

Lochinvar
EPB-05 High
Efficiency
Condensing
Boilers



Lochinvar EPB-05 High Efficiency Condensing Boilers Owner's Manual

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Lochinvar EPB-05 High Efficiency Condensing Boilers



Product Specifications

- **Models:** 4 wall mount models from 80,000 to 199,000 BTU/hr
- **AFUE:** 95%
- **Turndown Ratio:** 10:1
- **Heat Exchanger:** Fire tube heat exchanger
- **Vent Connector:** Universal vent connector

Product Usage Instructions

Installation:

1. Ensure the boiler is placed on a level surface suitable for wall mounting.
2. Connect the universal vent connector using PVC, CPVC, polypropylene, or stainless steel without adapters.
3. Select appropriate venting options based on installation needs (up to 100 feet).
4. Connect necessary gas and water lines following manufacturer guidelines.

Operation:

1. Turn on the boiler using the operating control.
2. Monitor the negative regulation technology for safe and efficient operation with low gas pressure.
3. Ensure proper combustion by checking the combustion analyzer port periodically.

Maintenance:

1. Regularly inspect the fire-tube heat exchanger for any signs of corrosion.
2. Clean or replace vent connectors as needed to maintain proper airflow.

3. Refer to the user manual for specific maintenance schedules and procedures.

FAQ

• What type of materials can be used with the universal vent connector?

The universal vent connector allows the use of PVC, CPVC, polypropylene, or stainless steel without the need for adapters.

• What is the warranty on the EPIC boiler?

The EPIC boiler comes with a 10-year warranty on the heat exchanger and a 5-year warranty on parts.

• How far can the boiler be vented?


The boiler permits direct-vent air intake and exhaust runs up to 100 equivalent feet using various vent pipe materials.

With the EPIC fire-tube boiler, Lochinvar now offers one of the broadest lines of residential condensing boiler products in the industry. The EPIC boiler delivers performance far beyond other value-priced residential boilers in its class. It touts several of the industry-leading features first pioneered by Lochinvar’s KNIGHT boiler—the top-selling residential boiler since 2005 and still the leading premium solution in hydronic heating.

VALUE PRICED AT THE TOP OF ITS CLASS

Step up from a traditional cast iron boiler to a high efficiency design with the EPIC. It comes with many standard features, including a Universal Vent Connector—a multi-material connector that allows for PVC, CPVC, polypropylene and stainless-steel connections directly into the unit. It also offers a 10:1 turndown ratio, a built-in cascading sequencer for up to eight units, and Lochinvar’s revered SMART CONTROL™ system, the gold standard for boiler control systems that includes an intuitive setup wizard and text-based display.

COMPETITIVE COMPARISON

COMPETITION	DISPLAY	HEAT EXCHANGER	VENT CONNECTOR	MODULATION TURNDOWN	DESIGNED, ENGINEERED AND ASSEMBLED IN THE USA
	ENGLISH	FIRE TUBE HEAT EXCHANGER	UNIVERSAL VENT CONNECTOR	10:1	YES
BRAND B	CODES	WATER TUBE HEAT EXCHANGER	VENT ADAPTERS NEEDED	5:1	YES
BRAND N	CODES	WATER TUBE HEAT EXCHANGER	VENT ADAPTERS NEEDED	UP TO 15:1	NO
BRAND V	CODES	WATER TUBE HEAT EXCHANGER	VENT ADAPTERS NEEDED	LESS THAN 6:1	NO

EPIC FEATURES



1. **UNIVERSAL VENT CONNECTOR**

Multi-material connector allows either PVC, CPVC, polypropylene or stainless steel connection directly to the appliance without adapters. EPIC also has a built-in combustion analyzer port.

2. **DIRECT VENTING UP TO 100 FEET**

Offers five venting options for tremendous installation flexibility. It permits direct-vent air intake and exhaust runs up to 100 equivalent feet using either PVC, CPVC, polypropylene or AL29-4C stainless steel vent pipe.

