

Outdoor Vent Kit Installation and Instruction Manual

Kit# VCK-NRCP-1

Applicable for NRCP111/98 series only.



⚠ Do not connect electrical power to the unit until all electrical wiring has been completed.

⚠ WARNING

This installation manual includes information specific to outdoor water heater installations. This information is meant to replace the venting section included in the tankless water heater installation manual. The tankless water heater installation manual includes instructions that will be necessary for the proper installation of all other functions, such as water and gas piping, wall mounting, control programming, etc. Failure to follow these instructions could result in substantial property damage, severe personal injury, or death. This installation shall be done by a qualified service agency in accordance with these instructions, all applicable codes, and requirements of the authority having jurisdiction. Failure to follow these instructions could result in substantial property damage, severe personal injury, or death.

⚠ CAUTION

This water heater must be installed by a qualified and licensed personnel. The installer should be guided by the instructions furnished with the water heater, and by local codes and utility company requirements.

Installation Must Comply With

1. National Electrical Code
2. National Fuel Gas Code
3. In Canada, CSA C22.1 Canadian Electrical Code Part 1, and CGA No. B149 (latest version)
4. Local, state, provincial, and national codes, laws, regulations, and ordinances.
5. In the 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 866-766-7489 and request instructions.
6. In the Commonwealth of Massachusetts:
 - a. Outdoor units may be used for summer use only.
 - b. The water heater may be used for hot water heating only and may not be used in a combination of domestic and space heating.

Important

This manual is intended to be used in conjunction with other literature provided with the water heater. This manual includes all related control information.

It is important that this manual, all other documents included in this system be reviewed in their entirety before beginning any work.

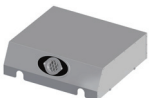

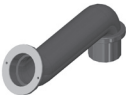





Installation should be made in accordance with the regulations of the Authority Having Jurisdiction, local code authorities, and utility companies which pertain to this type of water heating equipment.

Note:

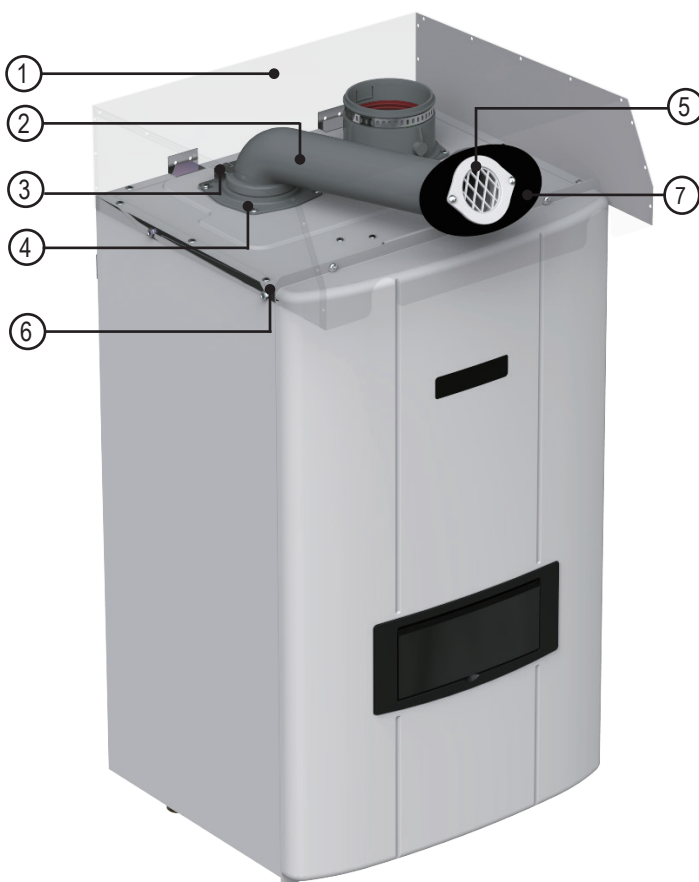
The manufacturer reserves the right to make changes or updates without notice and will not be held liable for errors in literature.

PLEASE KEEP ALL INSTRUCTIONS FOR FUTURE REFERENCE.

