

Venturi Replacement Kit for PRESTIGE 399



Kit Part Number: PSRKIT84

Parts Kit (Fig. 1):

- 1 - Venturi 001 Blower O-Ring Gasket
- 2 - (6) T-40 M8 Screws
- 3 - T-40 Torx Wrench
- 4 - Venturi / Gas Pipe Gasket
- 5 - Venturi
- 6. Gas Pipe/Venturi Gasket

Recommended Tools:

- 1. Phillips Screwdriver
- 2. Flat Blade Putty Knife
- 3. 10mm Socket and/or 10mm Wrench and/or Adjustable Wrench

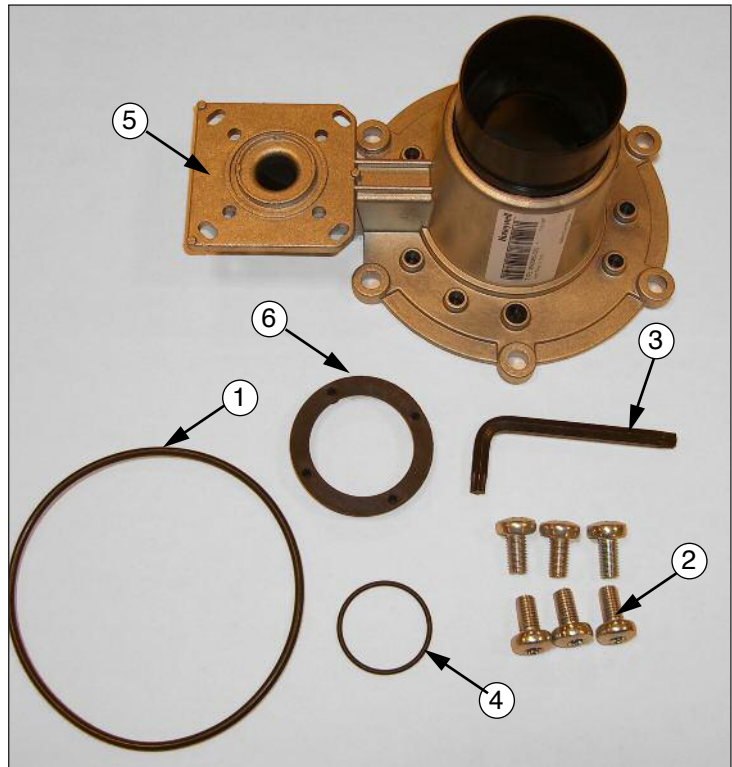


Fig. 1: Kit Components

! 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, the boiler may be extremely hot. Ensure the boiler has properly cool prior to servicing. Failure to do so can cause severe personal injury.

! 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”.
2. Remove the front jacket panel. Swing away the Control Module panel (MCBA). Tilt down the Control Module panel (TriMax).
3. Shut off gas supply to the Prestige boiler at the main manual shutoff valve.
4. Disconnect the gas piping at the union located just before the gas valve inside the boiler enclosure.
5. Disconnect wires to the gas valve.
6. Remove the air inlet elbow from the venturi.

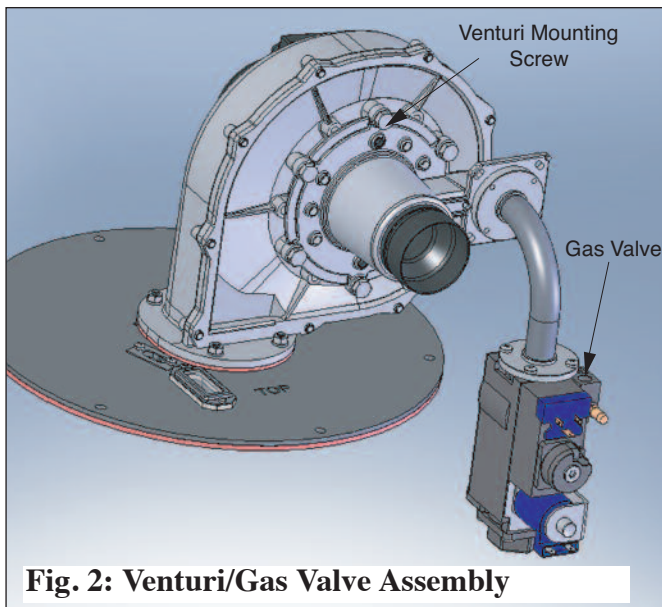


Fig. 2: Venturi/Gas Valve Assembly

NOTICE

Note the orientation of the venturi / gas valve assembly in relation to the blower housing when disassembling the venturi / gas valve assembly.

