
Prestige SOLO 399 Burner Mounting Plate Kit



Kit Part Numbers: PSRKIT39

Parts List

1. Burner Plate
2. Burner Plate Gasket
3. Sight Glass Assembly
4. Igniter (MCBA)
5. Igniter (TriMax)
6. Burner Head Gasket
7. Blower Gasket
8. Combustion Chamber Insulation
9. Insulation Alignment Tool
10. Gas Pipe Gasket

Recommended tools:

- A. Pipe Wrench.
- B. Phillips Screw Driver.
- C. 10 mm Socket and/or 10 mm Open Ended Wrench and/or Adjustable Wrench.
- D. Flat Blade Putty Knife.

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. 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.
- Read all instructions before proceeding.
- Follow instructions in proper order.

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Instructions:

1. Turn power to the unit "OFF" and allow unit to cool.
2. Shut off gas supply to the inlet of the unit at the main manual shutoff valve to the unit.
3. Remove the front panel of the Prestige by removing the thumb screw on the upper edge of the unit. Lift the panel up and pull forward to remove the front panel from the unit.
4. Remove the retaining screw from the control panel. Open the display panel cover and swing the control panel out (MCBA).
5. Depress the retaining clips and tilt the control panel down (TriMax).
6. Remove the air inlet elbow from the venturi using a twisting motion.
7. Disconnect the gas supply piping inside the Prestige enclosure at the brass union located just below the gas valve.
8. Disconnect wiring from gas valve.
9. Disconnect the ignition cable from the igniter (MCBA), and remove the ground wire at the igniter.

NOTICE

To ease the removal of the burner assembly, remove the top jacket access panel.

10. Disconnect the wiring harness connectors from the blower and remove the blower retaining nuts. Remove the blower with venturi and gas valve from the unit.
11. Remove the 10 mm nuts and remove the burner mounting plate assembly from the heat exchanger body.

12. Remove the combustion chamber insulation from the heat exchanger. See WARNING on page 7.

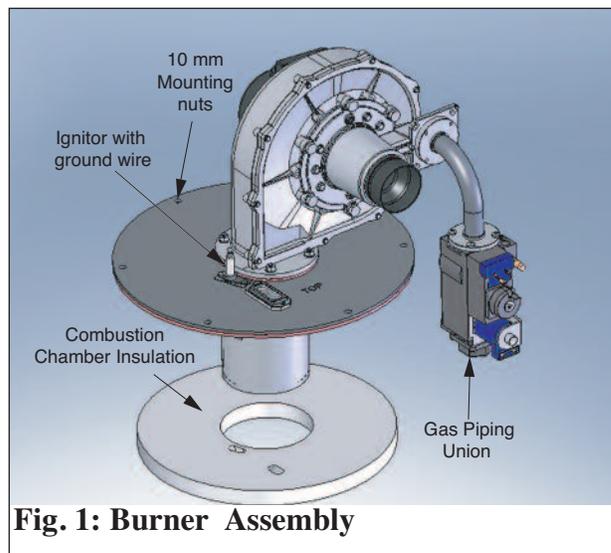


Fig. 1: Burner Assembly

13. Remove the Phillips head screws attaching the burner head to the burner mounting plate. Inspect the burner head for deterioration. Replace if necessary.

