

Rinnai.**Control-R™**Connect for **smarter** hot water.

Recirculation with On-Demand Accessories

User Guide

Top Takeaways

- Understanding how on-demand recirculation works is essential. You need to know there are times when the recirculation pump will not turn on, even if the on-demand accessory is activated.
- After the module is installed, PC board settings inside the tankless water heater **MUST** be configured.
- Learn how to work around Circ-Logic to make sure the accessories are paired correctly.
- Check out tips and FAQs for successful, stress-free installation.

To get the most from your on-demand recirculation accessories, check out more tips and videos by scanning the QR code, or visit www.rinnai.us/wifi



About This Manual

This manual provides detailed information on Rinnai’s on-demand recirculation accessories; it is designed for field installers and is a supplement to the **Control-R™ Wi-Fi Module Installation Manual** (supplied inside module package).

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1 What Is Recirculation?

Circ-Logic is Rinnai's recirculation technology built into Rinnai Tankless Water Heaters. Circ-Logic defines recirculation patterns that coincide with your hot water usage. Hot water is available when and where you want it with the on-demand recirculation components listed below.

Recirculation Components

Control-R™ Module

(plus any of the following accessories)



Mobile App

Once connected and the Rinnai app is downloaded, the Rinnai Tankless Water Heater can be controlled from the user's smart phone or tablet.



Push Button

Mounts in a convenient location, such as a kitchen faucet or bathroom sink and operates the recirculation system by pushing the button.



Motion Sensor

Mounts flush to the wall or in the corner and operates the recirculation system with the detection of motion.



Voice Activation

Start recirculation with a simple voice command with Amazon Alexa or Google Home.




Amazon, Alexa and all related logos are trademarks of Amazon.com, Inc. or its affiliates. Google Home is a trademark of Google LLC.

Temperature Sensor

Turns off recirculation and is available for purchase if required by local building codes.



Tankless Water Heaters with Circ-Logic

Models with Recirculation Capability	
With Internal Pump	Without Internal Pump
<p>Circ-Logic is included in Rinnai's SE+ Series featuring Therma-Circ360™ models (Super High Efficiency Plus RUR Models):</p> <ul style="list-style-type: none">• RUR98i/e• RUR160i/e• RUR199i/e <p>Included in these models are an internal recirculation pump and crossover valve.</p>  <p><i>Example image</i></p>	<p>The following models include Circ-Logic, but require installation of an external recirculation pump (purchased separately):</p> <ul style="list-style-type: none">• RLX94i• RL75i/e (VC)• RL94i/e (VC)• RU80i/RUC80i and RU80e• RU90e/RUC90i• RU98i/RUC98i and RU98e <p>SENSEI™ Models:</p> <ul style="list-style-type: none">• CU199i/e (Commercial)• CU160i/e (Commercial)• RU199i/e (Residential)• RU180i/e (Residential)• RU160i/e (Residential)• RU130i/e (Residential)

How On-Demand Recirculation Works

- 1 The on-demand accessory is activated (push button is pressed, motion sensor activated, etc.)
- 2 A *request* (not a *command*) is sent to the water heater to turn on the pump. In other words, the push button or motion sensor is asking the water heater if the pump can turn on to start recirculation.
- 3 With built-in Circ-Logic, the water heater decides (based on time intervals and current water temperature) if the pump can turn on. The water heater either ignores or accepts the request from the recirculation accessory.
- 4 If the water heater accepts the request to start recirculation, the pump turns on and runs for five minutes or until the water temperature is reached (whichever occurs first).
- 5 After recirculation completes, the pump enters into a mandatory dormant (inactive) state. **During this time, the pump will not turn on for any reason, even if the push button or motion sensor is activated.**
- 6 The pump remains dormant for the configured time intervals.

See Visual Illustration on Next Page



On-Demand Recirculation Example

* 15 Minutes is an example time frame and is for illustrative purposes only.

SENDS REQUEST

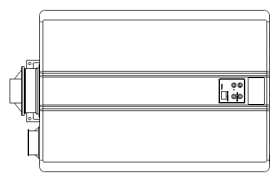


CAN THE PUMP TURN ON?



Push button is pressed.

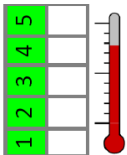
IF REQUEST IS ACCEPTED



Circ-Logic decides if the pump will turn on (based on configured time intervals and current water temperature). **WATER HEATER IGNORES OR ACCEPTS REQUEST**



PUMP ON 5 MIN.

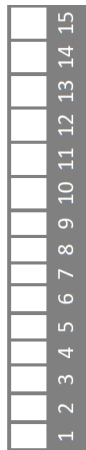


Pump turns on and runs for 5 minutes or until water temperature is reached (whichever occurs first).

RECIRCULATION CYCLE COMPLETE



PUMP OFF 15 MIN.*

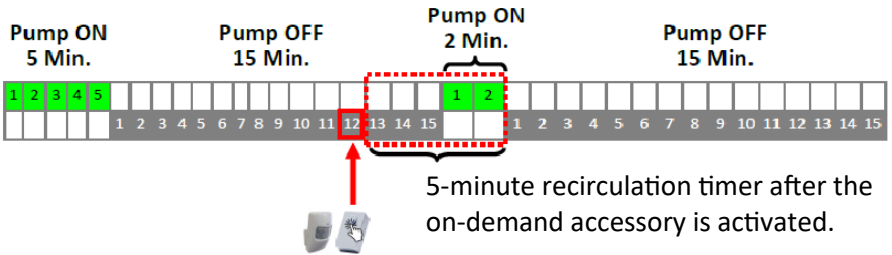


Pump turns off and enters a mandatory dormant (inactive) state. **DURING THIS TIME, THE PUMP WILL NOT TURN ON FOR ANY REASON, EVEN IF THE PUSH BUTTON IS PRESSED**
The pump remains dormant for the configured time intervals.



IMPORTANT: If an on-demand request is made while the pump is dormant, the pump WILL NOT turn back on.

The ON signal is still sent to the water heater for a 5-minute timer. If the dormant period completes with time available on the Control-R™ timer, the pump will activate for those remaining minutes (see example below).



