
Prestige SOLO 399 Boiler Propane to Natural Instructions



Kit Part Number: PSRKIT53

Kit Includes:

- Rating Label
- Conversion Label
- (1) Natural Gas Orifice
- T-25 Torx Wrench
- T-40 Torx Wrench

Recommended Tools

- Adjustable Wrenches
- Phillips-head Screwdriver
- Flat-blade Screwdriver
- 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

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 the proper order.

NOTICE

Upon completion of the conversion from Natural to Propane, affix the new rating label included in the kit to the unit adjacent to the existing rating label. **DO NOT** affix the new label over the existing rating label. Add propane conversion labeling to the gas valve.

WARNING

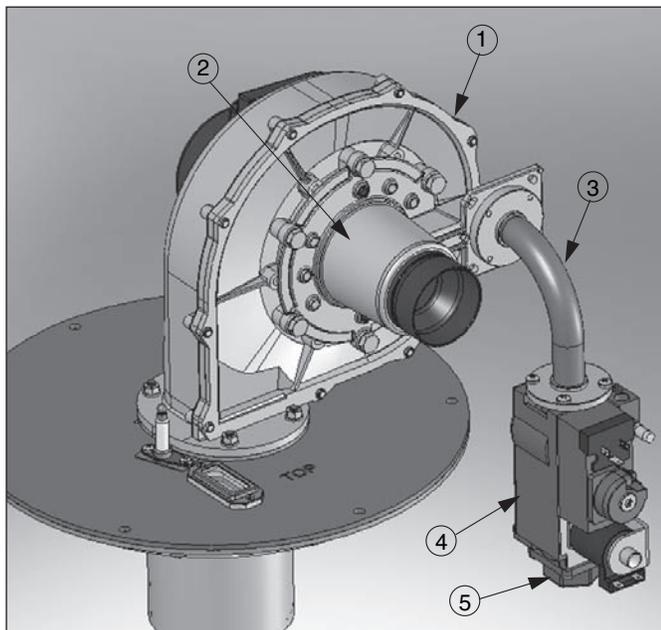
For your safety, turn off electrical power supply at service panel and allow unit to cool before proceeding. Failure to do so can cause severe personal injury or death.

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Installation of the Natural Gas Orifice

1. Turn off the electrical power supply to the boiler.
2. Close the external manual gas shut off valve to the unit.
3. Remove the front panel of the Prestige by removing the thumb screw along the upper edge of the unit. Lift the panel up and pull forward to remove the front panel from the unit.
4. Remove the Phillips head retaining screw at the bottom of the control panel assembly. Swing open the control panel assembly.
5. Remove the air inlet elbow from the venturi using a twist motion.
6. Disconnect the gas supply piping inside the Prestige at the union located below the gas valve. See Fig. 1.



1. Blower
2. Venturi Assembly
3. Gas Valve Extension Pipe
4. Gas Valve
5. Union

Fig. 1: Prestige 399 Burner Assembly

7. Disconnect the wiring from the gas valve.
8. Remove the six T-40 Torx screws securing the venturi to the blower. See Fig. 2.

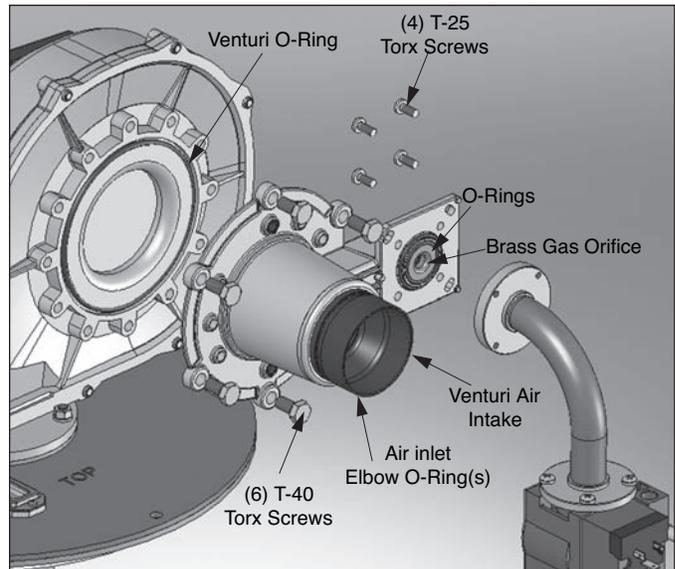


Fig. 2: Venturi/Gas Orifice Assembly

9. Remove the gas valve/venturi assembly from the unit.
10. Remove the (4) T-25 Torx screws securing the gas valve extension pipe to the venturi. See Figs. 1 & 2.
11. Remove the existing propane gas orifice from between the gas valve extension pipe and venturi.

