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› Kuuma 11841 11-Gallon Marine Water Heater User Manual

## Kuuma 11841

# Kuuma 11841 11-Gallon Marine Water Heater User Manual

Model: 11841 | Brand: Kuuma

## 1. INTRODUCTION

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This manual provides essential instructions for the safe installation, operation, and maintenance of your Kuuma 11841 11-Gallon Marine Water Heater. This premium water heater is designed to provide an ample supply of hot water for marine applications, featuring a 120V-60Hz/1500W electrical input and a front heat exchanger. Please read this manual thoroughly before installation and use to ensure proper function and safety.

## 2. SAFETY INFORMATION

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Your safety and the safety of others are paramount. Observe all safety warnings and instructions provided in this manual and on the product itself.

### 2.1 General Safety Warnings

- **DANGER: HIGH VOLTAGE.** This unit operates with 120V electrical input. Improper installation or maintenance can result in electric shock, serious injury, or death. Always disconnect power before servicing.
- **WARNING: HOT WATER CAN PRODUCE THIRD-DEGREE BURNS.** Water temperatures exceeding 120°F (49°C) can cause severe burns. The factory setting for the temperature and pressure (T&P) valve is 150 psi and 210°F. Exercise extreme caution when using hot water.
- Installation and service must be performed by a qualified technician in accordance with all local codes and regulations.
- Do not operate the water heater if any part is damaged or leaking.
- Ensure proper ventilation around the unit.

### 2.2 Product Labeling

The product features important safety labels. Refer to the image below for a visual reference of these labels and their placement on the unit.



Figure 1: Kuuma 11841 Water Heater showing electrical and plumbing connections, along with safety labels for high voltage and hot water burn risk. The model number 11841 is visible on the top label.

### 3. PRODUCT OVERVIEW AND FEATURES

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The Kuuma 11841 is an 11-gallon marine water heater designed for reliable hot water supply on your vessel. Key features include:

- **Capacity:** 11 gallons, providing ample hot water.
- **Electrical Input:** 120V-60Hz/1500W for efficient heating.
- **Heat Exchanger:** Integrated front heat exchanger allows for heating water using the engine's cooling system.
- **Mounting:** Includes front to rear mounting brackets for secure installation.
- **Safety Standards:** Listed per UL 174 and CAN/CSA C22.2 No. 110, ensuring compliance with safety regulations.
- **T&P Valve:** Features a Temperature and Pressure (T&P) relief valve rated at 150 psi and 210°F for safety.

### 4. SPECIFICATIONS

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Detailed technical specifications for the Kuuma 11841 Water Heater:

Specification	Value
Brand	Kuuma
Model Number	11841
Capacity	11 Gallons
Electrical Input	120V-60Hz/1500W
Wattage	1500 watts
Voltage	120 Volts
Maximum Temperature	210°F (99°C)
Maximum Operating Pressure	150 PSI
Heat Exchanger	Front
Mounting Type	Back Mount (Front to Rear Brackets)
Product Dimensions (W x H)	16.25" x 16.25"
Item Depth	23.5 inches
Item Weight	15 pounds
Color	Silver
Certifications	UL 174, CAN/CSA G22.2 No. 110

## 5. SETUP AND INSTALLATION

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Proper installation is critical for the safe and efficient operation of your water heater. Due to the electrical and plumbing requirements, it is highly recommended that installation be performed by a qualified marine technician.

### 5.1 Pre-Installation Checks

- Verify that the installation location is structurally sound and can support the weight of the water heater when full (approximately 11 gallons of water adds about 92 lbs).
- Ensure adequate clearance for maintenance and proper ventilation.
- Confirm that the vessel's electrical system can support a 120V-60Hz/1500W appliance.
- Inspect the unit for any shipping damage.

### 5.2 Mounting

The Kuuma 11841 includes front to rear mounting brackets. Secure the water heater firmly to a stable surface using appropriate marine-grade fasteners. Ensure the unit is level.

### 5.3 Plumbing Connections

- Connect the cold water inlet and hot water outlet to your vessel's plumbing system. Use appropriate marine-grade fittings and sealants.
- Install the T&P relief valve in the designated opening. Ensure the discharge line from the T&P valve is routed downwards to a safe discharge point, preventing scalding or property damage.

- Connect the engine's cooling system lines to the front heat exchanger ports, following the vessel's engine manufacturer guidelines for proper integration.
- After all connections are made, slowly fill the water heater with water and check for leaks before applying power.

## 5.4 Electrical Connections

- **WARNING: HIGH VOLTAGE.** All electrical wiring must comply with ABYC (American Boat and Yacht Council) standards and local electrical codes.
- Connect the 120V AC power supply to the water heater's electrical terminal block. The unit features an L1&N wiring configuration.
- Ensure proper grounding of the unit.
- Install a dedicated circuit breaker for the water heater as per electrical codes.

## 6. OPERATING INSTRUCTIONS

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Once installed and filled with water, operating your Kuuma water heater is straightforward.

- **Power On:** Ensure the water heater is completely filled with water before turning on the electrical power. Turn on the dedicated circuit breaker for the water heater. The heating element will begin to heat the water.
- **Engine Heat Exchanger:** When the vessel's engine is running, the heat exchanger will circulate engine coolant through the water heater, providing an additional method of heating the water.
- **Temperature Control:** The water heater's thermostat is factory-set. If adjustable, refer to the specific thermostat instructions for temperature adjustments.
- **Hot Water Usage:** Exercise caution when using hot water to avoid scalding.

## 7. MAINTENANCE

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Regular maintenance ensures the longevity and efficient operation of your water heater.

- **Anode Rod Inspection:** Periodically inspect and replace the anode rod (if applicable) to protect the tank from corrosion. The frequency depends on water quality.
- **Draining and Winterization:** For periods of non-use or freezing temperatures, completely drain the water heater to prevent damage. Disconnect power, open hot and cold water faucets, and open the drain valve on the water heater.
- **T&P Valve Test:** Manually test the T&P relief valve at least once a year by lifting the lever. Ensure water discharges freely. If no water discharges, or if it does not reseal properly, replace the valve.
- **External Cleaning:** Keep the exterior of the water heater clean and free from obstructions.

## 8. TROUBLESHOOTING

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This section addresses common issues you might encounter with your water heater.

### 8.1 No Hot Water

- **Check Power:** Ensure the circuit breaker is on and there is power to the unit.
- **Thermostat/High Limit Switch:** The high-limit switch may have tripped. Consult a qualified technician for inspection and reset.

- **Heating Element:** The heating element may have failed. This requires professional diagnosis and replacement.

## 8.2 Insufficient Hot Water

- **Thermostat Setting:** If adjustable, ensure the thermostat is set to the desired temperature.
- **Water Usage:** Excessive hot water usage may exceed the heater's recovery rate.
- **Sediment Buildup:** Sediment in the tank can reduce efficiency. Draining and flushing the tank may be necessary.

## 8.3 Leaks

- **Connections:** Check all plumbing connections for tightness.
- **T&P Valve:** A leaking T&P valve may indicate excessive pressure or temperature, or the valve itself may be faulty and require replacement.
- **Tank Leak:** If the tank itself is leaking, the unit will likely need to be replaced.

For any issues not resolved by these steps, contact a qualified service technician.

## 9. WARRANTY AND SUPPORT

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For warranty information and customer support, please refer to the documentation included with your purchase or visit the official Kuuma website. Keep your proof of purchase for warranty claims.