

Navien
Non-condensing water heaters

Recess Box Installation Guide

Models (Outdoor Use Only)

NPN-160E/180E/199E

The Navien Recess Box completely houses and safely deposits the water heater into a wall. It also protects the water heater from harsh weather conditions and maladjustments. You can also use other approved access boxes.

This kit must be installed by a qualified installer in accordance with these instructions and all applicable codes and requirements of the authorities having jurisdiction. Keep this guide near the water heater for future reference whenever maintenance or service is required. The following safety symbols are used in this guide.

DANGER

Indicates an imminently hazardous situation which, if not avoided, could result in severe injury or death.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in injury or death.

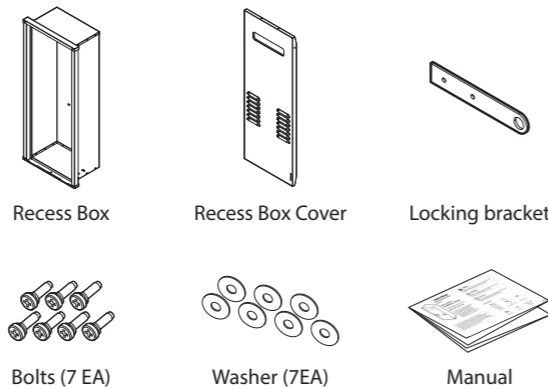
CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in property damage.

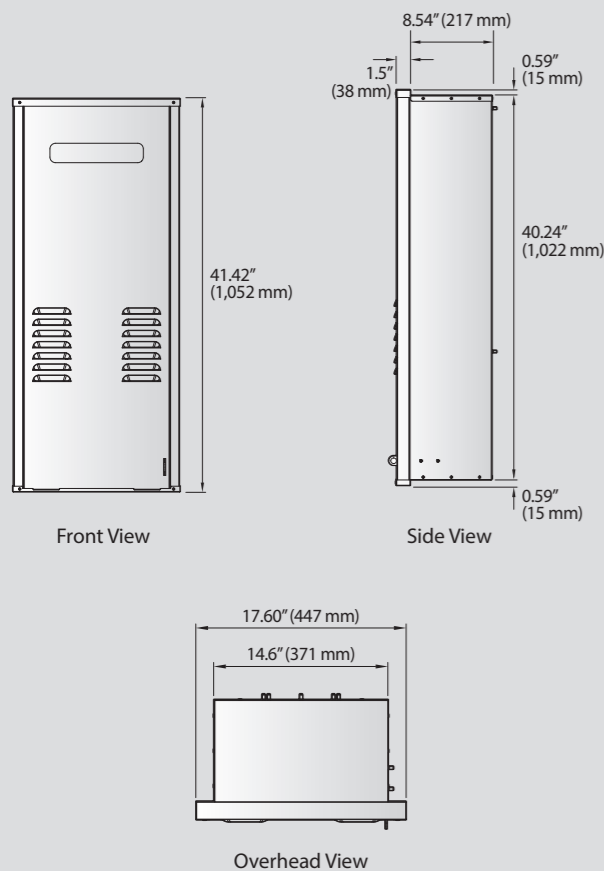
WARNING

This product can expose you to chemicals including lead, lead compounds, and carbon bisulfide which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

Included Items



Dimensions



Choosing an Installation Location

When choosing an installation location, you must ensure that the location provides adequate clearance for the recess box. Position the recess box in an open area and ensure that the clearances meet the requirements as shown in Figure 1.

There should be no obstacles within 1 ft (30 cm) of the recess box. An area of 3 ft (91 cm) should be secured above and beneath the recess box. Ensure that cold winter wind does not penetrate the recess box.

