

PRESTIGE Solo 399 HX Field Replacement Kit



Quantity	Kit Part Number	Description	Model	
			PS 399 & PT 399 (30 PSI) Both Condensate Pans	PT 399 HP (80 PSI)
1	PSRKIT44	Heat Exchanger Assembly	X	
1	PTRKIT128	Heat Exchanger Assembly		X

The following items are shipped in a PARTS BOX and must be installed as part of the HX replacement:

- Vent outlet gasket
- Blower gasket
- Gas pipe Gasket
- Combustion chamber insulation
- Burner mounting plate gasket
- Burner mounting plate nuts
- Temperature sensor o-ring gaskets

Recommended tools:

- | | |
|--|--|
| <ul style="list-style-type: none"> A. Pipe wrenches B. Phillips and flat head screw drivers C. 10 mm socket and/or 10 mm wrench | <ul style="list-style-type: none"> D. Adjustable wrench E. Needle nose pliers F. Calibrated combustion analyzer |
|--|--|

WARNING

Indicates a potentially hazardous situation which, if ignored, can result in serious injury or substantial property damage.

NOTICE

Indicates special instructions on installation, operation or maintenance, which are important to equipment but not related to personal injury hazards.

WARNING

For your safety, turn off electrical power supply at service panel and allow unit to cool before proceeding to avoid possible electrical shock and scald hazard. Failure to do so can cause severe personal injury or death.

WARNING

Failure to follow instructions below can result in severe personal injury or damage if ignored.

- Instructions are for a qualified installer/service technician only.
- Read all instructions before proceeding.
- Follow instructions in proper order.

WARNING

Use a two wrench method when tightening piping onto the boiler piping connections. Use one wrench to prevent the boiler piping from turning / twisting. Failure to support the boiler piping and connections in this manner could cause damage to the boiler and its components.

PRESTIGE Solo 399 HX Field Replacement Kit

Preliminary Instructions

1. Verify that the heat exchanger kit is correct for the model of boiler. See table on page 1.
2. Turn off power to the unit at the main service panel and allow the unit to cool.

⚠ WARNING

ELECTRICAL SHOCK HAZARD!

Ensure power to the boiler has been switched off prior to servicing the unit.

3. Remove the front jacket panel of the boiler by removing the thumbscrew located on the upper edge of the unit. Lift the panel up and pull forward to remove the front panel from the unit.
4. Using a voltmeter verify there is no electrical power to the boiler by checking for power on the boiler's power supply terminals L and N
5. Shut off gas supply to the inlet of the unit at the external main manual shutoff valve.
6. Close external system isolation valves to the boiler supply and return piping and on the system make up / fill piping.
7. Attach a hose to external boiler drain. Place other end of this hose to a suitable drain.
8. Open external boiler drain valve and begin draining the boiler.

NOTICE

To assist in the draining of the boiler, remove the air vent at the top of the unit or manually lift open the pressure relief valve.

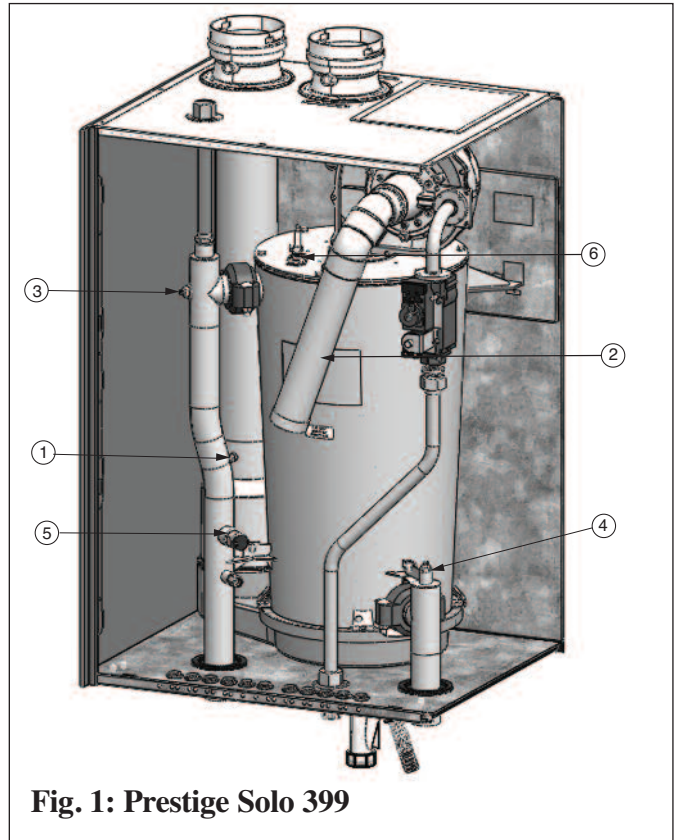


Fig. 1: Prestige Solo 399

Removal of Venting Connection

1. Use a flat head screw driver to loosen the banding clamp located on the vent outlet adapter. (Fig. 2).
2. Remove vent piping from vent outlet adapter as the internal flue tube / vent outlet adapter must be removed.
3. Disconnect the yellow wire leads from the flue temperature sensor (shown as Item 1 in Fig. 1). Use care when disconnecting the wire leads as not to damage the sensor terminals or the wire leads.

