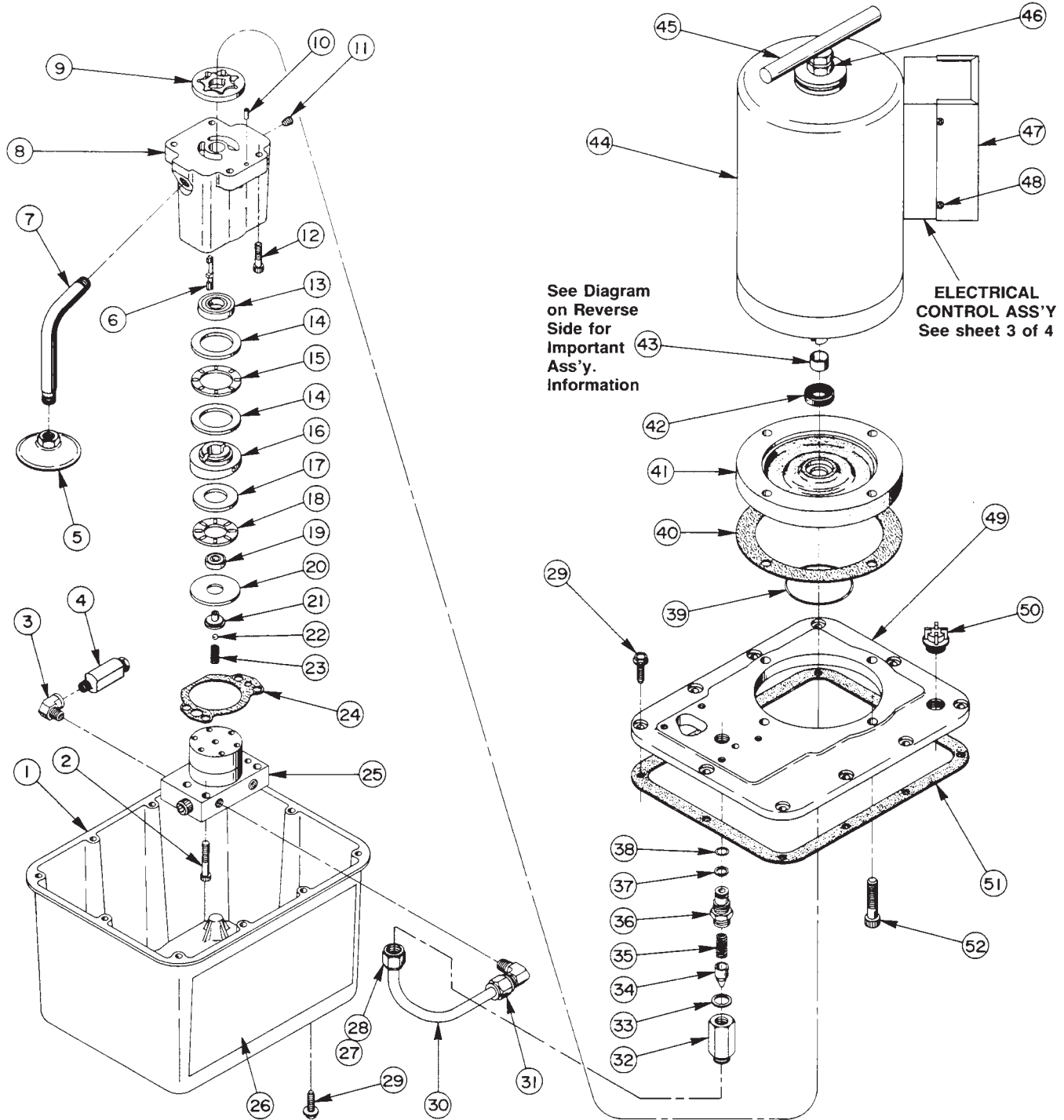


Parts List for:

4052	106174-CL	PE452
4052-50-220	HE452	PE452-50-220
4053	(115 & 220 Volt)	PE452S
4054	HE454	PE454
4054-50-220	(115 & 220 Volt)	PE454-50-220