Recirculation with a Dedicated Return Line

Pump OFF intervals (the amount of time the pump stays off) are different for RUR models and non-RUR models:

- RUR models include an integrated recirculation pump
- Non-RUR models that are equipped with Circ-Logic require installation of an external recirculation pump

RUR Models

RUR Models (Include Internal Recirculation Pump)

Rinnai Temperature Setting °F	Typical Pump OFF Intervals (Minutes)	
	Economy Mode	Comfort Mode
140	18	9
135	20	10
130	22	11
125	24	12
120	28	14
115	32	16
110	38	19
108	40	20
106	44	22
104	48	24
102	52	26
100	56	28
98	62	31

See example on following page

Example: RUR Models in Comfort Mode

Rinse Temperature	Typical Pump Off Intervals (Minutes)		
Setting #2	Economy Mode	Comfort Mode	
RUR Models table on previous page			
104	48	24	

Temperature	Economy	Comfort
104	48	24



TIP

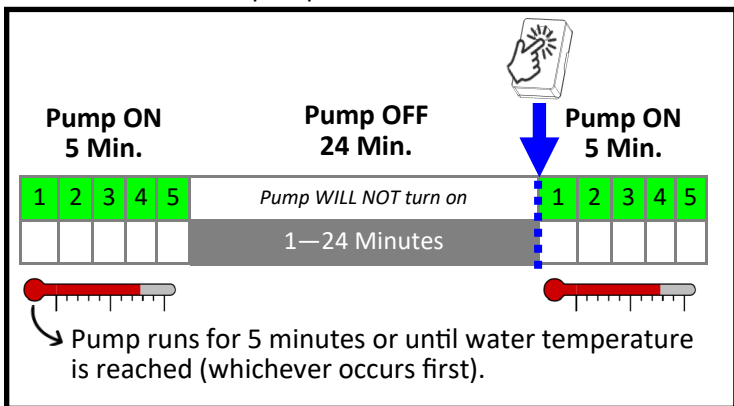
Comfort mode is recommended with on-demand recirculation accessories as it cycles the pump more frequently, ensuring the loop temperature remains higher.

- The push button or motion sensor is activated.
- If the water heater accepts the request, the pump runs for five minutes (or until the water temperature is reached) and then turns off.
- The pump remains off in its mandatory dormant (inactive) state for 24 minutes in Comfort mode.

IMPORTANT

If a push button or motion sensor is activated during the mandatory dormant (inactive) state, the pump **WILL NOT** turn back on.

- After 24 minutes, the push button or motion sensor may be activated to turn on the pump.



If using a dedicated return line, set the dip switches as outlined in the Tankless water heater Installation and Operation Manual.

Note: Instead of dip switches, SENSEI™ units have parameter settings.

Non-RUR Models with Circ-Logic

Non-RUR Models (External Recirculation Pump Required)

Rinnai Temperature Setting °F	Typical Pump OFF Intervals (Minutes)	
	Economy Mode	Comfort Mode
140	31	15
135	31	15
130	31	15
125	31	15
120	31	15
115	35	18
110	42	21
108	45	22
106	49	24
104	54	27
102	60	30
100	68	34
98	79	39

Recirculation with a Crossover Valve (RUR Models Only)

The table below illustrates pump OFF intervals for units using a crossover valve.

IMPORTANT

The internal pump in an RUR model runs based on time intervals only and not water temperature (like dedicated return line recirculation systems).

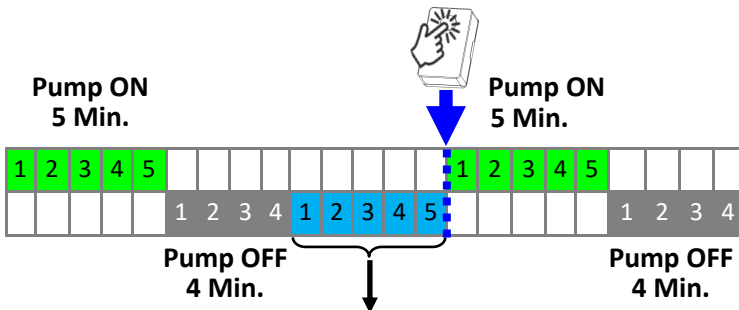
Pump Status		Typical Intervals	
		Long Loop Mode (201—400 Ft)	Short Loop Mode (Up to 200 Ft)
ON		16	8
OFF	Economy	10	10
	Comfort	4	4

Example:

- The push button or motion sensor is activated.
- If the water heater accepts the request, the pump runs for 5 minutes and then turns off.
- The pump remains off in its mandatory dormant (inactive) state for 4 minutes in Comfort mode.

Important: If a push button or motion sensor is activated during the mandatory dormant (inactive) state, the pump will not turn back on.

- After 4 minutes, the push button or motion sensor may be activated to turn on the pump.



Pump available and will turn on if push button is pressed (5-minutes is an example only)

2 Let's Get Started

IMPORTANT

Before you begin, make sure recirculation settings are **disabled (turned off)** on the tankless water heater. For instructions, see **Appendix B → Recirculation Settings** section.

You will need:

- On-Demand Accessory and Batteries (supplied with purchase)
- Control-R™ Wi-Fi Module
- Phillips Head Screwdriver (field-supplied)

Additional Items Required for SENSEI™ Water Heaters:

- Water Heater Controller Cable (included in water heater packaging)
- Two Wire Nuts (or other approved wire connectors) (field-supplied)
- Wire Cutter/Stripper (optional) (field-supplied)

Step 1: Install Module

Install on Water Heater

Place magnetic back panel of module to side of water heater.

(Indoor Water Heaters Only)

OR

Install on Wall

Refer to **Appendix A** for detailed installation instructions.

Step 2: Connect Module to Water Heater and Configure Settings

For SENSEI™
Water Heaters

See Step 2A

For Non-SENSEI™
Water Heaters

See Step 2B

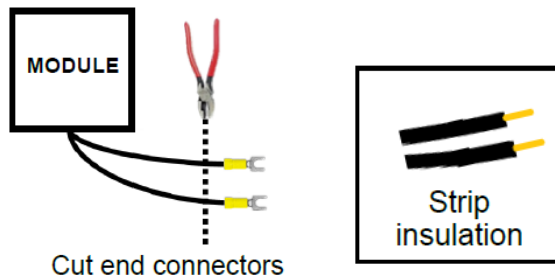
Not sure if you have a SENSEI™ or non-SENSEI™ water heater? Refer to the **Tankless Water Heaters with Circ-Logic** section for a complete list of models.

Step 2A: SENSEI™ Models

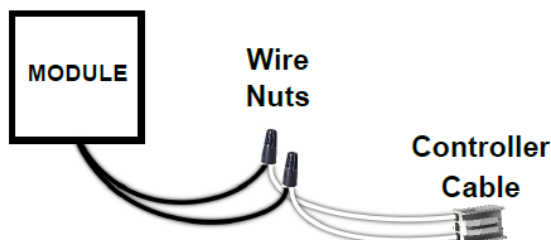
Connect Module:

1. Unplug water heater power cord from power outlet.
2. Remove water heater front panel (use a Phillips Head screwdriver to remove 4 screws securing the panel).
3. Connect module wires to PC Board located inside water heater by completing steps a, b, and c below.
 - a. If module comes with spade end connectors, cut spade end connectors off the two module wires.

