RWM200 Wireless Module

Installation and Operation Manual

Rinnai

Contents

1. Welcome

Thank you for purchasing a Rinnai RWM200 Wireless Module!

Rinnai's RWM200 Wireless Module connects to your Rinnai tankless water heater (applicable model) from virtually anywhere using your local Wi-Fi network and the free Rinnai Central™ mobile app.

Before installing and operating the module, please read these instructions to familiarize yourself with the module's features and functionality.

2. Safety

- Check the RWM200 Wireless Module carefully for damage before use.
- Keep the RWM200 Wireless Module away from children.
- If any part of the RWM200 Wireless Module appears damaged, do not attempt to use it.
- Follow the instructions in this manual for connecting the wiring connections to the water heater.

3. About

3.1 Components
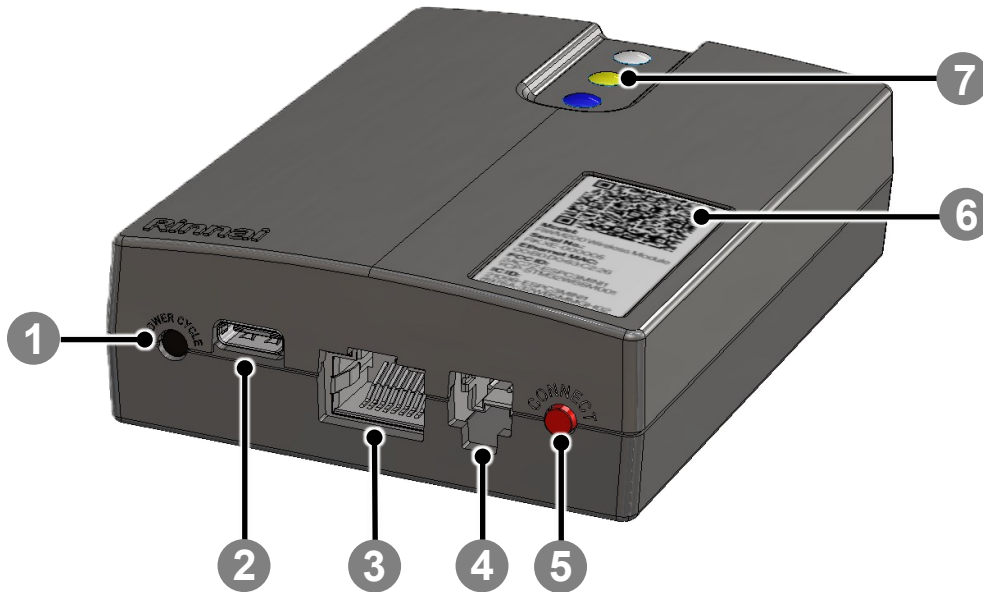
1	**Power Cycle:** Turns off electrical power to the module, then turns on power again.
2	**USB-C Cable Connection** (not currently used)
3	**Ethernet Cable Connection** (not currently used)
4	**Water Heater Connection**
5	**Connect Button**
6	**Module Label:** Provides the model name, serial number, Ethernet MAC, FCC ID, and IC ID numbers. Scan the QR code for more information on the RWM200 Module.
7	**LED Indicator Lights** (see section "3.3 LED Indicator Lights" for more information)

3.2 Optional Accessory

RPB200 Recirculation Push Button

**Optional Accessory. Sold Separately**

Mounted in a convenient location, near a kitchen faucet or bathroom sink, Rinnai's Recirculation Push Button activates the tankless water heater recirculation pump by simply pressing the button. Use up to five buttons at multiple locations.
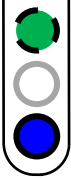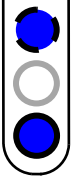

Part Number: RPB200
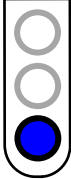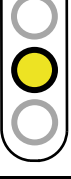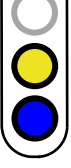
3.3 LED Indicator Lights

