

## **Heat Exchanger Replacement :**

### **GQ-C3260 / GQ-C2860 / GQ-C2660 Series**

This instructional manual is only intended for use by a qualified service professional or authorized Service Representative. Any unauthorized use of this manual may result in voiding the warranty.

Reach out to our customer care for additional support.

Contact details are available on the rating plate of the water heater.





Items Needed for service(Not Included)
<ul style="list-style-type: none"><li>• 14" Phillips head Screwdriver (magnetic)</li><li>• 8" Phillips head Screwdriver (magnetic)</li><li>• Flat head Screwdriver or Box wrench (5/16")</li><li>• Pliers</li><li>• hand towels</li><li>• 1-5 gallon bucket</li></ul>

## Procedure

1. Drain the unit as shown in following procedure.

### Drainage using the Remote Controller

RC-7651M-A








- 1** (1) The  button is OFF.
- (2) Press and hold the  button until a sound is heard (approximately 2 seconds).
  - The maximum hot water temperature will blink.
- (3) Press the  button several times until the item number "5" is displayed.
- (4) Press the  button.
  - The display will change from "oF" to "on".

120  
(e.g. 120°F)


5 oF

5 on

RC-9018M

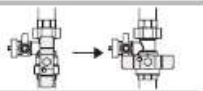
- 1** (1)  button is "OFF".
- (2) Press the  button inside the cover, Select **Misc settings** using the  buttons. Press the  button. The "Misc settings" screen appears.
- (3) Select **Drain water** using the  buttons, and then press  button.
- (4) Select "YES" using the  buttons,
 

No      Drain water now ?  
 Yes

 Press  button.
 

Follow the drain procedures in the manual

- 2** Close the water supply valve.



- 3** Fully open all hot water fixtures/faucets.



- 4** GQ-C3260WX-FF / GQ-C2860WX-FF
  - 1) Open the drain plug(1).
  - 2) Open the drain plug(2) and (3).
 (Figure 1)

GQ-C3260WZ-FF

Open the drain plug(1) and (2).  
(Figure 2)

GQ-C3260WXQ-FF / GQ-C2660WXQ-FF

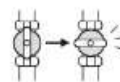
Open the drain plug(1) to (6).  
(Figure 3)

And then drain the water out of the unit.

- 5** When the water is completely drained, replace all drain plugs and close the hot water fixtures/faucets.

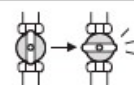
- 6** Close the gas valve and disconnect the electrical power supplied to the unit.

**Do not touch with wet hands.**



### Manual Draining

- 1** Close the gas valve.

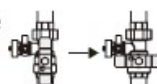


- 2** (1) Turn the power on/off button "On".

- (2) Turn and leave open the hot water fixtures for more than 2 minutes and close.
  - \* If multiple units are being used, drain two minutes for each unit.
  - \* An 11 Error Code may appear on the remote controller. This is not a malfunction of the unit. Do not turn Power ON/OFF Button OFF.



- 3** Close the water supply valve and disconnect the electrical power supplied to the unit.



**Do not touch with wet hands.**

- 4** Fully open all hot water fixtures.



- 5** GQ-C3260WX-FF / GQ-C2860WX-FF
  - 1) Open the drain plug(1).
  - 2) Open the drain plug(2) and (3).
 (Figure 1)

GQ-C3260WZ-FF

Open the drain plug(1) and (2).  
(Figure 2)

GQ-C3260WXQ-FF / GQ-C2660WXQ-FF

Open the drain plug(1) to (6).  
(Figure 3)

And then drain the water out of the unit.

- 6** When the water is completely drained, replace all drain plugs and close the hot water fixtures.

