



30894 049

STEP 1 Before Installing

⚠️ Read the Installation Manual before installing. This product must be installed and serviced by a licensed plumber, a licensed gas fitter, or a professional service technician. Navien is not liable for any damages or defects resulting from improper installation. When applicable, the installation must conform with Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 and/or CAN/CSA Z240 MH Series, Mobile Homes. Do not install this water heater in a recreational vehicle, trailer, boat or other vehicular type unit as it will result in a Carbon Monoxide Poisoning Hazard.

⚠️ WARNING
 Follow all local codes and/or the most recent edition of the National Fuel Gas Code (ANSI Z223.1/NFPA 54) in the USA, or the Natural Gas and Propane Installation Code in Canada (CAN/CGA B149.1).

Safety
 DO NOT install in areas with excessively high humidity.

STEP 2 Installing

1 Unpacking

- Navien Water Heater
- User's Information Manual, Installation Manual
- Wall Mounting Bracket
- Tapping Screws and anchors
- Vent Terminators
- Wall Flanges
- Spare Parts
- High Altitude Conversion Kit (Natural Gas Only)*
- Propane Conversion Kit*

*High Altitude Conversion kit and Propane Conversion kit are attached to the inside of Product's case.

3 Mounting on the Wall

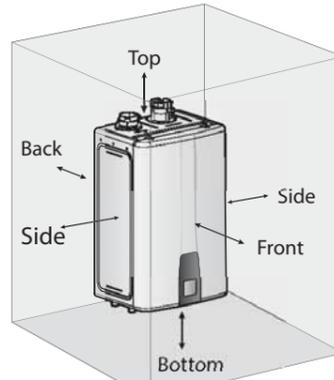
⚠️ CAUTION
 Do not install the water heater on drywall without proper reinforcement.

- Drill in the supplied anchor bolts after considering where the vent termination will be located.
- Secure the mounting bracket to the wall with the tapping screws and anchors.
- Lift up the water heater, rest the unit on the hooks provided on the wall bracket on the wall.
- Install two set screws through the bracket at the bottom of the water heater to secure the water heater on the wall.

Location Requirements

Select the best location on "Choosing an Installation Location" in the Installation Manual.

Allowable minimum clearances



Clearance from:	Indoor Installation	Outdoor Installation
Top	9 in (229 mm) minimum	36 in (900 mm) minimum
Back	0.5 in (13 mm) minimum	0.5 in (13 mm) minimum
Front	4 in (100 mm) minimum	24 in (600 mm) minimum
Sides	3 in (76 mm) minimum	3 in (76 mm) minimum
Bottom	12 in (300 mm) minimum	12 in (300 mm) minimum

2 Checking the Rating Plate

Rating Plate, *Plaque Signalétique

Direct Vent Automatic Instantaneous Water Heater "Chauffe-eau instantané automatique à vent direct For Indoor, Outdoor or Manufactured Home (Mobile Home) Installation "Pour installation dans une maison préfabriquée/mobile) FOR EITHER DIRECT VENT INSTALLATION OR FOR INSTALLATION USING INDOOR COMBUSTION AIR (See manufacturer's installation instructions). "POUR UNE INSTALLATION À ÉVENT DIRECT OU POUR UNE INSTALLATION AVEC AIR DE COMBUSTION INTERIEUR (Voir les instructions d'installation du fabricant).

Navien, Inc.
 20 Goodyear, Irvine, CA 92618
 Tel: 1-800-519-8794

Model No., "Numéro de modèle
 NPE-240A2

Max. Input Rating, "Entrée GPL max.
 155,500 Btu/h

Recovery Rating, "Calibre de recouvrement
 237 Gallons/Hour, "gallons/heures
 10.5 Inches W.C., "pouces W.C.

Min. Inlet Gas Pressure, "Pression min. de gaz d'entrée
 3.5 Inches W.C., "pouces W.C.

Manifold Pressure, "Pression d'admission
 -0.96 Inches W.C., "pouces W.C.