3. **ADVANCED NEGATIVE REGULATION TECHNOLOGY**

Safely and reliably operates with supply gas pressure as low as 4 inches water column. Its negative regulation (neg/reg) technology eliminates mechanical dampers as it automatically adjusts fan speed to ensure the correct volume and mix of fuel and air throughout the firing range.

4. **FIRE-TUBE HEAT EXCHANGER**

Low pressure drop saves on pump operation costs and provides installation flexibility, while stainless steel fights off corrosion.

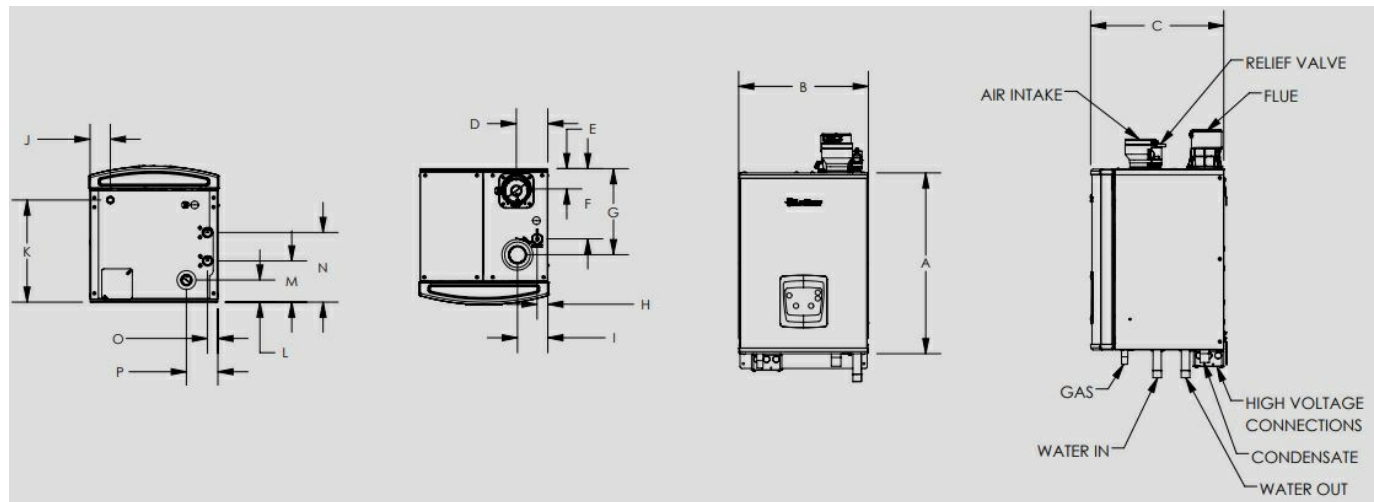
ALWAYS LEADING THE CHARGE

- The EPIC residential boiler is the perfect hydronic heating solution for homeowners seeking the reliability, ease of installation, and engineering prowess of a Lochinvar high efficiency product. The EPIC boiler is available in four sizes: the EPB080N with max input of 80,000 BTU/hr, the NKB110N with max input of 110,000 BTU/hr, the RPB150N with max input of 150,000 BTU/hr and the EPB199N with a max input of 199,000 BTU/hr.
- The EPIC boiler was designed for durability with 95% AFUE efficiency, a fire-tube stainless steel heat exchanger, and a 10/5 (heat exchanger/parts) warranty. The EPIC boiler is also engineered with installation and

serviceability in mind, including a simple layout and construction as well as technical support from Lochinvar professionals.

