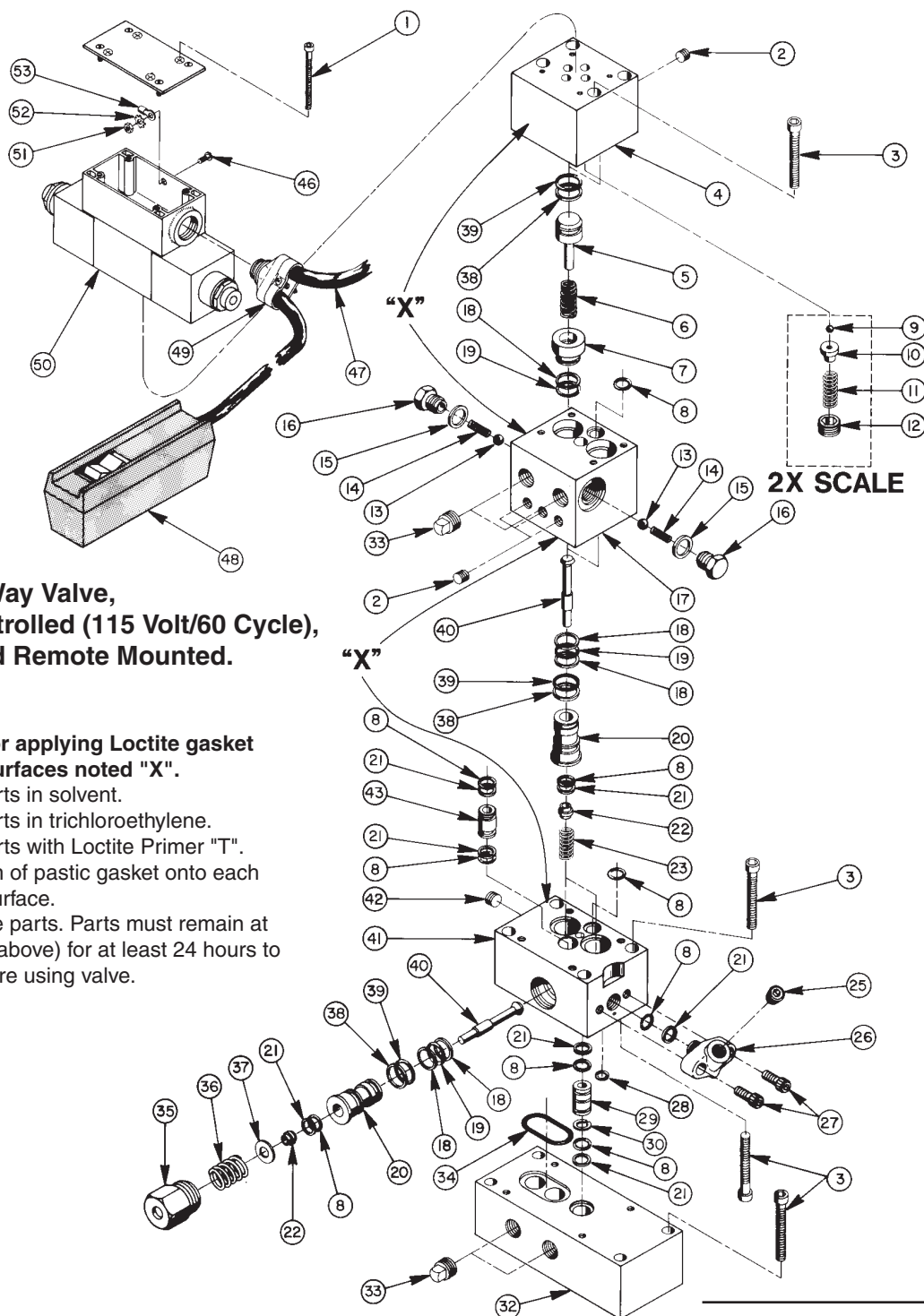


DIRECTIONAL VALVE

Maximum Capacity: 10,000 PSI



3 Position 4-Way Valve, Solenoid Controlled (115 Volt/60 Cycle), Pilot Operated Remote Mounted.

NOTE:

**Procedure for applying Loctite gasket
(No. 68) to surfaces noted "X".**

1. Clean parts in solvent.
2. Clean parts in trichloroethylene.
3. Prime parts with Loctite Primer "T".
4. Roll a film of pastic gasket onto each mating surface.
5. Assemble parts. Parts must remain at 70°F. (or above) for at least 24 hours to cure before using valve.

