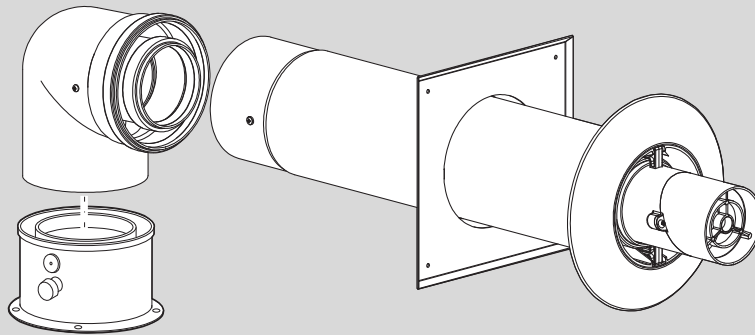


Concentric Horizontal Vent Kit



6720812-236-11

For model: RTG 199HE TANKLESS WATER HEATERS

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1 Key to symbols and safety instructions

1.1 Key to symbols


Warnings

	Warnings in this document are identified by a warning triangle printed against a grey background. Keywords at the start of a warning indicate the type and seriousness of the ensuing risk if measures to prevent the risk are not taken.
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The following keywords are defined and can be used in this document:

- **DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.
- **WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.
- **CAUTION** indicates a hazardous situation which, if not avoided, could result in minor to moderate injury.
- **NOTICE** is used to address practices not related to personal injury.

Important information


	This symbol indicates important information where there is no risk to people or property.
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Additional symbols


Symbol	Explanation
▶	Step in an action sequence
→	Cross-reference to another part of the document
•	List entry
–	List entry (second level)

Table 1


1.2 Safety instructions

 **WARNING:**


- ▶ Read all instructions before installing. Perform the steps in the indicated sequence. Failure to comply with these instructions can result in severe, possibly fatal, personal injury as well as damage to property and equipment.

 **WARNING: Installation and servicing!**


- ▶ Ensure that only a licensed contractor installs or services the gas appliance.
- ▶ On hot components use only material with adequate temperature rating.

 **WARNING: Installation and commissioning!**


- ▶ In the Commonwealth of Massachusetts, the gas appliance must be installed by a licensed plumber.

 **DANGER: Installation and commissioning!**


- ▶ Switch off the appliance.
- ▶ Open windows and doors.
- ▶ Inform a trained and certified installer.

 **DANGER: Insufficient ventilation may cause toxic flue gases to escape posing a risk of flue gas poisoning!**


- ▶ Never close off or reduce the size of the air intake and outlet openings.
- ▶ The appliance must not be operated until any obstructions have been removed.
- ▶ Inform the system operator in writing of the problem and the associated dangers.

 **WARNING: Danger from escaping flue gases!**

- ▶ Ensure all vent pipes and chimneys are not damaged or blocked.
- ▶ Connect only one appliance to each vent system or chimney liner.
- ▶ The venting system piping must not feed into another air exhaust duct.
- ▶ Do not route the flue system piping through or inside another air exhaust duct.


 **WARNING: Combustion air!**

- ▶ Keep the combustion air free of corrosive substances (halogenated hydrocarbons that contain chlorine or fluorine compounds).

 **WARNING: Maintenance**


Customers are advised to:

- ▶ Sign a maintenance and inspection contract with an authorized contractor. Inspect and maintain the gas appliance as necessary and on a yearly basis. Service as needed.
- ▶ Use only genuine spare parts.


 **DANGER: Fatal accidents!**

Carbon monoxide poisoning:


- ▶ Carefully plan where you install the gas appliance. Correct combustion air supply and flue pipe installation are very important. If a gas appliance is not installed correctly, fatal accidents can result such as carbon monoxide poisoning or fire.

 **DANGER: Carbon monoxide poisoning!**


- ▶ Exhaust gas must be vented to outside using approved vent material. (In Canada use only ULCS636 approved material). Vent and combustion air connector piping must be sealed gas-tight to prevent flue gas spillage, carbon monoxide emissions and risk of fire, resulting in severe personal injury or death. Approved vent terminations must be used when penetrating to the outside.

 **WARNING:**

- ▶ Do not obstruct the flow of combustion and ventilation air.

 **NOTICE:**

- ▶ The installation must comply with national, state, and local code, and the gas appliance Installation Instructions and this Vent System Installation Manual must be followed exactly.

