

Installation Manual

NORITZ AMERICA
CORPORATION

Vent Kit for Condensing Tankless Gas Water Heater

Model: N-FlexKit2"-35

[Applicable Model]
· NRC663-FSV

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



DANGER

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



WARNING

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



CAUTION

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

DANGER :

- Never use this Vent Kit other than for the Applicable Model (including the model manufactured by others) designated in this manual.

WARNING :

- If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.
- Do not install only with the Start-up Guide. Read this manual also before installation.



Prohibited



Be sure to do



CAUTION

Requests to Installers

- This manual is for the vent components for the designated tankless water heater. For the installation of the Tankless Water Heater itself, read the installation manual packed with it.
- In order to install this vent kit correctly, read this installation manual carefully, and follow the installation instructions.
- Failures and damage caused by erroneous work or work not as instructed in this manual are not covered by the warranty.
- Check that the installation was done properly in accordance with this installation manual upon completion.
- After completing installation, please either place this installation manual in a plastic pouch and attach it to the side of the water heater, or hand it to the customer to retain for future reference.

Installation must conform with local codes, or in the absence of local codes, the National Fuel Gas Code, ANSI Z223.1 /NFPA54-latest edition.

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

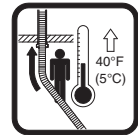
N23-06052-A-1

Rev. 12/14

1. General Information

Property damage, personal injury or death can result if these instructions are not followed. They are a guide for professional installers generally familiar with the installation and maintenance of heating equipment and related vent systems.

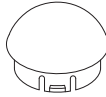
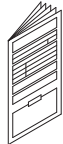
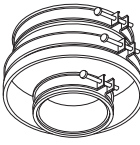
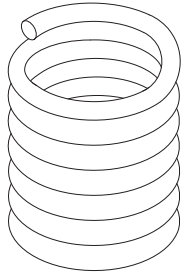
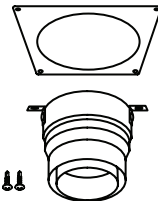
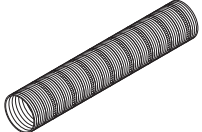
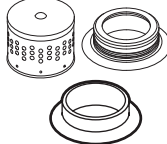

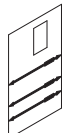
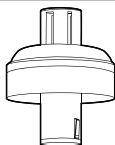
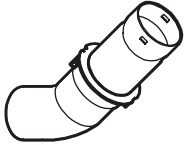
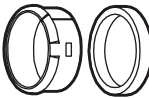


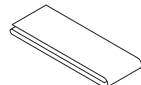
- N-FlexKit is designed only for the installation inside of B-Vent as sleeve. Do not use it for other installation method. Also do not use it out-door.
- Do not use for anything other than designated Tankless Water Heater (including the model manufactured by others).
- N-FlexKit can be installed at zero clearance to combustible materials.
- Appliances can be started up immediately after N-FlexKit is installed and inspected.
- N-Flex vent systems expand and contract slightly during heating cycles and must be installed following included instructions.
- Keep N-Flex vent greater than 40°F(5°C) during installation. Damage will occur if handled or installed at lower temperatures.
- Information regarding certification of "Flexible vent pipe and connections".



Standard(s)	UL-1738 Dated 10/4/210 Standard for Venting Systems ULC-S636-08 Standards for type BH Gas Venting Systems
Product	PP Flexible 2", PP Single Wall Pipe 2"
Brand name	InnoFlue Flex - Centrotherm
Models	IFVL, IFSF, IANS, ISEL,

2. Included Accessories

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

	Part	Shape	Q'ty		Part	Shape	Q'ty
Bag "Step-1"	Flex Feeder		1	Installation Manual		1	
	Base Junction Support • Clamp x3		1		Flex Pipe2"		1
	Base Junction Adapter Set		1			Flex Sleeve	
• Diffuser • Diffuser Gasket • Diffuser Gasket for 4"		1 each	Bag "Step-2"				
Top Flex support for 3" Top Flex support for 4"		1 each					
Cutting guide		1					
Universal Rain Cap		1					
Bag "Step-3"	Coupler Set • Coupler Fitting • Connector Ring • 45 degree PP elbow		1				
	Coupler O-Ring Coupler Retainer		1				
	O-ring lubricant		1				
	Screw		2				
	Aluminum tape		1				

3. General Safety



DANGER

Checkup

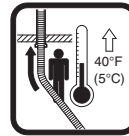
- If similar flexible vent has already been installed, it must be replaced with this designated new Flex Vent Kit.



WARNING

- N-FlexKit is designed only for installation inside of B-Vent wall. Do not use it for other installation method. Also do not use it out-door.
- Only approved for use with the designated B-Vent manufactures.
- If the Rain Cap and B-Vent itself are damaged by corrosion, it must be replaced with new ones.
- Before installation, make sure no nails or screws have penetrated the inner B-Vent wall where the flexible vent will be installed. Those obstruction may damage the flexible vent and may result in fires, property damage or exposure to Carbon Monoxide.
- Do not reuse the flexible vent once it has been installed, removal of the vent may have caused damage to the flexible vent.

- Keep N-Flex vent at a temperature greater than 40°F(5°C).
Material temperature is not less than 40°F(5°C) during installation.
Damage will occur if handled or installed at lower temperatures.



- If the temperature is below 40°F(5°C) it's recommended that you store the N-flex in a warm room or car for 30 minutes. If you find that the N-flex is still stiff, you may need to use a hair dryer and warm both ends of the vent to prevent breakage.

- Make sure components are kept under these following conditions.

- ※ Clean and dry place.
- ※ Above 40°F(5°C)
- ※ Keep out of direct sunlight.



- Minimum bend radius should be more than 7 inch.



- Handle the flexible vent carefully.
Dropping, Crushing and Stacking may cause damage, and may result in fires, property damage or exposure to Carbon Monoxide.

- N-FlexKit cannot be painted.

- Avoid places where open flame 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.

- Avoid installation in places where dust or debris will accumulate.
Dust may block the air-supply opening, causing the performance of the device fan to drop and incomplete combustion may occur as a result.

- Avoid installation in places where special chemical agents (e.g., hair spray or spray detergent) are used.

- For your safety, do not attempt to work on a rooftop until safety precautions have been identified and proper fall safety measures have been taken, including the use of ladders or stairways, and personal protective equipment (PPE).

- Installation in windy or wet conditions require additional precautions. Please follow local safety regulations.

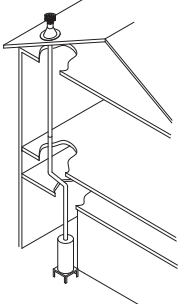
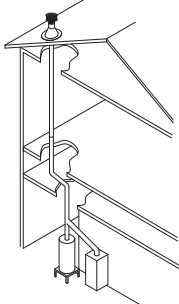
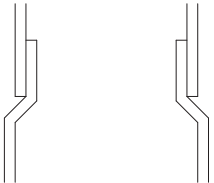
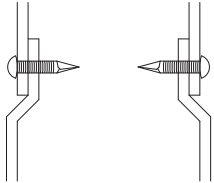
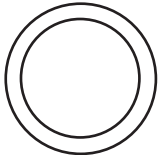



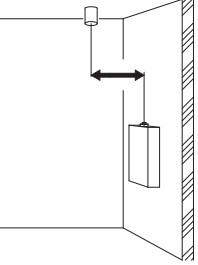
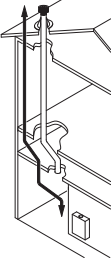
CAUTION

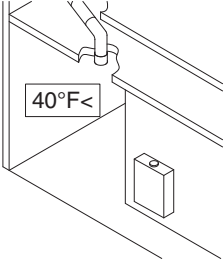

- Check for any damage to components that may have occurred during transportation before installation.
- Consult with the customer regarding the location of installation.
- Do not install this N-FlexKit in a place where it may be subject to falling objects, such as under shelves.
- N-Flex vent systems expand and contract slightly during heating cycles and must be installed according to supplied instructions.

4. Before Installation (Check the condition of installation site)

Check that the following items are "(OK) Can be installed" before installation.
If all items are "(OK) Can be installed", proceed to the next step, "6. Installation".

Check point	Can be installed(OK)	Cannot be installed(NG)	Mark "✓" if each condition is matched.
1. Vent system	Vent system is used by 1 appliance only.	Common vent	
			
2. No screws or nails protruding within the B-Vent	No	Yes (If Yes to protruding screws or nails, flex vent cannot be installed.)	
			