Parts List, Form No. 100413, Back sheet 1 of 2

Item No.	Part No.	No. Req'd	Description
1	14423	4	Soc. Hd. Cap Screw (#10-24 X 2" Lg. - Torque to 35/40 in. lbs.)
2	10427	4	Pipe Plug (1/8 NPTF)
3	10890	16	Soc. Hd. Cap Screw (1/4-20 X 2" Lg. - Torque to 200/220 in. lbs. [Four are used for remote mounting, torque those to 70/80 in. lbs.])
4	50952	1	Top Cap
5	202476	2	Pilot Piston
6	10366	2	Compression Spring (1/2 O.D. X 1" Lg.)
7	202475	2	Valve Seat
8	*10268	10	O-ring (1/2 X 3/8 X 1/16)
9	10418	1	Steel Ball (1/8 dia.)
10	202499	1	Spring Guide
11	16665	1	Compression Spring (5/32 I.D. X 1/2 Lg.)
12	16704	1	Soc. Hd. Jam Screw (5/16-24 UNF X 5/32 Lg.)
13	14476	2	Steel Ball (11/32 dia.)
14	12195	2	Compression Spring (1/4 O.D. X 1/2 Lg.)
15	*14874	2	Copper Washer (11/16 X 1/2 X 1/32)
16	29784	2	Valve Screw (Torque to 35/40 ft. lbs.)
17	50948	1	Center Body
18	*12391	8	Backup Washer (11/16 X 9/16 X 1/16)
19	*11284	5	O-ring (11/16 X 9/16 X 1/16)
20	22068	3	Bushing
21	*11863	8	Backup Washer (1/2 X 3/8 X 1/16)
22	202479	3	Spring Guide
23	11195	2	Compression Spring (1/2 O.D. X 3/4 Lg.)
25	10479	1	Pipe Plug (1/4 NPTF)
26	20866	1	Gauge Fitting
27	10006	2	Soc. Hd. Cap Screw (1/4-20 UNC X 5/8 Lg.; Torque to 70/80 in. lbs.)
28	*10266	1	O-ring (3/8 X 1/4 X 1/16)
29	21094	1	Bushing
30	211916	1	Retaining Ring (Rectangular Section)
32	42960	1	Sub-plate
33	11127	6	Pipe Plug (3/8 NPTF)
34	*10914	1	O-ring (1-3/8 X 1-3/16 X 3/32)
35	202494	1	Spring Retainer
36	14979	1	Compression Spring (3/4 O.D. X 1" Lg.)
37	16668	1	Washer (5/8 X 5/32 X 1/16)
38	*12392	5	Backup Washer (3/4 X 5/8 X 1/16)
39	*10302	5	O-ring (3/4 X 5/8 X 1/16)
40	200542	3	Balanced Poppet Half
41	50949	1	Valve Sub-plate
42	10909	1	Pipe Plug (3/8 NPTF)
43	21094	1	Bushing
46	10448	1	Slotted Rd. Hd. Screw (#6-32 X 3/8 Lg.)
47	24733	1	Power Cord Assembly
48	202778	1	Remote Control Hand Switch Assembly
49	17866	1	Straight Duplex Connector
50	16664-1	1	Solenoid Valve (115 Volt/50/60 Hz)
51	10195	1	Nut (#6-32)
52	15906	1	Lockwasher
53	12311	1	Ring Tongue Terminal
	50951	1	Basic Valve Assembly (Less solenoid and sub-plate)
			PARTS INCLUDED BUT NOT SHOWN
	204810	1	Patent No. Decal
	*208358	1	Warning Decal
	205623	1	Trade Name Decal (For V34SR)
	208407	1	Corporate Decal (For 9602)

Part numbers marked with an asterisk (*) are contained in Repair Kit No. 300494.

NOTE: Drill 5/32" hole as shown for ground wire when a new solenoid valve is ordered.

SPECIFICATIONS

OPERATION

Neutral (Hold): When both solenoids are de-energized, oil from pump circulates at free flow from the pressure port "P" to tank "T". Both cylinder ports are blocked.

