



# WHITE-RODGERS

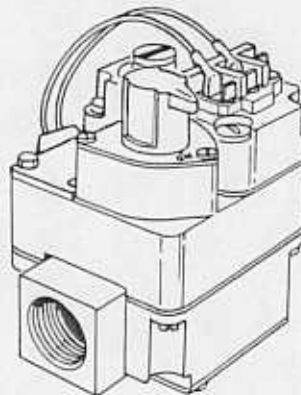
## -INSTALLATION INSTRUCTIONS- 36C68 SERIES COMBINATION GAS VALVE

**FAILURE TO READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY, BEFORE INSTALLING OR OPERATING THIS CONTROL, COULD CAUSE PERSONAL INJURY AND/OR PROPERTY DAMAGE.**

**KEEP INSTRUCTION SHEET FOR FUTURE USE.**

The 36C68 Series combination gas valve is designed for use on automatic spark ignition systems. It is equipped with a redundant solenoid valve that controls gas flow to the pilot and main burners, a relay operated main valve that controls gas flow to the main burner, a pressure regulator to maintain a constant outlet pressure, and a two-position gas cock knob for manual gas shut off.

A variety of models are available to suit voltage, pipe size and pressure regulation requirements.



### SPECIFICATIONS

**Type of Gas:** Suitable for use with all gases.

**Pressure Rating:** 14" W.C. (1/2 PSI) max.

**Pressure Regulator Settings:**

**Ambient Temperature:** -40°F to +175°F (-40°C to 79°C)

**Natural Gas** - Adjustable 2.5 to 5" W.C.

**L.P. Gas** - Adjustable 7.5 to 12" W.C.

Pipe Size (Inches)	NATURAL GAS	L.P. GAS
	Capacity (BTU/Hr) (for 1000 BTU/Cu. Ft. 0.64 Sp. Gr. Gas at 1" pressure drop across valve)	Capacity (BTU/Hr) (for 2500 BTU/Cu. Ft., 1.53 Sp. Gr. Gas at 1" pressure drop across valve)
1/2" x 3/8"	100,000	162,000
1/2" x 1/2"	250,000	405,000
1/2" x 3/4"	250,000	405,000
3/4" x 3/4"	335,000	542,700

### PRECAUTIONS

If in doubt about whether your wiring is millivolt, line or low voltage, have it inspected by a qualified heating and air conditioning contractor, electrician or someone familiar with basic electricity and wiring.

Do not exceed the specification ratings.

All wiring must conform to local and national electrical codes and ordinances.

This control is a precision instrument, and should be handled carefully. Rough handling or distorting components could cause the control to malfunction.

**⚠ CAUTION** To prevent electrical shock and/or equipment damage, disconnect electric power to system, at main fuse or circuit breaker box, until installation is complete.

**⚠ WARNING** Do not use on circuits exceeding specified voltage. Higher voltage will damage control - could cause shock or fire hazard.

Do not short out terminals on gas valve or primary control to test. Short or incorrect wiring will burn out heat anticipator - could cause personal injury and/or property damage.

### CAUTION: FOR YOUR SAFETY

If you smell gas:

1. Open windows.
2. Don't touch electrical switches.
3. Extinguish any open flame.
4. Immediately evacuate premises and call your gas supplier.

**⚠ WARNING** Never use flame or any kind of sparks to check for gas leaks - could cause fire and/or explosion.

Piping must comply with local codes, ordinances and/or national fuel gas codes.

Install this gas valve to the following instructions.

**MAIN PIPING CONNECTIONS**

- ⚠ WARNING** Failure to turn off electric or main gas supply to heating system, could cause personal injury and/or property damage by shock, gas suffocation, fire and/or explosion.
- If replacing an existing valve, disconnect all plumbing and electrical connections from old valve.
- The new valve may be installed in any position, except upside down. The arrow on the bottom plate, indicates the direction of gas flow through the valve.
- It is advisable to use new pipe, properly chamfered, reamed, free of burrs and chips. If old pipe is used, be sure it is clean and free of rust, scale, burrs, chips, and old pipe joint compound.
- Apply pipe joint compound (pipe dope) or teflon tape, that is approved for all gases, only to the male threads of pipe joints. **DO NOT** apply compound or teflon tape to first two threads.
- If a vise or open end wrench is used to hold valve while installing pipe, do not over tighten. Grip valve by inlet boss.
- After all gas and electrical connections are completed, turn gas on and check for gas leaks with leak detection solution or soap suds. Bubbles forming indicate a leak. **SHUT OFF GAS AND FIX ALL LEAKS IMMEDIATELY.**