The connection and operation status can be checked though the LED indicator lights on the RWM200 module.
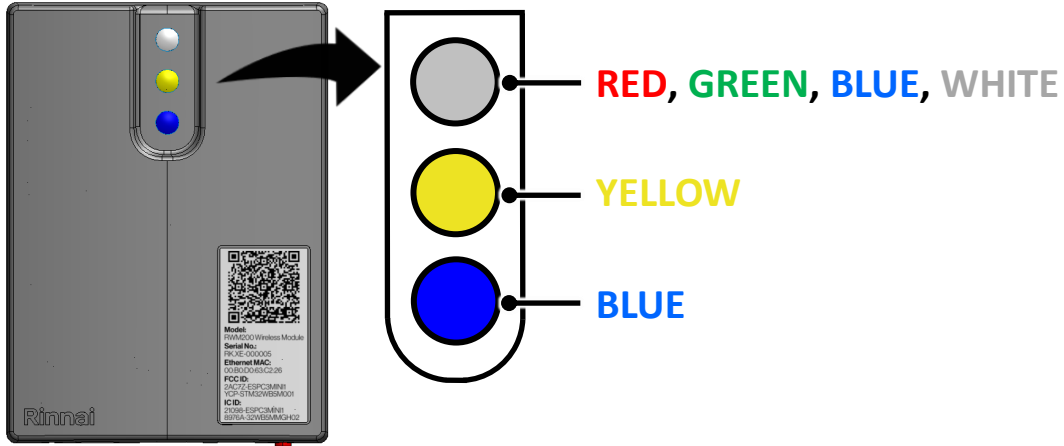
LED State		RMW200 Module State
WHITE Steady		Unconfigured: Wi-Fi and Push Button(s) not yet setup
RED Blink		Wi-Fi setup mode
RED/BLUE Alternate		Establishing Wi-Fi Connection
GREEN/BLUE Alternate		Wi-Fi Configuration

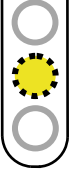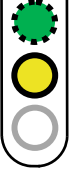| LED State		RMW200 Module State
GREEN Blink BLUE Steady		Connecting to Cloud
BLUE Blink BLUE Steady		Establishing Cloud Session
BLUE Steady		Cloud Connected
GREEN Blink		Ready to Pair with Push Button(s)
YELLOW Flicker		Push Button(s) Message Received
GREEN Flicker YELLOW Steady		Push Button(s) Pairing Complete
YELLOW Steady		Push Button(s) Paired
YELLOW Steady BLUE Steady		Configured: Wi-Fi, Cloud and Push Button(s) Setup

3.4 Specifications

Product	RWM200 Wireless Module (Part Number: RWM200)	
Weight	Module	4.8 oz (0.14 kg)
	Shipping Carton	6 oz (0.17 kg)
Dimensions (w, h, d):	Module (see below)	3.74 in. x 2.73 in. x 1.03 in. (95 mm x 69.3 mm x 26.1 mm)
	Shipping Carton	5.12 in. x 4.13 in. x 2.13 in. (130 mm x 105 mm x 54 mm)
Installation	• Must be mounted indoors. • Attaches to indoor wall with supplied interlock strip or supplied mounting hardware.	
Compatibility	COMPATIBLE WITH: • All Rinnai Tankless Water Heater models manufactured after 2006[1] (see exceptions below) • Wireless On-Demand Recirculation Accessories: Push Button, Motion Sensor, Temperature Sensor, and Smart Home Devices such as Amazon Alexa™, Google Home™, and Samsung SmartThings™ NOT COMPATIBLE WITH: • Super High-Efficiency (SE Series) RUCS/RUS Tankless Water Heaters • RH180 Hybrid Tank-Tankless Water Heaters • MC-195T-US and MC-100V controllers • 802.11N Wi-Fi 5 GHz networks	
Supported Devices	• Apple® devices (iPhone, iPad, etc.) running operating system 12.0 or higher • Android® devices (phones, tablets, etc.) running operating system 5.0 or higher • BlackBerry® devices are NOT supported	
Pairing	Module pairs to only one Rinnai Tankless Water Heater.	