Electrical Rating, "Régime nominal électrique
 AC, "à 120 Volts 60Hz, less than 2 amperes, "Utilise moins de 2A

Max. Water Pressure, "Pression d'eau max.
 150 psi "bars

Category of water heater, "Catégorie de chauffe-eau
 Category IV ANSIZ21.10.3 - CSA 4.3-2019

Type of Gas, "Type de gaz
 Natural Gas
 Min. Input Rating, "Débit calorifique max.
 13,300 Btu/h
 237 Gallons/Hour, "gallons/heures
 10.5 Inches W.C., "pouces W.C.

NSF
 L-LOW NOX
 CERTIFIED

Offices necessary for Propane conversion are provided. "Les injections nécessaires à la conversion au GPL sont fournies.
 Minimum ambient temperature at the installation location. "Température ambiante minimale sur le lieu de l'installation 32 °F
 Failure to use the correct gas can cause problems which can result in death, serious injury or property damage. "Le fait de ne pas utiliser le bon gaz peut causer des problèmes qui peuvent mener à la mort, causer des blessures graves ou endommager la propriété.
 Consult your installation manual for more information. "Consultez votre manuel d'installation pour plus d'information.
 Suitable for combination water (potable) heating and space heating and not suitable for space heating applications only.
 *Convient au chauffage combiné de l'eau (potable) et des locaux, mais non au chauffage des locaux seulement.
 Suitable for commercial installations. "Convient pour installations commerciales.
 This appliance is certified for use at altitudes up to 4,500 ft (1,370 m) in accordance to the latest CAN/CSA 2.17-High Altitude Installation procedures at normal manifold pressure. This appliance has also been tested up to 10,100 ft (3,078 m). For installations at altitudes up to 10,100 ft (3,078 m), follow the directions provided in the High Altitude Installation sections of the Installation Manual.
 *Cet appareil est certifié pour une utilisation à des altitudes de 0 à 4 500 pieds (1 370 m) conformément aux toutes les procédures d'installation à haute altitude CAN/CSA 2.17 à une pression normale. Cet appareil a été testé jusqu'à 10 100 pieds (3 078 m). Pour les installations d'installation à une altitude supérieure à 10 100 pieds (3 078 m), suivez les instructions fournies dans la section des installations à haute altitude du manuel d'installation.
 This appliance must be installed in accordance with local codes, or in the absence of local codes, the National Fuel Gas Code, ANSIZ223.1/NFPA 54 or the CSA B149.1, Natural Gas and Propane Installation Code. "Cet appareil doit être installé conformément à la norme Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 or the Canadian standard CSA Z240 MH Series, Manufactured Homes. "Cet appareil doit être installé conformément à la norme Manufactured Home Construction and Safety Standard, Titre 24 CFR, Part 3 280 ou aux normes canadiennes de la série CSA Z240 MH (maisons préfabriquées).
 FOR YOUR SAFETY / POUR VOTRE SÉCURITÉ
 Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other gas appliances. "Ne rangez pas et n'utilisez pas d'essence ou d'autres liquides ou vapeurs inflammables près de cet appareil ou de tout autre appareil électroménager.

This water heaters come from the factory configured for use with Natural Gas (NG). Before starting the installation, check the rating plate located on the side of the water heater to ensure that the water heater matches the gas type, gas pressure, water pressure, and electrical supply available in the installation location. If the water heater does not match each of these ratings, do not install the water heater. If conversion to Propane Gas is required, the included Propane conversion kit must be used.