Procedure

GQ-C3260WX-FF / GQ-C2860WX-FF

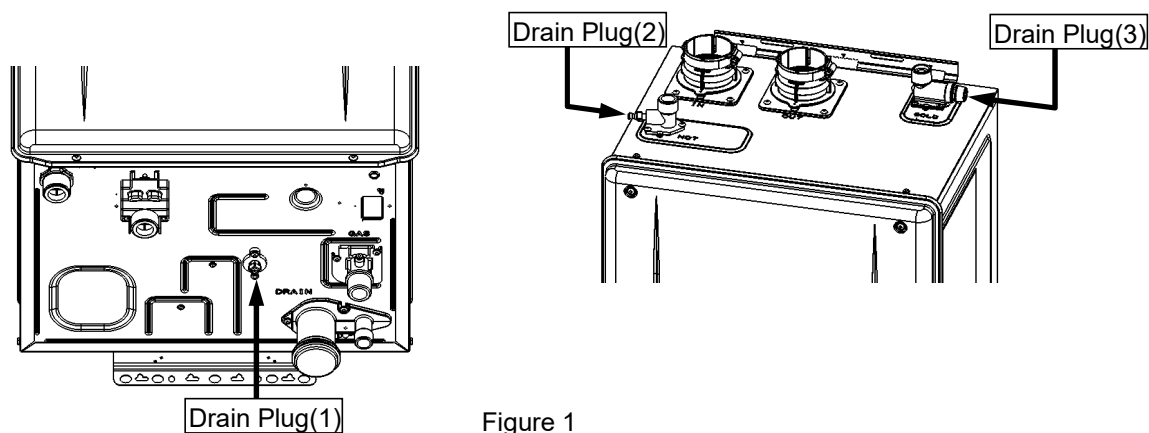


Figure 1

GQ-C3260WZ-FF

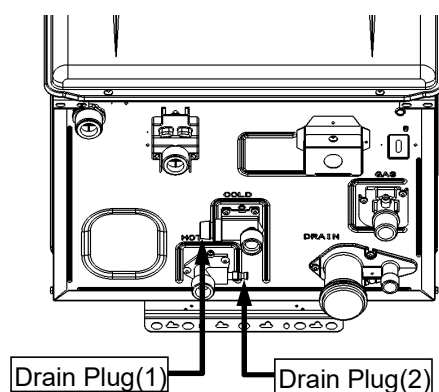


Figure 2

GQ-C3260WXQ-FF / GQ-C2660WXQ-FF

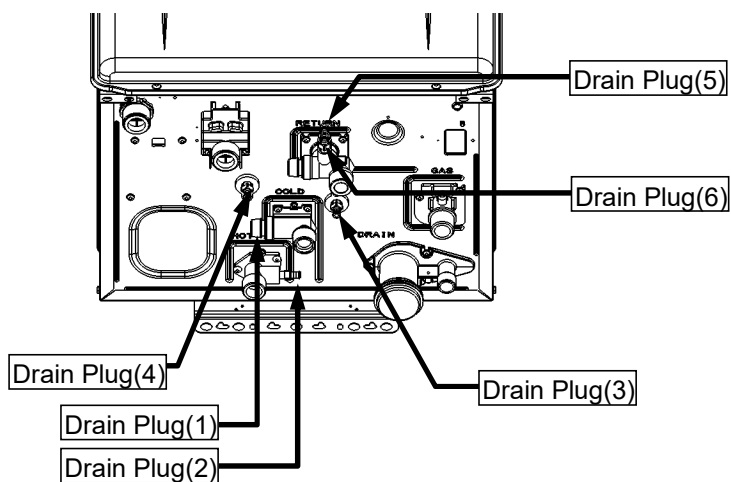
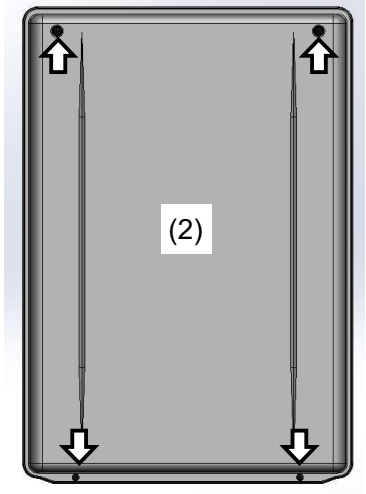
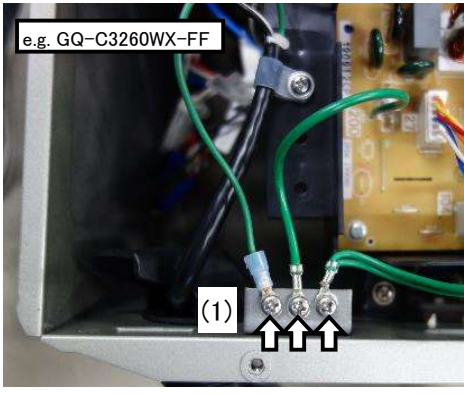
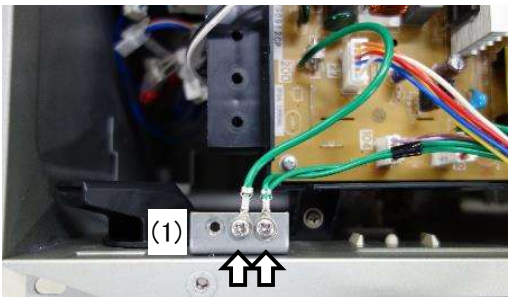
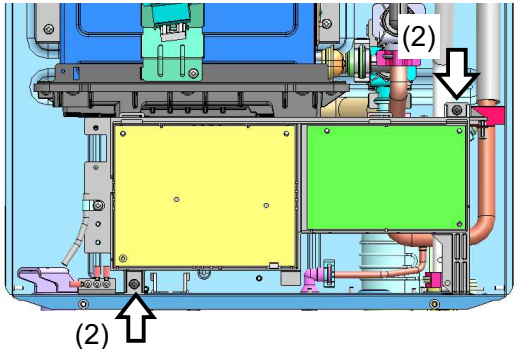


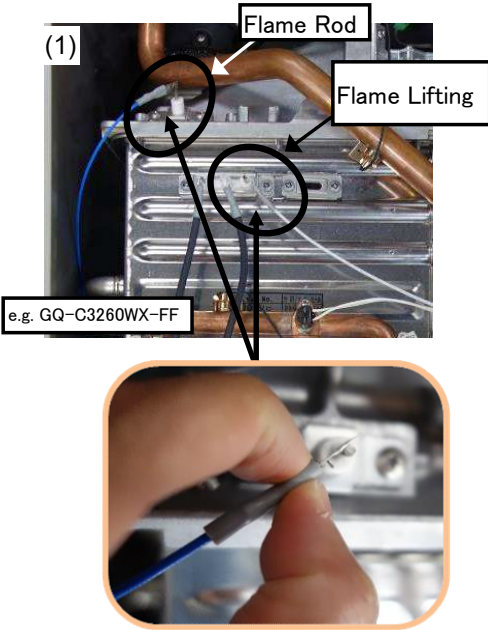
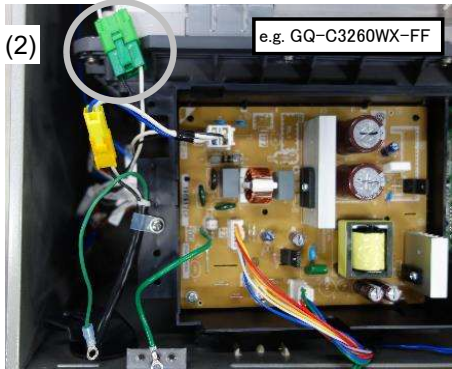
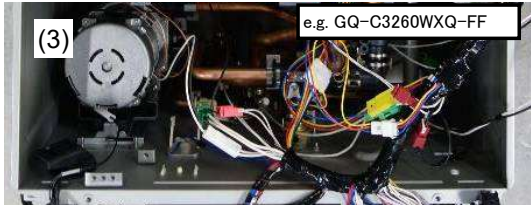
Figure 3

Drain Plugs

Each drain plug might not be visible if insulation is installed around the piping.

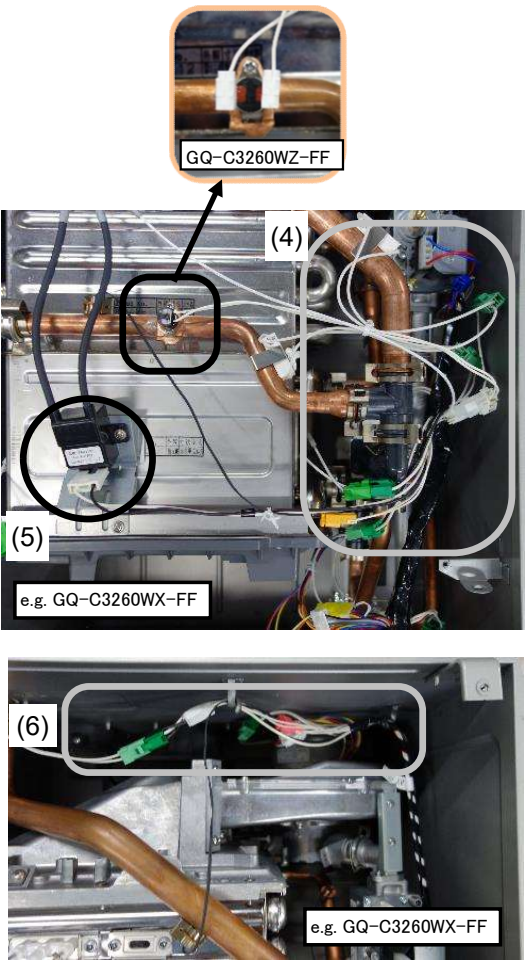

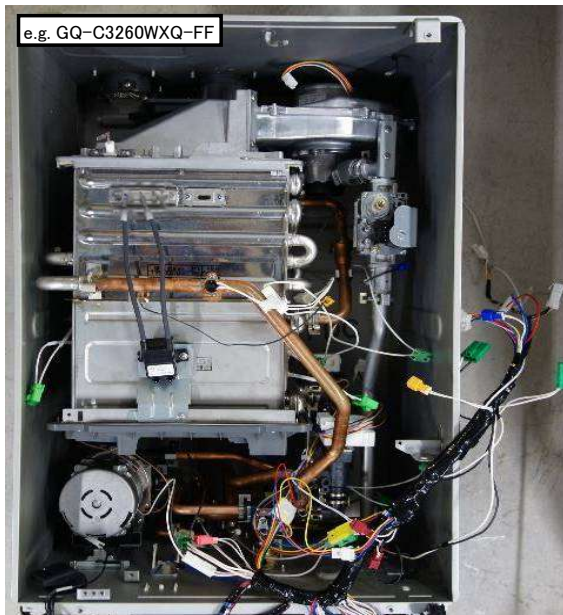
Procedure	Diagram
<p>2. Remove Front Cover</p> <p>(1) Disconnect electrical power to the unit.</p> <p>(2) Remove 4 screws w/ washer(M4×12).</p>	
<p>3. Remove ground wires</p> <p>■ GQ-C3260WX-FF / GQ-C2860WX-FF GQ-C3260WXQ-FF / GQ-C2660WXQ-FF</p> <p>(1) Remove 3 ground wires.</p> <p>■ GQ-C3260WZ-FF</p> <p>(1) Remove 2 ground wires.</p> <p>(2) Remove 2 screws(M4×12) that hold Circuit Board.</p>	 <p>e.g. GQ-C3260WX-FF</p> <p><u>GQ-C3260WX-FF / GQ-C2860WX-FF</u> <u>GQ-C3260WXQ-FF / GQ-C2660WXQ-FF</u></p>  <p><u>GQ-C3260WZ-FF</u></p> 