 **NOTICE:**

- ▶ The concentric horizontal vent terminal is intended for installation only with the RTG 199HE water heater (hereafter referred to as "appliance").

2 Scope of Delivery

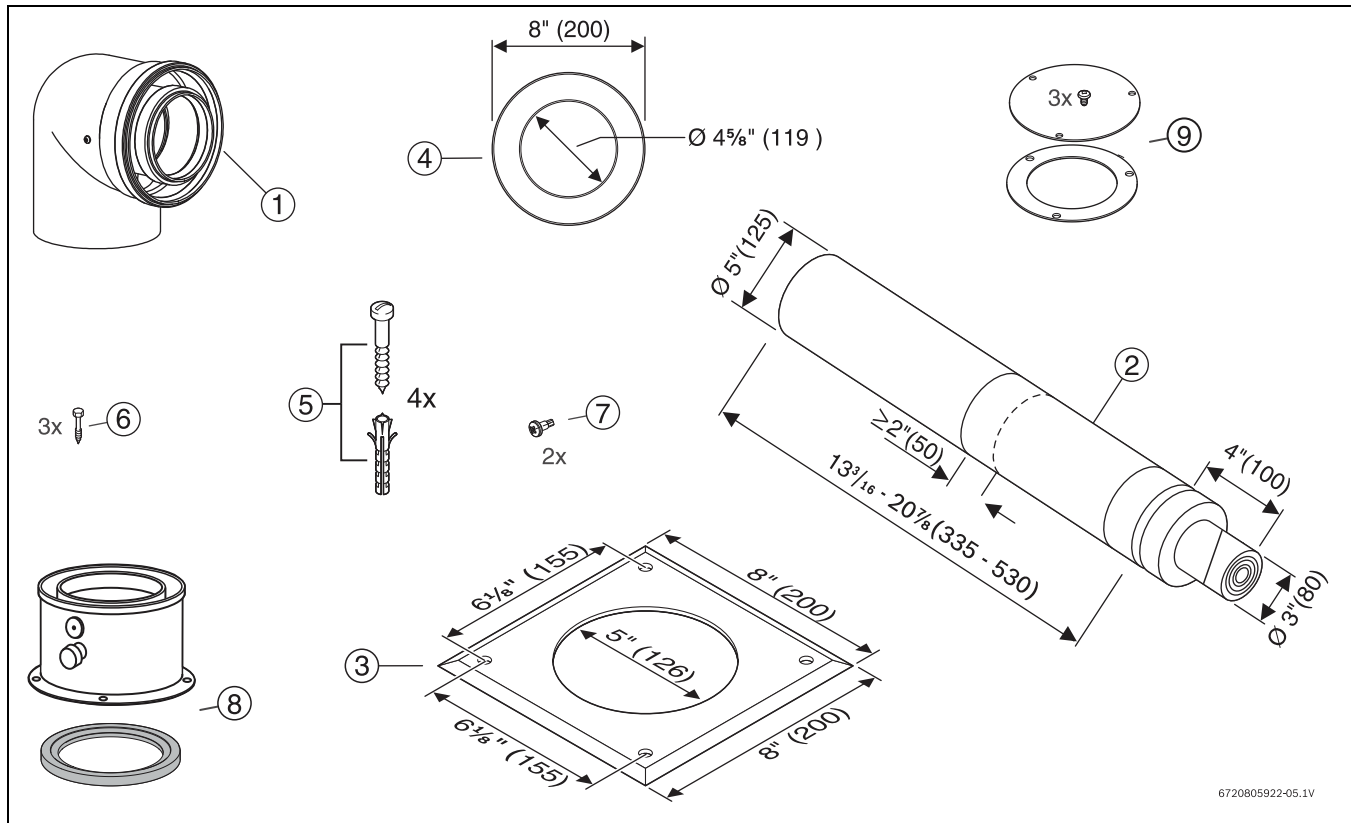


Fig. 1 Scope of delivery - dimensions in inches (mm)

- [1] 90° elbow
- [2] Telescopic terminal assembly
- [3] Inner wall seal
- [4] Outer wall seal
- [5] Screws and wall anchors
- [6] Connecting screws
- [7] Securing screws
- [8] Appliance adapter and gasket
- [9] Combustion air blind cover and gasket

Needed Tools:

- Hole saw
- Tape measure
- Phillips screw driver
- Bottled water (as lubricant for gaskets)
- Weatherproof caulk

3 Installation

3.1 Notes on Installation



NOTICE: Installer's responsibility!