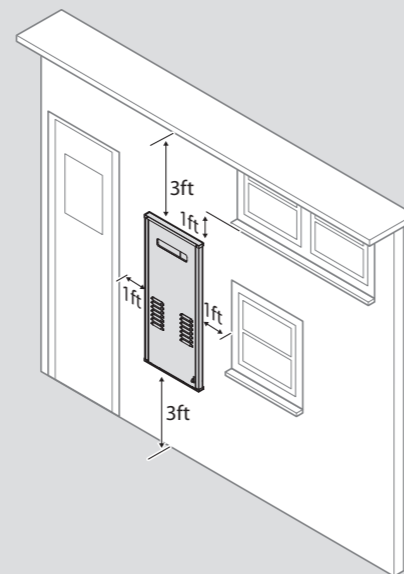
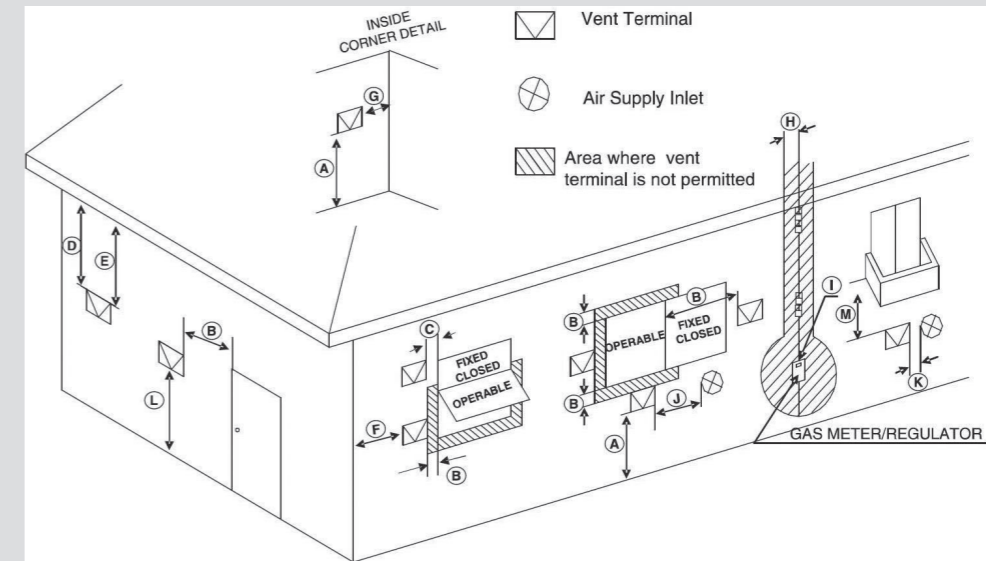


Figure 1

Maintaining Clearances

Maintain the following venting clearances, as required by **ANSI Z21.10.3** and the **National Fuel Gas Code, ANSI Z223.1/NFPA 54**, and **CAN/CGA B149.1 Natural Gas and Propane Installation Code**:



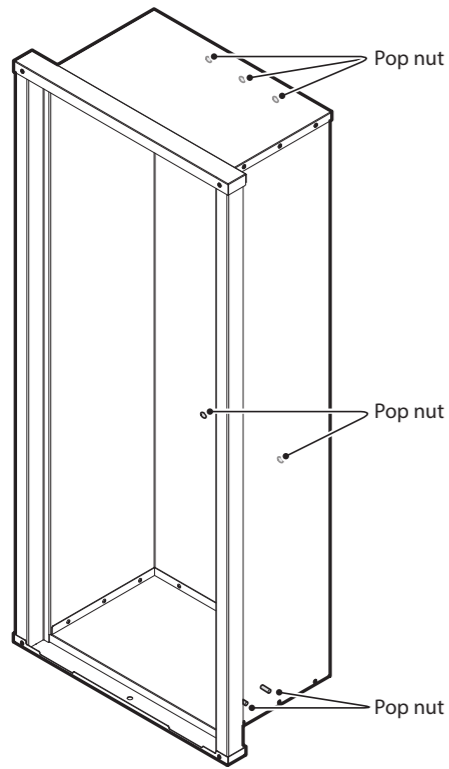
Ref	Description	Non-Direct Vent Installation Clearance ¹
A	Clearance above grade, veranda, porch, deck, or balcony	12 in (30 cm) above anticipated snow level
B	Clearance to window or door that may be opened	6 in (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 9 in (23 cm) for appliances > 10,000 Btuh (3 kW) and ≤ 50,000 Btuh (15 kW), 12 in (30 cm) for appliances >50,000 Btuh (15 kW)



Ref	Description	Non-Direct Vent Installation Clearance ¹
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	*
H	Clearance to each side of center line extended above meter/regulator assembly	*
I	Clearance to service regulator vent outlet	*
J	Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	6 in (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 9 in (23 cm) for appliances > 10,000 Btuh (3 kW) and ≤ 50,000 Btuh (15 kW), 12 in (30 cm) for appliances >50,000 Btuh (15 kW)
K	Clearance to a mechanical air supply inlet	3 ft (91 cm) above if within 10 ft (3 m) horizontally
L	Clearance above paved sidewalk or paved driveway located on public property	*
M	Clearance under veranda, porch deck, or balcony	Not allowed