EPIC BOILER DIMENSIONS AND SPECIFICATIONS

DIMENSION



SPECIFICATION

Model Number	Input MBH			Heating Capacity MBH	Net AHRI Rating MBH								
	Max	Min	AFUE%			A	B	C	D	E	F	G	H
EPB080N	80	8.3	95.0	74	64	24"	17-1/4"	17-1/4"	2-1/4"	5-1/8"	8-1/2"	5-1/8"	1-1/2"
EPB110N	110	11	95.0	102	89	24"	17-1/4"	18"	2-3/4"	2-7/8"	9"	5-1/2"	2-7/8"
EPB150N	150	15.0	95.0	139	125	24"	17-1/4"	18"	4-1/2"	2-3/4"	9-1/8"	11-3/4"	4-1/2"
EPB199N	199.9	19.9	95.0	185	161	24"	17-1/4"	18"	4-1/8"	2-3/4"	9-3/8"	11-1/2"	4"

Model Number	I	J	K	L	M	N	O	P	Gas Conn.	Water Conn.	Air Inlet	Vent Size	Shipping Wt. (lbs.)
EPB080N	1-1/2"	6-3/8"	12-5/8"	5-1/8"	4-5/8"	8-1/2"	1-1/2"	14-3/4"	1/2"	1"	2"	2"	120
EPB110N	2-7/8"	7-3/4"	13-1/8"	2-7/8"	5-1/2"	9"	2"	14-1/4"	1/2"	1"	3"	3"	126
EPB150N	4-1/2"	2-7/8"	13-1/8"	3"	5-3/8"	9-1/8"	1-7/8"	4-5/8"	1/2"	1"	3"	3"	132
EPB199N	4"	2-3/4"	13-1/2"	2-7/8"	5-1/2"	9-1/4"	1-3/8"	1-3/8"	1/2"	1"	3"	3"	140

SMART CONTROL™ FUNCTIONS AND FEATURES

• SMART CONTROL™ FEATURES

- SMART CONTROL Digital Operating Control
 - LCD Display with words not codes
- Outdoor Reset Control with Outdoor Air Sensor
- Domestic Hot Water Prioritization
 - Separately Adjustable Space Heat/DHW Switching Times
- **Programmable System Efficiency Optimizers**
 - Space Heating Max Rate Limiting
 - Anti Cycling
 - Outdoor Air Reset Curve
- **Three Pump Control**
 - System Pump
 - Boiler Pump
 - DHW Pump

- High-Voltage Junction Box
120 VAC / 60 Hertz / 1 Phase Power Supply
- **Low Voltage Terminal Strip**
 - Flow Switch Contacts
 - Tank Sensor Contacts
 - SH Thermostat Contacts
 - DHW Thermostat Contacts
 - Low-Water Cutoff Connection
 - System Sensor Contacts
 - Outdoor Air Sensor Contacts
 - Cascade Contacts
- Time Clock for Data Logging
Last 10 Lockouts
- Low-Water Flow Safety Control & Indication
- Password Security
- Built-in Cascading Sequencer for up to 8 units
Multiple Size Boiler Cascade

• **STANDARD FEATURES**

- **Modulating Burner with 10:1 Turndown**
 - Direct-Spark Ignition
 - Low-NOx Operation
- ASME Stainless Steel Heat Exchanger
- Vertical & Horizontal Direct-Vent
PVC, CPVC, Polypropylene or SS Venting up to 100 feet
- Condensate Trap
- California Code Compliant
- **Other Features**
 - Automatic Reset High Limit
 - Adjustable High Limit w/Manual Reset
 - Wall-Mount Bracket
 - Zero Clearances to Combustible Materials
 - 10-Year HEX Warranty (See Warranty for Details)
 - 5-Year Parts Warranty

• **OPTIONAL EQUIPMENT**

- Low-Water Cutoff w/Manual Reset & Test
- Concentric Vent Kit
- Condensate Neutralization Kit
- Sidewall Vent Termination
- Floor Stand
- Wireless Outdoor Sensor
- Natural to LP Gas Conversion Kit

ABOUT COMPANY

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Documents / Resources



[Lochinvar EPB-05 High Efficiency Condensing Boilers](#) [pdf] Owner's Manual
 EPB-05 High Efficiency Condensing Boilers, EPB-05, High Efficiency Condensing Boilers, Efficiency Condensing Boilers, Condensing Boilers

References

- [Hot Water Solutions Since 1939 | Lochinvar | Lochinvar](#)
- [User Manual](#)

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