

Burner Head Replacement Kit for PRESTIGE SOLO 399



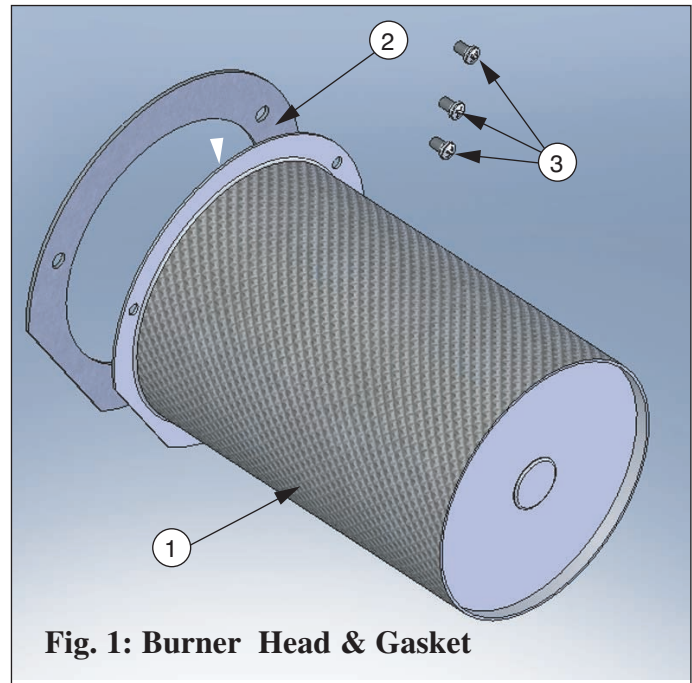
Kit Part Number: PSRKIT38

Parts List (Fig.1)

1. Burner Head
2. Burner Head Gasket
3. 8 -Stainless Steel Phillips Screws. (For attaching the new burner head to the burner mounting plate.)

Recommended tools:

- A. Pipe Wrench.
- B. Phillips Screw Driver.
- C. 10 mm Socket and/or 10 mm 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.

Burner Head Replacement Kit for PRESTIGE SOLO 399

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 external main manual shutoff valve to the unit.
3. Remove front door and disconnect the gas supply piping to the PRESTIGE at the brass union near inlet of the gas valve.
4. Disconnect the solenoid wiring from the gas valve
5. Disconnect the ignition cable and remove the ground wire at the ignitor.

NOTICE

To ease the removal of the blower, venturi and gas valve assembly, remove the top jacket access panel.

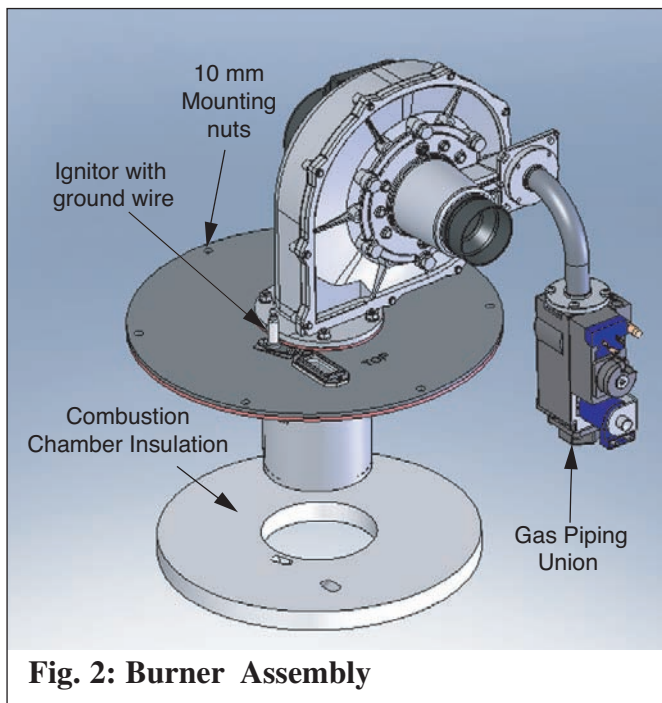


Fig. 2: Burner Assembly

6. Remove the two electrical quick connects on blower and four 10 mm nuts securing the blower to the burner mounting plate. Remove blower, venturi and gas valve by lifting up and pulling forward on the assembly.

7. Remove the six 10 mm nuts securing the burner mounting plate to the heat exchanger body. Remove the burner, blower and gas valve from the heat exchanger all as one unit.

NOTICE

Use care in removing the burner assembly not to crack or damage the combustion chamber insulation. See WARNING on page 5 for instructions on handling the combustion chamber insulation.

8. Loosen the eight Phillips head screws attaching the burner head to the burner mounting plate. Remove and discard the old burner head and burner head gasket.

NOTICE

If the gasket “sticks” to the burner plate use a flat blade putty knife to remove any gasket material. Ensure not to scratch or score the mating surface.