[1] The Lime Condition (LC) notification will not appear in the Rinnai Central™ mobile app when the module is paired with the following series of Rinnai Tankless Water Heaters manufactured prior to 2009: VA, VB, KA and V53e.

Dimensions

Depth
1.03 in.
(26.1 mm)

Height
3.74 in. (95 mm)

Width
2.73 in. (69.3 mm)
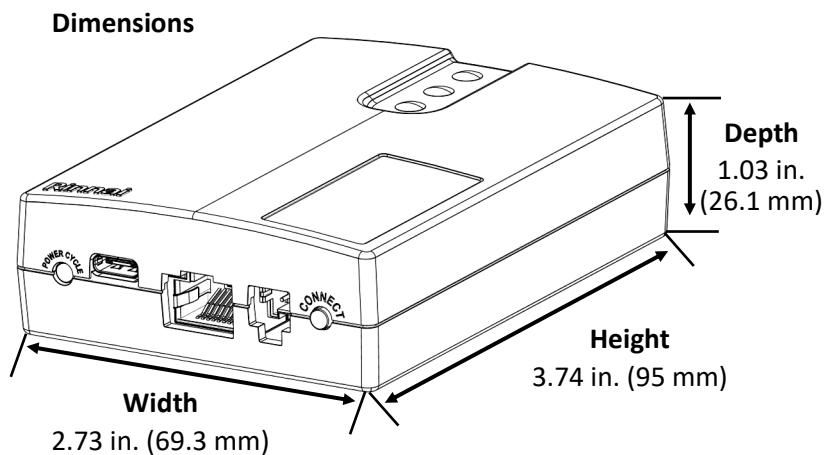
4. Install Module

4.1 Items Included in Box

- RWM200 Controller Unit

- RWM200 2-Wire interface Cable (water heater connection)

- Wall mounting hardware (screw and anchor)

- Velcro Strip 1" x 2" (25 mm x 51 mm) (for alternative RWM200 Mounting)

- RWM200 Wi-Fi Module Installation Guide (this document)

4.2 Select a Location

- Choose a central location where the Wi-Fi signal is strong.

  ➡ **IMPORTANT**

  Basements, crawl spaces, attics, garages, and mechanical rooms may have poor wireless signals.

- Additional wiring (customer-supplied) can connect up to 300 ft. (91 m) away from the water heater to ensure a strong wireless signal (18-22 gauge wire is required).

- For outdoor water heaters, the module must be installed indoors.

4.3 Install the Module

Two installation options are available:

Option 1: Mount the module to an indoor wall using the supplied mounting hardware. Refer to "Appendix A: Wall Mount Instructions (Wall Anchor)."

Option 2: Mount the Velcro strip to the back side the module, and then stick the module to an indoor wall close to the water heater. Refer to "Appendix B: Wall Mount Instructions (Interlock Strip)."

- This installation method is for indoor water heaters only.
- DO NOT mount the module on top of the water heater cabinet.
- DO NOT mount the module inside the water heater cabinet.

5. Connect Module to Water Heater

> ⚠️ **WARNING**
>
> To protect yourself from harm, follow the steps below before wiring the module:
> - Turn off the electrical power supply by unplugging the water heater power cord or by turning off the electricity at the circuit breaker. The controller on the water heater does not control the electrical power.
> - The steps in this section must conform with local codes and the guidelines established by the National Electrical Code (NEC).

1. Unplug the water heater power cord (pressing the "On/Off" button on the controller does not power off the water heater).
2. Remove the water heater front panel by removing the four screws that secure the panel. For detailed instructions, refer to the Tankless Water Heater Installation and Operation Manual supplied with the water heater or located online at www.rinnai.us or www.rinnai.ca.
3. Connect the RWM200 two-wire interface cable to the mating connector on the PC Board located inside the water heater (see below).
   SENSEI™ Models: Route the RWM200 two-wire interface cable through the grommet (located on the bottom, right side of the unit) and connect to the mating connector on the bottom, right side of the PC Board.

