

CONDENSING HYBRID WATER HEATING SYSTEM

INSTALLATION AND OPERATION MANUAL

HYBRID HOT

MODEL: NHH199100-1



A WARNING

If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

A 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 Noritz America Limited Warranty.
- Check that the installation was done properly in accordance with this Installation Manual upon completion.
- After completing installation, either place this Installation Manual and Owner's Guide (the warranty registration information included) 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. For the warranty conditions and limitations, see the Owner's Guide.











Low NOx Approved by SCAQMD 14 ng/J or 20 ppm (Natural G as O nly)

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Welcome

Thank you for purchasing the Noritz Hybrid Hot Water Heating System. This manual provides information on the installation, operation, and maintenance information about the Hybrid Hot Water Heating System. Read this manual completely before installing or operating the system.

This manual is a supplement to the "Installation Manual" for the NCC199CDV (GQ-C3261WZ-FF US) Condensing Tankless Water Heater; refer to the NCC199CDV manual for complete water heater details, including:

- Parameter Settings (High Altitude Adjustment, Vent Length Adjustment, and more)
- Maintenance & Diagnostic Information
- Complete Installation Instructions

If You Need Service

Contact your local dealer/distributor or call Noritz Customer Care at:

(866) 766-7489

Have your full serial number or model number available for product- or service-related issues. The serial number is located on the right side of the tankless water heater (see Figure below)



For Installers

 In order to use the Hybrid Hot safely, read this installation manual carefully, and follow all installation instructions.

- Failure and damage caused by erroneous work or work not as instructed by this manual are not covered by the Noritz America Limited Warranty.
- Check that the installation was done properly and in accordance with this Installation Manual upon completion.
- After completing installation, either
 place this Installation Manual as well as
 the Owner's Guide (the warranty
 registration information included) and
 Installation Manual for the NCC199CDV
 in a plastic pouch and attach it to the
 side of the water heater (or the inside
 of the pipe cover), or hand it to the
 customer to retain for future reference.
 For the warranty conditions and
 limitations, refer to the warranty
 section of this manual.

For Customer

- Read this manual completely for operation instructions.
- To ensure full coverage by the Noritz
 America Limited Warranty service, see the warranty section of this document, and visit the Noritz website
 (www.noritz.com/warranty) to register your product.
- Keep this manual where it can be found whenever necessary.
- Be sure your water heater is installed by a licensed installer.
- If installing in the state of
 Massachusetts, you must read the
 Massachusetts Gas regulations section
 of the Installation Manual for the
 NCC199CDV water heater (pg. 4).

Safety

This manual contains the following important safety symbols. Always read and obey all safety messages.

To prevent damage to property and injury to the user, the icons shown below will be used to warn of varying levels of danger.

Every indication is critical to the safe operation of the Water Heater and must be understood and observed. Potential dangers from accidents during installation and use are divided into the following four categories. Closely observe these warnings; they are critical to your safety.

Icons warning of risk level

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER |

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

WARNING

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

CAUTION

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

NOTICE

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

Safety Precautions

For proper installation, operation and safety, it is important to follow the instructions and adhere to the safety precautions shown throughout this manual. There following precautions apply to the installer and consumer.

- Before operating, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- Keep the area around the appliance clear and free from combustible materials, gasoline, and other flammable vapors and liquids.
- Combustible construction refers to adjacent walls and ceiling and should not be confused with combustible or flammable products and materials. Combustible and/or flammable products and materials should never be stored in the vicinity of this or any gas appliance.
- Always check the water temperature before using
- To protect yourself from harm, before performing maintenance:
 - Turn off the electrical power supply by unplugging the power cord or turning off the electricity at the circuit breaker. (The temperature controller does not control the electrical power)
 - Turn off the gas at the manual gas control valve.
 - Turn off the incoming water supply
 - Use only your hand to turn the manual gas control valve. Never use tools. If the manual gas control valve will not turn by hand, do not try to repair it; call a trained and qualified professional. Force or attempted repair may result in a fire or explosion.

- Do not use this appliance if any part has been under water. Immediately call a licensed professional to inspect the appliance and to replace any part of the control system and any manual gas control valve which has been under water.
- Do not use substitute materials. Use only parts certified for the appliance.
- Flammable liquids such as cleaning solvents, aerosols, paint thinners, adhesives, gasoline and propane must be handled and stored with extreme care. These flammable liquids emit flammable vapors and when exposed to an ignition source can result in a fire or explosion. Flammable liquids should not be stored in the vicinity of this or any gas appliance.
- DO NOT operate the water heater without the front panel installed. The front panel should only be removed for service/maintenance or replacing internal components.
- BURN HAZARD. Hot exhaust and vent may cause serious burns. Keep away from the water heater. Keep small children and animals away from the water heater.
- Hot water outlet pies leaving the water heater can be hot to touch.
- Install the vent system per local and national codes.
- Do not install this water heater above 10,200 ft (3,109m).
- Do not obstruct combustion air to the water heater.
- Failure to properly vent this appliance.

About this Hybrid Hot

Specifications

Mode	·I	NHH199100-1				
Applia	ance Type	NCC199CDV (GQ-C3261WZ-FF US)	Tankless Water Heater paired with			
		Insulated Storage Tank, Pump and Controller				
Instal	lation Type	Indoor Only				
Ignitio	on Type	Direct Electronic Ignition				
Produ	ıct Weight	536 lb (243 kg)				
Shipping Weight		642 lb (291 kg)				
Gas C	onsumption	Minimum: 12,800 Btu/hr (3.8	Maximum: 199,900 Btu/hr (58.3			
		kW)	kW)			
Gas Supply Pressure Range		NG: 3.5" – 10.5" w.c.	LP: 8.0" – 13" w.c.			
Water Holding Capacity		119 Gallo	ons (450 L)			
Water Temperature Setting		100 °F	- 185°F			
Pressure Relief Valve Rating		150 psi, 199,900 Btu/hr				
T&P V	/alve Rating	210°F, 150 psi				
ze	Cold Water Supply	1 ½" NPT				
Connection Size	Hot Water Supply	1 ½" NPT				
tior	Recirculation Return	3/4"	' NPT			
Sec	Connection					
onr	Condensate Drain	1/2"	NPT			
Ö	Gas Supply	3/4" NPT				
<u>_</u>	Supply	120 VAC (60 Hz)				
Power Consumption	Normal Operation	NG: 272W LP: 272W				
Power Isumpti	Standby	5 W				
Pons	Freeze Protection	114 W				
	Max Amp	2.3 A				
Vent 7	Гуре	Direct Vent (-SV Convertible)				
	Category	Category IV				
Vent (Connection Size	2 in.				
Common Vent Capable		Up to 12 units				
Noise level		52 dB				
	lies with SCAQMD 14	Yes				
O	20 ppm) NOx Emission					
Levels						

Performance

Approved Gas Types	Natural Gas or Propane (Field convertible)			
Efficiency (System)	ALPI CERTIFIED to www.ahridirectory.org	96% Thermal Efficiency		
	NCC199CDV (GQ-	0.98		
	C3261WZ-FF US) UEF			
First Hour Rating**	317 GPH			

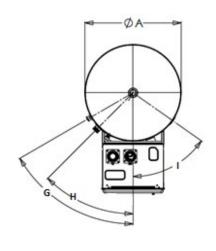
^{**}First hour rating is a calculation based on 100°F temperature rise, with recovery capacity plus 70% usable tank volume .

