

Retrofit Door for RX in RGB-CTWH-3,2,1

For help with product installation, troubleshooting, servicing and more, visit
rinnai.pro.myabsorb.com

Kit Part Number:	104000336	
For Use with Rinnai Recess Box:	RGB-CTWH-3, RGB-CTWH-2, RGB-CTWH	
For Use with Rinnai Tankless Water Heater Models:	<ul style="list-style-type: none"> • RX199i (REU-NB3237FF-US) • RX180i (REU-NB2934FF-US) • RX160i (REU-NB2530FF-US) • RX130i (REU-NB2024FF-US) • RXP199i (REU-NBP3237FF-US) 	<ul style="list-style-type: none"> • RXP160i (REU-NBP2530FF-US) • CX199i (REU-NB3237FFC-US) • CX160i (REU-NB2530FFC-US) • CXP199i (REU-NBP3237FFC-US) • CXP160i (REU-NBP2530FFC-US)

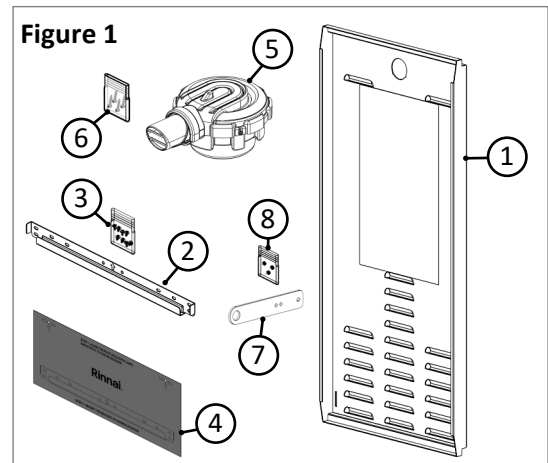
WARNING

- Failure to correctly assemble the components according to these instructions may result in electric shock, injury, or death.
- A trained and qualified professional must install and inspect the recess box before use.
- Warranty will be voided due to any improper installation.
- For outdoor installation only.
- Make sure the recess box is accessible for servicing and maintenance of the water heater.

Items Inside Product Box

Before installation, please make sure all parts are located inside the product box.

Item #	Item	Qty
①	Retrofit Door Panel	1
②	Mounting Bracket	1
③	No. 10 Screws	8
④	Locator Label	1
⑤	Vent Cap	3
⑥	No.8 Screws	4
⑦	Locking Bracket-Retro Fit	1
⑧	8-32 Nuts & Washers	3
⑨	Installation Instructions (this document)	1



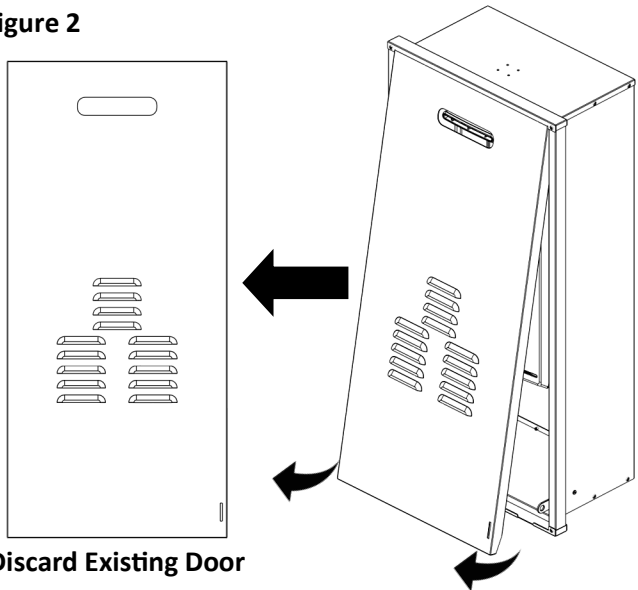
You Will Need (Field-Supplied)

- Standard plumbing tools, such as pliers, pipe wrenches and screwdrivers
- Isolation Valve Kit
- Sealant and Caulk Gun
- Drill (for drilling pilot holes, piping connections and removing rivets)
- Hex Head Nut Driver
- Phillips Head Screwdriver

Step 1: Remove the Existing Water Heater

1. Remove the existing door panel and discard it (Figure 2).

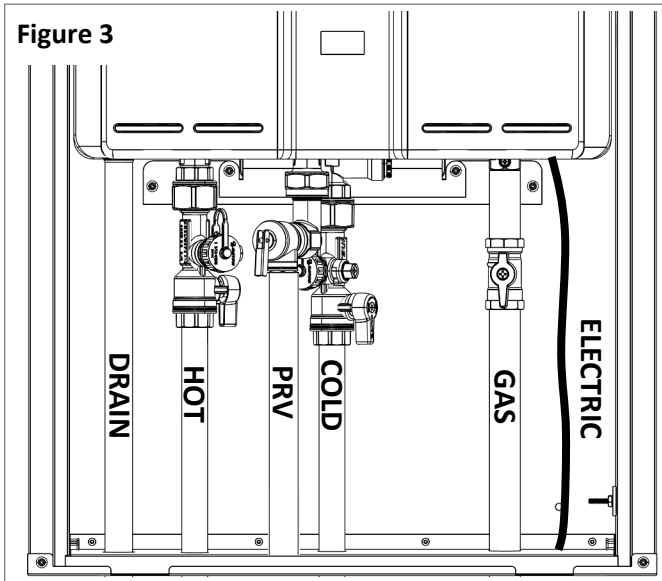
Figure 2



Discard Existing Door

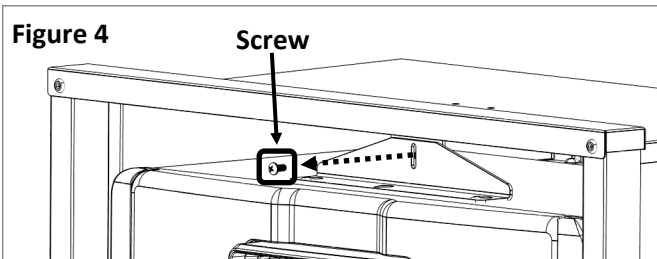
2. Disconnect all piping and electrical connection from the existing water heater (Figure 3).

