

Weil-McLain AB-155C

Weil-McLain AB-155C AquaBalance Combination Wall Mount Gas Boiler User Manual

Model: AB-155C

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the Weil-McLain AB-155C AquaBalance Combination Wall Mount Gas Boiler. Please read this manual thoroughly before attempting any installation or operation procedures. Retain this manual for future reference.

The AquaBalance combi-boiler is designed to provide high-efficiency space heating and on-demand domestic hot water in a compact, wall-mounted unit. It features a 95% annual fuel utilization efficiency (AFUE) for reduced energy consumption.

2. 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.

IMPORTANT SAFETY INSTRUCTIONS:

- Ensure all local codes and regulations are followed during installation.
- Installation and service must be performed by a qualified installer, service agency, or gas supplier.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- If you smell gas, follow the instructions provided by your gas supplier immediately. Do not operate any electrical switches, light matches, or use any flame-producing device.
- Keep the area around the boiler clear and free from combustible materials.
- This appliance is for indoor installation only.

3. PRODUCT OVERVIEW

3.1 Key Features

- **High Efficiency:** 95% AFUE for energy savings.
- **Fuel Type:** Natural Gas (NG) operation, with optional LP conversion kit available.
- **Compact Design:** Wall-mounted for space-saving installation.
- **Quiet Operation:** Heavy gauge insulated jacket.
- **Modulation:** 10-to-1 turn down ratio for precise energy matching.
- **Low Emissions:** Low NOx rated, South Coast certified.
- **Heat Exchanger:** Single tube, large diameter, ASME certified 316L Stainless Steel.
- **Controls:** Honeywell boiler control with digital display.
- **Vent Options:** Unique 3-in-1 vent adapter (PVC, CPVC, SS, PP), multiple direct vent options.
- **Integrated Components:** Internal condensate trap, 24VAC thermostat relay, internal 3-speed circulator, DHW flat plate heat exchanger.

3.2 Boiler Components

The following image illustrates the exterior of the Weil-McLain AB-155C AquaBalance boiler.



Figure 1: Front view of the Weil-McLain AB-155C AquaBalance Combination Wall Mount Gas Boiler. The unit is white with two vent connections on top. A control panel with a digital display and an AquaBalance logo are visible on the lower front panel.

Note: For detailed internal component diagrams, refer to the full installation manual provided with the product.

4. INSTALLATION (SETUP)

Installation must be performed by a qualified professional in accordance with all national and local codes.

4.1 Pre-Installation Checks

- Verify boiler model (AB-155C) and fuel type (Natural Gas).
- Ensure adequate clearances for service and combustion air.
- Confirm proper venting system design (direct vent with 2 pipes or concentric, through sidewall or roof).
- Check electrical supply (120V, pre-wired with 3-prong plug).
- Confirm water supply and return connections are accessible.

4.2 Mounting the Boiler

1. Select a suitable wall location capable of supporting the boiler's weight.
2. Use the provided wall mounting bracket and hardware.
3. Ensure the boiler is level and securely fastened.

4.3 Venting System Connection

Connect the venting system using the unique 3-in-1 vent adapter, compatible with PVC, CPVC, SS, or PP vent materials. Follow manufacturer guidelines for vent pipe sizing and termination.

4.4 Plumbing and Electrical Connections

- Connect heating system supply and return lines.
- Connect domestic cold water inlet and hot water outlet.
- Connect gas supply line.
- Plug the commercial grade 120V power cord into a grounded outlet.
- Connect the 24VAC thermostat relay.

5. OPERATION

5.1 Initial Startup

1. Ensure all gas, water, and electrical connections are secure and leak-free.
2. Purge air from the heating system.
3. Open the gas supply valve.
4. Turn on the electrical power to the boiler.
5. Follow the instructions on the Honeywell boiler control digital display for initial setup and parameter configuration.

5.2 Normal Operation

The boiler will operate automatically based on the thermostat demand for space heating and domestic hot water. The digital display provides operational status and diagnostic information.

5.3 Shutdown Procedures

- **Temporary Shutdown:** Turn off the thermostat or set it to a low temperature.
- **Extended Shutdown:** Turn off the electrical power to the boiler and close the main gas supply valve. If freezing temperatures are expected, drain the boiler and heating system to prevent damage.

