



# VR8200A

## Continuous Pilot Combination Gas Controls

### INSTALLATION INSTRUCTIONS

#### APPLICATION

These continuous pilot combination gas controls are used in gas-fired appliances that have up to 200 cfh capacity of natural gas. They include safety shutoff, a manual valve, two automatic operators, a standard pressure regulator and pilot adjustment. Body pattern is straight-through with 1/2 in. inlet and 1/2 in. outlet.

The VR8200A operates at 24V, 60 Hz and has an ambient temperature range of 0° F to 175° F [-18° C to 79° C]. The thermostat heat anticipator setting for the VR8200 is 0.5A. An ECO connector with two 1/4 in quick connect terminals is available.

The VR8200A package includes:

- Flange Kit 393690-14 with 3/4 in. straight flange and 9/64 in. hex wrench.
- Bushing Kit 390427S with 3/8 in. straight bushing and pilot compression fitting.
- Q340A 36 in. thermocouple with adapters and clip.

Additional 90° angle and straight flanges are available for 3/8, 1/2 and 3/4 in. pipe. See Table 1 for flange part numbers. Flange Kits include one flange with attached O-ring, four mounting screws and a 9/64 in. hex wrench.

Controls are factory-set for natural (and manufactured) or LP gas. Do not attempt to use a control set for natural (manufactured) gas on LP gas, or a control set for LP on natural (manufactured) gas.

Table 1. Flange Part Numbers

| Inlet/Outlet Pipe Size | Flange Type                 | Part No.               |
|------------------------|-----------------------------|------------------------|
| 3/8 in. NPT            | Straight Elbow <sup>a</sup> | 393690-11<br>393690-12 |
| 1/2 in. NPT            | Straight Elbow <sup>a</sup> | 393690-16<br>393690-13 |
| 3/4 in. NPT            | Straight Elbow <sup>a</sup> | 393690-14<br>393690-15 |

<sup>a</sup>Elbow (angle) flanges cannot be used to provide a right hand inlet when the ECO connector is used.

#### APPROVALS:

American Gas Association design certificate:  
UP-70- 57A.

Canadian Gas Association design certificate:  
1029-CC- 8375.

Australian Gas Association design certificate: 4214.  
Approved for Delta C applications.

#### INSTALLATION

##### WHEN INSTALLING THIS PRODUCT...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.

#### WARNING

**FIRE OR EXPLOSION HAZARD CAN CAUSE PROPERTY DAMAGE, SEVERE INJURY OR DEATH.**

Follow these warnings exactly:

1. Disconnect power supply before wiring to prevent electrical shock or equipment damage.
2. To avoid dangerous accumulation of fuel gas, turn off gas supply at the appliance service valve before starting installation, and perform Gas Leak Test after installation is complete.
3. Do not attempt to use a control set for natural (manufactured) gas on LP gas, or use a control set for LP on natural (manufactured) gas.
4. Do not bend pilot tubing at control or pilot burner after compression fitting has been tightened, or gas leakage at the connection may result.
5. Always install sediment trap in gas supply line to prevent contamination of gas control.
6. Do not force the gas control knob. Use only your hand to push down the reset button or turn the gas control knob. Never use any tools. If the gas control knob or reset button will not operate by hand, replace the gas control by using a qualified service technician. Force or attempted repair may result in fire or explosion.



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## CAUTION

Never apply a jumper across or short the valve coil terminals. This may burn out the heat anticipator in the thermostat.

### IMPORTANT:

*These gas controls are shipped with protective seals over inlet and outlet tappings. Do not remove seals until ready to connect piping.*

Follow the appliance manufacturer instructions if available; otherwise, use the instructions provided below.

### CONVERTING BETWEEN NATURAL AND LP GAS

## WARNING

**FIRE OR EXPLOSION HAZARD CAN CAUSE PROPERTY DAMAGE, SEVERE INJURY, OR DEATH.**

1. Do not use a gas control set for natural gas on an LP gas system or use a gas control set for LP gas on a natural gas system.
2. When making conversion, main pilot burner orifice *must* be changed to meet appliance manufacturer specifications.

