

RICHMOND® ENCORE® L-SERIES

# THE WHOLE HOME HEATING SOLUTION

TANKLESS  
GAS  
WATER  
HEATERS

BOILERS

COMBI  
BOILERS



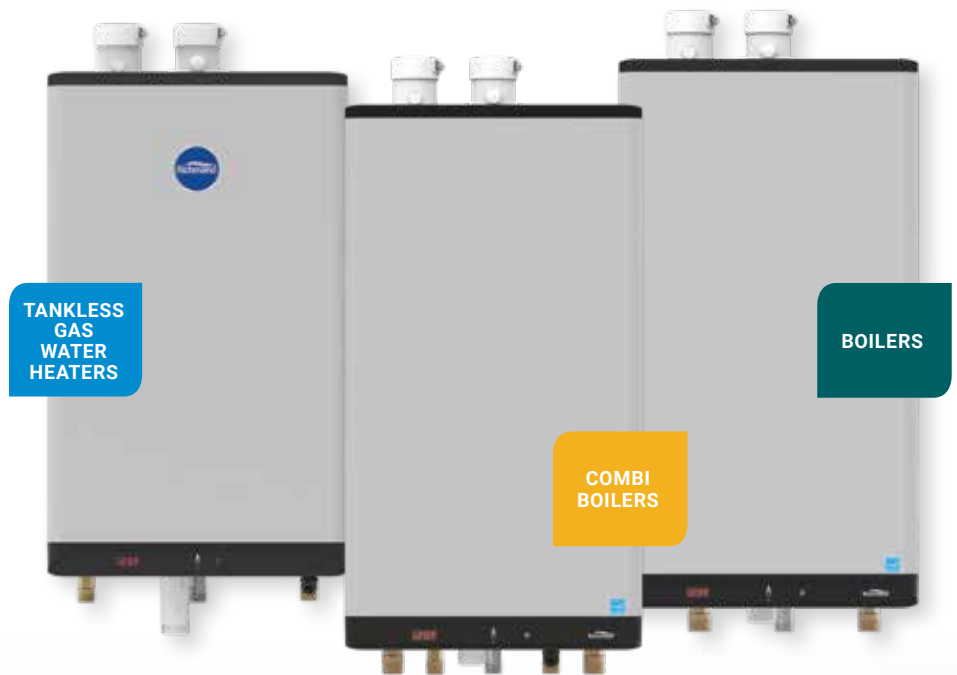
*These products meet a stringent set of our company's internally defined sustainability standards.*

**Richmond**<sup>®</sup>  
The Water Heater Experts™

[RichmondWaterHeaters.com/Combi-Boiler](http://RichmondWaterHeaters.com/Combi-Boiler)

# Richmond® ENCORE® L-Series Super High Efficiency Condensing Platform is the **Newest Whole Home Heating Solution**

From space heating to domestic hot water, it's easier than ever to give homeowners a whole home heating solution that is simple, reliable and super high efficiency. Richmond L-Series are a single condensing platform for combi boiler, boiler and tankless water heaters designed for ultimate serviceability with four or five moving parts. Plus, its sleek European design, wireless cascading and patented labyrinth heat exchanger set it apart from the competition.



## Key Platform Features

### Innovative Technology

**Patented labyrinth heat exchanger** - aluminum block heat exchanger with integrated copper waterways ensures maximum heat transfer with minimal heat loss

**Advanced modulation and redundancy** - enhances cascade system efficiency with multiple units operating at low fire versus one unit operating at high fire to satisfy demand

### Super High Efficiency

**Reduces carbon footprint** by using less energy compared to standard units

**Improves air quality** boiler and combi boilers reduce NOx emissions up to 75% compared to standard efficiency boilers<sup>1</sup>, 65% reduction with tankless compared to standard gas tank<sup>2</sup>

### Ultimate Serviceability

**Universal shared platform parts** make it easy to diagnose and service with common parts for all Richmond L-Series units

**Unmatched streamlined design** - a total of four or five moving parts, unmatched in the industry, simplifies servicing. Fan, gas valve, damper, boiler pump (boiler/combi only) and bypass valve (select models)

**Illuminated touchscreen control panel** provides operational status, troubleshooting information, and allows setting adjustments.