⚠️ WARNING

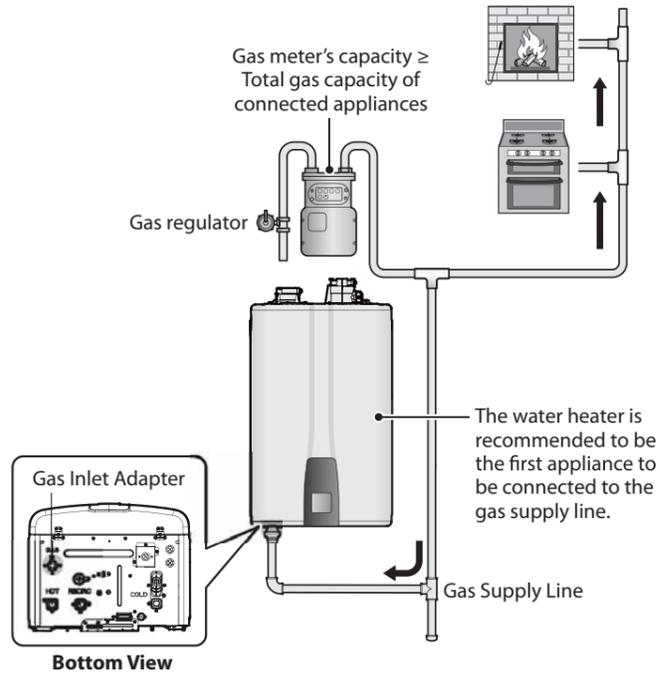
- Before connecting the gas supply, determine the gas type and pressure for the water heater by referring to the rating plate. Use only the same gas type indicated on the rating plate. Using a different gas type will result in abnormal combustion and malfunction of the water heater. Gas supplies should be connected by a licensed professional only.
- The appliance and its gas connection must be leak tested before placing the appliance in operation.
- This water heater cannot be converted from natural gas to propane or vice versa without a Navien gas conversion kit. Doing so will result in dangerous operating conditions and will void the warranty.

Navien Inc. is not liable for any property damage and/or personal injury resulting from improper conversions.

4 Removing the Front Cover

Remove the 4 screws.

5 Gas Piping Connections



Example:

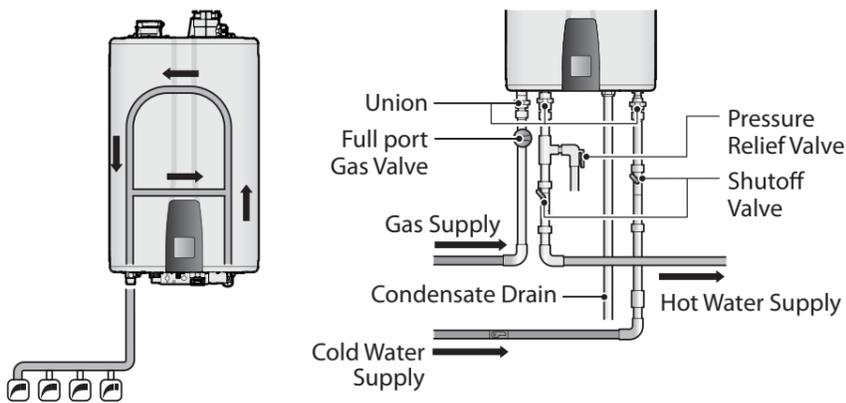
$$\text{Gas meter } 425 \text{ CFH} \geq \text{Water heater } 195 \text{ CFH} + \text{Furnace } 58.8 \text{ CFH} + \text{Domestic gas stove } 63.7 \text{ CFH}$$

* 1 CFH=1,020 Btuh

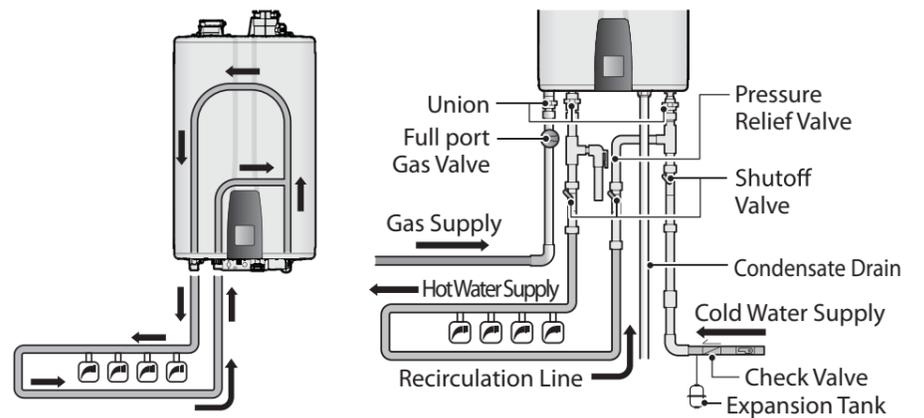
1/2" rigid pipe can be used; refer to the sizing tables in the Installation Manual for limitations. Avoid using 1/2" corrugated connectors or tubing as noise may occur.