# ELECTRIC HYDRAULIC PUMP



# Parts List, Form No. 100606, Back sheet 1 of 4

Item No.	Part No.	No. Req'd	Description
1	61165	1	Reservoir
2	10020	4	Cap Screw (Torque to 90/100 in. lbs.)
3	13229	1	Elbow Fitting
4	21278	1	Relief Valve (Set at 10,100/10,700 PSI)
5	29682	1	Filter
6	200798	1	Key
7	200799	1	Intake Tube
8	50752	1	Pump Housing
9	15693	1	Gerotor Set
10	10808	1	Dowel Pin
11	11084	1	Pipe Plug (Torque to 35/45 in. lbs. oiled)
12	10016	4	Cap Screw (Torque to 90/100 in. lbs.)
13	15695	1	Ball Bearing
14	11227	2	Bearing Race
15	11228	1	Needle Bearing
16	35271	1	Angle Plate
17	15432	1	Bearing Plate
18	15431	1	Needle Bearing
19	11814	1	Ball Bearing
20	23548	1	Top Plate
21	23547	1	Top Plate Bearing
22	10375	1	Steel Ball
23	10361	1	Compression Spring
24	27776	1	Gasket
25	36922	1	High Pressure Pump Ass'y (See sheet 2 of 4)
26	305655	2	Trade Name Decal (For HE452, 115 & 220 Volt)
	305656	2	Trade Name Decal (For HE454, 115 & 220 Volt)
	305657	2	Trade Name Decal (For PE452, PE454, PE452S, PE452-50-220, PE454-50-220)
	307140	2	Trade Name Decal (For 4052 & 4052-50-220)
	307141	2	Trade Name Decal (For 4054 & 4054-50-220)
	307142	2	Trade Name Decal (For 4053)
27	10430	1	Tube Sleeve
28	10431	1	Tube Nut
29	209799	14	Screw (Four used in bottom of reservoir)
30	36415	1	Tube
31	10475	1	90° Connector
32	201879	1	Valve Body
33	10261	1	Copper Washer
34	20771	1	Poppet
35	10425	1	Compression Spring
36	201817	1	Valve Connector (Torque to 40/50 ft. lbs.)
37	11863	1	Backup Washer
38	10268	1	"O" Ring
39	15690	1	"O" Ring
40	35541	1	Gasket
41	50751	1	Pump Housing
42	15694	1	Shaft Seal
43	15696	1	Wear Sleeves (See note at right)

Item No.	Part No.	No. Req'd	Description
44	52425WH3	1	Electric Motor (115/230V.; 60 Hz.)
	52424	1	Electric Motor (110/220 V.; 50 Hz.)
45	203146	1	"T" Handle
46	10394	1	Nut
47	42576WH3	1	Control Box Cover (For 4052, 4053, 4054, 106174-CL, PE452, PE452S, PE454, HE452 & HE454 115 Volt)
	42576GY5	1	Control Box Cover (For 4052-50-220, 4054-50-220, PE452-50-220, PE454-50-220, HE452 & HE454 220 Volt)
48	11141	4	Screw
49	50750BK2	1	Cover
50	20937	1	Vented Filler Cap
51	40164	1	Gasket
52	12577	4	Cap Screw (Torque to 90/100 in. lbs.)

