

# Gas Valve Replacement Kit Prestige Solo 399



Kit Part Number: PTRKIT112

## Parts List (Fig. 1)

1. Honeywell Gas Valve VR4615V
2. Gas Valve/Supply Pipe O-ring
3. Gas Valve/Outlet Pipe O-ring
4. (8) - M5 Phillips Head Screws.

## Recommended Tools:

1. Adjustable Wrench.
2. Phillips Head Screwdriver
3. Small Flat Head Screwdriver

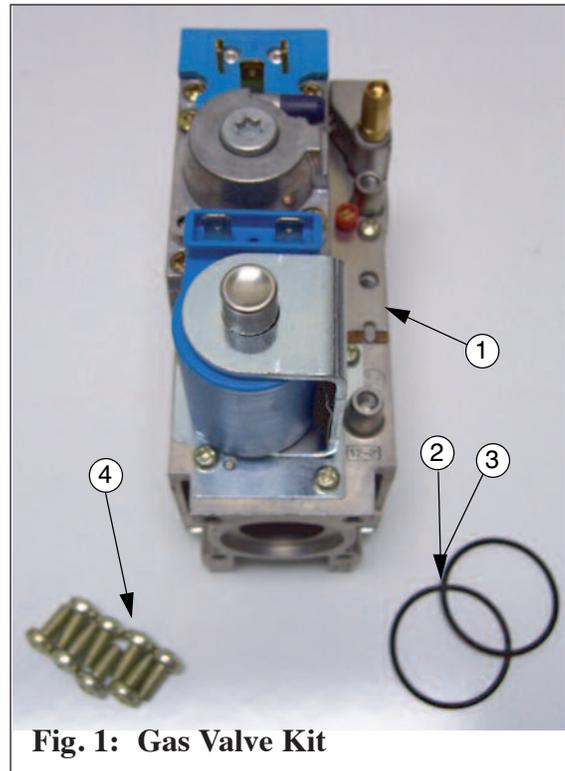


Fig. 1: Gas Valve Kit

### 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 proper order.

### NOTICE

This kit is designed for gas valve replacement on the Prestige Solo 399 only equipped with Trimax control.

### WARNING

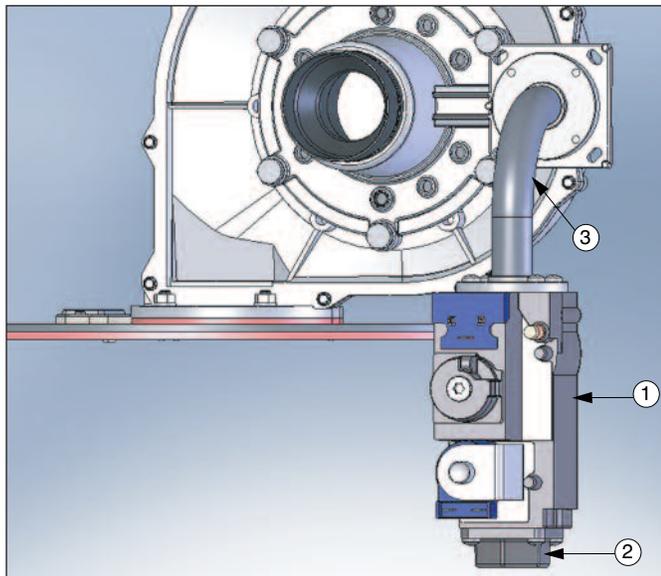
For your safety, turn off electrical power supply at service panel before proceeding to avoid possible electrical shock hazard. Failure to do so can cause severe personal injury or death.

# Gas Valve Replacement Kit

## Prestige Solo 399

### PRESTIGE 399 BOILER INSTRUCTIONS:

1. Turn power to the unit "OFF"
2. Shut off the gas supply to the boiler at the main manual shut off valve.
3. Remove the front jacket panel.
4. Remove the wires to the gas valve.
5. Disconnect the gas supply piping inside the PRESTIGE at the union located just before the gas valve.
6. Remove the 4 screws on the top of the gas valve, securing the gas valve outlet extension pipe to the valve, see Fig. 2.



1. Gas Valve
2. Gas Valve Supply Piping Adapter
3. Gas Valve Outlet Extension Pipe

**Fig. 2: Prestige 399 Gas Valve Assembly**

7. Remove the gas valve from the PRESTIGE unit.

8. Remove the 4 screws securing the gas valve supply piping adapter to the gas valve, see Fig. 2.
9. Remove the O-rings in the gas valve supply piping adapter and gas valve outlet extension pipe.
10. Install the gas valve supply piping adapter and O-Ring gasket on the new gas valve using 4 screws supplies in kit. Ensure screws are tight.
11. Install the new gas valve and O-Ring gasket to the gas valve extension using the 4 screws supplies in kit. Ensure screws are tight.
12. 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.