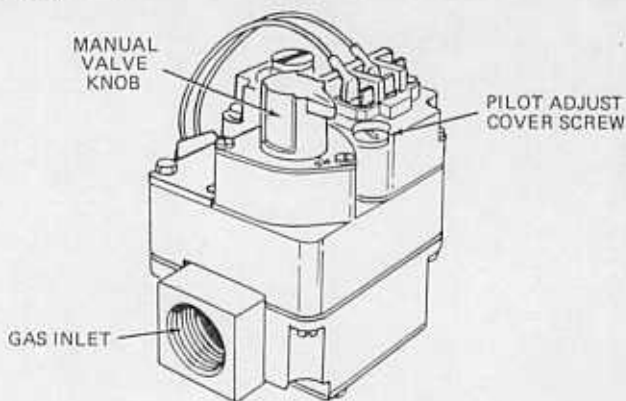


Figure 1

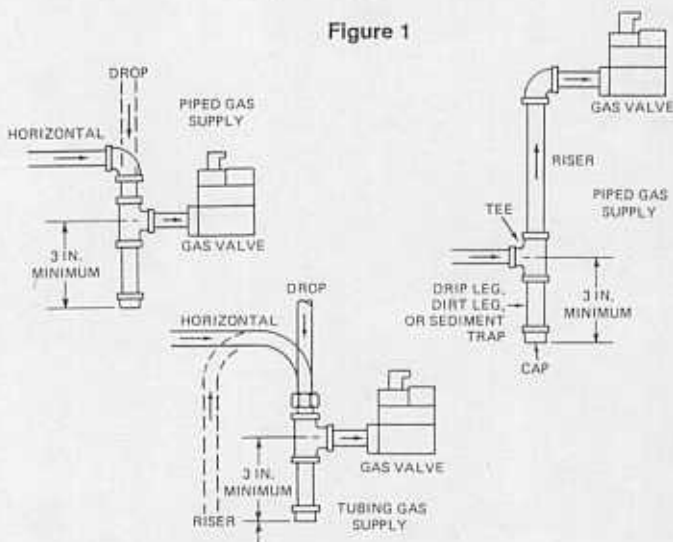


Figure 2 - Piping Connections

**PILOT GAS CONNECTION**

Install fitting into pilot gas outlet, turning until finger-tight. Insert clean deburred tubing all the way through the fitting. Holding the tubing securely, slowly tighten fitting until a slight "give" is felt. Then tighten 1-1/2 additional turns.

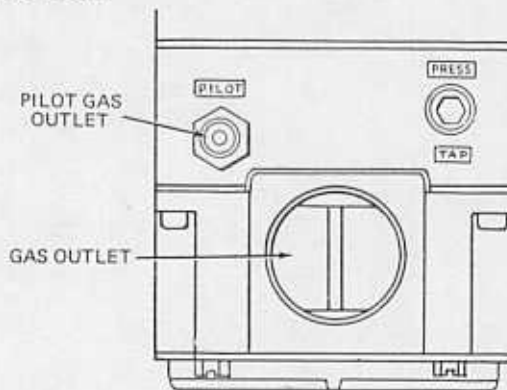


Figure 3

**GAS COCK KNOB**

The gas cock knob on the 36C68 series valve is a two-position detent-off type.

**TURN VALVE OFF:** Rotate knob clockwise (↻) to line on collar around knob. Depress knob and continue rotation to "OFF" position.

**TURN VALVE ON:** Rotate knob counterclockwise (↺) to line on collar around knob. Allow knob to "pop" up, and continue rotation to the "ON" position.

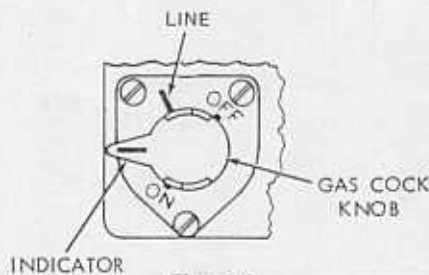


Figure 4

## PILOT GAS ADJUSTMENT



These controls are factory preset to provide ample flow of pilot gas. If field adjustment of pilot flame is required, remove "Pilot Adjust Cover Screw" (see Fig. 1) to expose adjusting screw. Turn

adjusting screw clockwise to reduce flame, or counterclockwise to increase flame. Replace "Pilot Adjust Cover Screw" and tighten securely.