6 Water Piping Connections (NPE-180A2/210A2/240A2)

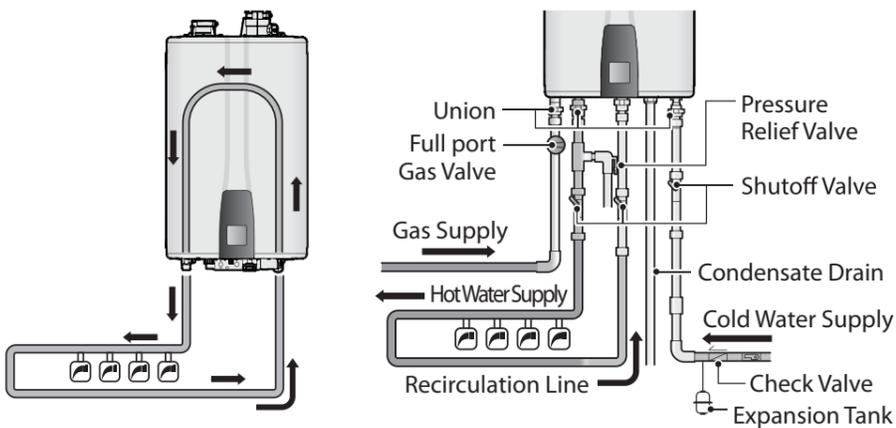
Internal Recirculation



External Recirculation using the Recirculation Inlet



External Recirculation using the Cold Water Inlet



Internal Recirculation Settings

Press the Menu button (M) to access the Main menu, and select **1. Recirculation Setting > 3. Internal Recirculation** by pressing the OK button (OK).

Model	Step 1	Step 2	Step 3
A-type	Int. Recirc	Always On	N/A
		Intelligent	N/A
		Weekly	Schedule Set

External Recirculation Settings

Press the Menu button (M) to access the Main menu, and select **1. Recirculation Setting > 2. External Recirculation** by pressing the OK button (OK).

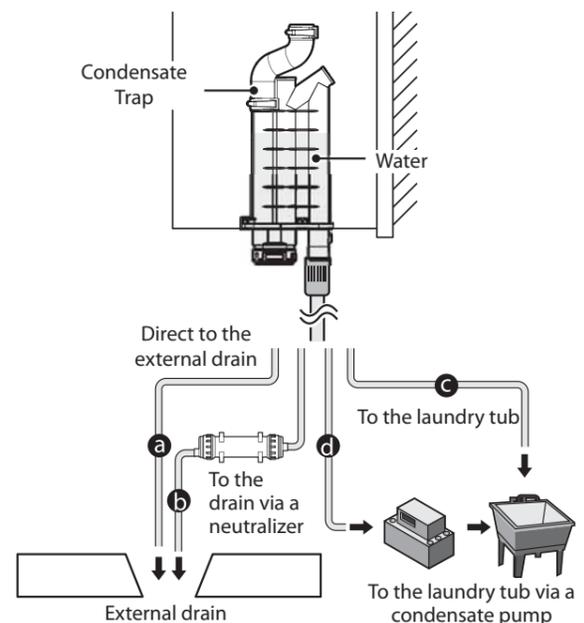
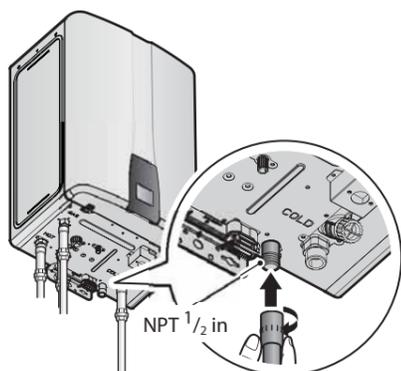
Model	Step 1	Step 2	Step 3
A-type	Ext. Recirc	Use Ext. Pump Yes/No	Always On
			Intelligent
			Weekly
			On-demand