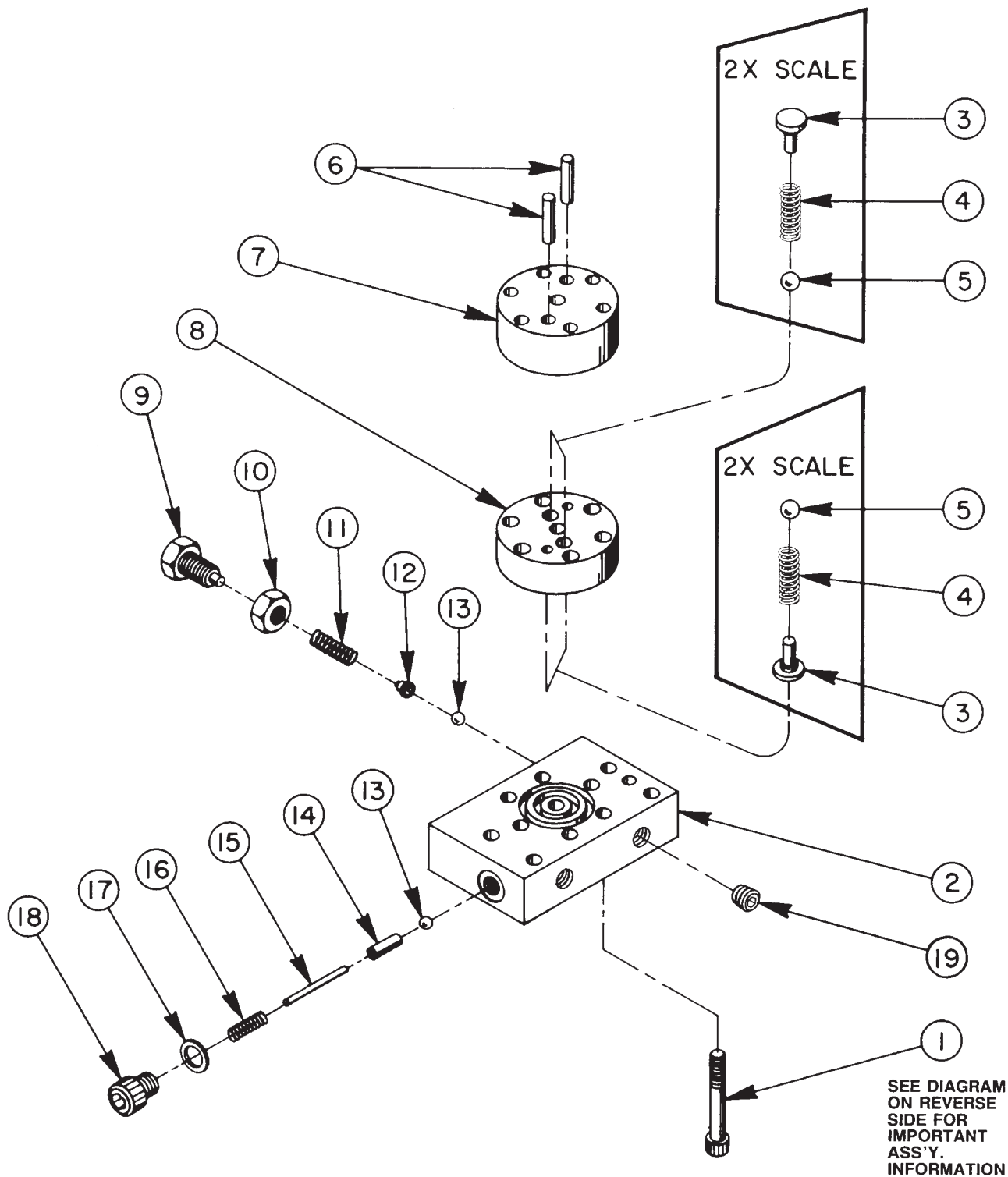
### PARTS INCLUDED BUT NOT SHOWN

9582	1	2-Way Valve (For PE452 & PE452-50-220; See Form #100383)
21832	1	2-Way Valve (For HE452, 115 & 220 Volt; See Form #100383)
9500	1	4-Way Valve (For PE454, PE454-50-220 & HE454, 115 & 220 Volt; See Form #100623)
200188	1	Caution Decal
203722	1	Patent Decal
10575	4	Drive Screw (For mtg. name plate)
42621	1	Solenoid Valve (For 4053 & PE452S; See Form # 100445)
30384	1	2-Way Valve (For 4052; See For #100383)
52510	1	Valve (For 4054; See Form #100623)
30601	1	2-Way Valve w/Control Switch (For 106174-CL; See Form #100382)
210916	1	Coupler Half, Female (For 106174-CL)
25599	1	Coupler Half, Male (For 106174-CL)
36886	1	Hose Ass'y, 6 Ft. (For 106174-CL)
46951	1	Drip Cover (For 106174-CL)

Apply Permatex to Motor Shaft where  
Wear Sleeve (Item 43) is pressed on.



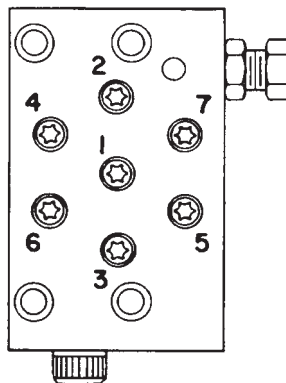
# HIGH PRESSURE PUMP ASSEMBLY



<b>Item No.</b>	<b>Part No.</b>	<b>No. Req'd</b>	<b>Description</b>
1	16747*	7	Torx Drive Cap Screw (See diagram below)
2	36912*	1	Pump End Plate
3	24549*	4	Valve Guide
4	10445*	4	Compression Spring
5	12223*	4	Steel Ball
6	20775*	2	Piston
7	41006*	1	Pump Barrel
8	41007*	1	Valve Head
9	200797	1	Adjusting Screw
10	10386	1	Jam Nut
11	15691	1	Compression Spring
12	200796	1	Spring & Ball Adapter
13	10375	2	Steel Ball
14	201998	1	Sleeve
15	12571	1	Roll Pin
16	14431	1	Compression Spring
17	12042	1	Copper Washer
18	29690	1	Cap Screw (Torque to 180 in. lbs.)
19	10427	1	Pipe Plug

Consult factory when replacing items marked with an asterisk(\*).

