

# DEMA NORMALLY CLOSED SOLENOID VALVES

## Model 473P, 473PT, 474P, 474PT, 476P & 476PT

### INSTALLATION INSTRUCTIONS

#### A. INSTALLATION:

Model 473 has 3/8" NPT connections; Model 474 has 1/2" NPT connections, and Model 476 has 3/4" connections. The valve may be mounted in any position other than with the coil lower than the body. Fluid must enter the connection marked "IN". The coil is provided with an electrical junction box. The coil leads must be attached to the proper voltage corresponding to that printed on the coil back plate. The coil and junction box may be swiveled to any direction. A letter "P" in the model designation means the valve has a Buna-N® diaphragm. A "PT" in the model number means the valve has a Teflon® diaphragm.

#### B. OPERATION:

When the solenoid coil is energized, a plunger is pulled away from the pilot port in the center of the diaphragm thus relieving the pressure on top of the diaphragm and allowing input water pressure from underneath to push the diaphragm up and open the outlet port. When the coil is de-energized a kickoff spring pushes the plunger toward the pilot hole in the diaphragm which then blocks any water above the diaphragm from flowing out. The water pressure builds up through a hole in the outer rim of the diaphragm until it pushes the diaphragm down firmly over the central outlet port and shuts off the water flow.

#### C. SPECIFICATIONS:

M.O.P.D. (Maximum Operating Pressure Differential): 150 PSI

M.R.P. (Maximum Rated Pressure): 300 PSI

Flow Factors: Model 0473 Cv=3.5, Model 0474 Cv=4.00 and Model 0476 Cv=5.0

Maximum Ambient Temperature: 120EF

Maximum Fluid Temperature:

Buna-N rubber diaphragm 200EF, Teflon diaphragm 240EF

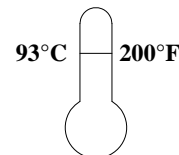
Electrical: 10 Watts AC,

Amperes: 120 VAC in rush 0.3, holding 0.15

Fluid: Water, air light oil and other non-corrosive fluids.

#### FLUIDS:

Valves are intended for water, air, light oil, and other noncorrosive fluids. They should *not* be used for gasoline and other hazardous or explosive fluids. Maximum fluid temperature is 200° F (93.3°C). Ambient temperature shall not exceed 120°F (48.8°C).



**WARNING: NOT FOR USE WITH HAZARDOUS OR CORROSIVE OR EXPLOSIVE FLUIDS.**

#### D. TROUBLE SHOOTING:

**WARNING: USE CARE WHEN HANDLING HAZARDOUS CHEMICALS.**

**CAUTION: TURN OFF WATER SUPPLY & ELECTRICITY BEFORE SERVICING.**

1. Coil burn out:
  - A. Over-Voltage
  - B. Debris blocking plunger movement
2. Failure to open:
  - A. No power or low voltage
  - B. Pressure differential below 1 PSIG
  - C. Pressure differential above 150 PSI
  - D. Solenoid operator impaired by dirt or damaged enclosing tube.
3. Failure to close:
  - A. Coil still energized
  - B. Valve installed backwards
  - C. Dirt on valve seat or in diaphragm bleed hole.
  - D. Solenoid operator impaired by dirt or damaged enclosing tube.

To replace solenoid coil, disconnect wires, remove hex head nut and spacer cup and slip off coil. To inspect pilot seat disc and diaphragm, unscrew the (4) flange bolts and lift tube assembly from the valve body.

**CAUTION: WHEN SERVICING UNIT BE SURE THAT REPLACEMENT PARTS HAVE BEEN INSTALLED ACCORDING TO DRAWING.**

**DEMA NORMALLY CLOSED SOLENOID VALVES**  
**Model 473P, 473PT, 474P, 474PT, 476P & 476PT**  
**INSTALLATION INSTRUCTIONS**

**RETURNS:**            **NO MERCHANDISE MAY BE RETURNED FOR CREDIT WITHOUT DEMA'S WRITTEN PERMISSION. RETURN MERCHANDISE AUTHORIZATION NUMBER REQUIRED IN ADVANCE OF RETURN.**

