

Installation Manual



Vent (Flue) Terminal

Model Numbers:	FF-100A-100 INT	VT4-TS-5
	FF-100A-200 INT	VT4-TS-8
	FF-100A-400 INT	VT4-TS-14
	FF-100A-700 INT	VT4-TS-27

Icons warning of risk level:



WARNING

Denotes content that may result in personal injury or property damage if ignored.



Prohibited



CAUTION

This symbol warns of hazards which have the immediate potential to result in severe or lethal personal injury or fire.



Be sure to do

Directions for Installers



WARNING

- To operate the water heater properly and safely, comply with this installation manual and the installation manuals of any other relevant equipment.
- The Vent (Flue) Terminal must be installed in accordance with all applicable codes.

- The Vent (Flue) Terminal must be installed in accordance with all applicable codes.
- Failures and damage caused by erroneous work or work not outlined in this manual are not covered by the warranty.

VT4-TS-5 to 27 only

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

1. Included Accessories

The following accessories are included with the unit. Check for any missing items before starting installation. (They are all attached to the product body.)

Part	Shape	Q'ty	Part	Shape	Q'ty
Vent (Flue) Terminal		1	Sleeve		1
			Wing Nut		4
Tapping Screw		1	Rounded Wood Screw		4
Wall Anchor		4	Packing (only for products for wall thicknesses of 370mm (14.6") to 690mm (27"))		1

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2. Before Installation



Compatibility Check

- Make sure that the Vent (Flue) Terminal is compatible with the product it will be installed with. If an improper terminal is used, a fire hazard could be created.

Choosing Installation Site

- Maintain the proper clearances to combustibles
The condensation from the Water Heater may cause corrosion of aluminum materials.
- Install the Vent (Flue) Terminal so that it is easily accessible for maintenance from both the indoors and outdoors.
- Install the Vent (Flue) Terminal so that all exhaust is directed to, and all intake air is taken from, outside.
- Steam or condensed water may drip out of the Vent (Flue) Terminal. Dispose of this condensed water according to local codes, in order to prevent injury or property damage.

Check Wall Thickness

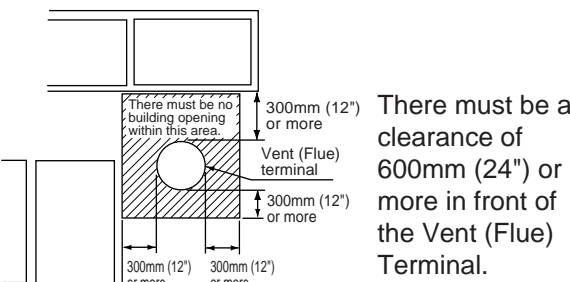
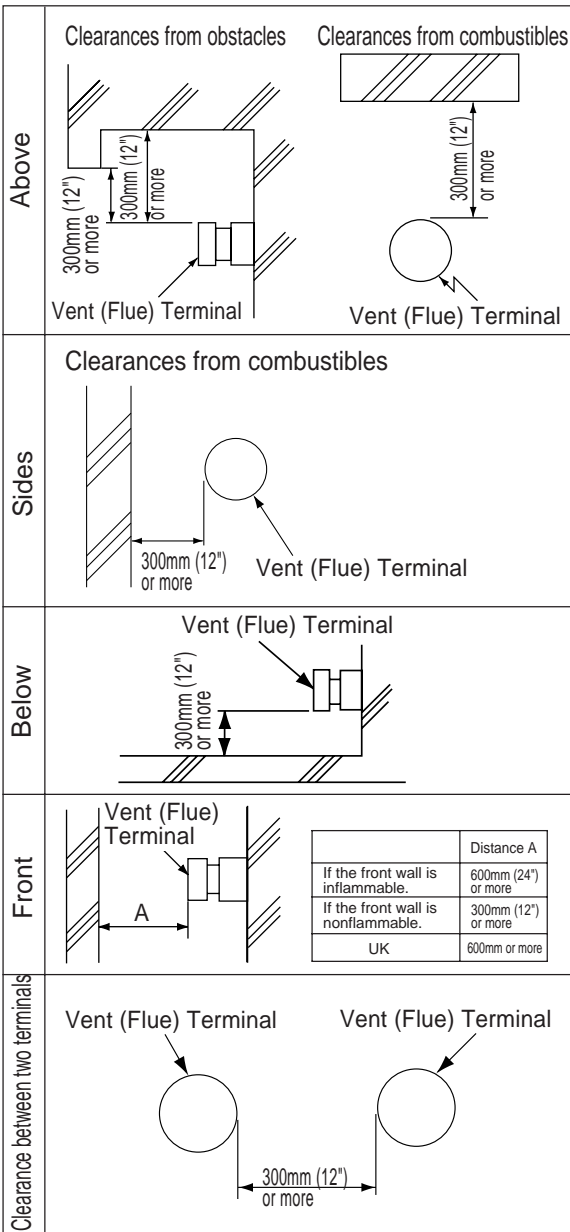
- This Vent (Flue) Terminal model has four different sizes. Choose the correct model to fit the thickness of the wall that the terminal will pass through.