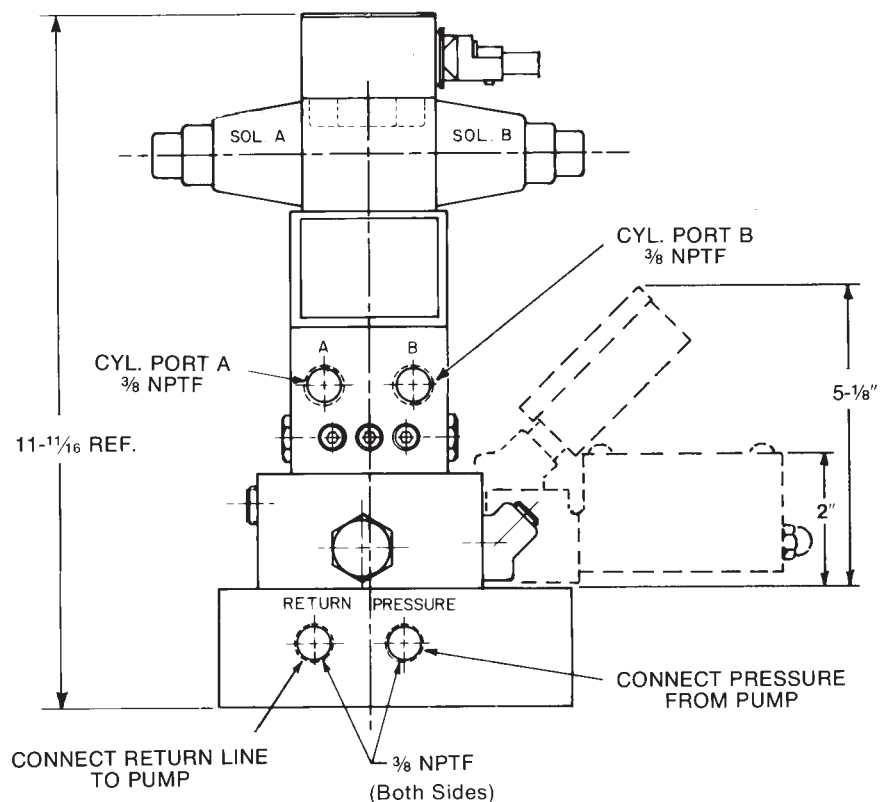
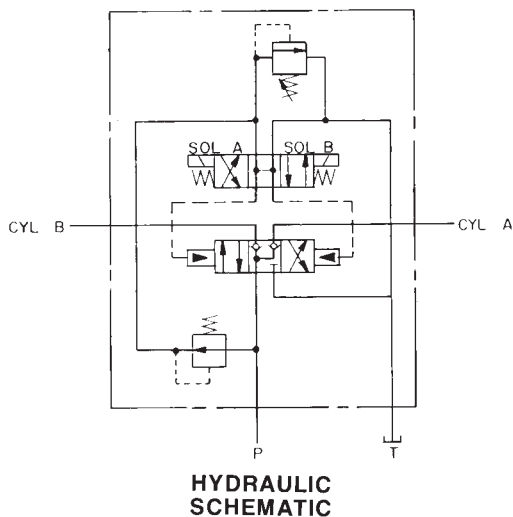
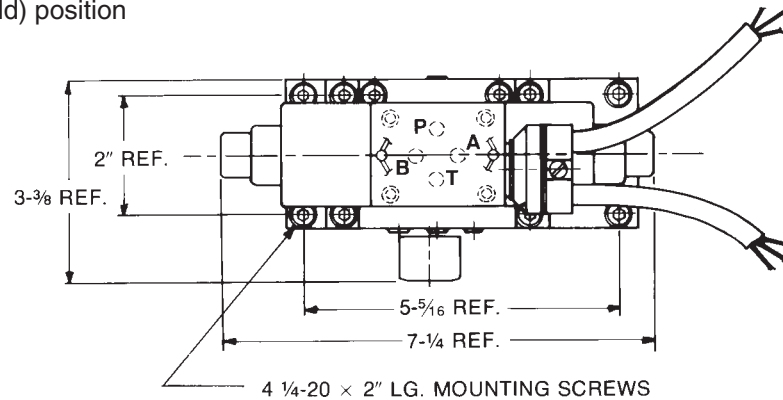
Solenoid "A" Energized: Pressure to cylinder port "A". Cylinder port "B" to tank.

Solenoid "B" Energized: Pressurized to cylinder port "B". Cylinder port "A" to tank.