Refer to appliance manufacturer instructions for orifice specifications and changeover procedure. Gas controls are factory-set for natural (and manufactured) or LP gas. Do not attempt to use a control set for natural (manufactured) gas on LP gas, or a control set for LP on natural (manufactured) gas.

Gas controls with standard or slow opening regulators can be converted from one gas to the other with a conversion kit (ordered separately). Order Conversion Kit part no. 393691 to convert from natural (manufactured) to LP gas; order Conversion Kit part no. 394588 to convert from LP to natural (manufactured) gas. Gas controls with step opening regulators cannot be converted.

### INSTALL ADAPTERS TO CONTROL

If adapters are to be installed on the gas control, mount them as follows:

#### Flanges:

1. Choose the appropriate flange for your application.

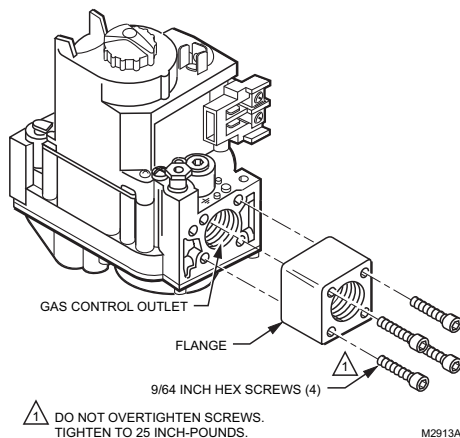
**NOTE:** A right angle inlet flange cannot be used with ECO connected.

2. Remove seal over gas control inlet or outlet.
3. Assure that the O-ring is fitted in the groove of flange. If the O-ring is not attached or is missing, do not use the flange.
4. With O-ring facing valve, align the screw holes on the gas control with the holes in the flange. Insert and tighten the screws provided with the flange. See Fig. 1. Tighten the screws to 25 in. pounds of torque to provide a gas tight seal.

#### Bushings:

1. Remove seal over gas control inlet or outlet.
2. Apply moderate amount of good quality pipe compound to bushing, leaving two end threads bare. On LP installation, use compound resistant to LP gas. *Do not use Teflon tape.*
3. Insert bushing in control and thread pipe carefully into bushing until tight.

Complete instructions below for installing piping, installing gas control, connecting pilot gas tubing, thermocouple and wiring. Make certain the leak test you perform on the control after completing the installation includes leak testing the adapters and screws. If you use a wrench on the gas control after flanges are installed, use the wrench only on the flange, not on the control.



**Fig. 1. Install flange to gas control**

### USING ADAPTERS TO SOLVE SWING RADIUS PROBLEMS

In some field service applications, it is difficult or impossible to thread the gas control on to the gas supply pipe because of space limitations. This problem can be resolved in many instances by using an adapter. Install the adapter on the end of the supply pipe in place of the gas control, following the same precautions and instructions that are used for installing the gas control. After the adapter is installed, attach the gas control to the adapter as outlined above. Note that using an adapter increases the overall length of the gas control.

### LOCATION

The combination gas control is mounted in the appliance vestibule on the gas manifold. If this is a replacement application, mount the gas control in the same location as the old control.

Do not locate the gas control where it may be affected by steam cleaning, high humidity, dripping water, corrosive chemicals, dust or grease accumulation, or excessive heat. To assure proper operation, follow these guidelines:

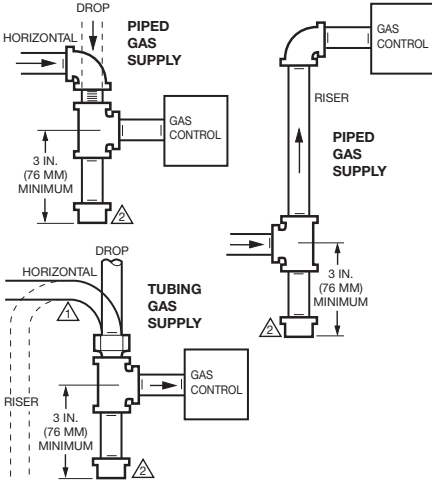
- Locate gas control in a well-ventilated area.
- Mount gas control high enough above the cabinet bottom to avoid exposure to flooding or splashing water.
- Assure the ambient temperature does not exceed the ambient temperature ratings for each component.
- Cover gas control if appliance is cleaned with water, steam, or chemicals to avoid dust and grease accumulation.
- Avoid locating gas control where exposure to corrosive chemical fumes or dripping water is likely.

