# We Make An Endless Supply Of Hot Water AN EASILY ATTAINABLE LUXURY.





LUXURY SERIES TANKLESS WATER HEATERS

# Our performance is our promises are kept.





Nearly 100 years ago, we at Rinnai established a tradition of never settling for less than the absolute best—a tradition that has grown even stronger today.

Thanks to superior engineering, Rinnai water heating products raise the standard in comfort, convenience and reliability. In fact, our commitment to safety, quality and support has made Rinnai Tankless Water Heaters the #1 selling tankless brand in the U.S. and Canada.

From products to service and everything in between, our dedication to delivering our absolute best never wavers. We're stronger than ever, so that your confidence in choosing Rinnai can be too.

# enhancing the comforts of home.

With Rinnai Tankless Water Heaters, homeowners can now have more hot water than they ever thought possible.

The innovation behind Rinnai Tankless Water Heaters provides an endless supply of hot water wherever and whenever it's needed even for simultaneous uses at multiple fixtures.

Because they operate on an as-needed basis, Rinnai Tankless Water Heaters can use up to 40 percent\* less energy than traditional systems, which helps reduce utility costs and can contribute to a favorable HERS rating and optimize LEED certification. On top of efficiency, our tankless water heaters feature a durable, copper heat exchanger for unparalleled quality, durability and safety. And because of our compact design, our units offer substantial space savings in the home.

The flexibility of always having enough hot water. The reliability of proven engineering. It's everything homeowners need to feel comfortable.

\*As based on the average cost to run an electric tank water heater per the DOE Average Energy Costs (www.doe.gov).









## the performance BEHIND SUCCESSFUL COmmercial Operations.

Leveraging decades of global commercial water heating expertise, Rinnai Tankless Water Heaters deliver performance, reliability and precision engineering. Rinnai Tankless Water Heaters produce an endless supply of hot water to suit even the most demanding applications – from restaurants to hotels to multifamily homes to schools and more – conserving energy that can save thousands of dollars in capital, operational and life cycle costs, providing redundancy and saving space.

But it's not just performance that sets us apart. Our commitment to safety, quality and support has made us the #1 selling tankless brand in the U.S. and Canada.

Durability. Efficiency. Reliability. Just a few reasons to trust Rinnai for light commercial applications.



Rinnai Tankless Water Heaters deliver trusted quality and proven reliability you can count on. From efficient, durable products to experienced support, there is simply no better choice than Rinnai.

- Wide range of quality product offerings
- · Easy, safe ventilation options
- 24/7 technical support for professionals
- Engineering application support for commercial customers

#### RINNAI NON-CONDENSING LUXURY SERIES... EXCEPTIONAL HOT WATER PERFORMANCE WITH ENERGY EFFICIENCY TO SPARE.

Rinnai Luxury Series Tankless Water Heaters take hot water performance higher, delivering the most impressive output of our noncondensing line. Using a durable copper heat exchanger to optimize heat transfer, these high achievers attain an Energy Factor ratings of up to .82, making them 18 percent more efficient\* than an ENERGY STAR® qualified storage tank.

Featuring Rinnai's energy smart Cir-Logic technology, our Luxury units produce an endless supply of hot water. An added external pump and dedicated recirculation line moves hot water quicker to showers and faucets. To save even more time and energy, a 24-hour digital controller can be easily programmed to ensure hot water is available during peak demand times like early morning before work and school. Add a sleek, space-saving design and robust array of standard features, and the luxury of superior comfort, convenience and savings is at every homeowner's command.

\* Based on comparing a Rinnai .82 Tankless Water Heater to an ENERGY STAR® qualified tank water heater.



#### Tankless technology that saves you time.

**Never think about your hot water needs again:** Innovative technology provides an endless supply of hot water whenever and wherever it's needed – even for simultaneous uses at multiple fixtures. Showers and baths? Absolutely. Laundry and dishes? No problem. Prioritizing activities and scheduling hot water use is a thing of the past.