### BOLT TIGHTENING SEQUENCE

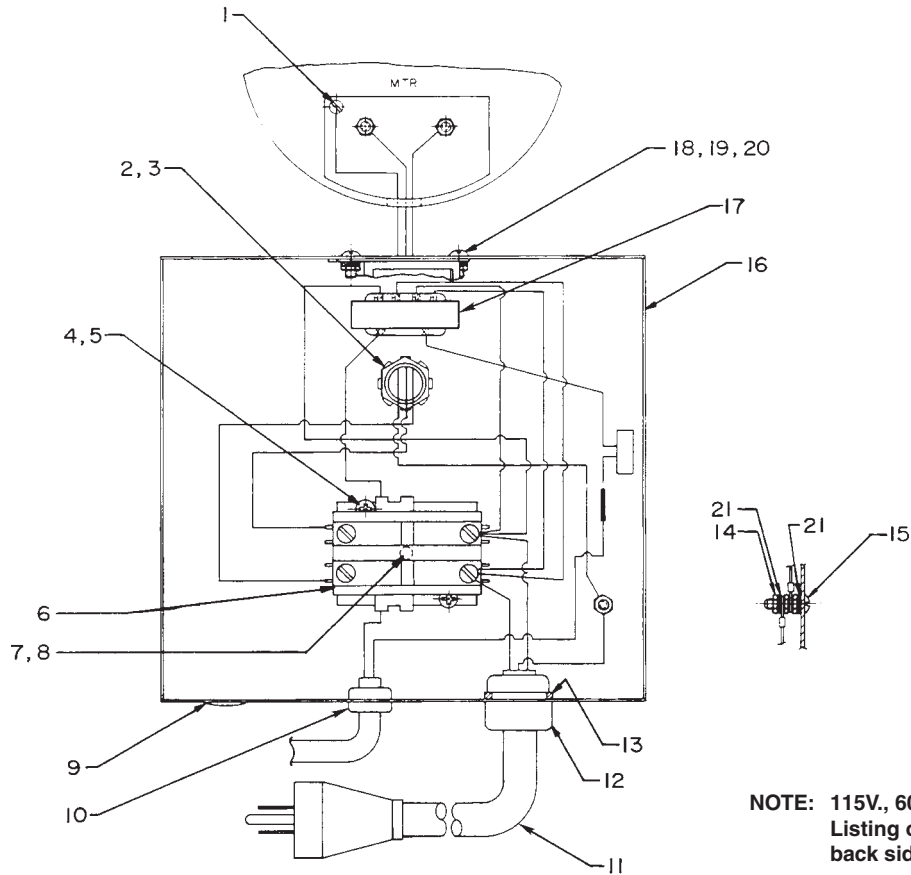


**NOTE: Assemble in sequence shown. Lubricate under head and on threads. Torque to 170 in. lbs.**

# ELECTRICAL CONTROL ASSEMBLY

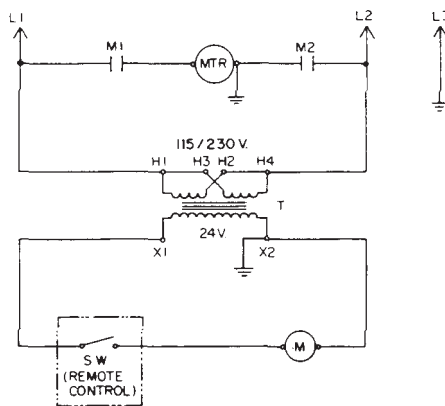
115/230 Volt, 60 Hz. (Factory wired at 115 V.)

110/220 Volt, 50 Hz. (Factory wired at 220 V.)



NOTE: 115V., 60 Hz. shown.  
Listing of parts on  
back side sheet 3 of 4.