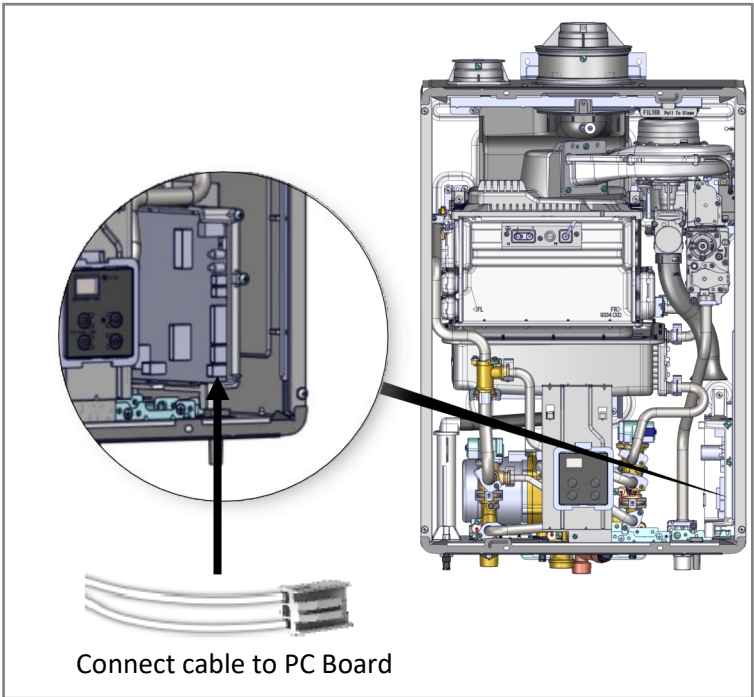
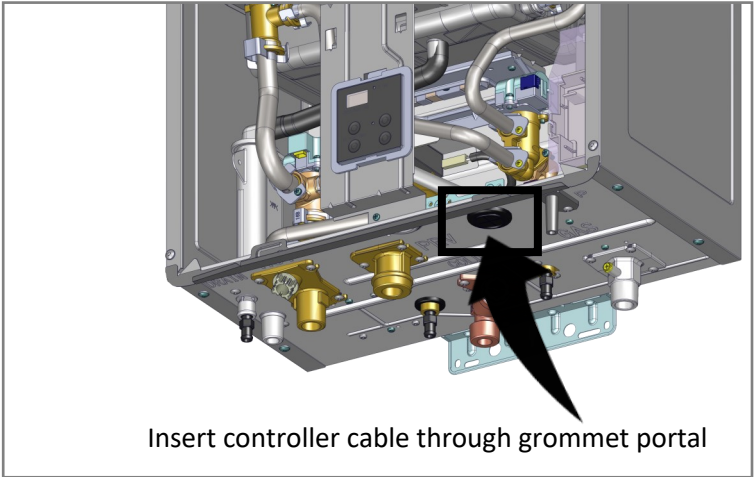
Next, strip insulation off both ends.



- b. Connect module wires to water heater controller cable (included in water heater packaging) using wire nuts or other approved wire connectors.



- c. Connect controller cable to PC Board through grommet portal on bottom, right side of water heater.

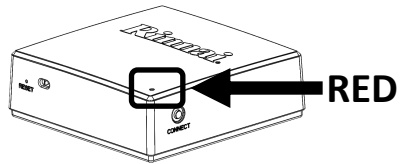


- 4. Plug water heater power cord into a power outlet.

Pair Accessory to Module:

5. Wait for module LED to turn **RED**.

While you are waiting, continue with next step.

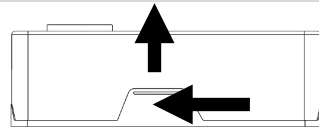


Complete remaining steps for
EACH ON-DEMAND ACCESSORY
to be paired

6. Insert accessory batteries by following the steps below:

Push Button Batteries

- Press both sides.
Then, lift and remove cover.

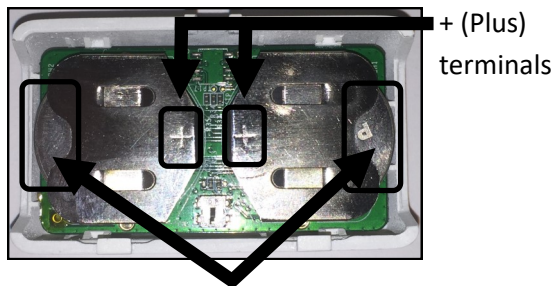


Press, then lift UP cover

- Press/hold down push button and insert two supplied batteries **at the same time**.

Make sure + (**plus**) terminals are aligned correctly.

When batteries are installed, release the push button.



Insert batteries

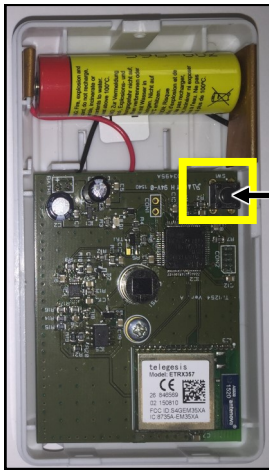
- Replace cover on push button (cover fits in one direction only).

Motion Sensor/Temperature Sensor Batteries

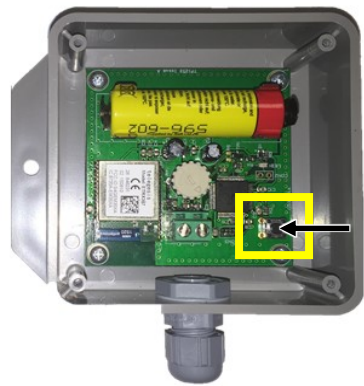
- Use a Phillips Head screwdriver to remove the front cover.
- Insert the supplied battery while pressing down on the accessory **Connect** button at the same time.

Battery type is 2600mAh AA size Lithium-Thionyl Chloride battery (3.6V or 3.7V).

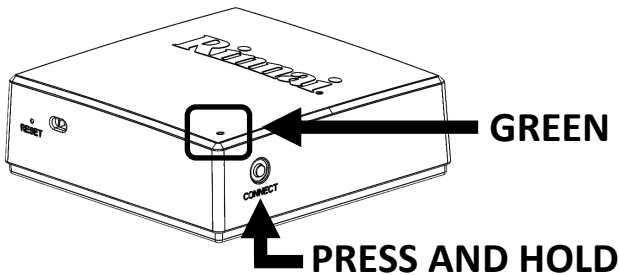
Connect button inside Motion Sensor



Connect button inside Temperature Sensor



7. When module LED is **RED**, press and hold down **Connect** button on MODULE until LED turns **GREEN**. Then, release button.