Grommet Under Unit

PC Board

Mating Terminal

Wi-Fi Module

RWM200 2-Wire Interface Cable
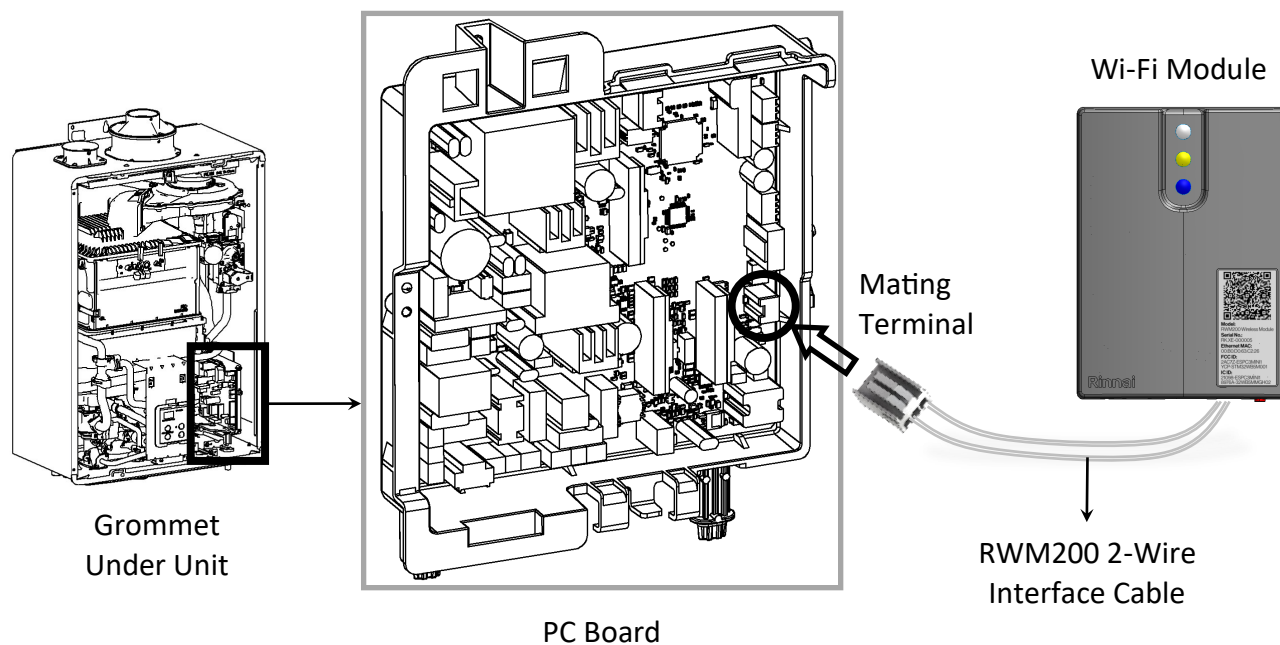
4. Replace and tighten the four screws on the water heater cover.
5. Plug in the water heater power cord.
6. Turn on the water heater by pressing the "On/Off" button on the water heater controller.

6. Install & Pair Push Button (Optional)

SKIP THIS STEP IF YOU ARE NOT INSTALLING A RPB200 PUSH BUTTON
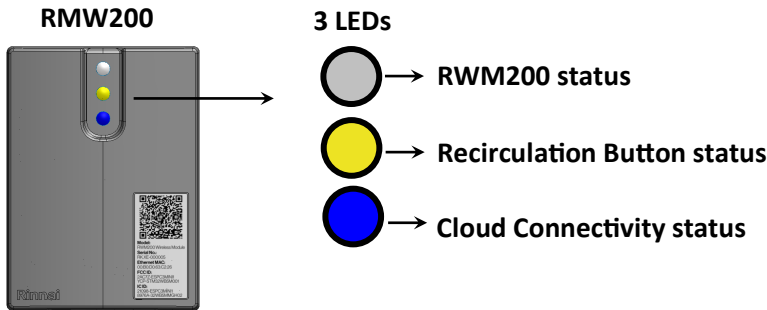
RPB200 PUSH BUTTON

If using the push button for on-demand recirculation, install and pair at this time.

