

DEMA SOLENOID VALVES

453P, 453S, 454P, 458P, 458PS, O453P, O453S SERIES

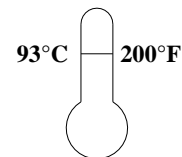
INSTALLATION INSTRUCTIONS

LINE STRAINER:

A strainer, with an 80-mesh or finer screen, should be installed in the line ahead of the solenoid valve. This will assure tight seating and reliable closing action.

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.

Notice: Wiring must comply with local and national electrical codes.

INSTALLATION:

The valves may be installed in any position except with the coil under the body (i.e. not upside down)

The coil can rotationally be oriented in any direction.

MODEL NO.	WATTS AC	VOLTS AC	AMPERES				D C		
			INRUSH		HOLDING		RATED WATTS	VOLTS	AMP
			50 Hz	60Hz	50 Hz	60 Hz			
453P	15	24	3.70	3.00	1.60	1.20	18	12	1.50
O453P		120	.73	.60	.33	.24		24	.70
453S		208	.41	.35	.19	.14		32	.60
O453S		240	.36	.30	.16	.12		115	.15
454P									
458P									
458PS									

VALVE MODEL	MOPD		MRP (PSIG)	Cv	NPT (inches)	ORIFICE DIAMETER (inches)	STAINLESS STEEL BORE SLEEVE	PISTON
	(PSIG) MIN	(PSIG) MAX						
453P	10	1200	1500	1.80	3/8	.350	NO	STAINLESS STEEL
453S	10	1200	1500	1.80	3/8	.350	YES	STAINLESS STEEL
O453P	10	1000	1200	1.80	3/8	.350	NO	STAINLESS STEEL
O453S	10	1000	1200	1.80	3/8	.350	YES	STAINLESS STEEL
454P	10	1200	1500	3.70	1/2	.500	YES	BRASS
458P	10	1200	1500	11.10	1	.939	YES	BRASS
458PS	10	1200	1500	11.10	1	.939	YES	STAINLESS STEEL

*WHEN USING DC COIL, VALVE MUST BE DE-RATED TO 900 psi FOR RELIABLE OPERATION

TROUBLE SHOOTING:

CAUTION: TURN OFF WATER SUPPLY & ELECTRICITY BEFORE SERVICING.

Normally Closed Valves:

A) Failure to open:

1. No power or low voltage.
2. Coil burnout or an open circuit to coil.
3. Dirt prevents the plunger/piston from opening.
4. Pressure differential is too high.
5. Low differential pressure.

B) Failure to close:

1. Coil is still energized.
2. Valve installed backward.
3. Dirt on valve seat or in bleed hole.
4. Dirt in the piston ring or ring groove.
5. Moving parts jammed by dirt or damage to the solenoid tube.

Normally Open Valves:

A) Failure to close:

1. No power or low voltage.
2. Coil burnout or an open circuit to the coil.
3. Dirt prevents the plunger/piston from opening.
4. Pressure differential is too high.
5. Low differential pressure.