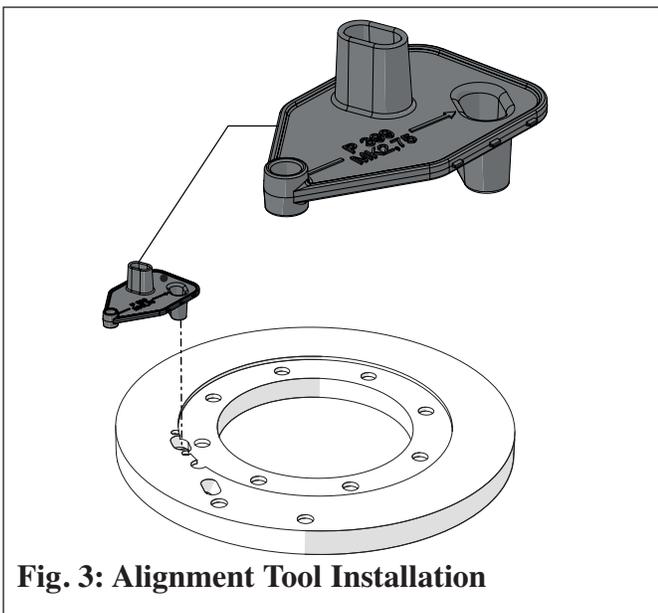
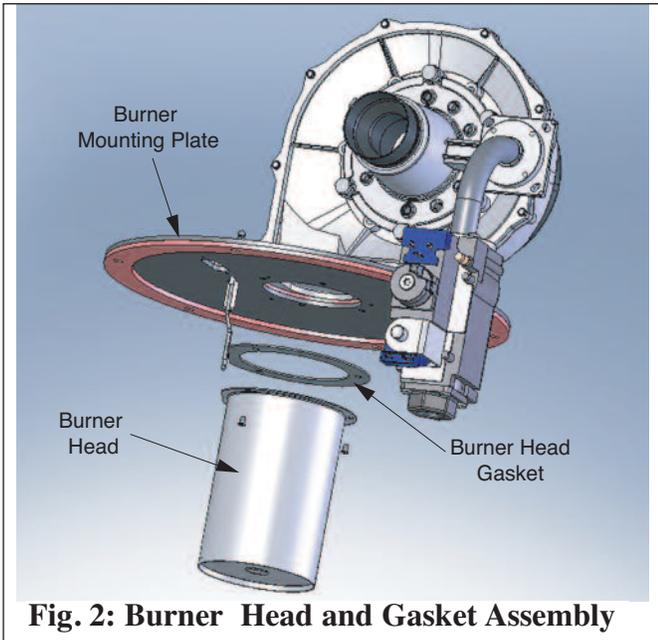
NOTICE

For the reassembly process do not use adhesives on ANY gasket surface.

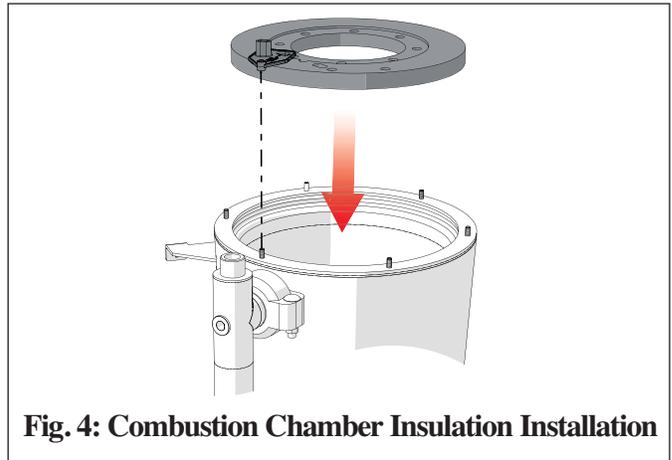
14. Install the new sight glass assembly on the new burner mounting plate.
15. With the new gasket in place attach the burner head to the new burner mounting plate, as shown in Fig. 2.
16. Use the included alignment tool to install the new combustion chamber insulation in the heat exchanger.
 - Insert the alignment tool into the igniter opening as shown in Fig. 3.
 - 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. 4.
 - Remove the alignment tool.

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17. Install new burner plate gasket onto heat exchanger.



18. Re-assemble the burner mounting plate assembly onto the heat exchanger. Ensure the burner plate gasket and combustion chamber insulation is in place and not damaged.



19. Check combustion chamber insulation alignment with the burner mounting plate. The combustion chamber insulation igniter cutout should align with the opening in the burner mounting plate. If not properly aligned, remove the burner mounting plate and reposition combustion chamber insulation.