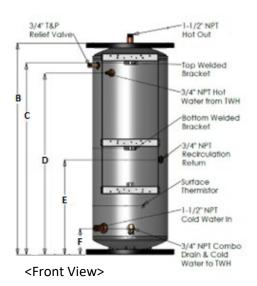
Recovery Capacity

Product	Approx.	Max		GPH (LPH) vs Temperature Rise										
	Tank	Input	30°F	40°F	50°F	60°F	70°F	80°F	90°F	100°F	110°F	120°F	130°F	140°F
	Capacity	(Btu/hr)	17°C	22°C	28°C	33°C	39°C	44°C	50°C	56°C	61°C	67°C	72°C	78°C
NHH199100-	119 gal	199,900	780	585	468	390	334	292	260	234	213	195	180	167
1	450L		2953	2214	1771	1476	1264	1105	984	886	806	738	681	632

Dimensions

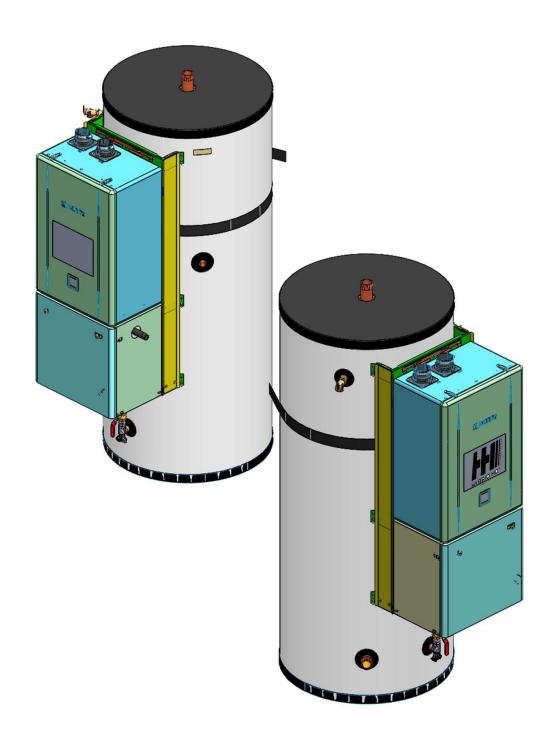
<Top View>





Model	Α	В	С	D	E	F	G	Н	I
	Diameter	Total	Height	Height Hot	Height to	Height to	Angle	Angle of	Angle of
		Height	to T&P	Water	Recirculation	Cold Water	of T&P	Tank	Recirculation
				Inlet from	Return	Inlet & Inlet		Cold	Return
				TWH		to TWH		Inlet	
NHH199100	28.0	67.75	61.375	58.125	30.375	8.375	60	45	55

External View



Unpacking the Hybrid Hot

Carefully unpack the Hybrid Hot and verify the following contents are included.

If any items are damaged or missing, contact your local dealer or call Noritz Customer Care at (866) 766-7489. Do not attempt to install or use any item that appears damaged.

Items included:

- Noritz Hybrid Hot Hybrid Water Heating System
- Temperature and Pressure Relief Valve (pre-installed on tank)
- Pressure Relief Valve (pre-installed on tankless water heater)
- Installation and Operation Manual (this manual)
- NCC199CDV Installation Manual
- NCC199CDV Owner's Guide

▲ WARNING

To avoid danger of suffocation, keep plastic bags away from babies, small children and pets. Do not use these bags in cribs, beds, carriages, or playpens. The bags are not a toy.

Transporting the Hybrid Hot

A CAUTION

Heavy Object. To avoid muscle strain or back injury, use lifting aids and proper lifting technique when moving.

▲ WARNING

The Hybrid Hot comes with a moving strap to aid with positioning the appliance. If this strap does not work with your moving equipment, the side covers may need to be removed to feed a strap through around the tank. **DO NOT position straps over any pipe, fitting, wire, or bracket of the appliance.**

The included ratcheting strap may not be used as earthquake strapping. The strap should be removed once the water heater has been installed.

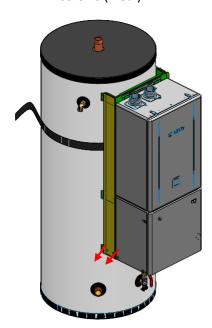
Use proper lifting techniques to load the water heater onto a hand truck:

Position the water heater such that the weight is balanced, and the tank is securely touching the rails of the hand truck.



Refer to the following procedure to remove the side covers (if necessary):

- 1. Loosen (2 ea.) screws along the perimeter of each side panel.
- 2. Remove the side panel.
- 3. Repeat step 1 on the opposite side panel.
- Feed strap through behind the heater and tighten. DO NOT position straps over tankless water heater or any pipe, fitting, wire, or bracket of the appliance.
- 5. Replace the side panels, securing the screws (2 ea.)



Installation of Hybrid Hot

Choosing an Installation Location

▲ DANGER

Locate the vent terminal and make sure there are no obstacles around the termination for exhaust to accumulate or be obstructed.

Do not enclose the termination with corrugated metal or other materials.

Carbon monoxide poisoning or fire may occur as a result.

▲ 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. If you do not follow the above, a fire or explosion may result causing property damage, personal injury or death.
- Avoid installation in places where dust or debris will accumulate. Dust may accumulate and reduce the performance of the fan of the appliance. This can result in incomplete combustion.
- Avoid installation in places where special chemical agents (e.g. hair spray or spray detergent) are used. Ignition failures and malfunctions may occur as a result.

A CAUTION

Do not install in the following places

- A location where it is not free from obstacles and stagnant air.
- Near staircases or emergency exits.
- A place where it may be threatened by falling objects, such as under shelves.

Consideration to the surroundings

- Do not install the Water Heater where the exhaust will blow on outer walls, other 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.
- Do not locate the vent termination directed towards a window or any other structure which has glass or wired glass facing the termination.
- Take care that noise and exhaust gas will not affect neighbors.
- If the appliance is installed in a location with very high humidity, condensate may form inside the appliance and/or cause incomplete combustion, damage to the electrical components, or electric leakage. Install according to regulations and manual
- 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.
- The Water Heater must be installed according to this manual.
- 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) or the Natural Gas and Propane Installation Code (CSA B149.1).

NOTICE

- Locate the appliance for easy access for maintenance and repair.
- Locate the appliance in an area where leakage from the appliance or connections will not result in damage to the area adjacent to the appliance or to the lower floors of the structure. When such installation locations cannot be avoided, a suitable drain pan, adequately drained, must 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.
- Water quality: If this Water Heater will be installed in a location where the hardness of the supply water is high, scale Build-up may cause damage to the Heat Exchanger. Perform suggested treatment and maintenance measures referenced in section "8.2 Water Treatment" of the NCC199CDV Installation Manual. Damage to the Water Heater as a result of the below is not covered by the Noritz America Limited Warranty.
- Water in excess of 12 gpg (200 mg/L) of hardness
- Poor water quality (see the following table)

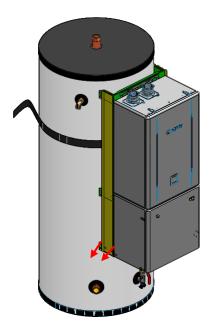
Contaminant	Maximum
	Allowable
Total	200 mg/L (12
Hardness*	gpg)
Chloride	250 mg/L
Aluminum	0.05 to 0.2
	mg/L
Copper	1.0 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
рН	6.5-8.5
Total	500 mg/L
Dissolved	
Solids	
Zinc	5 mg/L
Sulfate	250 mg/L
Residual	4 mg/L
Chlorine	

Source: EPA National Secondary Drinking Water Regulations (40 CFR Part 143.3)

Earthquake Strapping

Products installed in the State of California must be braced, anchored, or otherwise secured to avoid falling or moving during an earthquake. See instructions for correct installation procedures. Instructions can be obtained from the California Office of the State Architect located at 1102 Q Street, Suite 5100, Sacramento, CA 95811.