8. You have **five minutes** to complete the bullets below:

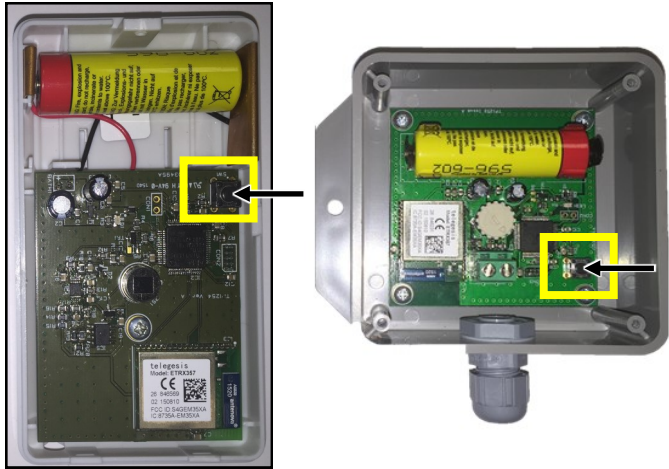
Push Button:

- Press and hold down push button.
- Push button flashes three times and then rapidly flashes.
- Release push button.

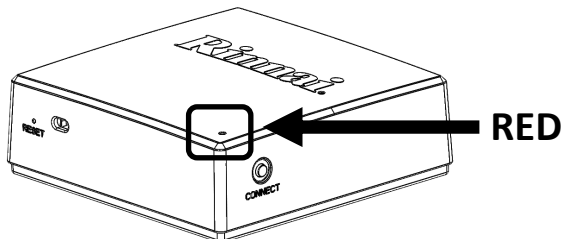


Motion Sensor and Temperature Sensor:

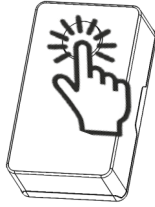
- Press and hold the **Connect** button on the accessory until the accessory LED quickly flashes.
- Release the button.



9. If paired successfully, module LED quickly blinks **GREEN** and turns **RED**.

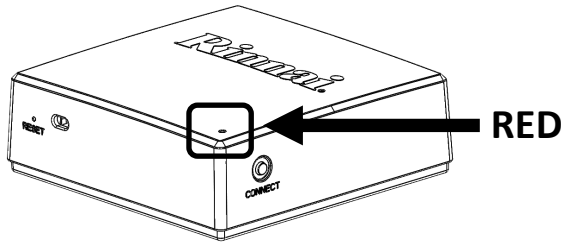


10. Activate on-demand accessory (press push button, activate motion sensor, etc.).



Module LED quickly blinks **GREEN** and turns **RED**.

(This signifies communication between on-demand accessory and module.)



IMPORTANT: After activating on-demand accessory (pressing push button, activating motion sensor, etc.), **DO NOT** activate it again until 5-minute timer is complete (as explained in next step).

Note: Place motion sensor where it cannot detect movement.

11. Set a timer for **5 minutes**.

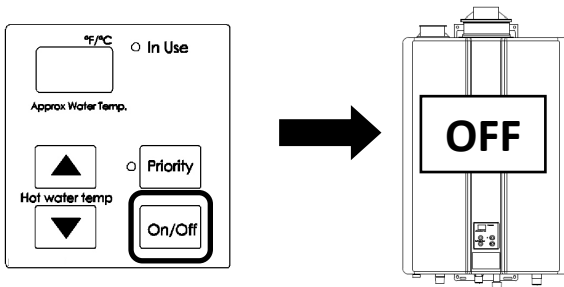
(Use any type of timer, such as a watch or the timer on a smart phone).

While waiting, continue with next step.



Configure Water Heater Settings to Comfort Mode:

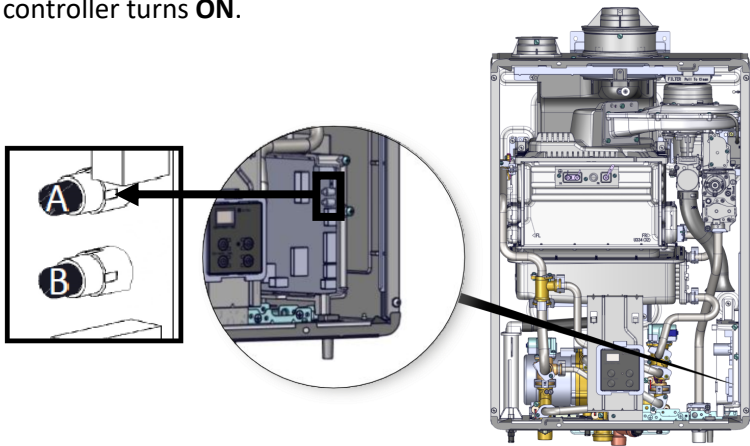
12. Press **On/Off** button on controller to turn **OFF** water heater.



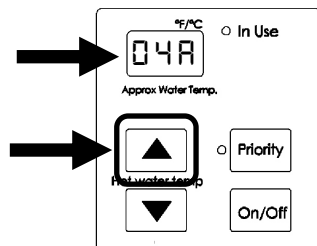
IMPORTANT: Controller MUST be turned OFF for remaining steps to work correctly.

13. Press and hold down **A** button on PC Board for 1 second.

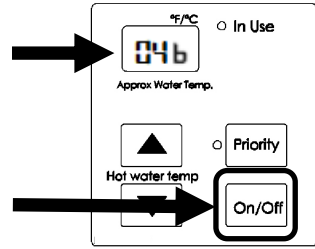
The controller turns **ON**.



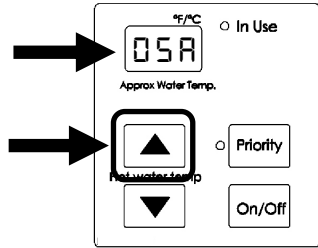
14. Press **Up** arrow until **04A** appears in display.



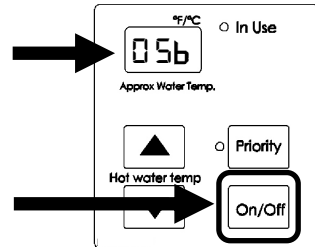
15. Press **On/Off** button until **04b** appears in display.