Model name	Wall thickness
FF-100A-100, VT4-TS-5	90mm (3.5") to 130mm (5")
FF-100A-200, VT4-TS-8	130mm (5") to 210mm (8")
FF-100A-400, VT4-TS-14	210mm (8") to 370mm (15")
FF-100A-700, VT4-TS-27	370mm (15") to 690mm (27")

3. Installation Requirements



Vent (Flue) Terminal Clearance Requirements

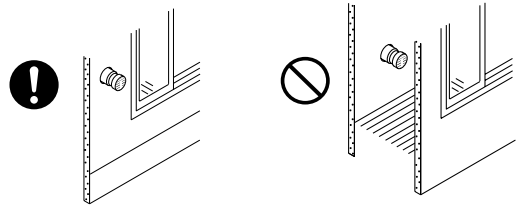


- This restriction will not be applied to an area where an effective shield makes a clearance of 600mm (24") or more in front of the Exhaust Outlet.

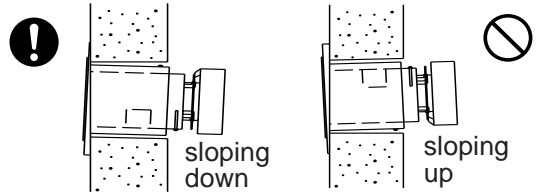
Vent (Flue) Terminal installation precautions

Note the following Vent (Flue) Terminal installation requirements.

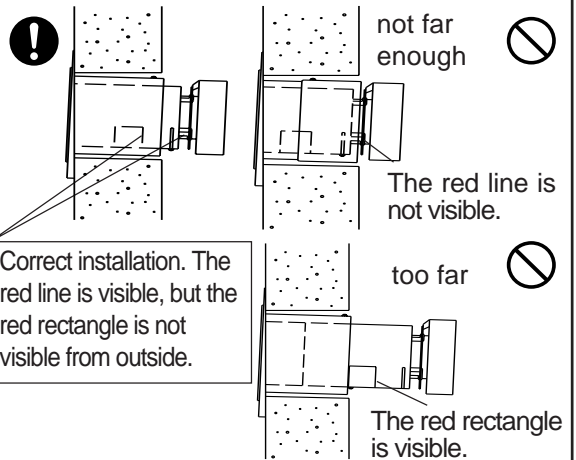
- 1) Do not install the Vent (Flue) Terminal indoors



