

Installation Manual

NORITZ AMERICA
CORPORATION

CONDENSING TANKLESS GAS WATER HEATER

NRC663-FSV (EZTR40)
(Indoor Installation)

EZTR™

Potential dangers from accidents during installation and use are divided into the following three categories. Closely observe these warnings, they are critical to your safety.



DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

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



CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.



Prohibited



Disconnect
Power



Ground



Be sure to do



CAUTION

Requests to Installers

- In order to use the water heater safely, read this installation manual carefully, and follow the installation instructions.
- Failures and damage caused by erroneous work or work not as instructed in this manual are not covered by the warranty.
- Check that the installation was done properly in accordance with this Installation Manual upon completion.
- After completing installation, please either place this Installation Manual in a plastic pouch and attach it to the side of the water heater (or the inside of the pipe cover or recess box if applicable), or hand it to the customer to retain for future reference. Also, be sure to fill in all of the required items on the warranty and to hand the warranty to the customer along with the Owner's Guide.



LOW-LEAD



Low NOx
Approved by
SCAQMD
14 ng/J or 20 ppm
(Natural Gas Only)

FOR USE IN RESIDENTIAL APPLICATIONS.

Installation must conform with local codes, or in the absence of local codes, the National Fuel Gas Code, ANSI Z223.1/NFPA 54-latest edition.

Noritz America reserves the right to discontinue, or change at any time, the designs and/or specifications of its products without notice.

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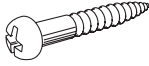
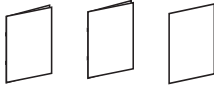
SBB809L-01
Rev. 01/17



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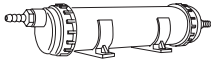

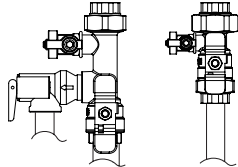
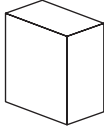
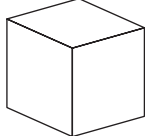
1. Included Accessories

The following accessories are included with the unit. Check for any missing items before starting installation.

Part	Shape	Q'ty	Part	Shape	Q'ty
Anchoring Screw		5	Owner's Guide, Warranty, Installation Manual (this document)		1 each

2. Optional Accessories

The accessories listed below are not included with the units, but may be necessary for installation.

Part	Shape	Q'ty	Part	Shape	Q'ty
Remote Controller (See p. 28)		1	Remote Controller Cord (10ft (3m))		1
Neutralizer (NC-1)		1	Remote Controller Cord (26ft (8m))		1
Isolation Valves* (includes pressure relief valve)		1 each	Flex Vent 2" Kit 25 Feet (EZ2FVK-1)		1
			Flex Vent 2" Kit 35 Feet (EZ2FVK-2)		1

Note: Additional vent pieces are available; consult the latest product catalogue for details.

* Isolation valves are necessary for flushing the Heat Exchanger. They allow for easy flushing of the system.

3. Before Installation

DANGER

Checkup

- Check the fixing brackets and vent pipe yearly for damage or wear. Replace if necessary.

WARNING

Precautions on Vent Pipe Replacement

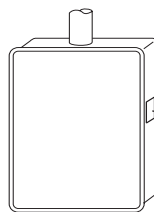
- The vent system will almost certainly need to be replaced when this appliance is being installed. Only use vent materials that are specified in this Installation Manual for use on this appliance. Refer to the "Vent Pipe Installation" section for details. If the flexible polypropylene pipe is already installed, replace to the new flexible polypropylene pipe. Improper venting may result in fires, property damage or exposure to Carbon Monoxide.

Snow Precaution

- If this product will be installed in an area where snow is known to accumulate, protect the vent termination from blockage by snow drifts or damage from snow falling off of roofs.

Check the Gas

- Check that the rating plate indicates the correct type of gas.
- Check that the gas supply line is sized for 120,000 Btuh.