## PRESSURE REGULATOR ADJUSTMENT

The stamping on the side of the valve contains the factory set value of the pressure regulator. Although adjustments should not be necessary, the regulator can be field adjusted for outlet pressures normally ranging from 2.5 to 5 inches W.C. for natural gas, and 7.5 to 12 inches W.C. for L.P. gas. Do not force the adjusting screw beyond the limits it can be easily adjusted.

**NOTE** If a valve has been factory adjusted for the 2.5 to 5 inches W.C. range, it cannot be field adjusted outside that range. This is also true for valves adjusted to the 7.5 to 12 inches W.C. range for L.P. gas.

1. DE-ENERGIZE SYSTEM, and attach a manometer to the outlet pressure tap on the outlet side of the valve.
2. Energize system to ignite main burners.
3. Remove "Reg. Adj" cover screw. (Figure 1).
4. Turn adjusting screw (beneath cover screw) clockwise (  ) to increase outlet pressure; counterclockwise (  ) to decrease outlet pressure.
5. Replace cover screw, and cycle system two or three times to verify regulator setting.

## WIRING

**CAUTION** To prevent electrical shock and/or equipment damage, disconnect electric power to system, at main fuse or circuit breaker box, until installation is complete.

**NOTE** This typical wiring diagram shows only the terminal identification and wiring hook up. Always refer to wiring instructions provided by Equipment Manufacturer for system hook-up operation.

All wiring should be installed according to local and national electrical codes and ordinances.

ways check that the electrical power supply used, agrees with the voltage and frequency shown on the valve.

INTERNAL WIRING  
36C68 SERIES COMBINATION GAS VALVE

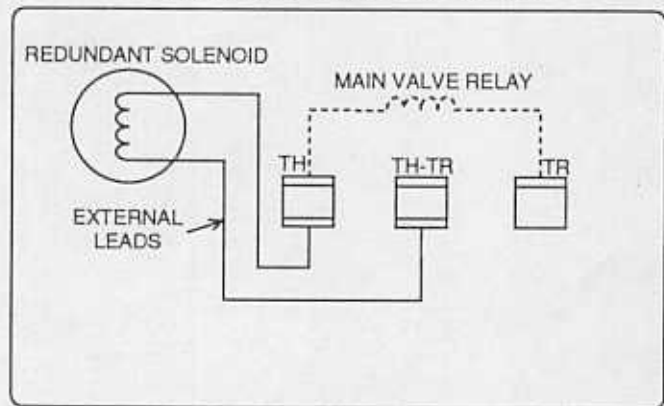


Figure 5

**FOR YOUR SAFETY READ BEFORE OPERATING**

**⚠ WARNING**



If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance is equipped with an ignition device which automatically lights the pilot. Do **not** try to light the pilot by hand.
- B. **BEFORE OPERATING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

**FOR YOUR SAFETY  
"WHAT TO DO IF YOU SMELL GAS"**

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's

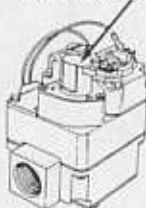
phone. Follow the gas supplier's instructions.

- If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to turn the gas control knob. **Never use tools.** If the knob will not turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

**OPERATING INSTRUCTIONS**

- 1. **STOP!** Read the safety information above on this label.
- 2. Set the thermostat to lowest setting.
- 3. Turn off all electric power to the appliance.
- 4. This appliance is equipped with an ignition device which automatically lights the pilot. Do **not** try to light the pilot by hand.

GAS CONTROL KNOB




36C Series


- 5. Remove control access panel.

- 6. Push in gas control knob slightly and turn clockwise  to "OFF".

NOTE: On the 36C valve, knob cannot be turned to "OFF" unless knob is pushed in slightly. Do not force.

- 7. Wait five (5) minutes to clear out any gas. If you then smell gas, **STOP!** Follow "B" in the safety information above on this label. If you don't smell gas, go to next step.
- 8. Turn gas control knob counterclockwise  to "ON".
- 9. Replace control access panel.
- 10. Turn on all electric power to the appliance.
- 11. Set thermostat to desired setting.
- 12. If the appliance will not operate, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.

**TO TURN OFF GAS TO APPLIANCE**

- 1. Set the thermostat to lowest setting.
- 2. Turn off all electric power to the appliance if service is to be performed.
- 3. Remove control access panel.
- 4. Push in gas control knob slightly and turn clockwise  to "OFF". Do not force.
- 5. Replace control access panel.