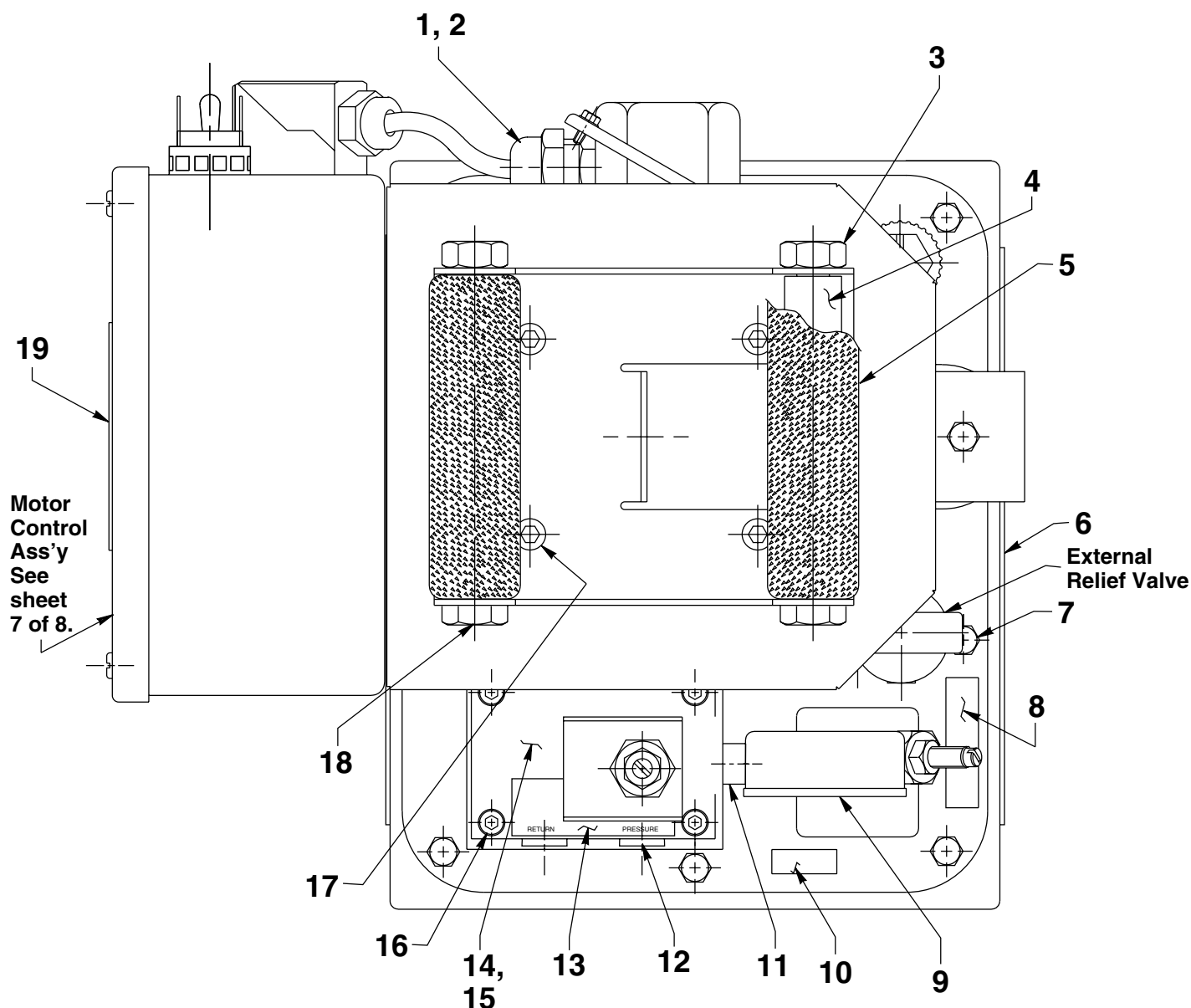


Parts List for:

100186
100186-230

**ELECTRIC
TWO-STAGE HYDRAULIC PUMP**
Max. Capacity: 5,000 PSI

TOP VIEW



Parts List, Form No. 100808, Back sheet 1 of 8

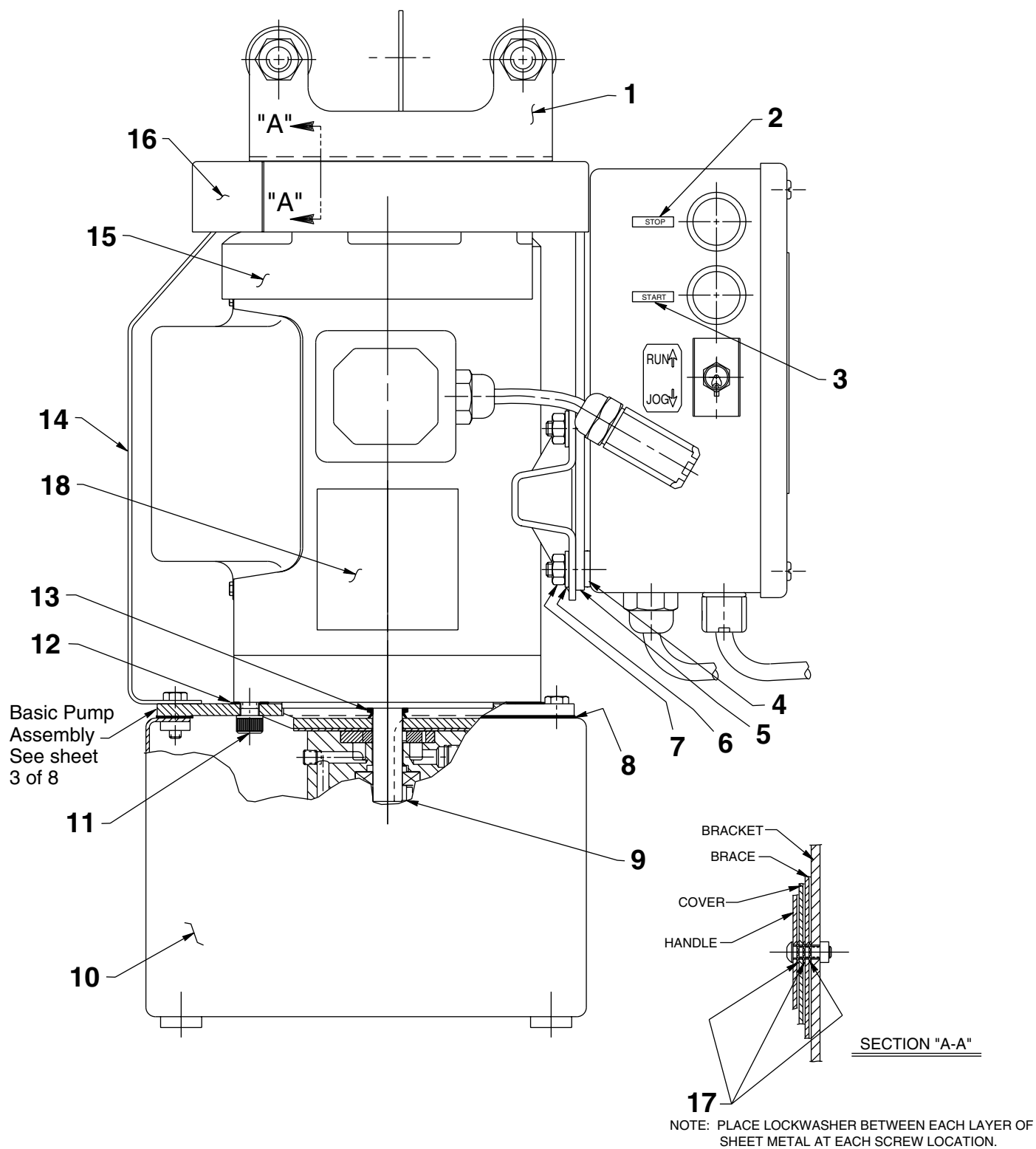
Item No.	Part No.	No. Req'd	Description
1	216666	1	Strain Relief Bushing
2	216680	1	Locknut
3	10208	2	Hex. Nut (1/2-13 UNC)
4	216658	2	Handle Tube
5	216668	2	Handle Grip
6	309233	2	Trade Name Decal
7	10009	10	Hex. Hd. Cap Screw (1/4-20 UNC x 3/4 Lg.)
8	213695	1	Decal (CSA)
9	17946	1	Pressure Gauge
10	203972	1	Decal (CSA)
11	10645	1	45° Elbow Fitting (1/4 NPTF M x F)
12	13270	2	Plastic Plug
13	210995	1	Decal (Manifold)
14	45837	1	Manifold
15	200609	1	Drain Tube
16	10020	4	Soc. Hd. Cap Screw (1/4-20 UNC x 1-1/2 Lg.)
17	250383	4	Button Hd. Cap Screw (1/4-20 UNC x 3/4 Lg.)
18	216681	2	Hex. Hd. Bolt (1/2-13 UNC x 5-1/2 Lg.)
19	309114	1	Decal (Warning 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 Hytec replacement parts!**