3. B-Vent shape	Round	Oval	
			
4. B-Vent diameter	3"	5" or larger	
	4" Install according to 4" top flex support kit and base junction adapter set installation procedure		

Check point	Can be installed(OK)	Cannot be installed(NG)	Mark "✓" if each condition is matched.
5. Horizontal distance between B-Vent connection from the ceiling and the unit is no more than 5ft.	5ft or less	More than 5ft	
			
6. Vent length from the top of unit to the rain cap.	25 feet or less	More than 25 feet	
	 <p data-bbox="690 804 1135 869">If you need more than 25 feet of Flex pipe contact Noritz America 1-866-766-7489</p>		

Check point	Can be installed(OK)	Cannot be installed(NG)	Mark "✓" if each condition is matched.
7. Ambient temperature where unit is installed.	More than 40°F(5°C)	40°F(5°C) or less *Refer to page 4	
			
8. Accessibility to Rain Cap	Can access Rain Cap	Cannot access Rain Cap(High pitch etc.)	
			

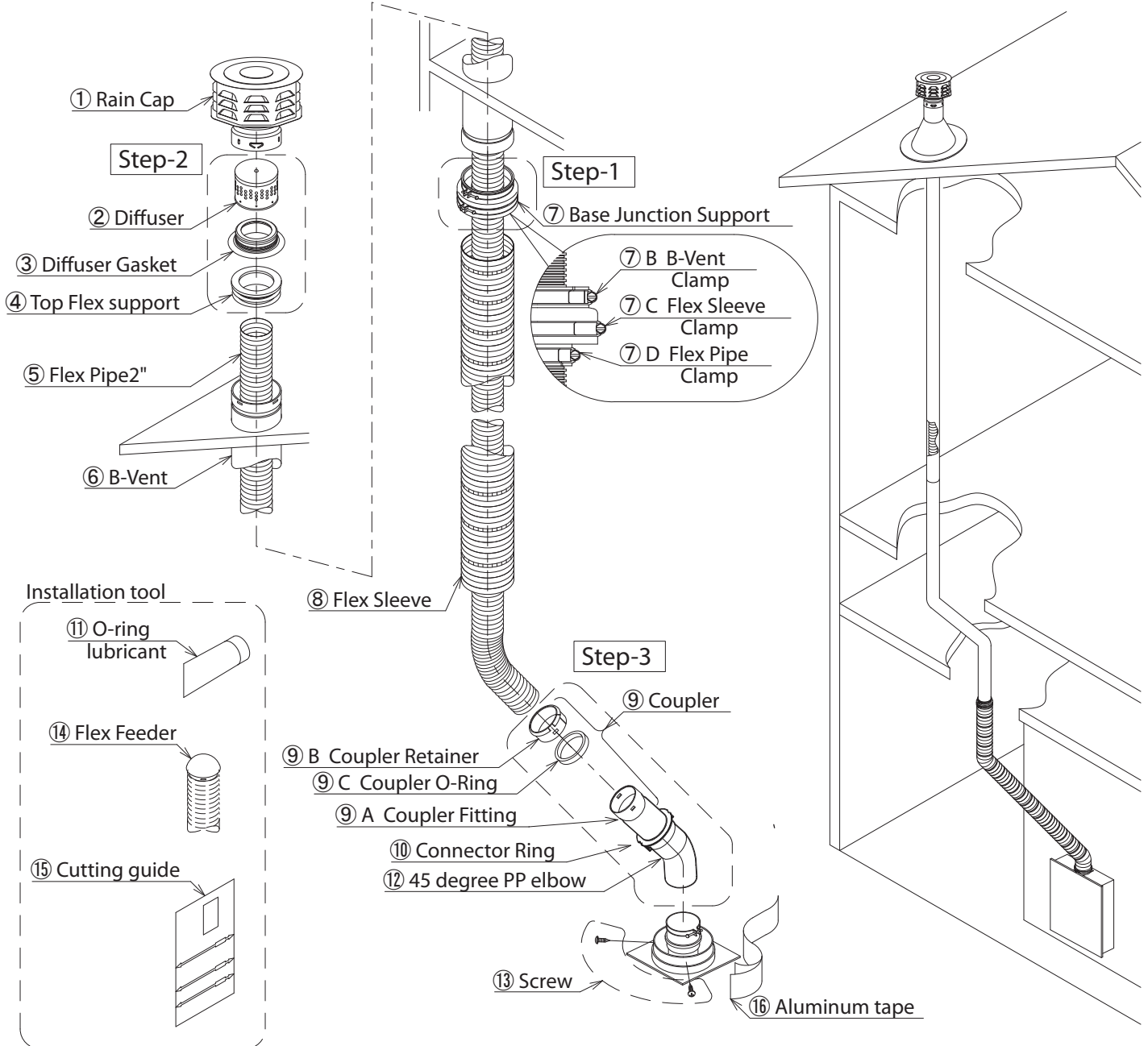
5. Sample of the Venting system

■ The pictured image of the system consisted of this Vent Kit and the explanation of the name of the components

The image of the Flex Kit system is as listed below.

Only when the venting components and the water heater are installed correctly, the customer can use the hot water correctly and safely.

The numbers before the names of the components are corresponding to the same component names as in step "6. Installation".



6. Installation

In the installation, some work will be done above the roof, extra care and fall protection may be required. Take extra care and responsibility to do the installation as safely as possible.

WARNING :

- For your safety, do not attempt to work on a rooftop until safety precautions have been identified and taken including without limitation fall protection measures, ladders or stairways, and personal protective equipment(PPE).
- Installation in windy or wet conditions require additional precautions. Please follow local safety regulations.



Be sure to do

【Maximum Vent lengths for NRC663-FSV】




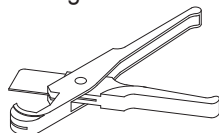
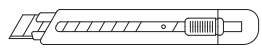
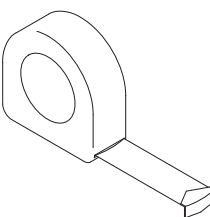
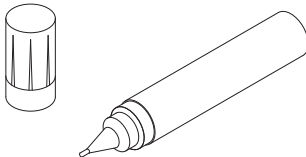
- Max. Straight Vent Length: 35'(10.5m)
- Max. allowable 45 degree elbows(B-Vent) are 2 elbows.
 - * Not including "⑫ 45 degree PP elbow"
 - * No 90° elbows(B-Vent)



Be sure to do

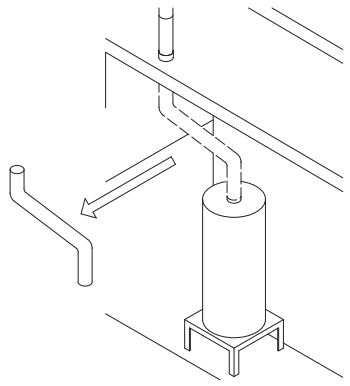
- Only when the all conditions of "4. Before Installation (Check the condition of installation)" are satisfied, proceed with the installation, following the below mentioned installation procedure.

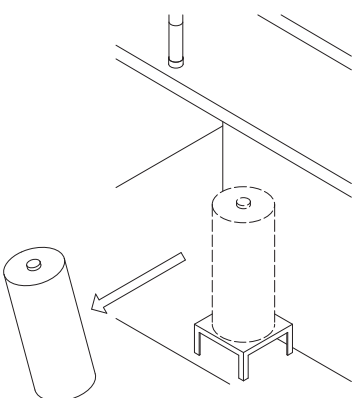
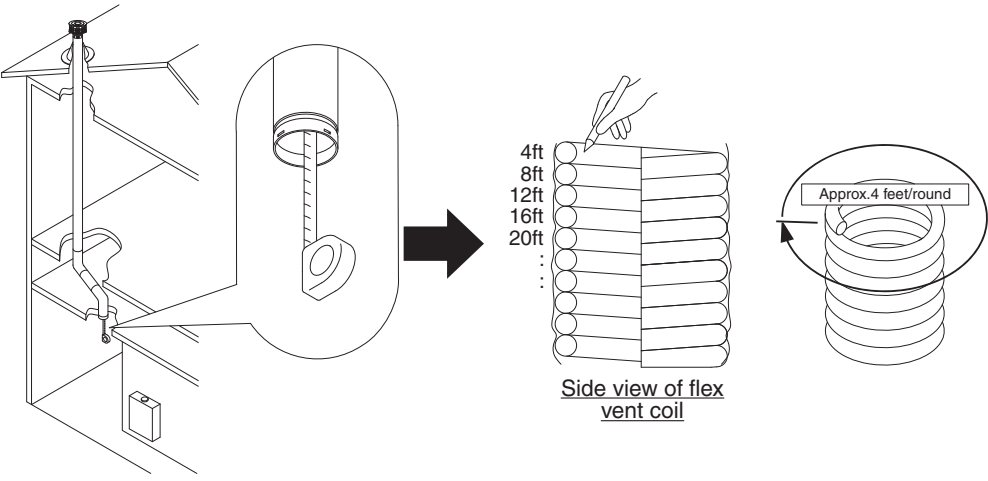

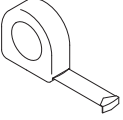
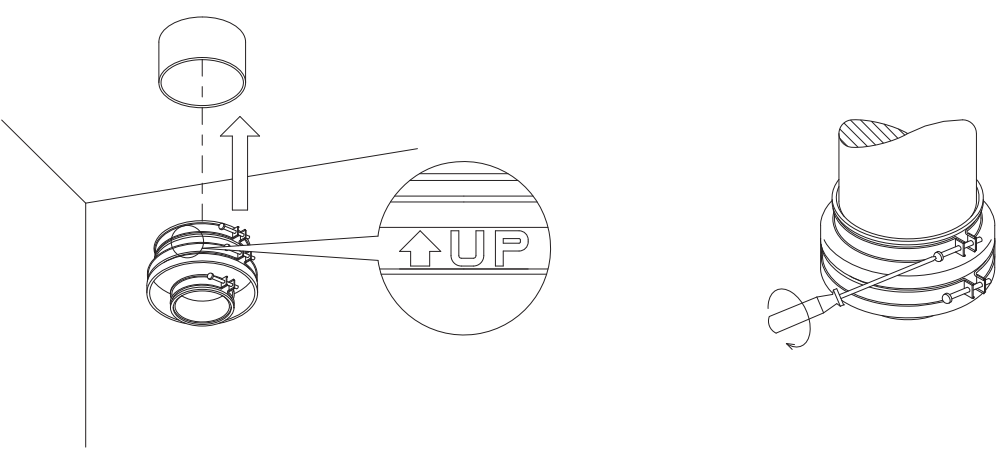
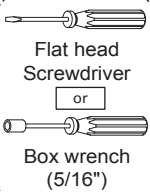