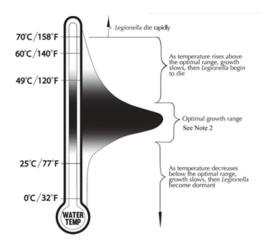
- 1. Loosen (2 ea.) screws along the perimeter of each side panel.
- 2. Remove the side panel.
- 3. Position straps around the tank per the requirements of the California Office of the State Architect. **NOTE: Do Not position straps over any pipe, fitting, wire, or bracket of the appliance.**
- 4. Replace the side panels, securing the screws (2 ea.)



^{*} Maximum limit suggested by Noritz.

Consideration for Legionella Formation

Water temperature is the most widely known contributing factor to Legionella bacteria growth. The figure below shows temperature effects on the survival and growth of Legionella bacteria. The ideal growth range for Legionella (85°F to 110°F) should be avoided. It is recommended to set the storage temperatures of 140°F (60°C) or higher when possible.



Source: From ASHRAE Guideline 12-2020 Temperature Effects on Survival and Growth of Legionella in Laboratory Conditions

Installation Clearances

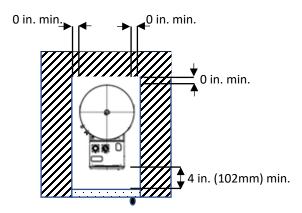
The Hybrid Hot is designed for indoor installation only. Maintain clearances from both combustible and non-combustible materials.

A 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, refer to National Fuel Gas Code ANSI Z223.1 / NFPA 54 - latest edition. In Canada, see the Natural Gas and Propane Installation Code CSA B149.1 - latest edition for detailed requirements

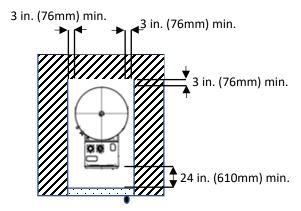
Location	Clearance
Тор	12 in. (254mm)
Bottom (Floor)	0 in.
Front	4 in. (102 mm)
Back	0 in.
Sides (Left / Right)	0 in.



Securing of space for inspection and repair

To facilitate inspection and repair, the following minimum clearances should be met.

Location	Clearance
Тор	12 in. (254mm)
Bottom (Floor)	0 in.
Front	24 in. (610 mm)
Back	3 in.
Sides (Left / Right)	3 in.



Special Considerations

Cooking Appliances

If the appliance will be installed in the vicinity of a permanent kitchen range or stove, when utilizing indoor air supply, with the possibility of generating steam containing fats or oils, use a dividing plate or other measures to ensure that the appliance is not exposed to air containing such impurities.

Multiple Hybrid Hot Water Heaters

If multiple Water Heaters will be installed, install the Water Heaters 3-18 in. (76-457 mm) apart from one another.

Elevation Adjustment Above 2000 ft. (610 m)

- If this Water Heater is installed at an altitude of 2,000 ft (610 m) or higher, the settings of unit should be changed using either the "EZStart Plus" app or using buttons on the PCB.
- Refer to the NCC199CDV Installation Manual for complete directions for changing this setting.

Installation Settings:

Item	Setting						
F.04	Elevation setting						
	EL.0: 0- 1,000 ft (0- 305	m)					
	EL.1: 1,001- 2,000 ft (306- 610	m)					
	EL.2: 2,001- 3,000 ft (611- 914	m)					
	EL.3: 3,001- 4,000 ft (915-1,219	m)					
	EL.4: 4,001- 5,000 ft (1,220-1,524						
	EL.5: 5,001- 6,000 ft (1,525-1,829	m)					
	EL.6: 6,001- 7,000 ft (1,830-2,134	m)					
	EL.7: 7,001- 8,000 ft (2,135-2,438						
	EL.8: 8,001- 9,000 ft (2,439-2,743						
	EL.9: 9,001- 10,200 ft (2,744- 3,109	m)					

Pre-Filling the Condensate Container

▲ DANGER

Prior to initial startup, make sure that you fill the condensate container with water.

This is to prevent dangerous exhaust gases from entering the building. Failure to fill the condensate container could result in severe personal injury or death

Follow the procedure described below to ensure that the condensate container is filled with water.

Fill the condensate container by pouring approx. 10 oz. (280 mL) of water into the exhaust flue on the top of the Water Heater as illustrated below.



If the vent pipe has already been installed: After installing the condensate drain pipe, make sure that the area around the Water Heater is well ventilated; open a window or a door if necessary. Then, operate the Water Heater and verify that condensate is coming out of the condensate drain pipe.

(During normal use of the Water Heater, condensate will begin to discharge from the condensate drain pipe within 15 minutes of use. However, depending on the season and/or installation site conditions, it may take longer.)

Venting the Hybrid Hot

▲ DANGER

carbon Monoxide Poisoning Follow all vent system requirements in accordance with relevant local or state regulation, or, in the absence of local or state code, if in the U.S., refer to the National Fuel Gas Code ANSI Z223.1 / NFPA 54 - latest edition, and if in Canada, in accordance with the Natural

The venting system shall be installed in accordance with the water heater manufacturer's instructions and, if applicable, the venting system manufacturer's instructions.

NOTICE

For venting information not specified in this section, refer to the Water Heater Installation Manual, which includes complete venting information, including approved vent manufacturers and terminations.

- 1. Install the Water Heater.
- 2. Determine the termination method—horizontal or vertical, etc.
- 3. Determine proper location for wall or roof penetration for each termination.

NOTE: Do not exceed maximum allowed vent lengths as described in this manual

- 4. Install termination assembly as described in the NCC199CDV Installation Manual or in the vent manufacturer's installation instructions. If necessary, install Bird Screen (not supplied with Water Heater).
- 5. Install combustion air and exhaust vent piping from Water Heater to termination.
- 6. Slope the horizontal vent 1/4 in. upwards for every 12 in. (305 mm) toward the termination.
- 7. Install supports and hanger straps allowing for movement from expansion, or as per vent pipe manufacturer's instructions or local code requirements.

Under normal conditions, this Water Heater will not produce an exhaust flue temperature in excess of 149°F (65°C) and schedule 40 PVC pipe may be used as the vent material. If the Water Heater set temperature is 160°F (70°C) or higher and there is a return line to the Water Heater from either a recirculation pump or a combination space heating system, schedule 40/80 CPVC, PP or Stainless Steel must be used.

Termination Considerations

Steam or condensed water may come out from the vent termination. Select the location for the termination as to prevent injury or property damage.