# Heat Exchanger Replacement Procedure

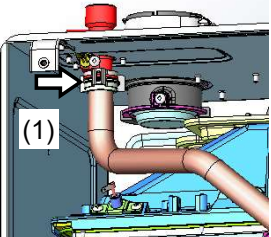
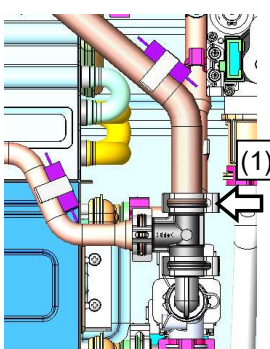
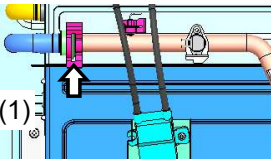
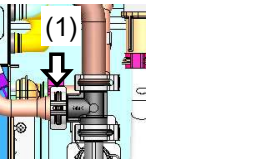
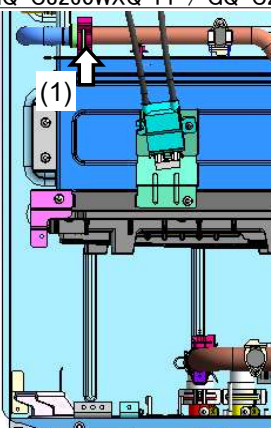
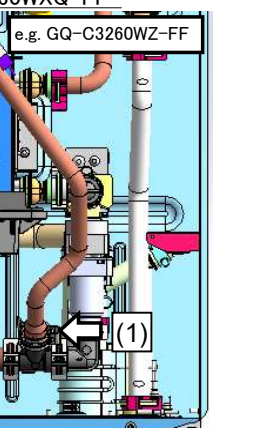
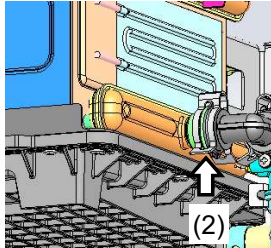
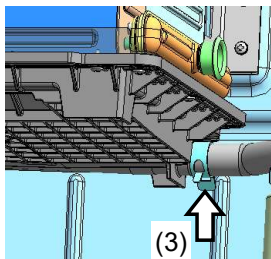
Procedure	Diagram
<p>4. Unplug all wires that attach to Wiring Harness</p> <p>(1) Unplug the Flame Rod. Unplug the Flame Lifting Detection.</p> <p>Hold this part of figures by fingers and remove the plug.</p> <p>(2) Unplug Freeze Prevention Heater.</p> <p>(3) Remove Circuit Board to the outside of the unit.</p>	  



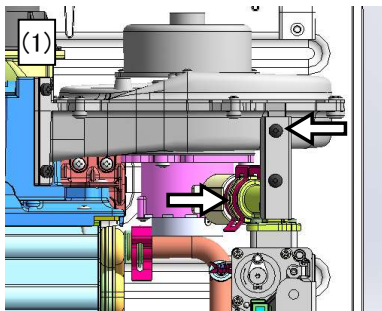
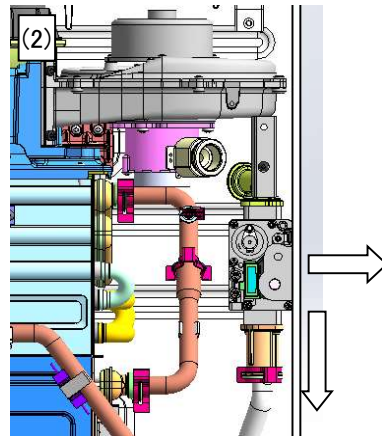
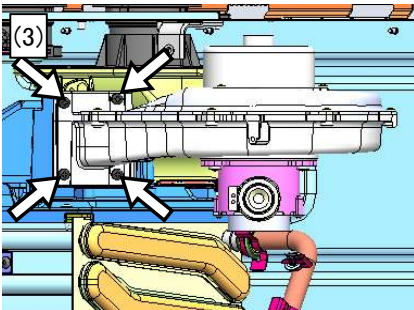
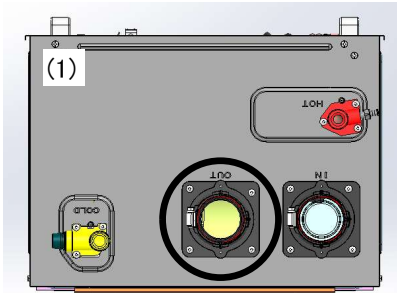
## Heat Exchanger Replacement Procedure

Procedure	Diagram
<p>(4) Remove Cable Ties, Unplug Water Servo - Bypass, Gas Valve, Thermistor (Blue) - Primary Heat Exchanger Inlet, Thermistor (Yellow) - Primary Heat Exchanger Outlet, High Limit Switch.</p> <p>■ GQ-C3260WX-FF / GQ-C2860WX-FF Unplug 4 Freeze Prevention Heaters.</p> <p>■ GQ-C3260WZ-FF GQ-C3260WXQ-FF / GQ-C2660WXQ-FF Unplug 3 Freeze Prevention Heaters.</p> <p>(5) Unplug Igniter.</p> <p>(6) Detach the Wiring Harness from the Wire clamps. Unplug Fan Motor, Thermistor (White) - Exhaust.</p> <p>■ ONLY GQ-C3260WX-FF / GQ-C2860WX-FF Unplug 2 Freeze Prevention Heaters, Thermistor (Pink) - Hot water.</p>	
<div data-bbox="164 1294 351 1350" data-label="Section-Header"> <h3>Overall view</h3> </div> <div data-bbox="189 1379 711 2004" data-label="Image">  </div> <div data-bbox="231 2016 632 2045" data-label="Caption"> <p><u>GQ-C3260WX-FF / GQ-C2860WX-FF</u></p> </div> <div data-bbox="764 1379 1329 1991" data-label="Image">  </div> <div data-bbox="853 2007 1287 2067" data-label="Caption"> <p><u>GQ-C3260WXQ-FF / GQ-C2660WXQ-FF</u> <u>GQ-C3260WZ-FF</u></p> </div>	

