

**To Protect Your Warranty, Use Only ENERPAC Hydraulic Oil.**

Enerpac recommends that all kit components be installed to insure optimum performance of the repaired unit.

Pump Model	Valve Type	Reservoir	Motor	Switch Type
PEM-2021	3 Way Manual, VM-2	1 gallon	115/230V, 1HP, 1 Phase, 60 Cycle	Run-Jog
PEM-2021E	3 Way Manual, VM-2	1 gallon	115/230V, 1HP, 1 Phase, 50 Cycle	Run-Jog
PEM-2031	3 Way Manual, VM-3	1 gallon	115/230V, 1HP, 1 Phase, 60 Cycle	Run-Jog
PEM-2031E	3 Way Manual, VM-3	1 gallon	115/230V, 1HP, 1 Phase, 50 Cycle	Run-Jog
PEM-2041	4 Way Manual, VM-4	1 gallon	115/230V, 1HP, 1 Phase, 60 Cycle	Run-Jog
PEM-2041E	4 Way Manual, VM-4	1 gallon	115/230V, 1HP, 1 Phase, 50 Cycle	Run-Jog
PER-2031	3 Way Electric, VS-3	1 gallon	115/230V, 1HP, 1 Phase, 60 Cycle	Run-Off
PER-2031E	3 Way Electric, VS-3	1 gallon	115/230V, 1HP, 1 Phase, 50 Cycle	Run-Off
PER-2041	4 Way Electric, VS-4	1 gallon	115/230V, 1HP, 1 Phase, 60 Cycle	Run-Off
PER-2041E	4 Way Electric, VS-4	1 gallon	115/230V, 1HP, 1 Phase, 50 Cycle	Run-Off

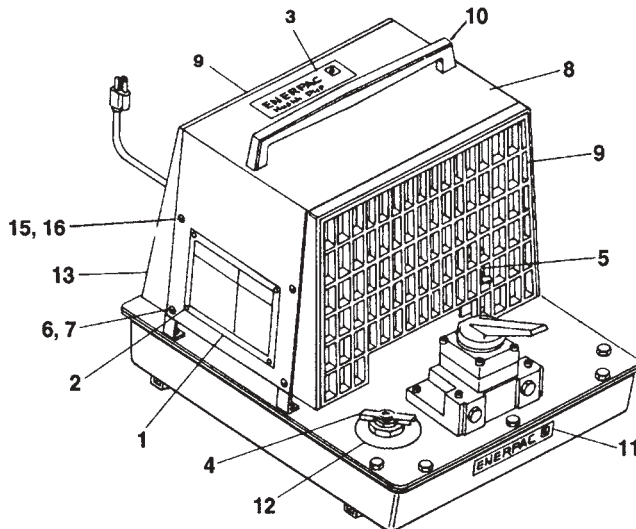


Figure 1, Exterior View

### Repair Parts List for Figure 1

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	Contact ENERPAC	1	Nameplate	8	CA232950-114	1	Cover
2	Y697003	4	Pop Rivet	9	CA225024SR	1	Grill
3	Y661026	1	Decal	10	Y175950W	1	Handle
4	CA563024SR	1	Draincock (includes item 12)	11	G424026	2	Decal
5	Y565026	1	Nameplate (Run-Jog)	12	CN721026	1	Decal, Filler Plug
	CA380026	1	Nameplate (Off-Run)	13	M495017	2	Clip, Cord
6	F866028	4	#10-24-UNC x.50 Lg.	14	Y661026	1	Decal
7	M783055	4	Nut	15	F866028	4	Machine Screw
				16	M748055	4	Speed Nut

Note: Grill and Cover Assembly (CA228950W) includes items 6, 8, 9, and 10.