- It is the installer's responsibility that the appliance is installed according to the manufacturer's installation instructions, this accessory manual, as well as national, state, and local code.



CAUTION: Vent termination!

- The location and orientation of the vent termination must follow those stated in the relevant appliance Instruction Manual. When redirecting the flue discharge ensure it does not create a hazard or nuisance.



NOTICE:

- The concentric vent kit is approved for zero (0", 0 mm) clearance to combustibles.



NOTICE:

- This vent system is ULC-S636 certified for Canada.



WARNING:

- The concentric vent system is only approved in an up-and-out configuration. No pipe extensions or modifications are permitted.



CAUTION:

- Ensure the termination is installed at least 12" (300 mm) above the average snow line. If this is not feasible, this termination can not be used.

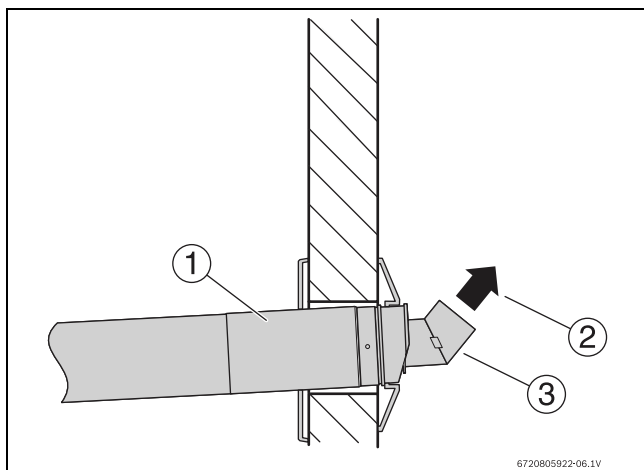


Fig. 2

- [1] Termination
- [2] Direction of flue discharge
- [3] Plume deflector

3.2 Appliance Adapter

Use the blind cover and gasket supplied with the kit to close the second combustion air opening on the top of the appliance (→ Fig. 6).

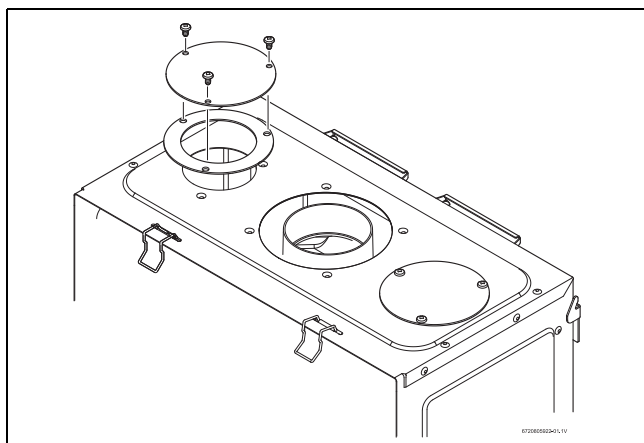


Fig. 3 Covering second combustion air opening

Discard original appliance adapter that was supplied with the tankless water heater. If the unit came with a combustion air adapter, discard as well.

The adapter gasket has a circular groove to engage with the vent pipe of the appliance.

- ▶ Place it onto the pipe and press down firmly.

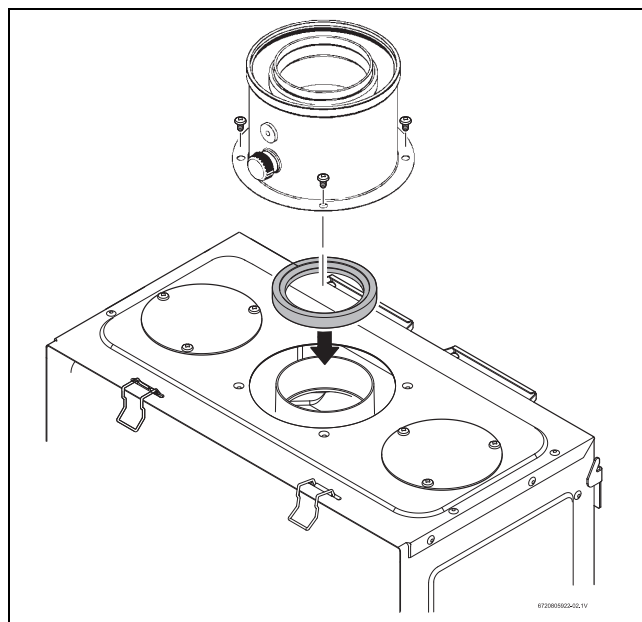


Fig. 4 Installing adapter gasket

Set the appliance adapter down onto the pipe ensuring that the analyzer ports are facing to the front of the appliance and the adapter screw holes are aligning with those of the appliance.