# Heat Exchanger Replacement Procedure

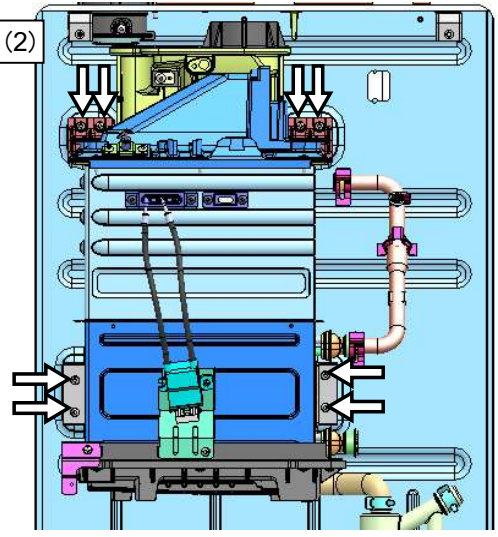
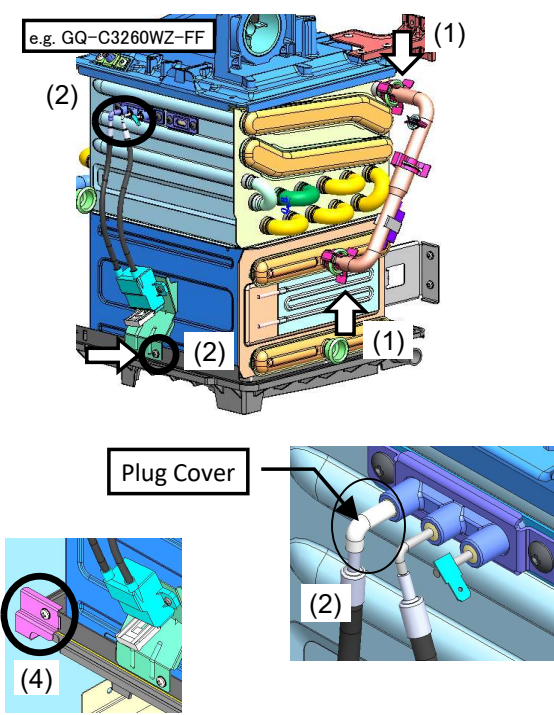
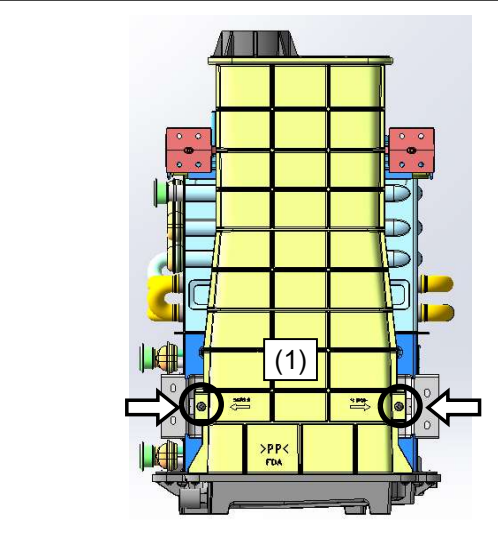
Procedure	Diagram
<p>5. Remove Pipes, Elbow and Hose.</p> <p>(1) Remove "C" Clamp.  <b>■ GQ-C3260WX-FF / GQ-C2860WX-FF</b>  Remove 2 "C" Clamps,  Pipe - Water Connector-T-Elbow to Outlet  Water Connection.</p> <p>Remove 2 "C" Clamps,  Pipe - Heat Exchanger to Water Connector  -T-Elbow.</p> <p><b>■ GQ-C3260WZ-FF</b>  <b>GQ-C3260WXQ-FF / GQ-C2660WXQ-FF</b>  Remove 2 "C" Clamps,  Pipe - Heat Exchanger to Water Connector  -T-Elbow.</p> <p>(2) Remove "C" Clamp,  Water Connector-Elbow - Heat Exchanger  Connection.</p> <p>(3) Remove Hose Clamp,  pull Drain Hose - Exhaust Duct off.</p>	<p><b>GQ-C3260WX-FF / GQ-C2860WX-FF</b></p>   <p><b>GQ-C3260WX-FF / GQ-C2860WX-FF</b></p>   <p><b>GQ-C3260WZ-FF</b>  <b>GQ-C3260WXQ-FF / GQ-C2660WXQ-FF</b></p>   <p><b>(2)</b></p>  <p><b>(3)</b></p> 

# Heat Exchanger Replacement Procedure

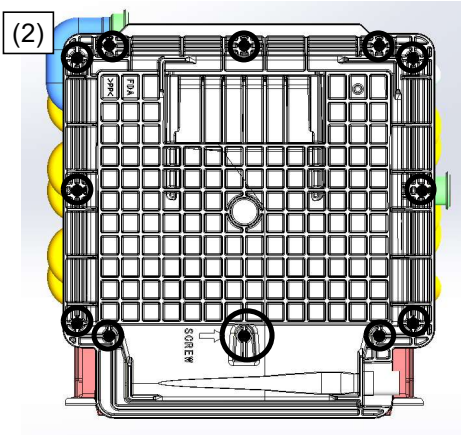
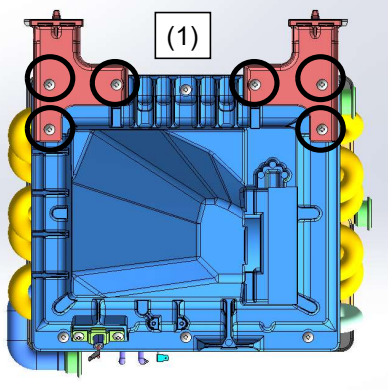
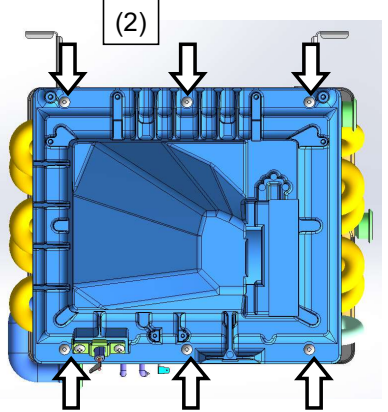
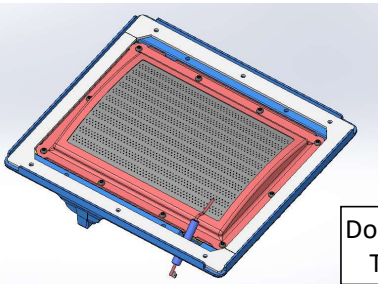
Procedure	Diagram
<p>6. Remove Fan Motor and Venturi assembly</p> <p>(1) Remove the "C" Clamp. Then remove the screw (M4×10) with a Phillips screwdriver.</p> <p>(2) Disconnect the Gas Valve SET and push down it.</p> <p>(3) Remove the 4 screws(M5×25) with a Long Phillips screwdriver. <b><u>Do not use a power driver.</u></b></p> <p>(4) Detach Fan Motor and Venturi assembly.</p>	  
<p>7. Remove Heat Exchanger assembly from Case</p> <p>(1) Remove 4 screws(M4×12), pull Exhaust Flue off. Discard these screws.</p>	<p>e.g. GQ-C3260WX-FF</p> 