NOTICE

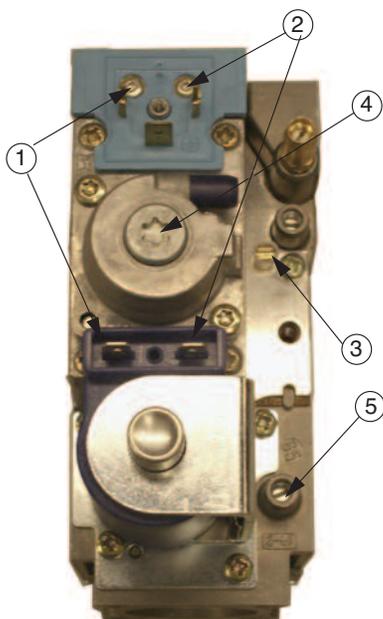
Misalignment of combustion chamber insulation can cause unreliable boiler operation.

20. Hand tighten the 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 7 for torque specifications.
21. Re-assemble the blower onto the burner mounting plate using the new blower gasket and reconnect the wiring harness connectors. Tighten nuts evenly. See Table 2, page 7 for torque specifications.
22. 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.
23. Re-assemble the gas supply connection and wire harness to the gas valve. See Fig. 5 for wire colors. Tighten the union using two wrenches. See Table 2, page 7 for torque specifications. Open the external manual gas valve. Check gas piping for any leaks and repair if necessary.

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⚠ 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.



- 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. 5: PRESTIGE Solo 399 Gas Valve

- 24. Install the appropriate new igniter and gasket for the unit.
- 25. Re-attach the ignition cable (MCBA) and the ground wire to the ignitor.
- 26. Reattach the air inlet elbow to the venturi.
- 27. Reposition the control panel.
- 28. Replace the front jacket panel and secure with the thumb screw on the upper edge of the unit.
- 29. Install the top jacket access panel

30. Turn power to the unit “ON”. The unit is now ready to be placed back into service.

COMBUSTION TEST/ADJUSTMENT

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 Levels

	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.

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NOTICE

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

- If the combustion levels during high fire are outside the recommended combustion settings adjust the THROTTLE SCREW (see Fig. 5) 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

- 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.

- If the CO₂ combustion level at low fire is not within +/- 0.2 of the combustion level measured at high fire, remove the offset cover screw and adjust the plastic OFFSET SCREW using a T-40 Torx wrench (see Fig. 5) as follows:

Counter-clockwise adjustment of OFFSET SCREW at Low Fire:

O₂ increases and CO₂ decreases

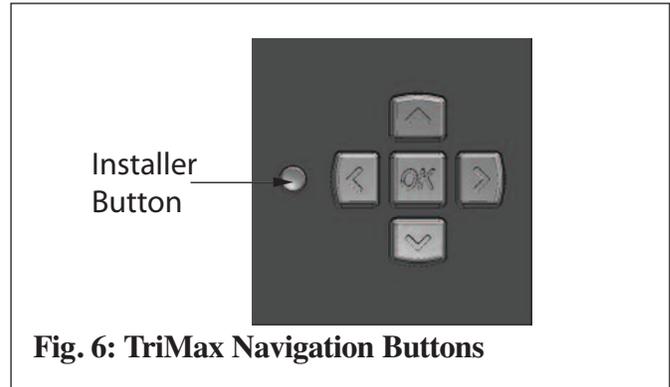
Clockwise adjustment of OFFSET SCREW at Low Fire:

O₂ decreases and CO₂ increases

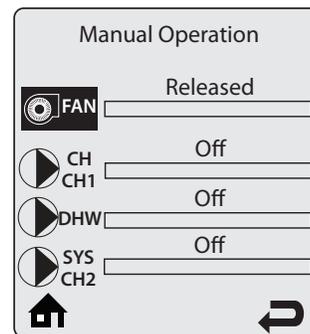
- Press the “+” and “-” buttons simultaneously to shutdown the burner.

TriMax Instructions

- Press the round INSTALLER button. See Fig. 6.



- 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.
- Press the **RIGHT** button to highlight the Manual Operation icon  then press the **OK** button.
- 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.

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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. 5) 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 at low fire is not within +/-0.2 of the combustion level measured at high fire, remove the offset cover screw and adjust the plastic OFFSET SCREW (see Fig. 5) using a T-40 Torx wrench 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.

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Handling of Previously Fired Combustion Chamber Insulation



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

Table 2: Torque Specifications

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