2. Tools necessary for the installation

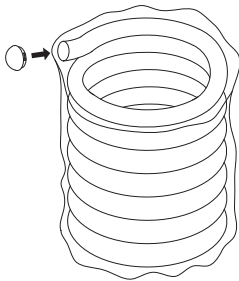
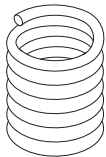

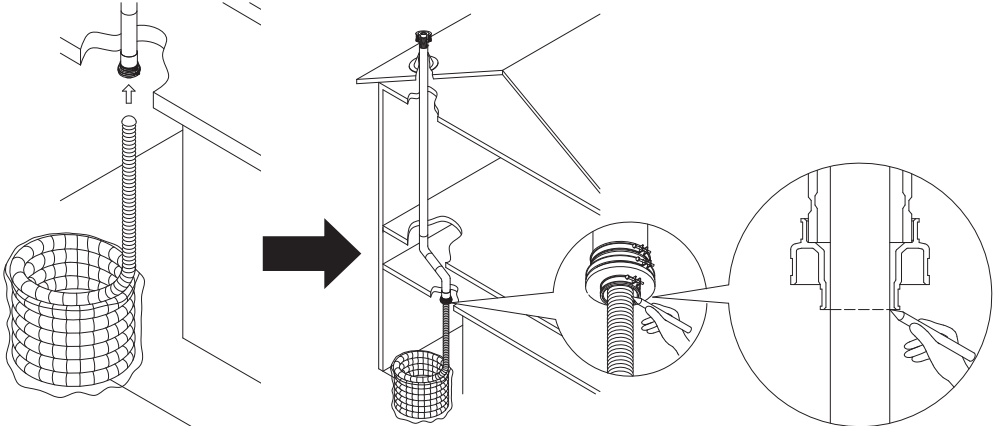


①Screwdriver	②Cutting tool	③Tape Measure	④Marker
 <ul style="list-style-type: none"> •Phillips head <div style="border: 1px dashed black; padding: 5px; margin: 5px 0;">  <ul style="list-style-type: none"> •Flat head <p style="text-align: center;">or</p>  <ul style="list-style-type: none"> •Box wrench(5/16") </div>	<ul style="list-style-type: none"> •For cutting the flexible vent.  <ul style="list-style-type: none"> •PVC Cutter  <ul style="list-style-type: none"> •Box Cutter etc. <p>※Hand saws are not approved for cutting.</p>		

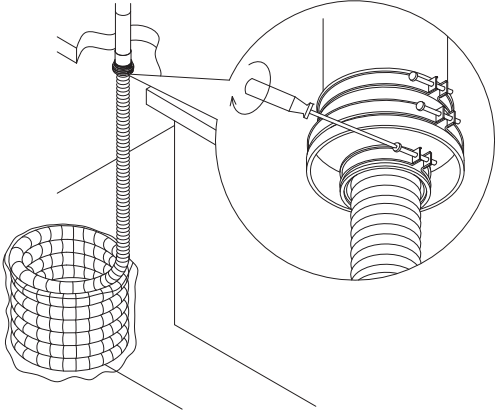
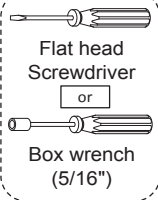
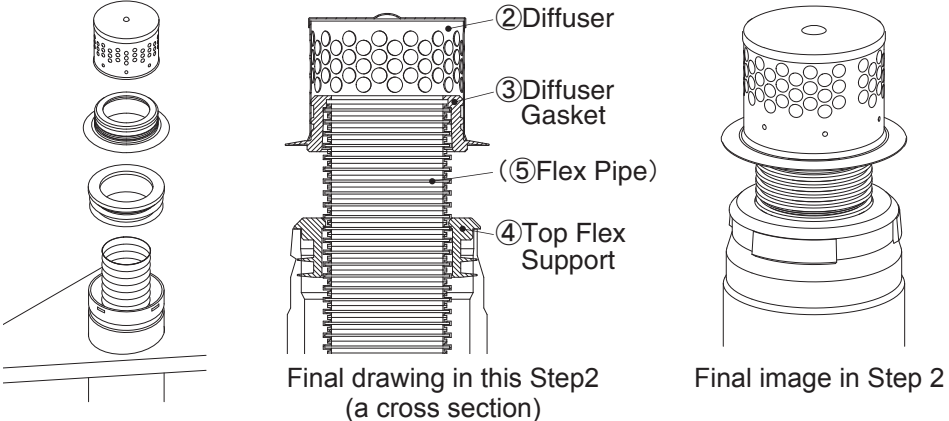
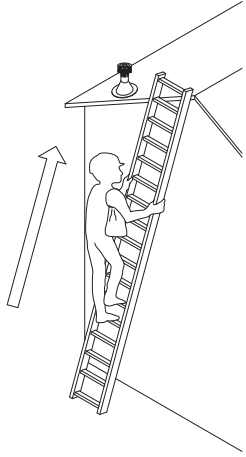
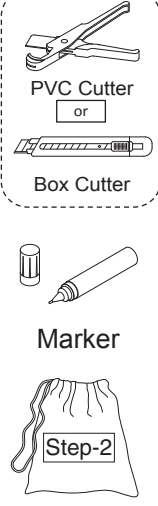
3. Installation Procedure

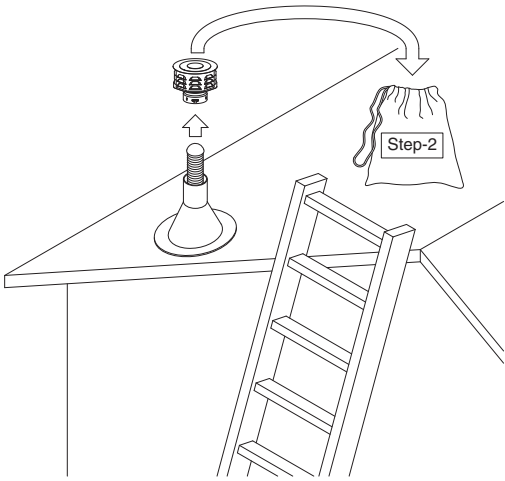
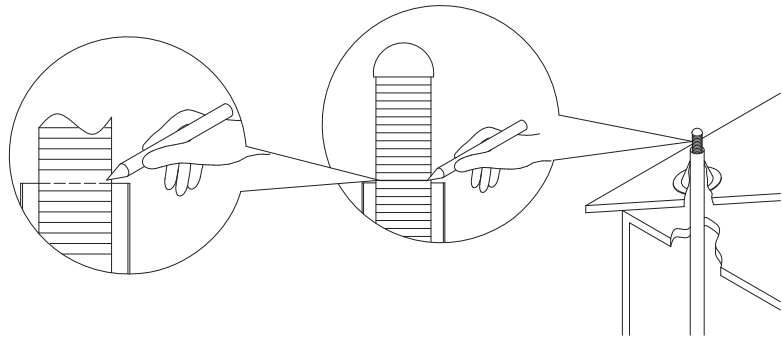

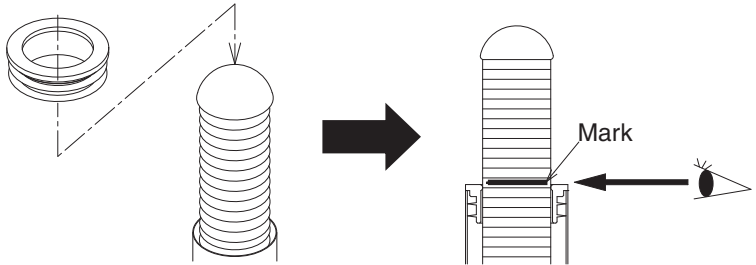
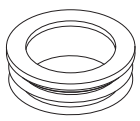
Follow the below motioned procedure and install correctly. Specially, be sure to check each 【Point】 carefully. If not installed correctly, the water heater will not function properly.