7. Using the T-40 Torx wrench from the kit, remove the 6 screws securing the venturi assembly to the blower, see Fig. 2. Remove the venturi / gas valve assembly from the blower.

8. Remove the 4 screws securing the gas valve outlet pipe to the venturi.
9. Install the new venturi to the gas valve outlet pipe using the original 4 mounting screws. Ensure the new gaskets are in place and the screws are tight.

⚠ WARNING

Ensure the brass orifice (natural or propane) is in place prior to the assembly of the venturi to the gas outlet pipe.

10. Install the new venturi O-ring gasket on the blower. Reassemble the venturi / gas valve assembly to the blower housing using the 6 supplied T-40 Torx screws. Make sure all screws are tight and secure.
11. Reconnect the gas supply piping using two wrenches. Open the manual gas shut off valve to check and test all gas connections for leaks before placing the PRESTIGE unit back into operation. Repair leaks if found.

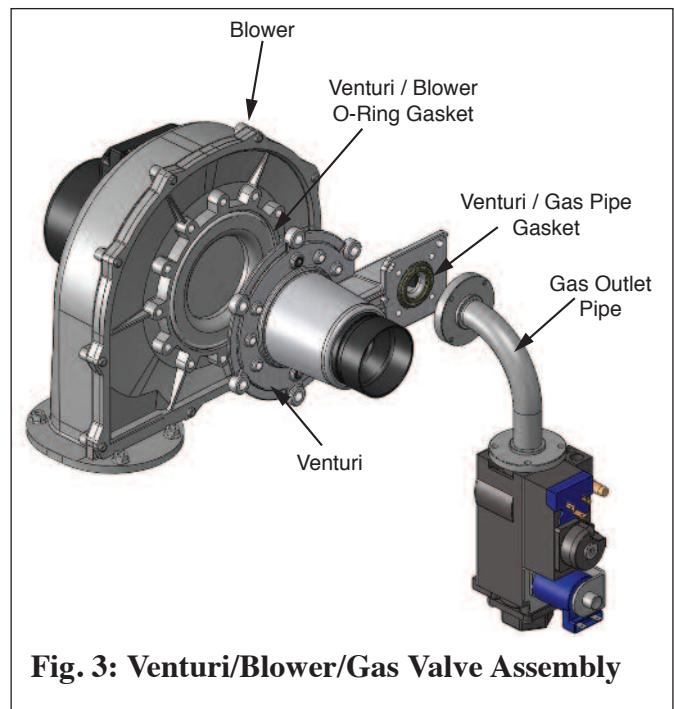


Fig. 3: Venturi/Blower/Gas Valve Assembly

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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

12. Reconnect the wires to the gas valve as shown in Fig.4.
13. Reattach the air inlet elbow to the venturi.
14. Reposition the Control Module panel and reattach the front jacket panel.
15. Turn power supply to the Prestige “ON” and return the unit to 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.

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 an H followed by the current boiler temperature when placed into High fire test mode.

2. If the combustion levels during High fire are outside the recommended combustion settings adjust the THROTTLE SCREW (see Fig. 4) 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

Table 1: Recommended Combustion Levels

	Natural Gas	Propane
O ₂ Min.	2.30%	3.70%
O ₂ Max.	5.30%	5.20%
CO ₂ Min.	8.80%	10.00%
CO ₂ Max.	10.50%	11.00%
CO Max.	100 ppm	100 ppm

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.

