Condensate Pan and Gasket Replacement Installation Instructions

- VX 110, 150, 199

Note

The Condensate Pan and Gasket Replacement Installation Instructions can be utilized for *P-1545*, *P-1546*, and *P-1547.*

Warning

This replacement kit shall be installed by a qualified service agent in accordance with these instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly a fire, an explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life.

The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in these instructions.

When you purchase a P-1545 kit from a wholesaler, you'll receive:

Pan Gasket - VX 110			
	Part #	Description	Quantity
	150-406	AIC PG32/45 Vent Gasket	1
	150-175	O-ring, Orifice	1
	251-247	Heat Exchanger Condensate Pan (Hostalen)	1
	255-171	Heat Exchanger Condensate Pan Main Gasket	1
	250-627	Fan Outlet Gasket	1
	251-122	O-ring, Water Pipe	2
	255-157	O-ring For Gasflex Pipe	1
	255-154	Gasket, 1.24"ID X 5"OD X 3/8	1

When you purchase a P-1546 kit from a wholesaler, you'll receive:

Pan Gasket - VX 150			
	Part #	Description	Quantity
	150-406	AIC PG32/45 vent gasket	1
	150-175	O-ring, orifice	1
	251-248	Heat Exchanger Condensate Pan (Hostalen)	1
	255-172	Heat Exchanger Condensate Pan Main Gasket	1
	250-627	Fan Outlet Gasket	1
	251-122	O-ring, water pipe	2
	255-157	O-ring for gasflex pipe	1
	255-154	Gasket, 1.24"ID x 5"OD x 3/8	1

When you purchase a P-1547 kit from a wholesaler, you'll receive:

Pan Gasket - VX199			
	Part #	Description	Quantity
	150-406	AIC PG32/45 vent gasket	1
	150-175	O-ring, orifice	1
	251-249	Heat Exchanger Condensate Pan (Hostalen)	1
	255-173	Heat Exchanger Condensate Pan Main Gasket	1
	250-627	Fan Outlet Gasket	1
	251-122	O-ring, water pipe	2
	255-157	O-ring for gasflex pipe	1
	255-154	Gasket, 1.24"ID x 5"OD x 3/8	1

When to Install the Condensate Pan Gasket Replacement Kit

Install the this replacement kit if you need to replace a condensate pan and pan gasket because it has been damaged or cracked.

> **Note**
>
> A ladder or step may be required to have a clear vertical view of the work area.
>
> Do not attempt to remove the assemblies without a clear view, as damage to the connectors, screws or refractory may occur.

Removal of Heat Exchanger Condensate Pan and Gasket

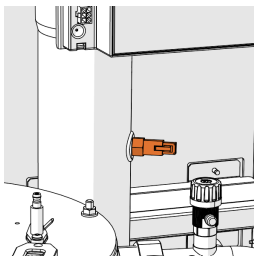
Preparing the boiler for servicing

1. Remove call(s) for heat.
2. Remove power to the boiler at a wall switch or a breaker.
3. Shut off gas supply to the boiler.
4. Allow the boiler to cool down and drain.
5. Remove the top and front panels and set aside.

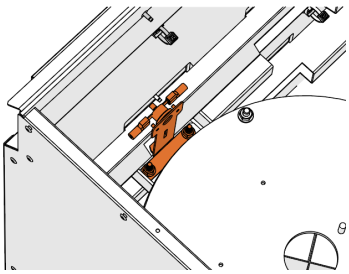
Removing Sensors, Wiring, Fan and Gas Valve

1. Disconnect all wiring from the heat exchanger, lid, fan and the control board.
2. Unplug the temperature sensors on the supply and return pipes.

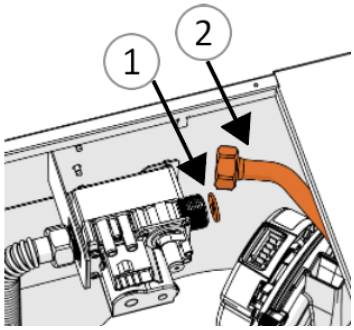
3. Use a wrench and remove the temperature sensor from the exhaust duct. Ensure to turn the sensor counter-clockwise and remove carefully.



4. Remove the nuts securing the temperature sensor bracket assembly to the heat exchanger bracket.

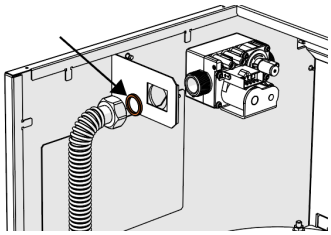


5. Disconnect the gas valve cable from the gas valve, and move the gas valve outlet pipe (2) aside. Retain and inspect the orifice o-ring (1), replace if necessary.

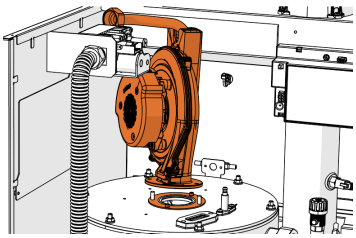


> **Note**
>
> Loosen the gas valve cable retaining screw to remove the gas valve cable.

6. Disconnect the gas valve from the flex gas line using a wrench. Remove the gas valve from the cabinet. Inspect the gas valve gasket and replace if necessary.

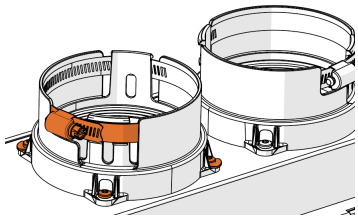


7. Remove the fan and fan gasket from the heat exchanger lid. Retain the nuts and washers. Inspect the fan gasket and replace if necessary.