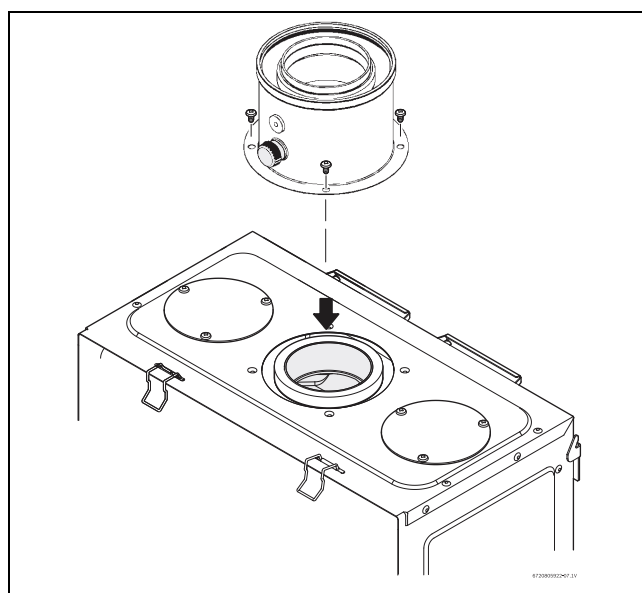


Fig. 5 Installing adapter

- ▶ Insert the 4 screws, but do not tighten all the way.

3.3 Elbow and Wall Termination

- ▶ Apply a small amount of clean water as lubricant on all gaskets.

Installation

- ▶ Place elbow on top of the appliance adapter and align.

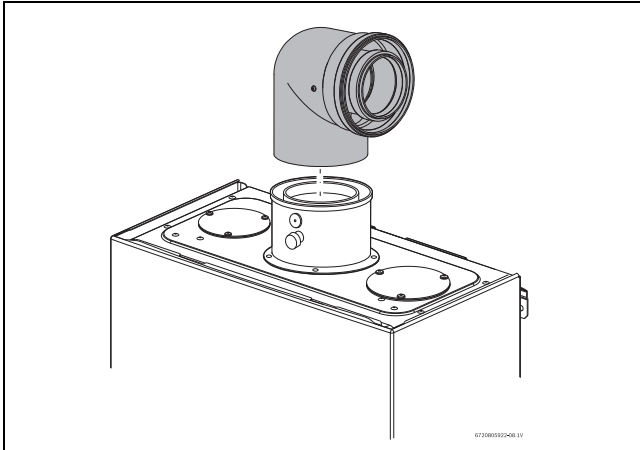


Fig. 6 Installing elbow



While the screws are not fully tightened, the appliance adapter can be swivelled around its vertical axis.

- ▶ Measure the length of the vent terminal assembly (→ Fig. 6, [1]) taking into account the thickness of the outside wall [S] and the distance from the outside wall to the end of the vent pipe [L]. It is recommended to keep at least 4" (100mm) clearance from the ceiling or joists for accessibility reasons.

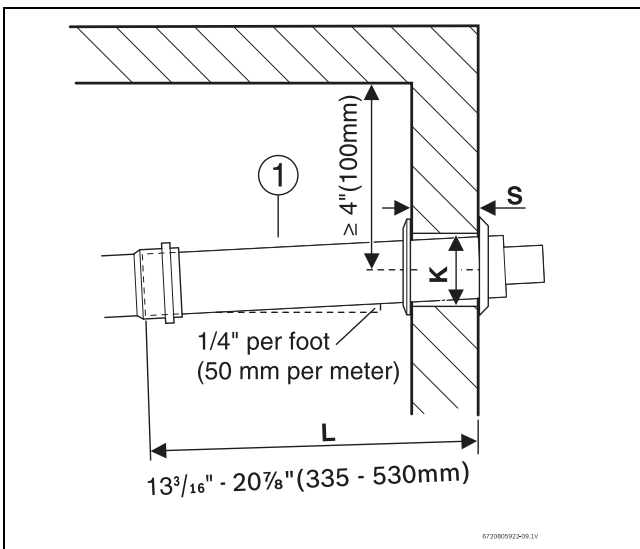


Fig. 7 Penetration through the outside wall

- ▶ Select the required diameter [K] of the hole in the wall according to the wall thickness [S].