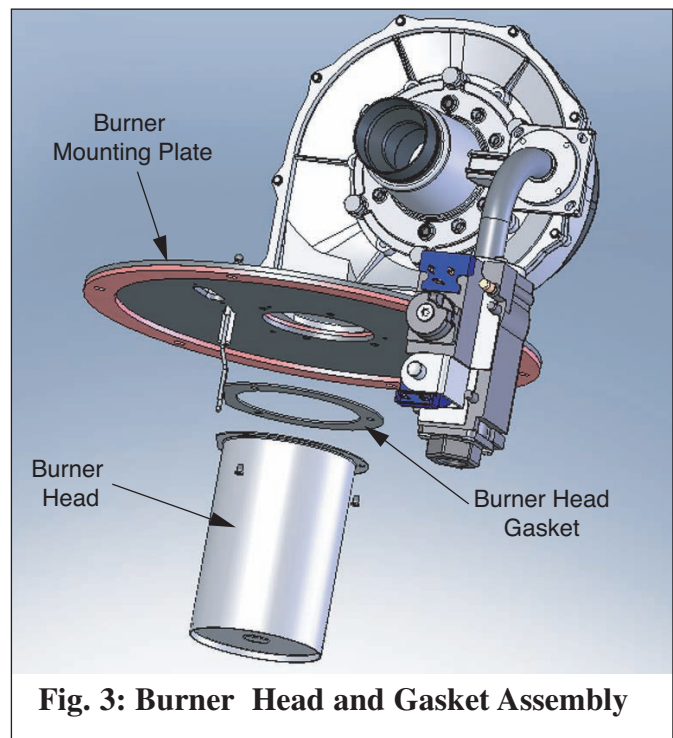


Fig. 3: Burner Head and Gasket Assembly

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NOTICE

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

9. With the new gasket in place attach the new burner head to the burner mounting plate, using the 8 screws supplied in the kit.
10. Re-insert the burner plate and burner assembly onto the heat exchanger body. Carefully align the burner assembly and ignitor with the combustion chamber insulation to avoid insulation damage, as shown in Fig. 2.
11. Hand tighten the 10 mm nuts to hold the burner assembly in place.
12. Using a wrench tighten each nut until gasket is slightly compressed.

WARNING

Do not over tighten. Pinching or tearing of the burner plate gasket may occur causing the possible escape of combustion gases from the combustion chamber resulting in death, serious injury or substantial property damage.

13. Re-install the blower, venturi and gas valve assembly by reconnecting the two electrical quick connects on blower. Re-attach and tighten the assembly to the burner mounting plate using the four 10 mm nuts removed in step 6.
14. Re-attach the ignition cable and the ground wire to the ignitor.
15. Reconnect the solenoid wiring to the gas valve. As shown in Fig. 4
16. Reconnect and tighten the gas pipe union before placing the PRESTIGE unit back into operation. Check and test all gas connections for leaks. Repair leaks if found.

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.

17. Turn on gas supply to the inlet of the unit at the external main manual shutoff valve to the unit.
18. Turn power to the unit "ON". The unit is now ready to be placed back into service.
19. It is recommended that the installer performs a complete combustion test to ensure the combustion levels, in Table 1. are met at HIGH fire and the burner is operating at optimum conditions.

Table 1: Recommended Combustion Levels

	Natural Gas	Propane
O2 Min.	2.30%	3.70%
O2 Max.	4.50%	5.20%
CO2 Min	9.30%	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 high input rate may result in incomplete combustion and the production of carbon monoxide, which can cause severe personal injury, death or substantial property damage.

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20. 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.

21. If the combustion levels during high fire are outside the recommended combustion settings adjust the THROTTLE SCREW (see Fig. 4) using a flat-blade screwdriver.

WARNING

The throttle screw is highly sensitive and requires the use of a combustion analyzer for adjustment. An adjustment as small as an 1/8 of a turn can produce a large change in combustion levels.

22. Once the combustion level is set at high fire, manually place the boiler into LOW fire mode by pressing the “MODE” and “-” buttons simul-

taneously 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.

23. If the combustion level during low fire is not within +/-0.4% of the combustion level measured at high fire, adjust the offset screw below the cap on the gas valve.

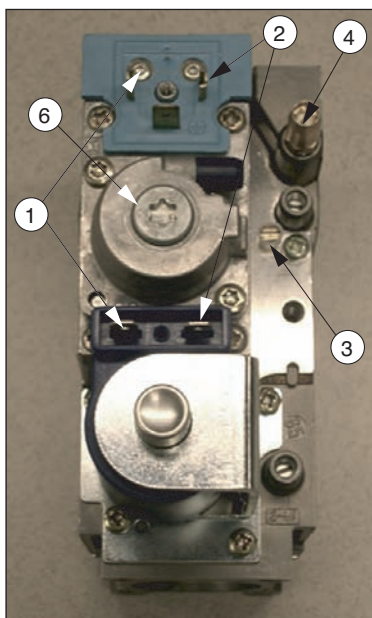
Counter-clockwise adjustment of the Offset Screw at High Fire:

O₂ increases and CO₂ decreases

Clockwise adjustment of the Offset Screw at High Fire:

O₂ decreases and CO₂ increases

24. Reverify combustion level measurements at both high and low fire, readjust if necessary.



1. Brown wire
2. Blue wire
3. Throttle screw
4. Offset screw
5. Ground, “Open”
6. Offset Screw (under cap)

Fig. 4: Gas Valve Wiring & Combustion Adjustment

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Handling of 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