### Install Piping to Control

All piping must comply with local codes and ordinances or with the National Fuel Gas Code (ANSI Z223.1

NFPA No. 54), whichever applies. Tubing installation must comply with approved standards and practices.

1. Use new, properly reamed pipe free from chips. If tubing is used, assure the ends are square, deburred and clean. All tubing bends must be smooth and without deformation.
2. Run pipe or tubing to the control. If tubing is used, obtain a tube-to-pipe coupling to connect the tubing to the control.
3. Install sediment trap in the supply line to the gas control See Fig. 2.



- ⚠ ALL BENDS IN METALLIC TUBING SHOULD BE SMOOTH.
- ⚠ CAUTION: SHUT OFF THE MAIN GAS SUPPLY BEFORE REMOVING END CAP TO PREVENT GAS FROM FILLING THE WORK AREA. TEST FOR GAS LEAKAGE WHEN INSTALLATION IS COMPLETE.
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Fig. 2. Sediment trap installation

### Install Control

1. Mount the gas control 0-90 degrees, in any direction including vertically, from the upright position of the gas control knob.
2. Mount the gas control so gas flow is in the direction of the arrow on the bottom of the control.
3. Thread pipe the amount shown in Table 2 for insertion into control. *Do not thread pipe too far.* Valve distortion or malfunction may result if the pipe is inserted too deeply into the gas control.
4. Apply a moderate amount of good quality pipe compound (do not use Teflon tape) to pipe only, leaving two end threads bare. On LP installations, use compound resistant to LP gas. Refer to Fig. 3.
5. Remove seals over gas control inlet and outlet, if necessary.
6. Connect pipe to gas control inlet and outlet. Use wrench on the square ends of the control. If an adapter is used, place wrench on adapter rather than control. Refer to Figs. 4 and 5.

Table 2. NPT PIPE THREAD LENGTH IN IN.

| Pipe Size | Thread Pipe this Amount | Maximum Depth Pipe can be Inserted into Control |
|-----------|-------------------------|---|
| 3/8       | 9/16                    | 3/8   |
| 1/2       | 3/4                     | 1/2   |
| 3/4       | 13/16                   | 3/4   |