Figure 3



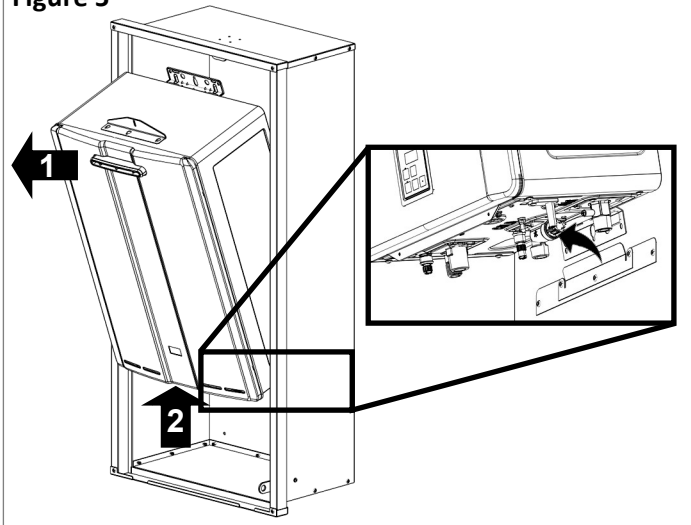
3. Remove the screw from hanging bracket to remove existing water heater (Figure 4).

Figure 4



4. Carefully pull out the existing water heater from the recess box (Figure 5).

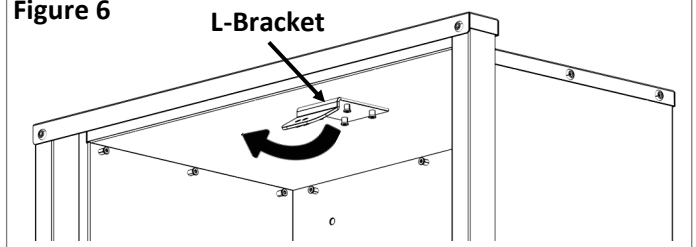
Figure 5



Step 2: Prepare the Recess Box

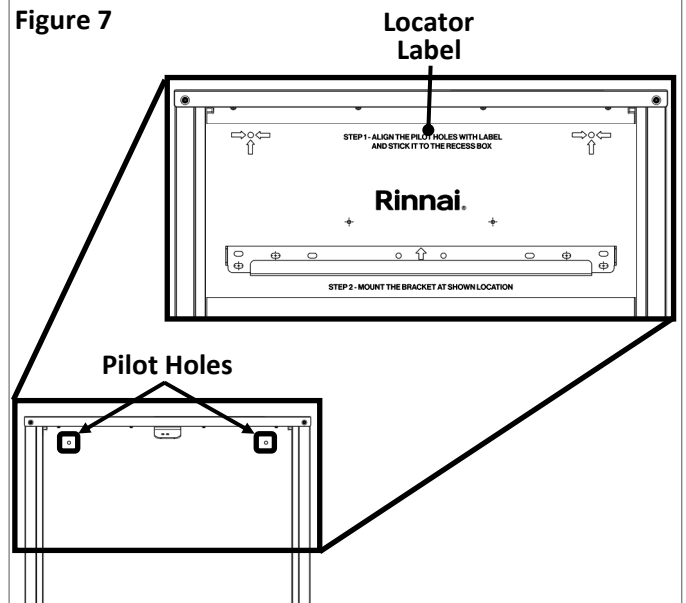
1. Bend L-bracket towards front for easy installation of new water heater (Figure 6).

Figure 6



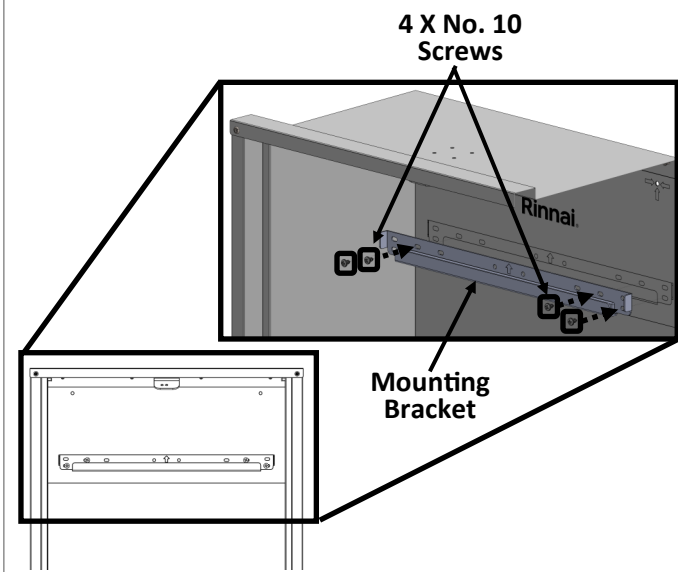
2. Locate the pilot holes on the back panel of the recess box. Apply the locator label to the back panel aligning the pilot holes as illustrated below (Figure 7).