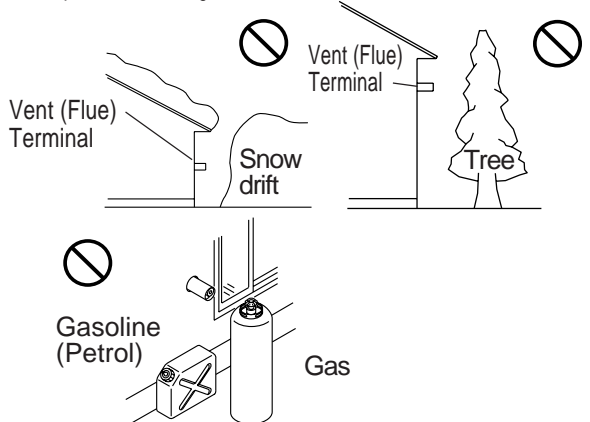
- 2) Install the Vent (Flue) Terminal with a downward slope



- 3) Install with the proper length protruding through the wall



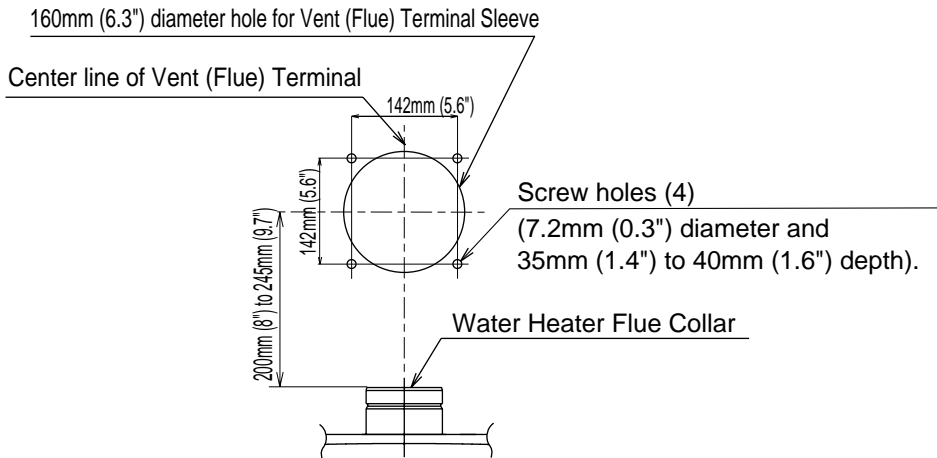
- 4) Avoid installing the terminal where obstacles will block it



4. Vent (Flue) Terminal Installation Procedure

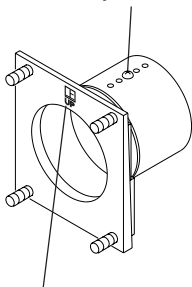
* When drilling, take care not to damage electric wiring, or gas and water piping in walls.

- 1) Determine the Vent (Flue) Terminal installation location and make a 160mm (6.3") diameter hole in the wall for the Sleeve and 7.2mm (0.3") diameter holes for the screws to hold the Sleeve.



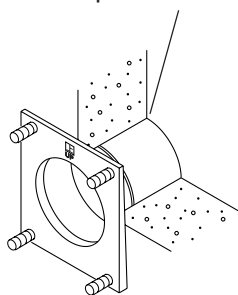
- 2) Adjust the Sleeve length to fit the wall thickness. Install the Sleeve with the symbol on the top side.

Remove this screw and slide out the External Cylinder.