NOTICE

Before disconnecting any wire connections mark and label all connections and location of the connections.

PRESTIGE Solo 399 HX Field Replacement Kit

Stainless Steel Vent Outlet Adapter Removal

1. Dismount the vent outlet adapter from top of boiler cabinet by removing the 4 mounting screws. Do not discard the mounting screws and vent outlet adapter as they will be reused. (Fig. 2)

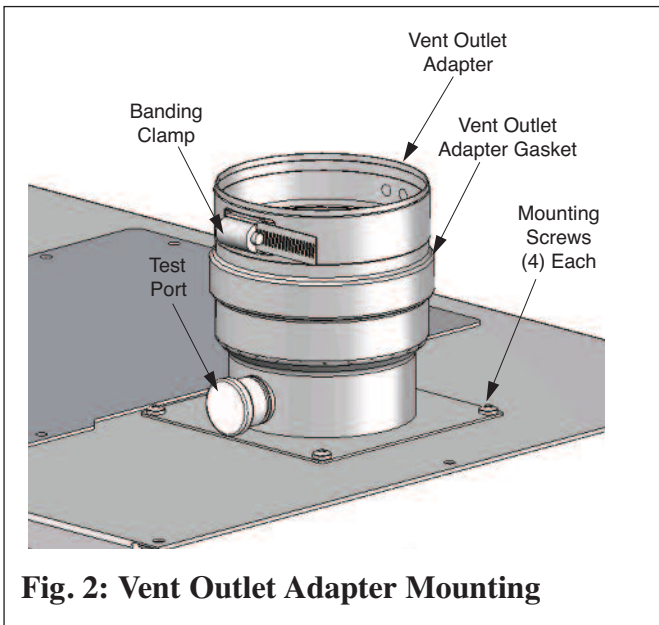


Fig. 2: Vent Outlet Adapter Mounting

2. Remove entire vent outlet adapter by lifting vertically upward and out of the boiler cabinet using a twisting / rocking motion (Fig. 3).

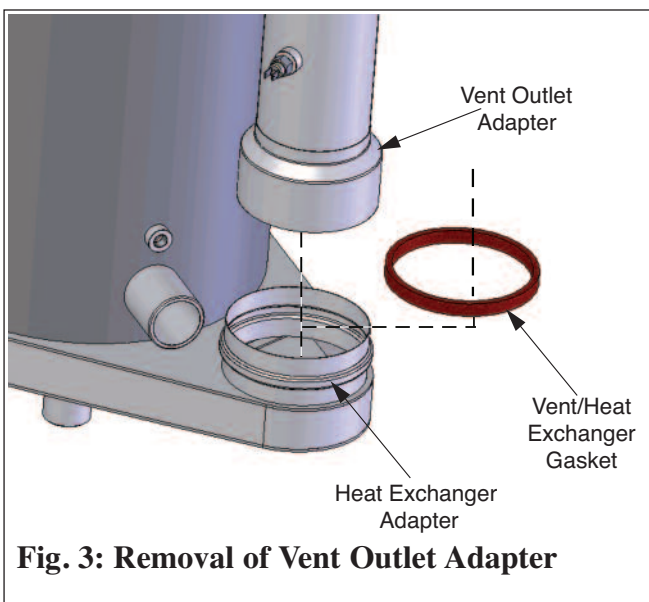


Fig. 3: Removal of Vent Outlet Adapter

3. In case of insufficient space above the boiler, remove combustion air inlet piping and boiler relief valve / air vent assembly from the top of the boiler. Remove all screws securing the top jacket panel from the side panels and remove vent outlet adapter and top jacket panel together from the boiler cabinet. Put all items in a safe place as they will all be reused.
4. Once the vent outlet adapter is removed from the boiler, it should be inspected for deformation damage or corrosion.

WARNING

If there are any signs of deformation, damage or corrosion on the vent outlet adapter, replace it immediately. Check condition of flue sensor mounting, replace vent outlet adapter if necessary. Failure to comply could result in flue gas leakage resulting in severe personal injury or death.

Polypropylene Vent Outlet Adapter Removal

1. Dismount the vent outlet adapter from top of boiler cabinet by twisting the vent outlet adapter counter clockwise to disengage the retaining tabs. Remove the vent outlet adapter by lifting vertically to disengage it from the internal vent pipe.
2. Remove the internal vent pipe from the unit by lifting vertically upward and out of the boiler cabinet using a twisting / rocking motion.

Removal of Electrical Connections (MCBA)

NOTICE

Before disconnecting any wire connections mark and label all connections and location of the connections.

1. Remove top access panel located above the heat exchanger on the top jacket panel.
2. Remove ignition cable and green ground wire from the igniter. (Shown as item 6 in Fig. 1).

