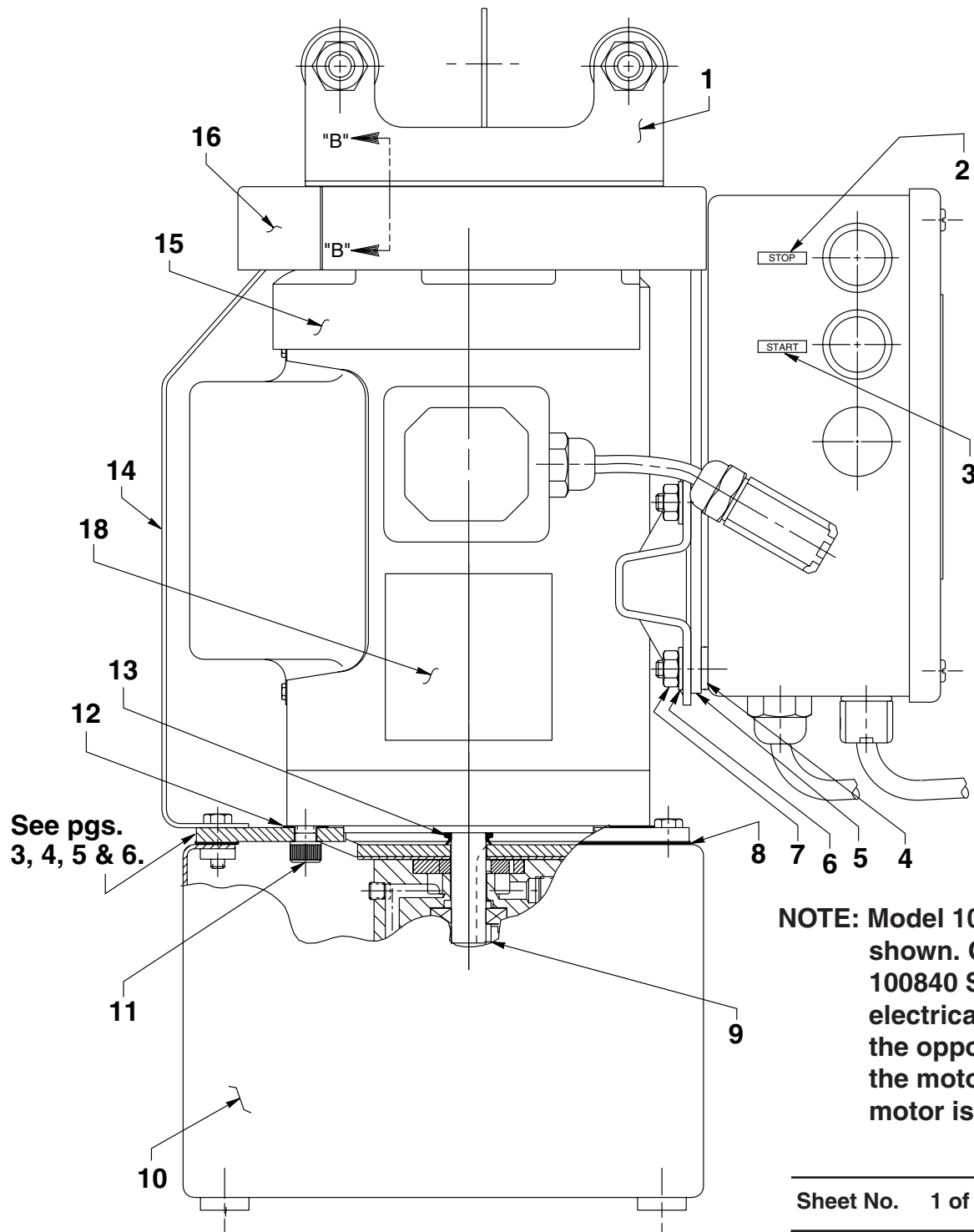
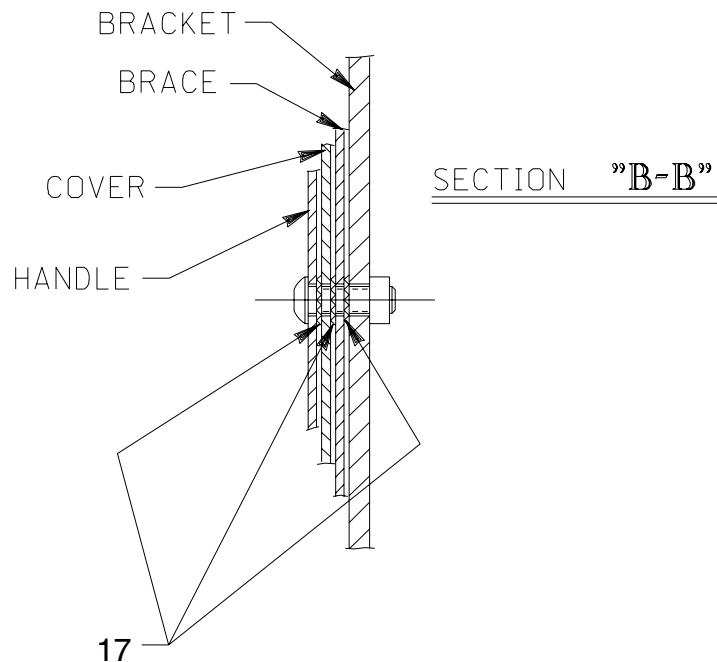


Parts List for:

100140	100840
100140-50-220	100840-230
100140-230	

**ELECTRIC
HYDRAULIC PUMP
SIDE VIEW**





NOTE: PLACE LOCKWASHER BETWEEN EACH LAYER OF SHEET METAL AT EACH SCREW LOCATION.

Item No.	Part No.	No. Req'd	Description
1	53513BK2	1	Handle Bracket
2	203769	1	Decal (Stop)
3	203808	1	Decal (Start)
4	16450	4	Washer (1" x 1/4 x 1/8; For 100140-50-220, 100140, 100140-230)
5	53514BK2	1	Mounting Bracket
6	12719	4	Washer (.630 x .286 x .065; For 100140-50-220, 100140, 100140-230)
	12719	8	Washer (.630 x .286 x .065; For 100840, 100840-230)
7	10199	4	Hex. Nut (1/4-20 UNC)
8	40164	1	Reservoir Gasket
9	214097	1	Key
10	40063PU2	1	Reservoir
11	10050	4	Soc. Hd. Cap Screw (3/8-16 UNC x 1" Lg.; Torque to 90/100 in. lbs.)
12	307425	1	Motor Gasket
13	213674	1	Shaft Seal
14	53515BK2	1	Brace (For 100140, 100140-50-220 & 100140-230)
15	53518	1	Electric Motor (For 100140)
	58030	1	Electric Motor (100140-50-220)
	58061BK2	1	Electric Motor (For 100840)
16	53516BK2	1	Cover
17	11351	12	External Tooth Washer
18	309114	1	Decal (Important Portion)