#### Save money, splurge on performance.

**Designed for efficiency:** Rinnai's non-condensing technology features copper heat exchangers to provide maximum efficiency, and easily meet ENERGY STAR® qualifications and uses up to 40 percent less energy\* than a traditional tank.

**Save energy:** By operating only when hot water is needed, and no storage tank to heat and reheat water, our tankless technology helps save on energy and utility costs. The use of an electronic ignition means no standing pilot light that constantly uses energy.

A smart investment: Increase your home's value with premium technology, energy efficiency and an improved Home Energy Rating System (HERS) index score. Available energy efficiency rebates and tax credits offer the opportunity to help make your purchases more affordable.

**Multiple sizes:** Rinnai gives you options to right-size your installation and customize your efficiency.

**Replace parts, not systems:** Every part of a Rinnai Tankless Water Heater is replaceable. Components can be easily exchanged, if needed, versus replacing the entire system.

#### Save space with a compact design.

#### Maximum output, minimum space:

About the size of a small suitcase, approximately 14" x 23" x 9", the Rinnai can be tucked in a small crawl space, attic or basement. These wall-mounted units can be installed on the interior or exterior wall of the home to free up valuable space.

**Flexible installation:** Small size allows for installation in nontraditional spaces such as crawl spaces and attics, making it perfect for use in any size home, including manufactured and modular homes.

#### Stay green with a sustainable choice.

**Earth-friendly efficiency:** Our tankless technology achieves maximum energy efficiency, helping to conserve natural resources.

**Less waste:** Compact heat exchanger design, longer product lifespan compared to a traditional tank<sup>\*\*</sup> and recyclable parts means less waste in landfills.

**High standards for low emissions:** Lower CO<sub>2</sub> emissions contribute to cleaner air and a healthier environment.



#### NON-CONDENSING TECHNOLOGY

# The Rinnai Luxury Series

The Luxury Series offers the highest output of our non-condensing line of tankless units with a sleek, modern design and a range of standard features and benefits to fully satisfy the demands of larger homes and light commercial applications.

#### UNIQUE FEATURES OF LUXURY SERIES

- Energy Factor of up to .82
- Available in three sizes: 180,000, 192,000 and 199,000 BTU.
- Recirculation: Circ-Logic provides optimal operation of an external recirculation pump utilizing a dedicated recirculation line.
- Enhanced scale detection.
- Easy maintenance is achieved with included isolation valves.
- \* As based on the average cost to run an electric tank water heater per the DOE Average Energy Costs (www.doe.gov).
- \*\* Based on DOE ENERGY STAR® lifecycle estimates, tankless water heaters can last up to twice as long as traditional tank units.

# **Recirculation Solutions**

Rinnai recirculation solutions build on the already endless supply of hot water Rinnai Tankless Water Heaters provide—adding the convenience of faster hot water.

Rinnai Circ-Logic Technology comes standard on all Luxury units, and can be used in combination with the following accessories to allow homeowners to set recirculation patterns that coincide with their hot water usage patterns. Hot water is available when needed, without the expense of circulating it during times of inactivity.

#### SOLUTION 1: GTK15 PUMP AND TIMER KIT

Allows homeowners to schedule multiple recirculation events throughout the day to align with usage patterns, such as getting ready in the morning.

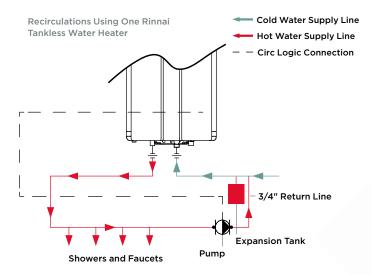
#### SOLUTION 2: MC195T TIMER CONTROLLER AND PUMP

A stylish, wall-mountable digital control panel works seamlessly with Circ-Logic Technology and any properly sized pump. Multiple unique recirculation events can be programmed as well as an override function for homeowners to start recirculation outside of scheduled events.