7 Condensate Drain Connection

A condensate drain pipe must be connected to the 1/2" condensate outlet fitting at the bottom of the unit and water must be poured into the exhaust connection to fill the condensate trap.

The end of the 1/2" (NPT) plastic piping should drain into a laundry tub or into a floor drain.

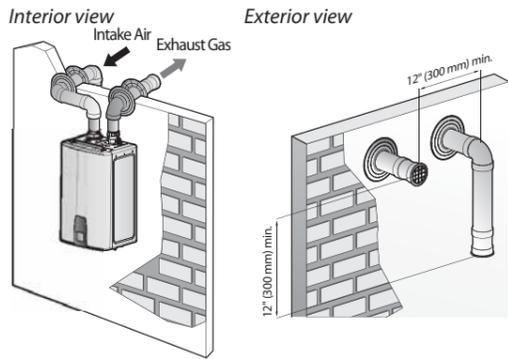
Note Do not submerge the end of the pipe in water.



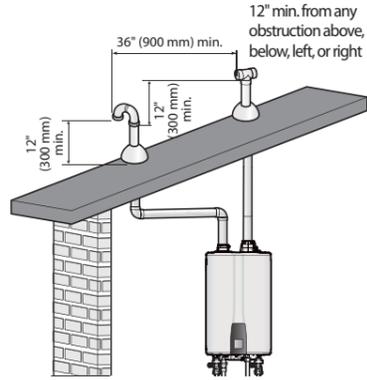
8 Venting

Vent Termination Options

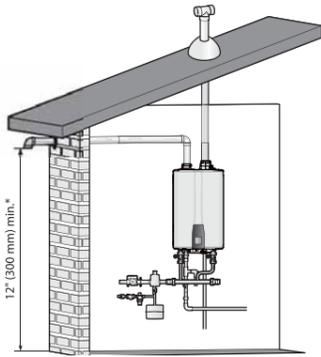
Indoor Horizontal Vent Termination



Vertical vent termination

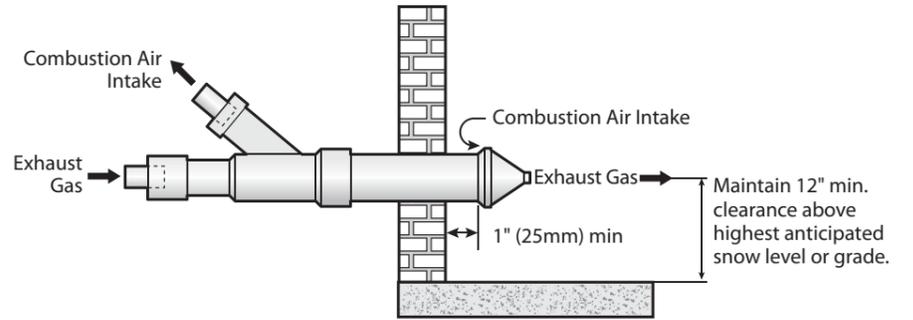


Sidewall vent termination



Concentric Vent Termination

Sidewall installation



Roof installation

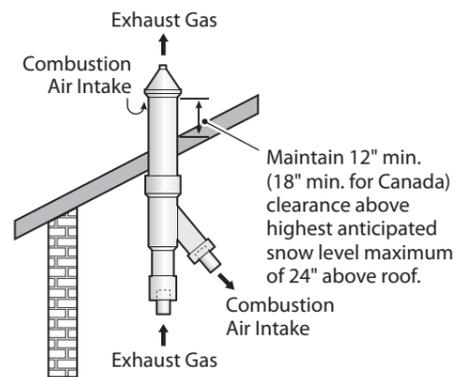
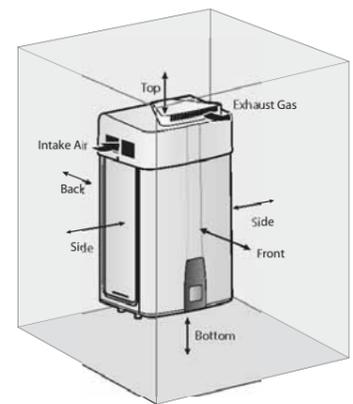
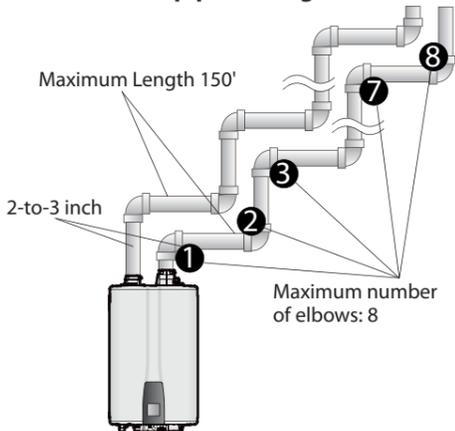


Image of outdoor vent cap



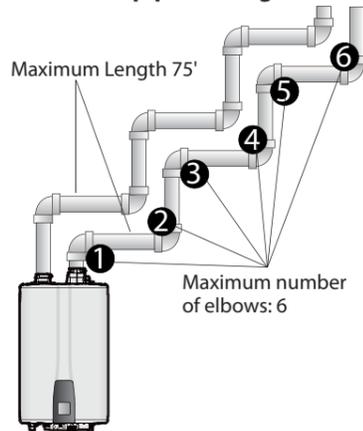
Venting Length

3" pipe venting



- 90° elbow = 5 linear feet of venting
- 45° elbow = 3 linear feet of venting

2" pipe venting



- 90° elbow = 8 linear feet of venting
- 45° elbow = 4 linear feet of venting

Exhaust Vent Piping Materials

Venting requirements differ in the US and Canada. Consult the following chart or the most recent edition of ANSI Z223.1/NFPA 54 or CAN/CGA B149.1, as well as all applicable local codes and regulations when selecting vent pipe materials. Do not use cellular core PVC (ASTM F891), cellular core CPVC, Radel® (polyphenolsulfone) for the exhaust vent.