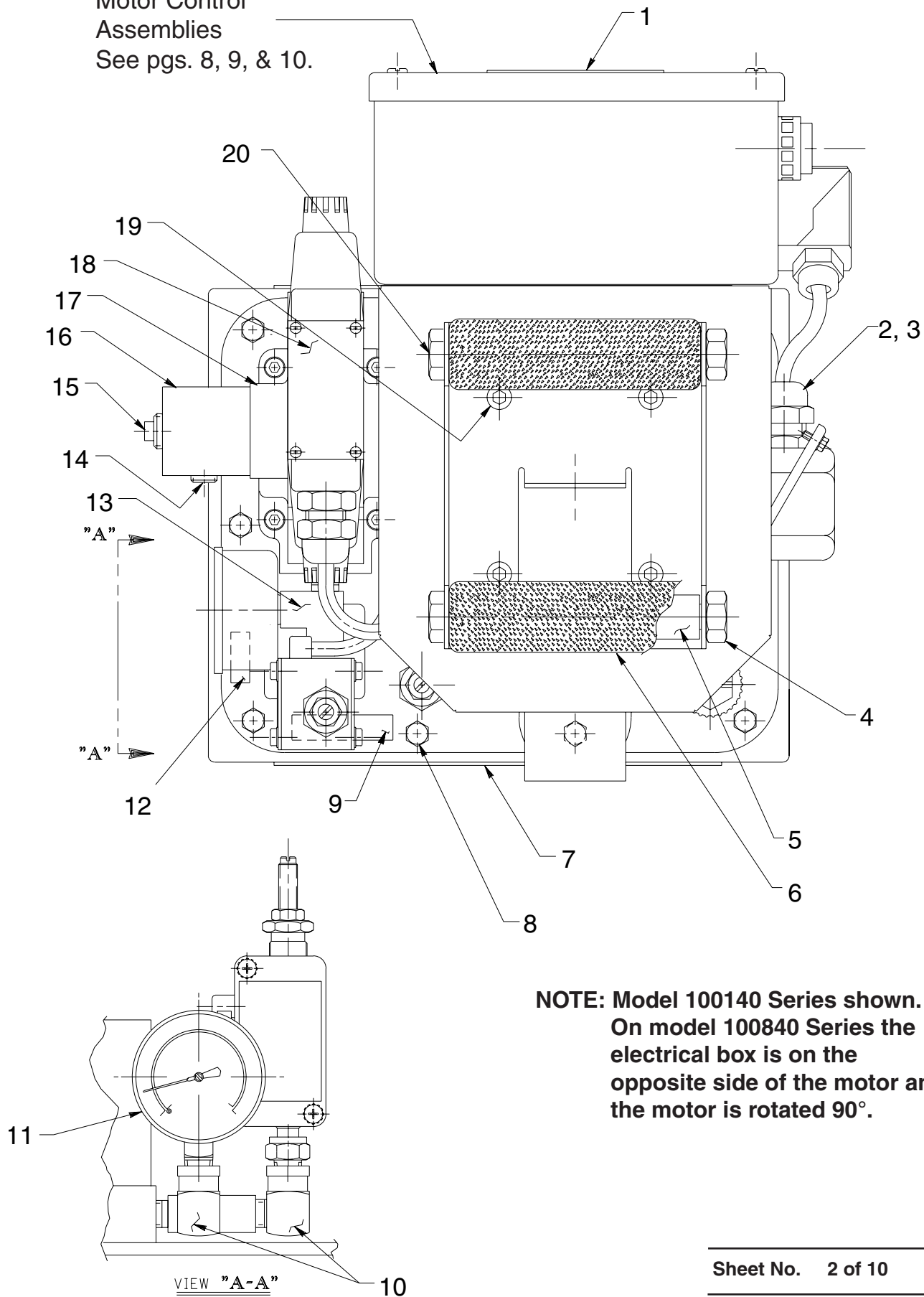
Refer to any operating instructions included with the product for detailed information about operation, testing, disassembly, reassembly, and preventive maintenance.

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

Additional questions can be directed to our Technical Services Department.

TOP VIEW

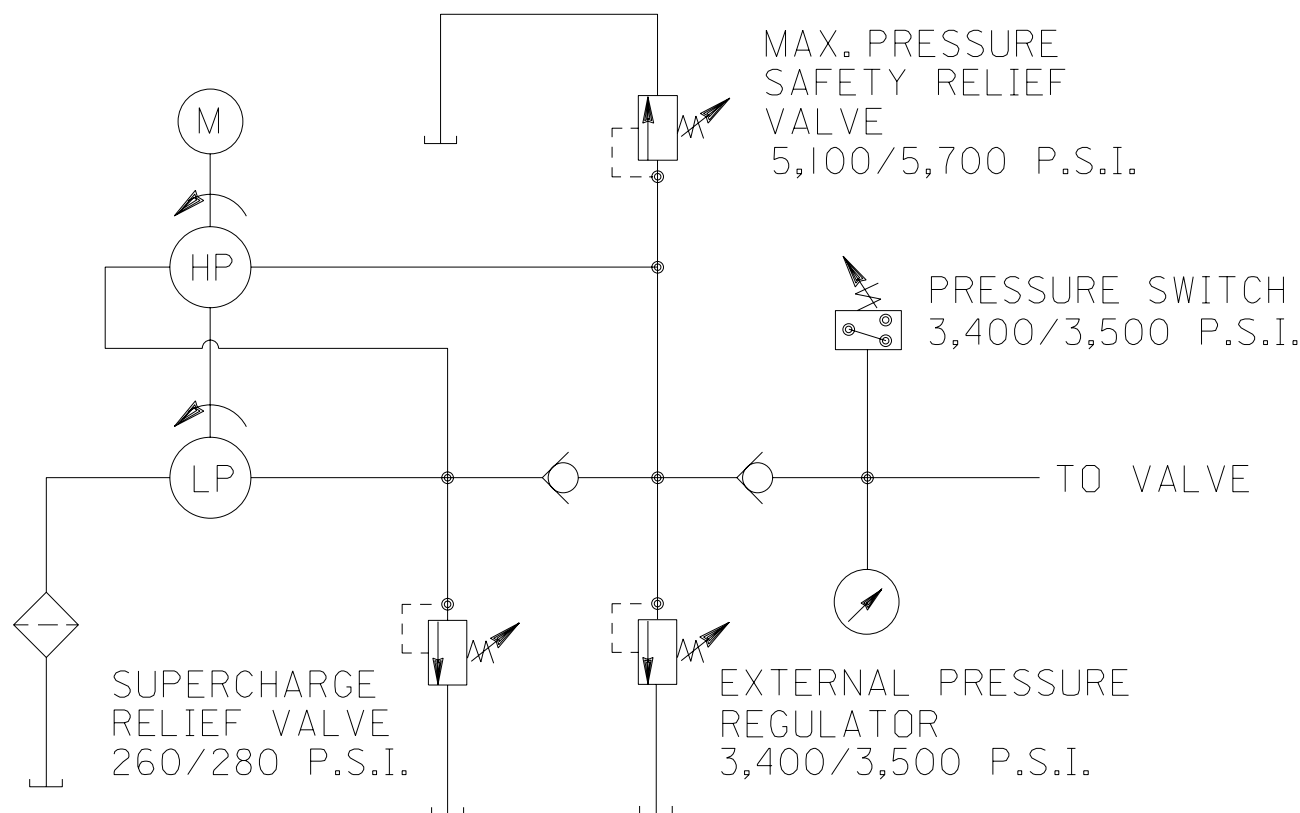
Motor Control
Assemblies
See pgs. 8, 9, & 10.

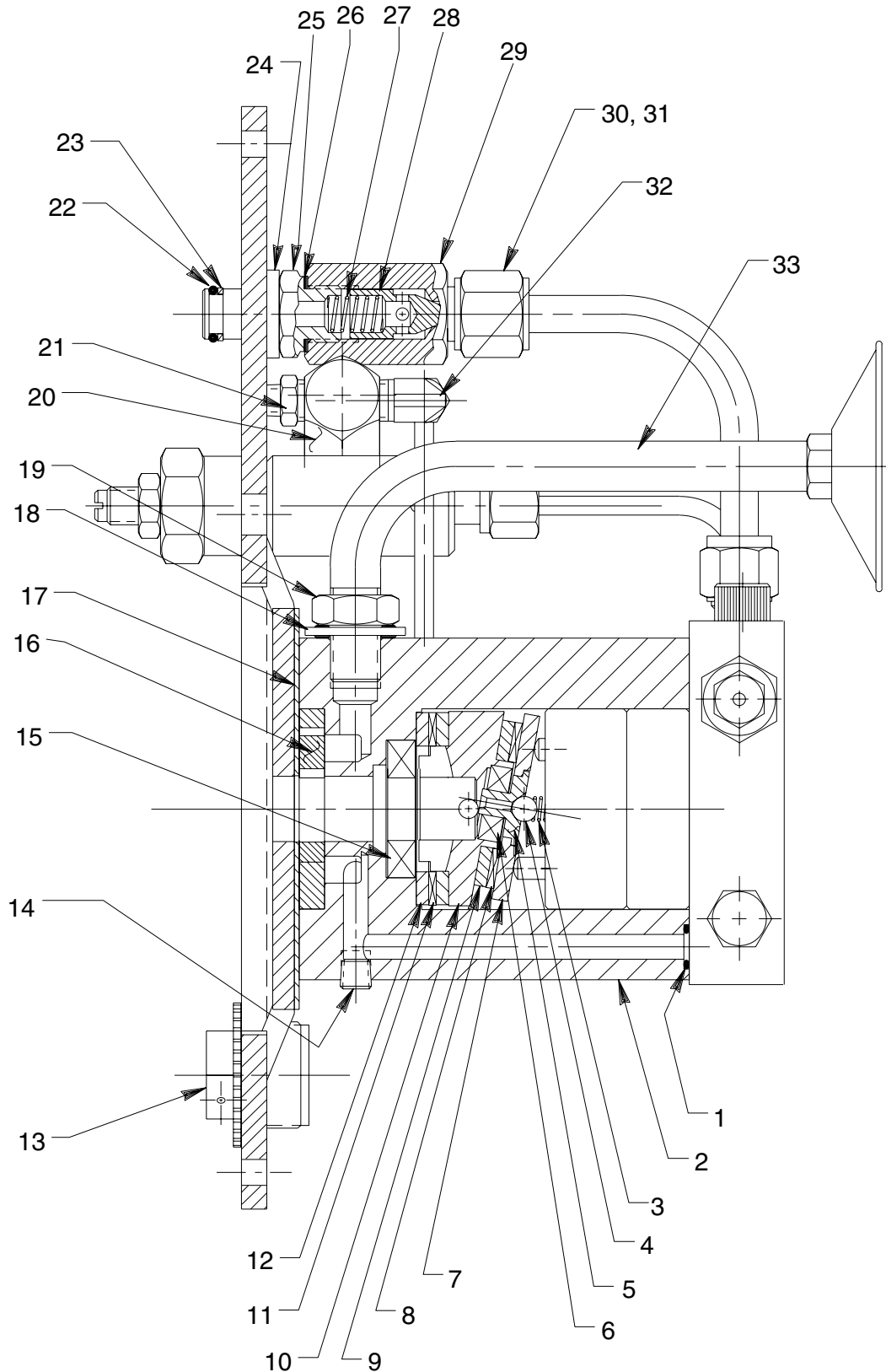


NOTE: Model 100140 Series shown.
On model 100840 Series the
electrical box is on the
opposite side of the motor and
the motor is rotated 90°.