PRESTIGE Solo 399

HX Field Replacement Kit

3. Disconnect the ignition cable from the MCBA control module and remove air intake pipe from venturi. (Shown as item 2 in Fig 1). Place the intake pipe and ignition cable aside, DO NOT discard as they will be re-used.
4. Disconnect the electrical connections for the blower at the blower housing.
5. Disconnect the wire leads from the gas valve.
6. Disconnect the grey flat ribbon cable from the display board at the MCBA control module.
7. Disconnect the orange low voltage and high voltage wiring terminal strips by unplugging the bottom strips from the upper portion.
8. Remove the retaining screw for control mounting panel and swing open the control mounting panel. The high voltage and low voltage terminals should pass through the lower cutouts of the panel to allow movement of the panel.
9. Disconnect the red wire leads from supply temperature sensor (Shown as item 3 in Fig. 1) located in the boiler supply pipe. Use care when disconnecting the wire leads as not to damage the sensor or the wire leads.
10. Disconnect the blue wire leads from return temperature sensor (Shown as item 4 in Fig. 1) located in the boiler return pipe. Use care when disconnecting the wire leads as not to damage the sensor or the wire leads.
11. Disconnect the orange wire leads from the Low Water Cut-Off (LWCO) pressure switch (Shown as item 5 in Fig. 1). Use care when disconnecting the wire leads as not to damage the LWCO or the wire leads.

Removal of Electrical Connections (TriMax)

NOTICE

Before disconnecting any wire connections mark and label all connections and locations of the connections.

1. Remove top access panel located above the heat exchanger on the top jacket panel.
2. Slide left and right tabs of control panel inward and lower control panel.
3. Pull the retaining tabs on top of the rear cover to remove the rear control box cover.
4. Remove green ground wire from the igniter (shown as item 6 in Fig. 1) and the ignition cable from the TriMax control module.
5. Remove air intake pipe (Shown as item 2 in Fig. 1) from venturi. Place the intake pipe aside, DO NOT discard as it will be re-used.
6. Disconnect the electrical connections for the blower at the blower housing.
7. Disconnect the wire leads from the gas valve.
8. Disconnect the red wire leads from supply temperature sensor (Shown as item 3 in Fig. 1) located in the boiler supply pipe. Use care when disconnecting the wire leads as not to damage the sensor or the wire leads.
9. Disconnect the blue wire leads from return temperature sensor (Shown as item 4 in Fig. 1) located in the boiler return pipe. Use care when disconnecting the wire leads as not to damage the sensor or the wire leads.
10. Disconnect the orange wire leads from the Low Water Cut-Off (LWCO) pressure switch (Shown as item 5 in Fig. 1). Use care when disconnecting the wire leads as not to damage the LWCO or the wire leads.

PRESTIGE Solo 399

HX Field Replacement Kit

Removal of Gas Connection

1. Disconnect the gas supply piping inside the boiler at the union located just below the gas valve using two wrenches.
2. The gas piping can remain inside the boiler or be removed for additional clearance / access.

Removal of Blower/Gas Valve/Venturi Assembly

1. Remove 4 blower mounting nuts from the burner plate using a 10 mm wrench and remove the blower/gas valve/venturi. Gas valve and venturi assembly can remain connected to the blower housing. Discard old blower gasket. (Fig. 4).

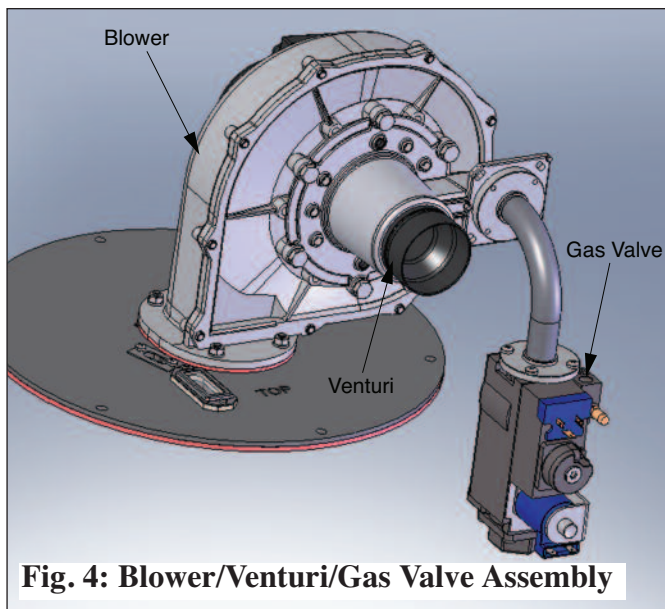


Fig. 4: Blower/Venturi/Gas Valve Assembly

Removal of Burner Mounting Plate

1. Remove the 6 burner mounting plate nuts securing the burner mounting plate to the heat exchanger using a 10 mm socket or wrench.
2. Remove the burner mounting plate by lifting straight up until the burner clears the combustion chamber insulation. Discard burner mounting plate gasket and combustion chamber insulation. See WARNING on page 13.

3. Inspect the burner head, igniter, and sight glass assembly for deterioration or damage. Replace if necessary.

Removal of Condensate Trap

1. Remove condensate trap and cabinet gasket from the boiler. Do not discard, as they will be reused. Cut serrated washer on polypropylene condensate pan to remove retaining nut.

Removal of Temperature Sensors

1. Remove the supply and return temperature sensors from the boiler piping. Do not discard the sensors as they will be reused.