- If snow is expected to accumulate, make sure the termination will not be covered with snow or hit by falling lumps of snow.
- The vent for this appliance shall not terminate:
 - i) over public walkways; or
 - ii) near soffit vents or crawl space vents or other areas where condensate or vapor could create a nuisance or hazard or cause property damage; or
 - iii) where condensate vaper could cause damage or could be detrimental to the operation of regulators, relief valves, or other equipment.
- A bird screen must be installed on the vent terminations to prevent debris or animals from entering the piping. These screens are not supplied with the Water Heater and must be purchased separately (Refer to Water Heater Installation Manual for details).

Select a Vent Type

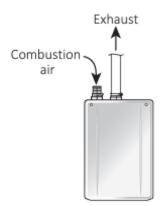
Direct Vent

Combustion air is supplied from the outdoors. Combustion Air and exhaust are separate vent types. Refer to NCC199CDV Installation Manual for venting instruction and requirements.



Non-Direct Vent

Combustion air is supplied from the surrounding indoor air. Refer to NCC199CDV Installation Manual for venting instruction and requirements.



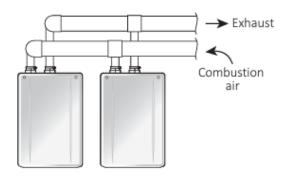
Common Vent

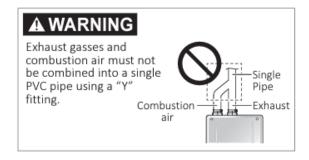
This Hybrid Hot is suitable for common venting. For full venting requirements, contact Noritz

America at (866) 766-7489 or scan the following barcode and refer to the Common Vent Installation Manual for full instructions.



When common venting Hybrid Hot Water heaters, a system controller and connection cords (RC-CORD10/26) must be installed (purchased separately). For systems of 2-6 units, use the SC-401-6M; for systems of 7-12 units, the SCU-401-12M must be used.





Plumbing Connections

This appliance comes with preinstalled Pressure Relief Valve (PRV) and a Temperature and Pressure Relief Valve (T&P). The PRV is located on the hot water outlet of the NCC199CDV water heater. The T&P is located on tank portion of the Hybrid Hot. In both cases, for safe operation of the water heater, the relief valve(s) must not be removed from their designated point of installation or plugged.

Pressure Relief Valve Requirements

An approved pressure relief valve (pre-installed) is installed near the hot water outlet that is rated in accordance and complying The Standard for Relief Valves and Automatic Shutoff Devices for Hot Water Supply Systems, ANSI Z21.22 and/or the standard Temperature, Pressure, and Temperature and Pressure Relief Valves and Vacuum Relief Valves CAN1-4.4.

▲ WARNING

Water discharged from the relief valve could cause severe burns instantly or death from scalds.

Must be capable of an hourly BTU rated steam discharge capacity of 199,900 BTU/hr.

- Pressure relief capacity must not exceed 150 psi.
- The relief valve must be installed such that the discharge will be conducted to a suitable place for disposal when relief occurs.
- The pressure relief valve must be manually operated once a year to check for correct operation.

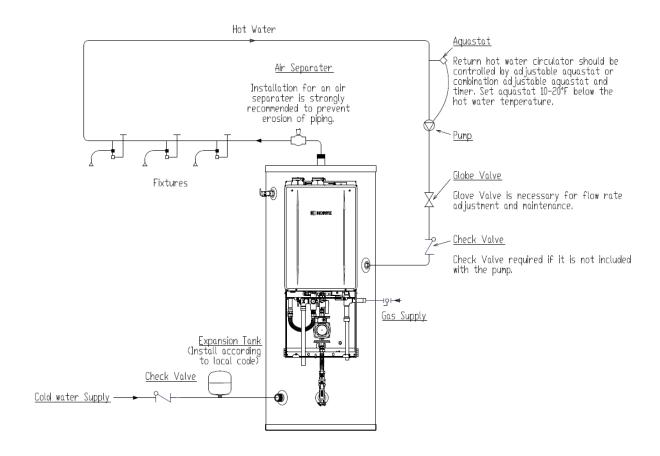
- Do not install a shutoff valve between relief valve and the water heater.
- No reducing coupling or other restriction may be installed in the discharge line.

Temperature and Pressure Valve (T&P) Requirements

An approved pressure relief valve (pre-installed) is installed on the tank that is rated in accordance and complying The Standard for Relief Valves and Automatic Shutoff Devices for Hot Water Supply Systems, ANSI Z21.22 and/or the standard Temperature, Pressure, and Temperature and Pressure Relief Valves and Vacuum Relief Valves CAN1-4.4.

- Must be capable of an hourly BTU rated steam discharge capacity of 199,900 BTU/hr.
- Pressure relief capacity must not exceed 150 psi.
- The T&P must be installed such that the discharge will be conducted to a suitable place for disposal when relief occurs.
- The T&P valve must be manually operated once a year to check for correct operation.
- Do not install a shutoff valve between T&P and the tank.
- No reducing coupling or other restriction may be installed in the discharge line.

Piping Diagram For Basic Installation



Note:

This drawing is for illustrative purposes only. This drawing shows suggested piping configuration and other devices; check with local codes for additional requirements.

Condensate piping shall be a material resistant to corrosion (i.e. PVC/CPVC) and shall not be smaller than the drain connection of the appliance.

Piping Diagram for Multiple Unit Installation



Notes:

This drawing is for illustrative purposes only. This drawing shows suggested piping configuration and other devices; check with local codes for additional requirements.

In the case where common venting Hybrid Hot water heaters, a system controller must be used.

Condensate piping shall be a material resistant to corrosion (i.e. PVC/CPVC) and shall not be smaller than the drain connection of the appliance.

Where the condensate drain pipes from more than one unit are manifolded together, the pipe or tubing shall be sized in accordance with an approved method.

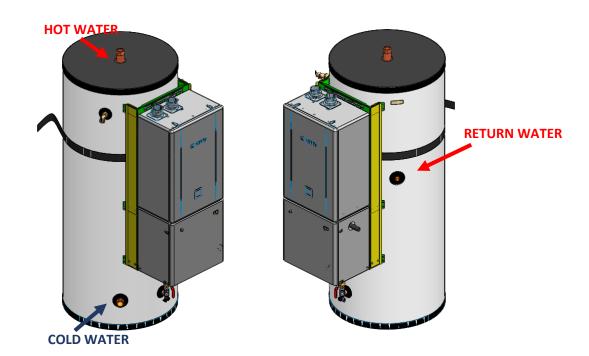
Connecting the Water Supply

Water connections to the Hybrid Hot system should follow all state and local plumbing codes.

If this is a standard installation, refer to the "Piping Diagram for Basic Installation".

Before making the plumbing connections, locate the **COLD** water inlet and the **HOT** water outlet. It is recommended to flush water through the system to clean out metal power, sand and dirt before making any connections to the water heater.

- The **COLD** water inlet is a 1 ½ in. MNPT fitting on the lower portion of the tank, below and to the left of the tankless water heater.
- The **HOT** water outlet is a 1 ½ in. MNPT fitting located at the top of the tank.
- It is recommended that a shut-off valve is installed close to the tank **COLD** and **HOT** water lines. It is recommended to utilize unions on both the **COLD** and **HOT** water lines so that the water heater can be easily disconnected if servicing is required.