Item No.	Part No.	No. Req'd	Description
1	309114	1	Decal (Warning Portion)
2	216666	1	Strain Relief
3	216680	1	Conduit Locknut
4	10208	2	Hex. Nut (1/2-13 UNC)
5	216658	2	Handle Tube
6	216668	2	Handle Grip
7	309233	2	Trade Name Decal
8	10009	10	Hex. Hd. Cap Screw (1/4-20 UNC x 3/4 Lg.)
9	213695	1	Decal (CSA; For 100140 only)
10	10617	2	90° Elbow Fitting
11	17946	1	Pressure Gauge
12	203972	1	Decal
13	10618	1	Tee Fitting
14	14972	1	Pipe Plug (1/4 NPTF)
15	11127	2	Pipe Plug (3/8 NPTF)
16	31039	1	Manifold
17	31057	1	Valve Assembly (See Form No. 100562)
18	15643-4	1	Solenoid (24 V.)
19	250383	4	Button Hd. Cap Screw (1/4-20 UNC x 3/4 Lg.)
20	216681	2	Hex. Hd. Bolt (1/2-13 UNC)

HYDRAULIC SCHEMATIC

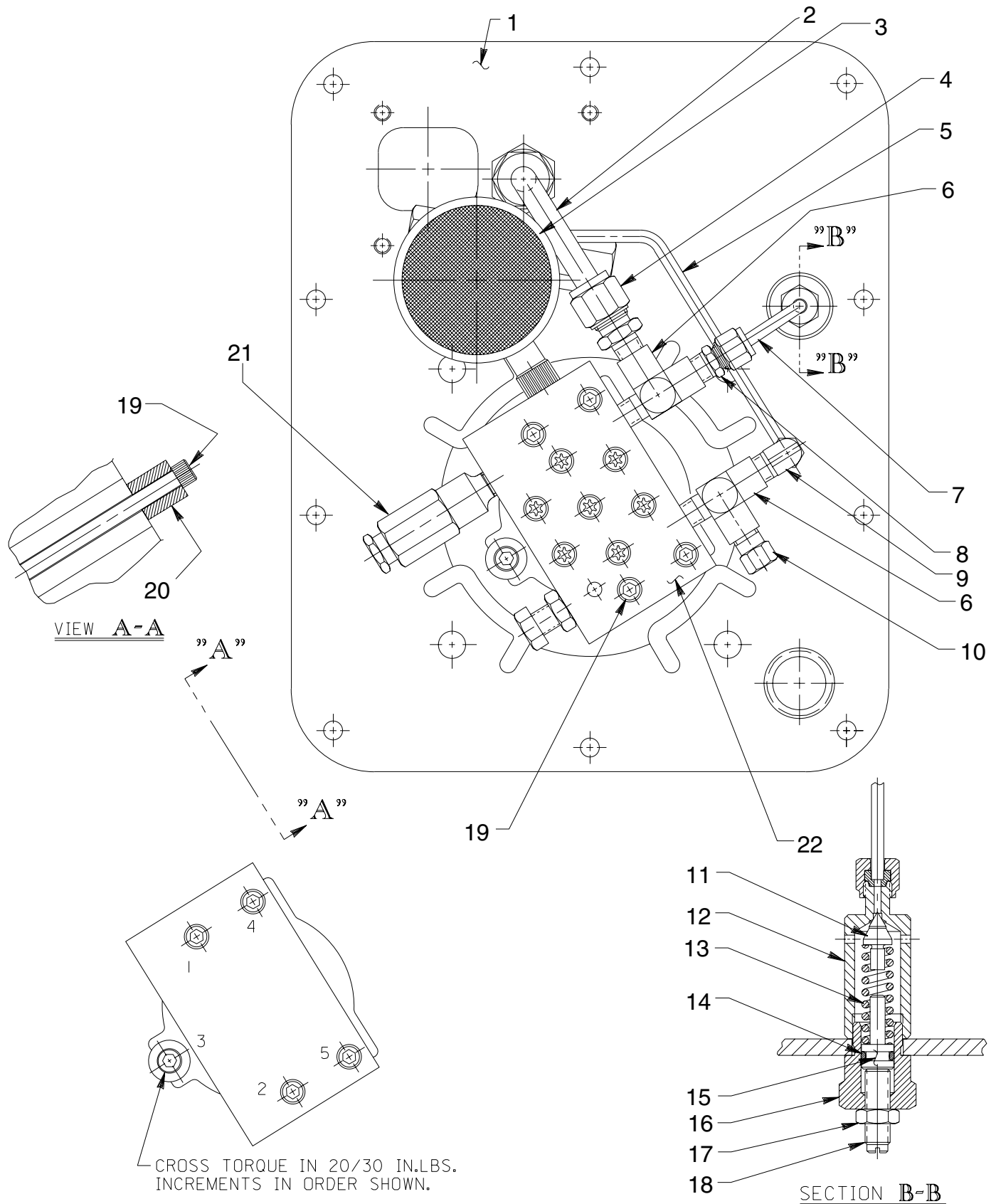


**BASIC PUMP ASSEMBLY
SECTION VIEW BEFORE 2-1-96**

Parts List, Form No. 100809, Back sheet 3 of 10

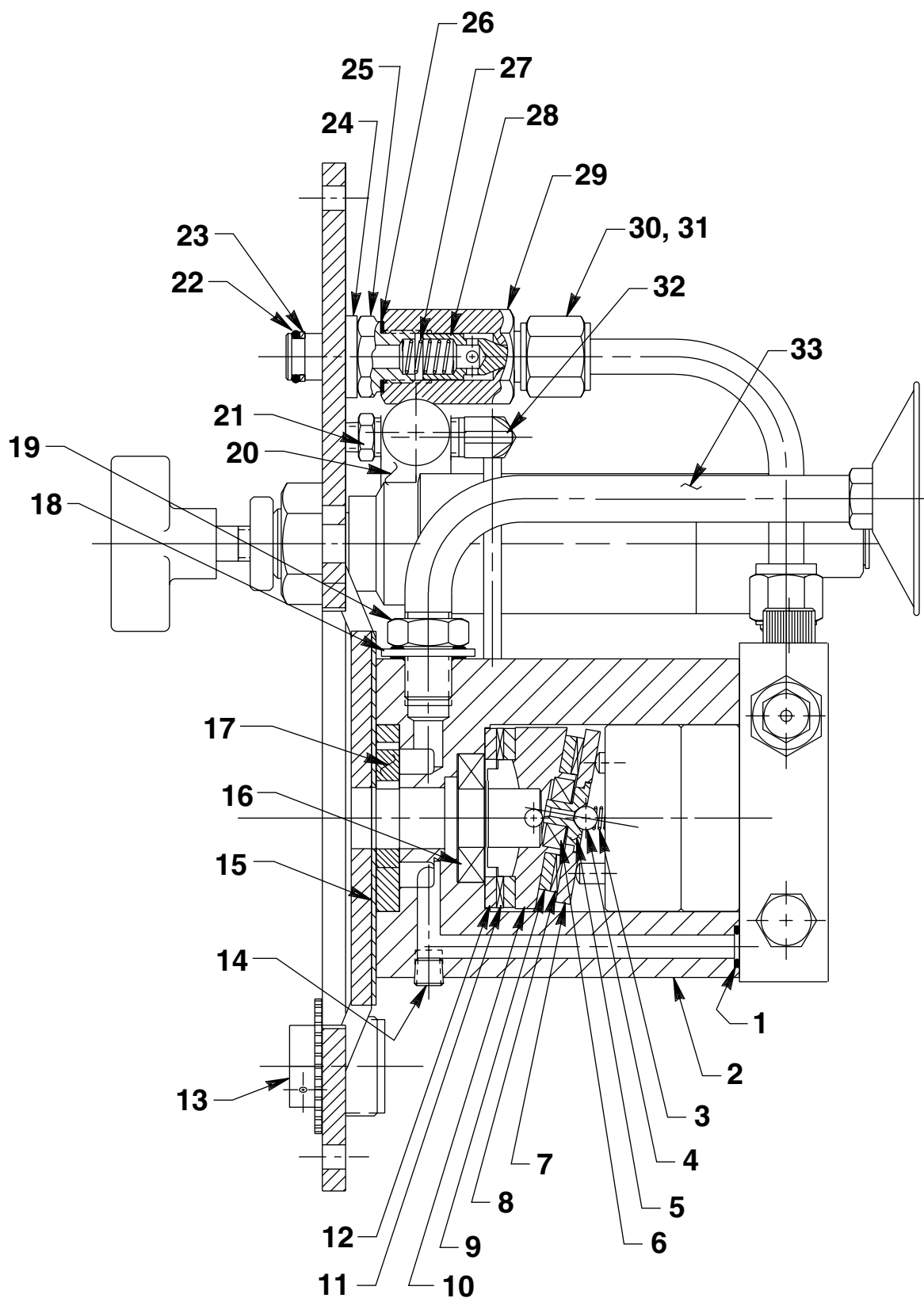
Item No.	Part No.	No. Req'd	Description
1	10267	1	O-ring (7/16 x 5/16 x 1/16)
2	52883	1	Pump Body
3	16320	1	Compression Spring (1/4 O.D. X 3/4 Lg.)
4	10375	1	Steel Ball (1/4 dia.)
5	23547	1	Top Plate Bearing
6	11814	1	Ball Bearing
7	23548	1	Top Plate
8	15431	1	Needle Thrust Bearing
9	15432	1	Needle Thrust Race Bearing
10	35271	1	Angle Plate
11	11228	1	Needle Thrust Bearing
12	11227	2	Needle Thrust Race Bearing
13	213706	1	Filler Cap
14	11084	1	Pipe Plug (1/16 NPTF; Torque to 35/45 in. lbs. oiled)
15	15695	1	Ball Bearing
16	15693	1	Gerotor Set
17	307296	1	Wear Plate
18	213709	1	Seal Washer (Turn on -- Do not push on)
19	10390	1	Hex Jam Nut (1/2-20 UNF)
20	21943	1	Accumulator
21	215373	1	Straight Fitting
22	10268	1	O-ring (1/2 x 3/8 x 1/16)
23	11863	1	Teflon Backup Washer (1/2 x 3/8 x .040)