**Field fuel convertible** - easily convert from natural gas to liquid propane with conversion kit

**Versatile venting options** - provides installation flexibility with moveable combustion air intake (left/right) ability to flex vent in existing B vent and 2" inlet and exhaust with band connections

**Easy grip connections** - extra long pipe fittings with notched sides for easy gripping with a wrench



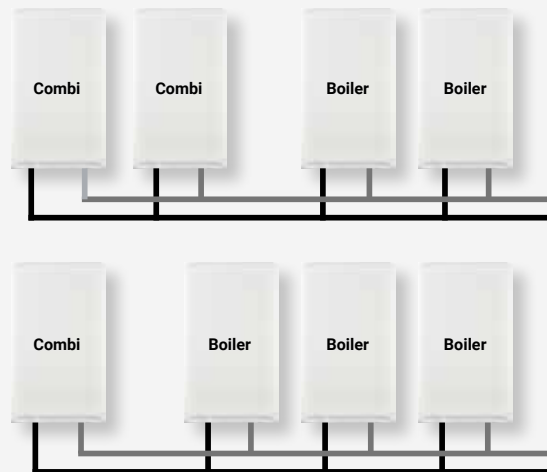
# First to Market Wireless Cascading

The Richmond® ENCORE® L-Series platform includes unique wireless cascading capabilities to meet the most demanding space heating and domestic hot water needs. The L-Series wireless cascade system is easy to set up, flexible and improves system efficiency and individual unit life.

## U.S. Market Exclusive Condensing Combi to Combi Cascading for Domestic Hot Water and Space Heating

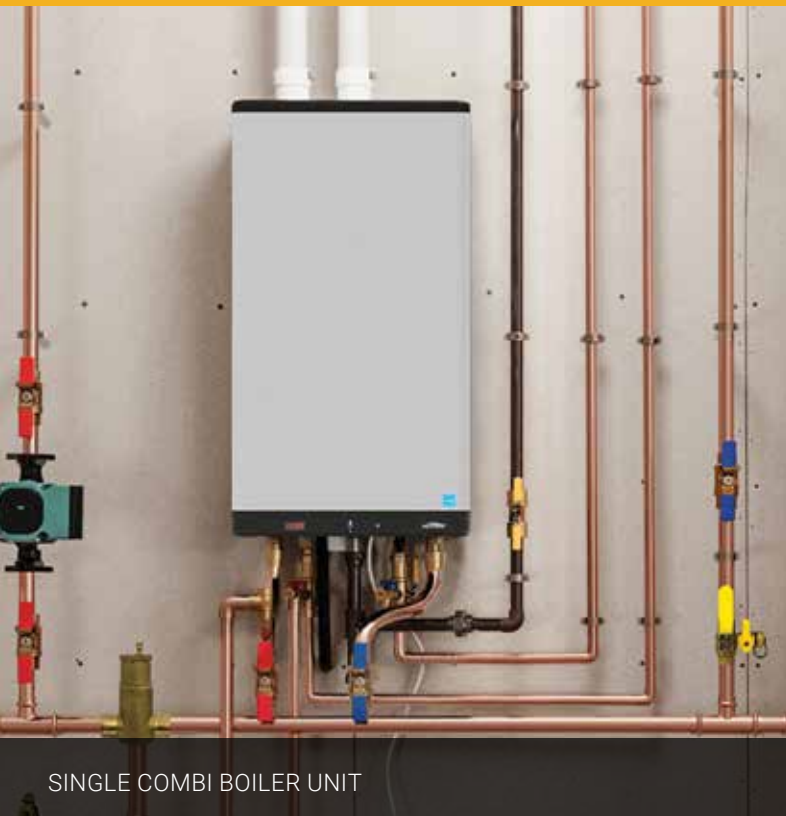
- **Cascade up to 8 L-Series units** for demanding space heating and domestic hot water applications.
- **Wi-Fi not required** - system uses radio frequency to communicate wirelessly.
- **Simple system setup** - enable the built-in cascade function on the unit's display panel and connect the system sensors. No communication cables required.
- **Easy to scale** - size and add units later when demand increases.
- **Ultimate system redundancy** - system continues to operate during maintenance or repair of a cascaded unit.

### Wirelessly cascade up to eight units in multiple configurations



**All L-Series Models Deliver Proven Durability.** The Innovative Heat Exchanger reduces thermal stress on copper tubing limiting lime scale and damage.