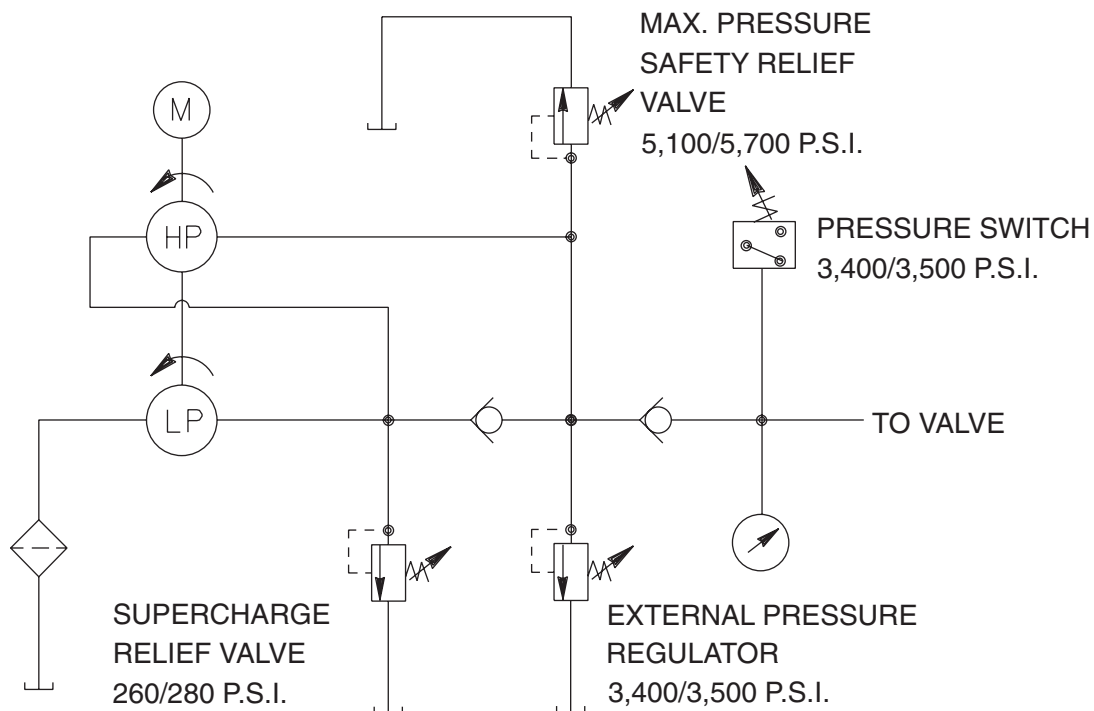
Additional questions can be directed to our Technical Services Department.