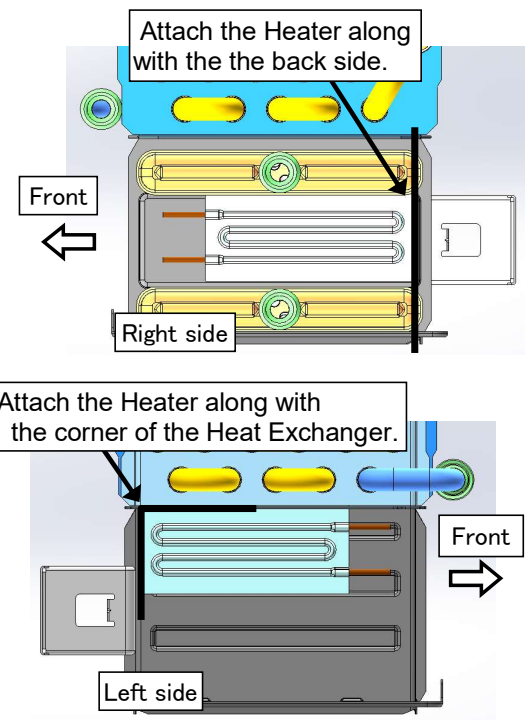
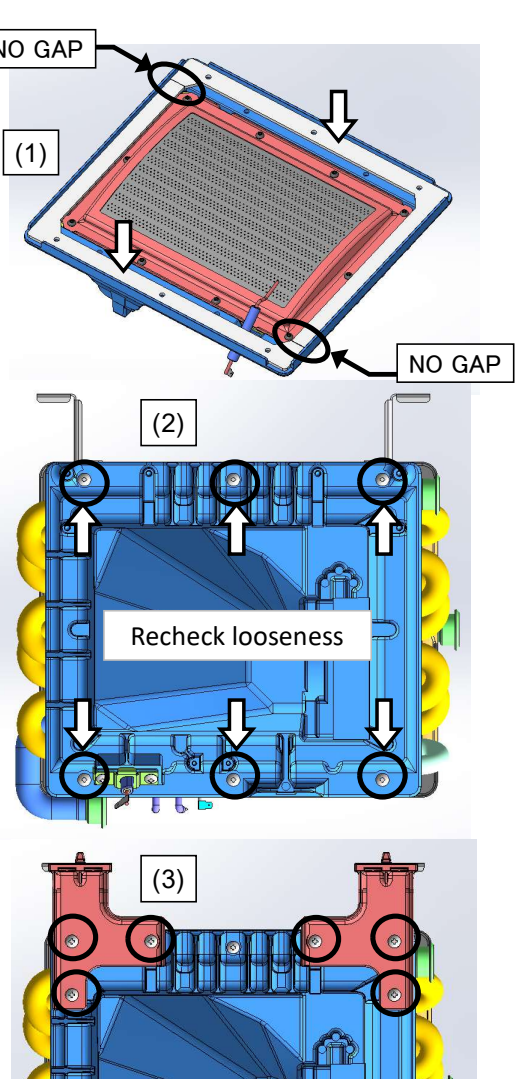
# Heat Exchanger Replacement Procedure

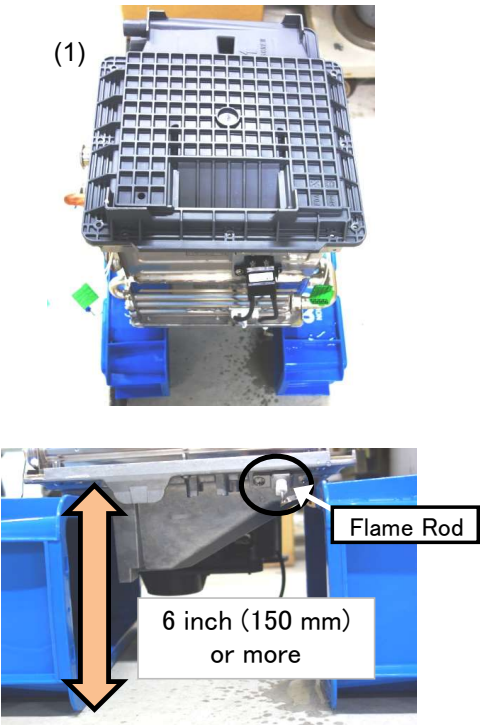
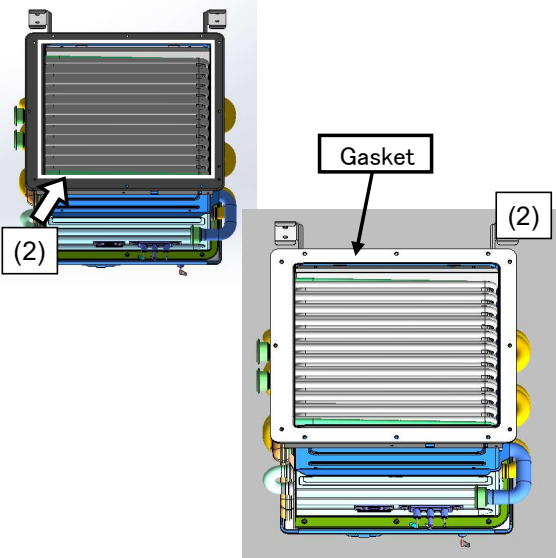
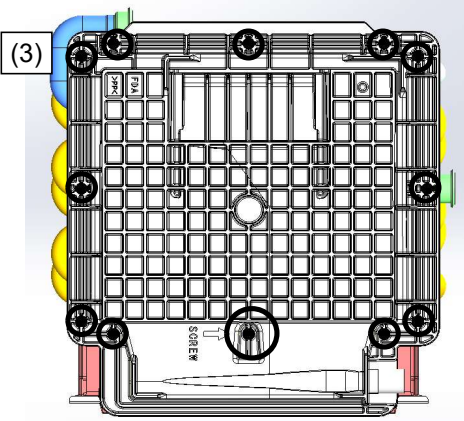
Procedure	Diagram
<p>(2) Remove 8 screws(M4×10) fixing heat exchanger assembly.</p> <p>(3) Lift up and remove the heat exchanger assembly from the case.</p>	
<p>8.Remove parts from Heat Exchanger</p> <p>(1) Remove 2 "C" Clamps, Pipe - Secondary SS HEX to Primary SS HEX.</p> <p>(2) Remove the screw(M4×8), unplug High Voltage Igniter Wires from Ignition Plug. Then remove and discard Plug Covers of Ignition Plug.</p> <p>(3) Remove Mounting Plate - Igniter.</p> <p>■ ONLY GQ-C3260WZ-FF</p> <p>(4) Remove the screw(M4×8). Then remove Mounting Plate - System Controller.</p>	 <p>Plug Cover</p>
<p>9. Remove Exhaust Duct</p> <p>(1) Remove 2 screws(M4×12) on the back of Exhaust Duct.</p>	

## Heat Exchanger Replacement Procedure

Procedure	Diagram
<p>(2) Remove 12 screws(M4×12) on the bottom of Exhaust Duct.</p> <p>(3) Remove Exhaust Duct.</p> <p><u>NOTE:</u> Remove Exhaust Duct carefully not to damage Heat Exchanger and Exhaust Duct.</p> <p><b><u>NOTE:</u></b>  <b>Make sure that the exhaust duct is not deformed by heating. If it's deformed, replace it.</b></p>	
<p>10.Remove Burner Chamber SET</p> <p>(1) Remove 6 screws(M4×10) to remove Mounting Plate - Chamber.</p> <p>(2) Remove 6 screws(M4×18) to separate Heat Exchanger and Burner Chamber.</p> <p>(3) Detach Burner Chamber SET and Heat Exchanger.</p>	 
<p><b><u>NOTE:</u> DO NOT place Burner Chamber SET with the burner side downward. If you need to place the Burner Chamber SET on somewhere, put the Burner Chamber SET so that the burner faces upward like as following image.</b></p>  <p>Do not remove Torx screw</p>	