Figure 7



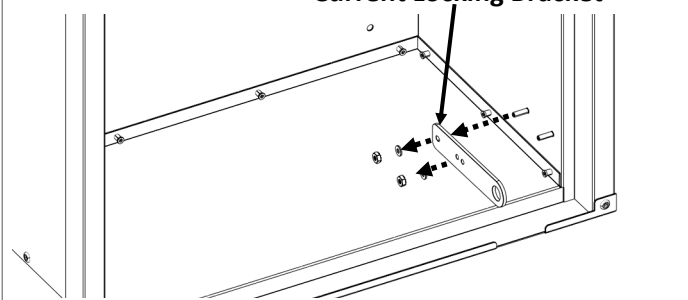
2. Drill 4 pilot holes on the back panel of recess box using #21 drill bit to install the mounting bracket. Install mounting bracket using 4 no.10 screws (Figure 8).

Figure 8



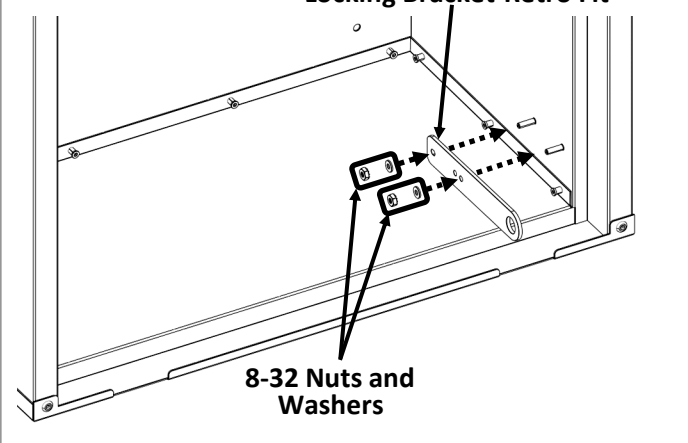
3. Remove and discard current locking bracket (Figure 9).

Figure 9



4. Install new locking bracket-retro fit (longer than current bracket) using 8-32 nuts and washers (Figure 10).

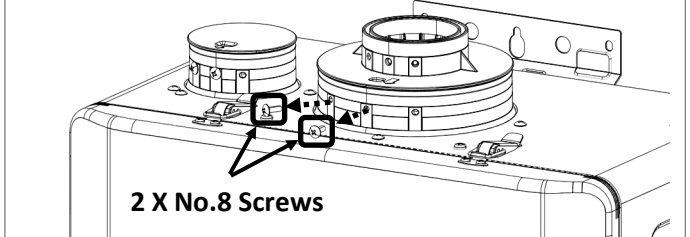
Figure 10



Step 3: Prepare the Water Heater

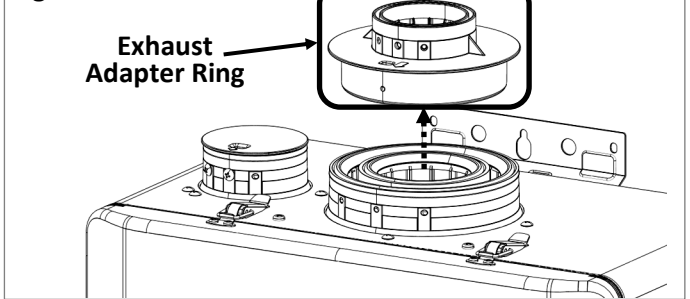
1. Remove two screws holding the exhaust adapter ring (Figure 11).

Figure 11



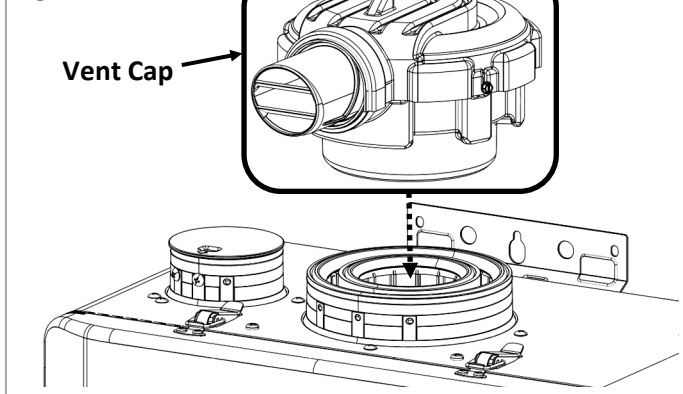
2. Remove and discard the exhaust adapter ring (Figure 12).

Figure 12



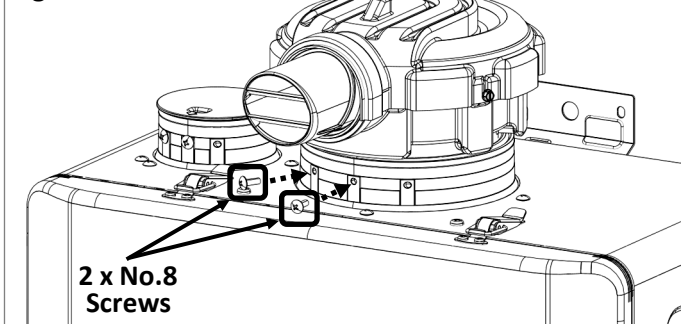
3. Install the vent cap on the water heater (Figure 13).

Figure 13



4. Ensure that the vent cap is facing towards the front of water heater and properly seated. Secure vent cap using 2 screws (Figure 14).