SIDE VIEW

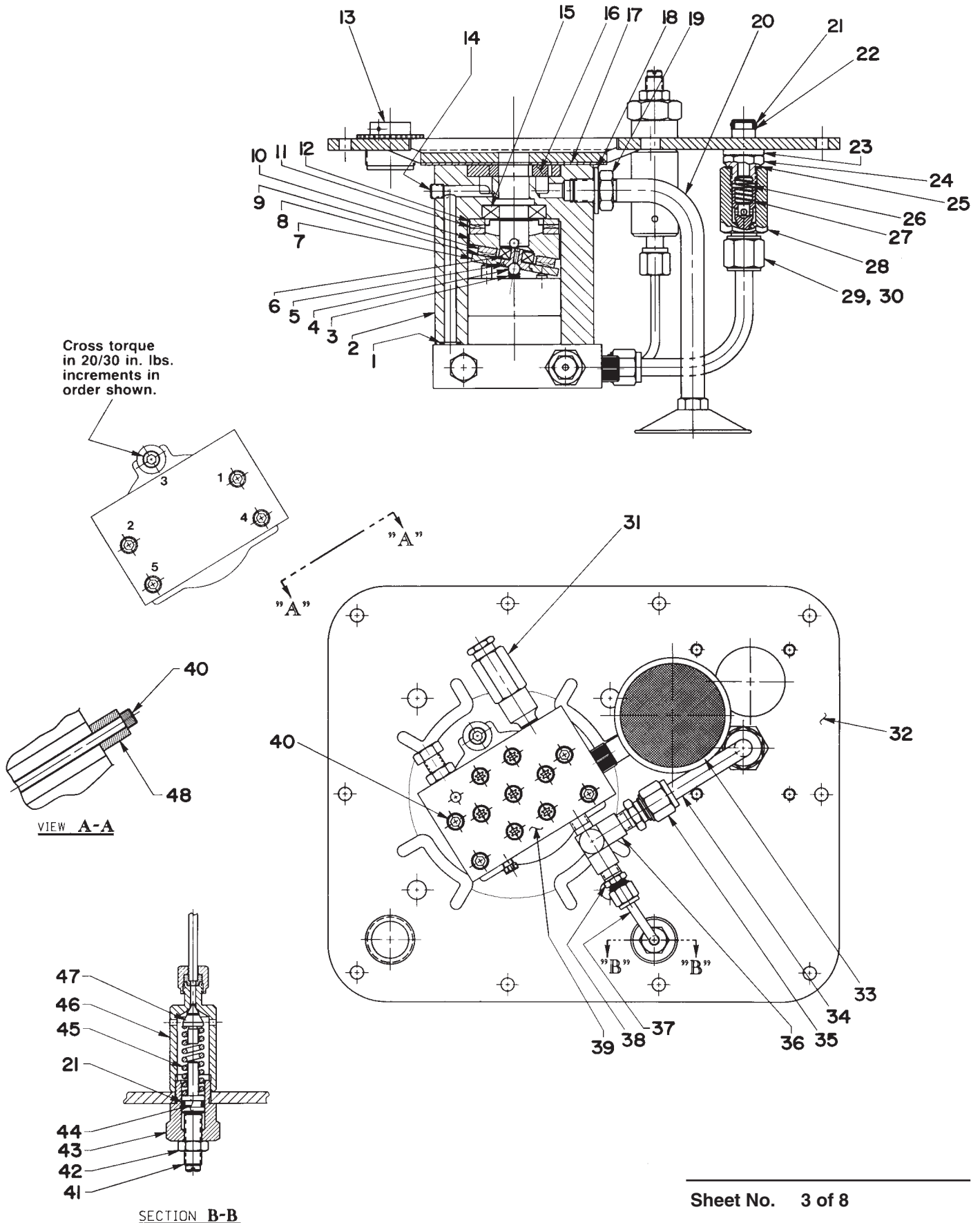


Item No.	Part No.	No. Req'd	Description
1	53513BK2	1	Handle Bracket
2	203769	1	Decal (Stop)
3	203808	1	Decal (Start)
4	16450	4	Washer (1" x .260 x .120)
5	53514BK2	1	Mounting Bracket
6	12719	4	Washer (.630 x .286 x .065)
7	10199	4	Hex. Nut (1/4-20 UNC)
8	40164	1	Reservoir Gasket
9	214097	1	Key
10	40063PU2	1	Reservoir
11	10050	4	Soc. Hd. Cap Screw (3/8-16 UNC x 1" Lg.)
12	307425	1	Motor Gasket
13	213674	1	Shaft Seal
14	53515BK2	1	Brace
15	53518	1	Electric Motor
16	53516BK2	1	Cover
17	11351	12	External Tooth Washer
18	309114	1	Important Decal