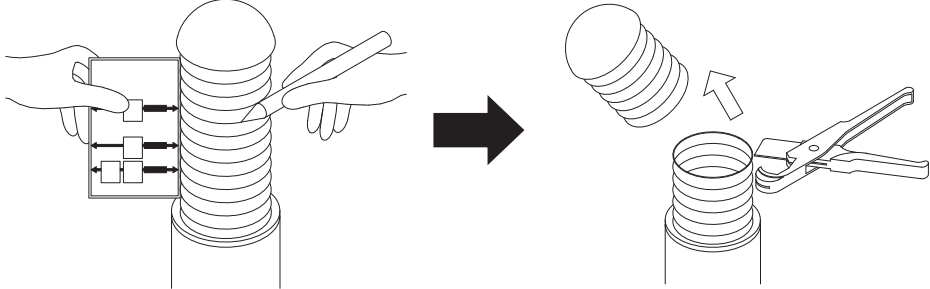
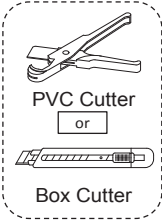

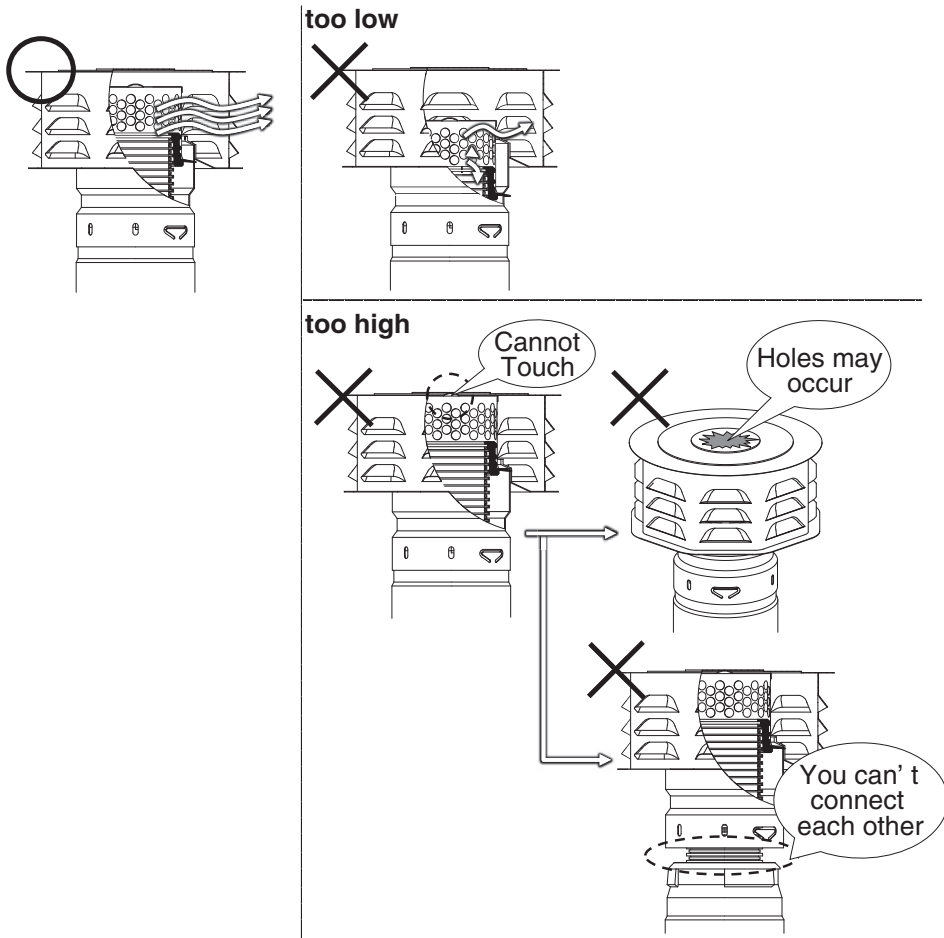
Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-1 (Work where equipment is installed)	<p>1 Remove the B-Vent between bottom of ceiling and tank type water heater.</p> 	

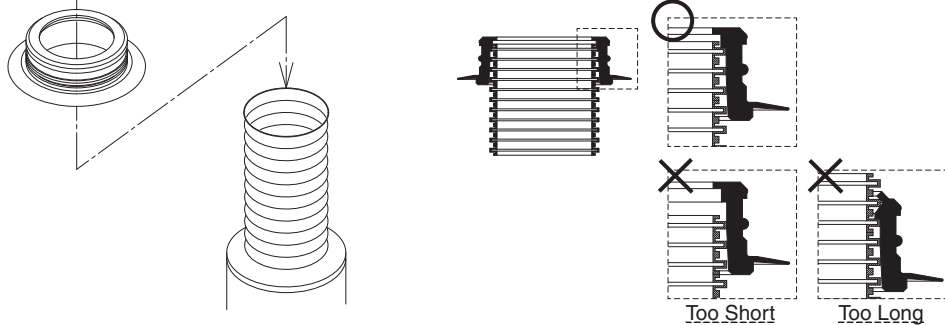

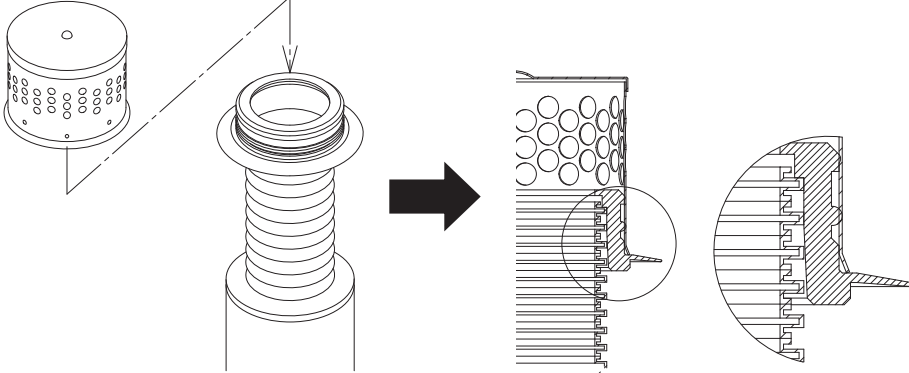
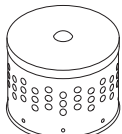
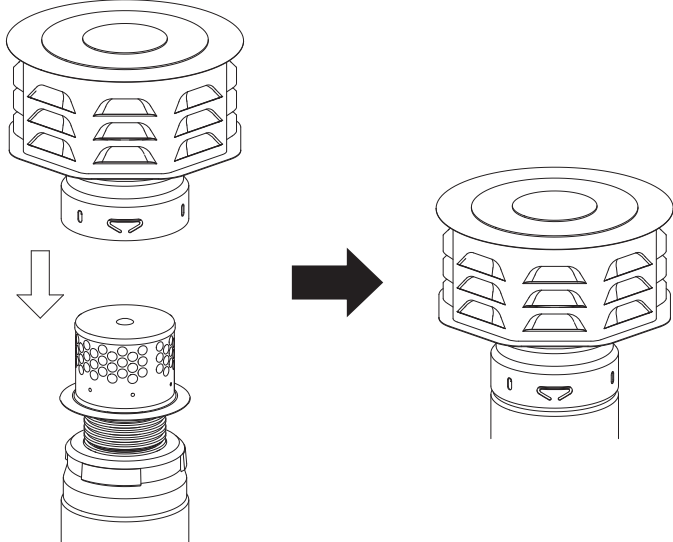
Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-1 (Work where equipment is installed)	2 Drain and remove the tank type water heater. 	
	3 Use a measuring tape to measure from the bottom of the "⑥B-Vent" to the roof termination to get the total length of the vent run. Transfer that measurement to the "⑤Flex Pipe" by making a mark from inner side to help you know when you have reached the roof termination. <p>※ The Measured vent run length will be used in procedure No. 26 later. Make a note of the Vent Run Length.</p> 	 <p>Marker</p>  <p>Tape Measure</p>
	4 Grab Bag Labeled "Step-1" for this step of the installation. Insert " ⑦Base Junction Support " to the bottom of " ⑥B-Vent " that is sticking out from the ceiling. Firmly tighten " ⑦Base Junction Support " with " ⑦B. B-Vent Clamp ", be careful not to over tighten, this may distort the rubber. Check to see if it secure by pulling by hand. <p>※ The tightening torque should be between 7" to 10" lbs.</p> <p>※ Do not apply "①O-ring lubricant" to "⑦Base Junction Support"</p> 	 <p>Flat head Screwdriver or Box wrench (5/16")</p>  <p>⑦Base Junction Support</p>

