

# Gold Ring™ Solenoid Valve Installation and Maintenance Instructions



**General Purpose Solenoids  
NEMA 1 Enclosures  
G, R, S, & T**

**Parker Hannifin Corporation  
Fluid Control Division**

Bulletin 7240      Effective 15Jun86  
Revision G        Revised 11-2024

## Warnings

1. If you purchase a Unit Valve and a Unit Solenoid, be sure the last two digits of the Unit Valve number match the first two digits of the Unit Solenoid number. If they do not match, do not install.  

04F30U2106AAF      Unit Valve

AFGC15                Unit Solenoid
2. Check data label for correct catalog number, pressure, voltage and service. Do not install if unsuitable.
3. 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.
4. Solenoid valves require 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.
5. 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:

These solenoids are equipped with a general purpose NEMA Type 1 enclosure. Valves with watertight NEMA Type 4 or explosion-proof NEMA Type 7 enclosures are further covered by I & M Instructions, Bulletin 7220.

## Operation:

When the solenoid is energized the plunger is attracted to the pole piece. For specific valve operation, refer to the specific valve I & M Instructions.

## 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. Housing for all solenoids have 1/2-inch electrical connections. Unit Solenoid cover may be removed by inserting a screwdriver under the black cover at the curved end opposite the electrical connection and gently twisting. The enclosures may be rotated to facilitate wiring.

#### 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 enclosure 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. Ambient and fluid temperature limitations for a solenoid valve depend on unit solenoid and unit valve materials.

#### Maintenance:

##### 1. 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

###### b. Burned-Out Coil

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

###### c. Low Voltage

Check voltage across the coil lead. Voltage must be at least 85% of data label rating.

##### 2. Unit Solenoid Replacement

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

- Remove gold ring by inserting a 3/16" wide screwdriver in the curved slot. While holding the gold ring firmly against the unit solenoid gently twist screwdriver counterclockwise. Gold ring will open. Lift off data label and unit solenoid.
- Reassemble by sliding new unit solenoid over plunger tube assembly. Place data label on top. Press gold ring against data label to compress anti-vibration fingers. Squeeze gold ring firmly together. Reconnect your electrical circuit.

NOTE: "This product may contain chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

This warning is given in compliance with California Proposition 65, as detectable amounts of chemicals subject to Proposition 65 may be contained in this product.