24	21484	1	Washer
25	214762	1	Valve Connector (NOTE: Torque valve connector (#214762) to 20/30 ft. lbs. into coverplate (#420002). Hold valve connector and torque check valve body (#201879) & tube nut (#10431) to 40/50 ft. lbs.)
26	10261	1	Copper Washer
27	16669	1	Compression Spring
28	20771	1	Poppet
29	201879	1	Check Valve Body
30	10430	1	Sleeve Tube (For 3/8 tube)
31	10431	1	Tube Nut (5/8-18 UNF)
32	11278	1	90° Fitting
33	213686	1	Intake Tube

BASIC PUMPS ASSEMBLY BOTTOM VIEW BEFORE 2-1-96



Item No.	Part No.	No. Req'd	Description
1	420002	1	Reservoir Cover
2	214866	1	Oil Line
3	29682	1	Filter Strainer
4	12696	1	Straight Fitting
5	47607	1	Oil Line (Pilot; On pumps manufactured before 1-15-92)
	420400	1	Oil Line (On pumps manufactured after 1-15-92)
6	18969	2	Tee Fitting (On pumps manufactured after 1-15-92)
	18969	1	Tee Fitting (On pumps manufactured before 1-15-92)
	11173	1	Straight Fitting (On pumps manufactured before 1-15-92)
7	214868	1	Regulator Oil Line Assembly
8	14844	1	Straight Fitting
9	11278	2	Tube Elbow (On pumps manufactured after 1-15-92)
10	306957	1	Air Bleed Valve (On pumps manufactured after 1-15-92)
11	21046	1	Valve Stem
12	22361	1	Valve Body
13	10495	1	Compression Spring (1/2 O.D. X 1-5/8 Lg.)
14	10268	1	O-ring (1/2 x 3/8 x 1/16)
15	21306	1	Spring Guide
16	21305	1	Valve Cap
17	10386	1	Hex. Jam Nut (3/8-24 UNF)
18	22362	1	Valve Adjusting Screw
19	15642	5	Soc. Hd. Cap Screw (1/4-20 UNC x 5" Lg.; Torque to 55/65 in. lbs.)
20	214720	1	Spacer
21	21278-50	1	Relief Valve (Set at 5,100/5,700 PSI)
22	309912	1	High Pressure Pump Assembly (See pg. 7 of 10)

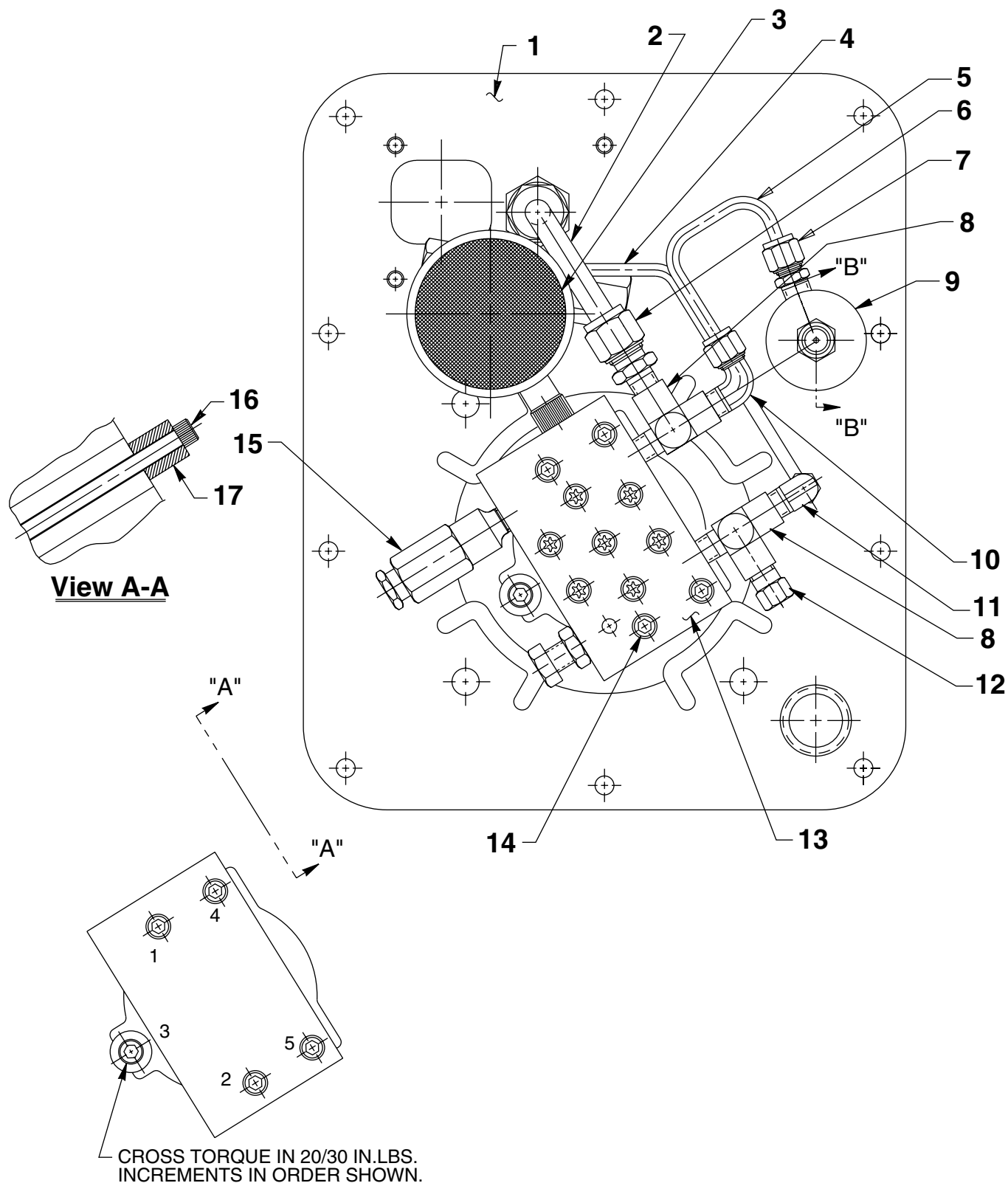
BASIC PUMP ASSEMBLY SECTION VIEW AFTER 2-1-96