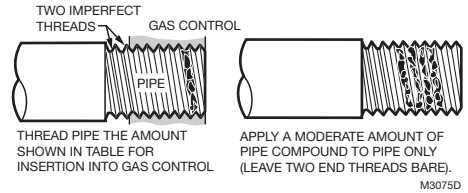


Fig. 3. Use moderate amount of pipe compound

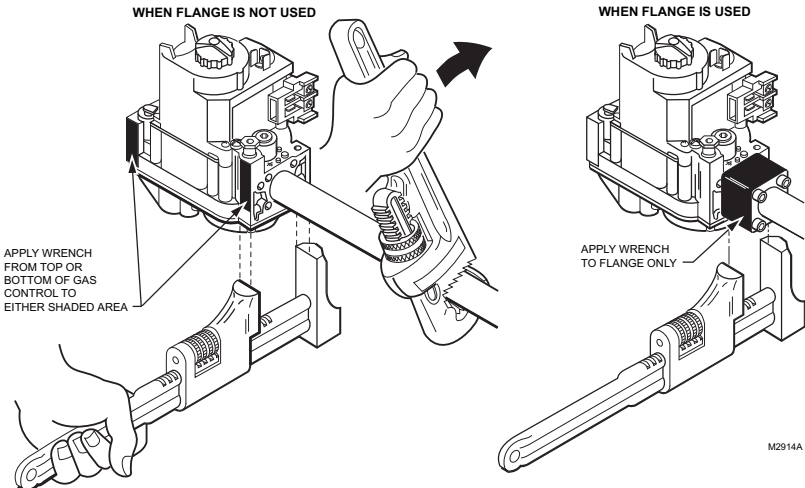


Fig. 4. Proper use of wrench on gas control with and without flanges

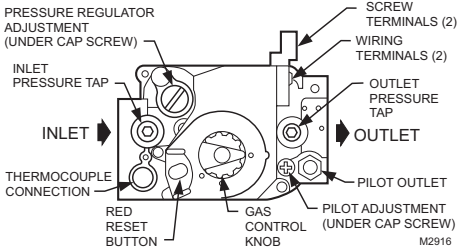


Fig. 5. Top view of gas control

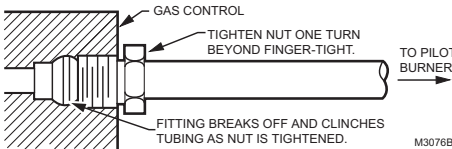


Fig. 6. Always use new compression fitting

#### Connect Pilot Gas Tubing

1. Cut tubing to desired length and bend as necessary for routing to pilot burner. Do not make sharp bends or deform the tubing. Do not bend tubing at gas control or pilot burner after compression fitting has been tightened because this may result in gas leakage at the connection.
2. Square off and remove burrs from end of tubing.
3. Unscrew compression fitting from the pilot outlet (Fig. 5). Slip the compression fitting over the tubing and slide out of the way.

**NOTE:** When replacing a gas control, cut off old compression fitting and replace with the new compression fitting provided on the combination gas control. Never use the old compression fitting because it may not provide a gas-tight seal.

4. Push tubing into the pilot gas tapping on the outlet end of the control until it bottoms. While holding tubing all the way in, slide compression fitting into place and engage threads. Turn until finger tight. Then tighten one more turn with wrench. Do not overtighten. Refer to Fig. 6.
5. Connect other end of tubing to pilot burner according to pilot burner manufacturer instructions.

#### Install Thermocouple

The Q340A Thermocouple (with adapters) is provided with models of the VR8200A. Install the Q340A as follows:

1. Determine if the pilot burner requires a thermocouple with a push-in clip or attachment nut, and attach the correct adapter to the Q340.
2. For push-in clip type pilot burners: from beneath, insert the tip of the Q340 into the hole or barrel of the pilot burner. Push in firmly to lock in place.

3. For attachment nut type pilot burners: from beneath, insert the tip of the Q340 into the hole or barrel in the pilot burner. Engage the threads of the attachment nut and tighten securely.

#### Connect Thermocouple

If a supplementary limit or energy cutoff will be used, insert the ECO connector (order part no. 393200-1) as shown in Fig. 7, then connect thermocouple lead. If not, insert thermocouple lead directly. This is an electrical connection and must be clean and dry. Tighten only 1/4 turn beyond finger tight to give good electrical continuity. **Do not overtighten.**

#### WIRING

Follow the wiring instructions furnished by the appliance manufacturer, if available, or use the general instructions provided below. Where these instructions differ from the appliance manufacturer, follow the appliance manufacturer instructions.

All wiring must comply with applicable electrical codes and ordinances.

Disconnect power supply before making wiring connections to prevent electrical shock or equipment damage.

1. Check the power supply rating on the gas control and make sure it matches the available supply. Install transformer, thermostat and other controls as required.
2. Connect control circuit to gas control terminals. See Figs. 5 and 8.

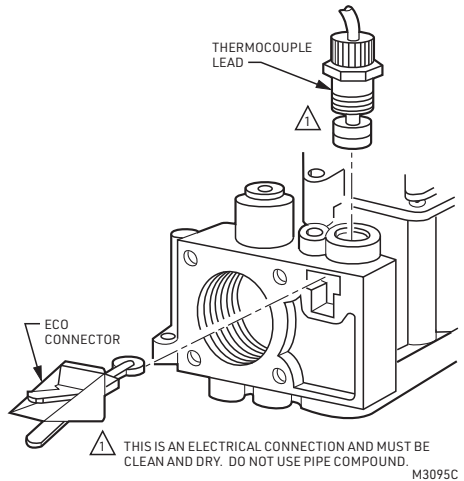
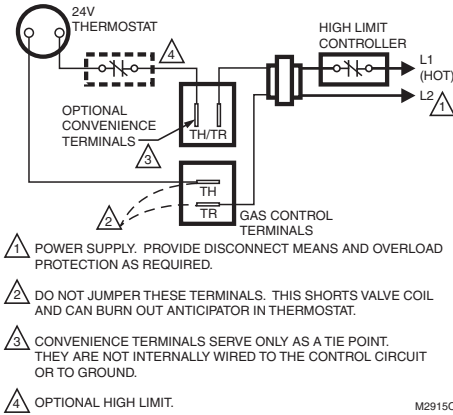


