



APPLICATION NOTE

Replacement BASO® Power Units

Application

This application note is intended to aid the authorized service contractor in replacing the power unit assembly on H15, G92, or G93 gas valves.

Replacement Procedure



WARNING: Explosion Hazard. The system must meet all applicable codes. Improper installation may cause gas leaks, explosions, property damage, and injuries.



WARNING: Shock Hazard. Disconnect the power supply before replacing the power unit assembly to avoid possible electrical shock or damage to the equipment.

Perform the following procedure to replace the existing power unit.

1. Shut off power to the appliance.
2. Turn off the gas at the manual shutoff valve adjacent to the appliance.
3. Remove the four screws holding the power unit and gasket to the valve body.
4. Remove the power unit assembly and gasket. Ensure no dirt or debris falls into the valve body.



WARNING: Fire or Explosion Hazard. Ensure the same size screws are used when replacing the power unit assembly. Improper installation may cause gas leaks, explosions, property damage, and injuries.

5. Install the new gasket and power unit using the new No. 6 or No. 8 screws provided with the replacement assembly.
6. Make sure the screws are pulled down tightly and evenly.
7. Perform the *Checkout Procedure* before leaving the installation.

Checkout Procedure



WARNING: Fire or Explosion Hazard. Avoid personal injury or property damage by making sure the valve functions properly and there are no gas leaks.

After making necessary replacements, perform this checkout procedure before leaving the installation to ensure that all components are functioning properly.

1. Test all joints and connections for leaks with a soap solution.
2. Close the main upstream shutoff valve and wait at least five minutes for unburned gas to escape from the appliance. Reopen the shutoff valve.
3. Push the reset button of the BASO power unit and light the pilot burner. Continue to hold the reset button for 30 to 45 seconds or until the pilot remains lit when the reset button is released.

4. Set the thermostat to the highest setting. The main burner should ignite from the pilot burner.
5. Set the thermostat to the lowest setting. The main burner should extinguish.
6. Extinguish the pilot burner by closing the main upstream manual shutoff valve. Verify that the valve drops out within 90 seconds.
7. Relight the pilot burner.
8. Check the millivoltage output of the thermocouple and the milliampere dropout range of the BASO power unit to ensure that it meets the values listed in Tables 1 and 2. Step-by-step procedures for these checks are included in the Y99AB BASO Test Kit.
9. Observe at least three complete operating cycles to make sure that all the components are functioning properly.
10. Reset the thermostat to the desired setting before leaving the installation.

Table 1: Thermocouple Output

Thermocouple Lead Type	Turn Down	mV Range	
		Normal	Not Less Than
K15	4 mV	20-28	15
K16	4 mV	25-35	17

Table 2: Dropout Range

Power Unit mA Range		Thermocouple Lead Type and Lengths
Low	High	
100	300	K15: 305 to 1,220 mm (12 to 48 in.) K16: 305 to 1,830 mm (12 to 72 in.)

Pilot Servicing

If pilot flame problems occur, check the following:

- If pilot flame burns yellow, it may be due to dirt or lint covering the lower portion of the pilot burner. Clean the burner with a soft brush or a vacuum.
- Ensure the thermocouple lead connection to the BASO power unit is clean and free of grease.
- A flame approximately 12.7 mm (1/2 in.) high must surround the thermocouple tip. See Figure 1.

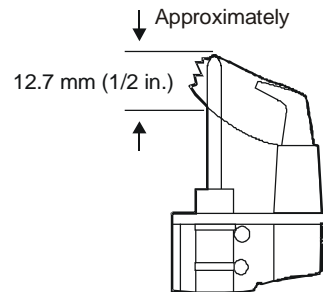


Figure 1: Flame Position

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult BASO Gas Products. BASO Gas Products shall not be liable for damages resulting from misapplication or misuse of its products.



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