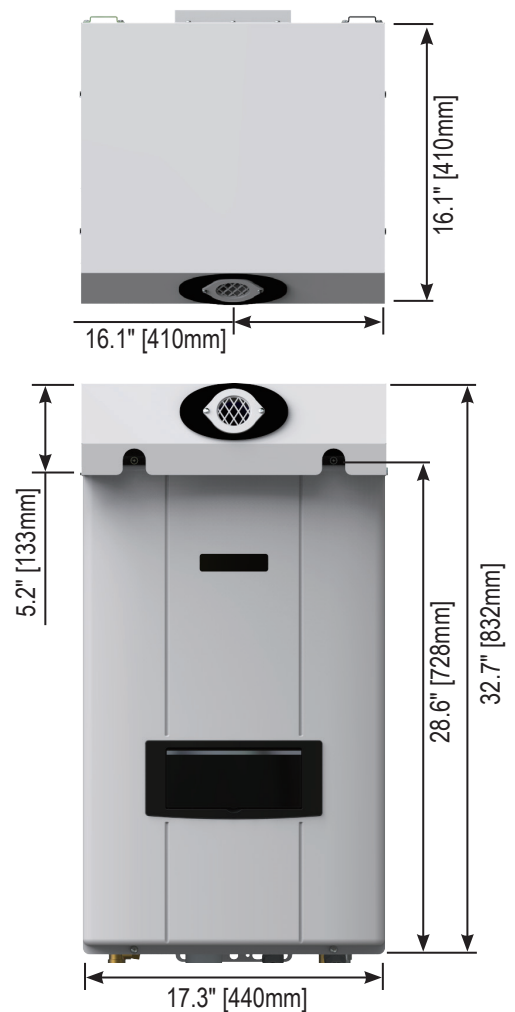
Included Outdoor Kit

Part		Shape	Qty	Part		Shape	Qty
1	Outdoor Vent Cap (w/ Plate and Packing)		1	5	Vent Screen		1
2	Exhaust Pipe		1	6	Hexagon Head with Flange Tapping Screw (M4 x12) (Outdoor Vent Cap)		4
3	Exhaust Pipe Stopper		1	7	Truss Head Tapping Screw (M4 x16) (Vent Screen)		2
4	VCK Exhaust Adapter (w/ P75 O-ring and Packing)		1	Instruction Manual			1

Outdoor Kit Components



Outdoor Kit Dimension



Outdoor Installation Location

WARNING

Carefully consider installation when determining water heater location. Please read the entire installation manual and these instructions before attempting installation. Failure to properly take factors such as piping, condensate removal, venting, and wiring into account before installation could result in wasted time, money, and possible property damage, personal injury, or death.

The outdoor kit is meant for use in outdoor installations ONLY. DO NOT install the water heater with outdoor kit indoors. Installing the water heater with outdoor kit indoors will result in improper water heater operation and property damage, and could result in serious personal injury or death.

1. Outdoor Installation Area Operating Conditions.

- Ensure ambient temperatures are higher than 5°F /-15°C.
- Prevent the air from becoming contaminated by the products, places, and conditions listed in the water heater installation manual.

WARNING

Incorrect ambient conditions can lead to damage to the heating system and put safe operation at risk. Ensure that the installation location adheres to the information included in this manual. Failure to do so could result in property damage, serious personal injury, or death. Failure of heater or components due to incorrect operating conditions IS NOT covered by product warranty.

The water heater must be installed as described in these instructions: Upright, with the supplied outdoor enclosure in the vertical position. DO NOT attempt to install the water heater in any other orientation. Failure to follow these instructions will result in improper water heater operation and property damage, and could result in serious personal injury or death.

2. Check for nearby connections to:

- System water piping
- Venting connections
- Gas supply piping
- Electrical power
- Condensate drain

Note:

The manufacturer reserves the right to make changes or updates without notice and will not be held liable for errors in literature.

CAUTION

Install the water heater where any leakage from the relief valve, related piping, tank, or connections will not result in damage to surrounding areas, lower floors of the building, or pool on the ground and freeze.

The water heater should be located near a drain or piped to a drain. Leakage damages ARE NOT covered by warranty.

3. Check surroundings of water heater.

Remove any combustible materials, gasoline, and other flammable liquids.

WARNING

Failure to keep the water heater area clear and free of combustible materials, liquids, and vapors can result in substantial property damage, severe personal injury, or death.

4. If the water heater is to replace an existing heater, check for and correct any existing system problems, such as:

- System leaks
- Location that could cause the system and heater to freeze and leak
- Incorrectly sized expansion tank

5. Clean and flush system when reinstalling a heater.

CAUTION

Do not connect the water heater to any heating systems or components that have been previously used for nonpotable applications. Do not introduce toxic chemicals, such as antifreeze or water heater treatments, into the water heater or any piping meant for potable purposes. Ensure that all piping and components connected to the water heater are suitable for potable water applications. Do not use this water heater for space heating applications.

CAUTION

The water heater must be installed level in order for the condensate to properly flow out the collection system.

Installation Clearances

■ Outdoor Installation Clearances

[Table 1]

Minimum Clearances	Installation Clearances from Non-Combustibles	Recommended Service and Proper Operation Clearances
Top of appliance	36 in (900mm)	
Back of appliance	5/8 in (15.9mm)	
Front of appliance	24 in (600mm)	24 in (600mm) or more
Side of appliance	3 in (75mm)	
Bottom of appliance	12 in (304.8mm)	

Note:

The outdoor enclosure for this appliance is approved for zero clearance to combustible construction.