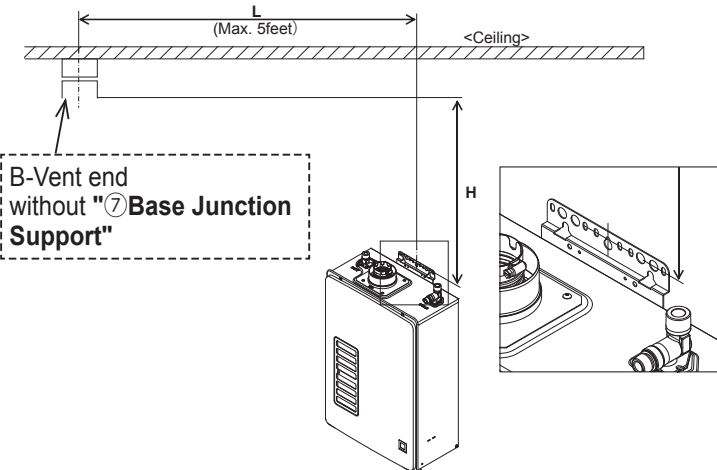
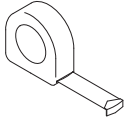
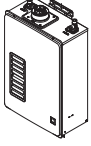
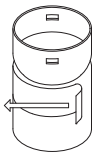
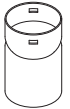
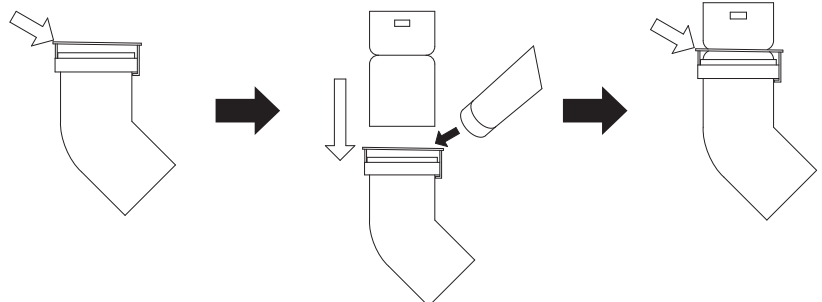
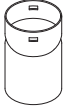
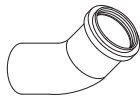

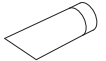
Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-1 (Work where equipment is installed)	<p>5 Push the "⑭Flex Feeder" into the tip of the "⑤Flex Pipe".</p>  <div style="border: 1px solid black; background-color: #f0f0f0; padding: 5px; margin-top: 10px;"> <p>! Be sure to do Install the "⑭Flex Feeder" always, even in the case of straight B-Vent runs. ("⑭Flex Feeder" prevents debris from falling into the "⑤Flex Pipe".)</p> </div>	 <p>⑤Flex Pipe2"</p>  <p>⑭Flex Feeder</p>
	<p>6 Insert the Flex pipe into the "⑦Base Junction Support" until you touch the inside of the rain cap on the roof. With the "⑤Flex Pipe" fully inserted into the vent, make a mark at the "⑦Base Junction Support" so you can check for movement during the rest of installation.</p>  <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>【Point】 Before inserting, try to straighten curl of the tip of ⑤Flex Pipe as much as possible. However, when doing so, bending radius should be more than 7 inch.</p>  </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>【Point】 Continue to push "⑤Flex Pipe" strongly until the end and make sure that it does not stop in the middle.</p> </div> <div style="border: 1px solid black; background-color: #f0f0f0; padding: 5px; margin-top: 10px;"> <p>Prohibited Do not use the Flex Vent at any jobsite with vent runs longer than 35'. do not join two shorter flex pipes together even if the run is less than 35'.</p> </div> <div style="border: 1px solid black; background-color: #f0f0f0; padding: 5px; margin-top: 10px;"> <p>! Be sure to do When pushing "⑤Flex Pipe" through the B-Vent, if there is unusual feeling (touching the bump of screw, etc.), do not continue to push in and stop the installation.</p> </div>	 <p>Marker</p>

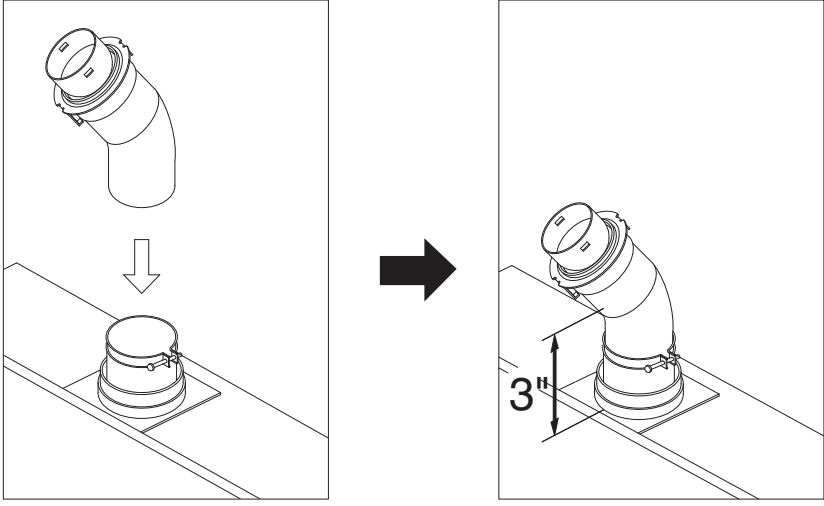
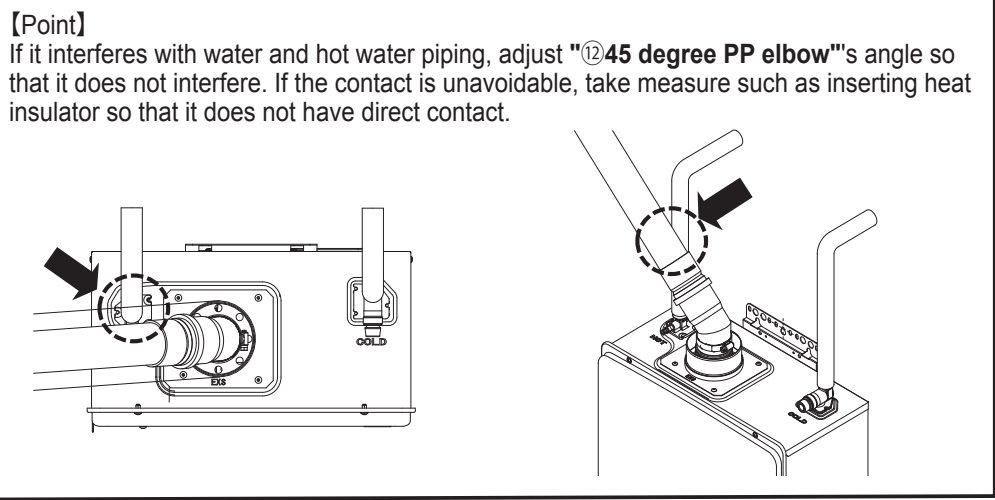
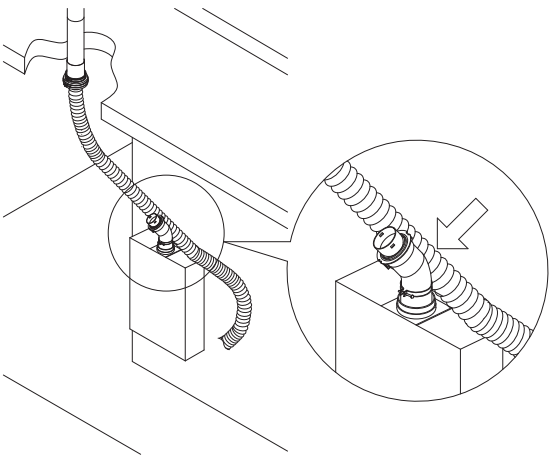

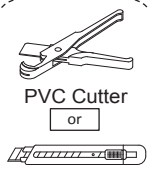
Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-1 (Work where equipment is installed)	<p>7 Take extra care to ensure that the "⑤Flex Pipe" does not slip by checking the mark you made on the "⑤Flex Pipe". Firmly tighten "⑤Flex Pipe" with "⑦D. Flex Pipe Clamp", but be careful not to over tighten as it may distort the flex pipe. Check to see if it is firmly secured by pulling it by hand. ※The tightening torque should be between 7" to 10" lbs.</p> 	 <p>Flat head Screwdriver or Box wrench (5/16")</p>
Step-2 (Work on rooftop)	<p>※ The assembly image figure for all parts in below Step 2 (Procedure 8 ~ 15) (Without Rain Cap) Use this Image to check for fitment of the components.</p>  <p>②Diffuser ③Diffuser Gasket ⑤Flex Pipe ④Top Flex Support</p> <p>Final drawing in this Step2 (a cross section)</p> <p>Final image in Step 2</p>	
	<p>8 Grab Bag Labeled "Step-2" and necessary tools for this step of the installation. Climb up on the roof and access the Rain Cap.</p>  <div data-bbox="335 2041 1333 2150" style="border: 1px solid black; padding: 5px;"> <p>【Point】 When climbing up on the roof, use appropriate fall protection to guard against falls. Make sure that safety comes first at your own risk.</p> </div>	<p>Ladder Wet Towel</p>  <p>PVC Cutter or Box Cutter</p> <p>Marker</p> <p>Bag"Step-2"</p>

Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-2 (Work on rooftop)	<p>9 Take off the "①Rain Cap" and place it on the area where it does not fall from the rooftop. ※Make sure the inside surfaces of the "①Rain Cap" and the "⑥B-Vent" are clean to ensure a good seal of the parts in this step.</p> 	Wet Towel
	<p>10 Use a marker to mark the original position of the "⑤Flex Pipe", at "⑥B-Vent"'s upper tip.</p>  <div style="background-color: black; color: white; padding: 5px; margin-top: 10px;"> <p>! Be sure to do Mark is very important for the function. Do not skip this step. (Necessary for the next step.)</p> </div>	 Marker
	<p>11 Slide the "④Top Flex Support" from top to bottom, over the "⑤Flex Pipe" while holding the "⑤Flex Pipe". Once the "④Top Flex Support" reaches the "⑥B-Vent" upper tip, press it firmly into the "⑥B-Vent" upper tip. ※Be sure not to compress the "⑤Flex Pipe" into the "⑥B-Vent" when pushing the "④Top Flex Support" into the "⑥B-Vent". ※Do not apply "⑪O-ring lubricant" to "④Top Flex Support".</p>  <div style="background-color: black; color: white; padding: 5px; margin-top: 10px;"> <p>! Be sure to do Verify that you can see the mark you made at the top end of the "④Top Flex Support" in the previous step. (The flexible vent can be expanded and contracted with the heat of the water heater. Therefore "④Top Flex Support" has a risk to be come out.)</p> </div>	 ④Top Flex support

Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-2 (Work on rooftop)	<p>12 Inspect the Rain Cap for the Brand/ Name. Hold the "⑮Cutting Guide" to the upper tip of "④Top Flex Support", then cut "⑤Flex Pipe" to the instructed length according to the Brand/ Name of the Rain Cap listed on the "⑮Cutting Guide" at the jobsite.</p> 	 
	<p>【Point】 "⑮Cutting Guide" should touch the top of "④Top Flex Support".</p> <p>【Point】 •If the enclosed Cutting Guide is not used and not cut in the accurate position, it will cause malfunction. (Make sure that it is cut at the same throughout.)</p>  <p>※All cuts must be made at right angle to the pipe. All field cuts must be deburred. ※Take precaution not to drop debris into "⑤Flex Pipe". In case debris is dropped, remove from the lower end of the "⑤Flex Pipe".</p>	

Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-2 (Work on rooftop)	<p>13 Push "③Diffuser Gasket" onto "⑤Flex Pipe" from the top to the end. ※Do not apply "⑪O-ring lubricant" to "③Diffuser Gasket".</p> 	 <p>③Diffuser Gasket</p>
	<p>14 Push "②Diffuser" onto "③Diffuser Gasket", which is attached to "⑤Flex Pipe" to lock. ※Never use any parts that are deformed by falling, etc. as is. ※Do not apply "⑪O-ring lubricant" to "③Diffuser Gasket".</p>  <div data-bbox="343 1218 1341 1302" style="border: 1px solid black; padding: 5px;"> <p>【Point】 When doing so, make sure the "②Diffuser" is fully seated onto the "③Diffuser Gasket".</p> </div>	 <p>②Diffuser</p>
	<p>15 Attach "①Rain Cap" (Reinstall "①Rain Cap" onto the "⑥B-Vent".) ※Never use any parts that are deformed by falling, etc. as is.</p> <div data-bbox="343 1423 1341 1555" style="border: 1px solid black; padding: 5px;"> <p>【Point】 Check and see if locks of Rain Cap are matching. ※If it is difficult to close "①Rain Cap" because internal parts are hitting, verify the length according to the "⑮Cutting Guide".</p> </div> 	

Step	Installation Procedure(ex. @Garage)	Necessary Tool														
Step-3 (Work where equipment is installed)	<p>16 Grab Bag Labeled "Step-3" and necessary tools for this step of the installation. Mount the water heater at the appropriate height according to the chart below, connect the gas, cold and hot water lines, and drain pipes. Follow the EZTR installation manual on how to set the equipment's clearance from combustibles.</p> <p>※The location(height) where equipment can be installed varies by horizontal distance (L) shown below. Please follow the below chart and install accordingly.</p> <p>■Equipment installation upper limit height chart by horizontal distance</p> <table border="1" data-bbox="425 452 1328 517"> <tr> <td>Horizontal distance (L)</td> <td>0'</td> <td>~1'</td> <td>~2'</td> <td>~3'</td> <td>~4'</td> <td>~5'</td> </tr> <tr> <td>More than height(H)</td> <td>2'</td> <td>2'</td> <td>2'</td> <td>2.6'</td> <td>3'</td> <td>3'</td> </tr> </table>  <div data-bbox="343 1035 1340 1143" style="border: 1px solid black; padding: 5px;"> <p>【Point】 Before you start the plumbing, imagine where the "5 Flex Pipe" will be ran and account for any clearance needed.</p> </div> <div data-bbox="343 1151 1340 1281" style="border: 1px solid black; padding: 5px;"> <p>【Point】 Always follow the above chart and determine the equipment's installation location (height). →If it is not followed, there will be nonconformance such as large tension to the final connecting area of the vent pipe and/or can't connect.</p> </div>	Horizontal distance (L)	0'	~1'	~2'	~3'	~4'	~5'	More than height(H)	2'	2'	2'	2.6'	3'	3'	 <p>Tape measure</p> 
	Horizontal distance (L)	0'	~1'	~2'	~3'	~4'	~5'									
	More than height(H)	2'	2'	2'	2.6'	3'	3'									
<p>17 Peel off the sticker that is attached to the side of "9A. Coupler Fitting".</p> 	 <p>9A Coupler Fitting</p>															
<p>18 After applying "11 O-ring lubricant" to the inside gasket portion of "12 45 degree PP elbow", set "10 Connector Ring", insert "9A. Coupler Fitting", and lock it.</p>  <div data-bbox="329 2010 1328 2155" style="border: 1px solid black; padding: 5px;"> <p>【Point】 Locking means inserting "9A. Coupler Fitting" through the opening of the "10 Connector Ring" and through the opening of the "12 45 degree PP elbow" until the "10 Connector Ring" slides into the notch in the "9A. Coupler Fitting" and locks.</p> </div>	 <p>9A Coupler Fitting</p>  <p>12 45 degree PP elbow</p>  <p>10 Connector Ring</p>  <p>11 O-ring lubricant</p>															

Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-3 (Work where equipment is installed)	<p>19 Insert "⑫45 degree PP elbow" that is attached with "⑨A. Coupler Fitting" and "⑩Connector Ring" to the equipment's vent connector pipe. When inserting "⑫45 degree PP elbow", there is tension when it passes through the o-ring within the equipment's vent connector pipe. Continue to insert "⑫45 degree PP elbow" until it is firmly seated all the way into the base of the vent connector pipe.</p>  <p>[Point] If it interferes with water and hot water piping, adjust "⑫45 degree PP elbow"'s angle so that it does not interfere. If the contact is unavoidable, take measure such as inserting heat insulator so that it does not have direct contact.</p> 	
	<p>20 Follow below [Point] and cut the "⑤Flex Pipe" into appropriate length.</p>  <p>! Be sure to do At this step, be very careful when cutting the 2" flex pipe. If it is cut too short, you must dispose of the vent or use it on another installation where a shorter length is required. These vent pieces cannot be lengthened.</p>	 <p>Marker</p>  <p>PVC Cutter or Box Cutter</p>

Step

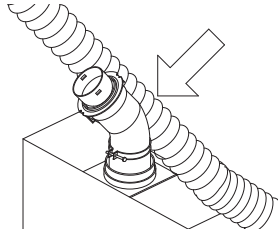
Installation Procedure(ex. @Garage)

Necessary Tool

Step-3
(Work where equipment is installed)

【Point】

When performing the final cut, make the first cut of the "⑤Flex Pipe" longer to avoid cutting the "⑤Flex Pipe" too short. It is easy to determine the length by following the 【Point】below and matching the dimension using the below figure.



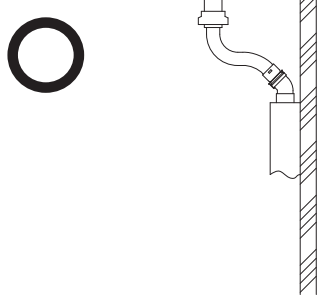
【Point】

When determining the cut length, take note on the 2 points listed below.

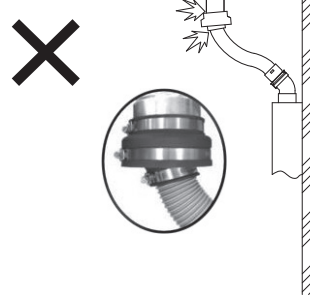
【Point①】

Determine the proper length not giving too much tension to both "⑦ Base Junction Support" and "⑫45 degree PP elbow".

【Correct installation】



【Incorrect installation】

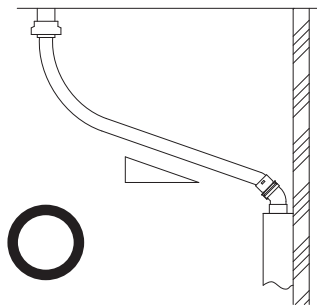


When the vent pipe is too short, there will be tension to those parts.

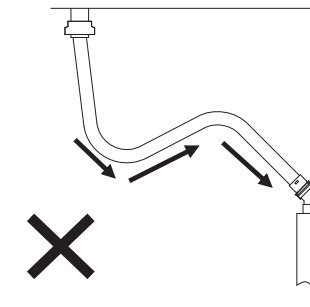
【Point②】

Be careful not make trap configuration of "⑤Flex pipe".