Sizing hole penetration	
Wall Thickness S	Diameter K
6" - 9 1/2" (150 - 240 mm)	6 1/4" (155 mm)
9 1/2" - 16 1/2" (240 - 420 mm)	6 1/2" (165 mm)
16 1/2" - 20 7/8" (420 - 530 mm)	7" (170 mm)

Table 2

- ▶ Cut the hole in the wall while allowing clearance for the required pitch of the air/vent pipe.

- ▶ Adjust the vent pipe length to the distance [L] required & secure with three self tapping screws [2].

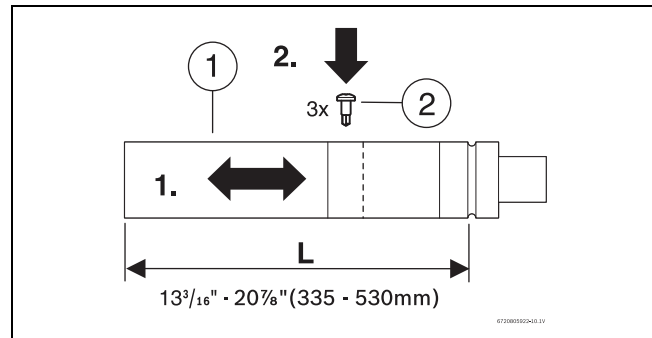


Fig. 8

- ▶ Slide the outer wall seal [2] onto the terminal [1] as shown.

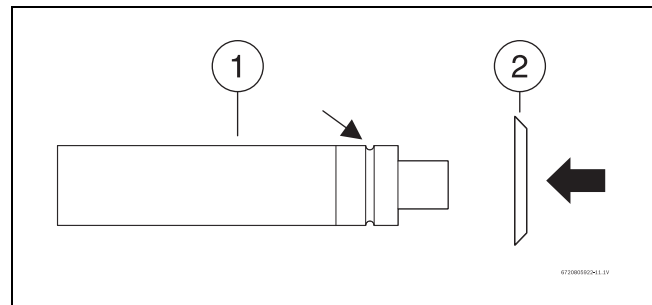


Fig. 9

- ▶ Position terminal [1] from the outside through the vent opening so rubber thimble [2] is flush against outside wall.
- ▶ Slide the inner wall seal [3] onto the terminal [1] as shown.

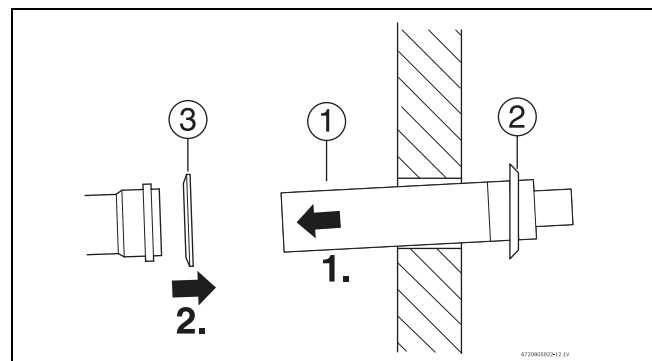


Fig. 10 Inserting termination from the outside

- ▶ Connect the termination to the elbow.

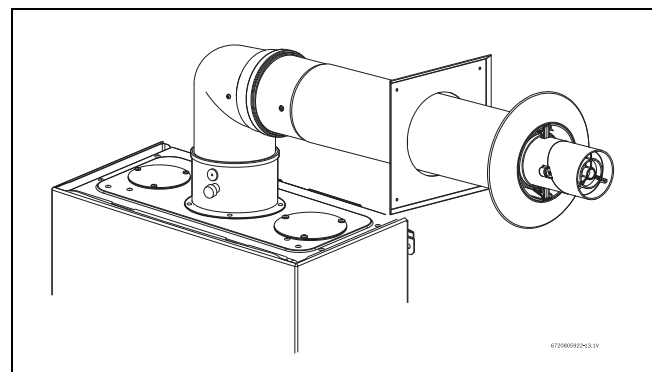


Fig. 11 Completed adapter and concentric assembly

- ▶ Ensure all components are properly connected and aligned, and that the termination has the proper pitch as shown in Fig. 7.
- ▶ Tighten the four screws of the appliance adapter on the water heater.
- ▶ Complete installing the appliance per the Water Heater Installation Instructions.