#### SOLUTION 3: CIRC-LOGIC AND PUMP

For continuous recirculation without scheduled events, simply pair a Circ-Logic Tankless unit with a properly sized pump. Recirculation intervals can be set to comfort mode (shorter time intervals) or economy mode (longer time intervals). Recirculation deactivates once the water has reached set temperature.

Feature	GTK15	MC195T & Pump	Pump Only with Circ-Logic Control
Override	No	Yes	No
Changes WH Temp	No	Yes	No
Displays WH Codes	No	Yes	No
Dedicated Return	Yes	Yes	Yes
24-Hour Clock	Yes	Yes	No
Timed Events	Yes	Yes	No
# Timed Events	Multiple	Multiple	N/A
Luxury Tankless HEX Limited Warranty with Recirculation	3 Years	3 Years	3 Years



Period of coverage is reduced to 3 years from date of purchase when used as a circulating water heater within a hot water circulation loop, where the water heater is in series with a circulation system and all circulating water flows through the water heater, and where an on-demand recirculation system is not incorporated. On-demand recirculation is defined as a hot water recirculating loop or system that utilizes existing hot and cold lines or a dedicated return line, and only activates when hot water is used. It can be activated by a push-button, motion sensor, or voice activation but not by a temperature sensor. A timer added to a standard recirculating pump is not considered as on-demand.

See www.rinnai.us for standard limited warranty information.

# Venting Options

#### Optimized Concentric Venting for Non-Condensing Tankless Water Heaters

Rinnai Tankless Water Heaters were the first to use a unique Concentric Venting System, a single-vent assembly option featuring an inner tube for exhaust and an outer tube for fresh air from outdoors. The result is a direct-vent, sealed combustion system that offers optimum safety and performance.

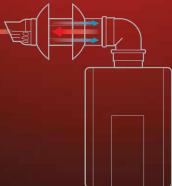
Beyond performance, our concentric system option can make installation faster and easier with:

- · Single penetration through the wall reducing install time and costs
- Simple positive-fit components for secure connection
- · Joint seals that expand and contract with weather to prevent damage
- · Ease of assembly, adjustment and disassembly





Venting available in vertical and horizontal configurations. Concentric structure allows hot exhaust to exit through interior tube, while fresh air enters through the outer layer.



# Venting Parts





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TERMINATION & TERMINATION KITS					
Part Number	Image	Description L		Inner Exhaust Material	Outer Intake Material
223181	1	Universal Horizontal Termination Kit	11.5"	Aluminum	Plastic
223188	1	Universal Termination Metal Kit	12"	Aluminum	Metal
223182	1	Universal Horizontal Termination Kit	21"	Aluminum	Plastic
223187	2	Horizontal Termination Diverter Kit	21"	Aluminum	Plastic
223183	3	Universal Horizontal Termination	11.5"	Aluminum	Plastic
223184	3	Universal Horizontal Termination	21"	Aluminum	Plastic
184118-S	4	Roof Discharge Termination (above roof)	18"	Aluminum	Plastic
184127	4 Roof Discharge Termination (above roof) 18" Aluminum M		Metal		
184119	5	Roof Discharge Termination (above roof); cold climate	38"	Aluminum	Plastic
224046	6	Raised Horizontal Termination Kit ("Snorkel")	_	Aluminum	Plastic

ELBOWS				
Part Number	Image	Description	Inner Exhaust Material	Outer Intake Material
224050	7	45-Degree Elbow (Quantity of 2)	Aluminum	Plastic
224063	8	90-Degree Elbow	Aluminum	Plastic
224250	7	45-Degree Elbow (Quantity of 2)	Aluminum	Metal
224255	8	90-Degree Elbow	Aluminum	Metal