HYDRAULIC SCHEMATIC



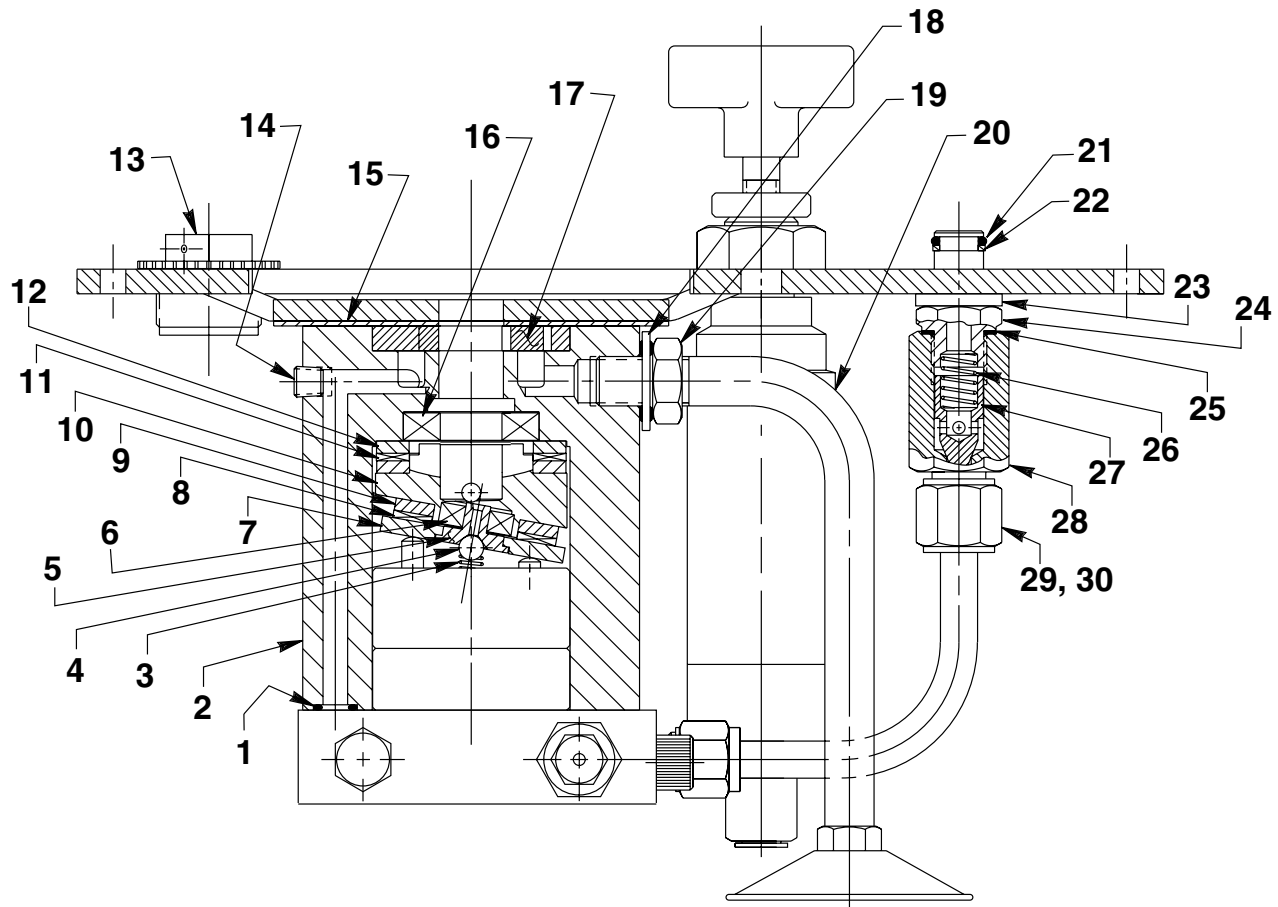
BASIC PUMP ASSEMBLY (On all pumps manufactured before 2-1-96)