Fig. 7. Installing thermocouple to the power unit

### Connect Supplementary Limit or ECO (If used)

The leadwires from the high limit or ECO must be equipped with insulated 1/4 in. female quick-connect terminals. Leadwire length must not exceed the lengths shown in Tables 3 and 4. Connect the high-limit or ECO leadwires to the two terminals on the ECO connector.



**Fig. 8. Wiring connections**

**Table 3. Maximum Length of Supplementary Limit Leadwires When Using Q340A Thermocouple**

| Thermocouple Length |        | Maximum Leadwire Length x 2 (Wires) |        |            |        |            |        |
|---------------------|--------|-------------------------------------|--------|------------|--------|------------|--------|
|                     |        | Awg No. 14                          |        | Awg No. 16 |        | Awg No. 18 |        |
| inches              | meters | inches                              | meters | inches     | meters | inches     | meters |
| 18                  | 0.5    | 35                                  | 0.9    | 22         | 0.6    | 13         | 0.3    |
| 24                  | 0.6    | 29                                  | 0.7    | 18         | 0.5    | 11         | 0.3    |
| 30                  | 0.8    | 23                                  | 0.6    | 15         | 0.4    | 9          | 0.2    |
| 36                  | 0.9    | 17                                  | 0.4    | 11         | 0.3    | 6          | 0.2    |
| 48                  | 1.2    | Do not use                          |        |            |        |            |        |
| 60                  | 1.5    |                                     |        |            |        |            |        |

**Table 4. Maximum Length of Supplementary Limit Leadwires When Using Q309A Thermocouple**

| Thermocouple Length |        | Maximum Leadwire Length x 2 (Wires) |        |            |        |            |        |
|---------------------|--------|-------------------------------------|--------|------------|--------|------------|--------|
|                     |        | Awg No. 14                          |        | Awg No. 16 |        | Awg No. 18 |        |
| inches              | meters | inches                              | meters | inches     | meters | inches     | meters |
| 12                  | 0.3    | 47                                  | 1.2    | 30         | 0.8    | 18         | 0.5    |
| 18                  | 0.5    | 41                                  | 1.0    | 26         | 0.7    | 16         | 0.4    |
| 24                  | 0.6    | 35                                  | 0.9    | 22         | 0.6    | 14         | 0.4    |
| 30                  | 0.8    | 29                                  | 0.8    | 18         | 0.5    | 11         | 0.3    |
| 36                  | 0.9    | 23                                  | 0.6    | 15         | 0.4    | 9          | 0.2    |
| 40                  | 1.0    | 19                                  | 0.5    | 12         | 0.3    | 7          | 0.2    |
| 48                  | 1.2    | 11                                  | 0.3    | 7          | 0.2    |            |        |
| 60                  | 1.5    | Do not use                          |        |            |        |            |        |

## STARTUP AND CHECKOUT

### **⚠ WARNING**

**FIRE OR EXPLOSION HAZARD CAN CAUSE PROPERTY DAMAGE, SEVERE INJURY, OR DEATH.**

1. Do not force the gas control knob. Use only your hand to push down the reset button or turn the gas control knob. Never use any tools.
2. If the gas control knob or reset button will not operate by hand, or if the reset button stays

depressed after it is released, replace the gas control using a qualified service technician.

### **GAS CONTROL KNOB SETTINGS**

The gas control knob has three settings:

**OFF:** Prevents pilot and main burner gas flow.

**PILOT:** Permits pilot gas flow only. Gas control knob must be held depressed or thermocouple must be heated sufficiently to hold the safety control valve open.