Removal of Heat Exchanger

1. Remove the retaining screws from the upper mounting brackets located behind the heat exchanger using a Phillips head screw driver. These screws are used to avoid vertical motion of the heat exchanger during transport and are not required to be installed with the replacement heat exchanger.

NOTICE

Obtain assistance in lifting the heat exchanger from the cabinet as 2 people will be required.

2. Lift the heat exchanger about 4" to 6" to disengage from the rear jacket panel and clear the condensate tube from the bottom panel. Tilt heat exchanger forward from the top and carefully rotate it forward in order to remove from the boiler cabinet.

Preparation of New Heat Exchanger

NOTICE

Do not damage or throw away shipping box, foam packs, and HX Tracking Form as all these items are used to return the old heat exchanger, if required for warranty evaluation.

PRESTIGE Solo 399 HX Field Replacement Kit

1. Carefully open and unpack the PARTS BOX from its shipping carton.
2. Carefully remove heat exchanger from shipping box. Do not discard packing materials, as the shipping box should be reused to return the old heat exchanger back to Triangle Tube if required for warranty consideration.
3. Check new heat exchanger for any damage. Check position of the flue gasket in the new heat exchanger.
4. Install temperature sensors with new O-ring gaskets in return and supply sensing locations.

Installation of New Heat Exchanger

NOTICE

Prior to installation of the new heat exchanger, carefully check the interior of the boiler cabinet. Dry the cabinet / insulation when signs of moisture are present. Check integrity of all wiring. Repair / replace when necessary.

1. Lift new heat exchanger into place by engaging the rear HX brackets (top and bottom) into the rear boiler jacket panel provisions.

Installation of Burner Mounting Plate

1. Use the included alignment tool to install the new combustion chamber insulation in the heat exchanger.
 - Insert the alignment tool into the igniter opening as shown in Fig. 5.
 - Install the new combustion chamber insulation in the heat exchanger so that the alignment tool goes over the correct heat exchanger stud as shown in Fig. 6.
 - Remove the alignment tool.

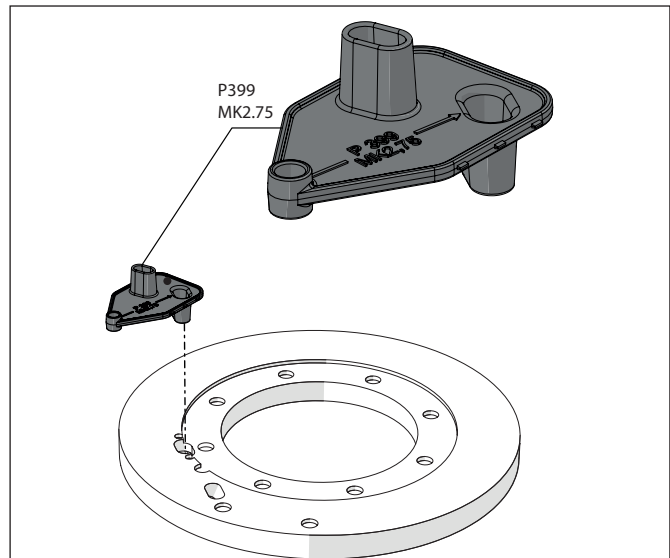


Fig. 5: Alignment Tool Installation

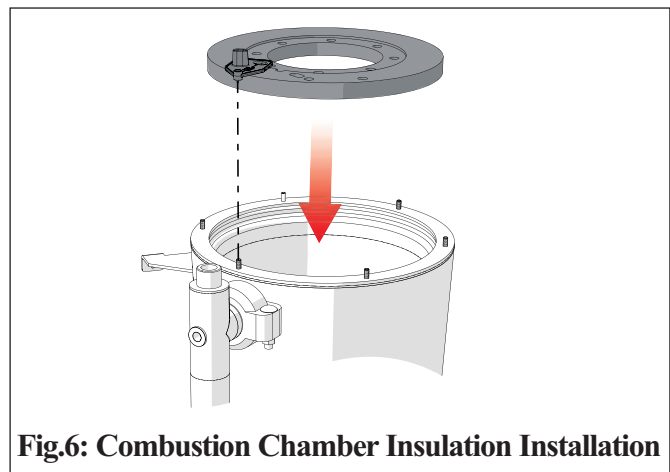


Fig.6: Combustion Chamber Insulation Installation

2. Place the new burner mounting plate gasket onto the heat exchanger, aligning the cutouts of the gasket with the heat exchanger mounting studs.
3. Place the burner plate on top of the heat exchanger. Use care not to damage the combustion chamber insulation. Align the burner plate and combustion chamber insulation on the heat exchanger so that the ignitor and sight glass are positioned in the front / left corner of the heat exchanger.
4. Check combustion chamber insulation alignment with the burner mounting plate. The combustion chamber insulation igniter cutout should align

PRESTIGE Solo 399 HX Field Replacement Kit

with the opening in the burner mounting plate. If not properly aligned, remove the burner mounting plate and reposition combustion chamber insulation.

NOTICE

Misalignment of combustion chamber insulation can cause unreliable boiler operation.