Navien recommended venting materials

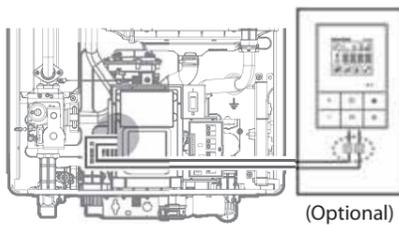
Locale	Recommended Vent Materials
USA	<ul style="list-style-type: none"> • PVC/CPVC Schedule 40 or 80 (Solid Core) • UL1738 approved PVC or CPVC • Approved Polypropylene (PP) • Approved Stainless Steel (SS)
Canada*	<ul style="list-style-type: none"> • Type BH Special Gas Vent Class IIA (PVC) • Type BH Special Gas Vent Class IIB (CPVC) • Type BH Special Gas Vent Class IIC (Polypropylene/Stainless Steel)

* Refer to the manufacturer's literature for detailed information on approved vent materials.

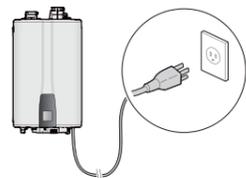
** For installation in Canada, field-supplied plastic vent piping must comply with CAN/CGA B149.1 (latest edition) and be certified to the Standard. For Type BH Gas Venting Systems, ULC-S636. Components of this listed system must not be interchanged with other vent systems or unlisted pipes or fittings. All plastic components and specified primers and glues of the certified vent system must be from a single system manufacturer and must not be intermixed with another system manufacturer's parts. The supplied vent connector and vent termination are certified as part of the water heater.