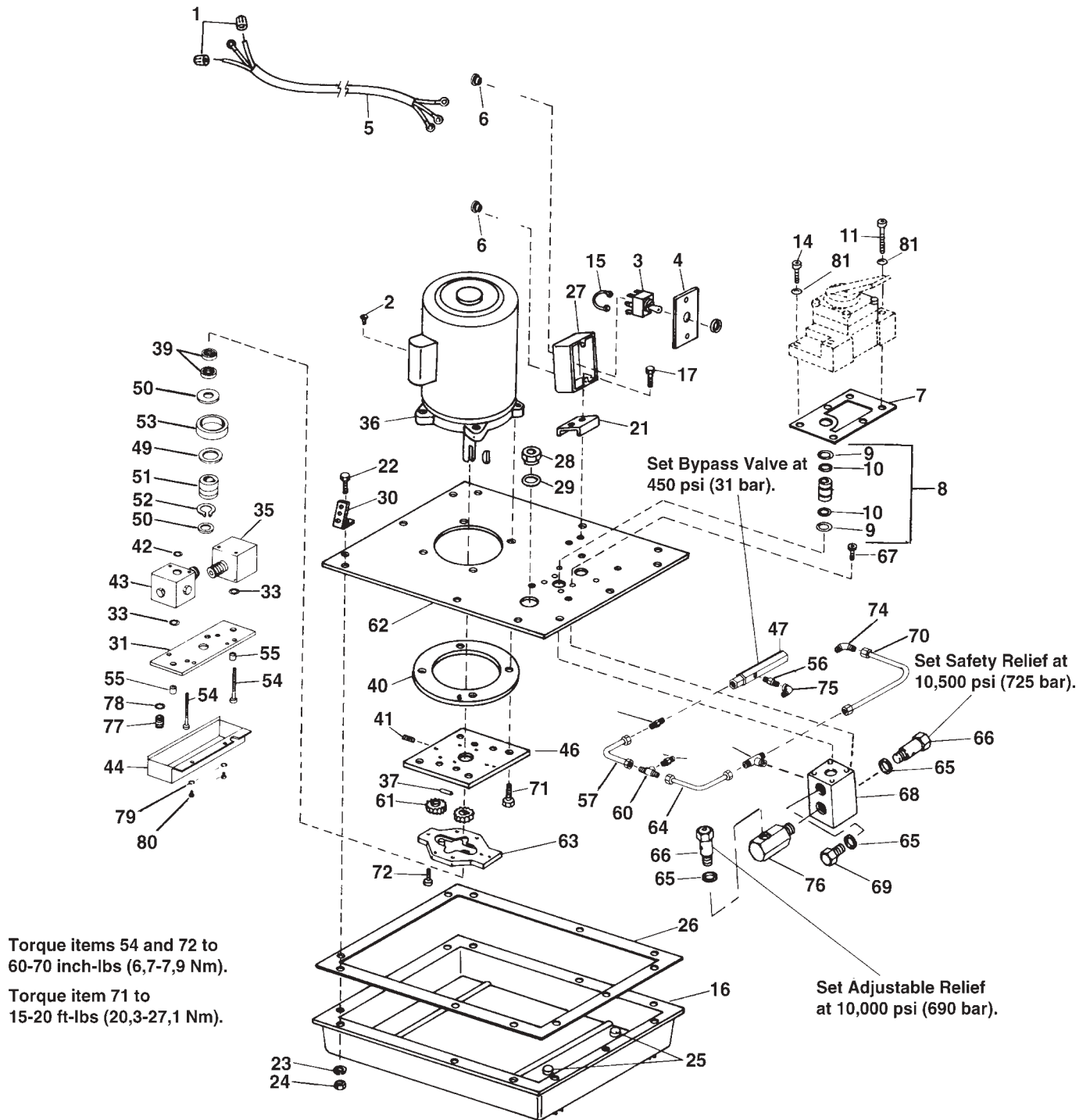


Figure 2 - Pump Assembly

**Repair Parts List for Figure 2**

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	G536055	2	Connector	43	CA241900SR	1	Piston and Block Assy. (See figure 3)
2	C302128	2	#10-24 UNC x.375 Lg.	44	Y810018	1	Screen
3	DA4030372	1	Switch, Toggle (PER only)	46	★CL396950SR	1	Gear Housing
	DA5688372	1	Switch, Toggle (PEM only)	47	C620900SR	1	Bypass Valve (See figure 4)
4	Y560098W	1	Handy Box Cover	49	Y552108	1	Thrust Washer
5	DA5736900	1	Motor Cord	50	M886108	2	Thrust Washer
6	DA5752007	2	Cord Bushing	51	Y5200350	1	Eccentric
7	★F786167	1	Gasket	52	A8063049	1	Retaining Ring
8	CN529950K	1	Connector Assy. Includes #7	53	CA193900SR	1	Bearing and Race
9	★B1012564	2	Backup Washer	54	B1338028	1	#10-32 UNF x 2.00 Lg.
10	★B1007503	2	O-ring	55	M70268	2	Tube
11	B1357028	2	5/18 - 18 UNC x 2.00 Lg.	56	A8013094	1	Connector
14	B1349028	3	5/18 - 18 UNC x 1.00 Lg.	57	Y86268	1	Tube Assembly
15	CA287900SR	1	Jump Wire	58	SN125	2	Nipple
16	CB523025	1	Reservoir	60	Y709096	1	Tee
17	B1336028	2	#10-32 UNF x 1.75 Lg.	61	Y734900SR	2	Gear and Bushing Assy.
21	CA223111	1	Bracket	62	★CM409098	1	Cover