16. Press **Up** arrow until **05A** appears in display.



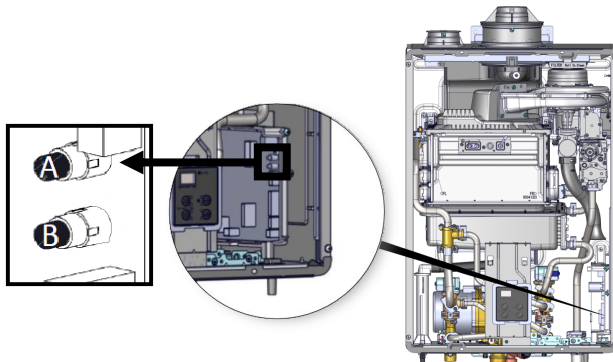
17. Press **On/Off** button until **05b** appears in display.



18. Comfort mode is selected.

To select additional parameters, see Appendix B.

When parameter settings are complete, press and hold down **A** button on PC Board for one second to exit parameters. The controller turns **OFF**.

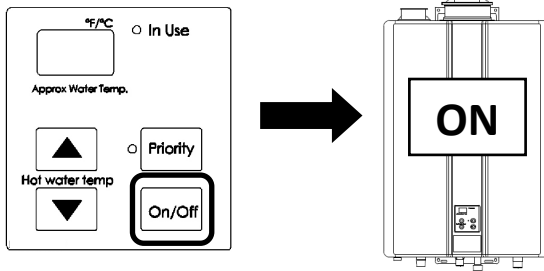


19. Replace water heater front panel.



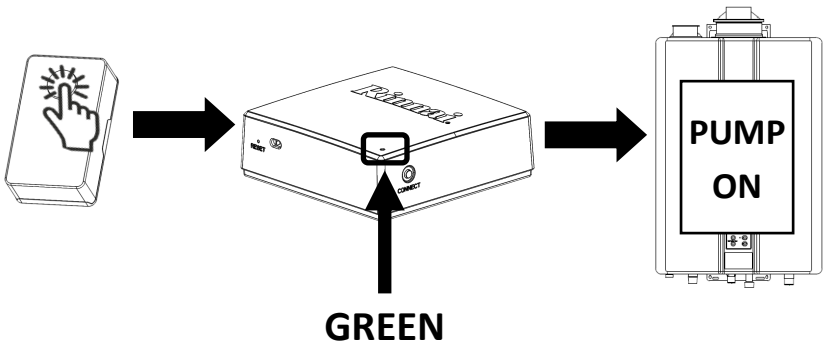
**COMPLETE REMAINING STEPS ONLY AFTER
5-MINUTE TIMER IS FINISHED FROM STEP 11 ON
PAGE 18.**

20. Press **On/Off** button on water heater controller to turn **ON** water heater.



21. Activate the on-demand accessory (press push button, activate motion sensor, etc.)

Module LED blinks **GREEN** and pump turns on.



22. Instructions for pairing one on-demand accessory are complete.

To pair additional accessories, follow the steps below.

Pair Additional On-Demand Accessories

- Press **On/Off** button on water heater controller to turn **OFF** water heater.
- Unplug water heater power cord from outlet and then plug it back in.
- Repeat steps 6-9 on pages 15-17.
- Press **On/Off** button on water heater controller to turn **ON** water heater.
- Activate on-demand accessory (press push button, etc.). Pump turns on.



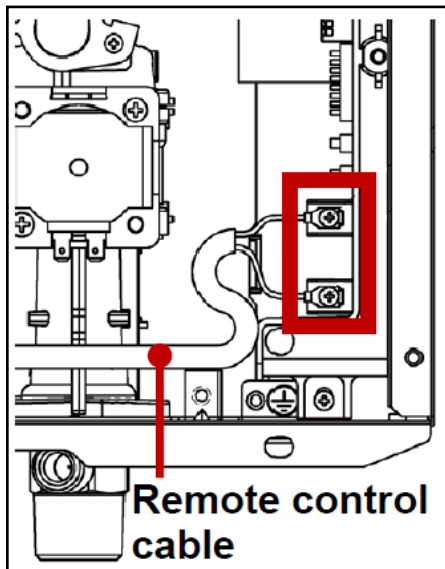
Step 2A for SENSEI™ models is complete.

SKIP the next step (Step 2B) and **START** with Step 3.

Step 2B: Non-SENSEI™ Models

Connect Module:

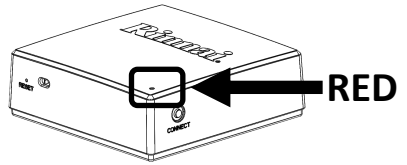
1. Unplug the water heater power cord from power outlet.
2. Remove water heater front panel (use a Phillips Head screwdriver to remove 4 screws securing the panel).
3. Place the two module wires through the bottom opening of the water heater.
4. Attach each module wire to the two screws labeled **Terminal for Controls**.
 - Partially unscrew each of the two screws.
 - Insert the spade terminal (connected to the end of each wire) between the screw and contact.
 - Tighten the screws.
5. Plug water heater power cord into a power outlet.




Pair Accessory to Module:

- 6. Wait for module LED to turn **RED**.

While you are waiting, continue with next step.

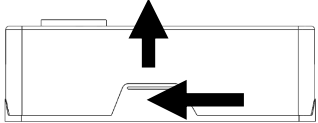


 **Complete remaining steps for EACH ON-DEMAND ACCESSORY to be paired**

- 7. Insert accessory batteries by following the steps below:

Push Button Batteries

- Press both sides. Then, lift and remove cover.

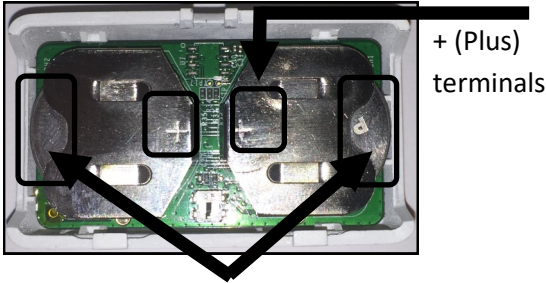


Press, then lift UP cover

- Press/hold down push button and insert two supplied batteries **at the same time**.

Make sure + (plus) terminals are aligned correctly.

When batteries are installed, release the push button.



Insert batteries

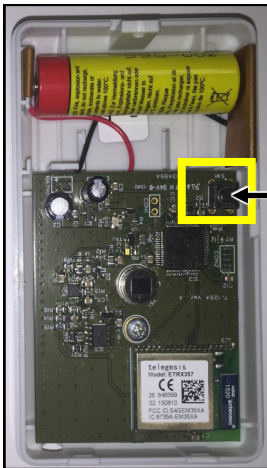
- Replace cover on push button (cover fits in one direction only).