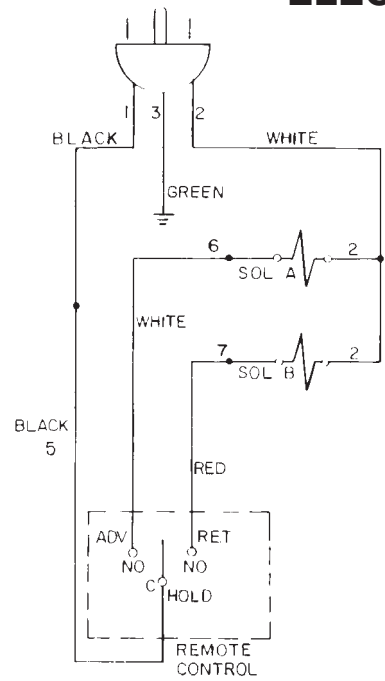
NOTE: Pressure holds without loss when shifted from cylinder port to the neutral (Hold) position

Connect hoses from pump to pressure and return ports on valve sub-plate.

Connect hoses from double-acting ram to valve ports "A" and "B".



ELECTRICAL SCHEMATIC



WARNING

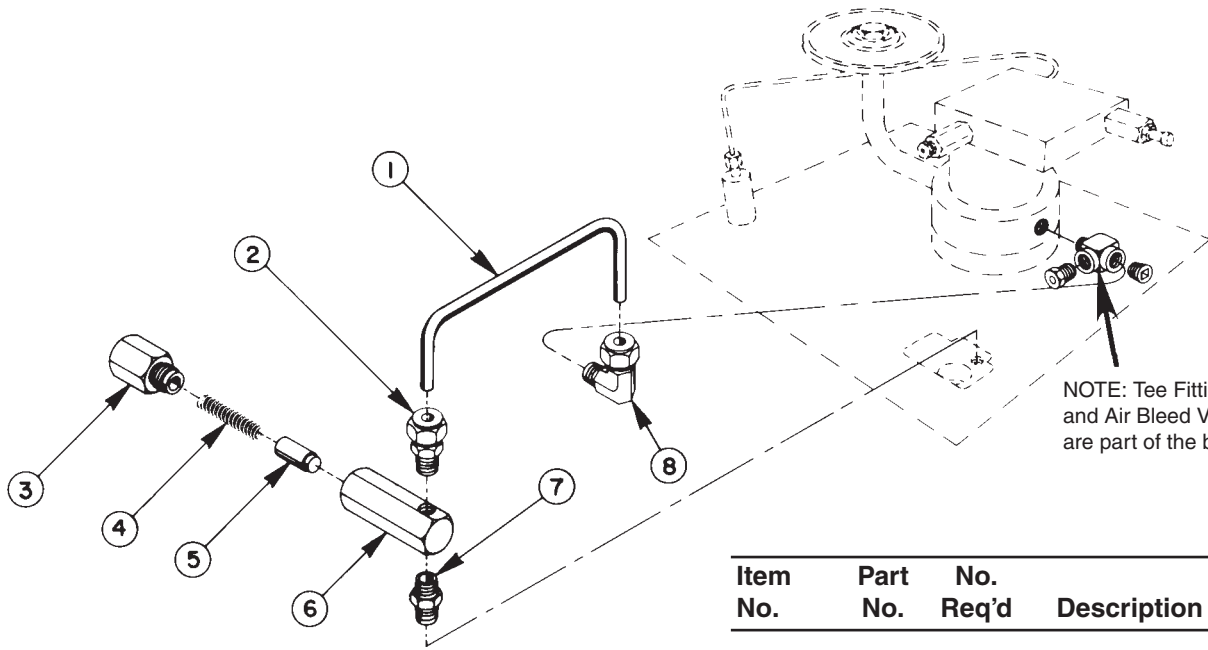
To help avoid personal injury, all electrical work must be done by a qualified electrician.

North American & International Color Codes

Conductors	North American	International
Line	Black	Brown
Neutral	White	Blue
Ground	Green	Green/Yellow

OPTIONAL OIL LINE ASSEMBLY

FOR PQ60 & PQ120 SERIES PUMPS



NOTE: Tee Fitting (#18969) and Air Bleed Valve (#306957) are part of the basic pump assembly.

Item No.	Part No.	No. Req'd	Description
1	200405	1	Oil Line
2	11173	1	Connector
3	202121	1	Spring Retainer (Torque to 50/70 in. lbs.)
4	16499	1	Compression Spring
5	21945	1	Plunger
6	21944	1	Cylinder Body
7	11421	1	Pipe Nipple
8	11278	1	Connector
	21943	1	Accumulator (Consists of items 3, 4, 5, & 6)