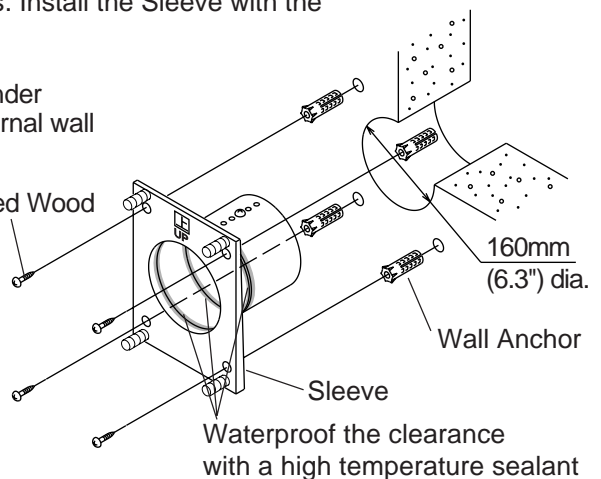


This symbol should be on the top

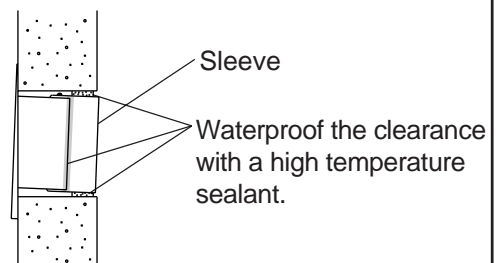
Slide out the External Cylinder until it is flush with the external wall and replace the screw.



Rounded Wood Screw



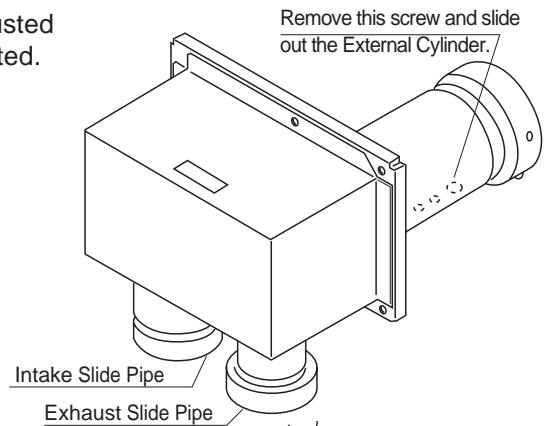
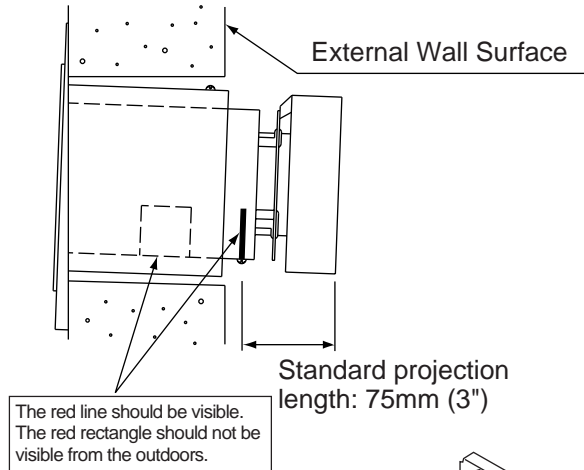
- 3) Waterproof the clearance between the Sleeve and wall with a high temperature sealant.



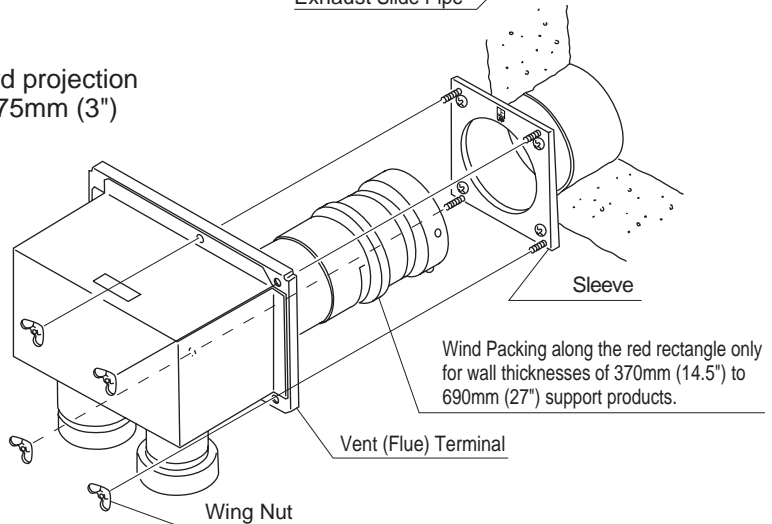
4) Adjusting the Vent (Flue) Terminal length

Combustion and operation problems may result if the Vent (Flue) Terminal isn't set to the appropriate length.