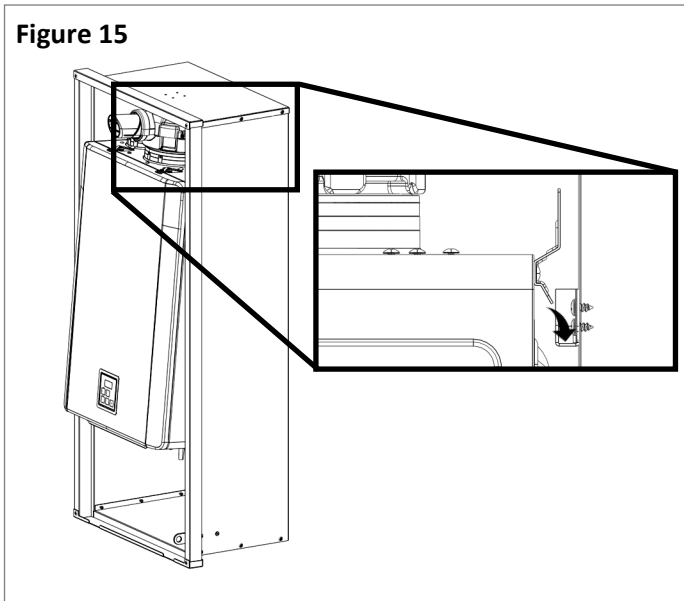
Figure 14



Step 4: Install the Water Heater into the Recess Box

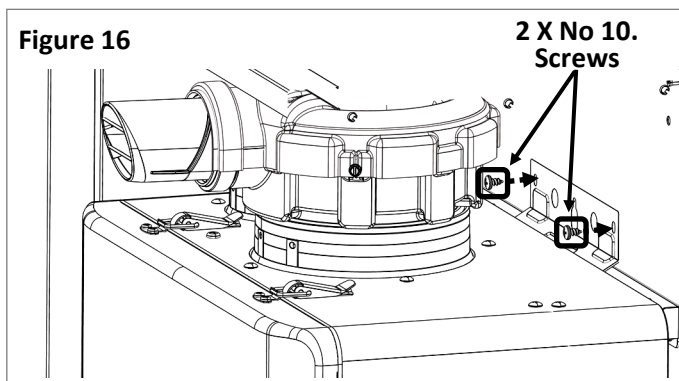
1. Lift the water heater into the recess box and guide the top bracket of water heater to mounting bracket of recess box (Figure 15).

Figure 15



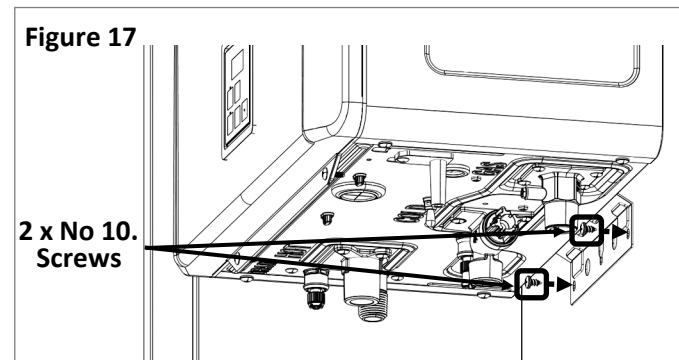
2. Drill pilot holes and install 2 no.10 screws through top bracket of water heater (Figure 16).

Figure 16



3. Drill pilot holes and install 2 no.10 screws through bottom bracket of water heater (Figure 17).

Figure 17



Step 5: Connect the Pipes

1. Remove the caps from the water heater pipes and install the isolation valve kit (field-supplied).
2. Install the pipes through the drilled access holes in the recess box (Figure 18). If required, drill new holes as per Sensei RX/CX piping layout (Figure 19).
3. Connect gas, water and electric service to the water heater. A waterproof electrical outlet can be fitted inside.

The installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1. If installed in a manufactured home, the installation must conform with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 and/or CAN/CSA Z240 MH Series, Mobile Homes.

The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.1.

Figure 18

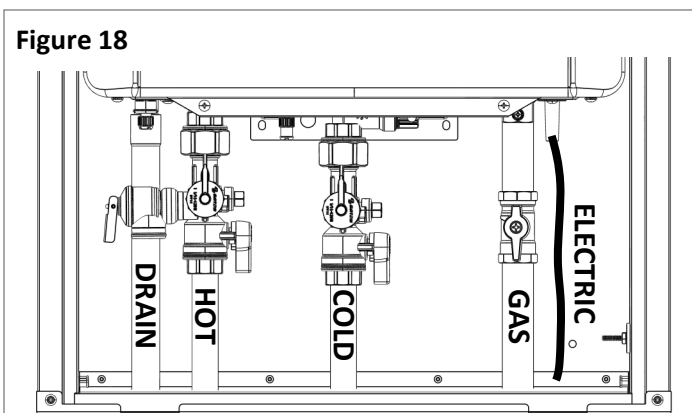
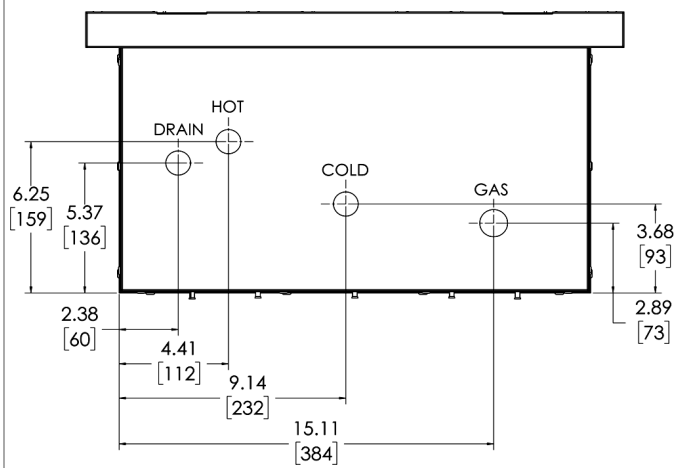