# COMBI BOILERS



## Combi Boilers - 2 in 1 design for space and water heating

**RMCBH-L125i, RMCBH-L160i  
& RMCBH-L199i**

Indoor Direct Vent  
125,000-199,000 BTU/h  
Natural Gas/LP Convertible



L-Series combi boilers are packed with efficiency improving features in addition to a super high efficiency condensing heat exchanger.

**Built-in high efficiency variable speed boiler pump** uses less electricity than a standard pump.

**Outdoor reset technology** adjusts the boiler supply temperature automatically based on outdoor temperature fluctuations.

**ENERGY STAR® certified** with up to 96% AFUE and ASME-rated (excludes 160K combi model).<sup>3</sup>

### Combi Exclusives

- Saves space and money with one appliance instead of two (boiler and tankless water heater).
- **U.S. Market exclusive** condensing combi to combi cascading for both space heating and domestic hot water.

### Internal View

**2" Inlet and Exhaust with Band Connections**  
Makes venting with 2" PVC easier for use in tighter spaces and reduces installation and labor costs

**Qualifies for Tax Credits**

**Illuminated Touchscreen Control Panel**  
Easy-to-use menus for setting changes, making setup easier than ever. Illuminated flame icon identifies when burner is on for quick setup and operational status

**1" Space Heating Connections**



**Innovative Labyrinth Heat Exchanger with Copper Waterways**

Patented technology that ensures maximum heat transfer and minimal heat loss

**Damper**

**Burner Fan**

**Field Convertible Gas Valve**

Field gas conversion kit to easily convert from natural gas to liquid propane if needed

**Built-In ECM Boiler Pump**

Saves both installation time and cost with a variable speed, high-efficiency pump that uses 50% less electricity than a standard pump

**Bypass Valve**

**Condensate Trap**

**3/4" Domestic Water Connections**

**All L-Series Models Simplify Installation** by offering the same versatile venting options and flexible gas connections



#### Top View

##### Combustion Air Intake

Ability to move either to the left or right side for flexible installation



#### Alternate Top View



#### Bottom View

##### 3/4" Gas Line Connection

Compatibility with a 1/2" gas line helps avoid the need for a new gas line (combi boiler and tankless 10' and under, boiler 30' and under)

# BOILERS



## Condensing Boilers offer efficient space heating

**RMHBH-L99i & RMHBH-L120i**  
 Indoor Direct Vent, 99,000-120,000 BTU/h,  
 Natural Gas/LP Convertible

*See Available Models section for breakdown of what is included in the box for each model.*



### Boiler Key Benefits

L-Series boilers offer the ultimate efficiency for home space heating through the innovative heat exchanger and additional efficiency improving features.

**Built-in high efficiency variable speed boiler pump** uses less electricity than a standard pump.

**Outdoor reset technology** adjusts the boiler supply temperature automatically based on outdoor temperature fluctuations.

**ENERGY STAR® certified** with up to 96% AFUE and ASME-rated.

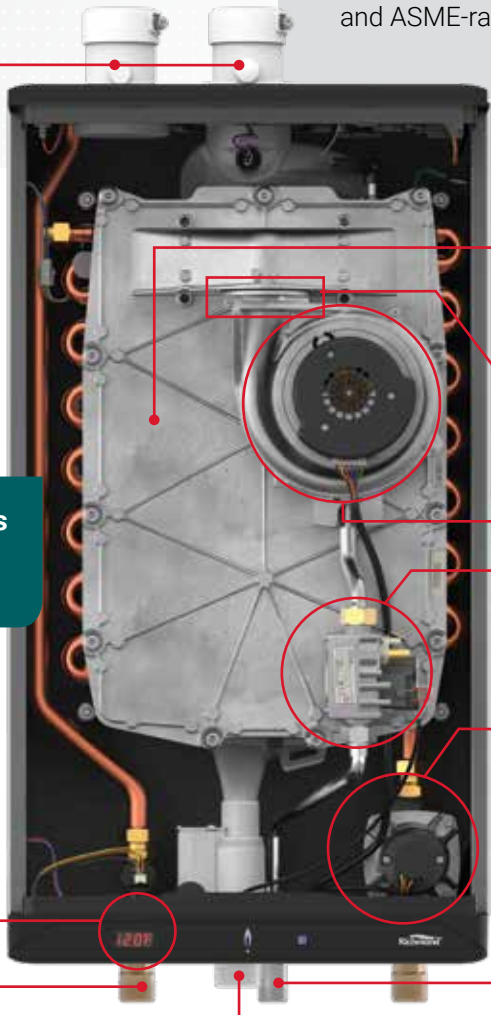
**2" Inlet and Exhaust with Band Connections**