5. Hand tighten the new burner mounting plate nuts to hold the burner plate in place. Once all mounting nuts are in place, use a wrench to tighten using an alternating pattern until the gasket is slightly compressed. See Table 2, page 13 for torque specifications.

Installation of Blower/Gas Valve/Venturi Assembly

1. Mount the blower/gas valve/venturi assembly on top of the heat exchanger. Use the new blower gasket provided in the kit. Install 4 blower mounting nuts ensuring they are properly tightened and the blower is mounted securely to the burner plate. See Table 2, page 13 for torque specifications.

Installation of Condensate Trap

1. Install cabinet gasket where heat exchanger condensate drain nipple penetrates the cabinet.
2. Install the condensate drain assembly as shown in Fig. 7.
3. A new metal washer must be installed when installing the condensate drain assembly onto a polypropylene condensate pan. Insert the metal washer into the retaining nut and screw onto the condensate drain assembly without rubber gaskets. Use the condensate drain assembly as a tool to press the retaining nut with metal washer onto the polypropylene condensate pan. Unscrew the condensate drain assembly and proceed to the next step.

WARNING

Ensure the installation of the condensate drain assembly included the metal washer when attaching to a polypropylene condensate pan. Failure to comply could result in the trap assembly dislocating from the boiler.

4. Slide the retaining nut, and rubber seals from the condensate drain assembly over the heat exchanger condensate drain nipple. Connect the condensate drain assembly to the retaining nut and tighten.

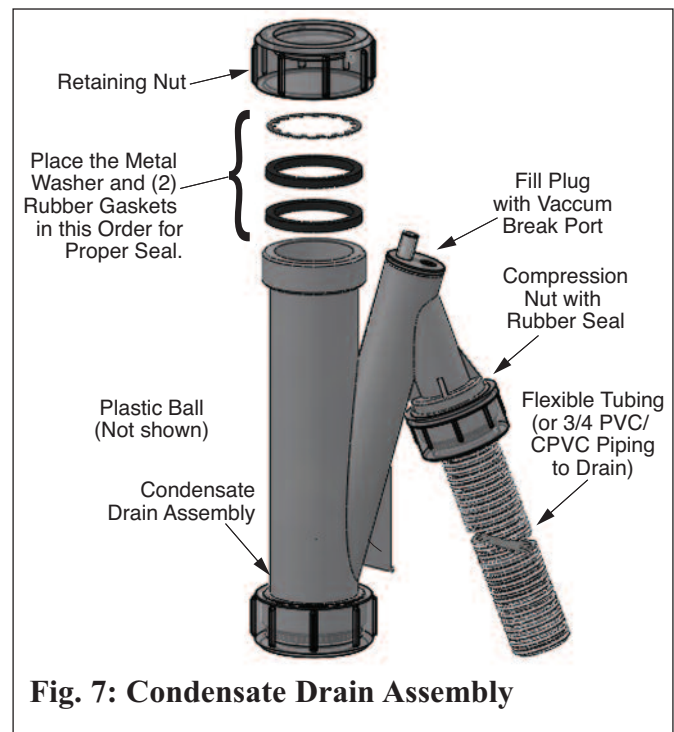


Fig. 7: Condensate Drain Assembly

WARNING

Ensure the condensate drain assembly contains the plastic seated ball. Do not install the condensate drain assembly if the ball is lost or missing, replace the entire assembly.

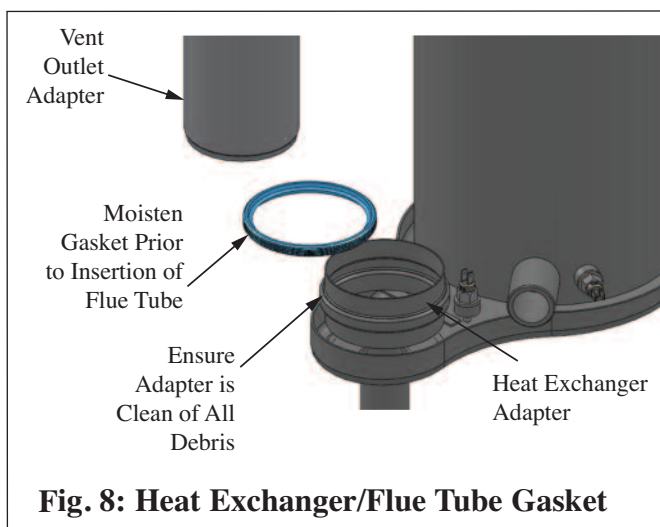
PRESTIGE Solo 399 HX Field Replacement Kit

Installation of Gas Connection

1. Install the gas piping inside the unit if it was removed for additional clearance/access.
2. Remove gasket from the end of the gas pipe where it connects to the gas valve and install new gas pipe gasket provided in the kit.
3. Connect gas piping to the gas valve at the union located just below the gas valve. Tighten the union using two wrenches. See Table 2 for torque specifications.

Installation of Stainless Steel Vent Outlet Adapter

1. Ensure flue gasket is seated properly in the heat exchanger adapter. Apply clean water to the bottom of the vent outlet adapter and flue gasket. (Fig. 8).
2. Insert vent outlet adapter through the top jacket panel into the heat exchanger adapter. (Fig. 8). Use a slight twist motion with a downward force as it is inserted into the adapter. Ensure the gasket remains seated in the heat exchanger adapter.