Model(Modèle)	: NRC663-FSV(EZTR40)	Type of Gas(Type de gaz)	: Natural Gas(Gaz Naturel)
Input Rating(Débit calorifique)	: Max.120,000 Btuh - Min.15,000 Btuh	Recovery Rating(Calibre de recouvrement)	: 133 Gal/hr (505 l/h)
			: Min. 4.0 °W.C. - Max.10.5 °W.C.

Check the Power

- The power supply required is 120VAC, at 60Hz. Using the incorrect voltage may result in fire or electric shock.

Use Extreme Caution if Using With a Solar Pre-Heater

- Using this unit with a solar pre-heater can lead to unpredictable output temperatures and possibly scalding. If absolutely necessary, use mixing valves to ensure output temperatures do not get to scalding levels.

CAUTION

Do Not Use Equipment for Purposes Other Than Those Specified

- Do not use for other than increasing the temperature of the water supply, as unexpected accidents may occur as a result.

Check Water Supply Quality

- If the water supply is in excess of 12 grains per gallon (200 mg/L) of hardness, acidic or otherwise impure, treat the water with approved methods in order to ensure full warranty coverage.

4. Choosing Installation Site

- * Locate the appliance in an area where leakage from the unit or connections will not result in damage to the area adjacent to the appliance or to the lower floors of the structure. When such locations cannot be avoided, it is required that a suitable drain pan, adequately drained, be installed under the appliance. The pan must not restrict combustion air flow.
- * As with any water heating appliance, the potential for leakage at some time in the life of the product does exist. The manufacturer will not be responsible for any water damage that may occur.

DANGER

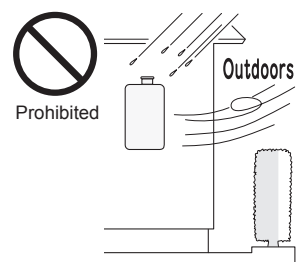
- Locate the vent terminal so that there are no obstacles around the termination and so that exhaust can't accumulate. Do not enclose the termination with corrugated metal or other materials.

WARNING

- Avoid places where fires are common, such as those where gasoline, benzene and adhesives are handled, or places in which corrosive gases (ammonia, chlorine, sulfur, ethylene compounds, acids) are present.
Using the incorrect voltage may result in fire or cracking.
- Avoid installation in places where dust or debris will accumulate.
Dust may block the air-supply opening, causing the performance of the device fan to drop and incomplete combustion to occur as a result.
- Avoid installation in places where special chemical agents (e.g., hair spray or spray detergent) are used.
Ignition failures and malfunction may occur as a result.
- Carbon Monoxide Poisoning Hazard. Do not install this water heater in a mobile home, recreational vehicle or on a boat.
- The manufacturer does not recommend installing the water heater in an attic due to safety issues. If you install the water heater in an attic:
 - Make sure the unit will have enough combustion air and proper ventilation.
 - Keep the area around the water heater clean. When dust collects on the flame sensor, the water heater will shut down on an error code.
 - Place the unit for easy access for service and maintenance.
 - A drain pan, or other means of protection against water damage, is required to be installed under the water heater in case of leaks.

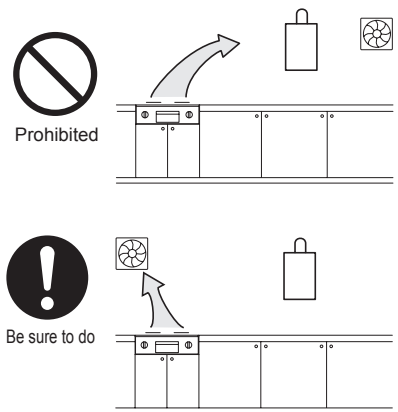
CAUTION

- The water heater is designed for indoor installation only. Never install it outdoors or in a bathroom, it may be damaged or a fire may be caused.
- Consult with the customer concerning the location of installation.
- Install the water heater in an area that allows for the proper clearances to combustible and noncombustible construction. Consult the rating plate on the appliance for proper clearances.