22	B1005046	12	1/4"-20 UNC x .75 Lg.	63	Y456101	1	End Plate
23	B1015066	12	1/4" Bolt (Med.)	64	Y648268	1	Tube Assembly
24	B1001120	1	1/4"-20 UNC	65	★B159167	3	Gasket
25	C187018	2	Magnet	66	P181190W	2	Relief Valve
26	★Y252167	1	Gasket	67	Y971028	1	1/4-28 UNC x .62 Lg.
27	CA221980	1	Handy Box	68	Y927038	1	Block Adaptor
28	CA563024SR	1	Filler Plug	69	AJ100061	1	Plug, Valve, Hex Head
29	★B1021503	1	O-Ring	70	Y524268	1	Tube Assembly
30	CL397111	4	Bracket	71	B1077046	4	3/8-16 UNC x 1.00 Lg.
31	Y533101	1	Plate	72	B1324029	6	#10-32 UNF x .62 Lg.
33	★B1220503	2	O-Ring	73	Y530096	1	Tee
35	CA235900SR	1	Piston and Block Assy. (See figure 3)	74	B202291	1	Elbow
36	CM392259	1	Motor Assembly 115 V version (PEM / PER 2021, 2031, 2041)	75	Y714291	1	Elbow (90°)
	CM575259	1	Motor Assembly 230 V version (PEM / PER 2021E, 2031E, 2041E)	76	CB461038	1	Adaptor
37	Y710061	1	Pin	77	Y716096	1	Pipe Adaptor
39	★Y546044	2	Oil Seal	78	★B1008503	1	O-Ring
40	★C550357	1	Gasket	79	SJ100169	2	Washer
41	R385300	1	Set Screw	80	C302128	2	Screw
42	B1005503	1	O-Ring	81	★C846037	6	Gasket Valve

★Indicates items included in Repair Kit PEM-2000K.