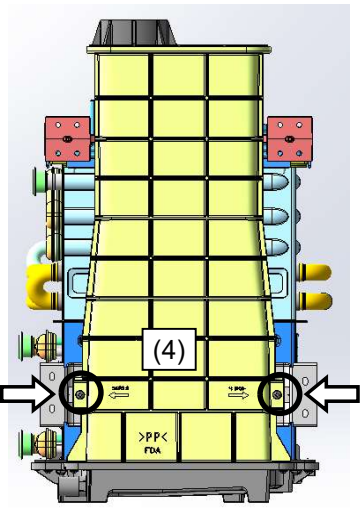
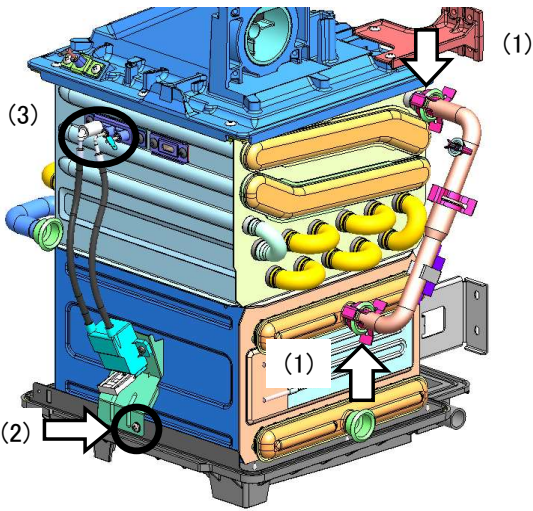
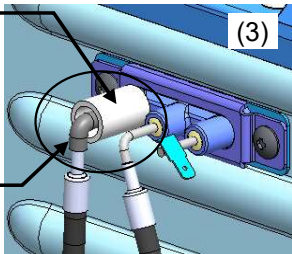
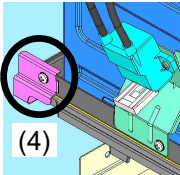
## Heat Exchanger Replacement Procedure

Procedure	Diagram
<p><b>11. Replace Heat Exchanger</b></p> <p>Attach 2 Freeze Prevention Heaters to the new Heat Exchanger according with the instruction as right figure.</p>	 <p>Attach the Heater along with the the back side.</p> <p>Front</p> <p>Right side</p> <p>Attach the Heater along with the corner of the Heat Exchanger.</p> <p>Front</p> <p>Left side</p>
<p><b>12. Secure Heat Exchanger to Burner Chamber SET</b></p> <p>(1) Peel off old Gasket- Burners and replace it with new Gasket - Burner.</p> <p>(2) Secure the new Burner Chamber SET to Heat Exchanger with 6 screws (M4×18). When tightening is over, please check again for looseness of screws.</p> <p>(3) Attach Mounting Plate - Chamber to Burner Chamber SET.</p>	 <p>NO GAP</p> <p>(1)</p> <p>NO GAP</p> <p>(2)</p> <p>Recheck looseness</p> <p>(3)</p>

Procedure	Diagram
<p>13. Attach Exhaust Duct to Heat Exchanger</p> <p>(1) Put the heat exchanger assembly upside down on something with the height of 6 inch (150 mm) or more. Without support, the chamber and Exhaust Duct can be damaged.</p> <p><b><u>NOTE:</u> DO NOT deform the Flame Lifting Detection when turn the Heat Exchanger upside down.</b></p> <p>(2) Replace Gasket-Exhaust Duct with new one. Set Gasket-Exhaust Duct to match the line inside the Heat Exchanger.</p> <p>(3) Attach Exhaust Duct to Heat Exchanger and fix with 12 screws(M4×12).</p>	<p>(1)</p>  <p>(2)</p>  <p>(3)</p> 

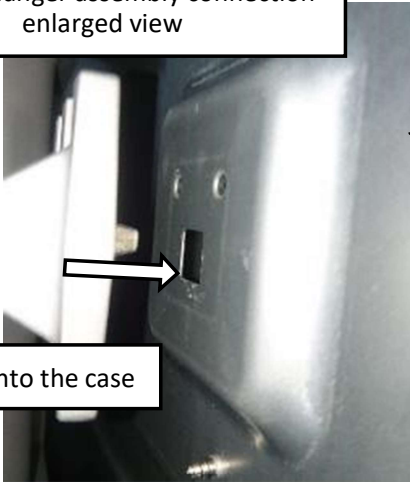
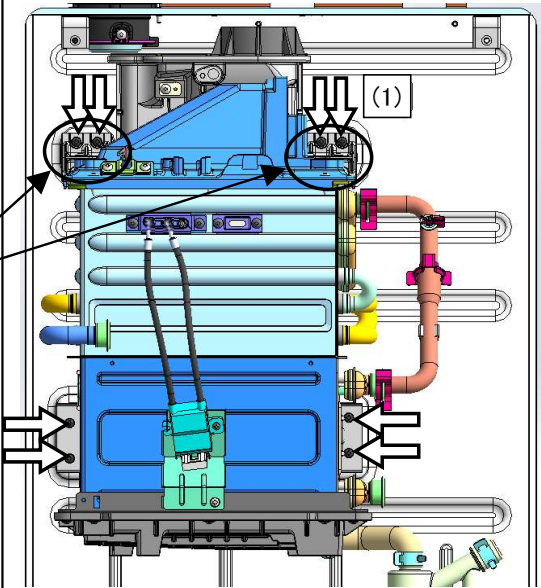
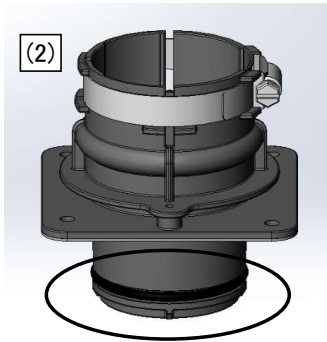
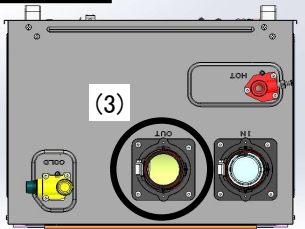


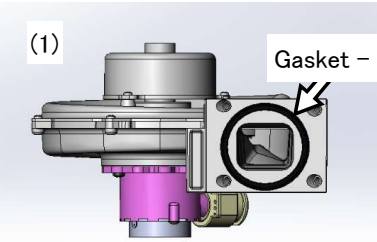
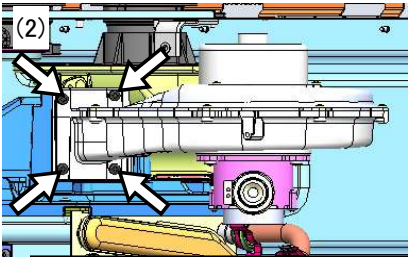
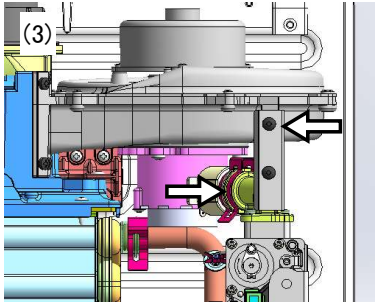
# Heat Exchanger Replacement Procedure

Procedure	Diagram
<p>(4) Attach the Heat Exchanger to Exhaust Duct with 2 screws(M4×12) from the backside.</p>	
<p>14. Attach parts to Heat Exchanger</p> <p>(1) Attach Pipe - Secondary SS HEX to Primary SS HEX with 2 "C" Clamps. In that case, exchange O ring - High Temp P16 of Pipe - Secondary SS HEX to Primary SS HEX for a new one.</p> <p>(2) Attach Mounting Plate - Igniter with the screw(M4×8).</p> <p>(3) Install a new Plug Cover of Ignition Plug on the left side only. Then plug High Voltage Igniter Wires to Ignition Plug.</p> <p>■ ONLY GQ-C3260WZ-FF</p> <p>(4) Attach Mounting Plate - System Controller with the screw(M4 × 8).</p>	 <div data-bbox="890 1568 1412 1832"> <p>Silicon sleeve</p> <p>Plug Cover</p>  </div> <div data-bbox="865 1854 1045 2027">  </div>