Return Connection

The tank is provided with a ¾" FNPT recirculation loop return connection (see above, right).

Stainless streel circulators are recommended for use with commercial water heaters.

If building recirculation is not utilized, or this port is otherwise unused, this connection must be plugged before use.

Filling the System

DO NO OPERATE THIS WATER HEATER UNLESS IT IS COMPLETLY FULL OF WATER. To ensure safe operation of the water heater, all air must be relieved from the system before the water heater is plugged in and operated. To fill the water heater:

- 1. Open a hot water fixture connected to the plumbing system.
- 2. Open the cold water supply on the tank to begin supplying water to the water heater.
- 3. Continue to flush water through the system until all the air is purged from the system. This will be indicated by a constant flow of water at the opened hot water fixture.
- 4. Close the hot water fixture.
- 5. Check water heater connections and plumbing system for damage or leaks. Repair if necessary.

NOTICE

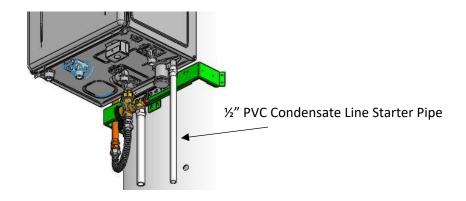
Do not operate this water heater unless it is completely full of water.

Condensate Piping

Condensing appliances, such as the Hybrid Hot, may create condensation as a byproduct of combustion. Without proper drainage, this will prevent proper combustion and will damage the heat exchanger.

NOTE Damage caused by improperly handled condensate is not covered by the Noritz America Limited Warranty.

• A condensate line starter (1/2" PVC) has been pre-installed on the Hybrid Hot. This condensate line must be run to an appropriate drain or condensate pump. Refer to the figure below for location of this condensate connection.

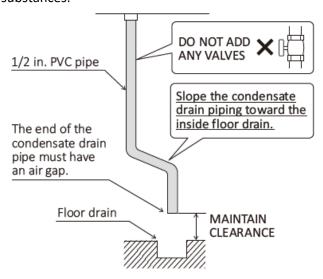


- Keep the condensate piping as short as possible. Condensate drain must be pitched downward.
- Condensate shall be disposed of in accordance with local codes. The condensate has a pH of approximately 2-3.
- Do not add a trap to the condensate piping.



DO NOT add trap to the condensate piping

• The condensate line must be open to the atmosphere (air gap required) and not submerged under water or other substances.



Water Treatment

If this Water Heater will be installed in a location where the harness of the supply water is high, scale build-up may reduce the lifespan of the heat exchanger. Perform suggested treatment and maintenance measures based on the water harness level of the table below.

Type of Water	Hardness Level	Treatment	Flushing
		Device*	Frequency
			Commercial Use
Soft	0-1 gpg (0-17		
	mg/L)	None	None
Slightly Hard	1-3 gpg (17-51	None	None
	mg/L)		
Moderately Hard	3-7 gpg (51-120		
	mg/L)		Ongo nor voor**
Hard	7-10 gpg (120-171		Once per year**
	mg/L)	ScaleShield or	
Very Hard	10-12 gpg (171-	Water Softener	
	200 mg/L)		Twice per veer**
Extremely Hard	>12 gpg (200		Twice per year**
	mg/L)		

^{*}When selecting a treatment measure, consult with the device's specifications and installation manual for guidelines and limitations. Not all devices are compatible with every water supply. A water test may be required.

NOTE Damage to the Water Heater as a result of the items below are not covered by the Noritz America Limited Warranty

- Water in excess of 12 gpg (200 mg/L) hardness
- Poor water quality (Refer to NCC199CDV Installation Manual)
- Improper maintenance

^{**}Flushing frequency requirement based upon no treatment installed.

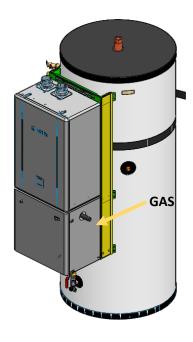
Connecting the Gas Supply

▲ WARNING

- Installation and service of the gas line must be performed by a qualified installer.
- Disconnect all power before performing any gas work.
- Gas is highly flammable. Take caution to keep any ignition sources away from installation.

Install a manual shut off control valve in the gas supply line to the water heater.

It is recommended to install a union type fitting at the gas connection (3/4" MNPT) provided at the right-hand connection site of the Hybrid Hot to facilitate maintenance or disconnection of the Hybrid Hot.



Gas Conversion Kit sample image



Gas Type

THIS WATER HEATER IS EQUIPED FOR NATURAL GAS

All Hybrid Hot water heaters are shipped as natural gas appliances. For conversion to propane (LP) gas, refer to the instruction guide in the conversion kit (included) to replace the parts correctly. The orifice necessary for propane (LP) conversion is included with the water heater (see image above, right).

Gas Pipe Sizing

- The gas supply line shall be sized to provide a sufficient supply of gas to meet the maximum demand of the Hybrid Hot and all other gas consuming appliances at the location while maintaining supply pressure at each appliance greater than or equal to the minimum pressure required by the appliance.
- For additional information on the proper sizing of a gas line, refer to the Installation Manual for the NCC199CDV Condensing Tankless Water Heater.

Pressure

- Check the gas pressure immediately upstream at a location provided by the gas company.
- Supplied gas pressure must be within the limits shown in the specifications section of this manual with all gas appliances operating.

▲ WARNING

The inlet gas pressure must be within the range specified. Low gas pressure may cause a loss of flame or ignition failure at other appliances in the building, which may result in unburned gas in the building. Serious accidents such as fire or explosion may result.

Pressure Test

The appliance and its gas connections must be leak tested before placing the appliance into operation.

- Test at test pressures equal to or less than ½ psi (3.5 kPa).
- The appliance must be isolated from the gas supply system by closing its individual shut off valve during any pressure testing of the gas supply system.
- Do not attempt to operate the Hybrid Hot if any leaks are detected.

▲ WARNING

When switching gas types, refer to the water heater's installation manual before making any changes. If the information in the instructions or manuals are not followed exactly, a fire or explosion may result, causing property damage, personal injury or death.

Work errors or deviation from the Installation Manul are not covered by the Manufacturer Limited Warranty.

Connecting Electricity

A WARNING

- Do not use an extension cord or adapter plug with this appliance.
- The Hybrid Hot must be electrically grounded in accordance with local codes, or in the absence
 of local codes, with the National Electrical Code, ANSI/NFPA 80. IN Canada the latest CSA C22.1
 Electrical Code.
 - The electrical supply required by the appliance is 120 VAC at 60 Hz.
 - A grounding screw is provided below the junction box.

NOTE Do not connect the ground to the city water or gas piping.

• Do not connect power to the appliance prior to completing installation and filling the system with water.

Procedure to Connect Power and Ground

- 1. Remove the pipe cover of by removing two (2) screws from the front cover. Slide the cover off and set aside.
- 2. Locate junction box on the bottom right side of the Hybrid Hot.
- 3. Open junction box by releasing locking latch (2) and opening front panel.
- 4. Locate splice connectors inside junction box (orange, qty 1, white qty. 1)
- 5. Feed power line through junction box opening.
- 6. Feed power line "HOT" wire connects to the orange splice connector
- 7. Neutral power line connects to the white splice connector
- 8. Tie ground down to ground screw provided below the junction box
- 9. Close the junction box

Pump Controller

An integrated pump controller is located inside the junction box which maintains communication between the tank and tankless via a communication cable. This controller will energize the pump (120 VAC) when the temperature within the tank temperature is below the set point. When the tank temperature returns to the set temperature, the pump controller will deenergize the pump and remain in standby until the tank temperature drops again.