Figure 19

BOTTOM VIEW

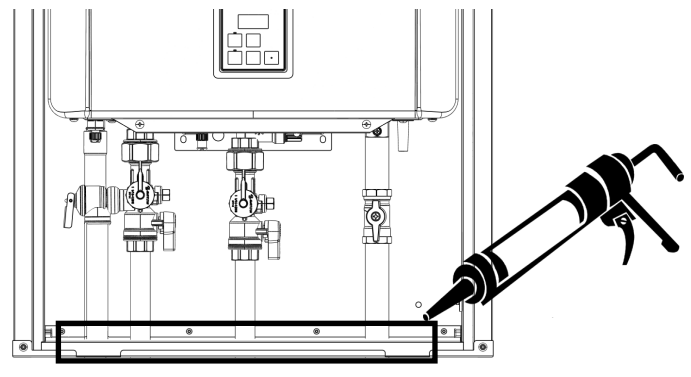
Dimensions: in [mm]



Step 6: Seal the Recess Box

1. Seal all access hole penetrations with sealant to prevent moisture from leaking out of the recess box (Figure 20).

Figure 20



Step 7: Adjust Parameter Settings

This tankless water heater is set up for natural gas and indoor installations as default. When power is connected for the first time, you need to choose the correct gas type and outdoor setting.

CAUTION

- Do not touch any other areas on the PC board other than the described buttons while power is supplied to the appliance. Parts of the PC board are supplied with 120 VAC.
- Do not touch the areas at or near the heat exchanger or hot water lines; these areas become hot and could cause burns.

WARNING

If proper settings are not selected before you use the tankless water heater, it will cause a hazardous situation which results in personal injury or property damage.

IMPORTANT

- Confirm that the inlet gas pressure is between the minimum and maximum pressures allowed for this appliance.
- Refer to the “Tankless Water Heater Installation and Operation Manual” for additional parameter settings, such as recirculation settings, gas type, pump speed, etc. (the manual is supplied with the tankless unit or located online at www.rinnai.us).

Adjust the tankless water heater parameter settings by choosing one of the two options below:

- **Option 1 (Recommended):** Adjust parameter settings using a Bluetooth-capable Smart Device
- **Option 2:** Adjust parameter settings from the tankless water heater integrated controller.

7.1 Option 1: Using a Bluetooth-Capable Smart Device

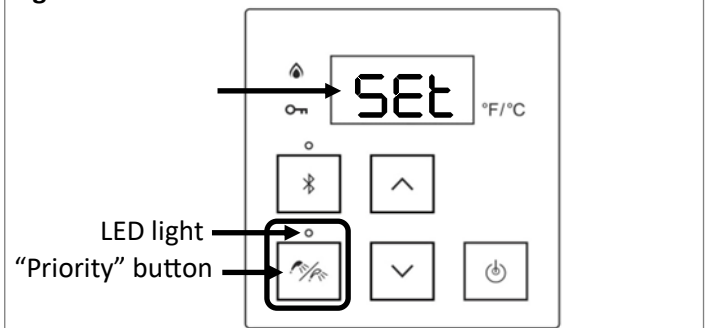
Note: To utilize BLE, your connecting device (smartphone, tablet, computer, etc.) must have Bluetooth 4.0 or a newer version. Contact your connecting device manufacturer if you are not sure if your connecting device has Bluetooth 4.0 or a newer version.

1. Download the Rinnai Central app by scanning the following QR code:



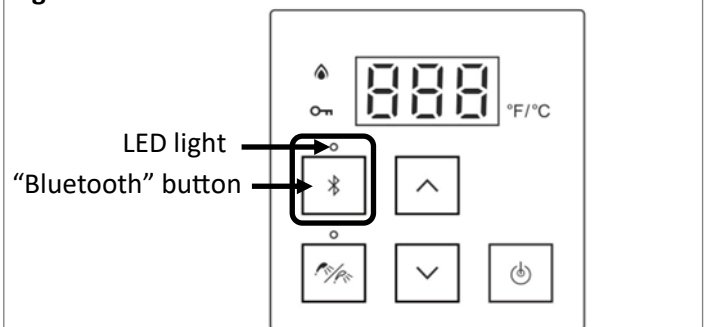
2. Supply power to the tankless water heater for the first time. The controller displays “SET” and the “Priority” button LED light on the controller is blinking.

Figure 21



3. Open the Rinnai Central app from your smart device and log into the Rinnai Central app with a professional account.
4. Push the Bluetooth button on the controller. The Bluetooth LED light turns solid.

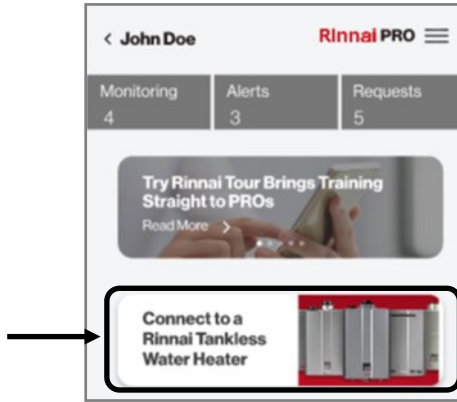
Figure 22



- Tap “Connect to a Rinnai Tankless Water Heater” on the Rinnai Central app.