6. MAINTENANCE

Regular maintenance is crucial for the longevity and efficient operation of your boiler. Maintenance should be performed by a qualified service technician.

6.1 Annual Maintenance (Recommended)

- Inspect and clean the heat exchanger.
- Check and clean the condensate trap.
- Inspect the venting system for blockages or leaks.

- Verify proper operation of all safety controls.
- Check gas pressure and combustion settings.
- Inspect all water and gas connections for leaks.
- Test the pressure relief valve.

6.2 User Maintenance

- Keep the area around the boiler clear of obstructions.
- Visually inspect the boiler and venting system periodically for any signs of damage or leaks.
- Ensure the condensate drain line is not blocked.

7. TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues. For complex problems, contact a qualified service technician.

Problem	Possible Cause	Solution
No Heat / No Hot Water	Thermostat set too low; Power supply off; Gas supply off; Boiler lockout.	Check thermostat setting; Verify power to boiler; Ensure gas valve is open; Consult digital display for error codes and reset if possible.
Boiler Leaking Water	Loose connection; Pressure relief valve discharge; Internal component failure.	Tighten connections; Check system pressure (should be within operating range); Contact service technician for internal leaks.
Unusual Noises	Air in system; Pump issue; Combustion issue.	Bleed air from system; Contact service technician.

Refer to the boiler's digital display for specific error codes and their meanings.

8. SPECIFICATIONS

- **Model:** AB-155C
- **Brand:** Weil-McLain
- **Fuel Type:** Natural Gas (NG)
- **BTU Input:** 155,000 BTU
- **BTU Output:** 125,000 BTU
- **DOE Rating:** 144,000
- **IBR Rating:** 125,000
- **Efficiency (AFUE):** 95%
- **System Type:** Hydronic (Water)
- **Vent Type:** Direct Vent
- **Voltage:** 120 Volts
- **Mounting Type:** Wall
- **Height:** 27.56 inches
- **Features:** Condensing, Combo Domestic Water, EI/Spark Ignition, Wall Mounted, Energy Star Rated.
- **UPC:** 384929219720

- **Part Number:** 383-100-050

9. WARRANTY AND SUPPORT

9.1 Warranty Information

- **Heat Exchanger:** 10 Year Limited Warranty for Residential Use / 5 Years Limited for Commercial Use.
- **Parts:** 2 Years Limited Warranty.




Please refer to the official Weil-McLain warranty document included with your product for complete terms and conditions.

9.2 Customer Support

For technical assistance, service, or warranty claims, please contact your authorized Weil-McLain dealer or visit the official Weil-McLain website.

Weil-McLain Official Website: www.weil-mclain.com

Related Documents - AB-155C

	<p>Weil-McLain LGB Commercial Gas Boiler Series 2: Specifications, Dimensions, and Ratings</p> <p>Comprehensive technical specifications, dimensions, piping diagrams, and performance ratings for the Weil-McLain LGB Commercial Gas Boiler Series 2. Ideal for commercial, institutional, and multi-family heating applications.</p>
	<p>Weil-McLain Simplicity Parts Kit for Boilers</p> <p>Comprehensive parts kit for Weil-McLain Simplicity boilers, including essential components for emergency repairs to minimize downtime and optimize efficiency. Details contents for boiler sizes 110/150 and 199.</p>
	<p>Weil-McLain EVERGREEN Pro 110/155 Condensing Gas Boiler Advanced Manual</p> <p>Comprehensive advanced manual for Weil-McLain EVERGREEN Pro 110/155 condensing gas boilers, covering installation, advanced settings, multiple boiler configurations, wiring, and control operation.</p>

Find approximate manufacturing dates for Weil-McLain boilers using the CP number with this date range lookup table. Includes model information and contact details.

A guide to finding the CP (serial) number on various Weil-McLain boiler models, including AquaBalance, CGa/CGi, ECO, ECO Tec, Evergreen, GV90+, and Ultra.

Comprehensive installation, operation, and maintenance manual for Weil-McLain SVF 500 and SVF 600 Commercial Condensing Gas-Fired Water Boilers. Covers safety, installation procedures, electrical wiring, controls, troubleshooting, and service information.