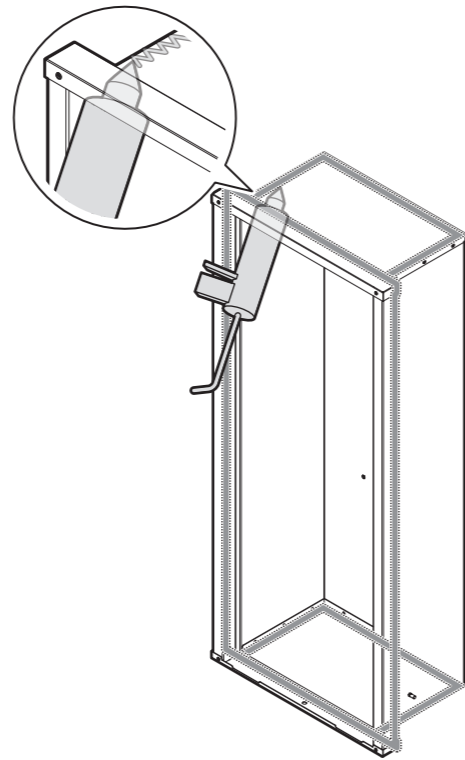
¹ In accordance with the current ANSI Z223.1 / NFPA 54 National Fuel Gas Code
 † A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.
 ‡ Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.
 * Clearance in accordance with local installation codes and the requirements of the gas supplier.

Parts Diagram

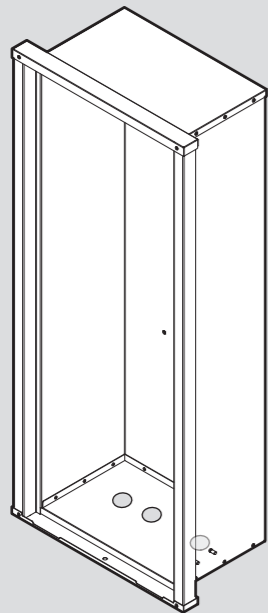


Installing the Recess Box

1. Prepare an opening in the wall based on the overall dimensions of the recess box.
2. Apply a $\frac{3}{8}$ " bead of sealant along the upper and lower edges of the box as well as along the back of the flange.