If the water heater is installed in a narrow space or corner ensure that there is sufficient space for service.

In multiple water heater installations, ensure a minimum clearance of 36" from the top of one water heater to the bottom of the next water heater, and a minimum clearance of 3" from the side of water heater to the next water heater.

⚠ WARNING

Do not locate the water heater where exposed to prevailing winds.

Moisture will be produced by the exhaust vent. Take precautions when determining water heater location. Moisture may fall from the vent termination to the ground and turn to ice in freezing conditions. Moisture or ice can produce a hazardous condition.

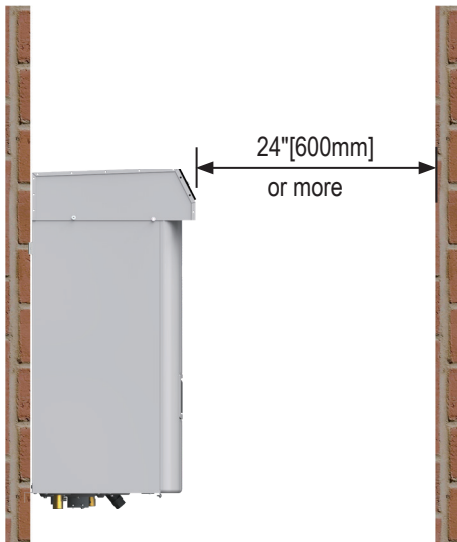
Exhaust condensate is acidic and could deteriorate the surface below the exhaust vent termination. Ensure this surface is in good repair (sealed, painted, etc.) to prevent deterioration. Failure to follow these instructions could result in substantial property damage, serious personal injury, or death.

■ Prevent Combustion Air Contamination

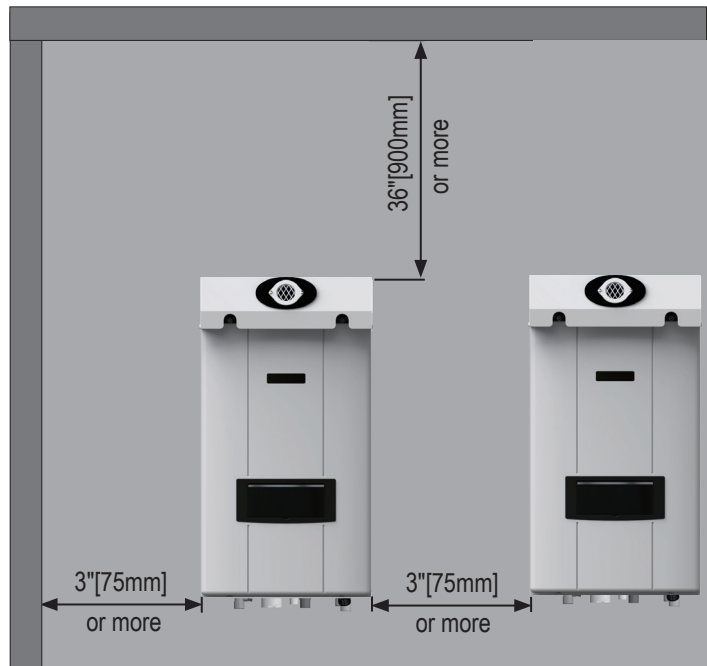
Do not install the outdoor water heater in locations that can allow contamination of fresh intake air.

Note:

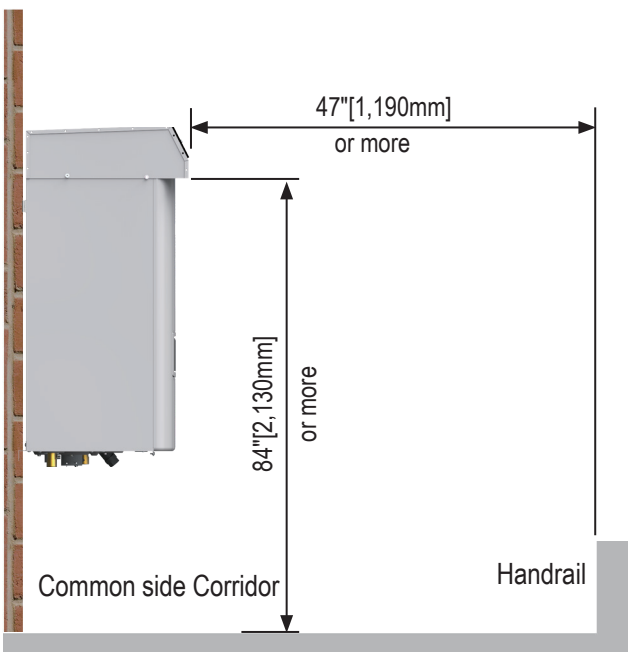
See Table 2 to prevent combustion air contamination.