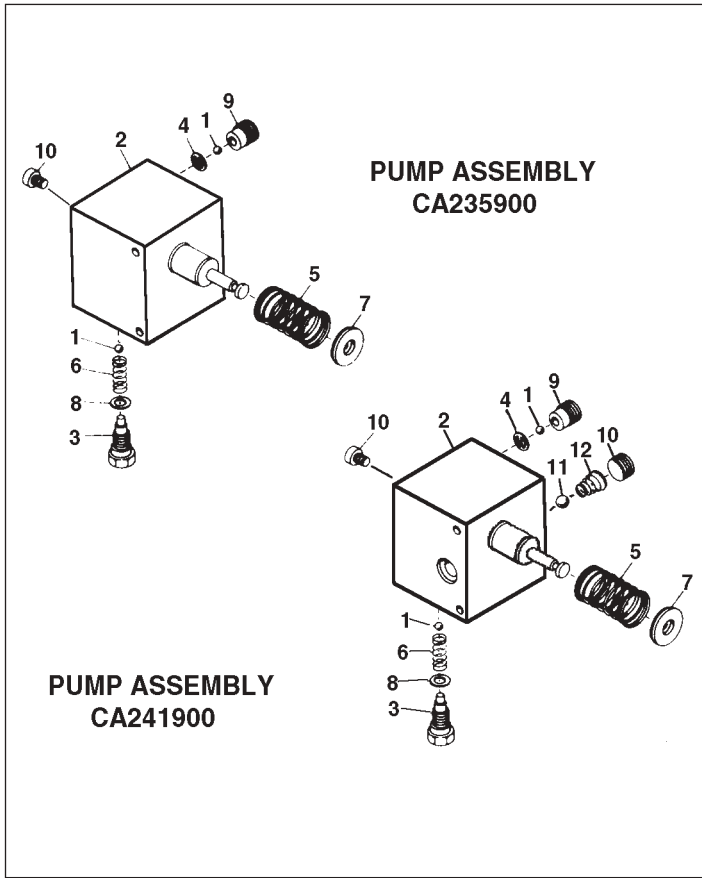


Figure 3, Pump Assemblies CA235900SR and CA241900SR

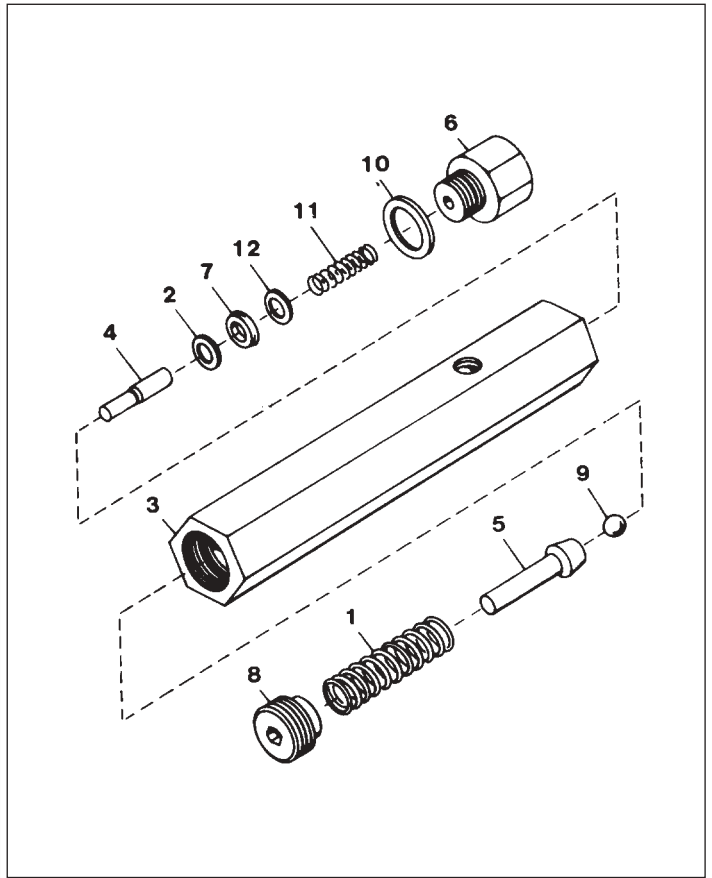
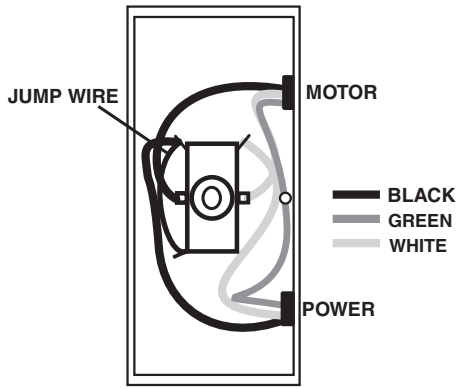


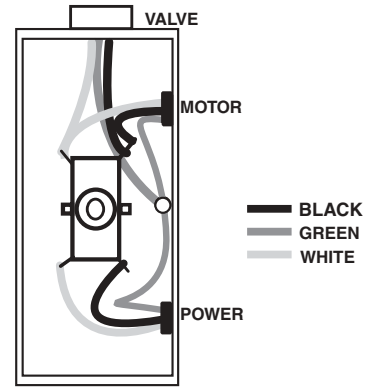
Figure 4, Bypass Valve C620900SR

Repair Parts List for Figure 3			
Item	Part Number	Qty.	Description
1	★B1003106	2	Ball
2	CA235900SR	1	Body
	CA241900SR	1	Body
3	M80006	1	Plug
4	★P181167	1	Gasket
5	★P181170	1	Spring
6	★P181183	1	Spring
7	Y866418	1	Spring Plate
8	★S3037	1	Gasket
9	★P18115	1	Intake Seat
10	A1007245	3	Pipe Plug
11	*B1008016	1	Ball
12	*CA978110	1	Spring
★ Indicates items included in Repair Kit CA235900K and Repair Kit CA241900K.			
* Indicates items included in Repair Kit CA241900K.			

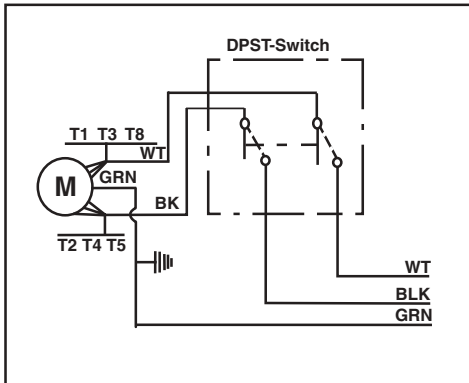
Repair Parts for Figure 4			
Item	Part Number	Qty.	Description
1	A109164	1	Spring
2	★SJ100016	4	Backup Washer
3	C620900SR	1	Valve Body
4	C622339	1	Plunger
5	C623160	1	Retainer Ball
6	C624038	1	Adapter
7	★C639053	1	U-Cup
8	★C641087	1	Adjusting Screw
9	★B1009016	1	Ball
10	★S15167	1	Gasket
11	S4375	1	Spring
12	★B1024562	1	Backup
★ Indicates items included in Repair Kit C620900K.			