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4. If the combustion level during Low fire is not within +/-0.2% of the combustion level measured at High fire, adjust the OFFSET SCREW below the cap on the gas valve (see Fig. 4) 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

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

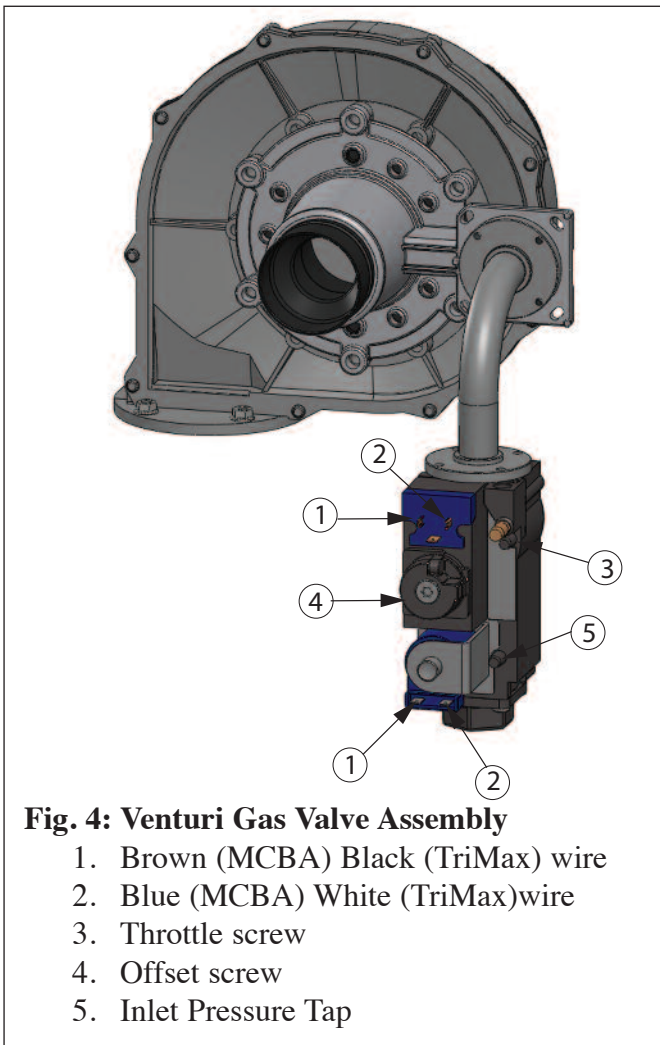


Fig. 4: Venturi Gas Valve Assembly

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

Trimax Instructions

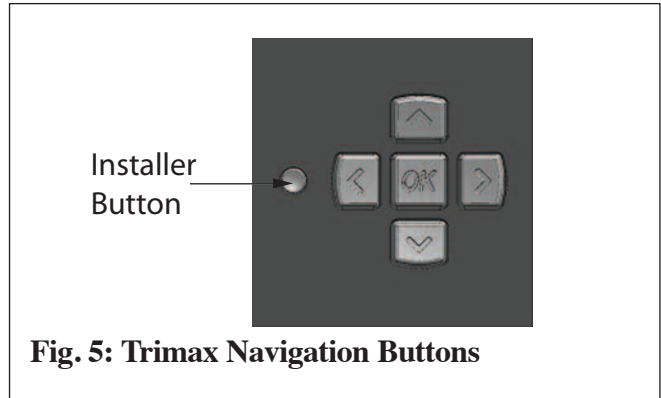

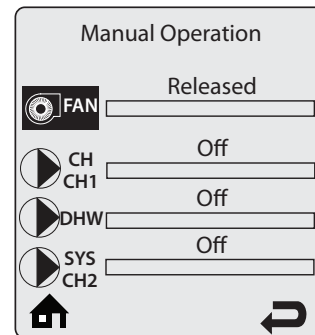


Fig. 5: Trimax Navigation Buttons

1. Press the round INSTALLER button. See Fig. 5.
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.

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5. Press the **RIGHT** button to adjust the firing rate to 100%. 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. 4) 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
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 0%.
8. If the combustion level during Low fire is not within +/-0.2% of the combustion level measured at High fire, adjust the OFFSET SCREW below the cap on the gas valve (see Fig. 4) 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
9. Press the **OK** button while the fan icon is highlighted to shutdown the burner.
10. Press the **LEFT** or **RIGHT** button to highlight the home screen icon  to exit the service mode.