The length of the Vent (Flue) Terminal must be adjusted to fit the wall thickness before installation is completed.



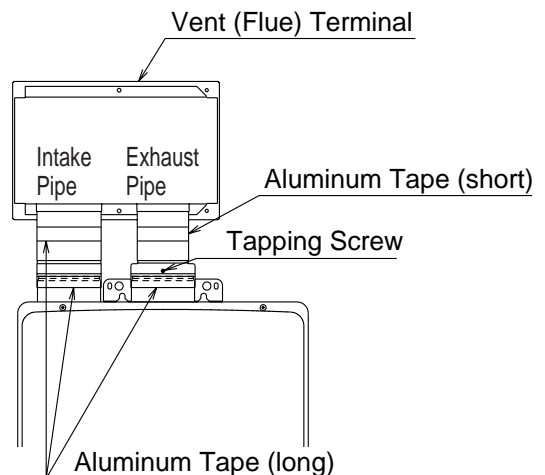
At this point, make sure the Supply and Exhaust Slide Pipes have been inserted into the Vent (Flue) Terminal.



5) Extend the Supply and Exhaust Slide Pipes to connect the Vent (Flue) Terminal to the Water Heater.

Make sure the connections are secure and take measures to prevent exhaust gas from leaking. Use high temperature sealant if necessary.

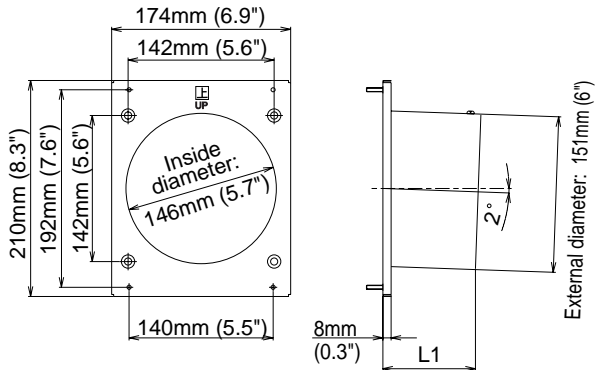
- (1) Drill a hole (3mm (0.2") dia.) through the Water Heater Exhaust Flue Collar to meet with the hole in the Exhaust Slide Pipe of the Vent (Flue) Terminal
- (2) Seal connections between the Water Heater and the Vent (Flue) Terminal with high temperature sealant to ensure exhaust gas won't leak.
- (3) Screw the Exhaust Slide Pipe from the Vent (Flue) Terminal to the Flue Collar of the Water Heater using the Tapping Screw on supplied.
- (4) Cover all of the connections between the Water Heater and the Vent (Flue) Terminal with the included Aluminum Tape supplied.
* Note that the Aluminum Tape by itself is not sufficient to make the connection gas tight and prevent the terminal from becoming disconnected from the Water Heater.
- (5) After completing installation, perform a test run of the Water Heater following directions in the product installation manual.



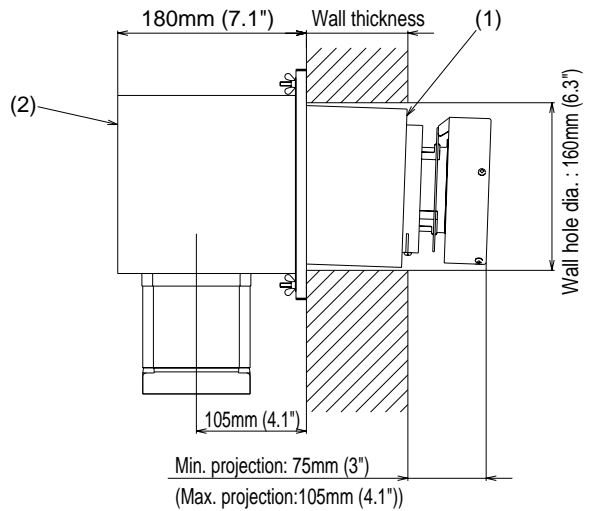
5. Dimensions

(Unit: mm (inch))