CAUTION

- Do not install the water heater in a place where it may be threatened by falling objects, such as under shelves.
- Do not install the water heater in a place where the inside/ outside temperature is below 32°F (0°C).
- The water heater must be installed in a place where exhaust pipes can be installed as directed.
- Do not install the water heater where the exhaust will blow on outer walls or material not resistant to heat. Also consider the surrounding trees and animals.
The heat and moisture from the water heater may cause discoloration of walls and resinous materials, or corrosion of aluminum materials.
- Avoid installation above gas ranges or stoves.
- Avoid installation between the kitchen fan and stove. If oily fumes or a large amount of steam are present in the installation location, take measures to prevent the fumes and steam from entering in the equipment.
- Install in a location where the exhaust gas flow will not be affected by fans or range hoods.
- Take care that noise and exhaust gas will not affect neighbors. Avoid installation on common walls as the unit will make some operational noises while it is running.
- Make sure that the location allows installation of the exhaust vent as specified.
- Avoid installation where the exhaust vent terminal will be exposed to excessive winds.
- Before installing, make sure that the exhaust flue termination will have the proper clearances according to the National Fuel Gas Code (ANSI Z223.1 - Latest edition).



State of California: The water heater must be braced, anchored or strapped to avoid moving during an earthquake. Contact local utilities for code requirements in your area or call: 1-866-766-7489 and request instructions.

The Commonwealth of Massachusetts: The water heater can be used for hot water only and not in a combination of domestic and space heating.

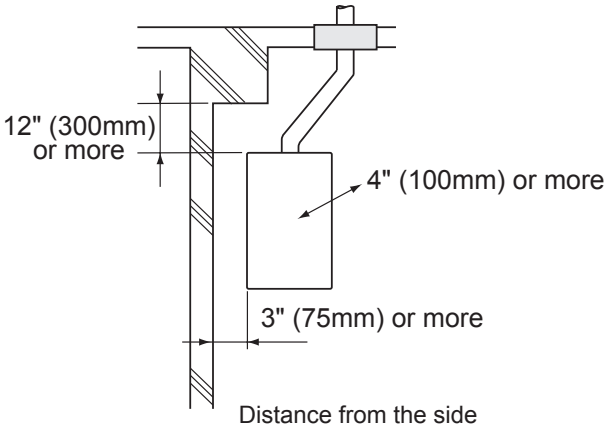
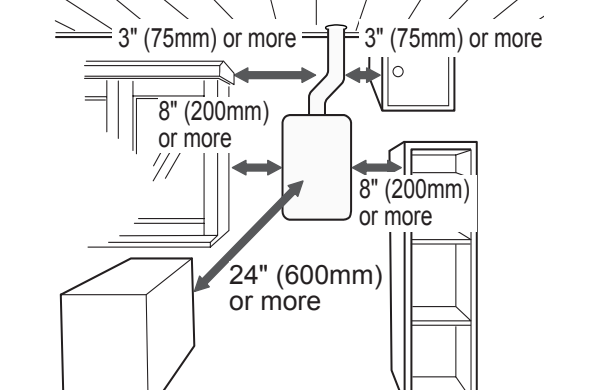
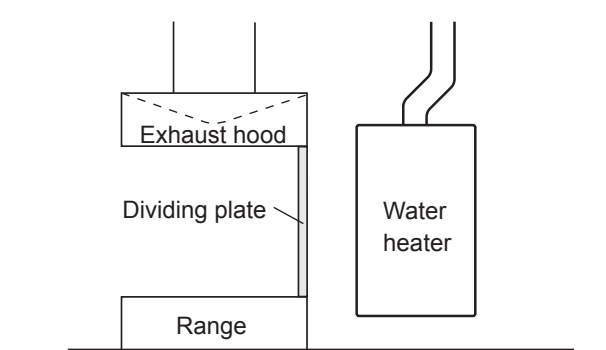
For Venting Manufacturers Requirements, see websites listed below:
Flex Vent 2" Kit www.noritz.com
<http://support.noritz.com/>