Parts List, Form No. 100808, Back sheet 3 of 8

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)
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	213686	1	Intake Tube
21	10268	2	O-ring (1/2 x 3/8 x 1/16)
22	11863	1	Teflon Backup Washer
23	21484	1	Washer
24	214762	1	Valve Connector (Torque to 20/30 ft. lbs.)
25	10261	1	Copper Washer (3/4 x 19/32 x 1/32)
26	10425	1	Compression Spring (3/8 O.D. x 3/4 Lg.)
27	20771	1	Poppet
28	201879	1	Check Valve Body
29	10430	1	Tube Sleeve (For 3/8 tube)
30	10431	1	Tube Nut (5/8-18 UNF; Torque to 40/50 ft. lbs. while holding Valve Connector item #24.)
31	21278-50	1	Relief Valve (Set at 5,100/5,700 PSI)
32	47404BK2	1	Reservoir Cover
33	29682	1	Filter Strainer
34	214866	1	Tube (Oil Line)
35	12696	1	Straight Fitting (1/8 NPTF to 3/8 tube)
36	18969	1	Tee Fitting (1/8 x 1/8 x 1/8 NPTF)
37	214868	1	Regulator Oil Line Assembly
38	14844	1	Straight Fitting (1/8 NPTF to 7/16-20 UNF)
39	309912	1	High Pressure Pump Assembly (See page 5 of 5)
40	15642	5	Soc. Hd. Cap Screw (1/4-20 UNC x 5" Lg.; Torque to 55/65 in. lbs.)
41	22362	1	Valve Adjusting Screw
42	10386	1	Hex. Jam Nut (3/8-24 UNF)
43	21305	1	Valve Cap
44	21306	1	Spring Guide
45	10495	1	Compression Spring (1/2 O.D. x 1-5/8 Lg.)
46	22361	1	Valve Body
47	21046	1	Valve Stem
48	214720	1	Spacer

BASIC PUMP ASSY. **SIDE VIEW** (On all pumps manufactured after 2-1-96)



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; EPR)
2	52883	1	Body
3	16320	1	Spring (1/4 O.D. X 3/4 Lg.)
4	10375	1	Steel Ball (1/4 Dia.)
5	23547	1	Bearing Top Plate
6	11814	1	Ball Bearing
7	23548	1	Top Plate
8	15431	1	Needle Bearing
9	15432	1	Bearing Race
10	35271	1	Angle Plate
11	11228	1	Thrust Plate
12	11227	2	Bearing Race
13	213706	1	Plug
14	11084	1	Plug
15	307296	1	Wear Plate
16	15695	1	Ball Bearing
17	15693	1	Gerotor Set
18	213709	1	Seal Washer (Nitrile)
	215633	1	Seal Washer (Viton)
	215634	1	Seal Washer (EPR)