**Note:** When you press the push button, the small LED light flashes to indicate the battery is good.

LED

During the pairing process, you will observe the following LED lights on the RWM200:

RMW200

3 LEDs

→ **RWM200 status**

→ **Recirculation Button status**

→ **Cloud Connectivity status**

RPB200 Recirculation Push Button Pairing Instructions:

1. Press the red **Connect button** on the RWM200 for approximately **7 seconds** until the top green LED light on the RWM200 starts blinking.

Blinks Green

Connect Button
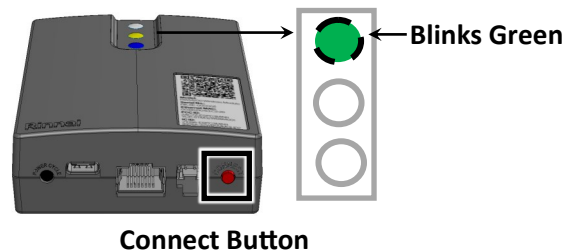
2. Press and hold the RPB200 Recirculation push button for approximately **3 seconds**.

RPB200 Recirculation Push Button

3. When the RPB200 button is pressed, the middle yellow LED will briefly blink rapidly to acknowledge the button press.

Flickers Yellow
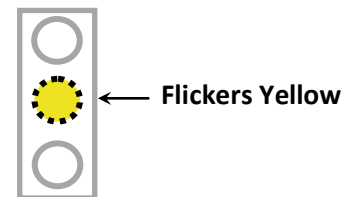
4. The middle Yellow LED on the RWM200 now stays on (solid yellow) to indicate that the button has been paired.

Solid Yellow
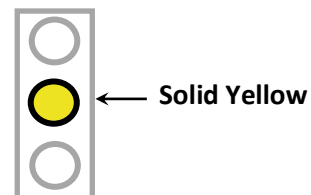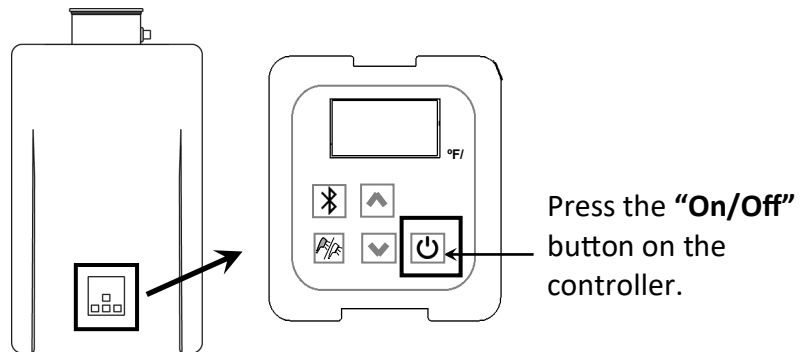
7. Connect Module to Wi-Fi Network

This Section Must be Performed by the
Water Heater Owner (Homeowner/Business Owner)
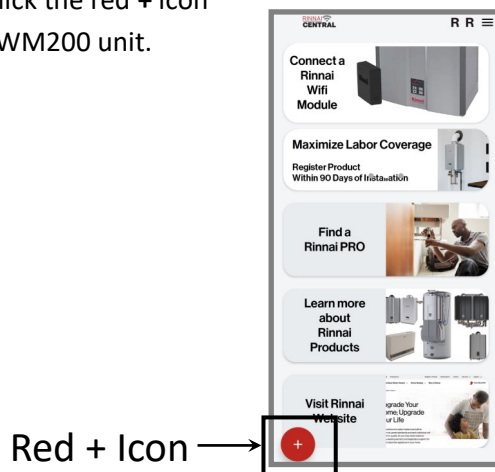
You Will Need:
- Mobile device connected to home/business network
- Router with Wi-Fi
- 2.4 GHz Wi-Fi network

1. Power on the water heater.

The water heater image is for illustrative purposes only. Your tankless water heater and controller may appear differently.