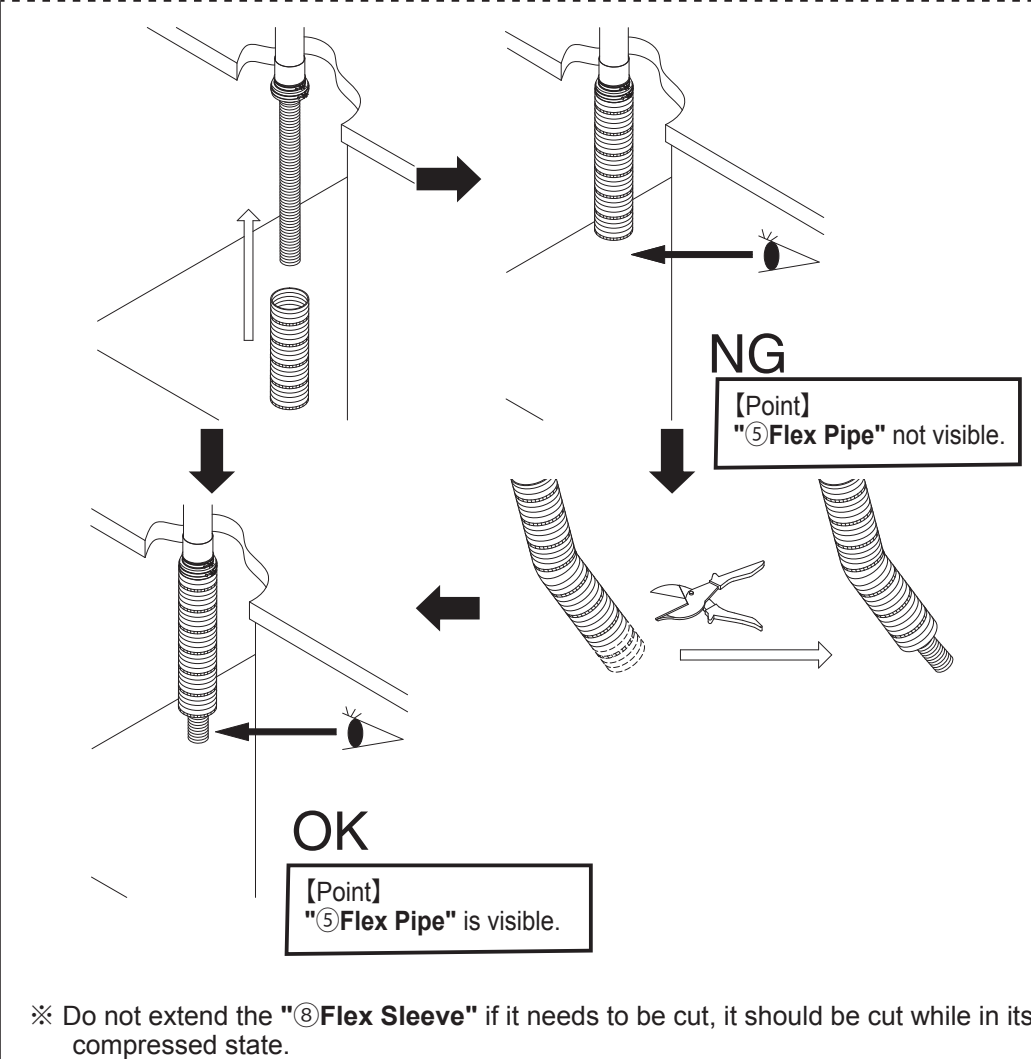

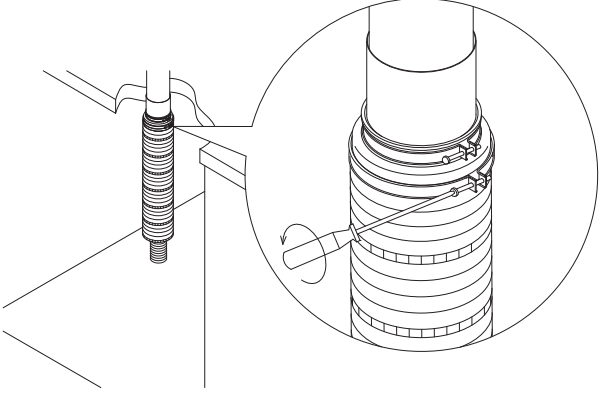
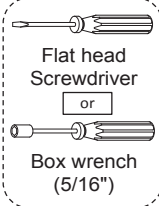
【Correct installation】

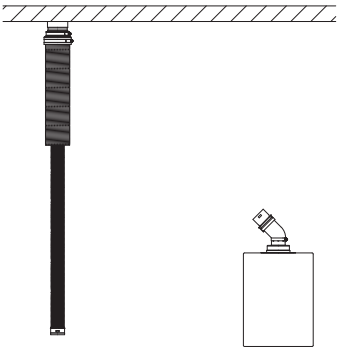
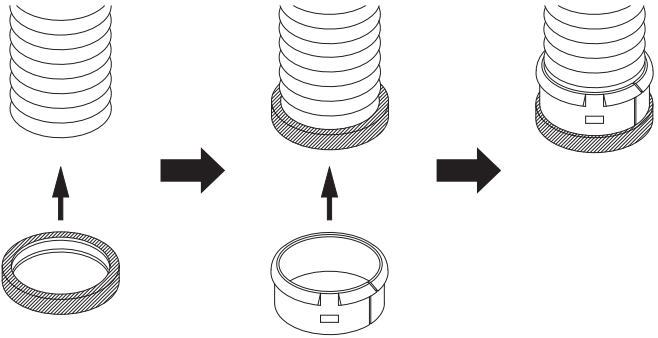

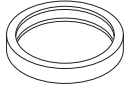
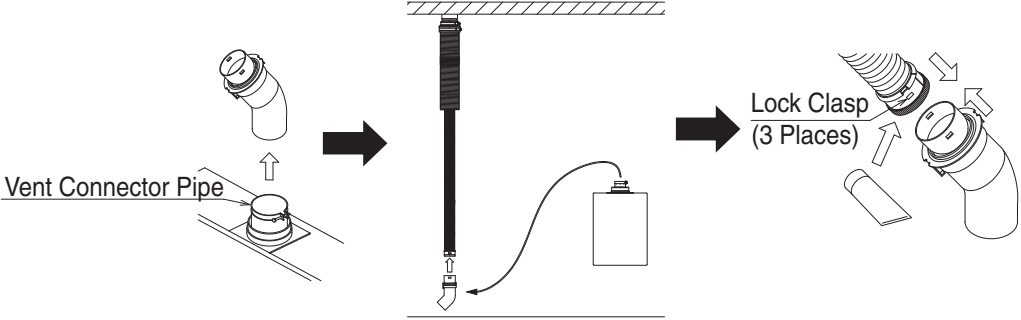
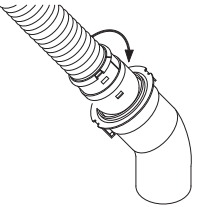




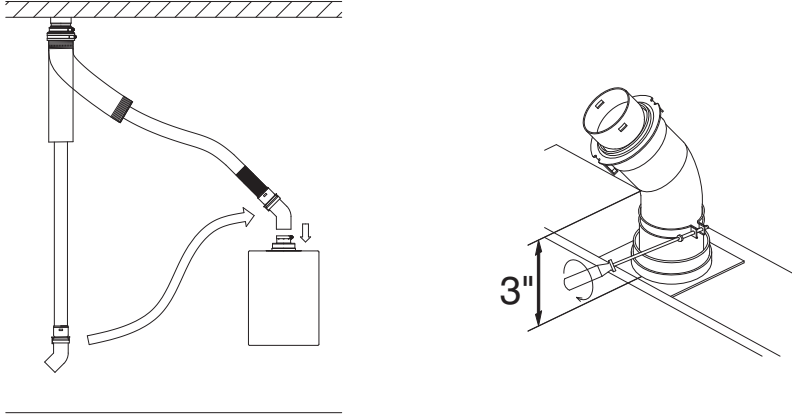
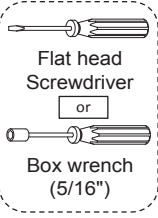
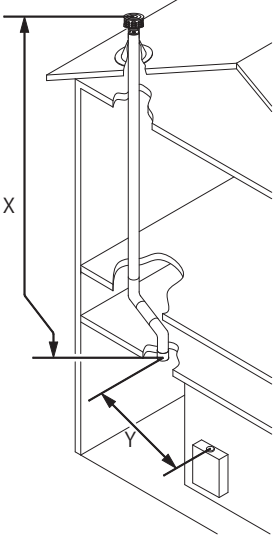
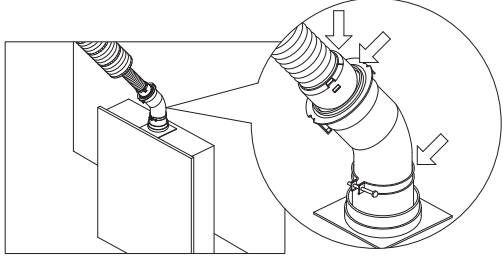
【Incorrect installation】