**Combustion Air Intake**

**Qualifies for Tax Credits**

**Illuminated Touchscreen Control Panel**

**1" Space Heating Connections**



**Innovative Labyrinth Heat Exchanger with Copper Waterways**

**Damper**

**Burner Fan**

**Field Convertible Gas Valve**

**Built-In ECM Boiler Pump**

**3/4" Gas Line Connection**

**Condensate Trap**

# CONDENSING TANKLESS GAS WATER HEATERS



## Get premium performance even in hard water regions with **Tankless Gas Water Heaters**

### RMTGH-L199i

Indoor Direct Vent, 199,000 BTU/h, Natural Gas/LP Convertible

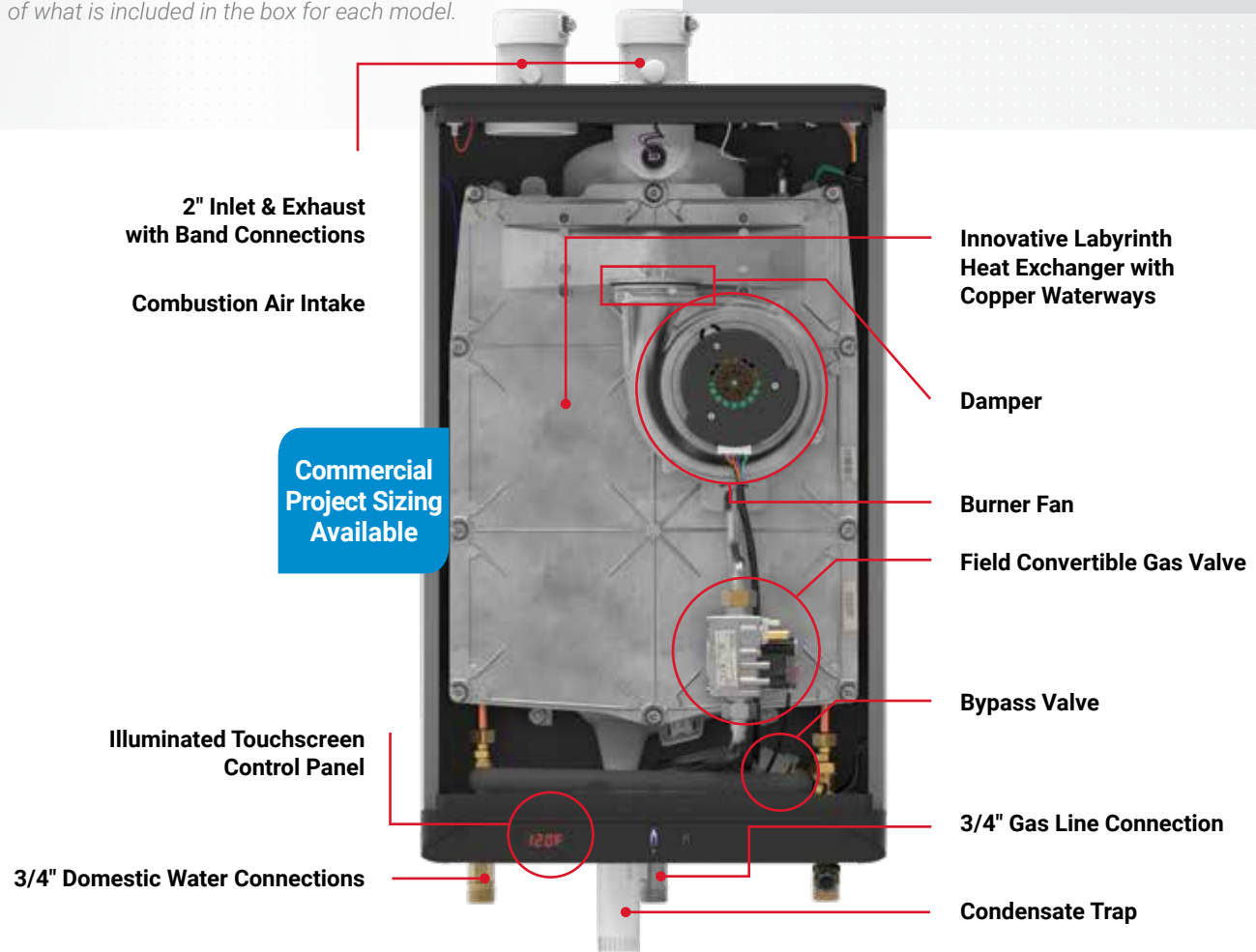
See Available Models section for breakdown of what is included in the box for each model.