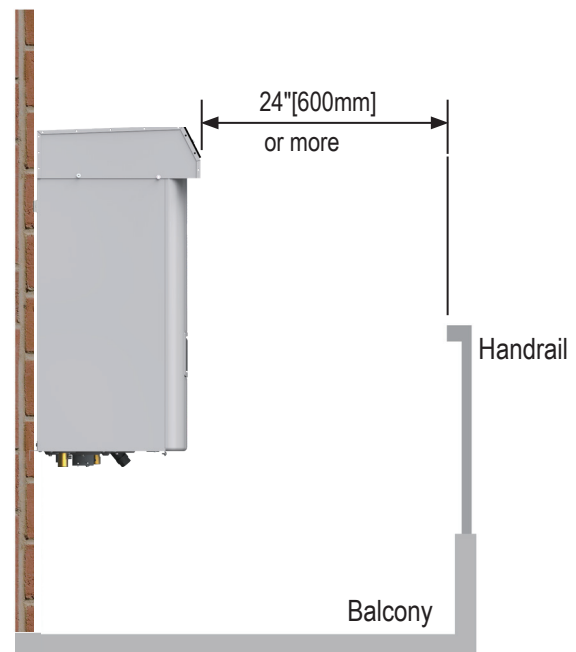
• Front Clearance from Wall



• Clearance from Wall and Ceiling



• Clearance from Handrail with Common Side Corridor



• Clearance from Handrail on Balcony

⚠ WARNING

Ensure that the intake air will not contain any of the contaminants in Table 2. Contaminated air will damage the heater, resulting in possible substantial property damage, severe personal injury, or death. For example, do not pipe intake air near a swimming pool or laundry facilities. These areas always contain contaminants.

[Table 2]

Products to Avoid		Areas Likely to Have Contaminants	
Spray cans containing fluorocarbons	Refrigerant leaks	Dry cleaning / laundry areas and establishments	Auto body shops
Permanent wave solutions	Paint or varnish removers	Swimming pools	Plastic manufacturing plants
Chlorinated waxes / cleaners	Hydrochloric or Muriatic acid	Metal fabrication plants	Furniture refinishing areas and establishments
Chlorine-based swimming pool chemicals	Cements and glues	Beauty shops	New building construction
Calcium chloride used for thawing Refrigeration	Antistatic fabric softeners used in clothes dryers	Refrigeration repair shops	Remodeling areas
Sodium chloride used for water softening	Chlorine-type bleaches, laundry detergents, and cleaning solvents	Photo processing plants	Garages and workshops
Adhesives used to fasten			

⚠ CAUTION

DAMAGE TO THE HEATER CAUSED BY EXPOSURE TO CORROSIVE VAPORS IS NOT COVERED BY WARRANTY.

(Refer to the limited warranty for complete terms and conditions.)

■ Freeze Protection

⚠ CAUTION

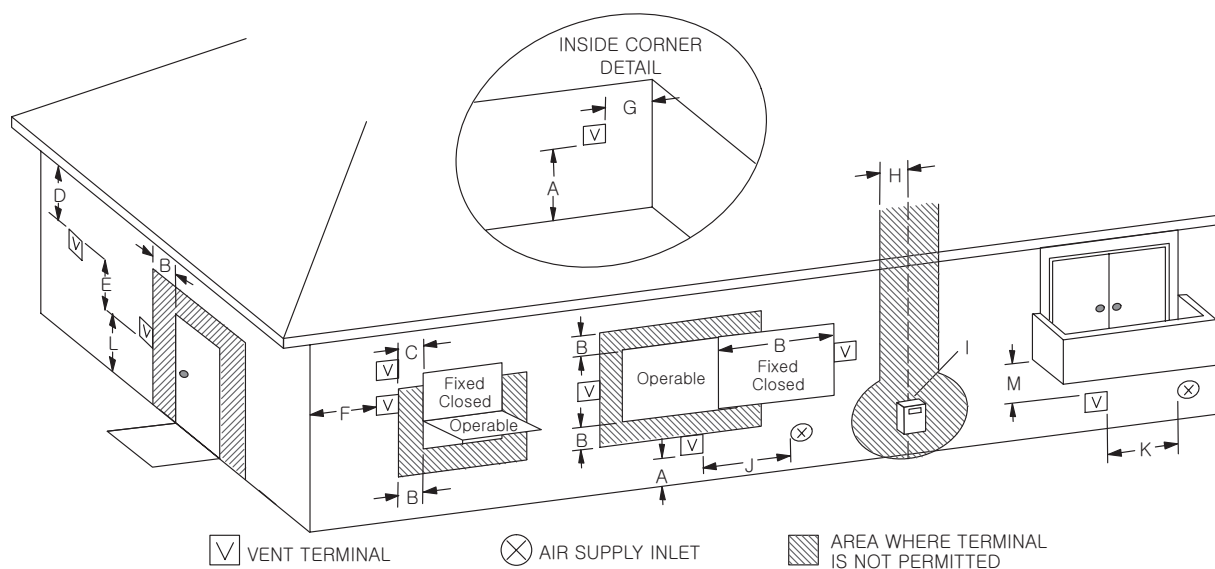
This water heater is designed to automatically prevent freezing to temperatures of 5°F (-15°C).