Whenever power is supplied, the pump controller will try to initiate operation of the pump if the set temperature is not met. If the system is planned to be out of service for an extended period, disconnect the system from power from the system.

Pump Controller Status Indicator

The pump controller is equipped with an LED that will flash depending on the status of the controller.

LED Color		Status
Solid Green		In Standby, waiting for call for heat
Blinking Green		In Operation, pump is operating
Blinking Red		Error Alarm
	1 blink	Thermistor Error
	2 blinks	Tankless Communication Error
	3 blinks	Pump Communication Error
	4 blinks	Tankless Lockout Error

For troubleshooting assistance, contact Noritz America technical support at (866) 766-7489.

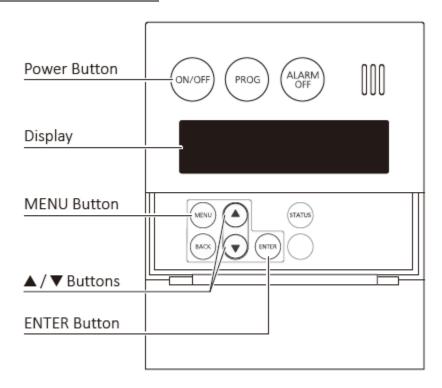
NOTE The controller has an abnormality detection time of 3 minutes. Error codes may not display immediately.

Additional Settings

The Remote Control (RC-9018M) panel is pre-installed on the Hybrid Hot. It can be accessed by removing the front panel of the pipe cover located right below the tankless water heater. This remote can be used to adjust temperatures, obtain diagnostic information, and for adjusting settings. For full information regarding operation of the Remote Controller, refer to the "Owner's Guide" for the NCC199CDV water heater.

Remote Controller Settings

RC-9018M Remote Controller Schematic



Adjusting Temperature / Units Display

- 1. Turn the Water Heater off by pressing the "ON/OFF" button on the Remote Controller.
- Disconnect, then reconnect the electrical power to the Water Heater.
 <u>NOTE</u> The setting must be done with the first 10 minutes of connecting the electrical power to the Water Heater.
- 3. Press the "MENU" button. Select "Initial settings" using the ▲/▼ buttons.
- 4. Press the "ENTER" button, the "Initial settings" screen will appear on the display.
- 5. Select "[°F/gal] ↔ [°C/L]" using the ▲/▼ buttons.
 - °F/gal (Fahrenheit / Gallon): **DEFAULT** setting
 - °C/L (Celsius / Liter)

- 6. Press the "ENTER" button and select either [°F/gal] or [°C/L] using the ▲/▼buttons.
- 7. Press the "ENTER" button, "Set complete Please wait..." will appear on the display for 5 seconds and then the "Initial settings" screen will reappear on the display.
- 8. To confirm the setting, turn the Water Heater back on by pressing the "ON/OFF" button on the Remote Controller.

Limiting the Maximum Outlet Temperature

The maximum output temperature can be limited to prevent discharging hot water at too high of a temperature. The heater comes default set with a maximum output temperature of 120°F (50°C).

▲ DANGER

Hot water temperatures over 125°F (52°C) can cause severe burns instantly of death from scalding.

- 1. Turn the Water Heater off by pressing the "ON/OFF" button on the Remote Controller.
- 2. Press the "MENU" button. Select "Misc settings" using the ▲/▼ buttons.
- 3. Press the "ENTER" button, the "Misc settings" screen will appear on the display.
- Select "Max set Temp" using the ▲/▼ buttons.
- 5. Press the "ENTER" button. [120°F/50°C] will appear on the display.
- 6. Set the upper limit of the hot water temperature using the \triangle/∇ buttons.
 - For Fahrenheit (°F): 125- 150°F (In 5°F intervals), 160°F, 170°F, 185°F
 - For Celsius (°C): 37-48°C (in 1°C intervals), 50-85°C (In 5°C intervals)
- 7. Press the "ENTER" button. "Set Complete" will appear on the display for approximately 2 seconds, then the return to the "Misc settings" screen.
- 8. To return the Water Heater back into operation, press the "ON/OFF" button.

Once the limit is successfully changed, use the \triangle/∇ buttons to adjust the temperature to any set temperature up to the changed maximum temperature.

Initial System Settings

The Hybrid Hot is pre-configured for operation directly upon installation. However, there are situations in which certain settings may need to be altered either using the "EZStart Plus" app or using the buttons on the water heater, including:

- 1. Installations above 2,000 ft. elevation (refer to pg. 49 of the NCC199CDV Installation Manual)
- 2. Certain Venting Applications
 - Non-direct vent applications; (Refer to pg. 49 of the NCC199CDV Installation Manual)
 - Longer Vent runs (Refer to pg. 19 of the NCC199CDV Installation Manual)
 - Common Venting (Refer to Common Venting Installation Manual)
- 3. Conversion to Propane Gas

EZ Start Plus App

The water heater has built-in Bluetooth which can be used to configure the unit settings. This app is available on the Google Play Store and the Apple app Store. Refer to Water Heater installation manual for complete details.

Android

- Open "Google Play".
 Search for "EZ Start Plus".
- 3. Follow the instructions on the screen to install.



iPhone/iPad

- Open "App Store".
 Search for "EZ Start Plus".
- 3. Follow the instructions on the screen



Using the Buttons on the PCB

If it is not desired to use the app to configure the settings, buttons on the circuit board can be used to change the settings. Refer to Water Heater's Installation Manual for detail.

Post Installation Checklist

After installing the Hybrid Hot, review the following checklist. You should be able to answer "Yes" to all of the items in the checklist. If you answer "No" to any item, review the appropriate sections to complete the installation.

If you have any additional questions or need assistance with the installation, contact Noritz customer care at (866) 766-7489.

Choosing an Installation Location	Yes	No
Water Heater is not subject to corrosive compounds in the air		
Water Heater is not installed where gasoline, benzene, or adhesives are handled		
Installation Clearances	Yes	No
Water Heater meets all required clearances		
Venting the Water Heater	Yes	No
Vent Materials used are approved for use with this category IV appliance		
Vent connections are tight with no leakage		
Vent length does not exceed the maximum vent length based upon the number of elbows		
and vent diameter used		
Termination meets clearance requirements		
When utilizing a horizontal vent section, the horizontal vent slope is 1/4 in. per 12 in. upward toward the termination		
Vent system conforms with local, state, and national codes, or in the absence of local		
codes with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, of the National Gas and		
Propane Installation Code, CSA B149.1		
If common venting multiple water heaters, a system controller (SC-401-6M) is installed		
Connecting the Gas Supply	Yes	No
Gas supplied to the water heater matches with the type indicated on the water heater's rating plate		
Manual gas control valve has been placed in the gas line to the water heater		
Gas line and connections are free of leaks		
Inlet gas pressure is within specified range		
Connecting the Water Supply	Yes	No
Water lines flushed out prior to operation (clean out loose metal powder, dirt and other debris before operation)		
Water quality is tested to verify if water treatment is necessary		
Water connections are free of leaks in cold and hot water supply piping		
Pressure relief valve is installed on the tankless water heater		
Temperature and Pressure Relief Valve is installed on the tank		
Hot and Cold Water lines are not crossed		
If a recirculation system is installed, temperature setting of water heater set to 140°F		
(60°C) or higher to reduce risk for Legionella bacteria growth		
Connecting the Condensate Line	Yes	No
Condensate drain piping is discharging to a drain or condensate pump		