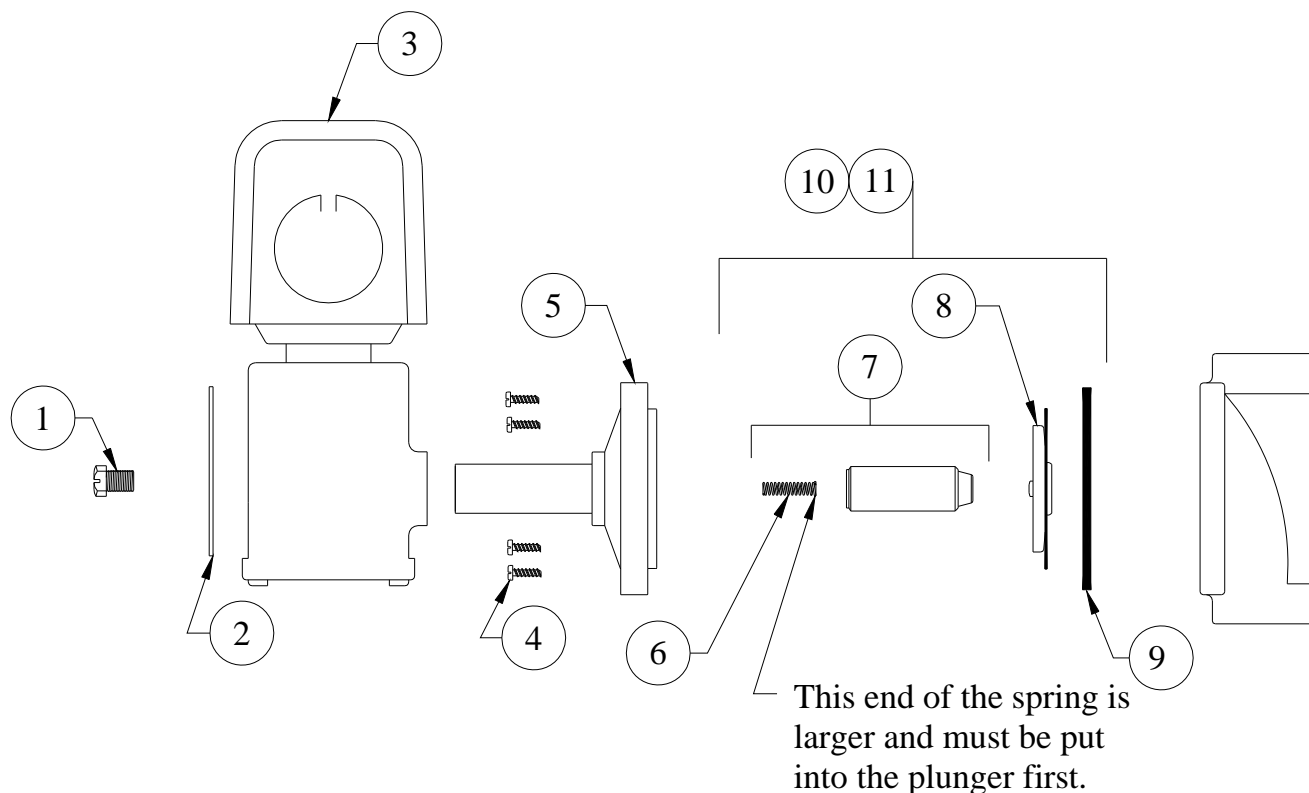
**WARRANTY:**        DEMA products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products, which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, improper voltage supply, physical abuse, or misapplication. Rubber and synthetic rubber parts such as "O"- rings, diaphragms, squeeze tubing and gaskets are considered expendable and are not covered under warranty. This warranty is extended only to the original buyer of DEMA products. If products are altered or repaired without prior approval of DEMA, this warranty will be void.

Defective units or parts should be returned to the factory with transportation prepaid. If inspection shows them to be defective, they will be repaired or replaced without charge, F.O.B. factory. DEMA assumes no liability for damages. Return merchandise authorization number, to return units for repair or replacement, must be granted in advance of return.

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### INSTALLATION INSTRUCTIONS



NO.	PART NO.	DESCRIPTION
1	41-14-1	Top Plug Screw
2	41-13-14	Nameplate (Specify Model)
3	41-9-1	Solenoid Coil (Specify Voltage)
	41-9C-1	Optional Solenoid Coil With Conduit Boss (Specify Voltage)
4	41-16-2	Flange Bolt (4 Req'd)
5	41-7-12	Enclosing Tube (-P and -PT Valves)
6	41-1-9	Kick Off Spring
7	41-2-12	Plunger Assembly (Includes Plunger Spring)
8	41-15-1	Diaphragm – Buna <Black> (Models 473P, 474P)
	41-15-2	Diaphragm – Teflon <Tan> (Models 473PT, 474PT)
	41-15-3	Diaphragm – Buna <Black> (Models 476P)
	41-15-4	Diaphragm – Teflon <Tan> (Models 476PT)
9	41-12-4	O-Ring
10	41-47	Valve Repair Kit (Models 473P & 474P)
11	41-49	Valve Repair Kit (Model 476P)