5. Installation Clearances

WARNING

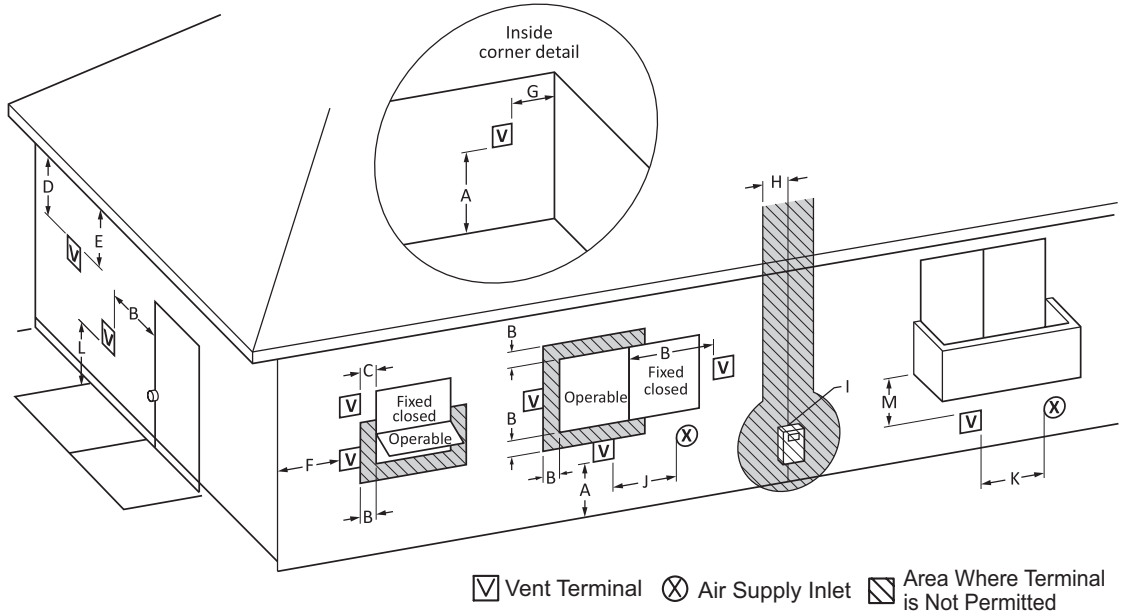
Before installing, check for the following:

Install in accordance with relevant building and mechanical codes, as well as any local, state or national regulations, or in the absence of local and state codes, to the National Fuel Gas Code ANSI Z223.1/NFPA 54 – latest edition for detailed requirements.

Item	Check	Illustration
Distance from combustibles	<ul style="list-style-type: none"> Maintain the following clearances from both combustible and non-combustible materials. 	 <p>12" (300mm) or more</p> <p>4" (100mm) or more</p> <p>3" (75mm) or more</p> <p>Distance from the side</p>
Securing of space for repair/inspection	<p>In order to facilitate inspection and repair it is recommended to leave:</p> <ul style="list-style-type: none"> 8" (200mm) or more on either side of the unit 24" (600mm) or more in front of the unit 3" (75mm) or more above and below the vent pipe 	 <p>3" (75mm) or more</p> <p>3" (75mm) or more</p> <p>8" (200mm) or more</p> <p>8" (200mm) or more</p> <p>24" (600mm) or more</p>
Cooking Equipment	<p><When the indoor air supply></p> <ul style="list-style-type: none"> If the unit will be installed in the vicinity of a permanent kitchen range or stove that has the possibility of generating steam that contains fats or oils, use a dividing plate or other measure to ensure that the unit is not exposed to air containing such impurities. <p>* The dividing plate should be of non-combustible material of a width greater than the water heater.</p>	 <p>Exhaust hood</p> <p>Dividing plate</p> <p>Range</p> <p>Water heater</p>

Clearance Requirements from Vent Terminations to Building Openings

* All clearance requirements are in accordance with ANSI Z21.10.3 and the National Fuel Gas Code, ANSI Z223.1.