9 Electrical Connections

Remote Controller Connection



Power Connection

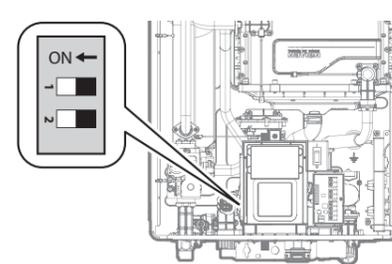


120 V AC 60 Hz
Min. 2 Amp current with proper grounding

CAUTION

Using abnormally high or low AC voltage may cause abnormal operation, thereby causing fire which reduces the life expectancy of this product.

Confirmation of DIP Switch Settings



- 2-switch Panel:

Switch	Function	Setting	
2	Temperature Lock	Temperature can be set.	OFF
		Temperature cannot be set.	ON

CAUTION

Disconnect the power to the water heater before installing the remote controller.

Safety



DO NOT touch the power cord with wet hands.

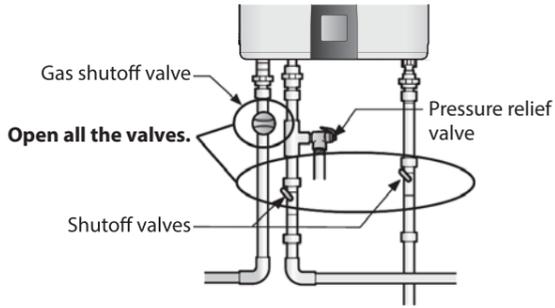


DO NOT allow the water heater to be exposed to excessive amounts of water.

STEP 3 After Installing

1 Opening All the Valves

Gas Valve

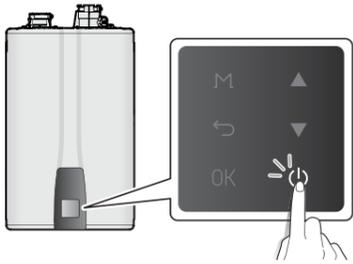


NAVIENT

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www.navieninc.com

2 Operating the Water Heater

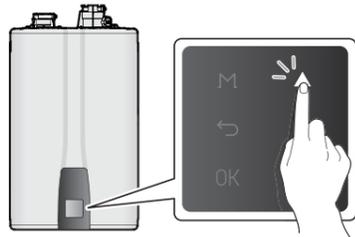
Power ON



To turn the water heater on, press the Power button (⏻).

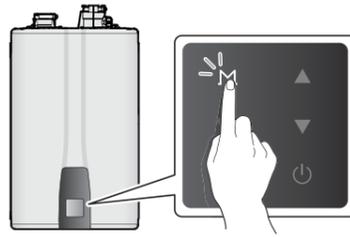
When the power is on for the first time, you must complete the start-up wizard. The temperature will appear on the front panel display after then when the power is on.

Adjust the Water Temperature



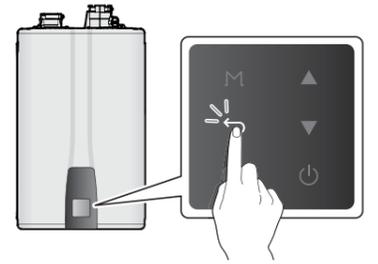
Press the Up button (▲) or the Down button (▼) until the desired temperature appears on the display. You can adjust the temperature while the display is flashing. Once the display stops flashing, the temperature setting is stored.

View Basic Information



To access to view the water heater's operating conditions, configure the DHW temperature, or review the error history, press the Menu button (M).