Press the **"On/Off"** button on the controller.

2. Download the Rinnai Central™ App to your smartphone or tablet from the Apple® Store or Google® Play Store.

3. Open the Rinnai Central™ App and follow the on-screen instructions.

4. Pair the Module with the Wi-Fi Network:
   - Log-in and connect Wi-Fi.
   - Press the red **Connect** button on RWM200; the top Red LED light stays on to indicate ready for pairing.
   - In the App, click the red **+** icon to pair the RWM200 unit.

Power Cycle

Connect Button

Red + Icon

8. Troubleshooting

Symptom	Solution
LEDs on module do not turn on.	• Ensure the module is properly connected to the PC Board. • Ensure power is supplied to the water heater.
Rinnai Central™ App cannot detect Wi-Fi signal.	• Ensure the Wi-Fi network is using 2.4 GHz. • Ensure the Wi-Fi router is powered and properly functioning. • Ensure the module is installed in a location with strong signal strength. • Make sure the module is not installed inside the water heater cabinet.
Wi-Fi signal is detected but the Rinnai Central™ App cannot connect.	• Ensure the correct Wi-Fi password is entered.
How do I update my Wi-Fi settings?	• Press the "Connect" button on the module for 3 seconds until the LED turns solid red. Then, follow the on-screen instructions in the Rinnai Central™ App.

For Additional Help:

• Contact Rinnai Customer Care at 1-800-621-9419.
• Please have your module's serial number available (located on back of module).
• Access the Rinnai Central™ App for troubleshooting information.

Check out more Rinnai Central™ module resources, tips and videos by scanning the QR code, or visit:

https://www.rinnai.us/residential/wifi-module

• For questions about your Wi-Fi router, contact the router manufacturer.
• For questions about your Internet service, contact your Internet Service Provider (ISP).
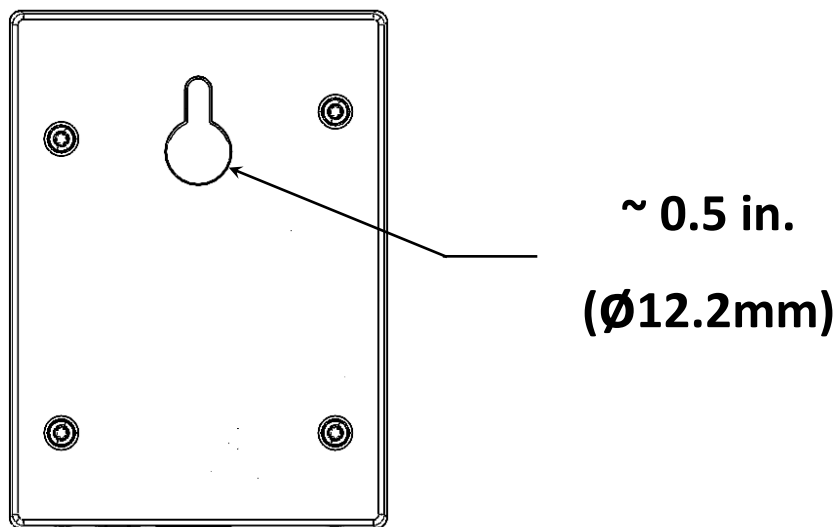
Appendix A: Wall Mount Instructions (Wall Anchor)

To mount the Rinnai Wi-Fi Module to a wall:

You Will Need:

- Module (supplied).
- One wall anchor and one screw (supplied).
  IMPORTANT: The anchor and screw are for mounting to the wall; do not insert them into the tankless water heater.
- Tools (field-supplied): Phillips head screwdriver, drill with bit set, level and pencil.

1. The module's back panel contains one keyhole slot that support the module. Mark the location on the wall with a pencil.