Parts List, Form No. 100809, Back sheet 5 of 10

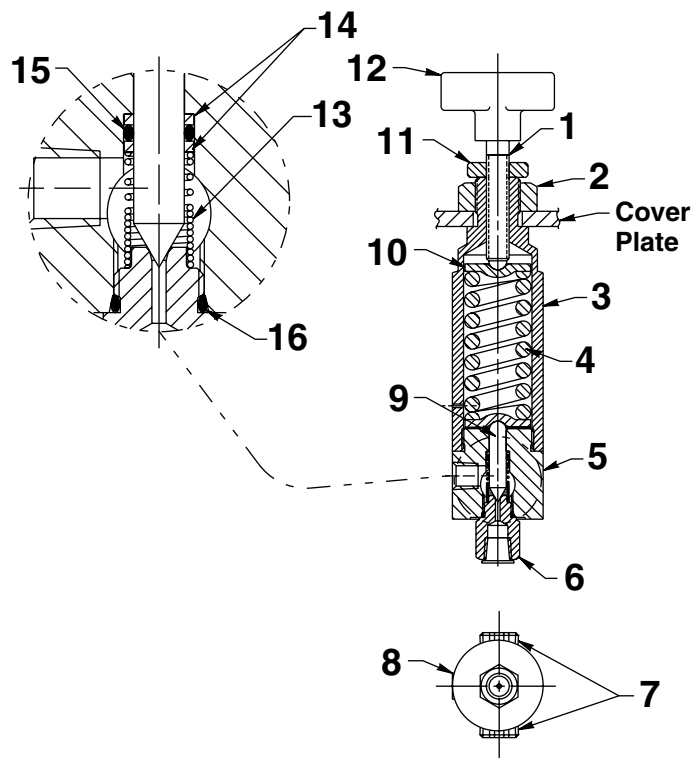
Item No.	Part No.	No. Req'd	Description
1	10267	1	O-ring (7/16 x 5/16 x 1/16; Nitrile)
	18974	1	O-ring (7/16 x 5/16 x 1/16; Viton)
	13472	1	O-ring (7/16 x 5/16 x 1/16; EPD)
2	52883	1	Pump Body
3	16320	1	Compression Spring (1/4 O.D. X 3/4 Lg.)
4	10375	1	Steel Ball (1/4 dia.)
5	23547	1	Top Plate Bearing
6	11814	1	Ball Bearing
7	23548	1	Top Plate
8	15431	1	Needle Thrust Bearing
9	15432	1	Needle Thrust Race Bearing
10	35271	1	Angle Plate
11	11228	1	Needle Thrust Bearing
12	11227	2	Needle Thrust Race Bearing
13	213706	1	Filler Cap
14	11084	1	Pipe Plug (1/16 NPTF; Torque to 35/45 in. lbs. oiled)
15	307296	1	Wear Plate
16	15695	1	Ball Bearing
17	15693	1	Gerotor Set
18	213709	1	Seal Washer (Turn on -- Do not push on; Nitrile)
	215633	1	Seal Washer (Turn on -- Do not push on; Viton)
	215634	1	Seal Washer (Turn on -- Do not push on; EPD)
19	10390	1	Hex Jam Nut (1/2-20 UNF)
20	21943	1	Accumulator
21	215373	1	Straight Fitting
22	10268	1	O-ring (1/2 x 3/8 x 1/16; Nitrile)
	11439	1	O-ring (1/2 x 3/8 x 1/16; Viton)
	17716	1	O-ring (1/2 x 3/8 x 1/16; EPD)
23	11863	1	Teflon Backup Washer (1/2 x 3/8 x .040)
24	21484	1	Washer
25	214762	1	Valve Connector (NOTE: The torque between the valve connector(214762) and the cover plate(420002) shall be 30 ft. lbs. max. The torque between the valve connector(214762) and the check valve body(201879) shall be 40-50 ft. lbs.)
26	10261	1	Copper Washer
27	16669	1	Compression Spring
28	20771	1	Poppet
29	201879	1	Check Valve Body
30	10430	1	Sleeve Tube (For 3/8 tube)
31	10431	1	Tube Nut (5/8-18 UNF)
32	11278	1	90° Fitting
33	213686	1	Intake Tube

BASIC PUMP ASSEMBLY BOTTOM VIEW AFTER 2-1-96



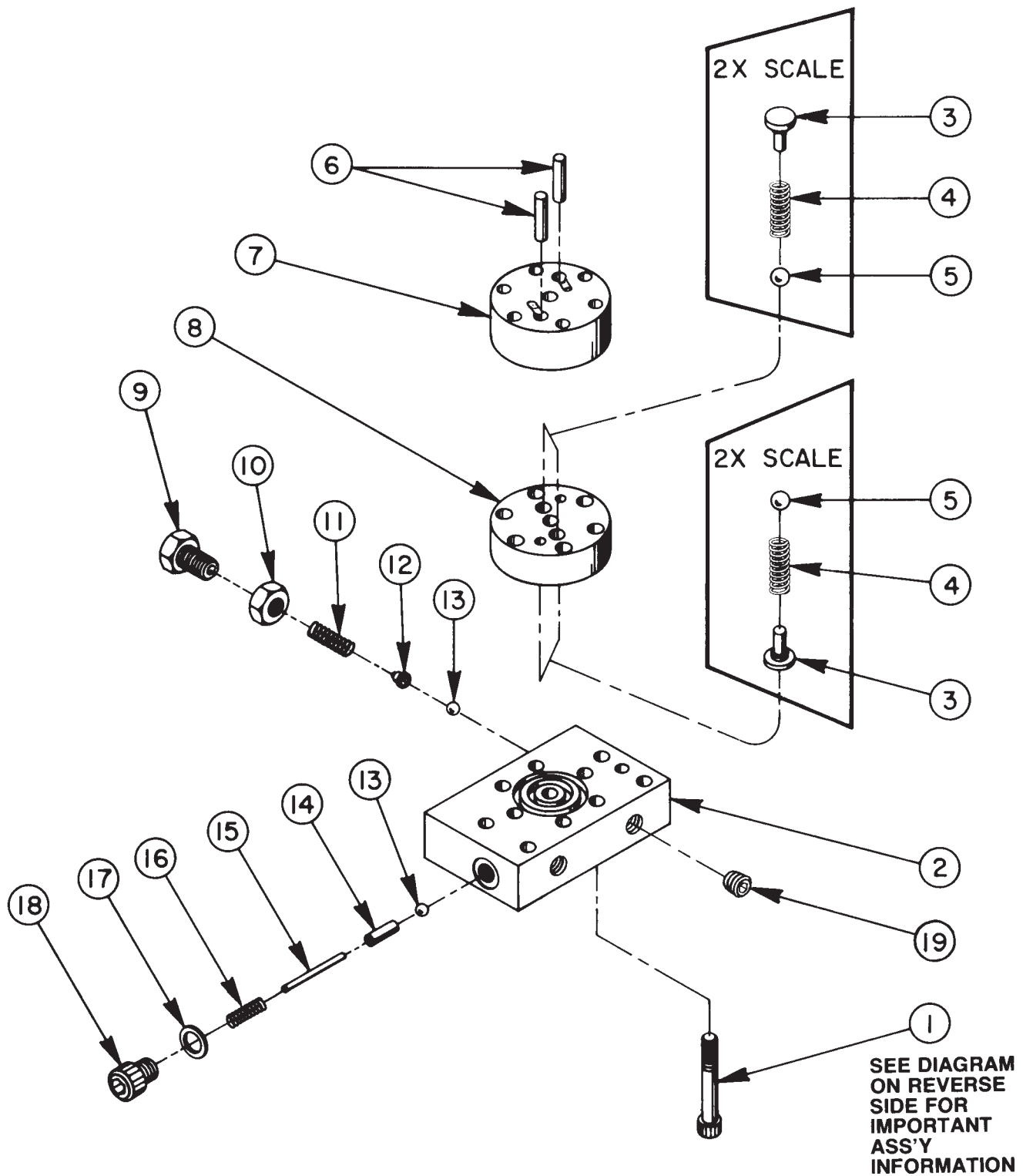
Item No.	Part No.	No. Req'd	Description
1	420002	1	Reservoir Cover
2	214866	1	Oil Line
3	29682	1	Filter Strainer
4	420400	1	Oil Line (On pumps manufactured after 1-15-92)
5	215674	1	Accumulator Pipe Assembly
6	12696	1	Straight Fitting
7	14844	1	Straight Fitting
8	18969	2	Tee Fitting (On pumps manufactured after 1-15-92)
9	47647	1	Pressure Regulator Assembly (See below)
10	16177	1	Tube Elbow
11	11278	1	Tube Elbow
12	306957	1	Air Bleed Valve
13	309912	1	High Pressure Pump Assembly (See pg 7 of 10)
14	15642	5	Cap Screw (1/4-20 UNC X 5" Lg.; Torque to 55/65 in. lbs.)
15	21278-50	1	Relief Valve (Set at 5,100/5,700 PSI)
16	214720	1	Spacer