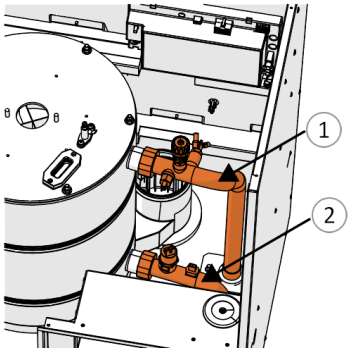
Removing the Heat Exchanger Condensate Pan and Gasket

1. Loosen the gear clamp to disconnect the exhaust venting.
2. Loosen screws and remove exhaust duct and washers. Retain the screws and lock washers.



> **Caution**
>
> The exhaust venting can be extremely heavy. Ensure that adequate support is in place.

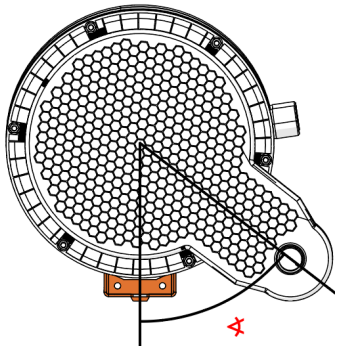
3. Clear a few inches above the stack, either by:
    a. using slack to swing the venting aside,
    b. disassembling nearby venting joint(s), or
    c. cutting the venting where future repair with a coupling will be possible.
4. Slide the exhaust vent up and out of the way of the heat exchanger pan.
5. Loosen the supply (1) and return (2) water pipe brackets at the bottom of the cabinet.



» Use a back-up wrench and loosen the union nuts on the supply and return water pipes, and move aside from the heat exchanger.

» Retain and inspect the gaskets and replace if necessary.

6. Remove the condensate trap from the bottom of the cabinet.
7. Remove the heat exchanger. Remove and inspect the heat exchanger gasket, and replace if necessary.
8. Use a marker to note the orientation of the condensate pan to the heat exchanger.
9. Remove the condensate pan from the heat exchanger using a 10 mm drill and transfer the orientation mark to the replacement pan. Discard the original pan.

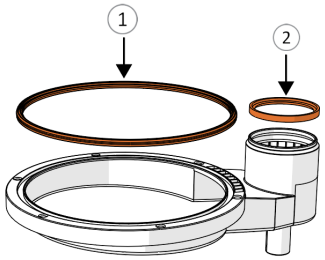


10. Remove and discard both the condensate pan gasket and the exhaust flue gasket.

Reassembly and Start-Up

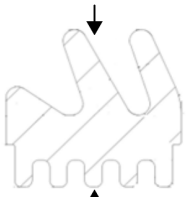
Installing the Replacement Condensate Pan and Gasket

1. Place the replacement condensate pan gasket (1) into the groove of the replacement pan.



» Ensure that the condensate pan gasket is orientated as seen in the cross-section figure

Cross Section of Gasket at Heat Exchanger Side



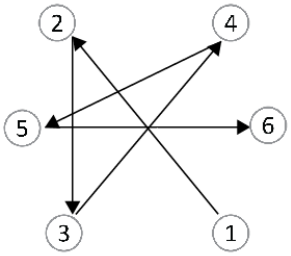
Cross Section of Gasket at Condensate Pan Side

2. Place the replacement exhaust flue gasket (2) into the new pan flue.

> **Note**
>
> It is recommended to place a bead of silicone grease on the new vent gasket to aid in placing the exhaust vent back into place.

3. Install the replacement condensate pan to the heat exchanger by following the orientation marks, and using the brackets as a base.

» Apply anti-seize grease to the nuts and torque to 2.5Nm (22inch•pounds) following the pattern in the figure:



Reassembly

1. Reinstall the heat exchanger back into the cabinet.
2. Install the condensate trap onto the condensate drain.

3. Slide the exhaust duct back into position in the condensate pan. Ensure the pan exhaust gasket remains in place and is flush inside the groove. Secure the duct in place to the pan by installing the lock washers and screws.
4. Secure the exhaust venting to the duct base by tightening the gear clamp.
5. Install the temperature sensor in the exhaust duct, tighten by hand then secure using a wrench.
6. Install the supply and return piping, ensuring that gaskets are in place by hand-tightening in position.
    a. Secure the piping brackets using washers and screws, then, using a back-up wrench, tighten the union nuts in place using a wrench.
7. Loose fit and assemble the following:
    a. temperature sensor bracket assembly
    b. fan gasket and fan
    c. flex gas line, gas outlet pipe and gas valve

    Note

    Ensure that all gaskets and o-rings are installed, and are flat
8. Hand-tighten the gas assembly first, then secure in place with a wrench. Secure the temperature sensor bracket assembly then the fan and the using a wrench.
9. Attach the gas valve cable and secure with screw.
10. Plug in and reattach all wiring harnesses and sensors.

Start-Up

1. Turn on gas to the boiler.
2. Turn on power to the boiler.
3. Check connections for leaks during operation.

    Note

    It is recommended to soap test the exhaust vent and the new pan connections.

    If possible, block the vent termination for the soap test.

    To run the fan on high speed, with no call for heat go to ... > Test Operation > Vent Test

    » If the soap test cannot be performed, place the unit into normal operation and test for leaks utilizing an electronic gas leak detector.
4. Perform a combustion analysis, and test for proper operation.