This freeze protection is not effective if the power fails. In order for freeze protection to operate, the water heater must have electrical power, gas, water and the main switch must be on.

Note:

Damages resulting from incorrect installation or from use of products not approved by the manufacturer ARE NOT covered by warranty.

Clearance Requirements from Vent Terminations to Building Openings



		US Installations ¹	Canadian Installations ²
A =	Clearance above grade, veranda, porch, deck or balcony	12 in (30 cm)	12 in (30 cm)
B =	Clearance to window or door that may be opened	4 feet (1.2 m) below or to side of opening; 1 ft (30 cm) above opening	6 in (15 cm) for appliances ≤ 10,000 Btuh (3 kw), 12 in (30 cm) for appliances > 10,000 Btuh (3 kw) and ≤ 100,000 Btuh (30 kw), 36 in (91 cm) for appliances > 100,000 Btuh (30 kw)
C =	Clearance to permanently closed window	*	*
D =	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 ft (610 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	*	Above a regulator within 3 ft (91 cm) horizontally of the vertical center line of the regulator vent outlet to a maximum vertical distance of 15 ft (4.5 m)
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	6 in (15 cm) for appliances ≤ 10,000 Btuh (3 kw), 12 in (30 cm) for appliances > 10,000 Btuh (3 kw) and ≤ 100,000 Btuh (30 kw), 36 in (91 cm) for appliances > 100,000 Btuh (30 kw)
K =	Clearance to a mechanical air supply inlet	3 ft (91 cm) above if within 10 ft (3 m) horizontally	6 ft (1.83 m)
L =	Clearance above paved sidewalk or paved driveway located on public property	7 ft (2.13 m)	7 ft (2.13 m) †
M =	Clearance under veranda, porch, deck or balcony	*	12 in (30 cm) ‡

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

² In accordance with the current CSA B149.1, Natural Gas and Propane Installation Code

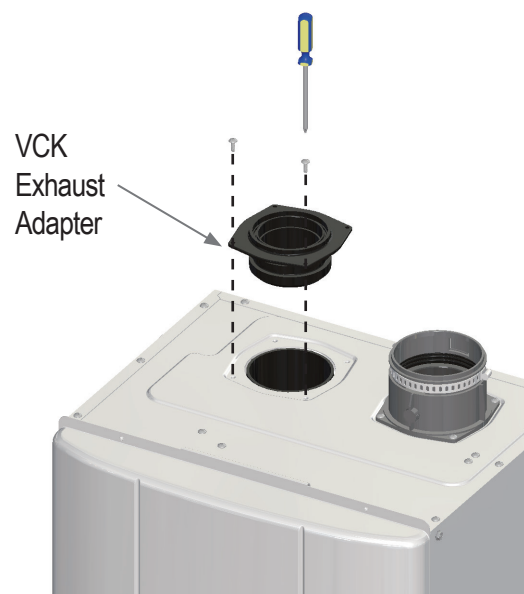
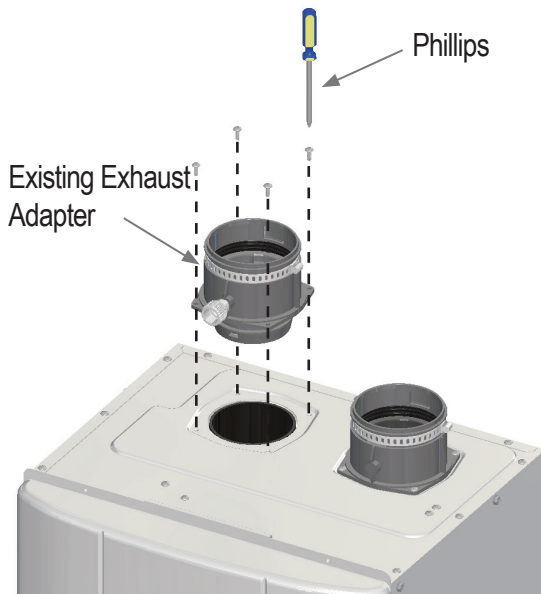
† A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.

‡ Permitted only if veranda, porch, deck or balcony is fully open on a minimum of two sides beneath the floor. Lennox recommends avoiding this location if possible.