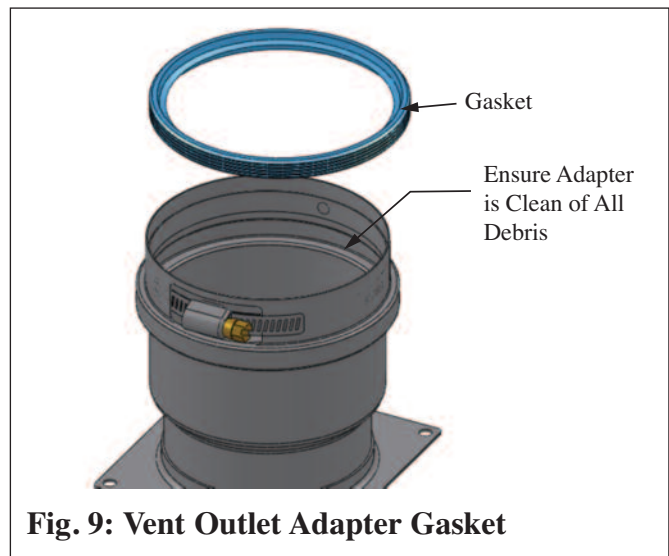
3. In case of limited top boiler clearance, insert vent outlet adapter through the removed top jacket panel. Bring this entire assembly in place together

on top of the boiler side panels. Use a slight twist motion with a downward force as the vent outlet adapter is inserted into the heat exchanger adapter. Ensure the gasket remains seated in the heat exchanger adapter. Secure the entire top jacket panel to the side panels with the original screws.

4. Install new vent outlet gasket provided in the kit in vent outlet adapter. Ensure the combustion test port of the vent outlet adapter is facing toward the front of the boiler. Re-use the existing 4 mounting screws and secure vent outlet adapter to top of boiler jacket panel. (Fig. 9).



If during the install of the flue tube into the heat exchanger the flue gasket becomes dislodged, it is extremely important that the install is halted and the gasket is resealed in the adapter. Failure to comply could result in leakage of flue products into the surrounding area resulting in death or personal injury.

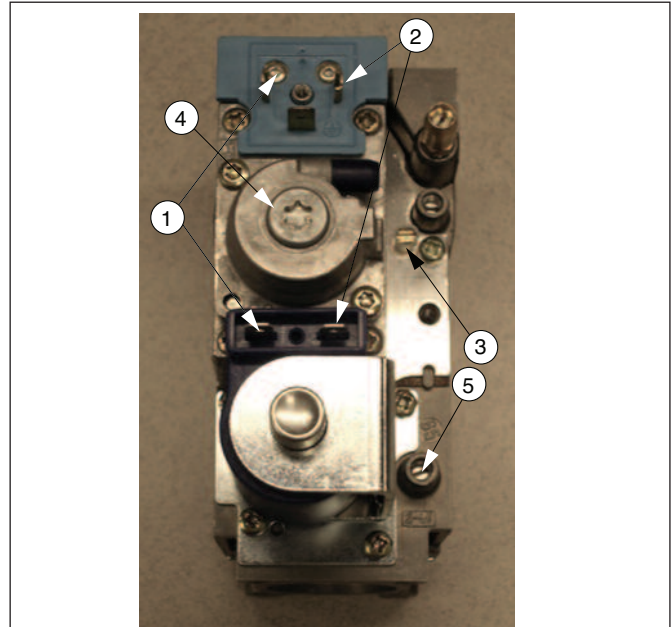


Installation of Polypropylene Vent Outlet Adapter

1. Ensure flue gasket is seated properly in the heat exchanger adapter. Apply clean water to the bottom of the internal vent pipe. (Fig. 8)

PRESTIGE Solo 399 HX Field Replacement Kit

2. Insert the internal vent pipe into the heat exchanger adapter. Use a slight twist motion with a downward force as it is inserted into the adapter. Ensure the gasket remains seated in the heat exchanger adapter.
 3. Ensure flue gasket is seated properly in the top of the internal vent pipe. Apply clean water to the bottom of the vent outlet adapter.
 4. Install the vent outlet adapter on top of boiler cabinet by twisting the vent outlet adapter clockwise to engage the retaining tabs. Ensure the flue gasket remains seated in the internal vent pipe.
 5. Install new vent outlet gasket provided in the kit in vent outlet adapter. Ensure the combustion test port of the vent outlet adapter is facing toward the front of the boiler. (Fig. 9)
5. Connect the blue and brown wire leads to the gas valve as shown in Fig. 10.



1. Brown (MCBA)/ Black (TriMax) wire
2. Blue (MCBA)/ White (TriMax) wire
3. Throttle screw
4. Offset Pressure Cover Screw
5. Inlet Pressure Tap

Fig. 10: Gas Valve Wiring & Combustion Adjustment

⚠ WARNING

If during the install of the internal vent pipe or vent outlet adapter the flue gasket becomes dislodged, it is extremely important that the install is halted and the gasket is resealed. Failure to comply could result in leakage of flue products into the surrounding area resulting in death or personal injury.

