

# RINNAI ULTRA SERIES TANKLESS WATER HEATERS RUR MODELS

## Frequently Asked Questions

### GENERAL FAQS

**Q: Are the new RUR models condensing or non-condensing?**

A: RUR98i and RUR98e are part of the Ultra Condensing line of Rinnai Tankless Water Heaters.

**Q: Do the RUR models replace any existing SKUs?**

A: No. The RUR98i and RUR98e with integrated recirculation pump are new to the Ultra Series of Condensing Tankless Water Heaters.

**Q: What are the differences between the new RUR98 and the existing RU98?**

A: While many of the specifications are the same, the main difference is the RUR has an integrated recirculation pump. It also comes complete with a programmable timer controller (MC-195T), internal bypass line inside the unit, and a thermal bypass valve included in the box. Unlike many other tankless water heater manufacturers, the Rinnai RUR is configured to work with multiple types of hot water recirculation methods right out of the box, either with or without a dedicated return line.

**Q: Are the new RUR models available for sale?**

A: Product is available for sale mid-December 2014, with order fulfillment in early January 2015.

**Q: What gas types are available?**

A: RUR models will be available in Natural gas and Propane models.

**Q: What will be the actual part numbers of the RUR models?**

A: Labeling will follow current standards, SKU # number followed by Japan (RJ) PN#. There will be (4) new models:  
RUR98i N / RUR98e N and RUR98i P / RUR98e P

**Q: Why is there no controller on the cover of the RUR98?**

A: The RUR98 includes the programmable MC-195T controller which can be installed up to 82' from the RUR.

**Q: Is the size of the RUR the same as other Rinnai Ultra Series Tankless Water Heaters?**

A: Yes. The original design of the RU series left room in the cabinet for future upgrades; in this case, an integrated pump and bypass technology. It should be noted, however, that the location of the hot and cold water supply lines are slightly different than other models in the Ultra Series line.

**Q: Can the RUR be used in residential and commercial applications and what is the warranty period?**

A: RUR can be used in either a residential or commercial application. However, the maximum set temperature is 140 degrees, which may not be sufficient for all commercial applications. The warranty period is the same as other tankless water heaters in the Ultra Series Condensing line. Consult the owner's manual for more details.



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**Q: Can the RUR be used in any hydronic applications?**

A: No. The RUR is not permitted for installation in hydronic heating applications of any type.

**Q: What makes the RUR unique to other tankless water heater manufacturers that offer an integrated pump?**

A: Rinnai's RUR model is unique in that it offers "Complete Recirc in a Box" and works with both a dedicated return line or the crossover method of recirculation. Most other tankless companies can't operate using the Crossover method. The RUR comes complete with the tankless water heater with integrated pump, a thermal bypass valve, an isolation valve kit and a premium programmable MC-195T timer controller as STANDARD! Competitors offer some of these, but at a substantial added expense.

**Q: When the pump is in operation, does the RUR make a lot of noise?**

A: The RUR98i operates approximately @ 41dB, significantly less than the noise a refrigerator makes; the RUR98e operates at approximately 52dB, roughly the sound level of a quiet street. There are times when water can be heard running through pipes but that is normal and not necessarily related to the operation of the RUR98.

**Q: Is the RUR tankless water heater "mobile home certified"?**

A: Yes, the RUR meets the qualifications.

**Q: What other controllers can be added to the RUR beyond the MC-195T that is already included?**

A: The only additional controller that can be added is the MC-91-2; maximum of 3. Since the RUR has a maximum set temperature of 140 degrees, the MCC-91, which allows temperatures up to 185 degrees, would not be viable. Additionally, the MC-100 and BC-100 controllers also cannot be used as it will cause the pump to not operate correctly and will display inaccurate temperatures.

## VENTING FAQS

**Q: Do the RURs come with "dual pipe" venting option? What type of venting material can be used with this option?**

A: Similar to the RUC models, the new dual pipe venting option is certified to be used with PVC/CPVC as well as vent pipe certified to ULC S636. For more detailed information, consult the installation manual.

**Q: Can I use a combination of 3" and 4" PVC for venting?**

A: No. Similar to the RUC Tankless Water Heaters, the RURs are designed to use either 3" OR 4", not a combination of the two. The distances that can be run are indicated in the installation manual.

**Q: Can I use 2" PVC for venting?**

A: No. Again similar to the RUC Tankless Water Heaters, the RUR models are designed to use either 3" OR 4" only. The distances that can be run are indicated in the installation manual.



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**Q: Is there anything special about the screws included in the box that are to be used to secure PVC venting?**

A: They are “self-tapping” screws which should be used when securing the PVC venting.

### RUR RECIRCULATION FAQ'S

**Q: What kind of pump has been integrated into the RUR98?**

A: The AC powered 120V/60Hz integrated pump on the RUR is designed specifically to work with the Rinnai Tankless Water Heaters and is manufactured to meet the strict Rinnai standards of quality and performance.

**Q: What is the maximum length of the hot water recirculation loop that can be used with the RUR98?**

A: If using a ¾” line, the maximum loop length is 400 ft. For ½”, it is 100 ft.