VENT PIPE EXTENSIONS					
Part Number	Image	Description	Length	Inner Exhaust Material	Outer Intake Material
224051	9	Vent Pipe Extension	10"	Aluminum	Plastic
224052	9	Vent Pipe Extension	19.5"	Aluminum	Plastic
224053	9	Vent Pipe Extension	39"	Aluminum	Plastic
224054	10	Telescoping Vent Length	2"–12"	Aluminum	Metal
224275	10	Telescoping Vent Length	2"–12"	Aluminum	Plastic
224260	9	Vent Pipe Extension	10"	Aluminum	Metal
224265	9	Vent Pipe Extension	19.5"	Aluminum	Metal
224270	9	Vent Pipe Extension	39"	Aluminum	Metal

Part Number	Image	Description	
222053	11	Condensate Trap	Suitable for use
224040	12	NSF Cover (for commercial applications)	with plastic and metal components
146141	13	Roof Flashing Assembly (flat roof)	
189950	14	Shingle Roof Flashing (1/12 to 6/12 pitch; plastic)	
189951	14	Shingle Roof Flashing (6/12 to 12/12 pitch; plastic)	
189952	14	Shingle Roof Flashing (8/12 to 16/12 pitch; plastic)	
50171949	15	Tile/Shingle Roof Flashing (1/12 to 6/12 pitch; metal)	
50171961	15	Tile/Shingle Roof Flashing (6/12 to 12/12 pitch; metal)	
50171954	15	Tile/Shingle Roof Flashing (8/12 to 16/12 pitch; metal)	
242141	16	Flashing for Metal Roof	
710342	17	Rubber Wall Plate (white)	
710602	17	Rubber Wall Plate (black)	
224045	18	Thimble (1 piece per box)	
169044	19	Pipe Clamp	
224097	20	Metal Pass Through Plate	
224042	21	Universal Bug Guard	



# Accessories



ScaleCutter System



MC-91-25







MC-100V-1S



MC-195T-US



Grundfos Pump with Timer Kit



Condensate Neutralizer Kit



Pipe Cover Enclosure

SCALECUTTER®				
Part Number	Description	Feed		
103000038	ScaleCutter System 3/4" Feed	3/4"		
103000039	ScaleCutter System Refill	3/4"		

DIGITAL TEMPERATURE CONTROLLER					
Part Number	Description	Temp. Range	Color		
MC-91-2S	Residential/Commercial Standard Digital Controller	98°–140°F	Silver		
MC-91-2W	Residential/Commercial Standard Digital Controller	98°–140°F	White		
MCC-91-2W	Commercial Controller	>140°F	White		
MC-100V-1S	Deluxe Digital Controller with Clock and Call Feature	98°–140°F	Silver		
MC-100V-1W	Deluxe Digital Controller with Clock and Call Feature	98°–140°F	White		
BC-100V-1S	Bath Fill Digital Controller	98°–140°F	Silver		
BC-100V-1W	Bath Fill Digital Controller	98°–140°F	White		
MC-195T-US	Timer Controller for Recirculation	98°–140°F	Silver/Black		

ADDITIONAL ACCESSORIES				
Part Number	Description			
GTK15	Grundfos® Pump with Timer Kit for Rinnai Circ-Logic Enabled Units			
PCD03-SM2	Pipe Cover Enclosure			
RGB-25U-C	Universal Tankless Recess Box for Models RL94e, RL75e, V75e, V65e (VA, VB, VC)			
REU-MSB-M	Multi-Unit Controller Master Unit			
REU-MSB-C1	Cable to Connect Ultra and Luxury Series Water Heaters			
REU-MSB-C2	Cable to Connect MSB-M Control Units			
REU-EZC-1US	EZConnect® Cable for Connecting 2 Units			



