

# Gold Ring™ Solenoid Valve Installation and Maintenance Instructions



## 2-Way Direct Acting Combustion Valves Normally Closed

NEMA 1  
Series NM22-0501  
NPT 3/8  
Office 5/16

Bulletin 7262 Effective 1 Sept87  
Revision C Revised 1 Jun81

Parker Hannifin Corporation  
Fluid Control Division

### Warnings

1. Check nameplate for correct catalog number, pressure, voltage and service. Do not install if unsuitable.
2. For protection and proper operation of the solenoid valve, install a strainer or filter suitable for the service involved as close to the valve inlet as possible.
3. This valve requires periodic cleaning and inspection depending on the service. This should be done at least once every 12 months or every 500,000 cycles, whichever occurs first.
4. Turn off electrical power supply and line pressure to the valve. Bleed trapped pressure from the lines before inspecting, cleaning, servicing, or repairing the valve.

### Description:

NM22 solenoid valves are direct-acting and have integral seats.

### Operation:

**NORMALLY CLOSED**

Closed when de-energized; open when energized.

### Installation:

1. Application

Refer to Parker Gold Ring™ catalog for application information.

2. Positioning

Unit valves may be mounted in any position. It is recommended that unit valves be mounted vertical and upright to prevent accumulation of debris in plunger tube.

3. Piping

Connect piping to valve according to markings on valve body. Apply pipe compound or sealing material sparingly to male pipe threads only. If applied to valve thread, it may enter valve and cause operational difficulties. Pipe strain should be avoided by proper support and alignment of piping. **Do not use valve as a lever when tightening pipe.**

4. Wiring

Wiring must comply with local and national electrical codes.

5. Solenoid Temperature

Standard catalog valves are supplied with coils designed for continuous duty service. When the solenoid is energized for a long period, the solenoid frame becomes hot and can be touched with the bare hand for only an instant. This is a safe operating temperature. Excessive heating will be indicated by the smoke and odor of burning coil insulation.

## Maintenance:

### 1. Cleaning

Periodic cleaning of solenoid valves is recommended. Frequency will depend on fluid and service, but should never be less than every 12 months or 500,000 cycles whichever occurs first. In general, if the voltage to the coil is correct, sluggish operation, excessive leakage or noise will indicate cleaning or repair is required. Clean valve filter or strainer when cleaning valve. See valve disassembly and reassembly instructions below.

### 2. Preventative Maintenance

- Keep media flowing through valve as free from dirt and foreign matter as possible.
- While not in service, operate valve at least once a month to insure proper opening and closing.
- Periodic inspection (depending on media and service conditions) of internal valve parts for damage or excessive wear is recommended. Inspect at least every 12 months or 500,000 cycles, whichever occurs first. Thoroughly clean all parts. Replace worn or damaged parts with Gold Ring™ Rebuild Kit. Use all parts for best results. Clean valve filter or strainer when cleaning valve.

### 3. Troubleshooting Guide

#### a. Faulty Controls Circuit

Check the electrical system by energizing the solenoid. A metallic click signifies solenoid is operating. Absence of click indicates loss of power supply. Check for loose or blown out fuses, open-circuit or grounded coil, broken lead wires or splices.

#### b. Burned-Out Coil

Check for open-circuited coil. Replace coil if necessary.

#### c. Low Voltage

Check voltage across the coil lead. Voltage must be least 85% of nameplate rating.

#### d. Incorrect Pressure

Check valve pressure. Pressure to valve must be within range specified on nameplate.

#### e. Excessive Leakage

Disassemble valve and clean all parts. Replace worn or damaged parts with a Gold Ring™ Rebuild Kit. Use all parts for best results. Install filtration if indicated. See valve disassembly and reassembly instructions.

### 4. Coil Replacement

Turn off electrical power supply and disconnect coil lead wires. Refer to exploded view.

### 5. Valve Disassembly and Reassembly (Refer to Exploded Views)

Turn off electrical power supply and line pressure. Bleed trapped pressure from lines.

- To replace coil, remove the two (2) screws and remove the flux frame and coil off the eyelet. Remove coil and spring washer from flux frame. The coil can now be replaced.
- Lift off the enclosure tube assembly and the plunger assembly.
- All parts are accessible for cleaning or replacement.
- Inspect valve body seat for scratches, nicks, dents or other blemishes. Replace if damaged.
- Reassemble in reverse order of disassembly, paying careful attention to Exploded Views provided. Apply  $44 \pm 4$  inch pounds of torque to the screws. Lubricate all gaskets with DOW CORNING® DC 200 oil or an equivalent high grade silicone oil.
- DO NOT alter, modify, or use parts not obtained in Rebuild Kit from original manufacturer.

#### Parker Gold Ring™ Rebuild Kits

Rebuild Kits and Unit Solenoid are available for Gold Ring™ Valves. Parts marked with an asterisk (\*) are included in Rebuild Kits (See Exploded Views).

#### Ordering Information For Rebuild Kits

When ordering Parker Gold Ring™ Rebuild Kits or Unit Solenoids, specify Valve Catalog Number, Serial Number and Voltage.

## NORMALLY CLOSED 3/8" NPT ALUMINUM