Motion Sensor/Temperature Sensor Batteries

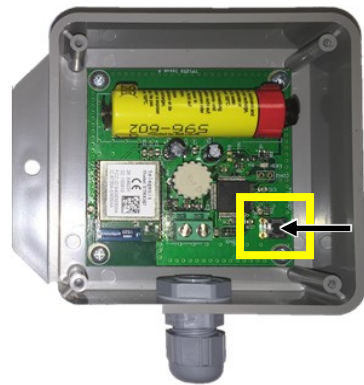
- Use a Phillips Head screwdriver to remove the front cover.
- Insert the supplied battery while pressing down on the accessory **Connect** button at the same time.

Battery type is 2600mAh AA size Lithium-Thionyl Chloride battery (3.6V or 3.7V).

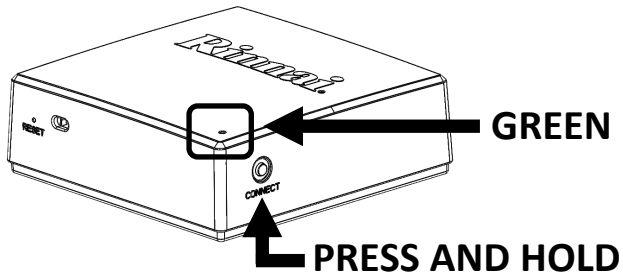
Connect button inside
Motion Sensor



Connect button inside
Temperature Sensor



8. When the module LED is **RED**, press and hold down the **Connect** button on the MODULE until the LED turns **GREEN**. Then, release the button.



9. You have **five minutes** to complete the following steps:

Push Button:

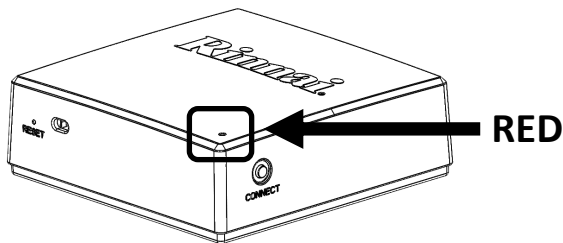
- Press and hold down push button.
- Push button flashes three times and then rapidly flashes.
- Release push button.



Motion Sensor and Temperature Sensor — Press and hold the **Connect** button on the accessory until the accessory LED quickly flashes. Then, release the button.



10. If paired successfully, module LED quickly blinks **GREEN** and turns **RED**.

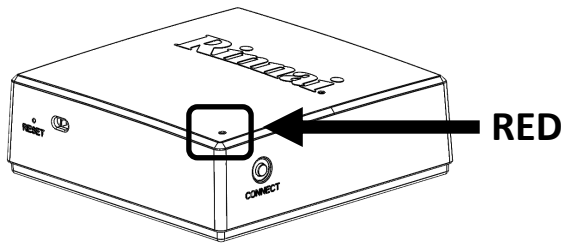


11. Activate on-demand accessory (press push button, activate motion sensor, etc.).



Module LED quickly blinks **GREEN** and turns **RED**.

(This signifies communication between on-demand accessory and module.)



IMPORTANT: After activating on-demand accessory (pressing push button, activating motion sensor, etc.), **DO NOT** activate it again until 5-minute timer is complete (as explained in next step).

Note: Place motion sensor where it cannot detect movement.

12. Set a timer for **5 minutes**.

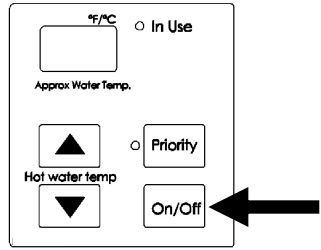
(Use any type of timer, such as a watch or the timer on a smart phone).


While waiting, continue with next step.



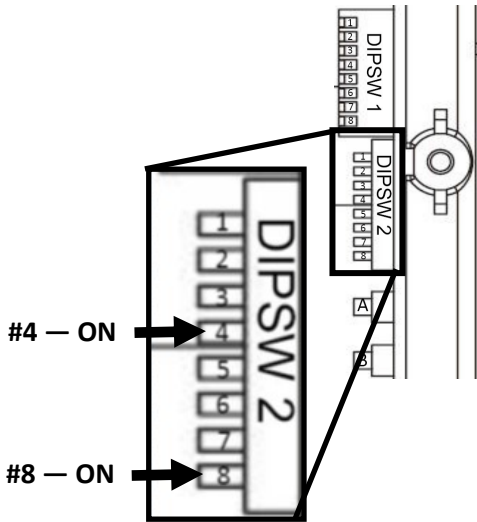
Configure Water Heater Settings to Comfort Mode:

- 13. Press **On/Off** button on controller to turn **OFF** water heater.



 **IMPORTANT: Controller MUST be turned OFF for remaining steps to work correctly.**

- 14. On the PC board, adjust switches **#4** and **#8** in the second (or lower) group of switches (DIPSW 2) to **ON**.



 **TIP**

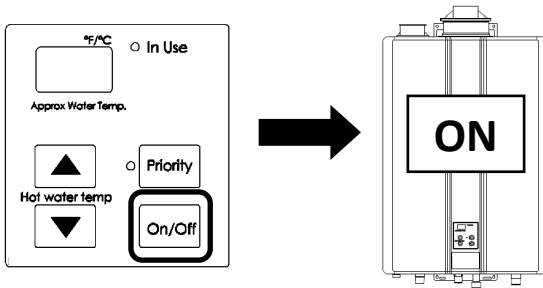
For RUR98i/e water heater models, refer to the Tankless Water Heater Installation and Operation Manual for Crossover Mode settings.

- 15. Replace water heater front panel.



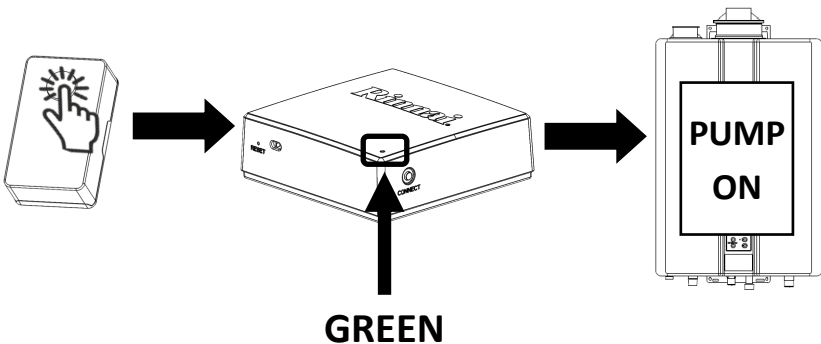
**COMPLETE REMAINING STEPS ONLY AFTER
5-MINUTE TIMER IS FINISHED FROM STEP 12
ON PAGE 27.**

16. Press **On/Off** button on water heater controller to turn **ON** water heater.



17. Activate the on-demand accessory (press push button, activate motion sensor, etc.)

Module LED blinks **GREEN** and pump turns on.