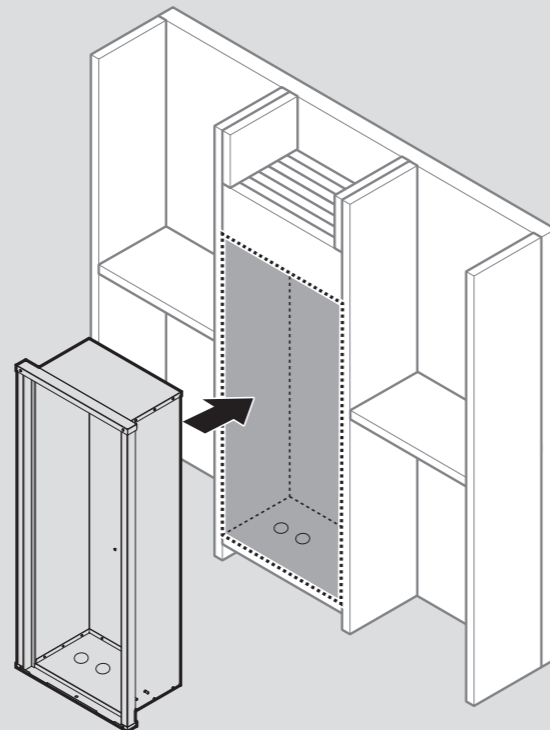


3. Drill 3 holes for the gas inlet, cold water inlet, and hot water outlet at the bottom of the recess box.



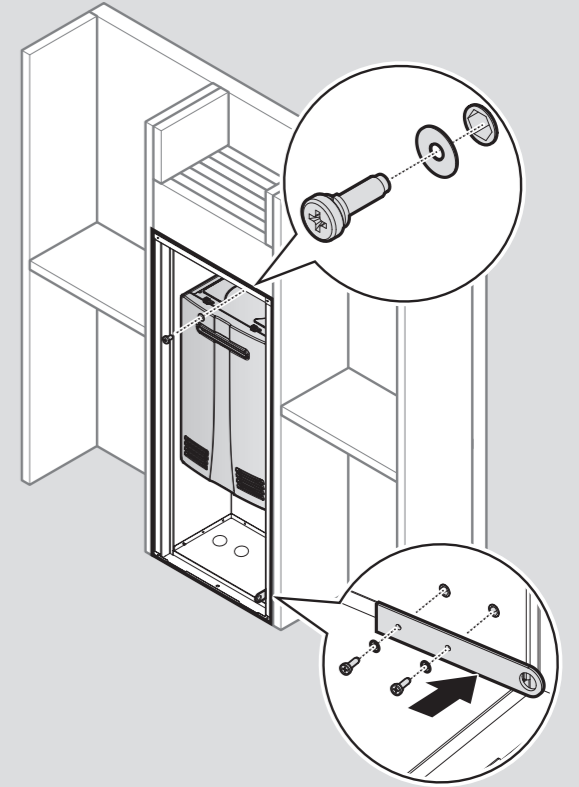
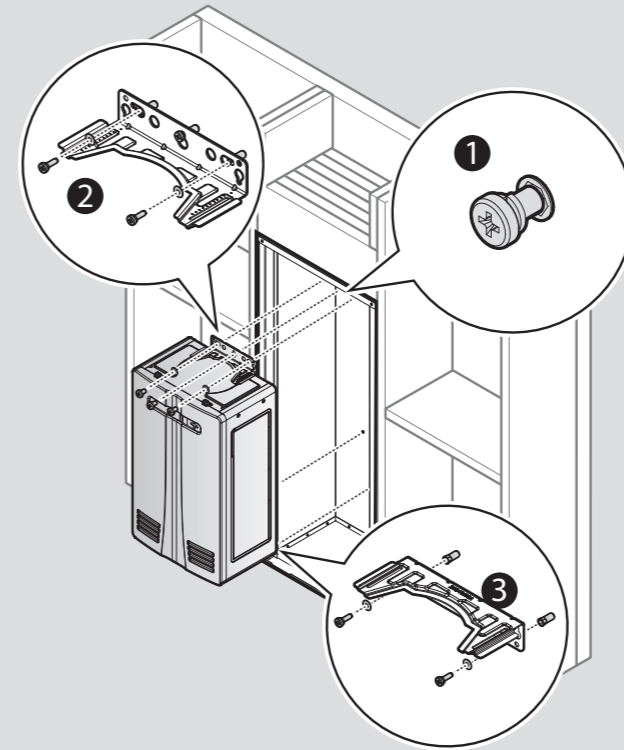
Note Additional holes may be required for electrical wiring and drainage of the pressure relief valve. Place these holes in suitable locations.

4. Position and secure the recess box to the building structure with suitable screws.

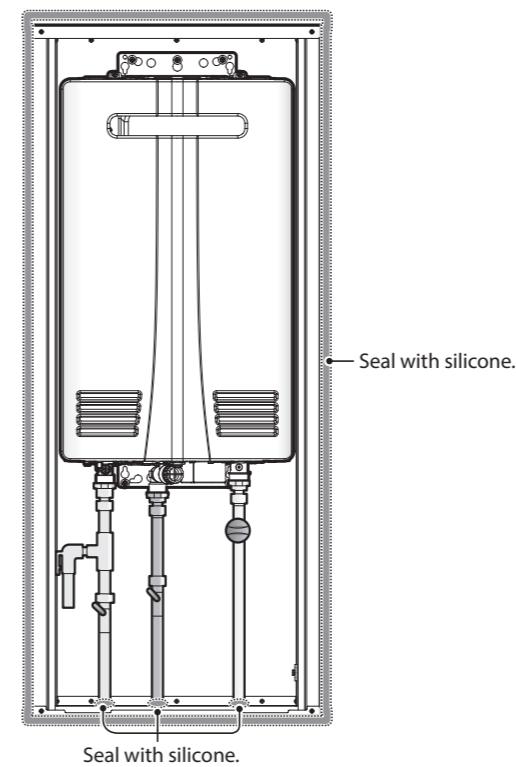


Note Ensure that the recessed box is level when positioning it.

5. Mount the center bolt of the water heater's upper bracket halfway into the wall first (1) and affix the water heater to the bolt by hanging the upper bracket to the bolt. Then, finish mounting the center bolt and mount the 4 remaining bolts with washers (2, 3).
6. Loosen the center bolt of the water heater's upper bracket and mount it with a washer into the wall. Then, affix the locking bracket at the lower right of the recess box.



7. Connect the water lines and gas piping to the water heater.
8. Seal the outer edges of the recess box as well as around the piping at the bottom of the recess box.



CAUTION

- All openings around the piping at the bottom of the recess box as well as around the outer edges should be sealed with silicone to prevent water from entering the wall cavity.
- On completion of work, check for gas and water leaks.

9. Install the front cover by tilting the top end of the cover slightly outward and inserting it along the groove.

WARNING

The use of this recess box for storage is prohibited as it can cause a potential fire hazard.

Navien

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