
52°F	5.2	3	
57°F	5.6	4	
62°F	6.2	4	
67°F	7.0	5	
72°F	7.9	6	
77°F	9.1	7	

Simultaneous shower use was rounded to the nearest whole number based on the following data: Tankless set temperature of 110 °F, ground water temperature as shown in the chart, and shower head flow rate of 2 GPM.

Figure 7: Ground water temperature map and corresponding GPM usage chart for 110°F outlet water temperature.

5. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your water heater. It is recommended that a qualified technician perform annual inspections and maintenance.

5.1 General Care

- Keep the area around the water heater clear of obstructions and flammable materials.
- Ensure the vent termination is free from blockages (e.g., snow, ice, debris).
- In freezing weather, ensure the water heater and its water lines are protected to prevent freezing.

5.2 Durable Construction

The unit features an oxygen-free copper heat exchanger, which offers superior thermal conductivity, reduced heat loss, high efficiency, and durability. This material choice contributes to the longevity of the appliance.

6. TROUBLESHOOTING

If you experience issues with your water heater, refer to the following general guidelines. For complex problems or error codes, consult the full user manual or contact customer support.

- **No Hot Water:** Check power supply, gas supply, and water flow. Ensure the minimum activation flow rate is met.
- **Inconsistent Temperature:** Verify the temperature setting. Ensure adequate water pressure and flow.
- **Error Codes:** If an error code appears on the display, refer to the detailed troubleshooting section in the complete manual for specific remedies.
- **Reduced Flow:** Check for sediment buildup in water lines or filters. Consider installing a water prefilter if water quality is a concern.

Always turn off the power and gas supply to the unit before attempting any inspection or repair.

7. SPECIFICATIONS

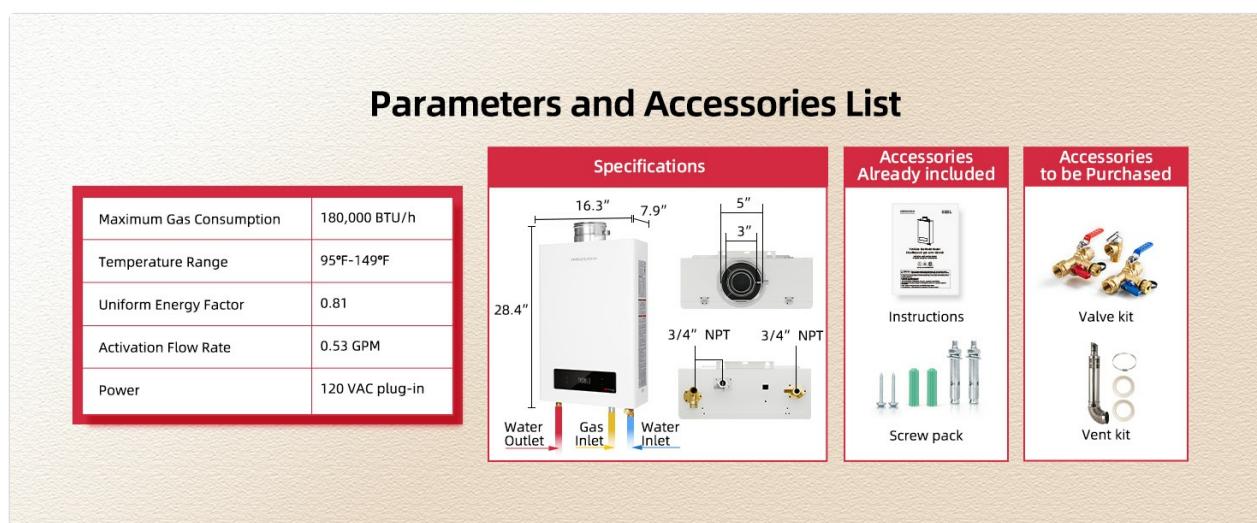


Figure 8: Product dimensions, connection types, and a list of included and optional accessories.

Feature	Specification
Brand	MIZUDO
Model Number	HW180A0W-NG
Fuel Type	Natural Gas
Maximum Flow Rate	7.9 Gallons Per Minute (GPM)
Heat Output	180,000 BTU per Hour
Voltage	120 Volts
Wattage	42 watts
Maximum Temperature	149 Degrees Fahrenheit
Minimum Activation Flow Rate	0.53 GPM (2 L/min)

Feature	Specification
Efficiency	High Efficient (Uniform Energy Factor: 0.81)
Product Dimensions	27.14 x 16.3 x 7.3 inches
Item Weight	39.6 pounds
Mounting Type	Wall
Water Connections	¾" NPT
Special Features	Automatic Anti-Freeze Protection, Dual Direct Vent System, Stable Temperature Control, CSA Certified, Wi-Fi Control

8. WARRANTY INFORMATION

The MIZUDO tankless water heater comes with a comprehensive warranty to ensure your peace of mind:

- **Heat Exchanger:** 5-year warranty.
- **Comprehensive Warranty:** 2-year warranty covering other components.

Please retain your proof of purchase for warranty claims. For detailed terms and conditions, refer to the warranty card included with your product or contact MIZUDO customer support.

9. CUSTOMER SUPPORT

For technical assistance, warranty inquiries, or any questions regarding your MIZUDO tankless water heater, please contact our customer support team:

- **Email:** service@mizudo.com
- **Phone:** (781)-887-0291

Our team is available to provide support and ensure your satisfaction with MIZUDO products.