### Tankless Key Benefits

**Premium performance in extreme hard water regions** cast aluminum heat exchanger protects copper water ways and minimizes lime formation.

**Industry's most comprehensive warranty** Enjoy peace of mind with a 15-year heat exchanger (replace entire unit not just heat exchanger) and 5-year parts warranty.

**Save up to 32% per year** in energy costs over a standard 50-gallon gas residential tank water heater.



MODEL NUMBER		RMCBH-L125i	RMCBH-L160i	RMCBH-L199i
Input Rate (Heating Mode)	MAX	99,000 BTU/h	125,000 BTU/h	125,000 BTU/h
	MIN	16,500 BTU/h	23,000 BTU/h	28,500 BTU/h
Output Rate (Heating Mode)	MAX	89,000 BTU/h	111,000 BTU/h	111,000 BTU/h
	MIN	15,800 BTU/h	22,000 BTU/h	27,100 BTU/h
Input Rate (Domestic Hot Water)	MAX	125,000 BTU/h	160,000 BTU/h	199,000 BTU/h
	MIN	16,500 BTU/h	23,000 BTU/h	28,500 BTU/h
AFUE		95%	94%	95%
Weight (Lbs.)		85	84	
Boiler Flow Rate - GPM	MAX	10	11	12
	MIN		2	
Max Relative Humidity (Non-Condensing)		90%		
Temp Range	Heating Mode	51°F-194°F		
	Domestic Hot Water	105°F-149°F		
Minimum Activation Flow Rate (DHW)		0.5 GPM		
Gallons Per Minute - GPM (Domestic Hot Water)	MAX	4	7	
	67°F Rise	3.2	4.1	5

MODEL NUMBER		RMHBH-L99i	RMHBH-L120i
Input Rate	MAX	99,000 BTU/h	120,000 BTU/h
	MIN	16,500 BTU/h	13,650 BTU/h
Output Rate	MAX	89,000 BTU/h	108,000 BTU/h
	MIN	14,800 BTU/h	13,000 BTU/h
AFUE		96%	95%
Gas Pressure	MAX	14" WC	
	MIN	4" WC	
Weight (Lbs.)		85	
Boiler Flow Rate - GPM	MAX	10	11
	MIN	2	
Max Relative Humidity (Non-Condensing)		90%	
Temp Range		51°F-194°F	
Max equivalent vent length 2" (each side) <sup>4</sup>		65'	
Max equivalent vent length 3" (each side) <sup>4</sup>		120'	
Warranty <sup>5</sup>		10-Year Heat Exchanger, 5-Year Parts, 1-Year Labor	

MODEL NUMBER		RMTGH-L199i
Input Rate	MAX	199,000 BTU/h
	MIN	28,500 BTU/h
Uniform Energy Factor (UEF)		0.90
Gallons Per Minute - GPM	MAX (35°F)	10.1
	45°F Rise	7.9
	67°F Rise	5.4
Set Point Temperature Range		105°F - 149°F
Fuel Type		Compatible with Natural Gas and LP (Ships NG with LP Conversion kit included)
Max Relative Humidity (Non-Condensing)		90%
Temp Range		51°F-194°F
Venting		2" or 3" PVC, CPVC, Polypropylene
Vent Clearances		0" to combustibles
Warranty <sup>5</sup>		15-Year Heat Exchanger, 5-Year Parts, 1-Year Labor - Residential 5-Year Heat Exchanger, 5-Year Parts - Commercial

<sup>1</sup>Based on comparison of Richmond L-Series combi and boiler against a minimum efficiency boiler with like fuel type

<sup>2</sup>Based on comparison of Richmond L-Series tankless against a standard residential 50 gallon tank type model with like fuel type not to exceed 75,000 BTU

<sup>3</sup>160K combi boiler model is not ENERGY STAR® certified

<sup>4</sup>Based on comparison of Richmond L-Series combi and boiler against a minimum efficiency boiler with like fuel type.

<sup>5</sup>See Warranty Certificate for complete information.



## CONTACT US

**Customer Service,  
Warranty and Parts**  
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833-212-9276

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