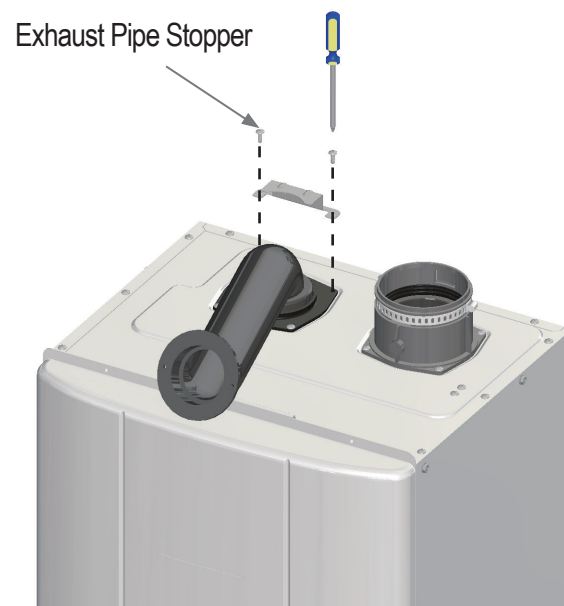
* Clearance in accordance with local installation codes and the requirements of the gas supplier. Clearance to opposite wall is 24 in (60 cm).

Installing the Outdoor Enclosure

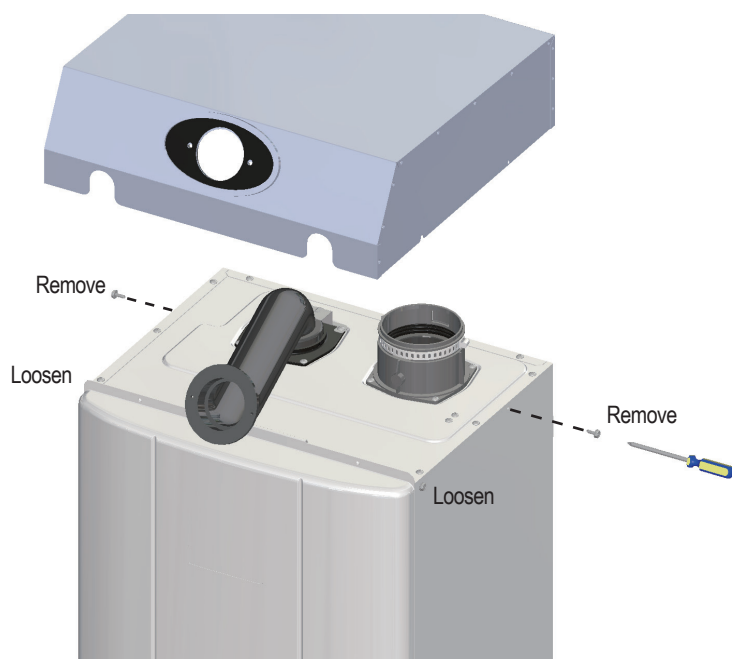
1. Remove the Existing Exhaust Adapter by removing the 4 screws and pulling up on the adapter.
2. Insert the VCK Exhaust Adapter and secure the front 2 screws (re-use the 2 screws that were removed in Step 1)



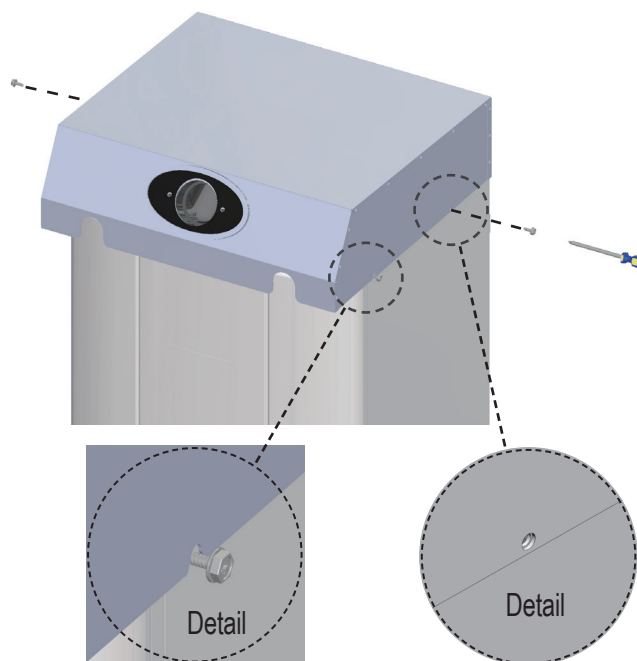
3. Insert the Exhaust Pipe into the VCK Exhaust Adapter.
4. Install the Exhaust Pipe Stopper using 2 screws (re-use the 2 screws that were removed in Step 1), securing the Exhaust Pipe in place.