EXTERNAL PRESSURE REGULATOR ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	215721	1	Adjustment Stem
2	10396	1	Hex Jam Nut (3/4-16 UNF)
3	309077	1	Regulator Housing
4	215429	1	Compression Spring (1.100 O.D. X 2 1/2 Lg.)
5	47648	1	Regulator Body
6	309078	1	Seat Fitting
7	10909	2	Plug
8	10427	1	Pressure Plug
9	309079	1	Poppet
10	215428	2	Spring Retainer
11	215683	1	Regulator Locking Nut (3/8-24)
12	215693	1	Knob
13	215431	1	Spring Sleeve
14	215430	2	Backup Washer (.385 x .282 x .050)
15	10266	1	O-ring (3/8 X 1/4 X 1/16)
16	13755	1	O-ring (.558 x .414 x .072)

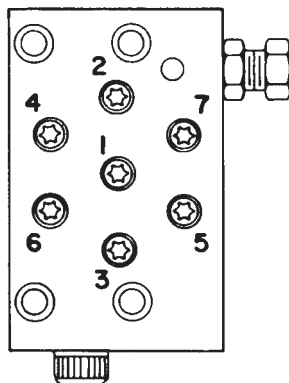
HIGH PRESSURE PUMP ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	*16747	7	Torx Drive Cap Screw (1/4-28 x 1-3/4 Lg.; See diagram below)
2	*36912	1	Pump End Plate
3	*24549	4	Valve Guide
4	*10445	4	Compression Spring (.161 O.D. x 23/32 Lg.)
5	*12223	4	Steel Ball (3/16 dia.)
6	*21628	2	Piston (9/32 dia.)
7	*48020	1	Pump Barrel
8	*41007	1	Valve Head
9	200797	1	Adjusting Screw
10	10386	1	Jam Nut (3/8-24 UNF)
11	15691	1	Compression Spring (.24 OD x .63 x .04 WS))
12	200796	1	Spring & Ball Adapter
13	10375	2	Steel Ball (1/4 dia.)
14	201998	1	Sleeve
15	12571	1	Roll Pin (1/8 dia. x 1-3/8 Lg.)
16	14431	1	Compression Spring (3/16 O.D. x 3/4 Lg.)
17	12042	1	Copper Washer (9/16 x 3/8 x 1/32)
18	29690	1	Cap Screw (Torque to 180 in. lbs.)
19	10427	1	Pipe Plug (1/8 NPTF)

When replacing items marked with an asterisk (*), consult the Power Team Technical Services Department.

BOLT TIGHTENING SEQUENCE

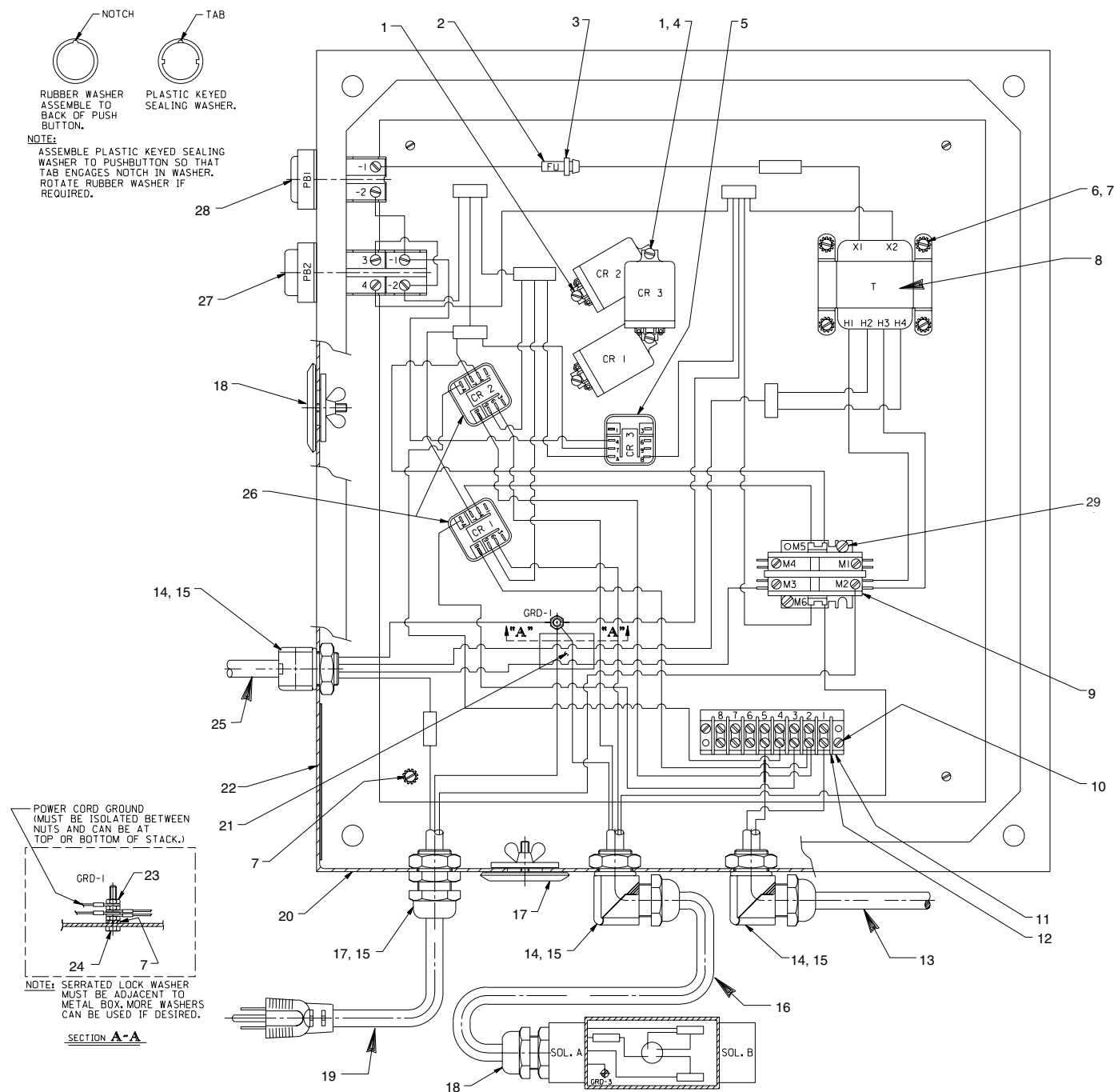


NOTE: Assemble in sequence shown. Lubricate under head and on threads. Torque to 170 in. lbs.

MOTOR CONTROL ASSEMBLY

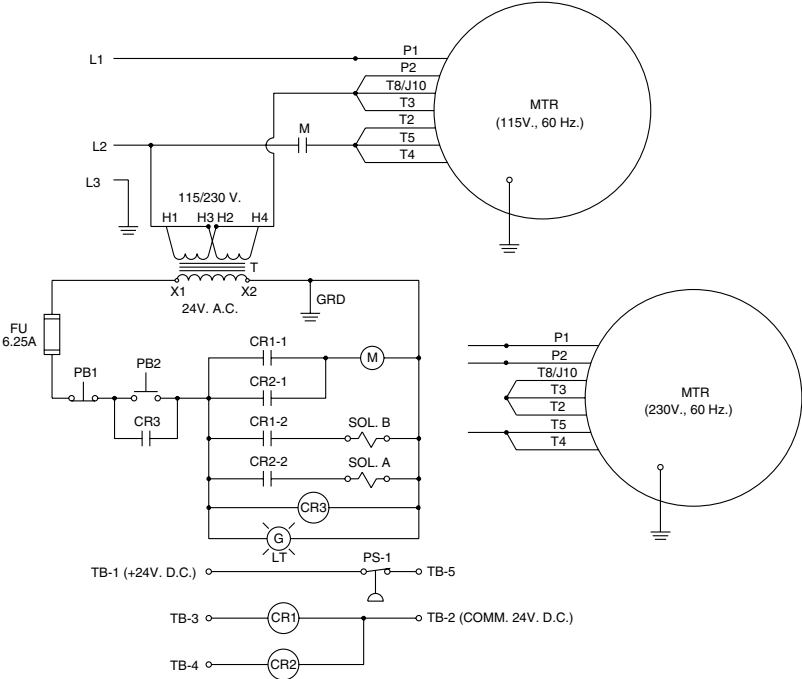
115 V., 60 Hz.