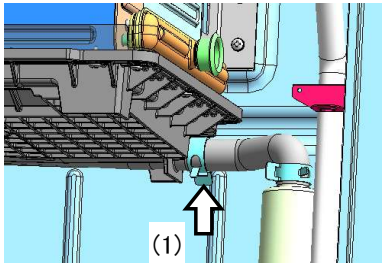
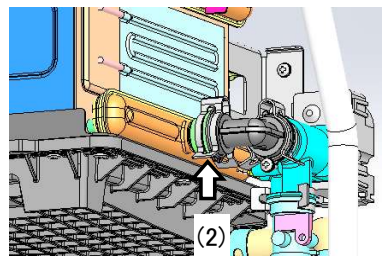
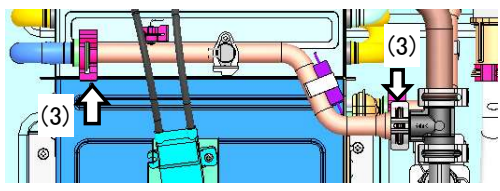
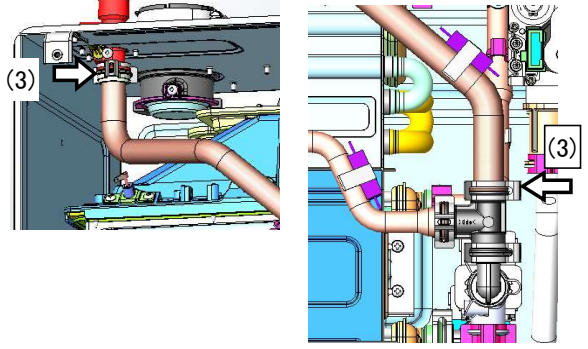
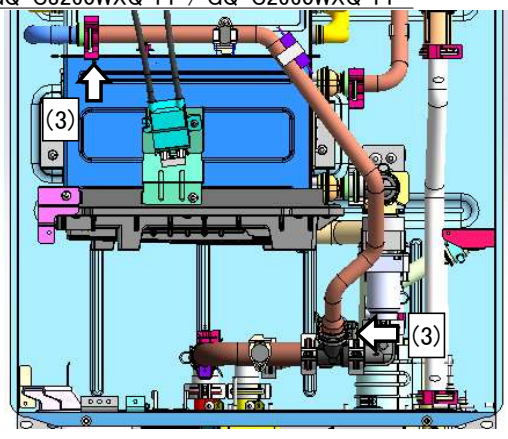


# Heat Exchanger Replacement Procedure

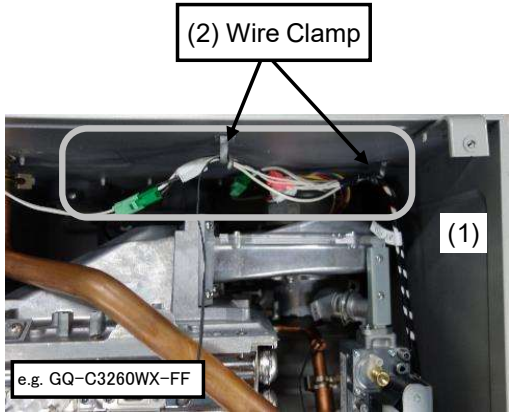
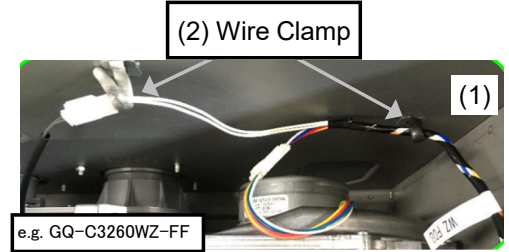

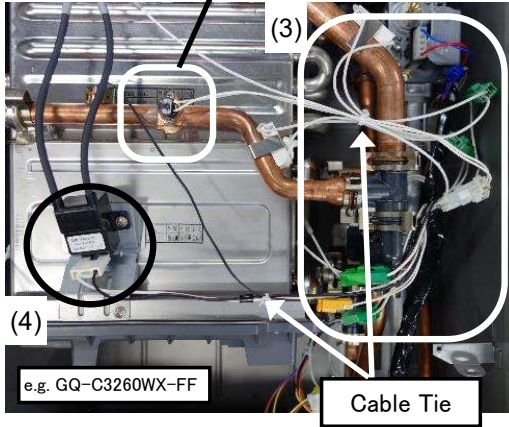
Procedure	Diagram
<p>15. Secure Heat Exchanger assembly in the case</p> <p>(1) Secure Heat Exchanger assembly in the case with 8 screws(M4×10).</p> <div data-bbox="210 430 767 952"> <p>Heat exchanger assembly connection enlarged view</p>  <p>Put into the case</p> </div> <p>(2) Replace the O-Ring of Exhaust Flue with new one.</p> <p>(3) Attach Exhaust Flue to the case with 4 new screws (M4×12).</p>	<div data-bbox="842 324 1385 909">  </div> <div data-bbox="919 1055 1246 1395">  </div> <div data-bbox="868 1525 1257 1787"> <p>e.g. GQ-C3260WX-FF</p>  </div>

Procedure	Diagram
<p>16. Attach Fan Motor and Venturi assembly</p> <p>(1) Make sure that the Gasket is secured properly in place.</p> <p><b><u>NOTE</u>: Failure to do so will cause gas leaks, possibly resulting in severe personal injury or death.</b></p> <p>(2) Attach the Fan Motor and Venturi assembly.</p> <p>Secure the Fan Motor and Venturi assembly to the Burner by tightening the 4 screws(M5×25) removed in Step 6.</p> <p>The screws need only to be hand tightened and should not be tightened using a drill.</p> <p>First, insert and tighten 4 screws, but do not fully tighten these screws.</p> <p>Once all screws are inserted, proceed to completely tighten 4 screws.</p> <p><b><u>NOTE</u>: When tightening the screws, be certain to not apply excess force. Excess force can strip out the original holes and screws. Keep the Fan motor in horizontal. It makes easier to tighten the screws correctly.</b></p> <p>(3) Attach the Gas Valve SET to Venturi assembly.</p> <p>Attach the "C" Clamps.</p> <p>Then attach the screw (M4×10) with a Phillips screwdriver.</p>	<p>Diagram</p> <p>(1)</p> <p>Gasket – Chamber inlet</p>  <p>(2)</p>  <p>Do not use a power driver.</p> <p>(3)</p> 

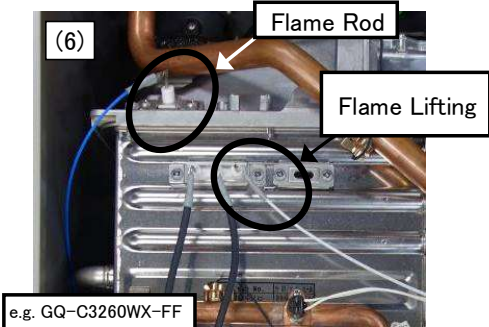
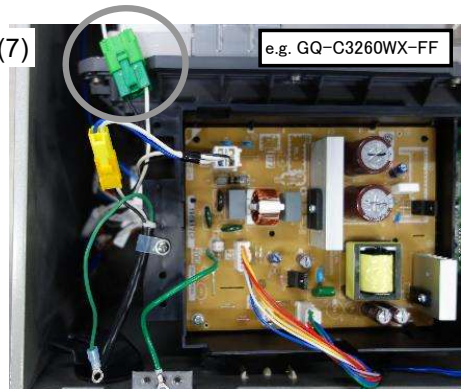
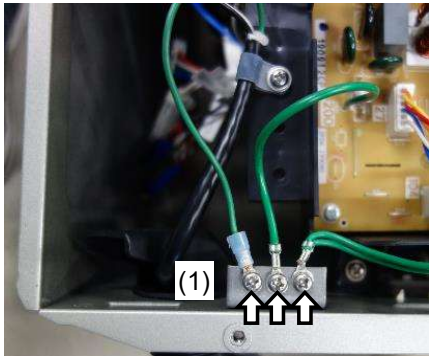
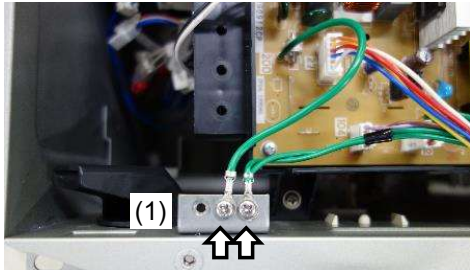
# Heat Exchanger Replacement Procedure