## TANKLESS WATER HEATERS MODEL CHART Specifications

	Luxury Series				
Model	RL94i	RLX94i	RL94e	RL75i	RL75e
Dimensions in Inches (w, h, d)	14 x 23 x 9	14 x 23 x 9	14 x 23 x 9	14 x 23 x 9	14 x 23 x 9
Weight (Ibs / kg)	46.3 / 21.0	46.3 / 21.0	43.7 / 19.8	45.6 / 20.7	44.3 / 20.1
Installation Type	Indoor	Indoor	Outdoor	Indoor	Outdoor
Min./Max. BTU (natural gas)	10,300/199,000	10,300/192,000	10,300/199,000	10,300/180,000	10,300/180,000
Min./Max. BTU (propane)	10,300/199,000	N/A	10,300/199,000	10,300/180,000	10,300/180,000
Energy Factor	0.82	0.82	0.82	0.82	0.82
Temp. Range Residential*	98°–140° F	98°–140° F	98°–140° F	98°–140° F	98°–140° F
Temp. Range Commercial <sup>†</sup>	98°–185° F	98°–185° F	98°–185° F	98°–160° F	98°–160° F
Min. Activation Rate	0.4 gpm	0.4 gpm	0.4 gpm	0.4 gpm	0.4 gpm
Flow Rate (70° / 50° Temp. Rise)	4.8 / 6.7	4.8 / 6.4	4.8 / 6.7	4.3 / 6.0	4.3 / 6.0
Hot Water Flow Rate Range	0.26–9.8 gpm	0.26–9.8 gpm	0.26–9.8 gpm	0.26–7.5 gpm	0.26–7.5 gpm
Controller (standard)§	MC-91-2US	MC-91-2US	MC-91-2US	MC-91-2US	MC-91-2US
Controllers (optional)§		MC-100-1, BC-	-100V-1, MCC-91-2 (	for temperatures >140° F)	
Ultra Low NOx	no	yes	yes	yes	yes
Warranty (Residential)	Limited 12-	year on heat exchan	ger, 5-year on parts	, 1-year on labor (5-year o	ptional on labor)
Warranty (Commercial)	Limited 5-	year on heat exchan	ger, 5-year on parts,	1-year on labor (2-year op	otional on labor)
Circ-Logic Compat. (S/N)**	DB.CA-016788	N/A	DC.BA-013335	N/A	N/A
Circ-Logic Compat. (P/N)	N/A	N/A	N/A	REU-VC2528FFUD-US (A)	REU-VC2528WD-US (A)
Mobile Home Certified	yes	yes	yes	yes	yes
Valves Shipped in Box	yes	yes	yes	yes	yes
High Altitude Approved			Up to 10,200	) ft.	
Certifications	AHRI, UPC, CSA, NSF, ENERGY STAR®				
Venting Options	Concentric	Concentric	N/A	Concentric	N/A

\* Can be selected by installer. Units come with a default maximum temperature of 120° F for increased safety and code compliance. An option to increase the maximum temp to 140° F is also available.

<sup>+</sup>To achieve temperatures over 140° F, an MCC-91 commercial controller must be purchased separately.

§ MC-91-2 controllers are backwards compatible with previous water heaters.

\*\* Luxury Series Models (VC) – Circ-Logic<sup>™</sup> availability beginning April 2012. VC models with serial numbers higher than those listed will ship with Circ-Logic installed. Lower serial numbers do not have Circ-Logic.