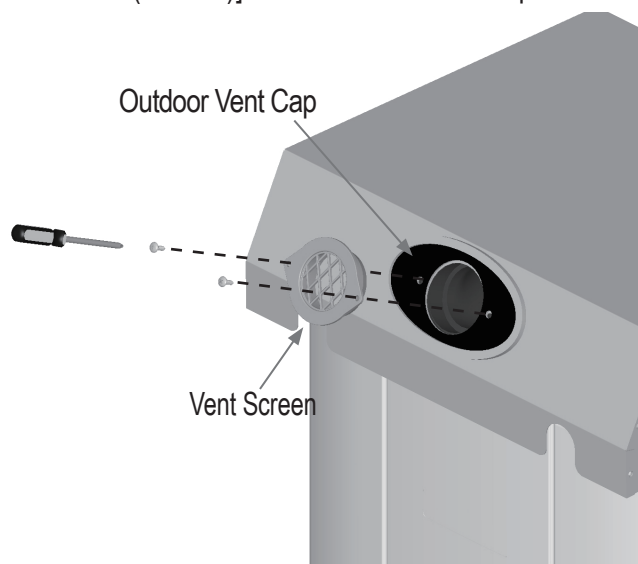
5. Use a Phillips screwdriver to loosen front 2 hex head screws and to remove back 2 hex head screws on side of the unit. Place the Outdoor Vent Cap on the unit. Make sure packing applied inside of the Outdoor Vent Cap.



6. Use a Phillips screwdriver to tighten the 4 screws [⑦ Hexagon Head with Flange Tapping Screw (M4 x12)] to secure the Outdoor Vent Cap.



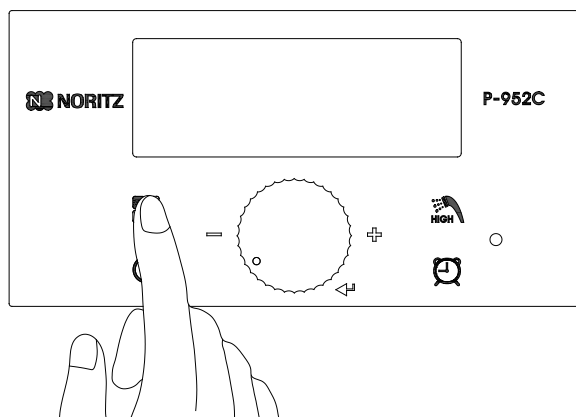
7. Insert the Vent Screen into the Exhaust Pipe and secure with 2 screws [⑧ Truss Head Tapping Screw (M4 x16)] to the Outdoor Vent Cap.



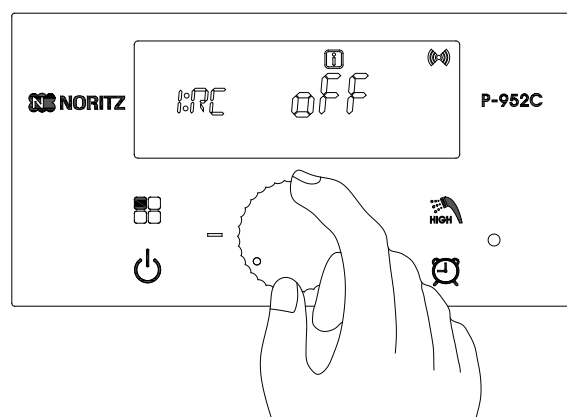
⚠ CAUTION

Do not overtighten. Use hand screwdrivers only.

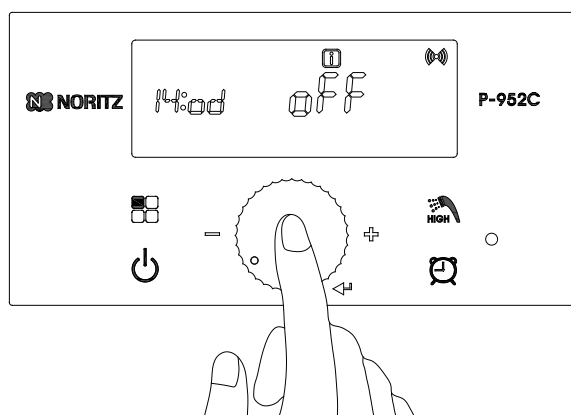
8. Setting



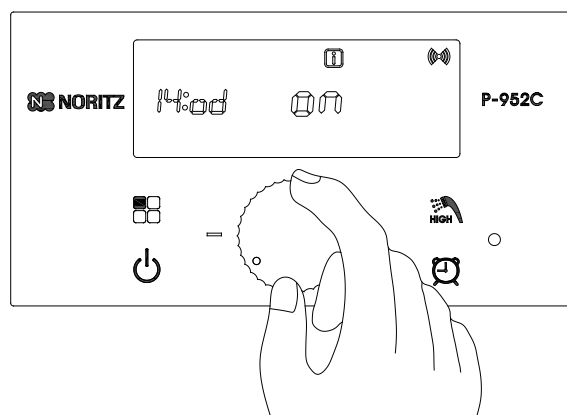
1) Turn off the power to the control panel. Press and hold the 'Function Button' to enter the 'Installer Mode'