You will hear a beeping sound when pairing between the app and water heater is established.

Figure 23



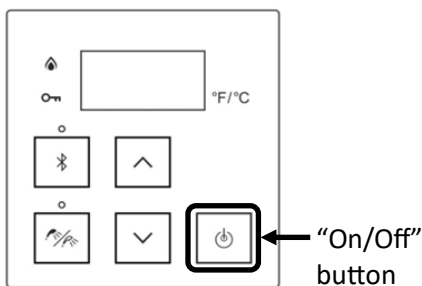
- Follow the steps in the Rinnai Central app to adjust your tankless water heater settings.

NOTE: The water heater **MUST** be set to “OUT” (Outdoor) for recess box installations.

- When settings are complete, the controller display will appear blank.

Press the “On/Off” button to turn on the unit.

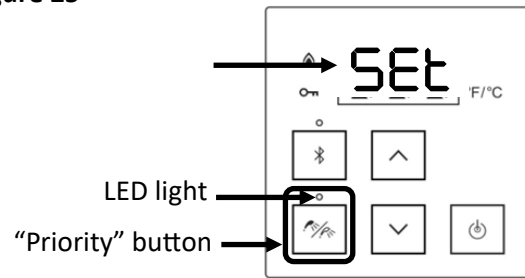
Figure 24



7.2 Option 2: Adjust Parameter Settings from Integrated Controller

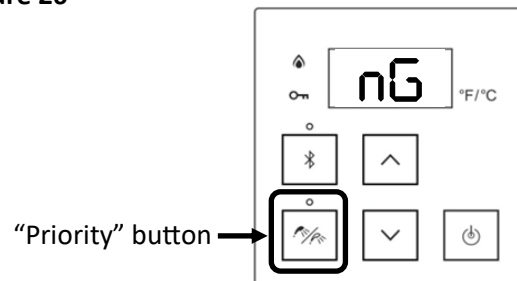
- Supply power to the tankless water heater for the first time. The controller displays “SEt” and the “Priority” button LED light on the controller is blinking.

Figure 25



- Press the “Priority” button. The controller displays “nG” (natural gas).

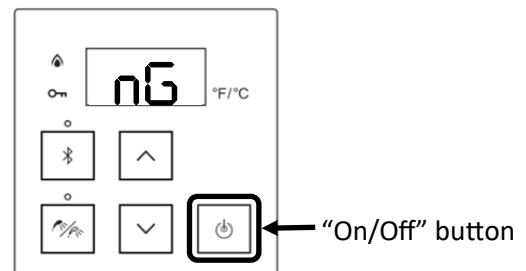
Figure 26



- (A). **If using natural gas:** Press the “On/Off” button to confirm natural gas. Then, proceed to step 4.

If using propane gas, skip this step and proceed to step 3(B).

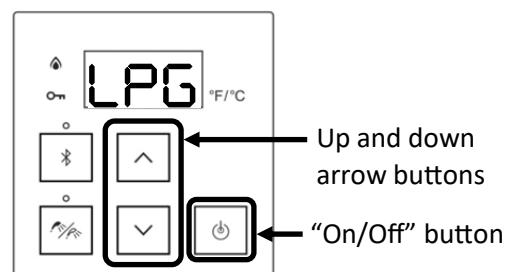
Figure 27



- (B). **If using propane gas:** Press the up or down arrow button. The controller displays “LPG” (Liquid Propane Gas).

Press the “On/Off” button to confirm propane gas. Then, proceed to step 4.

Figure 28



4. The controller displays “In” (indoor).

Figure 29

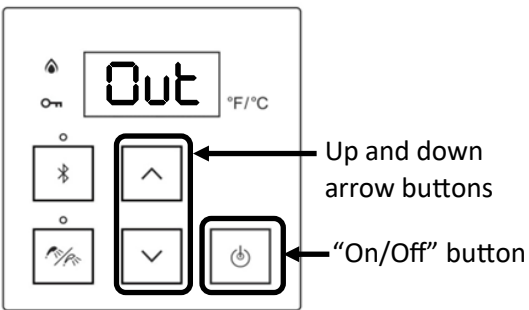


5. Press the up or down arrow buttons. The controller displays “Out” (Outdoor).

Press the “On/Off” button to confirm “Out” (Outdoor).

NOTE: The water heater **MUST** be set to “OUT” (Outdoor) for recess box installations.

Figure 30



6. The controller displays “nG” or “LPG,” and “In” or “Out” alternatively while the “Priority” button LED light is blinking. The controller is showing the current gas setting and indoor/outdoor setting.

For example, the controller displays “nG” and “Out” alternatively, indicating the water heater is set for natural gas and outdoor installation.

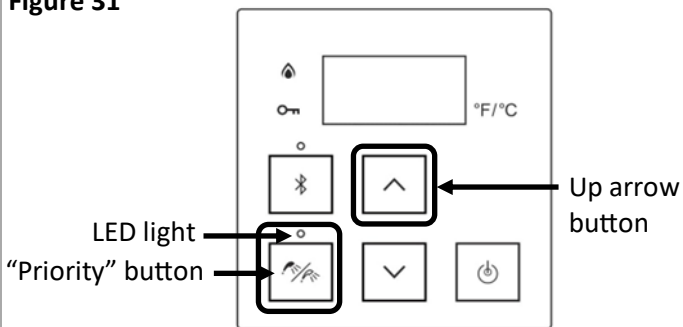
7. **If settings are correct:** Press the “Priority” button.