18. Instructions for pairing one on-demand accessory are complete.

To pair additional accessories, follow the steps below.

Pair Additional On-Demand Accessories

- Press **On/Off** button on water heater controller to turn **OFF** water heater.
- Unplug water heater power cord from outlet and then plug it back in.
- Repeat steps 7-10 from pages 24-26.
- Press **On/Off** button on water heater controller to turn **ON** water heater.
- Activate on-demand accessory (press push button, etc.). Pump turns on.



Step 2B for Non-SENSEI™ models is complete.

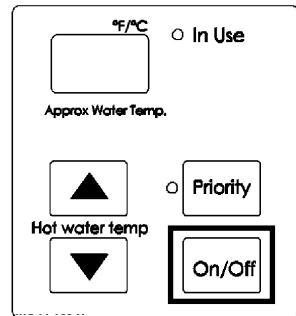
Continue with Step 3.

Step 3: Testing Accessories with Circ-Logic

Circ-Logic is built-in technology in the tankless water heater to control and limit recirculation when it is not needed.

After a recirculation cycle is complete, a mandatory “off” period begins. The pump will not turn on even if a push button is pressed or a motion sensor is activated. To work around the “off” period for testing a paired on-demand accessory, follow the steps below:

1. Power **Off** the water heater by pressing the **On/Off** button on the water heater controller.
2. Unplug the water heater from the electrical outlet. Wait 10 seconds, and plug it back in.
3. Wait for the module to boot up. Boot up is complete when the module LED turns from YELLOW to RED (not connected to a wireless network) or BLUE (connected to a wireless network).
4. Activate the on-demand accessory. Wait 5 minutes.
5. After 5 minutes, power **On** the water heater by pressing the **On/Off** button on the water heater controller.
6. Circ-Logic is now reset.
7. You can press a push button, trigger a motion sensor, or use the Rinnai app to start the recirculation pump.
8. If more testing is needed, repeat steps 1-5.



3 Installation Tips

Check out the latest tips and tricks for a successful, stress-free installation.

- Additional wiring can run up to 300 feet (91 m) away from water heater (18-22 gauge wire required).
- Running cold water through the recirculation line will not force the pump to turn on.
- The OFF cycles for Circ-Logic are determined by configuration settings of the water heater PC Board. For maximum usage of the on-demand accessories, the water heater must be set to Comfort mode. Comfort mode cycles the pump more frequently ensuring the loop temperature remains higher.
- Power cycling or factory resetting the module will not reset Circ-Logic.
- For best results and maintaining hot water in the loop, all lines should be insulated.

Push Button Installation Tips:

- The maximum distance from the module to a push button is 250 ft. (76 m).
- The push button requires two CR2450 watch batteries (available at most retail stores including Walmart, Home Depot, etc.). Battery life is up to two years.

4

Frequently Asked Questions

Q: How many push buttons and motion sensors are supported per each module?

Up to 30 on-demand recirculation accessories are supported per module. There is no limit per the type of accessory as long as the total number of accessories do not exceed 30.

Q: Is the homeowner's wi-fi necessary for recirculation with on-demand accessories?

No. Setting up on-demand recirculation does not require the homeowner's wi-fi network.

Q: How do I factory reset the module?

Press and hold the **Connect** button on the module until the LED blinks WHITE, and then release. This will restore the module back to original factory settings.

Q: How do I configure the tankless water heater dip switches or parameter settings to enable recirculation?

PC Board settings inside the tankless water heater must be configured to enable recirculation. For more information, see section: **Step 2: Connect Module to Water Heater and Configure Settings.**

Q: How do I maximize the frequency of when the on-demand accessory will activate the pump?

Set the water heater to Comfort mode. Comfort mode is recommended with on-demand recirculation accessories as it cycles the pump more frequently, ensuring the loop temperature remains higher. Comfort mode is selected by dip switches/parameter settings inside the water heater. For more information, see section: **Step 2: Connect Module to Water Heater and Configure Settings.**

Q: Can I disable Circ-Logic and turn on the recirculation pump with no restrictions?

No. Circ-Logic keeps the pump from running when it does not need to. Placing the water heater in Comfort mode will lessen the wait time between pump cycles. If the pump does not turn on, the water in the pipes should already be warm; therefore, recirculation is not needed.

Q: I pressed the push button and the pump didn't turn on. What's up?

- Is the push button paired properly? You can check by pressing the push button. Does the LED on the module turn green? If yes, then the push button is paired properly. If no, try re-pairing. See section: **Step 2: Connect Module to Water Heater and Configure Settings**.
- Make sure the water heater dip switches/parameter settings are set to Comfort mode (for steps, see section: **Step 2: Connect Module to Water Heater and Configure Settings**).
- The pump may be in a mandatory dormant (inactive) state due to Circ-Logic (see section: **How On-Demand Recirculation Works** for more information).

Q: How long do I have to pair the on-demand accessory when the LED turns green?

You have five minutes to complete the pairing process before it times out. If pairing mode times out, press and hold down the **Connect** button on the module until the LED turns GREEN.

When pairing multiple on-demand accessories, you must enter pairing mode for each accessory. For more information, see section: **Step 2: Connect Module to Water Heater and Configure Settings**.

Q: How do I know if the module is in pairing mode for the on-demand accessory?

If the module is in pairing mode, the LED on the module is solid green.

Q: What happens when the power goes out?

No settings are affected by a power outage.

Q: If I swap out the module for any reason, do I need to re-pair the Push Button or Motion Sensor?

Yes because push buttons and motion sensors are paired to the module. If the module is swapped, the on-demand accessory (push button, motion sensor, etc.) must be factory reset and paired to the new module.

Q: How do I Factory Reset an On-Demand Recirculation Accessory (Push Button, Motion Sensor, etc.)?

Remove the accessory batteries, and then reinsert the batteries while simultaneously pressing down on the accessory **Connect** button.

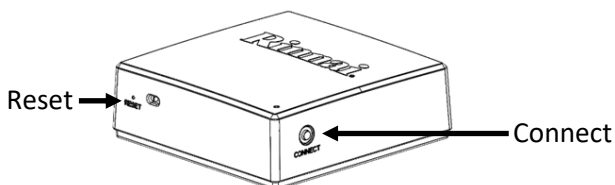
Q: What is the difference between factory reset and power cycle?