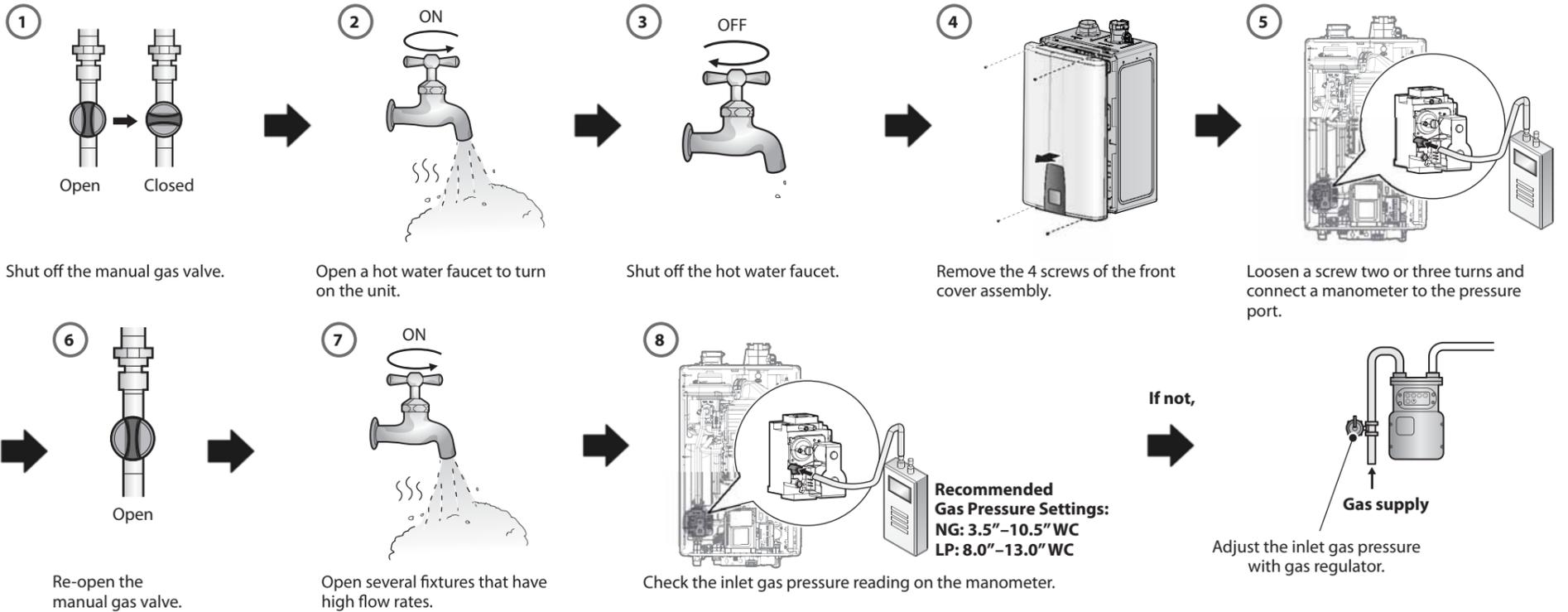
Resetting the Water Heater



If an error message appears, you can try resetting the water heater to resolve the problem. To reset the water heater, press the Back button (←).

Note If resetting does not solve the problem, refer to the troubleshooting section of the User's Information Manual or contact the service center.

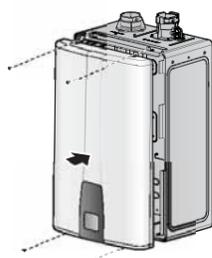
3 Measuring the Inlet Gas Pressure



CAUTION

The Navien water heater cannot operate properly without sufficient inlet gas pressure and volume. The instructions on how to check the inlet gas pressure are stated above. **THIS IS ONLY TO BE DONE BY A LICENSED PROFESSIONAL.**

4 Installing the Front Cover



5 Ensure Maximum Water Flow

After using the water heater for the first 10 minutes, please stop using it and clean the cold water filter and recirculation water filter of any trapped debris.

6 Final Check

A trial run should be performed in accordance with the Installation checklist listed in the Installation Manual.