~ 0.5 in.

(Ø12.2mm)

2. Use a level to ensure the slot are even.

   - Use a power drill to drill pilot holes for the module screw and anchor.

3. Insert the wall anchor (supplied) into the hole until they sit flush against the wall.

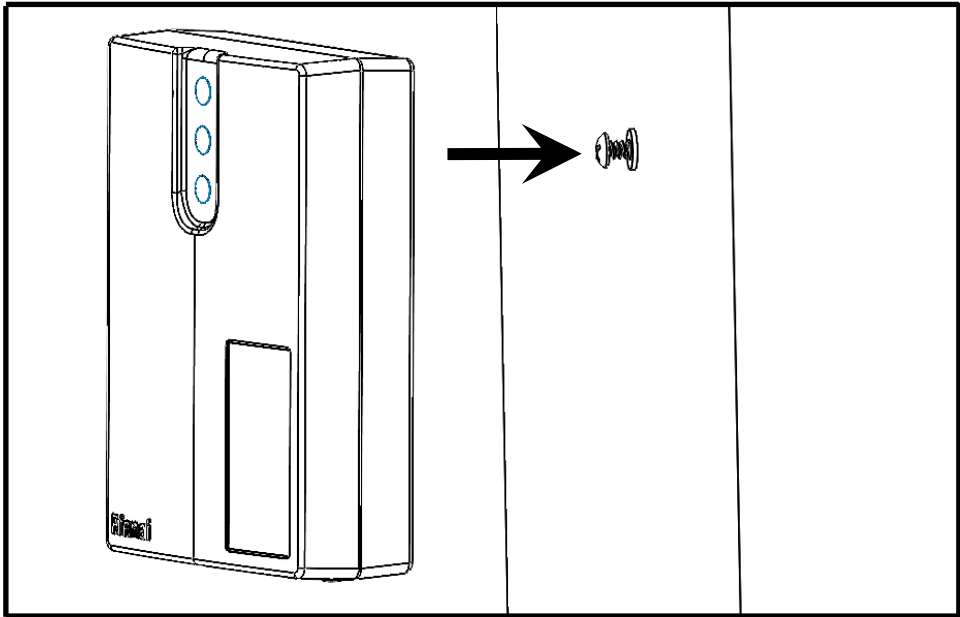*DO NOT insert the anchor into the water heater.*

4. Insert the screw (supplied) into the anchor and fasten to the wall leaving 1/4 in. exposed.

DO NOT insert the screw into the water heater.
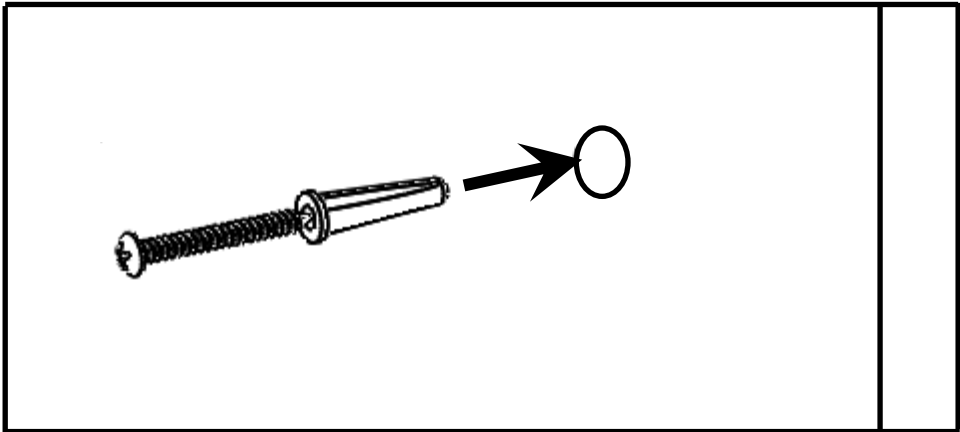
5. Mount the module by placing the keyhole slot (on back of module) onto the screw.