Procedure	Diagram
<p>17. Attach Pipes, Elbow and Hose.</p> <p>(1) Attach Drain Hose - Heat Exchanger into the drain outlet of Exhaust Duct and fix it with Hose Clamp.</p> <p>(2) Attach "C" Clamp, Elbow - Heat Exchanger Connection.</p> <p>(3) Attach "C" Clamp.</p> <p>■ GQ-C3260WX-FF / GQ-C2860WX-FF</p> <p>Attach 2 "C" Clamps, Pipe -Heat Exchanger to Water Connector -T-Elbow.</p> <p>Remove 2 "C" Clamps, Pipe - Water Connector-T-Elbow to Outlet Water Connection.</p> <p>■ GQ-C3260WZ-FF GQ-C3260WXQ-FF / GQ-C2660WXQ-FF</p> <p>Attach 2 "C" Clamps, Pipe - Heat Exchanger to Water Connector -T-Elbow.</p>	  <p>GQ-C3260WX-FF / GQ-C2860WX-FF</p>  <p>GQ-C3260WX-FF / GQ-C2860WX-FF</p>  <p>GQ-C3260WZ-FF GQ-C3260WXQ-FF / GQ-C2660WXQ-FF</p> 

# Heat Exchanger Replacement Procedure

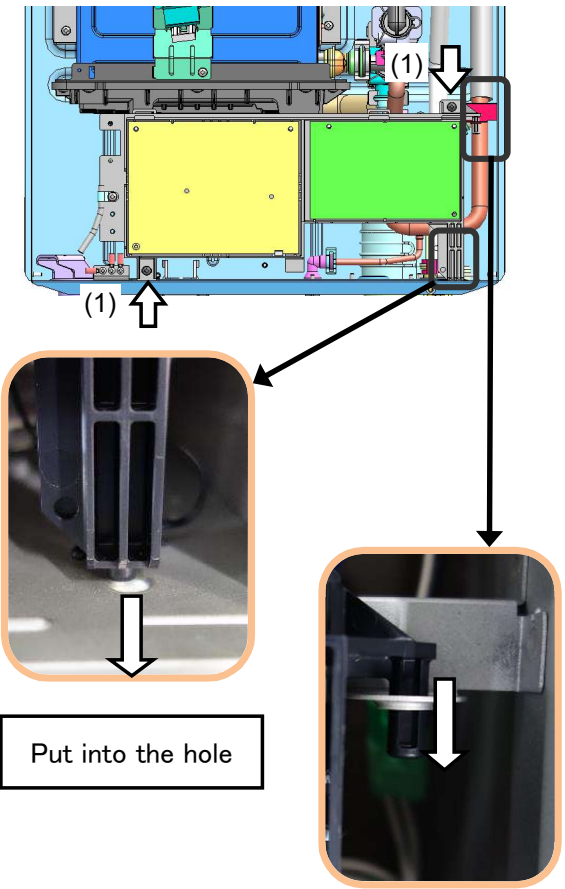
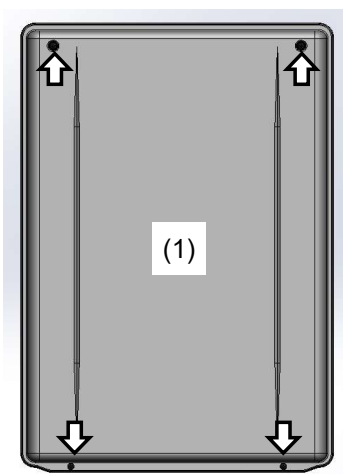
Procedure	Diagram
<p>18. Plug all wires that attach to Wiring Harness</p> <p>(1) Attach the Wiring Harness to the Wire clamps.</p> <p>■ GQ-C3260WX-FF / GQ-C2860WX-FF</p> <p>Plug Fan Motor, Thermistor (White) - Exhaust. Plug 2 Freeze Prevention Heaters, Thermistor (Pink) - Hot water.</p> <p>■ GQ-C3260WZ-FF GQ-C3260WXQ-FF / GQ-C2660WXQ-FF</p> <p>Plug Fan Motor, Thermistor (White) - Exhaust.</p> <p>(2) Hook Wiring Harness by using Wire Clamps.</p> <p>(3) Plug Water Servo - Bypass, Gas Valve, Thermistor (Blue) - Primary Heat Exchanger Inlet, Thermistor (Yellow) - Primary Heat Exchanger Outlet, High Limit Switch.</p> <p>■ GQ-C3260WX-FF / GQ-C2860WX-FF</p> <p>Plug 4 Freeze Prevention Heaters, and bundle Wiring Harness with 2 Cable Ties.</p> <p>■ GQ-C3260WZ-FF GQ-C3260WXQ-FF / GQ-C2660WXQ-FF</p> <p>Plug 3 Freeze Prevention Heaters, and bundle Wiring Harness with 2 Cable Ties.</p> <p>(4) Plug Igniter.</p>	<p>(2) Wire Clamp</p>  <p>(1)</p> <p>(2) Wire Clamp</p>  <p>(1)</p> <p>(3)</p>  <p>(4)</p>  <p>(4)</p> <p>Cable Tie</p>

# Heat Exchanger Replacement Procedure

Procedure	Diagram
<p>(6) Plug the Flame Rod. Plug the Flame Lifting Detection.</p> <p>(7) Plug Heater connector.</p>	 <p>(6)</p> <p>Flame Rod</p> <p>Flame Lifting</p> <p>e.g. GQ-C3260WX-FF</p>  <p>(7)</p> <p>e.g. GQ-C3260WX-FF</p>
<p>19. Attach ground wires</p> <p>■ GQ-C3260WX-FF / GQ-C2860WX-FF GQ-C3260WXQ-FF / GQ-C2660WXQ-FF</p> <p>(1) Attach 3 ground wires.</p> <p>■ GQ-C3260WZ-FF</p> <p>(1) Attach 2 ground wires.</p>	 <p>(1)</p> <p>GQ-C3260WX-FF / GQ-C2860WX-FF GQ-C3260WXQ-FF / GQ-C2660WXQ-FF</p>  <p>(1)</p> <p>GQ-C3260WZ-FF</p>



# Heat Exchanger Replacement Procedure

Procedure	Diagram
<p>20. Attach Circuit Board</p> <p>(1) Attach Circuit Board with 2 screws(M4×12).</p>	 <p>The diagram illustrates the installation of the circuit board. The top part shows a cross-section of the unit with a yellow circuit board being inserted into a slot. Two callout images show close-ups of the board being pushed into the slot. A text box says "Put into the hole".</p>
<p>21. Attach Front Cover</p> <p>(1) Attach Front Cover with 4 screws w/ washer(M4×12).</p>	 <p>The diagram shows the front cover being attached to the unit. Four screws are shown being inserted into the corners of the cover, indicated by arrows.</p>