**Q: Does the RUR98 operate the same way as an RU98 + GTK15 Kit?**

A: Operation is similar, however, installation is simplified with the integrated recirculation pump AND the RUR is capable of working in the crossover mode, ideal for retrofit applications.

**Q: If using the dedicated return line method of recirculation, is the RUR98 cost effective in comparison to buying just a RU98 + GTK15 Kit?**

A: Beyond the installation being simpler and more cost effective, the RUR98 includes the premium, programmable MC-195T timer controller that offers the added benefit of remote installation as well as many other features.

**Q: What is the factory default setting on the RUR for recirculation method?**

A: The factory default is in the Dedicated return line mode. However, converting to the Crossover mode can be achieved by simply removing the bypass plug located in the hot water outlet assembly and replacing it with the supplied bypass filter (located within the unit). Consult the installation manual for further details.

**Q: What is the “default” temperature and temperature range that the RUR Tankless Water Heater can be set at?**

A: The default temperature from the factory is 120 degrees. In Dedicated return mode, the range available is 98-120 degrees. In Crossover mode, 120 degrees is the only setting available without making adjustments to dip switch settings on the unit. Changes to these dip switches allow the RUR to be set at 125-140 degrees, regardless of the recirculation mode used. Consult the operating manual for specifics on how to achieve these higher set points.



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**Q: Does the RUR come with Rinnai Circ-Logic and how does it work with the different recirculation modes?**

A: Yes, the RUR includes Circ-Logic with Comfort and Economy settings available. In Dedicated return mode, the Circ-Logic system will work similar to other Rinnai Tankless Water Heaters, sensing differences in temperature in the recirculation loop and turning the recirculation pump OFF and ON based on temperature AND time. In Crossover mode, the Circ-Logic system operates by turning the recirculation pump OFF and ON based on time ONLY. The Comfort and Economy settings will vary based on whether the unit is operating in Dedicated return mode or Crossover mode. Consult the operating manual for further details.

**Q: Can I turn on the recirculation pump at any time?**

A: Yes. If you need “faster” hot water outside of the normal programmed times, simply push the “Override” button on the controller.

**Q: How long will the pump run after the “Override” button is pushed on the controller?**

A: In cases where the timer is programmed for events, the pump will run until the next programmed time on the controller. NOTE: If the pump is already running and the override button is pushed, the pump will shut off and will remain off until the start of the next programmed time on the controller. In cases where there are no programmed events and the override button is pushed, the pump will remain on for two hours and then shut off.

**Q: When is the bypass filter included in the box used?**

A: When converting from the factory default Dedicated return line mode to the Crossover mode, change out the bypass plug and exchange for the bypass filter as outlined in the installation manual.

**Q: Where should the thermal bypass valve be placed in the crossover recirculation loop?**

A: For maximum performance, the valve should be placed at the plumbing fixture with the “greatest piping distance” from the RUR Tankless Water Heater. In some cases, depending on how the plumbing was installed, this may not actually be the same location as the “furthest fixture”.

**Q: Can more than one thermal bypass valve be placed in the crossover recirculation loop?**

A: No. The normal operation of the RUR is designed for keeping a stable hot water temperature. If multiple thermal bypass valves are installed, normal operating sequence might be affected, causing the pump to stop, allowing unexpected fluctuations in temperature.

**Q: Does the RUR qualify for California’s Title 24 “On-demand” recirculation?**

A: No. By definition, the actuation of the pump has to be a “manual button”, not timer-based.

**Q: In Crossover mode, does the pump shut off when the thermal bypass valve reaches temperature and closes?**

A: No. The pump is timer-based. If the thermal bypass valve closes, the pump will continue to run based on its timer setting, recirculating internally.



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**Q: In Crossover mode, does the RUR Tankless Water Heater continue to “fire” when the thermal bypass valve reaches temperature and closes?**

A: No. The two operate separately. The tankless water heater will continue to “fire” until it reaches temperature.

**Q: How does the thermal bypass valve actually work?**

A: In Crossover mode, the system uses the cold water supply line as the “return line” to the tankless water heater. The integrated pump on the RUR pushes the existing cool water that is in the hot water supply line through the thermal bypass valve (included with RUR), forcing it to “cross over” to the cold water supply line effectively creating a complete recirculation loop.

**Q: What is the max flow and operating temperature of the thermal bypass valve?**

A: The normally “open” valve allows .8 gpm fully open and is set at 98 degrees with a +/- 5 degree tolerance.

**Q: Does the RUR have a buffer tank?**

A: No. The RUR comes with a built-in bypass servo which helps maintain temperature inside the heat exchanger. Combine that with better temperature control and ON/OFF intermittent sequencing, the temperature in the loop is already warm, all but eliminating the need for a buffer tank.

**Q: What are the differences in flow rates between the two recirculation modes?**

A: In Dedicated mode, the flow through the recirculation line is between 2 and 4 gpm dependent on the length of the recirculation loop. In crossover mode, the flow is dependent on the length of the recirculation loop and can vary between .4 and .8 gpm.



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