## 115/230 V., 60 Hz., Single Phase



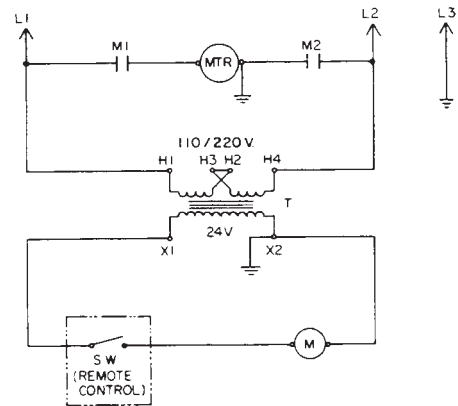
All units are factory wired for 115 V., 60 Hz. (CCW rotation from lead end)

Transformer connections are as shown for 115 V., 60 Hz.

For 230 V., 60 Hz. units, Transformer connections to be as follows:

- H1 to L1
- H2 to H3
- H4 to L2

## 110/220 V., 50 Hz., Single Phase



All units are factory wired for 220 V., 50 Hz. (CCW rotation from lead end)

Transformer connections are as shown for 220 V., 50 Hz.

For 110 V., 50 Hz. units, Transformer connections to be as follows:

- H1 & H3 to L1
- H2 & H4 to L2

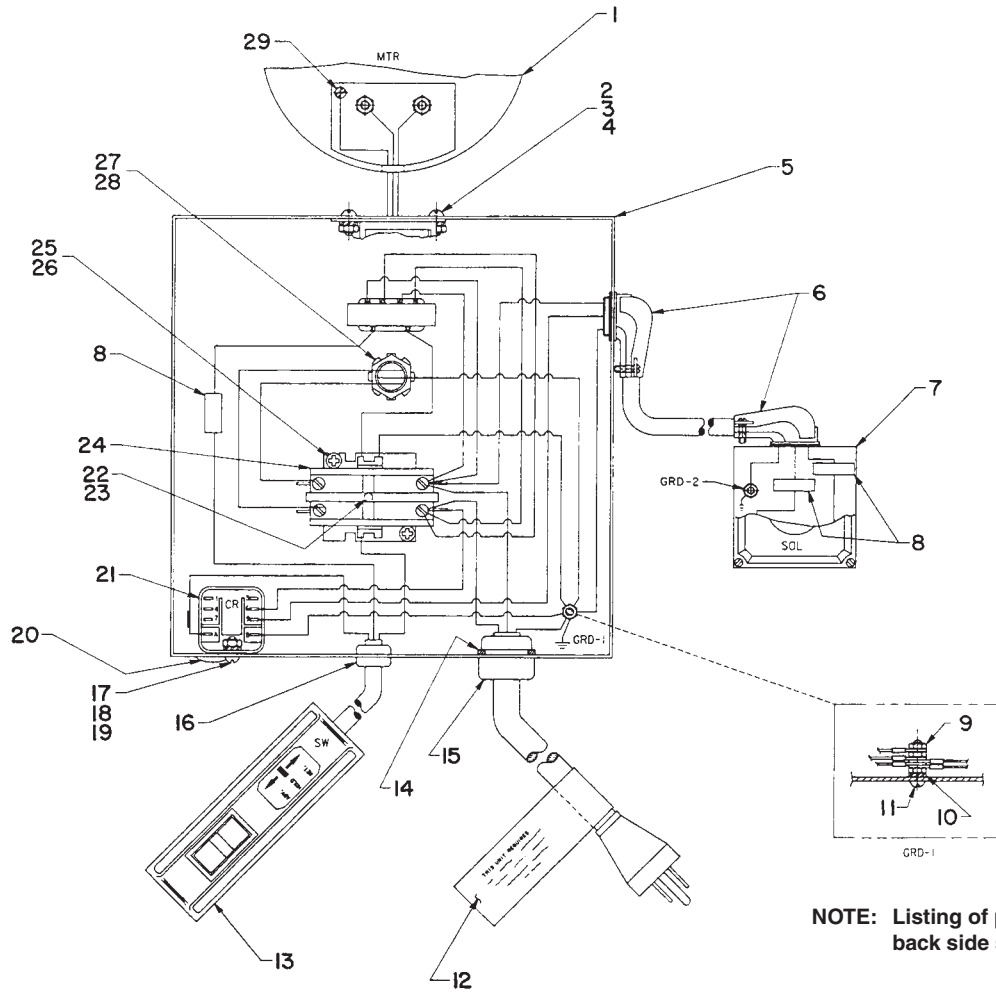
# Parts List, Form No. 100606, Back sheet 3 of 4