**ON:** Permits main burner and pilot gas flow. Gas control and thermostat control main burner gas flow.

**NOTE:** Gas controls are shipped with the gas control knob in the ON position.

## PERFORM GAS LEAK TEST

### WARNING

**FIRE OR EXPLOSION HAZARD CAN CAUSE PROPERTY DAMAGE, SEVERE INJURY, OR DEATH.**

Check for gas leaks with rich soap and water solution any time work is done on a gas control.

### GAS LEAK TEST

1. Paint all pipe connections upstream from the gas control with a rich soap and water solution. Bubbles indicate a gas leak.
2. If a gas leak is detected, tighten the pipe connection.
3. Stand clear while lighting main burner to prevent injury caused from hidden gas leaks which could cause flashback in the appliance vestibule. Light the main burner.
4. With the main burner in operation, paint all pipe joints (including adapters) and gas control inlet and outlet with rich soap and water solution.
5. If another gas leak is detected, tighten adapter screws, joints, and pipe connections.
6. Replace the part if gas leak cannot be stopped.

### LIGHT THE PILOT BURNER FLAME

1. Turn the gas control knob clockwise to OFF. Wait five minutes to dissipate any unburned gas. Sniff around the appliance near the floor. Do not relight the pilot flame if you smell gas.
2. Turn the gas control knob counterclockwise to PILOT. Push down and hold the gas control knob while lighting the pilot flame.
3. Hold the gas control knob down about one minute, then release.
  - If the pilot flame goes out, turn the gas control knob clockwise to OFF and repeat steps 1 through 3.
  - If pilot flame remains lit, turn the gas control knob counterclockwise to ON.

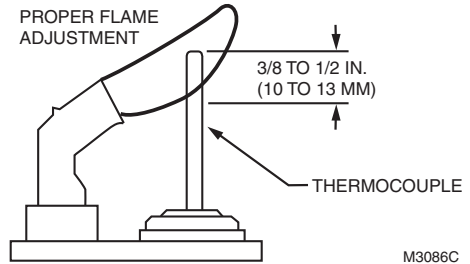
### ADJUST THE PILOT BURNER FLAME

The pilot flame should envelop 3/8 to 1/2 inch [10 to 13 millimeters] of the thermocouple tip. Refer to Fig. 9. To adjust the pilot flame:

1. Remove the pilot adjustment cover screw. Refer to Fig. 5.
2. Turn the inner adjustment screw clockwise to decrease or counterclockwise to increase the pilot flame.
3. After replace the cover screw after adjustment and tighten firmly to assure proper operation.

### LIGHT MAIN BURNER

Follow the appliance manufacturer instructions or place the thermostat setting above room temperature to call for heat.



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**Fig. 9. Proper flame adjustment**

## CHECK AND ADJUST GAS INPUT TO MAIN BURNER

### CAUTION

1. Do not exceed the input rating stamped on the appliance nameplate, or manufacturer recommended burner orifice pressure for the size orifice(s) used. Assume the main burner primary air supply is properly adjusted for complete combustion (refer to the appliance manufacturer instructions).
2. IF CHECKING GAS INPUT BY CLOCKING THE GAS METER:
  - Assume that the only gas flow through the meter is from the appliance being tested.
  - Assume that other appliances are turned off and that the pilot burners are extinguished (or deduct the gas consumptions from the meter reading).
  - Convert the flow rate to Btuh as described in the Gas Controls Handbook (form 70-2602) and compare to the Btuh input rating on the appliance nameplate.
3. IF CHECKING GAS INPUT WITH A MANOMETER (PRESSURE GAUGE):
  - Assume the gas control knob is in the PILOT position before removing the outlet pressure tap plug to connect the manometer.
  - Turn the gas control knob back to PILOT when removing the manometer and replacing outlet pressure tap plug.
  - Shut off the gas supply at the appliance service valve or, for LP gas, at the gas tank before removing the outlet pressure tap plug and before disconnecting the manometer and replacing the outlet pressure tap plug.
  - Perform the Gas Leak Test at the inlet pressure tap plug.