Ref	Description	US Non-Direct Vent Installations ¹
A=	Clearance above grade, veranda, porch, deck, or balcony	12 in (30 cm)
B=	Clearance to window or door that may be opened	4 ft (1.2 m) below or to side of opening; 1 ft (30 cm) above opening
C=	Clearance to permanently closed window	*
D=	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (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	4 ft (1.2 m) below or to side of opening; 1 ft (30 cm) above opening
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	*

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

* Clearance in accordance with local installation codes and the requirements of the gas supplier. Clearance to opposite wall is 24 inches (60 cm).

6. Installation

Securing to the wall



- The weight of the device will be applied to the wall. If the strength of the wall is not sufficient, reinforcement must be done to prevent the transfer of vibration.
- Do not drop or apply unnecessary force to the device when installing. Internal parts may be damaged and may become highly dangerous.
- Install the unit on a vertical wall and ensure that it is level.
- Do not install the water heater when the inside/outside temperature is below 40°F (5°C).

Item	Check	Illustration									
Locating Screw Holes	<div style="border: 2px solid black; padding: 5px; text-align: center;"> CAUTION </div> <ul style="list-style-type: none"> • When installing with bare hands, take caution to not inflict injury. • Be careful not to hit electrical wiring, gas, or water piping while drilling holes. <ol style="list-style-type: none"> 1. Drill a single screw hole, making sure to hit a stud. 2. Insert and tighten the screw and hang the unit by the upper wall mounting bracket. 3. Determine the positions for the remaining four screws (two for the top bracket and two for the bottom), and remove the unit. 	<p style="text-align: center;">Location of Screw Hole</p>									
Mounting	<ol style="list-style-type: none"> 4. Drill holes for the remaining four screws. 5. Hang the unit again by the first screw, and then insert and tighten the remaining four screws. 6. Take waterproofing measures so that water does not enter the building from screws mounting the device. 	<p style="text-align: center;">Anchoring Screw</p>									
Structure	<ul style="list-style-type: none"> • Make sure the unit is installed securely so that it will not fall or move due to vibrations or earthquakes. 										
Installations at Elevations Above 2,000 ft.	<ul style="list-style-type: none"> • Adjust the DIP switches as illustrated in the table to the right if this water heater is installed at an altitude of 2000 ft. (610m) or higher. • Disconnect power to the water heater before changing the DIP switches. Failure to perform this step will result in a "733" code displayed on the Display Window and a cease in operation. If this occurs, disconnect, then reconnect power to the water heater to reset the system. 	<p>* Do not change any other DIP switches.</p> <p><input type="checkbox"/> OFF <input checked="" type="checkbox"/> ON</p> <p>* High elevation adjustment.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>5</th> <th>6</th> </tr> </thead> <tbody> <tr> <td>0 - 2,000 ft (0 - 610m)</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> </tr> <tr> <td>2,001 - 3,500 ft (611 - 1,050m)</td> <td style="text-align: center;">●</td> <td style="text-align: center;">○</td> </tr> </tbody> </table> <p>ON= ● OFF= ○</p>		5	6	0 - 2,000 ft (0 - 610m)	○	○	2,001 - 3,500 ft (611 - 1,050m)	●	○
	5	6									
0 - 2,000 ft (0 - 610m)	○	○									
2,001 - 3,500 ft (611 - 1,050m)	●	○									

Filling the condensate container with water



DANGER

When initial start up, make sure that you perform the following procedures. This is to prevent dangerous exhaust gases from entering the building. Failure to following procedure could result in severe personal injury or death.

After installing the drain pipe, make sure that the area around the unit is well ventilated; open a window or a door if necessary. Then, operate the unit and verify that condensate is coming out of the drain pipe. (During normal use of the unit, condensate will begin to discharge from the drain pipe within 15 minutes of use. However, depending on the season and/or installation site conditions, it may take longer.)