Condensate piping is sloped toward the floor drain or condensate pump				
Condensate drain pipe termination is open to the atmosphere				
Condensate has been treated before disposal (where required by local code)				
Connecting Electricity				
Electrical supply is 120 VAC, 60 Hz				
Grounding resistance is less than 100 Ω				
Pump controller is operational (green LED solid or blinking)				
System Settings				
Display appears on the Remote Controller				
Parameter settings are adjusted for elevation				
Temperature is set to an appropriate temperature				
Trial Operation	Yes	No		
Pump Operates and Flame indicator is displayed on the Remote Controller				
After trial operation, filter is cleaned and free of debris				
If the Water Heater will not be used immediately:				
Close all gas and water shutoff valves				
Drain the water heater				
Disconnect electrical supply to the water heater				
 Explain the "Important Safety Information", "Operation Procedures", and 				
"Follow-up Service" according to the Owner's Guide to the customer				
Leave this manual and the NCC199CDV Installation Manual and Owner's Guide taped to				
Leave this manual and the NCC199CDV Installation Manual and Owner's Guide taped to				

Maintenance and Troubleshooting

Storage Tank Maintenance

Water heater maintenance includes periodic tank flushing and cleaning, and removal of limescale. It is recommended that the water heater storage tank be drained and flushed every 6 months to reduce sediment buildup.

Draining the Storage tank

To completely drain the storage tank:

- 1. Turn the power off to the system by disconnecting power to the system. The system will not be fully shut down by pressing the "On/Off" button on the remote controller.
- 2. Turn off the gas manual shut-off valve.
- 3. Ensure the cold water supply valve is open.
- 4. Open a hot water fixture and let the water unit until the water is no longer hot.
- 5. Close the cold water supply manual shut-off valve.
- 6. Connect one end of a garden hose to the storage tank drain valve. Place the other end of the garden hose next to a free flowing drain.
- 7. Open a hot water faucet within the plumbing system to relieve pressure and allow air into the system (if not already done in step 4).
- 8. Slowly open the drain valve by turning the knob counterclockwise.
- 9. Close the water heater drain valve when all water in the storage tank has drained.
- 10. Close the hot water faucet opened in step 4.
- 11. If the water heater will be shut down for an extended period of time, the drain valve should be left open.

Flushing the Storage Tank

- 1. Follow steps 1-4 of the "Draining the Storage Tank" process above.
- 2. Close the hot water fixture.
- 3. Connect one end of a garden hose to the storage tank drain valve. Place the other end of the garden hose next to a free-flowing drain. Ensure the garden hose is secured before and during the flushing procedure. Flushing is performed with system water pressure applied to the water heater.
- 4. Open the drain valve to flush the storage tank. Continue to flush water through the storage tank to remove sediment and allow the water to flow until runs clean.
- 5. Close the storage tank drain valve when flushing is completed.
- 6. Remove the drain hose.
- 7. Fill the water heater (Refer to "Filling the System" section of this manual)
- 8. Restore power to the water heater to place the system back in operation.

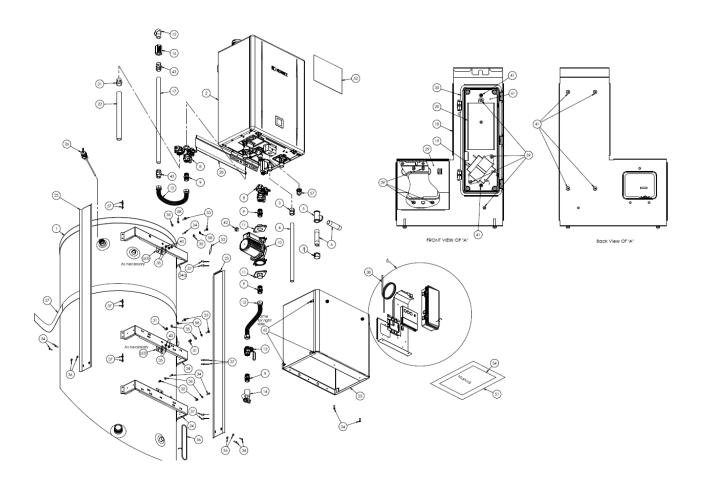
Tankless Water Heater Maintenance

Water heater maintenance includes periodic removal of limescale. It is recommended that the tankless water heater be flushed every 6-12 months to prevent limescale build up. Limescale formation may cause damage to the heat exchanger.

Flushing the Tankless Water Heater

Refer to NCC199CDV Installation Manual for complete flushing instructions.

Parts Breakdown



Item No.	Description	Part No.
01	Storage Tank, 119 gallon	93101
02	NCC199CDV Water Heater	GQ-C3261WZ-FF
		US NG
03	Adapter, PVC (1/2")	93103
04	Pipe, PVC (½"x16")	93104
05	Tee, Black Iron (3/4"x3/4"x3/4")	00071
06	Nipple, Black Iron (3/4"x4")	99218
07	Cap, Black Iron (3/4")	93105
08	Isolator Valve Set	93116
09	Brass HEX Nipple (3/4")	93107
10	Circulating Pump	93108
11	Pump Flange Set	93109
12	CSST Pipe (3/4" x 12")	93110
13	Ball Valve (3/4")	93111
14	Drain Valve (3/4")	93114
15	Street elbow (3/4")	93136
16	Mini Ball Valve (3/4")	93112
17	Hot Water connection pipe, copper (3/4"x23.5")	93113
18	Controls Mounting Plate	93115
19	Transformer, 24VAC	50539
20	Pump Controller	93117
21	Adapter, CPVC (3/4")	93118
22	PRV Pipe (3/4"x13")	93119
23	Side Cover Set	93120
24.1	Tankless Mounting Bracket	93121
24.2	Tankless Mounting Bracket (lower)	93158
25	Pipe Cover Set	93122
26	T&P Relief Valve	93123
29	Remote Controller (RC-9018M)	01825
30	Junction Box	93126
33	Hex Head Screw (1/4"-20 x ¾")	93129
34	Hex Head Screw (#10-32 x ¾")	93130
35	Washer (1/4")	93131
36	Washer (#10)	93132
39	Screw (#8-32x3/8")	93134
40	Hex Nut (1/4"-20)	93135
41	Screw (M4x8mm)	93147
42	Bushing	01121
62	Screw, (M4-0.7x8)	93159
54	Manual	93153-1