Item No.	Part No.	No. Req'd	Description
1	15468	1	Thread Cutting Screw
2	11202	1	Conduit Connector
3	11362	1	Conduit Lockwasher
4	16613	2	Machine Screw
5	206857	2	Washer
6	52060-4	1	Starter
7	13532	1	Self-Tapping Screw
8	12355	1	Washer
9	11334	1	Snap Plug
10	11458	1	Strain Relief Bushing
11	21051	1	Cord Set (115 Volt, 60 Hz.)
	21771	1	Cord Set (220 Volt, 50 Hz.)
12	11431	1	Strain Relief Bushing
13	23506	1	Spacer
14	10197	3	Nut
15	10167	1	Machine Screw
16	45013WH3	1	Control Box (For PE452, PE454, 4052, 4053, 4054, 106174-CL, HE452 & HE454 115 Volt, 60 Hz.)
	45013GY5	1	Control Box (For PE452-50-220, 4502-50-220, 4054-50-220, PE454-50-220, HE452 & HE454 220 Volt, 50 Hz.)
17	305665	1	Transformer
18	10429	2	Machine Screw
19	11388	2	Washer
20	10196	2	Nut
21	11108	2	Washer

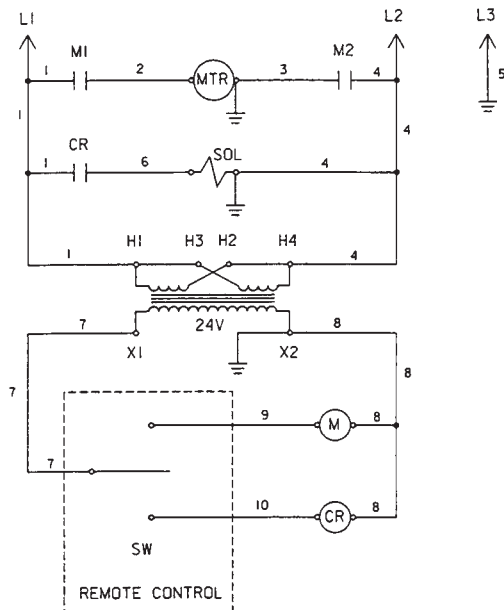
## PARTS INCLUDED BUT NOT SHOWN

25017	1	Remote Control Hand Switch (For 4052, 4054, 4052-50-220, PE452, PE454, PE452-50-220, PE454-50-220, HE452 & HE454 [115 & 220 Volt])
306963	1	Remote Control Hand Switch (For 4053)

## ELECTRIC CONTROL ASSEMBLY CONT. (For PE452S only; 115 V., 60 Hz.)



115V., 60 Hz.



## Parts List, Form No. 100606, Back sheet 4 of 4

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Item No.	Part No.	No. Req'd	Description
1	<b>52425WH3</b>	1	Electric Motor (115/230 V. - 60 Hz.)
2	<b>10429</b>	2	Machine Screw
3	<b>10196</b>	2	Hex Nut
4	<b>11388</b>	2	Washer
5	<b>45013WH3</b>	1	Control Box Body
6	<b>11144</b>	2	90° Conduit Connector
7	<b>42621</b>	1	Solenoid Valve Ass'y (2 position, 3-Way)
8	<b>15525</b>	3	Splice Cap
9	<b>10197</b>	3	Hex Nut
10	<b>11108</b>	1	Lock Washer
11	<b>10167</b>	1	Machine Screw
12	<b>307499</b>	1	Decal
13	<b>306963</b>	1	Remote Control Hand Switch Assembly
14	<b>23506</b>	1	Spacer
15	<b>11431</b>	1	Strain Relief Bushing
16	<b>11458</b>	1	Strain Relief Bushing
17	<b>10159</b>	2	Machine Screw
18	<b>15906</b>	2	Washer
19	<b>10195</b>	2	Hex Nut
20	<b>11334</b>	1	Snap Button
21	<b>39092</b>	1	Relay
22	<b>13532</b>	1	Screw
23	<b>12355</b>	1	Washer
24	<b>52060-4</b>	1	Contacto
25	<b>16613</b>	2	Machine Screw
26	<b>206857</b>	2	Washer
27	<b>11202</b>	1	Conduit Connector
28	<b>11362</b>	1	Conduit Lock Washer
29	<b>15468</b>	1	Screw

Refer to any operating instructions included with this product for detailed information about operation, testing, disassembly, reassembly, and preventive maintenance.

Items found in this parts list have been carefully tested and selected. **Therefore: Use only genuine replacement parts!**

Additional questions can be directed to our Technical Services Department.