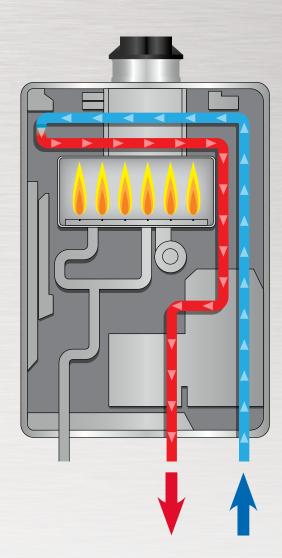
S/N = Serial Number P/N = Part Number

Rinnai. 13

# **Rinnai Tankless Water Heater Operation**

#### How a Rinnai Tankless Water Heater Works

- When the need for hot water arises by turning on a shower, washing machine, dish washer or faucet, cold water enters the Rinnai Tankless Water Heater from the inlet pipe at the bottom of the unit. The PC board is then signaled to activate the flame igniter or ignition.
- A combustion fan turns on to allow oxygen into the burner to ignite the flame as the gas control valve opens at a low frequency. Once an adequate flame is present the igniter stops from sparking beginning the next sequence of operation in a matter of seconds.
- 3 Water is heated as it passes through the coils of the copper heat exchanger, and exits from the hot water outlet pipe to travel through the pipes of the home or business to the water fixture where hot water is needed.
- The gas valve and blower automatically adjusts the incoming gas and oxygen to meet the water heating demands. If the demand is small, the Rinnai Tankless Water Heater can use a smaller flame and less gas. If the demand is greater, the flame can expand across the width of the entire burner to heat more water. The tankless water heater adjusts as needed to ensure the temperature set point is maintained. A digital controller allows the user to choose his desired temperature.
- As the hot water fixture shuts off, cold water stops entering the tankless water heater and the flame diminishes. The combustion fan continues to operate at a low speed for a short period of time. This allows the exhaust of any leftover combustion gases.



The tankless burner is on only when hot water is needed

### Tank vs. Tankless Annual Operating Costs\*

Technology	Fuel Type	EF (Energy Factor)	Annual Operating Costs
Standard Gas Tank	Natural Gas	0.58	\$275
Standard Gas Tank	Liquid Propane	0.58	\$710
Electric Tank	N/A	0.90	\$580
Tankless (Natural Gas)	Natural Gas	0.82	\$194
Condensing Tankless (Natural Gas)	Natural Gas	0.96	\$166
Tankless (Liquid Propane)	Liquid Propane	0.82	\$502
Condensing Tankless (Liquid Propane)	Liquid Propane	0.96	\$429

\*Based on national averages per Department of Energy / U.S. Energy Information Administration, 2011.

## Don't just meet your hot water needs. EXCEED THEM.



RL75i Tankless Water Heater RUR98i Tankles Water Heater

Water Heater

## With Rinnai's comprehensive line of Tankless and Hybrid Tank-Tankless Water Heaters, you'll satisfy all your customers' hot water needs. Here's how:

#### Rinnai Tankless Water Heaters

- Provide the ultimate experience of comfort and convenience with an enjoyable, endless supply of hot water wherever and whenever your customers need it
- · Save money through increased energy efficiency and a longer average life span\*
- Optimize space-with no tank necessary, a Rinnai uses less room due to its space-saving design
- Maximize commercial operations and cost savings with technologies that coordinate multiple units for exceptional water heating performance

#### Rinnai Hybrid Tank-Tankless Water Heaters

- · Maximize your customers' time with more available hot water
- Replenish hot water quickly so your customers spend less time waiting
- Install quickly and easily with standard tank connections

To learn more about the #1 selling tankless in North America or our new innovative Hybrid Tank-Tankless Water Heater, visit us at rinnai.us

\*Based on the DOE ENERGY STAR® life cycle estimates compared to traditional tank water heaters.

## A tradition of TRUE RELIABILITY.

For nearly 100 years, we at Rinnai have been fiercely committed to delivering nothing less than a superior experience at every touch point.

Beyond manufacturing the highest quality products, our people stand behind all that we make—before, during and long after installation. From the 24/7/365 technical support for professionals, to our national network of independent installers for homeowners, to on-staff engineers who can assist with choosing the right products and sizes—we're inspiring confidence right along with the comfort our solutions provide.



Learn more about Rinnai high-performance Tankless Water Heaters, Hybrid Tank-Tankless Water Heaters, Boilers, Vent-Free Fan Convectors and EnergySaver<sup>®</sup> Direct Vent Wall Furnaces at **www.rinnai.us** 



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