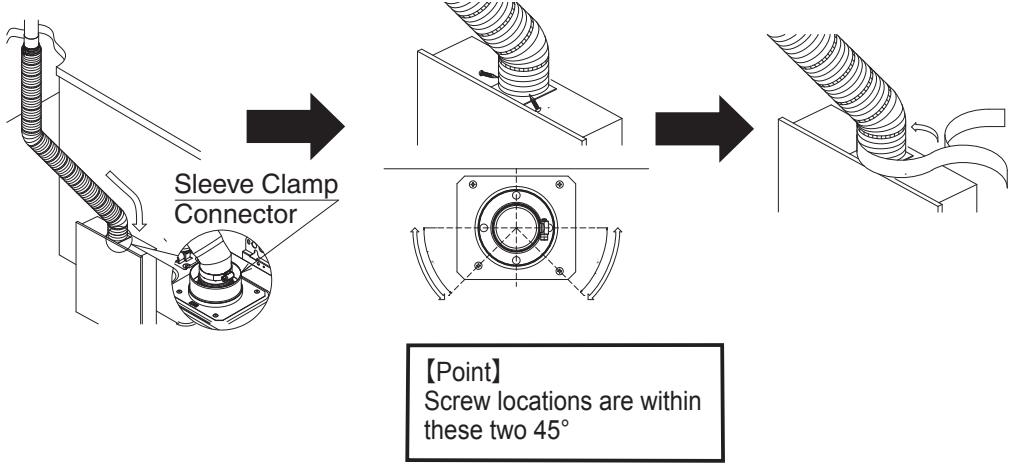
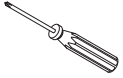
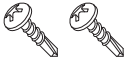
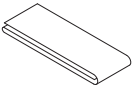


In trap installation, moisture is trapped inside the vent pipe and the exhaust can't be vented.

Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-3 (Work where equipment is installed)	<p>21 Pull "⑧Flex Sleeve" over "⑤Flex Pipe" under the ceiling. Then, push into the bottom of "⑦A. Base Junction Support Body". And check that "⑤Flex Pipe" is sticking out from "⑧Flex Sleeve". (If it is not sticking out, cut "⑧Flex Sleeve" until "⑤Flex Pipe" sticks out.)</p>  <p>※ Do not extend the "⑧Flex Sleeve" if it needs to be cut, it should be cut while in its compressed state.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ WARNING</p> <p>Pay attention not to get injured from the sharp edge of "⑧Flex Sleeve".</p> </div>	 <p>⑧Flex Sleeve</p>
	<p>22 Firmly tighten "⑦C. Flex Sleeve Clamp" of "⑦Base Junction Support", but be careful not to tighten too much as it may distort the "⑧Flex Sleeve" and rubber. Check to see if it is firmly fixed by pulling it by hand. ※The tightening torque shall be between 7" and 10" lbs.</p> 	 <p>Flat head Screwdriver or Box wrench (5/16")</p>

Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-3 (Work where equipment is installed)	<p>23 See below chart and set "⑨C. Coupler O-Ring" and "⑨B. Coupler Retainer" onto the tip of "⑤Flex Pipe" in the correct direction.</p>  <div data-bbox="331 748 1333 1218" style="border: 1px solid black; padding: 5px;"> <p>[Point] Correct way of setting "⑨C. Coupler O-Ring" and "⑨B. Coupler Retainer".</p>  </div>	 <p>⑨B Coupler Retainer</p>  <p>⑨C Coupler O-Ring</p>
	<p>24 Pull out assembled "⑨A. Coupler Fitting" and "⑫45 degree PP elbow", which are tentatively locked to the equipment's vent connector pipe. Connect by matching pulled out assembly and 3 lock clasps of "⑨B. Coupler Retainer", which was set during the previous process.</p> <p>※ Prior to connecting, make sure to apply "⑪O-ring lubricant" to "⑨C. Coupler O-Ring".</p>  <div data-bbox="331 1796 1333 1887" style="border: 1px solid black; padding: 5px;"> <p>! Be sure to do When inserting, "⑨C. Coupler O-Ring" is easy to tear due to pinching. Therefore, take maximum precaution when working.</p> </div> <div data-bbox="331 1904 1333 2145" style="border: 1px solid black; padding: 5px;"> <p>[Point] When matching the lock of "⑨A. Coupler Fitting" and "⑨B. Coupler Retainer", it is easier to match the lock clasp by turning the "⑨B. Coupler Retainer" by hand.</p>  </div>	  <p>⑪O-ring lubricant</p>

Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-3 (Work where equipment is installed)	<p>25 Attach "⑫45 degree PP elbow" assembly back onto the unit and secure. When inserting "⑫45 degree PP elbow", there is tension when it passes through the o-ring within the equipment's vent connector pipe. Continue to insert "⑫45 degree PP elbow" until it reaches the all the way to the base of the equipment vent connector pipe. Check to see if it is firmly fixed by pulling it by hand. ※The tightening torque shall be between 7" and 10" lbs.</p> 	
	<p>26 Refer to the calculated total vent length, using the measured length in step-1, procedure No.3 in addition to the distance from the water heater. ※Calculate the total vent length to determine the dip switch setting. Vent length = X "total length of B-Vent (measured in procedure No.3)" + Y "the distance from the water heater"</p> 	
	<p>27 Depending on the vent length, set the equipment (Dip_switch setting). ※Follow the equipment's installation manual on how to set the equipment's vent length.</p>	
	<p>28 Test run the water heater and check for any kind exhaust gas leaks in below areas. If there are no leaks of any kind, continue to the next step.</p>  <div data-bbox="869 1849 1329 2066" style="border: 1px solid black; padding: 5px;"> <p>⚠ WARNING</p> <p>CARBON MONOXIDE POISONING Failure to properly seal the vent system could cause flue products to enter the living space</p> </div>	

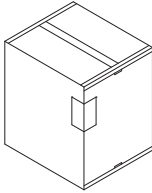
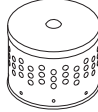




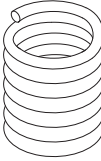
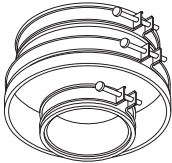
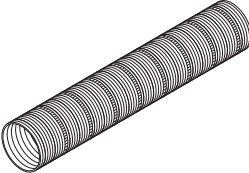
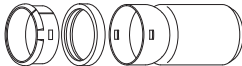
Step	Installation Procedure(ex. @Garage)	Necessary Tool
Step-3 (Work where equipment is installed)	<p>29 Extend the lower end of "⑧Flex Sleeve" to the sleeve clamp connector of the upper portion of equipment. Then secure with "2×⑬screws", and apply "⑯aluminum tape" covering the connecting part. Make sure that it is firmly fixed by pulling by hand. ※Do not stretch the "⑧Flex Sleeve" where the screws are secured, it will weaken the point where the screws are attached to the "⑧Flex Sleeve".</p>  <p>[Point] Screw locations are within these two 45°</p> <p>⚠ WARNING</p> <p>Pay attention not to get injured from the sharp edge of "⑧Flex Sleeve"</p> <p>[Point] Check and see if "⑧Flex Sleeve" is firmly fixed.</p>	 <p>Phillips head Screwdriver</p>  <p>⑬Screw</p>  <p>⑯Aluminum tape</p>


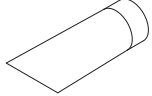
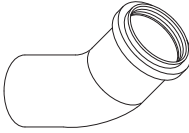
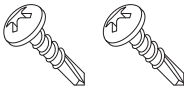
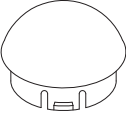
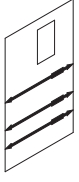
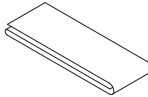
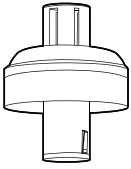
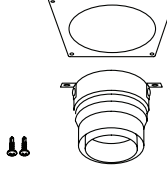
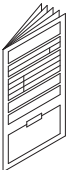
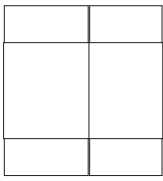
7.Maintenance

Periodically check the following to ensure proper operation of the water heater.

- The venting system must be examined periodically by a qualified service technician to check for any leaks or corrosion.
- Check and confirm that there is no tension to the flexible vent by hanging or suspending of anything.
- When changing the water heater, change whole venting components to new ones.

8.Parts Lists

No.	Parts name	Shape	Part#
	N-FlexKit2"-35		EZ2FVK35
②	Diffuser		EZ2FVD
③	Diffuser Gasket		EZ2FVDG
		4" 	EZ2FV4DG
④	3" and 4" Top Flex support	3" 	EZ2FVTFS
		4" 	EZ2FV4TFS
⑤	Flex Pipe2"		EZ2FVP35
⑦	Base Junction Support		EZ2FVBJS
⑧	Flex Sleeve		EZ2FVS
⑨	Coupler		EZ2FVRC

No.	Parts name	Shape	Part#
⑩	Connector Ring		EZ2FVCR
⑪	O-ring lubricant		EZFVL
⑫	45 degree PP elbow		EZ2FVR45ELB
⑬	Screw		N/A
⑭	Flex Feeder		EZ2FVF
⑮	Cutting guide		EZ2FVCG
⑯	Aluminum tape		N/A
	Universal rain cap		EZ2FVURC
	Base junction adapter set		EZ2FVBJADS
	Installation manual		EZ2FVK35LT
	Packing box		EZ2FVK35BOX

※"No." indicated on this page corresponds to the number on the applicable component on page 8.