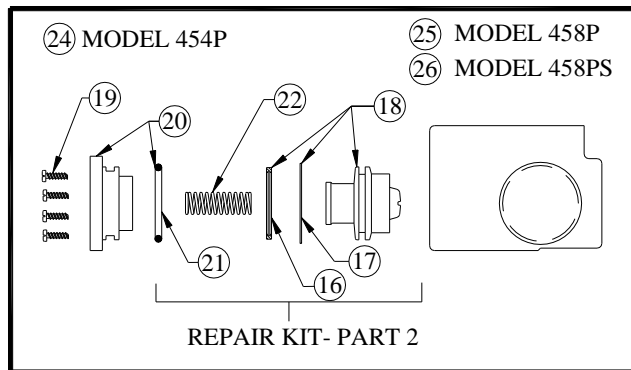
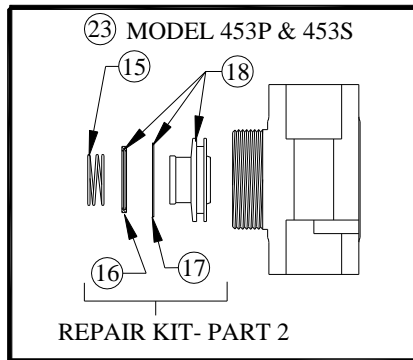
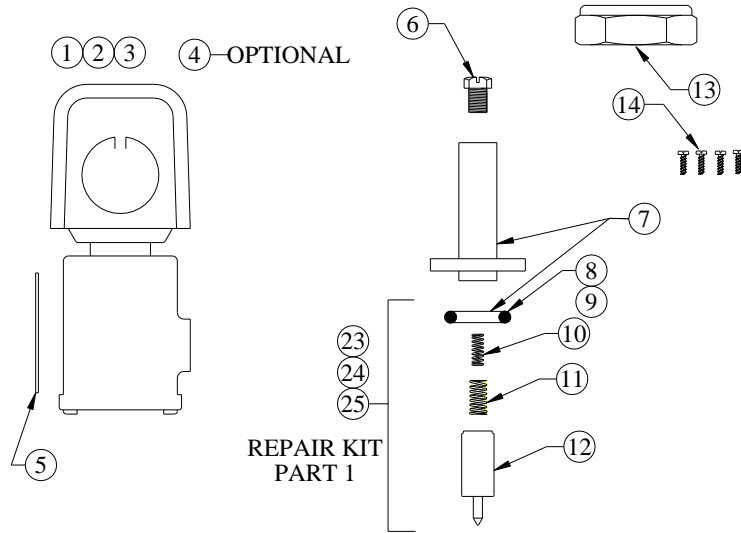
B) Failure to open:

1. Coil still energized.
2. Valve installed backward.
3. Dirt on valve seat or in piston bleed holes.
4. Dirt in the piston ring or ring groove.
5. Moving parts jammed by dirt or damage to the solenoid tube.

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CAUTION: WHEN SERVICING THE VALVE, BE SURE THAT REPLACEMENT PARTS
 HAVE BEEN INSTALLED ACCORDING TO THE DRAWINGS

HIGH PRESSURE SOLENOID VALVES
MODELS 453P, 453S, 454P, 458P, 458PS



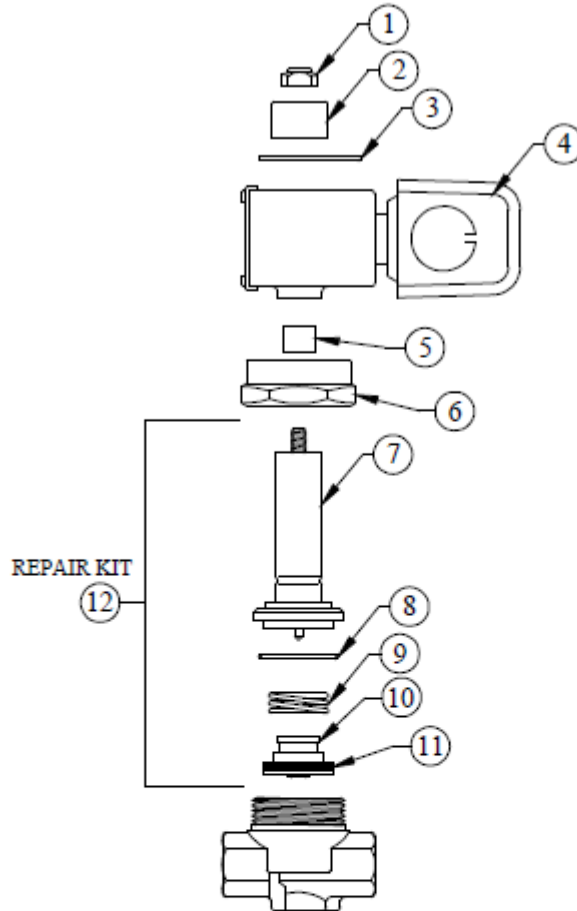
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INSTALLATION INSTRUCTIONS