If settings are not correct:

Press the up arrow button to return to step 1.

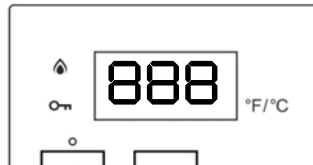
Repeat the steps starting at step 1.

Figure 31



8. The controller briefly displays “888” and makes a beeping sound. Then, complete initial settings and the controller is off.

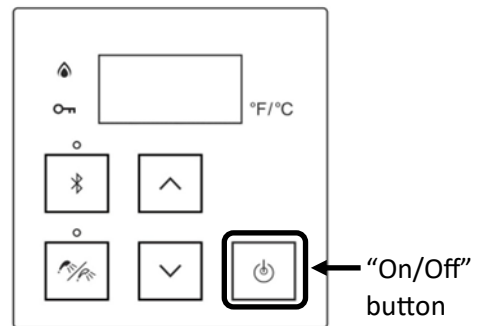
Figure 32



9. When settings are complete, the controller display will appear blank.

Press the “On/Off” button to turn on the unit.

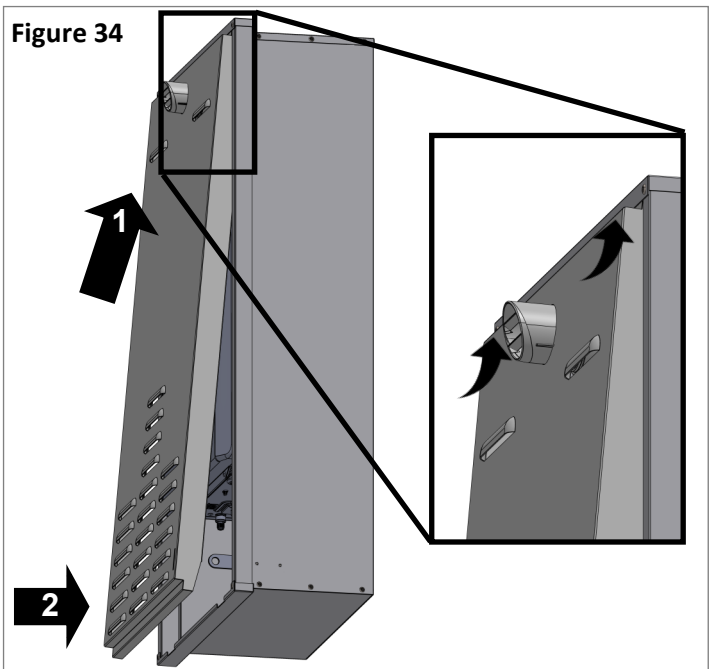
Figure 33



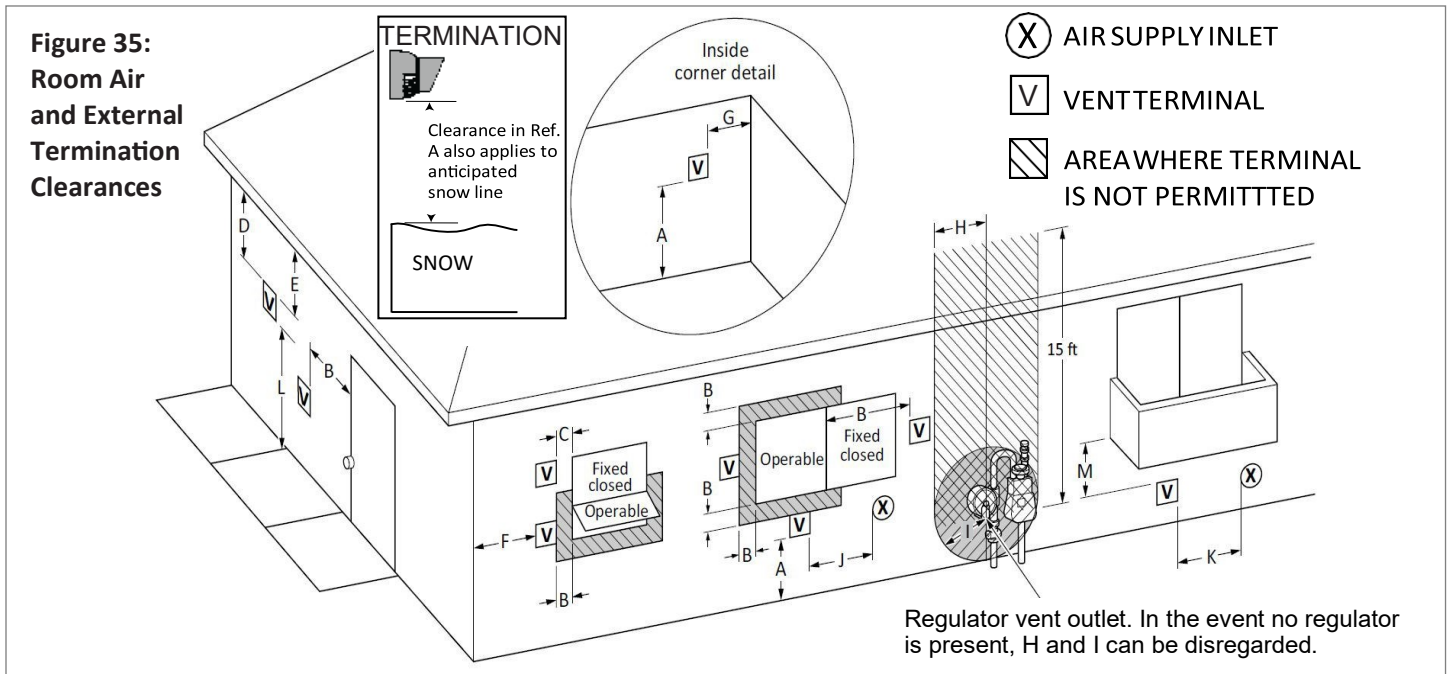
Step 8: Final Assembly and Inspection

1. Complete the checklist in the “Post-Water Heater Installation Checklist” section of the Tankless Water Heater Installation and Operation Manual when installation is complete.
2. Check for gas and water leaks.
3. Install the recess box front door panel by inserting the top end first and then pressing the bottom end into the recess box (Figure 21).

Figure 34



Appendix A: Termination Clearances



Ref	Description	Canadian Installations ¹ (CSA B149.1)	U.S. Installations ² (ANSI Z223.1/NFPA 54)
		Other than direct vent (Outdoor unit and/or Room Air)	Other than direct vent (Outdoor unit and/or Room Air)
A	Clearance above grade, veranda, porch, deck, or balcony	12 in. (30 cm)	12 in. (30 cm)
B	Clearance to window or door that may be opened	36 in. (91 cm)	4 ft (1.2 m) below or to side of opening; 1 ft (300 mm) above opening
C	Clearance to permanently closed window	*	*
D	Vertical clearance to ventilated soffit, located above the terminal within a horizontal distance of 2 ft (61 cm) from the center line of the terminal	*	*
E	Clearance to unventilated soffit	*	*