Installation of Electrical Connections (MCBA)

1. Connect the orange wire leads to the Low Water Cut-Off (LWCO) pressure switch.
 2. Connect the blue wire leads to the return temperature sensor.
 3. Connect the red wire leads to the supply temperature sensor.
 4. Connect the yellow wire leads to the flue temperature sensor.
6. Connect the electrical connections for the blower to the blower housing.
 7. Connect the green ground wire to the igniter ground terminal.
 8. Pass the orange low voltage and high voltage wiring terminal strips through the lower cutouts of the control mounting panel. Close the control mounting panel and secure with the retaining screw. Connect the orange low and high voltage wiring terminal strips to the upper portion.
 9. Connect the gray ribbon cable from the display board to the MCBA control module.

PRESTIGE Solo 399 HX Field Replacement Kit

10. Connect the ignition cable to the igniter and the MCBA control module.
 11. Install the air intake pipe back on the venturi air inlet connection. Make sure the ignition cable is secured with a cable tie to the air intake pipe. Also make sure the ignition cable is not in contact with any metal surfaces or routed over the sight glass.
 12. Install top access panel located above the heat exchanger on the top jacket panel.
10. Flip control panel up until retaining tabs lock into place.
 11. Install top access panel located above the heat exchanger on the top jacket panel.

Installation of Electrical Connections (TriMax)

1. Connect the orange wire leads to the Low Water Cut-Off (LWCO) pressure switch.
2. Connect the blue wire leads to the return temperature sensor.
3. Connect the red wire leads to the supply temperature sensor.
4. Connect the yellow wire leads to the flue temperature sensor.
5. Connect the black and white wire leads to the gas valve as shown in Fig. 10.
6. Connect the electrical connections for the blower to the blower housing.
7. Connect the green ground wire to the igniter ground terminal.
8. Connect ignition cable to the TriMax control module and install rear control box cover.
9. Install the air intake pipe back on the venturi air inlet connection. Make sure the ignition cable is secured with a cable tie to the air intake pipe. Also make sure the ignition cable is not in contact with any metal surfaces or routed over the sight glass.

Installation of Vent Connection

1. Ensure vent outlet gasket is seated properly in the vent outlet adapter.
2. Apply clean water to the insertion end of the pipe to ease insertion into the adapter.
3. Insert vent pipe into the adapter until it is fully seated.



Do not apply excessive force, twist or bend the adapter or vent pipe when inserting. The vent outlet gasket could be damaged resulting in possible flue gas leakage.

4. Secure the vent pipe by tightening the vent outlet adapter banding strap. Do not over tighten the strap. The seal is made with the gasket inside the adapter.

Start-Up Procedures

1. Ensure the pressure relief valve / air vent is properly piped to the supply piping at the top of the boiler.
2. Fill boiler with water and purge all air from the system. Set boiler pressure between 12 and 15 psi. Test for water leaks. Repair any leaks.
3. Turn on gas supply to the inlet of the unit at the external main manual shutoff valve to the unit.
4. Check and test all gas connections for leaks. Repair leaks if found.

PRESTIGE Solo 399

HX Field Replacement Kit

 **WARNING**

Do not check for gas leaks with an open flame. Use a bubble test. Failure to check for gas leaks can cause severe personal injury, death or substantial property damage.

5. Turn on power to the unit. The unit is now ready to be placed back in service.

Combustion Test and Adjustments

1. The installer **MUST** perform a complete combustion check to ensure the following combustion levels are met at high and low input firing rates and the burner is operating at optimum conditions.

Table 1: Recommended Combustion Settings

	Natural Gas	Propane
O2 Min.	2.30%	3.70%
O2 Max.	5.30%	5.20%
CO2 Min.	8.80%	10.00%
CO2 Max.	10.50%	11.00%
CO Max.	100 ppm	100 ppm

 **WARNING**

The combustion testing and adjustments must be performed by a qualified installer, service agency or the gas supplier. All combustion measurements must be performed with calibrated equipment to ensure proper readings and accuracy.

 **WARNING**

Failure to perform a complete combustion test at both high and low input rates may result in incomplete combustion and the production of carbon monoxide, which can cause severe personal injury, death or substantial property damage.

MCBA Instructions

1. Manually place the boiler into high fire mode by pressing the “MODE” button with “+” button simultaneously on the control panel display while in the Standby (STBY) mode.

NOTICE

The control panel will display a H followed by the current boiler temperature when placed into high fire test mode.

2. If the combustion levels during high fire is outside the recommended combustion settings adjust the THROTTLE SCREW (see Fig. 10) using a flat-blade screwdriver as follows:

Counter-clockwise adjustment of the THROTTLE SCREW at High Fire:

O2 decreases and CO2 increases

Clockwise adjustment of the THROTTLE SCREW at High Fire:

O2 increases and CO2 decreases

3. Once the combustion level is set at high fire, manually place the boiler into low fire mode by pressing the “MODE” button with “-” button simultaneously on the control display while in the Standby (STBY) mode.

NOTICE

The control panel will display a L followed by the current boiler temperature when placed into low fire test mode.