Appendix B: Wall Mount Instructions (Interlock Strip)

To mount the Rinnai Wi-Fi Module to a wall:

You Will Need:

- Module (supplied)
- Two interlock strips (supplied)
  IMPORTANT: The interlock strip mounts to the wall; do not mount them to the tankless water heater.
- Tools (field-supplied): Phillips head screwdriver, drill with bit set, level and pencil.

- **This installation method is for indoor water heaters only.**
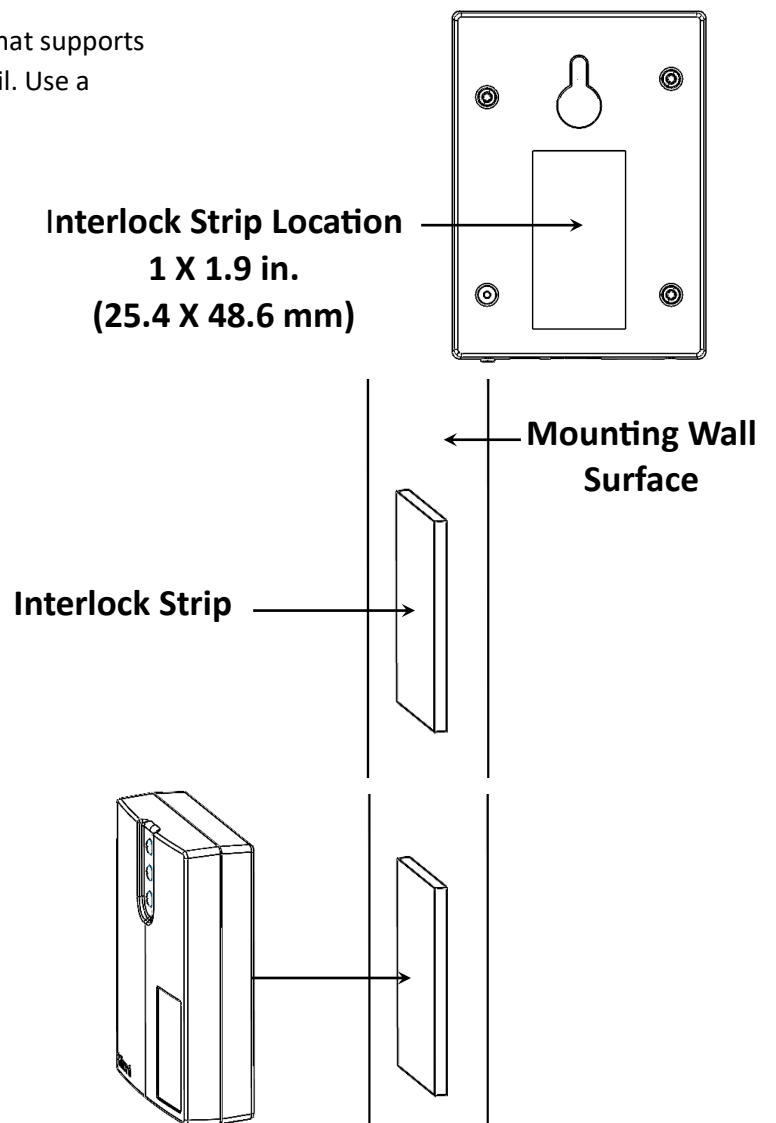- **DO NOT mount the module on top of the water heater cabinet or inside the water heater cabinet.**

1. The module's back panel contains one interlock strip that supports the module. Mark the location on the wall with a pencil. Use a level to ensure the location.

2. Attach one interlock strip (supplied) to the module.

Interlock Strip Location
1 X 1.9 in.
(25.4 X 48.6 mm)

Mounting Wall Surface

3. Stick the other interlock strip (supplied) against the wall next to water heater placement.

   > *DO NOT stick interlock strip to surface of water heater.*

Interlock Strip

4. Mount the module by placing the interlock strip (on back of module) onto the other interlock strip located on wall.

Rinnai America Corporation