(For 100140 & 100140-230)



Item No.	Part No.	No. Req'd	Description
1	17563	4	Pan Hd. Machine Screw (#6-32 x 1/4 Lg.)
2	16887	1	Fuse Holder
3	250176	1	Fuse (3 AMP)
4	215376	2	Stand Off
5	39092	1	Relay
6	10164	2	Rd. Hd. Machine Screw (#10-24 x 3/8 Lg.)
7	11108	6	Washer (#10 External Tooth)
8	39692	1	Transformer
9	420718-4	1	Contactor
10	11426	2	Rd. Hd. Machine Screw (#6-32 x 1/2 Lg.)
11	19979	1	Terminal Block Accessory
12	19978	1	Terminal Block
13	52203	1	Pressure Switch Assembly (See Form No. 100589)
14	216667	3	90° Strain Relief
15	216680	4	Conduit Locknut
16	11391	2.5 ft.	Electrical Cable (18/4 SJ0)
17	216669	2	Hole Plug
18	216666	2	Strain Relief
19	25229	1	Cord Set (14/3 SJT0)
	11209	1	Electrical Plug (For 100140-230)
20	250001	1	Electrical Control Box with Cover and Panel
21	205189	1	Decal (Ground)
22	250271	1	Decal (Warning)
23	10197	3	Hex Nut (#10-24)
24	104484	1	Hex Hd. Machine Screw (#10-24 x 1" Lg.)
25	309022	1.42 ft.	Electrical Cable (14/4 SJ0)
26	308340	2	Relay
27	350011	1	Illuminated Pushbutton Switch (Green)
28	39283	1	Pushbutton Switch (Red)
29	10166	2	Machine Screw (#10-24 UNC X 1/2 Lg.)

ELECTRICAL SCHEMATIC
115 V., 60 Hz



WARNING

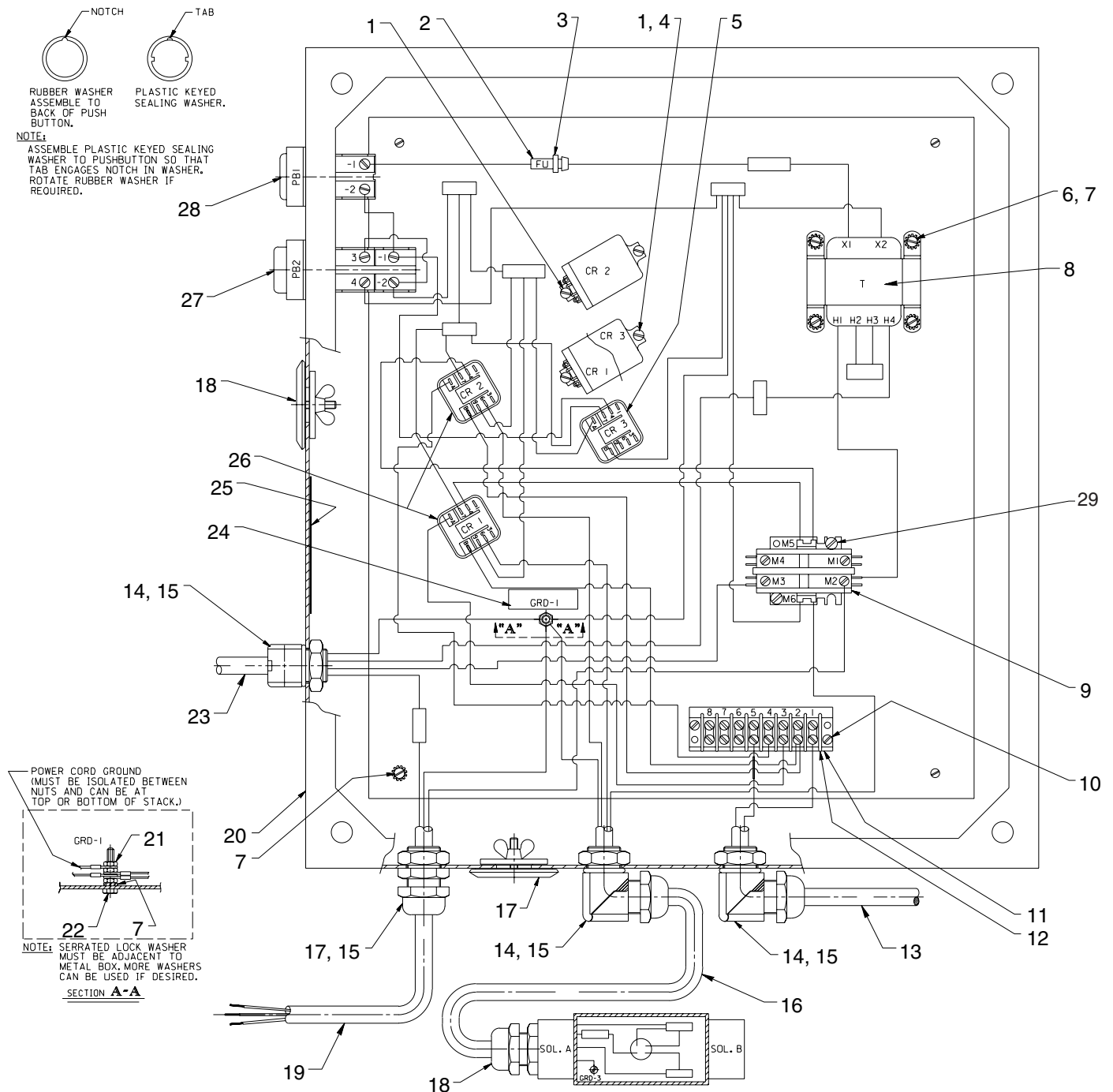
To help avoid personal injury, all electrical work must be done by a qualified electrician.

North American & International Color Codes

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

TRANSFORMER CONNECTIONS

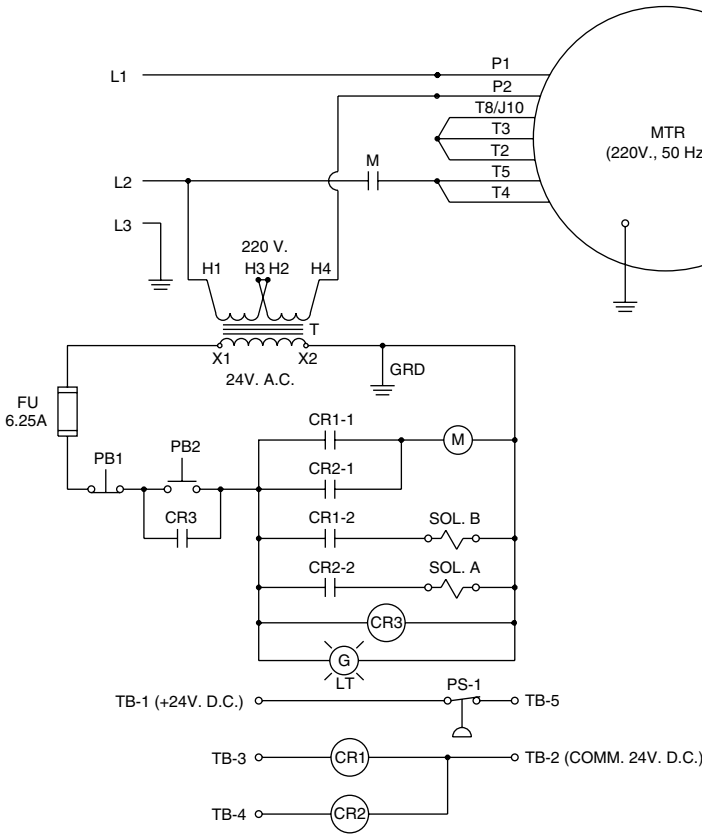
FOR 115V., 60 Hz.
H1 & H3 TO L2
H2 & H4 TO MOTOR CONNECTIONS
FOR 230V., 60 Hz.
H1 TO L1
H2 TO H3
H4 TO MOTOR CONNECTIONS

MOTOR CONTROL ASSEMBLY**220 V., 50 Hz****(FOR 100140-50-220)**

Item No.	Part No.	No. Req'd	Description
1	17563	4	Pan Hd. Machine Screw (#6-32 x 1/4 Lg.)
2	16887	1	Fuse Holder
3	250176	1	Fuse (6.25 AMP)
4	215376	2	Stand Off
5	39092	1	Relay
6	10164	2	Rd. Hd. Machine Screw (#10-24 x 3/8 Lg.)
7	11108	6	Washer (#10 External Tooth)
8	39692	1	Transformer
9	420718-4	1	Contactor
10	11426	2	Rd. Hd. Machine Screw (#6-32 x 1/2 Lg.)
11	19979	1	Terminal Block Accessory
12	19978	1	Terminal Block
13	52203	1	Pressure Switch Assembly (See Form No. 100589)
14	216667	3	90° Strain Relief
15	216680	4	Conduit Locknut
16	11391	2.5 ft.	Electrical Cable (18/4 SJ0)

Item No.	Part No.	No. Req'd	Description
17	216669	2	Hole Plug
18	216666	1	Strain Relief
19	25229	1	Cord Set (14/3 SJT0)
	308752	8 ft.	Electrical Cable
20	250001	1	Electrical Control Box with Cover and Panel
21	10197	3	Hex Nut (#10-24)
22	104484	1	Hex Hd. Machine Screw (#10-24 x 1" Lg.)
23	309022	1.42 ft.	Electrical Cable (14/4 SJ0)
24	250271	1	Decal (Fuse)
25	205189	1	Decal (Ground)
26	308340	2	Relay
27	350011	1	Illuminated Pushbutton Switch (Green)
28	39283	1	Pushbutton Switch (Red)
29	10166	2	Machine Screw (#10-24 UNC X 1/2 Lg.)