4. If the CO2 combustion level during low fire is not within +/- 0.2 of the combustion level measured at high fire, adjust the OFFSET SCREW (see Fig 10) as follows:

Counter-clockwise adjustment of the OFFSET SCREW at Low Fire:

O2 increases and CO2 decreases

PRESTIGE Solo 399

HX Field Replacement Kit

Clockwise adjustment of the OFFSET SCREW at Low Fire:

O₂ decreases and CO₂ increases

TriMax Control Procedure

1. Press the round INSTALLER button. See Fig. 11.

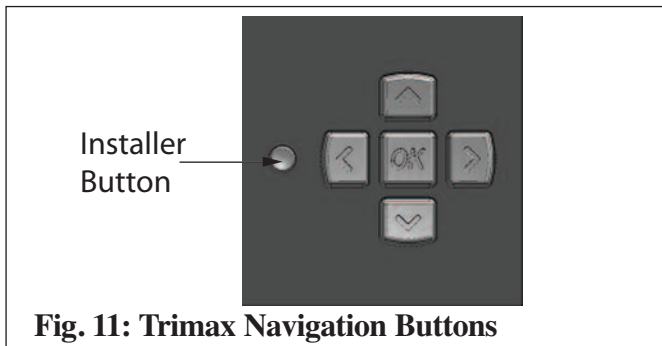
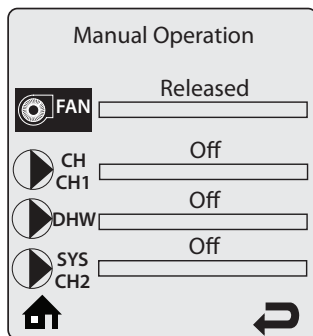


Fig. 11: Trimax Navigation Buttons

2. Enter the installer access code “054” by using the **LEFT** and **RIGHT** buttons to select a digit and the **UP** and **DOWN** buttons to change the digit. Press the **OK** button to enter the access code.
3. Press the **RIGHT** button to highlight the Manual Operation icon then press the **OK** button.
4. Press the **OK** button while the FAN icon is highlighted to manually fire the burner and power the CH circulator.



NOTICE

An adequate CH load must be present to dissipate the heat generated during the combustion test. If an adequate CH load is not available, an indirect water heater can be used to dissipate the heat by creating a DHW call which will enable the DHW circulator.

5. Press the **RIGHT** button to adjust the firing rate to 100% (high fire). Hold down the **RIGHT** button to rapidly increase the firing rate.
6. If the combustion levels during high fire are outside the recommended combustion settings adjust the **THROTTLE SCREW** (see Fig. 10) using a flat-blade screwdriver as follows:

Counter-clockwise adjustment of the THROTTLE SCREW at High Fire (100% firing rate):

O₂ decreases and CO₂ increases

Clockwise adjustment of the THROTTLE SCREW at High Fire (100% firing rate):

O₂ increases and CO₂ decreases

7. Once the combustion level is set at high fire, manually place the boiler into low fire mode by pressing the **LEFT** button to adjust firing rate down to 1% (low fire).
8. If the CO₂ combustion level during low fire is not within +/-0.2 of the combustion level measured at high fire, adjust the **OFFSET SCREW** (see Fig. 10) as follows:

Counter-clockwise adjustment of OFFSET SCREW at Low Fire (1% firing rate):

O₂ increases and CO₂ decreases

Clockwise adjustment of OFFSET SCREW at Low Fire (1% firing rate):

O₂ decreases and CO₂ increases

9. Press the **OK** button while the fan icon is highlighted to shutdown the burner.
10. Press the **DOWN** button to highlight the home screen icon then press **OK** to return to the home screen.

PRESTIGE Solo 399 HX Field Replacement Kit

Assembly Screws	Torque Specifications	
	Min. Inch- Pounds	Max. Inch- Pounds
Sight Glass	11	13
Burner Head	27	31
Igniter	27	31
Gas Valve Couplings	27	31
Blower - Outlet	27	31
Venturi to Gas Valve	31	35
Venturi to Blower	31	35
Burner Plate	44	59

Table 2: Torque Specifications

Handling Previously Fired Combustion Chamber Insulation

⚠ WARNING

The combustion chamber insulation contains ceramic fibers, which are classified as a possible human carcinogen. When exposed to extremely high temperatures, the ceramic fibers, which contain crystalline silica, can be converted into cristobalite.

Avoid Breathing and Contact with Skin and Eyes

When removing or repairing the combustion chamber insulation follow these precaution measures:

1. Use a NIOSH approved respirator which meets OSHA requirements for cristobalite dust, similar to N95. Contact NIOSH at 1-800-356-4676 or on the web at www.cdc.gov/niosh for latest recommendations.

2. Wear long sleeved, loose fitting clothing, gloves and eyes protection.
3. Assure adequate ventilation.
4. Wash with soap and water after contact.
5. Wash potentially contaminated clothes separately from other laundry and rinse washing machine thoroughly.
6. Discard used insulation in an air tight plastic bag.

NIOSH Stated First Aid:

Eye/Skin: Immediately irrigate
Breathing: Clean fresh air