Warranty

Noritz America Corporation Limited Warranty - Tankless Water Heaters

- 1. What is Covered by this Warranty During the applicable Warranty Period (specified below), Noritz America Corporation ("Noritz") warrants to the original purchaser ("Buyer") that the new Noritz gas water heater in the originally installed location ("Product") is free from material defects in material or workmanship (the "Warranty"). There are different Warranty Periods for different components of the Product, as described below. This Warranty is for the benefit of the original Buyer only and terminates upon transfer of the Product from the original Buyer to any other person or entity. For this Warranty to be effective (i) the Product must be installed by a method recognized and authorized by Noritz and in compliance with Noritz published materials specifically indicated in writing to be applicable to the type and model number of the Product and in compliance with instructions in the Installation Manual and Owner's Guide, which are included with the Product ("Proper Installation"); and (ii) Buyer must use the Product in compliance with instructions in the Installation Manual and Owner's Guide, which are included with the Product.
- **2. Warranty Period** This Warranty is provided by Noritz to the Buyer for the duration of the applicable Warranty Period for the particular component of the Product as specified below. This Warranty takes effect ("Warranty Effective Date") on the date of Proper Installation of the Product, or 30 days after the date of purchase of the Product, whichever occurs first, and is effective until the expiration of the "Warranty Period" for the particular Product component as shown below. The date of Proper Installation must be provided to Noritz as well as a copy of the original receipt for the purchase of the Product to establish the Warranty Effective Date. For example, when the Product is installed in new single-family residential construction, the Warranty Effective Date is the date upon which the Buyer takes title to the real property (e.g., the date of recordation of the deed conveying title to Buyer).

Component	Usage Conditions	
	Commercial Capacity	
Heat Exchanger	10 years [1]	
Storage Tank	10 years	
Circulating Pump	3 years	
All other parts	5 years	
Reasonable Labor	1 year [2]	

Footnote:

3. How do I Use this Warranty? If Buyer discovers, within the applicable Warranty Period, a defect in material or workmanship ("Defect"), Buyer must promptly notify Noritz or its authorized representative. Please notify Noritz by contacting Noritz's Customer Care at info@noritz.com, or by writing to Noritz Customer Care at 11160 Grace Avenue, Fountain Valley, CA 92708, or by calling Noritz Customer Care at 866-766-7489. Buyer must provide evidence of the Warranty Effective Date (See Section 2 above). Within a reasonable time after Noritz receives such notification, Noritz will ship at Noritz's expense, either new or used/refurbished replacement parts to correct a Noritz-confirmed Defect. Buyer is

^{[1] 10} years or 12,500 operational (burn) hours, whichever occurs first.

^[2] A reasonable labor rate will be paid by Noritz to service/repair professional on Noritz-approved Warranty repairs, subject to Noritz's schedule of approved labor allowances.

responsible for any other costs, including but not limited to labor for servicing or replacing the part or Product (except to the extent that labor is covered as described in the Warranty Period section above), costs for permits or materials necessary for the repair or replacement, or incidental costs resulting from damage external to the Product resulting from the Defect. The replacement component or Product will be warranted only for the unexpired portion of the original component's applicable Warranty Period. If during the applicable Warranty Period, the Noritz-provided new or used replacement parts, when properly installed, do not correct the Defect, or if Noritz is unable to correct the Defect after a reasonable number of attempts, Noritz will provide, at its option, one of the following: (i) a replacement new or used/refurbished Product (at Noritz's option, either the same, comparable or better model), to be shipped at Noritz's expense, or (ii) a full refund of the purchase price paid for the Product (excluding labor or installation costs). These remedies are the Buyer's only remedies for breach of Warranty.

- **4.** What is Not Covered by this Warranty Please refer to the Installation Manual and Owner's Guide supplied with your new Noritz Product. In addition, this Warranty becomes null and void if any of the following are determined to be contributing factors to failure of the Product under this Warranty:
- Abuse, neglect, misuse or misapplication
- Improper, dangerous, or destructive maintenance procedures
- Use in conjunction with any unapproved device
- Installation in an environment that is corrosive or otherwise destructive to the Product, whether internal or external
- Incorrect gas or water pressure
- Incorrect sizing for the application
- Use with improper gas type
- Damage as a result of freezing within the Product or surrounding piping
- Damage as a result of use with non-potable water, untreated or poorly treated well water,

- or water with high PH levels or hardness levels in excess of 12 grains per gallon (200 mg/L). (Please refer to the "Water Quality" section of the Owner's Guide for details)
- Damage caused by acts of God including, but not limited to; fire, flood, lightning, or natural disaster
- Damage caused by use of the Product for purposes other than those for which it was designed
- Damage caused by unauthorized attachments or modifications
- Damage resulting from improper installation of the Product
- Damage during shipment

Product purchased from any seller or retailer that is not authorized by Noritz, or any installer that obtained the Product from a distributor or supplier that is not authorized by Noritz (collectively, "Non-Authorized Product") is not covered by this Warranty and the Warranty shall be void as to such Non-Authorized Product.

5. DISCLAIMER OF WARRANTIES THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF

MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. NORITZ DISCLAIMS ALL OTHER OBLIGATIONS OR LIABILITIES ON ITS PART AND NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON OR ENTITY TO BIND OR ASSUME FOR NORITZ ANY OTHER LIABILITIES IN CONNECTION WITH THE PERFORMANCE OF THE PRODUCT. THIS WARRANTY ONLY COVERS REPLACEMENT PRODUCT OR PARTS THEREOF, AND EXCEPT AS EXPRESSLY SET FORTH ABOVE, DOES NOT COVER THE COST OF LABOR OR SERVICES UNDER ANY CIRCUMSTANCES. SOME STATES OR PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

- **6. LIMITATION OF REMEDIES** NORITZ'S TOTAL LIABILITY FOR ANY CLAIM ARISING HEREUNDER SHALL NOT EXCEED THE PURCHASE PRICE WHICH YOU PAID FOR THE PRODUCT. IN NO EVENT WILL NORITZ BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES BASED ON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT, OR ANY OTHER LEGAL THEORY. DAMAGES THAT NORITZ WILL NOT BE RESPONSIBLE FOR INCLUDE, BUT ARE NOT LIMITED TO: LOSS OF PROFITS; LOSS OF SAVINGS OR REVENUE; LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT; COST OF CAPITAL; COST OF ANY SUBSTITUTE EQUIPMENT, FACILITIES, OR SERVICES; DOWNTIME; THE CLAIMS OF THIRD PARTIES, INCLUDING CUSTOMERS; AND INJURY TO PROPERTY.
- **7. Time Limit for Bringing Suit** Any action for breach of Warranty must be filed and served within 6 months following the expiration of the applicable Warranty Period with respect to the particular Product component.
- **8. No Other Warranties** There are no express warranties other than those contained in this agreement. Unless modified in a writing signed by both parties, this agreement is understood to be the complete and exclusive agreement between the parties, superseding all oral or written prior agreements and all other communications between the parties relating to the subject matter of this agreement, including but not limited to statements made by salespersons. No employee or representative of Noritz, or any other person or entity, is authorized to make any warranty in addition to those made in this agreement, or to modify any warranty made in this agreement. Buyer is warned, therefore, to check this agreement carefully to see that it correctly reflects those terms that are important to the Buyer.
- **9. Allocation of Risks** This agreement allocates the risks of Product failure between Noritz and the Buyer. This allocation is recognized by both parties and is reflected in the price of the goods. Buyer acknowledges that it has read this agreement, understands it, and is bound by its terms. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state or province to province.

Warranty Registration Register your Noritz product/s online at www.noritz.com/warranty or by calling Noritz Customer Care at 866-766-7489.

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