NO.	PART NO.	DESCRIPTRION	VALVE MODEL NUMBER			
			453P/453S	454P	458P	458PS
1	41-9-2-	Coil Assembly (Specify Voltage)	*	*	*	*
2	41-9C-2-	(Optional) Coil Assembly With Conduit Boss (Specify Voltage)	*	*	*	*
3	X15882-	Din Coil (Specify Voltage)	*	*	*	*
4	41-77-100110	(Optional) Din Female Connector	*	*	*	*
5	41-13-20	Nameplate (Specify Model No.)	*	*	*	*
6	41-14-1	Top Plug Screw	*	*	*	*
7	41-7-22	Enclosing Tube With O-Ring			*	*
	41-7-23	Enclosing Tube With O-Ring		*		
	41-7-24	Enclosing Tube With O-Ring	*			
8	41-5-2	O-Ring, Buna-N (1 X 1 1/8 X 1/16)	*			
9	24-3	O-Ring, Buna-N (13/16 X 15/16 X 1/16)		*	*	*
10	41-1-6	Plunger Spring Return	*	*	*	*
11	41-1-7	Plunger Spring Kickoff	*	*	*	*
12	41-10-10	Plunger Assembly		*	*	*
	41-10-12	Plunger Assembly	*			
13	41-17-1	Enclosing Tube Locknut		*	*	*
	41-17-5	Enclosing Tube Locknut	*			
14	41-16-1	Enclosing Tube Screw (4 Req'd.)		*		
15	41-4-1	Closing Spring	*			
16	41-43-2	Piston Ring	*	*		
	X15195-1	Piston Ring (Std. # only, no DEMA #)			*	*
17	41-20-2	Backup Spring	*	*		
	41-20-6	Backup Spring			*	*
18	41-3-5	Piston Assy., SS With Ring & Backup Spring	*			
	41-3-6	Piston Assy., Brass With Ring & Backup Spring		*		
	41-3-8	Piston Assy., Brass With Ring & Backup Spring			*	
	41-3-9	Piston Assy., Brass With Ring & Backup Spring				*
19	41-16-6	Button-Head Socket Cap Screw 10-32 (4 Req'd.)		*		
	41-16-4	Piston Bore Lid Screw (4 Req'd.)			*	*
20	41-18-1	Piston Bore Lid With O-Ring		*		
	41-18-2	Piston Bore Lid With O-Ring			*	*
21	41-6-1	Piston Bore Lid O-Ring			*	*
	41-6-2	Piston Bore Lid O-Ring		*		
22	41-4-2	Closing Spring		*		
	41-4-3	Closing Spring			*	*
23	41-31	Repair Kit W/SS Piston (Models 453P & 453S)	*			
24	41-32	Repair Kit W/Brass Piston (Model 454P)		*		
25	41-33	Repair Kit W/Brass Piston (Model 458P)			*	
26	41-33-2	Repair Kit W/SS Piston (Model 458PS)				*

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O453P & O453S



NO.	PART NO.	DESCRIPTION
1	41-14-3	Top Plug Nut
2	41-22-3	Spacer Cup
3	41-13-18	Name Plate
4	O41-9-2 O41-9C-2	Solenoid Coil (Specify Voltage) Solenoid Coil w/Conduit Boss (Specify Voltage)
5	41-23-4	Spacer
6	41-17-5	Enclosing Tube Locknut
7	41-7-26	Valve Operator Assembly
8	41-5-2	O-Ring, Buna-N (1 x 1 1/8 x 1/16)
9	41-4-1	Closing Spring
10	41-3-5	Piston Assembly w/Ring & Backup Spring
11	41-20-7	Piston Ring Assembly
12	41-58	Repair Kit

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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.