- **Factory Reset** restores the module back to its factory default values. Factory resetting also erases all current settings and wireless network history.

A Factory Reset must be performed when changing wireless networks (you must factory reset first, and then select the new network). A Factory Reset must also be performed when starting over on the pairing process (you must factory reset first, and then start the pairing process).

How To Factory Reset: Press and hold the **Connect** button (see below) on the module until the LED blinks WHITE, and then release. The module will reboot and the module LED turns RED when complete.

- **Power Cycle** shuts down power to the module and then restarts power (which is the same function as removing the water heater plug from the power outlet and then plugging it back into the outlet). When trying to connect or disconnect power to the tankless water heater, Rinnai recommends using the water heater power plug instead of using the Reset feature on the module. If you are ever required to use the Reset feature on the module, insert a small pin into the Reset opening (see below).



Appendix A: Install the Module on a Wall

Guidelines:

- The module must be installed indoors (including outdoor water heaters).
- Mount the module to a wall or side of water heater (with the use of a magnetic backing).

Mount to Water Heater

This option is for indoor water heaters only.

Place the magnetic back side of the module to the side of the water heater.



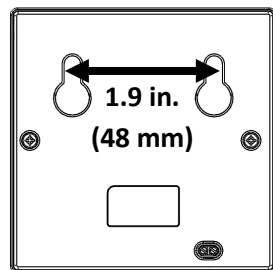
Mount to Wall

You will need:

- Module (supplied)
- Two wall anchors and two screws (supplied)
- Tools (field-supplied): Phillips head screwdriver, drill with bit set, level and pencil

To mount the module to a wall:

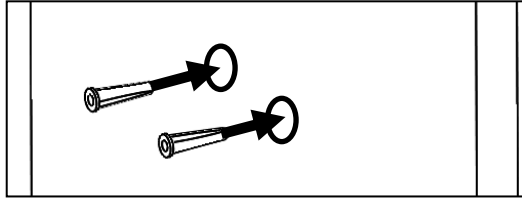
- 1 The module's back panel contains two keyhole slots that support the module. Mark the location of each slot on the wall with a pencil. The distance between the two slots is 1.9 in. (48 mm).



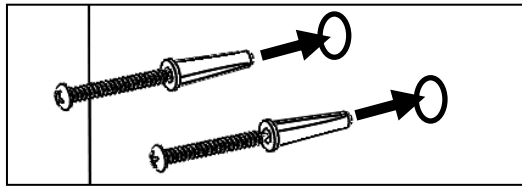
- 2 Use a level to ensure the slots are even.

Use a power drill to drill pilot holes for the module screws and anchors.

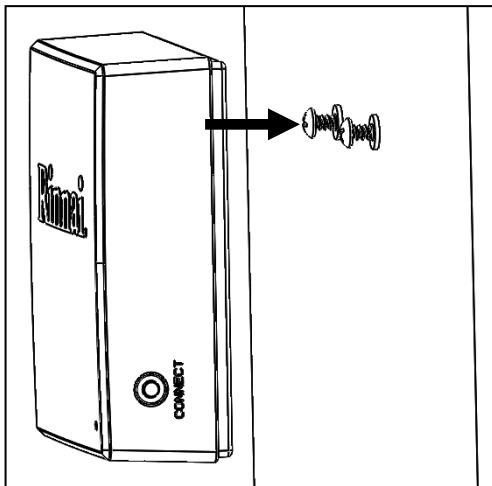
- 3 Insert the two wall anchors (supplied) into each hole until they sit flush against the wall.



- 4 Insert the screws (supplied) into the anchors and fasten to the wall leaving 1/4 in. exposed.



- 5 Mount the module by placing the keyhole slots (on back of module) onto the screws.



Appendix B: Additional Parameter Settings



TIP

Parameter settings can be set with the water heater turned OFF.



IMPORTANT

Refer to “Rinnai Tankless Water Heater Installation and Operation Manual” for complete list of water heater parameter settings.

High Altitude (Installation Location)

1. Press **On/Off** button on controller to turn **OFF** water heater.
2. Press **A** button on PC Board for 1 second.
3. Press **Up** arrow until **02A** appears in display.
4. Press **On/Off** button until the following appears in display:
 - **02A** 0 to 2,000 ft
 - **02 b** 2,001 - 5,400 ft
 - **02C** 5,401 - 7,700 ft
 - **02 d** 7,701 - 10,200 ft
5. To exit parameter settings, press and hold down **A** button on PC Board for 1 second.

Service Soon

1. Press **On/Off** button on controller to turn **OFF** water heater.
2. Press **A** button on PC Board for 1 second.
3. Press **Up** arrow until **03A** appears in display.
4. Press **On/Off** button until the following appears in display:
 - **03A** Disabled
 - **03 b** 0.5 Year
 - **03C** 1 Year
 - **03 d** 2 Years
5. To exit parameter settings, press and hold down **A** button on PC Board for 1 second.

Recirculation Settings

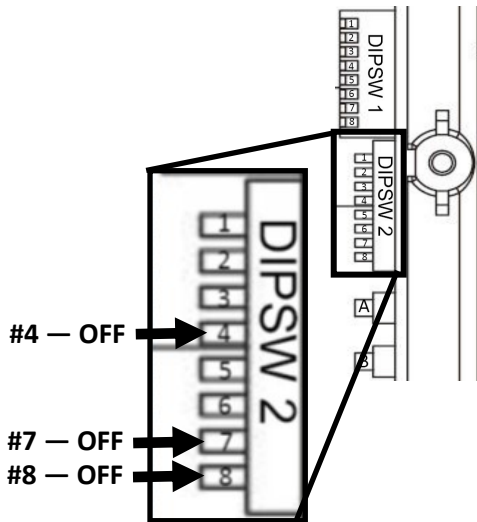
SENSEI™ Models

1. Press **On/Off** button on controller to turn **OFF** water heater.
2. Press **A** button on PC Board for 1 second.
3. Press **Up** arrow until **04A** appears in display.
4. Press **On/Off** button until the following appears in display:
 - **04A** No Recirculation
 - **04b** Dedicated Mode
5. To exit parameter settings, press and hold down **A** button on PC Board for 1 second.

Non-SENSEI™ Models

To turn **OFF** recirculation settings on Non-SENSEI™ models:

On the PC board, adjust switches **#4, #7 and #8** in the second (or lower) group of switches (DIPSW 2) to **OFF**.





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