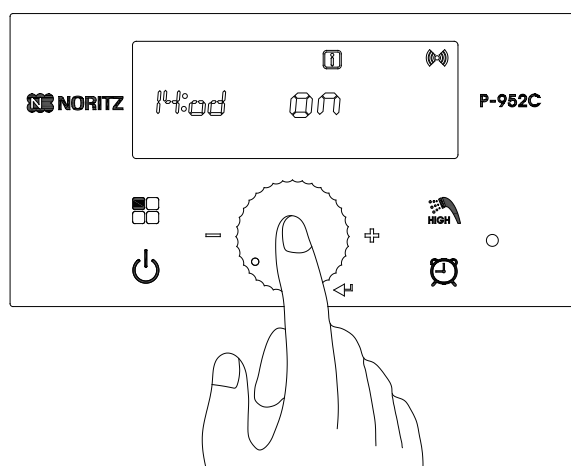
2) In 'Installer Mode', turn the dial button clockwise until the display reads [14:0d].



3) Press the 'Dial Button' so 'off' is flashing. (Default setting is 'off' and outdoor vent function is not activated.)

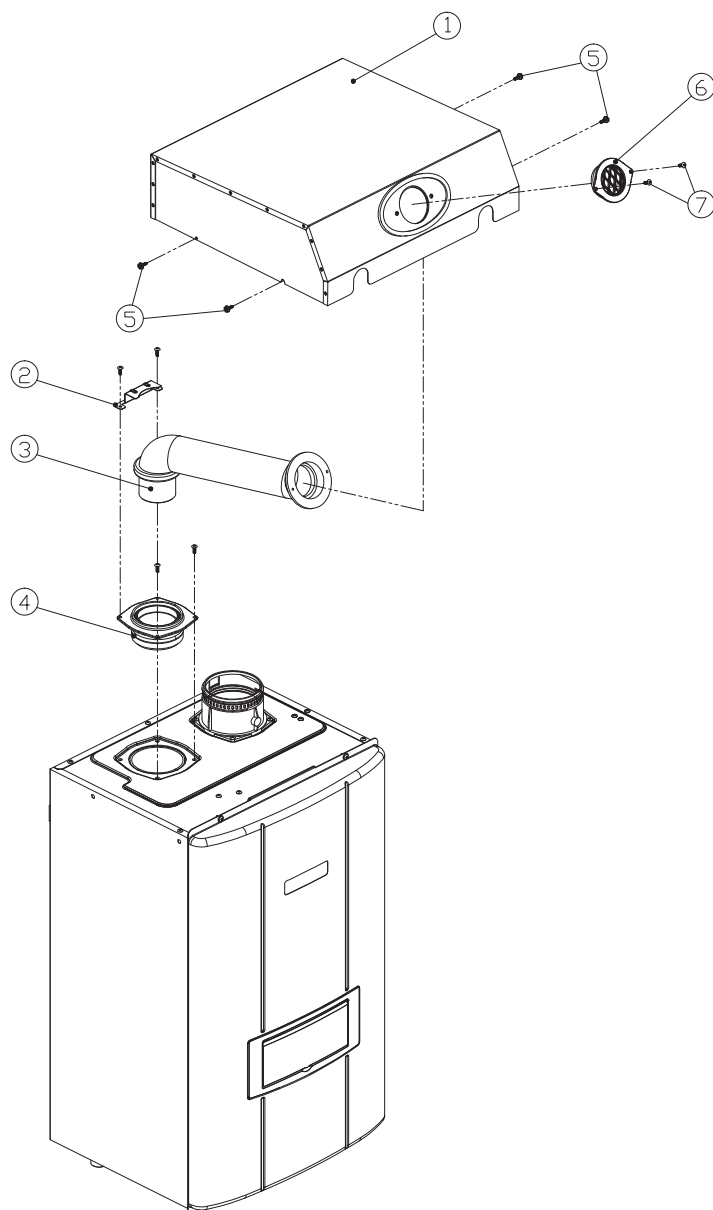


4) Turn the 'Dial Button' clockwise so 'on' is flashing. (This will activate the Outdoor Vent function.)



5) Press the 'Dial Button' to save the current setting mode and return back to 'Installer Mode'.

Part List



No.	Description	Part Number	No.	Description	Part Number
①	Outdoor Vent Cap (w/ Plate and Packing)	NPK285	⑤	Hexagon Head with Flange Tapping Screw (M4 x12)	
②	Exhaust Pipe Stopper	NPA214	⑥	Vent Screen with Finishing	NPF217
③	Exhaust Pipe	NPF215	⑦	Truss Head Tapping Screw (M4 x16)	
④	VCK Exhaust Adapter (w/ P75 O-ring and Packing)	NPF216			