### **⚠ 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**

13. Reconnect the wires to the gas valve, see Fig. 3.
14. Reposition the control module panel and reattached the front jacket panel.
15. Turn the electrical power "ON" to the PRESTIGE to return the unit back into service.

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## COMBUSTION TEST

- 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: 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.

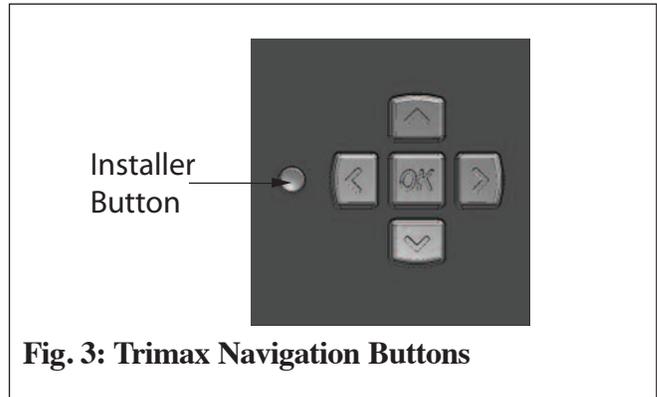
**! WARNING**

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.

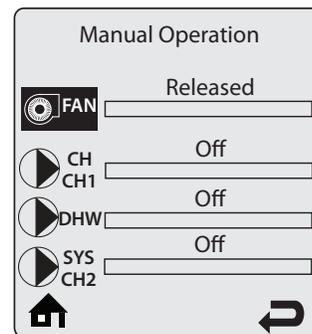
- Test for CO<sub>2</sub> or O<sub>2</sub> and for CO during high firing rate. The combustion readings should be within the range listed in Table 1. **The CO level should not exceed 100 ppm when combustion is correct.** Perform the following procedure to manually place the burner into high fire.

## Trimax Control Procedure

- Press the round INSTALLER button. See Fig. 3.



- 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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- e. Press the **LEFT** and **RIGHT** buttons to adjust the firing rate from 0% to 100%. Hold down the **LEFT** or **RIGHT** button to rapidly increase or decrease the firing rate.
  - f. Press the **OK** button while the FAN icon is highlighted to shutdown the burner.
  - g. Cycle power to the Prestige once combustion testing is complete to return to normal operation.
5. If the combustion level during low fire is not within  $\pm 0.2\%$  of the combustion level measured at high fire, adjust the metal offset screw inside the brass fitting on the top right of the gas valve (see Fig. 4) as follows.

### Counter-clockwise adjustment of offset screw at low fire:

$O_2$  increases and  $CO_2$  decreases

### Clockwise adjustment of offset screw at low fire:

$O_2$  decreases and  $CO_2$  increases



The combustion levels should be measured at high firing rate. If the combustion levels are not within the range given in Table 1 for the firing rate, shut the boiler down and contact Triangle Tube Engineering Department. Failure to comply with this requirement could result in severe personal injury, death or substantial property damage.

If the combustion levels during high fire is outside the recommended combustion settings adjust the THROTTLE SCREW (see Fig. 4) as follows:

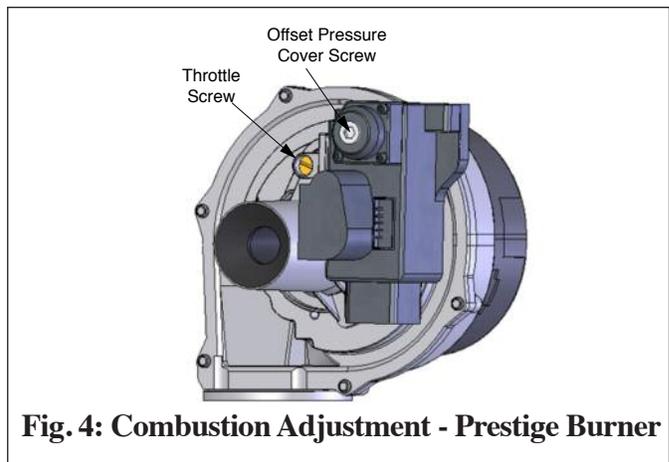
### Counter-clockwise adjustment of the throttle screw at high fire:

$O_2$  decreases and  $CO_2$  increases

### Clockwise adjustment of the throttle screw at high fire:

$O_2$  increases and  $CO_2$  decreases

4. 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.



**Fig. 4: Combustion Adjustment - Prestige Burner**