Check gas input to main burner by clocking gas meter or by using a manometer (pressure gauge) connected to the outlet pressure tap on the gas control (Fig 5). Output pressure is normally set at 3.5 in. wc [0.9 kPa] nominal for natural gas. It can be adjusted from 3 to 5 in. wc [0.74 to 1.2 kPa]. For LP gas, the output pressure is normally set at 10 in. wc [2.5 kPa nominal]. It is adjustable from 8 to 12 in. wc [2 to 3 kPa]. These are normal settings. However, a specific appliance may be rated differently. Check the rating nameplate of the appliance and if necessary reset the regulator as follows:

1. Remove pressure adjustment cap screw. See Fig. 5.
2. Using screwdriver, turn adjusting screw clockwise to increase or counterclockwise to decrease gas pressure to burner.

**NOTE:** Adjustment fitting is plastic and may require slightly greater turning force than metal fitting.

3. Always replace cap screw. Tighten firmly to prevent gas leakage.
4. If outlet pressure cannot be properly adjusted, check inlet pressure by using a manometer connected to the inlet pressure tap on the gas control. Before removing inlet pressure tap plug, shut off gas supply at the manual valve in the gas piping to the appliance, or for LP, at the tank. Also shut off gas supply before disconnecting manometer and replacing plug. If inlet pressure is within the normal range, replace the gas control; if not, take the necessary steps to provide proper gas pressure to the control.

Check burner performance by cycling system while you observe burner response. Burner should ignite promptly and without flashback to orifice. All ports should remain lit. Turn off system and allow burner to cool, then cycle one more time to be sure flame characteristics and ignition are as desired.

#### CHECK SAFETY SHUTDOWN PERFORMANCE



### WARNING

**FIRE OR EXPLOSION HAZARD CAN CAUSE PROPERTY DAMAGE, SEVERE INJURY OR DEATH.**  
Perform the safety shutdown test every time work is done on a gas system.

1. Place gas control knob in PILOT position. Main burner should go off and pilot should remain lit.
2. Extinguish pilot flame. Pilot gas flow should stop within 2-1/2 minutes. Safety shutoff of pilot gas proves complete shutdown since safety shutoff valve prohibits main burner and pilot gas flow.
3. Relight pilot burner and operate system through one complete cycle to assure all controls operate properly.

## SERVICE



### WARNING

**FIRE OR EXPLOSION HAZARD CAN CAUSE PROPERTY DAMAGE, SEVERE INJURY OR DEATH.**  
Do not disassemble the gas control; it contains no replaceable components. Attempted disassembly or repair may damage the gas control.



### CAUTION

Do not apply a jumper across or short the valve coil terminals. This may burn out the heat anticipator in the thermostat or damage the DI module.

#### IMPORTANT:

*Allow 60 seconds after shutdown before re-energizing step-opening model to assure light-off at step pressure.*

#### IF THE PILOT BURNER FLAME WILL NOT LIGHT

1. Assure the main gas supply valve is open and the pilot gas supply line is purged of air.
2. Attempt to light pilot burner flame following procedures in Light the Pilot Burner Flame section. If pilot burner flame still will not light:
  - a. Check the pilot gas adjustment screw. If closed, readjust the pilot flame. Refer to Adjust the Pilot Burner Flame section.
  - b. Perform the Gas Leak Test at the compression fitting. If a gas leak is detected, replace the old compression fitting or tighten the newly installed one. Refer to Fig. 6.
  - c. Assure that the pilot burner tubing or pilot burner orifice is not clogged.

#### IF THE PILOT BURNER FLAME GOES OUT WHEN THE GAS CONTROL KNOB IS RELEASED

1. Assure the gas control knob is held in at least one minute to allow the thermocouple time to heat.
2. Check the pilot burner flame adjustment. Refer to Adjust the Pilot Burner Flame section.
3. Check the wiring between the thermocouple and the gas control valve operator.
4. Assure thermocouple connection to the power unit is tightened 1/4 turn beyond finger tight.
5. If pilot burner flame still goes out, measure the open and closed thermocouple output voltage. Compare it to the acceptable range charts in the thermocouple specifications or in the Gas Controls Handbook. Replace the thermocouple if voltages are outside the acceptable range.
6. Check the power unit resistance. If above 11 ohms, replace the gas control.