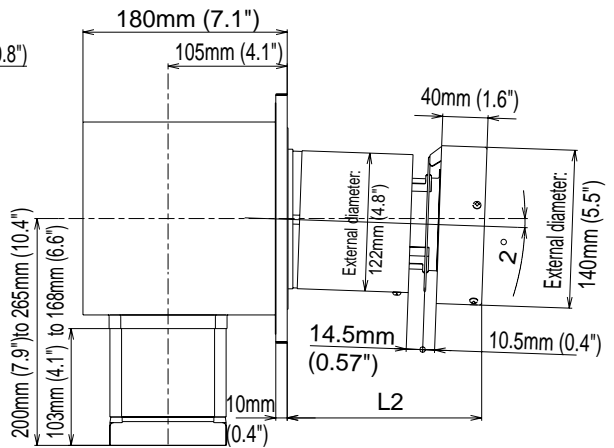
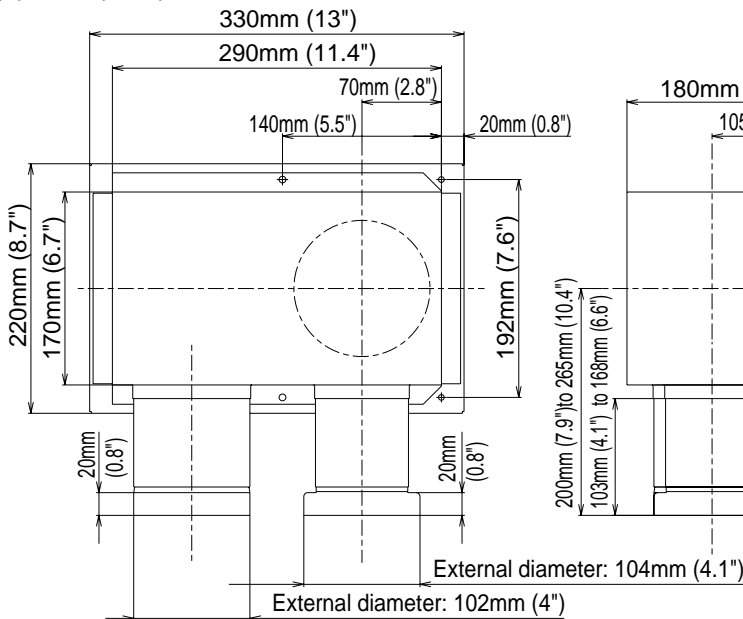
(1) Sleeve



After Installation



(2) Vent (Flue) Terminal



Dimension Table

(mm)

Model Numbers	Wall Thickness	L 1	L 2
FF-100A-100	90 to 130	90 to 130	176 to 216
FF-100A-200	130 to 210	130 to 210	216 to 296
FF-100A-400	210 to 370	210 to 370	296 to 456
FF-100A-700	370 to 690	370 to 690	456 to 776

Note: L1 and L2 can be adjusted in increments of 10mm.

Dimension Table

(inch)

Model Numbers	Wall Thickness	L 1	L 2
VT4-TS-5	3.5" to 5"	3.5" to 5"	7" to 8.5"
VT4-TS-8	5" to 8"	5" to 8"	8.5" to 12"
VT4-TS-14	8" to 15"	8" to 15"	12" to 18"
VT4-TS-27	15" to 27"	15" to 27"	18" to 30.5"

Note: L1 and L2 can be adjusted in increments of 0.4 inch.