WARNING

There are O-ring gaskets between the venturi and blower housing and also between the venturi and gas valve extension pipe. These O-Rings must be reinstalled with the gas valve/venturi assembly. Use care not to damage these gaskets.

12. Install the brass natural gas orifice and o-ring gaskets between the gas valve extension pipe and the venturi. Ensure that the orifice and gaskets are inside the retaining ring cast into the venturi.

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Table 1: Natural Gas Orifice

<u>Model</u>	<u>Orifice Size</u>
Solo 399	0.339" (8.6 mm)

WARNING

Failure to retain the O-ring gaskets between venturi and gas valve extension pipe will cause an improper seal resulting in a potential risk of a gas leak. Any potential gas leakage may result in death, serious injury or substantial property damage.

13. Reassemble the gas valve extension pipe onto the venturi using the four T-25 Torx head screws. Ensure that the gas valve extension pipe is properly oriented with the venturi.

WARNING

There is a gasket between the venturi and the blower housing. This gasket must be reinstalled with the gas valve/venturi assembly. Use care not to damage the gasket.

14. With the venturi / blower O-ring in place, reassemble the venturi / gas valve assembly to the blower housing using the six T-40 Torx screws.

NOTICE

For the reassembly process do not use adhesive on the venturi / blower gasket.

NOTICE

Use care in the reassembly of the venturi / gas valve to the blower housing not to cross thread the mounting screws. Support the weight of the venturi / gas valve assembly when threading the mounting screws.

15. Reconnect the wiring to the gas valve as shown in Fig. 3.

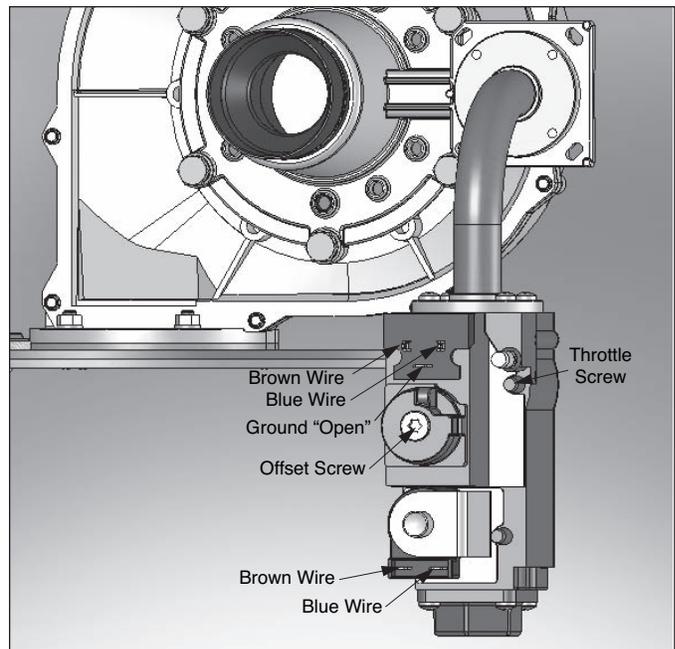


Fig. 3: Prestige 399 Gas Valve

16. Reconnect and tighten the internal gas supply union using two wrenches and open the external manual gas shut off valve. Before placing the Prestige boiler 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.

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WARNING

There are O-ring gaskets between the air intake elbow and the venturi air intake. This gasket must be reinstalled with the air intake elbow. Use care not to damage the gasket.

17. With the air intake elbow O-rings in place, reassemble the air inlet elbow to the venturi.
18. Reposition the control panel and reattach the retaining screw.
19. Replace the front jacket panel and secure with the thumb screw along the upper edge.
20. Turn on the electrical power supply to the Prestige boiler and return the unit back to 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 for natural gas.

O₂ Min. - 2.3%

CO₂ Min. - 8.8%

O₂ Max. - 5.3%

CO₂ Max. - 10.5%

CO Max. - 100ppm

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.

2. Manually place the boiler into HIGH fire mode by pressing the “MODE” and “+” buttons 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.

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3. If the combustion levels during high fire are outside the recommended combustion settings adjust the THROTTLE SCREW (see Fig. 3) 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.

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

5. 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