3.4 Redirecting the Vent Discharge

The vent discharge can be redirected to reduce the risk of cross contamination.

- ▶ Remove the screws [A] and disconnect the terminal end [B].

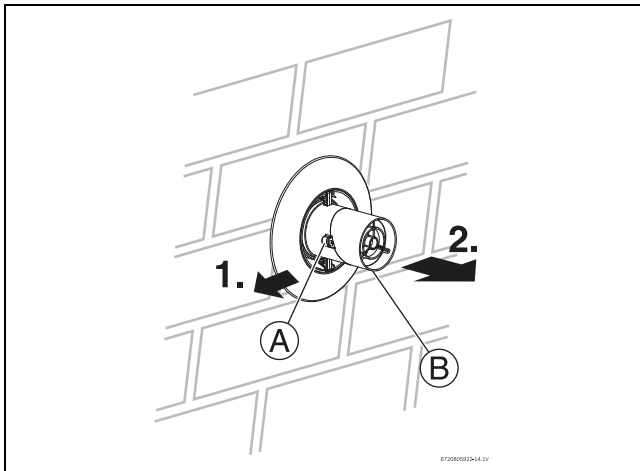


Fig. 12

- ▶ Rotate the terminal end [B] 180° so discharge faces upwards.
- ▶ Refit the terminal end [B] and tighten the screws [A].

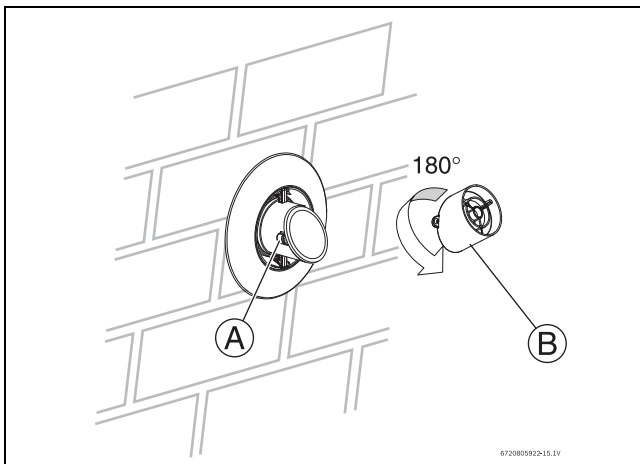


Fig. 13

- ▶ The entire termination can now be rotated left or right $\pm 40^\circ$ to redirect the plume (\rightarrow Fig. 7).

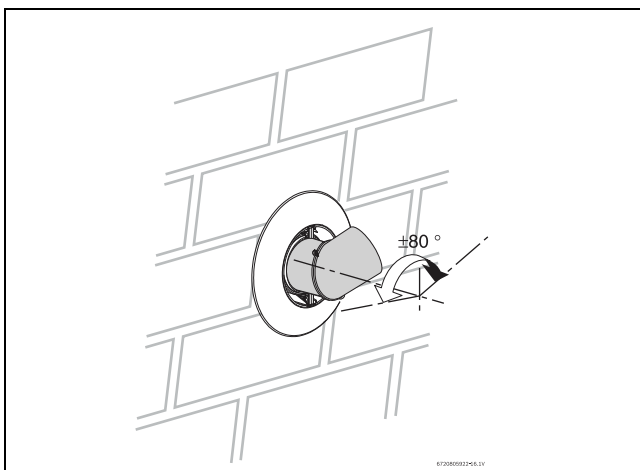


Fig. 14

- ▶ Use adequate weather resistant caulk to seal the penetration in the wall and prevent moisture damage.



CAUTION:

- ▶ When redirecting the flue discharge ensure it does not create a hazard or nuisance.

4 Spare Parts

Spare Parts List	
Part Number	Description
7 736 501 235	Concentric Up & Out Vent Kit Complete
7 736 501 234	Appliance Adapter Concentric
8 704 701 108	Adapter blue gasket
7 736 501 523	Combustion air blind cover and gasket, adapter blue gasket

Table 3



BRADFORD WHITE®
WATER HEATERS

Ambler, PA

For U.S. and Canada field service,
Contact your professional installer or
local Bradford White representative.

Sales/800-523-2931
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Technical Support/800-334-3393
Fax/269-795-1089

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Fax/269-795-1089

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