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AO Smith ATHR-199M

User Manual: AO Smith ATHR-199M Adapt Tankless Water Heater

Model: ATHR-199M

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, maintenance, and troubleshooting of your AO Smith ATHR-199M Adapt Tankless Water Heater. This advanced unit is designed to provide a continuous supply of hot water for residential use, offering high efficiency and flexible installation options.

Please read this manual thoroughly before attempting to install or operate the water heater. Retain this manual for future reference.

2. IMPORTANT SAFETY INFORMATION

WARNING: 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.

- **Professional Installation Required:** Installation and service must be performed by a qualified installer, service agency, or gas supplier.
- **Gas Safety:** This appliance uses natural gas or liquid propane. Ensure proper ventilation and check for gas leaks after installation.
- **Electrical Safety:** The unit requires a 120V electrical supply. Ensure all electrical connections are made according to local codes.
- **Hot Water Hazard:** Water temperatures above 120°F (49°C) can cause severe burns or scalding. Exercise caution when setting water temperature.
- **Location:** This unit is suitable for both indoor and outdoor residential installations. Ensure the chosen location complies with all local codes and provides adequate clearance.

3. PRODUCT COMPONENTS

The AO Smith ATHR-199M Tankless Water Heater package includes the main unit and a field conversion kit for switching between Natural Gas and Liquid Propane.



AC Smith.

ProLine XE

120°F



PUMP



UP



SETTING



TIME



DOWN



ON/OFF



Figure 3.1: Front view of the AO Smith ATHR-199M Tankless Water Heater, showing the control panel and connections at the bottom.

- **Main Unit:** The tankless water heater with integrated recirculation pump and control panel.
- **Field Conversion Kit:** Allows conversion between Natural Gas and Liquid Propane fuel types.
- **Mounting Hardware:** (Typically included, refer to packaging for specifics)

4. INSTALLATION AND SETUP

Installation of the ATHR-199M requires adherence to all local, state, and national codes. It is highly recommended that installation be performed by a licensed professional.

4.1. Location Selection

The unit can be installed indoors or outdoors. Choose a location that is protected from freezing temperatures (if outdoor), has proper ventilation, and allows for easy access for maintenance and servicing. Ensure adequate clearance around the unit as specified in the detailed installation guide.

4.2. Fuel Type Conversion

The ATHR-199M comes with a field conversion kit to switch between Natural Gas and Liquid Propane. This conversion must be performed by a qualified technician according to the instructions provided with the conversion kit and the main installation manual.

4.3. Water Connections

Connect the water lines to the 3/4" connections. Ensure the incoming water pressure is within the recommended range of 15 psi (minimum) to 150 psi (maximum). Install shut-off valves and a pressure relief valve as required by local codes.

4.4. Gas Connection

Connect the gas supply line to the 1/2" gas connection. All gas connections must be leak-tested after installation.

4.5. Electrical Connection

Connect the unit to a dedicated 120V, 5A electrical circuit. This powers the electric ignition and control systems.

4.6. Integrated Recirculation Pump

The unit features an integrated recirculation pump to reduce hot water wait times at distant fixtures. Refer to the full installation manual for details on setting up and utilizing this feature.

5. OPERATING INSTRUCTIONS

Once properly installed and connected, operating your ATHR-199M is straightforward.

5.1. Powering On/Off

Use the ON/OFF button on the control panel to power the unit. The electric ignition system will automatically activate when hot water is demanded.

5.2. Setting Water Temperature

The default temperature setting is 120°F. You can adjust the temperature between 100°F and 140°F using the UP and DOWN arrows on the control panel. The current temperature setting will be displayed on the digital screen.





Figure 5.1: Detail of the control panel on the ATHR-199M, showing the digital display and control buttons for temperature adjustment and power.

5.3. Hot Water Delivery

The unit provides a steady 10.5 GPM (Gallons Per Minute) flow rate, ensuring you never run out of hot water. Open any hot water faucet to initiate hot water production.

5.4. Energy Efficiency

The ATHR-199M is Energy Star certified with a Uniform Energy Factor (UEF) of 0.95, indicating high energy efficiency.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your tankless water heater. It is recommended to have the unit inspected and serviced annually by a qualified technician.

- **Scale Prevention:** The unit's patented Heat Exchanger is designed to be resistant to scale buildup. For enhanced protection, the X3® Scale Prevention accessory can be easily added at any time (sold separately). This accessory includes a bypass cartridge to maintain performance.
- **Ventilation Check:** Ensure the ventilation system is clear of obstructions.
- **Water Filter Cleaning:** If applicable, clean any inline water filters.
- **General Inspection:** Periodically check for any leaks, unusual noises, or performance changes.

7. TROUBLESHOOTING

This section provides solutions to common issues. For problems not listed here or if solutions do not resolve the issue, contact a qualified service technician.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No hot water	No power; Gas supply off; Water flow too low; Unit lockout.	Check electrical breaker; Ensure gas valve is open; Increase water flow; Reset unit by cycling power.
Insufficient hot water	Temperature setting too low; Excessive hot water demand; Scale buildup.	Increase temperature setting; Reduce simultaneous hot water use; Perform descaling maintenance.
Unit displays error code	Internal malfunction; Sensor error; Component failure.	Note the error code and consult the detailed service manual or contact a qualified technician. Do not attempt to repair internal components unless qualified.
Unusual noises	Vibration; Mineral buildup; Component wear.	Ensure unit is securely mounted; Consider descaling; Contact technician for inspection.

8. TECHNICAL SPECIFICATIONS

Feature	Specification
Model Number	ATHR-199M
Flow Rate	10.5 GPM (Gallons Per Minute)
Fuel Type	Liquid Propane, Natural Gas (field convertible)
Voltage	120V
Amperage	5A
Temperature Range	100°F to 140°F (default 120°F)
Water Pressure (Min)	15 psi
Water Pressure (Max)	150 psi
Gas Connection Size	1/2"
Water Connection Size	3/4"
Dimensions (H x W x D)	33-13/16" x 16-1/2" x 16-1/8" (approx. 33.8 x 16.5 x 16.1 inches)
Item Weight	125 pounds
Energy Factor (UEF)	0.95 (Energy Star Certified)

9. WARRANTY INFORMATION

The AO Smith ATHR-199M Tankless Water Heater is covered by the following manufacturer warranties:

- **Heat Exchanger:**
 - 15-year limited residential warranty
 - 1-year limited commercial warranty

- **Parts:**

- 5-year limited residential parts warranty
- 1-year limited commercial parts warranty

- **Labor:**

- 1-year limited residential labor warranty
- 1-year limited commercial labor warranty

Please retain your proof of purchase for warranty claims. For full terms and conditions, refer to the warranty document included with your product or visit the official AO Smith website.

10. CUSTOMER SUPPORT

For technical assistance, service, or to inquire about replacement parts, please contact AO Smith customer support or visit their official website.

AO Smith Official Store: [Visit the AO Smith Store on Amazon](#)

When contacting support, please have your model number (ATHR-199M) and serial number ready.



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