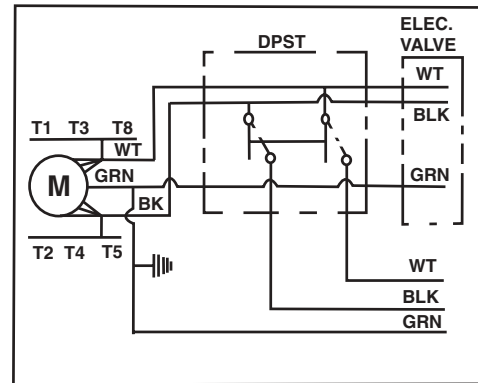
Handy Box Wiring - PEM Series



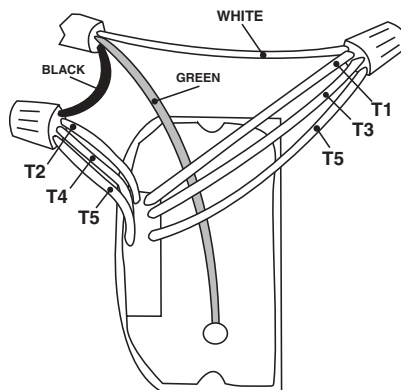
Handy Box Wiring - PER SERIES



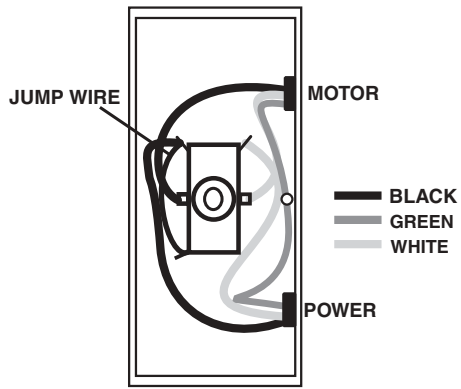
Wiring Schematic - 115 Volt PEM Series



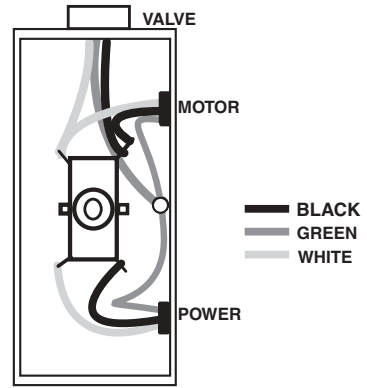
Wiring Schematic - 115 Volt PER Series



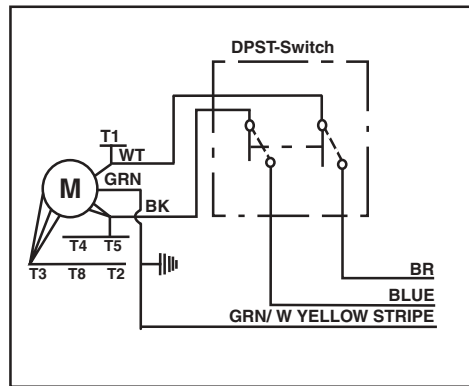
Motor Wiring - 115 Volt PEM & PER Series



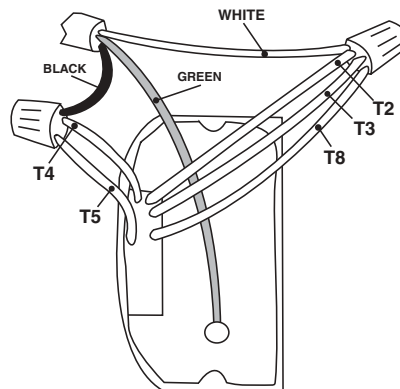
Handy Box Wiring - PEM Series



Handy Box Wiring - PER Series



Wiring Schematic - 230 Volt PEM "E" & PER "E" Series



Motor Wiring - 230 Volt PEM "E" & PER "E" Series



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