#### IF THE MAIN BURNER WILL NOT COME ON WITH A CALL FOR HEAT

1. Assure the gas control knob is in the ON position.
2. Adjust the thermostat several degrees above room temperature.
3. Use an ac voltmeter to measure the voltage across terminals TH and TR.
  - a. If no voltage is present, check the control circuit for proper operation.
  - b. If voltage is present, but first operator did not click open, check for excessive inlet gas pressure. If inlet gas pressure is correct, replace the gas control.
4. Measure the open and closed thermocouple output voltages and compare to the acceptable range charts in the thermocouple specifications or in the Gas Controls Handbook. Replace the thermocouple if voltages are outside the acceptable range.

#### IF THE MAIN BURNER IS OVERFIRING

Adjust the gas control pressure regulator to the correct pressure. If the regulator cannot be adjusted and supply pressure is in the normal range, replace the gas control.

**INSTRUCTIONS TO THE HOMEOWNER—FOR YOUR  
SAFETY READ BEFORE LIGHTING**

**! WARNING**

**IF YOU DO NOT FOLLOW THE WARNINGS  
BELOW AND THE LIGHTING INSTRUCTIONS  
EXACTLY, A FIRE OR EXPLOSION CAN RESULT IN  
PROPERTY DAMAGE, PERSONAL INJURY OR  
LOSS OF LIFE.**

1. Before lighting, smell all around the appliance area for gas. If the appliance uses LP (bottled) gas, also be sure to smell next to the floor because LP gas is heavier than air. If you smell gas, immediately shut off the manual valve in the gas piping to the appliance, or ON LP, AT THE TANK. Do not try to light any appliance. Do not touch any electrical switch or use the phone. LEAVE THE BUILDING and call your gas supplier. If your gas supplier cannot be reached, call the fire department.
2. Do not force the gas control knob on the appliance. Use only your hand to push down the reset button or turn the gas control knob. Never use any tools. If the knob or reset button will not operate by hand, replace the control using a qualified service technician. Force or attempted repair may result in fire or explosion.
3. Replace the gas control if it has been flooded with water. Call a qualified service technician.
4. If the red reset button stays depressed after it is released, replace the gas control.
5. The gas control is a safety device. It must be replaced in event of any physical damage such as bent terminals, missing or broken parts, stripped threads, or evidence of exposure to heat.

**IMPORTANT:**

*Follow the operating instructions provided by the manufacturer of your heating appliance. The information below will be of assistance in a typical control application, but the specific controls used and the procedures outlined by the manufacturer of your appliance may differ, requiring special instructions.*

**TO LIGHT THE PILOT BURNER**

**STOP: Read the safety information above.**

This appliance has a pilot burner which must be lit by hand. If the pilot flame has gone out, follow these instructions exactly:

1. Set thermostat to lowest setting and shut off electric power to appliance.
2. Remove gas control access panel if provided on your appliance.
3. Turn gas control knob (Fig. 3) clockwise to OFF position.
4. Wait five minutes to allow any gas in the combustion chamber to vent. If you then smell gas in the appliance area or near the floor in an LP installation, immediately shut off the manual valve in the gas piping to the appliance or, WITH LP, SHUT OFF AT THE TANK. Do not touch any electrical switch or use the phone. LEAVE THE BUILDING and call your gas supplier. If your gas supplier cannot be reached, call the fire department. Failure to do so may result in fire or explosion.
5. If you do not smell gas, turn knob on gas control counterclockwise to PILOT.
6. Push and hold down red reset button (Fig. 5) while you light the pilot burner. Continue to hold down the reset button for about one minute after the pilot is lit. Release button; pilot should remain lit. If it goes out, repeat steps 3-6. If the reset button does not pop up when released, stop immediately and call your service technician or gas supplier. If pilot will not remain lit after several tries, turn gas control knob to OFF and call your service technician or gas supplier.
7. When pilot remains lit, turn gas control knob counterclockwise to ON.
8. Replace burner access panel.
9. Turn on power.
10. Set thermostat to desired temperature.

**TO TURN OFF APPLIANCE**

**VACATION SHUTDOWN:** Turn gas control knob clockwise from ON to PILOT. Pilot will re-main lit, ready for return to normal service without relighting.

**COMPLETE SHUTDOWN:** Turn gas control knob clockwise to OFF. Both pilot and main burner are shut off. The pilot must be manually relit when normal burner operation is desired.



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