ELECTRICAL SCHEMATIC
220 V., 50 Hz



WARNING

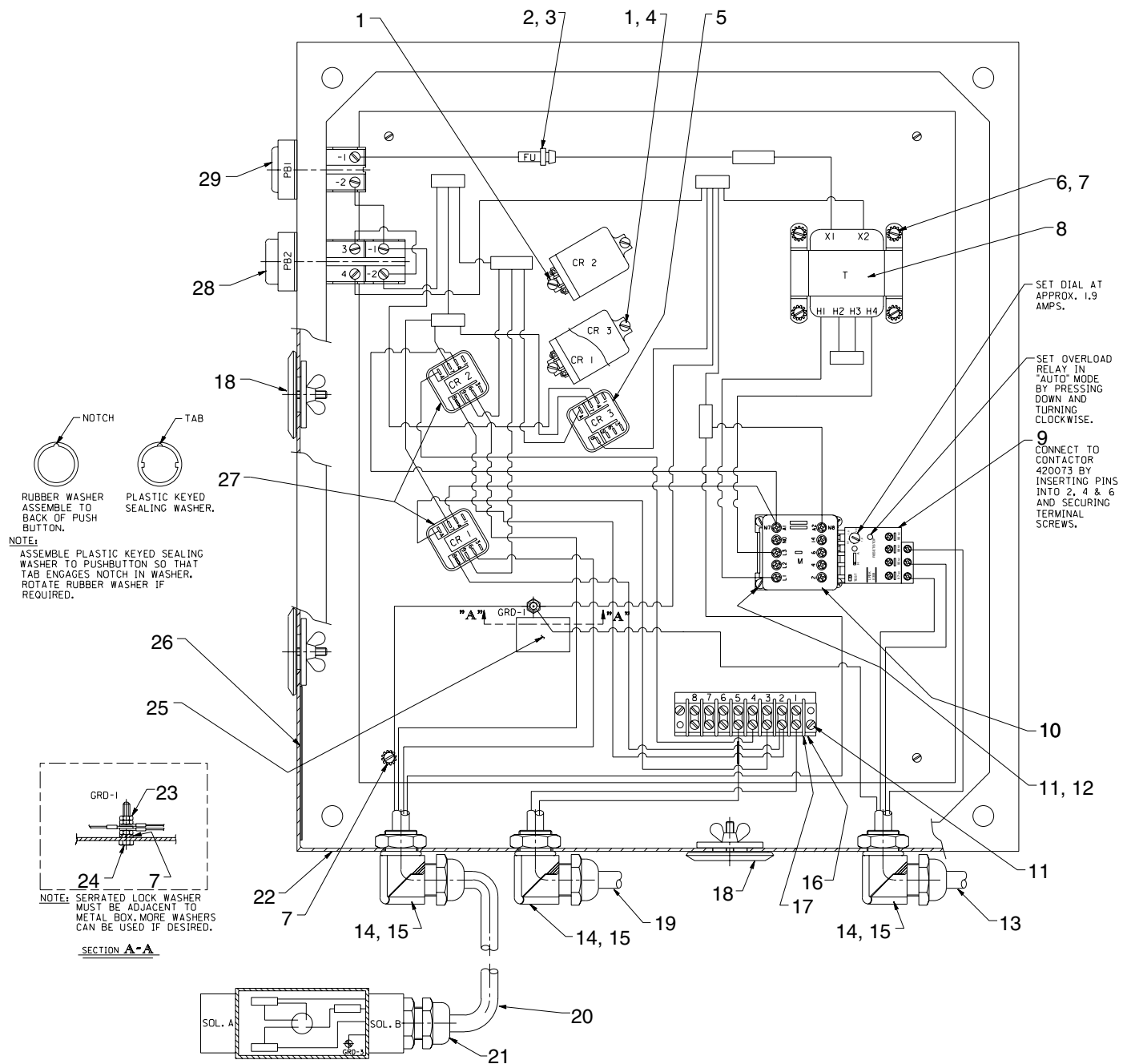
To help avoid personal injury, all electrical work must be done by a qualified electrician.

North American & International Color Codes

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

NOTE:
UNLESS OTHERWISE SPECIFIED ALL
UNITS ARE TO BE WIRED FOR
220V., 50Hz. (CCW ROTATION FROM
LEAD END.)
TRANSFORMER CONNECTIONS ARE AS
SHOWN FOR 220V., 50 Hz.

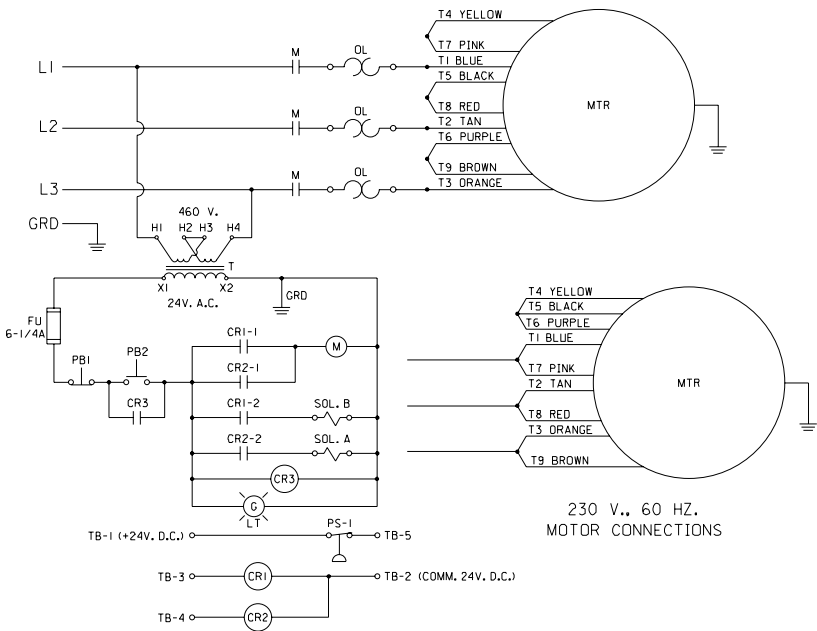
MOTOR CONTROL ASSEMBLY **460 V., 60Hz** **(FOR 100840 & 100840-230)**



Note: Graphics updated at last revision(s) made to this form.

Item No.	Part No.	No. Req'd	Description
1	17563	4	Pan Hd. Machine Screw (#6-32 x 1/4 Lg.)
2	16887	1	Fuse Holder
3	250176	1	Fuse (6.25 AMP)
4	215376	2	Stand Off
5	39092	1	Relay
6	10164	4	Rd. Hd. Machine Screw (#10-24 x 3/8 Lg.)
7	11108	6	Washer (#10 External Tooth)
8	39693	1	Transformer
9	350161	1	Overload Relay (For 100840)
	350419	1	Overload Relay (For 100840-230)
10	420073	1	Contactor
11	11426	6	Rd. Hd. Machine Screw (#6-32 x 1/2 Lg.)
12	10195	4	Hex Nut (#6-32)
13	15565	2 ft.	Electric Cable (16/4 SJO)
14	216667	4	90° Strain Relief
15	216680	3	Conduit Locknut
16	19979	1	Terminal Block Accessory
17	19978	1	Terminal Block
18	216669	3	Hole Plug
19	52203	1	Pressure Switch (See Form No. 100589)
20	11391	30"	Electric Cable (18/4 SJO)
21	216666	1	Strain Relief
22	250001	1	Electrical Control Box with Cover and Panel
23	10197	3	Hex Nut (#10-24)
24	104484	1	Hex Hd. Machine Screw (#10-24 x 1" Lg.)
25	205189	1	Decal (Ground)
26	250271	1	Decal (Fuse)
27	308340	2	Relay
28	350011	1	Illuminated Pushbutton Switch (Green)
29	39283	1	Pushbutton Switch (Red)

ELECTRICAL SCHEMATIC
460 V., 60 Hz



WARNING

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

TRANSFORMER CONNECTIONS

FOR 230V., 60 Hz.
H1 & H3 TO L2
H2 & H4 TO MOTOR CONNECTIONS
FOR 460V., 60 Hz.
H1 TO L1
H2 TO H3
H4 TO MOTOR CONNECTIONS