F	Clearance to outside corner	*	*
G	Clearance to inside corner	*	12 in.
H	Clearance to each side of center line extended above meter/regulator assembly	3 ft. (91 cm) within a height 15 ft. (4.6 m)	*
I	Clearance to service regulator vent outlet	3 ft. (91 cm)	*
J	Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	36 in. (91 cm)	4 ft (1.2 m) below or to side of opening; 1 ft (300 mm) above opening
K	Clearance to a mechanical air supply inlet	6 ft (1.83 m)	3 ft (91 cm) above if within 10 ft (3 m) horizontally
L	Clearance above paved sidewalk or paved driveway located on public property	7 ft (2.13 m) [1]	Vents for Category II and IV appliances cannot be located above public walkways or other areas where condensate or vapor can cause a nuisance or hazard.
M	Clearance under veranda, porch, deck, or balcony	12 in. (30 cm) [2]	*

¹ In accordance with the current CSA B149.1, Natural Gas and Propane Installation Code.

² In accordance with the current ANSI Z223.1/NFPA 54, National Fuel Gas Code.

If locally adopted installation codes specify clearances different than those illustrated, then the most stringent clearance shall prevail.

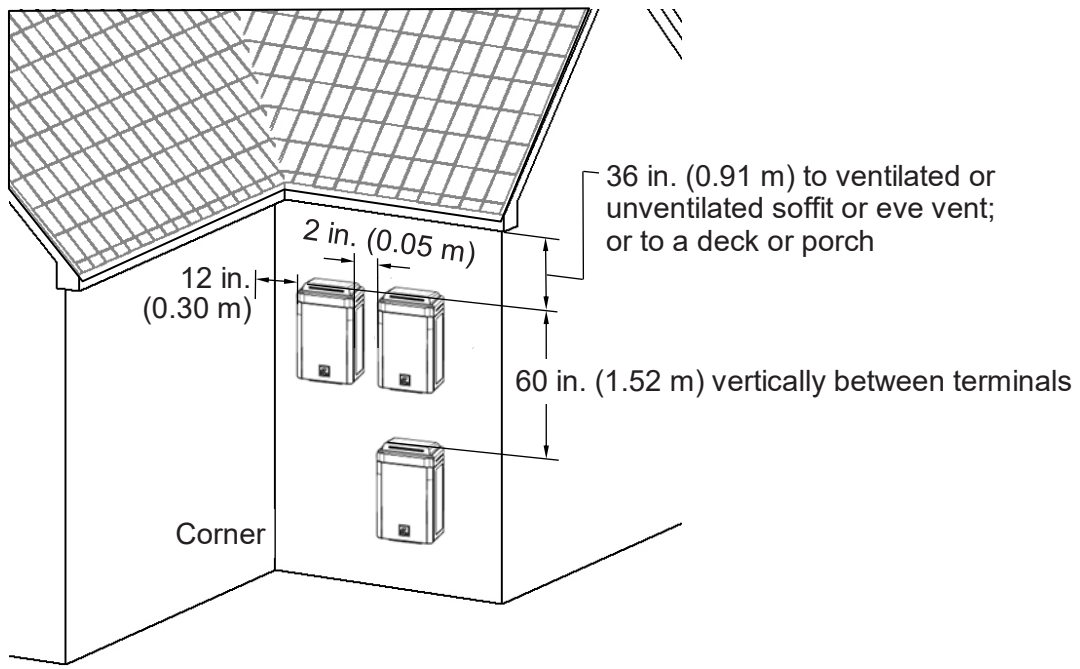
Clearance to opposite wall is 24 in (60 cm).

[1] A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.
[2] Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

*Clearances are in accordance with local installation codes and the requirements of the gas supplier.
(*Dégagement conforme aux codes d'installation locaux et aux exigences du fournisseur de gaz.*)

Termination Clearance for External (Outdoor) Water Heaters

Figure 36



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