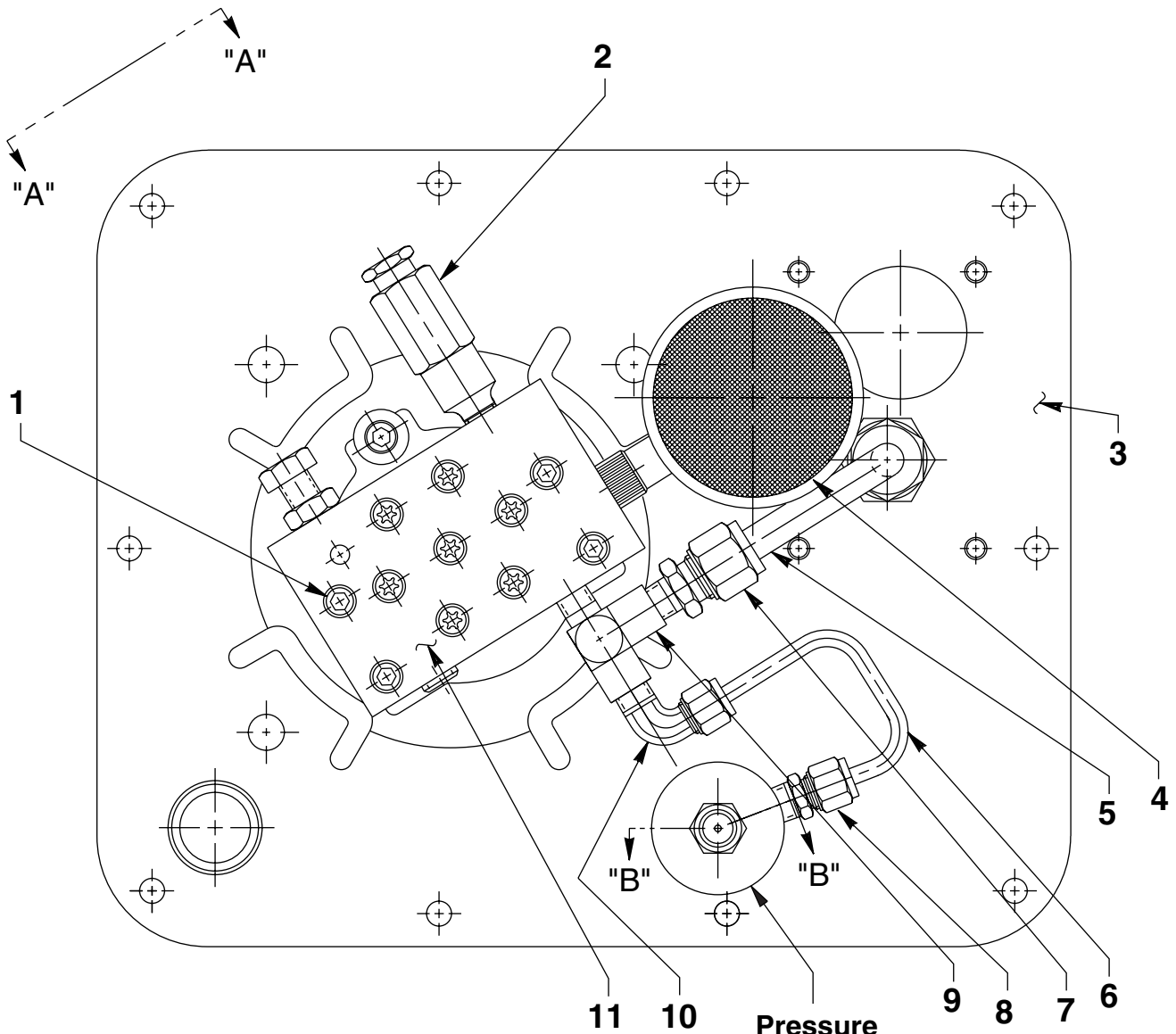
Item No.	Part No.	No. Req'd	Description
19	10390	1	Nut (1/2-20 UNF)
20	213686	1	Intake Tube
21	10268	1	O-ring (1/2 X 3/8 X 1/16; Nitrile)
	11439	1	O-ring (1/2 X 3/8 X 1/16; Viton)
	17716	1	O-ring (1/2 X 3/8 X 1/16; EPR)
22	11863	1	Backup Washer (1/2 X 3/8 X 1/16)
23	21484	1	Spacer
24	214762	1	Valve Connector (Note: The torque between the valve connector [Item #24] and the coverplate shall be 30 ft. lbs. max. The torque between the valve connector [Item #24] and the check valve body [Item #28] shall be 40-50 ft. lbs.)
25	10261	1	Copper Washer (3/4 X 19/32 X 1/32)
26	10425	1	Compression Spring (3/8 O.D. X 3/4 Lg.)
27	20771	1	Poppet
28	201879	1	Check Valve
29	10430	1	Tube Sleeve
30	10431	1	Tube Nut (5/8-18 UNF)

Sheet No. 4 of 8

Rev. 3

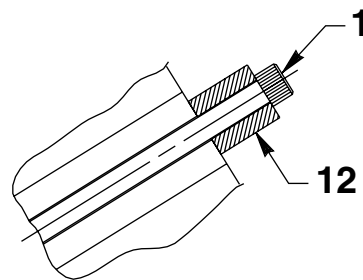
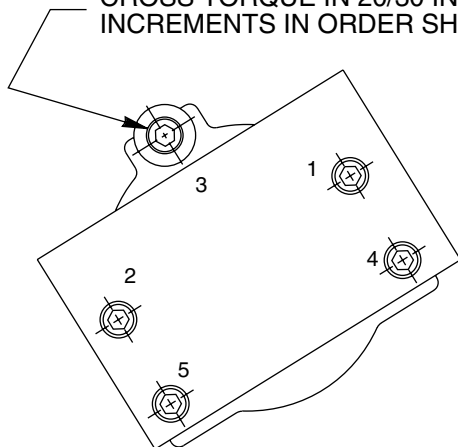
Date: 1 Mar. 2001

**BASIC PUMP ASSY.
BOTTOM VIEW**
(On all pumps manufactured after 2-1-96)



**Pressure
Regulator Ass'y**
See Back sheet 5 of 8.

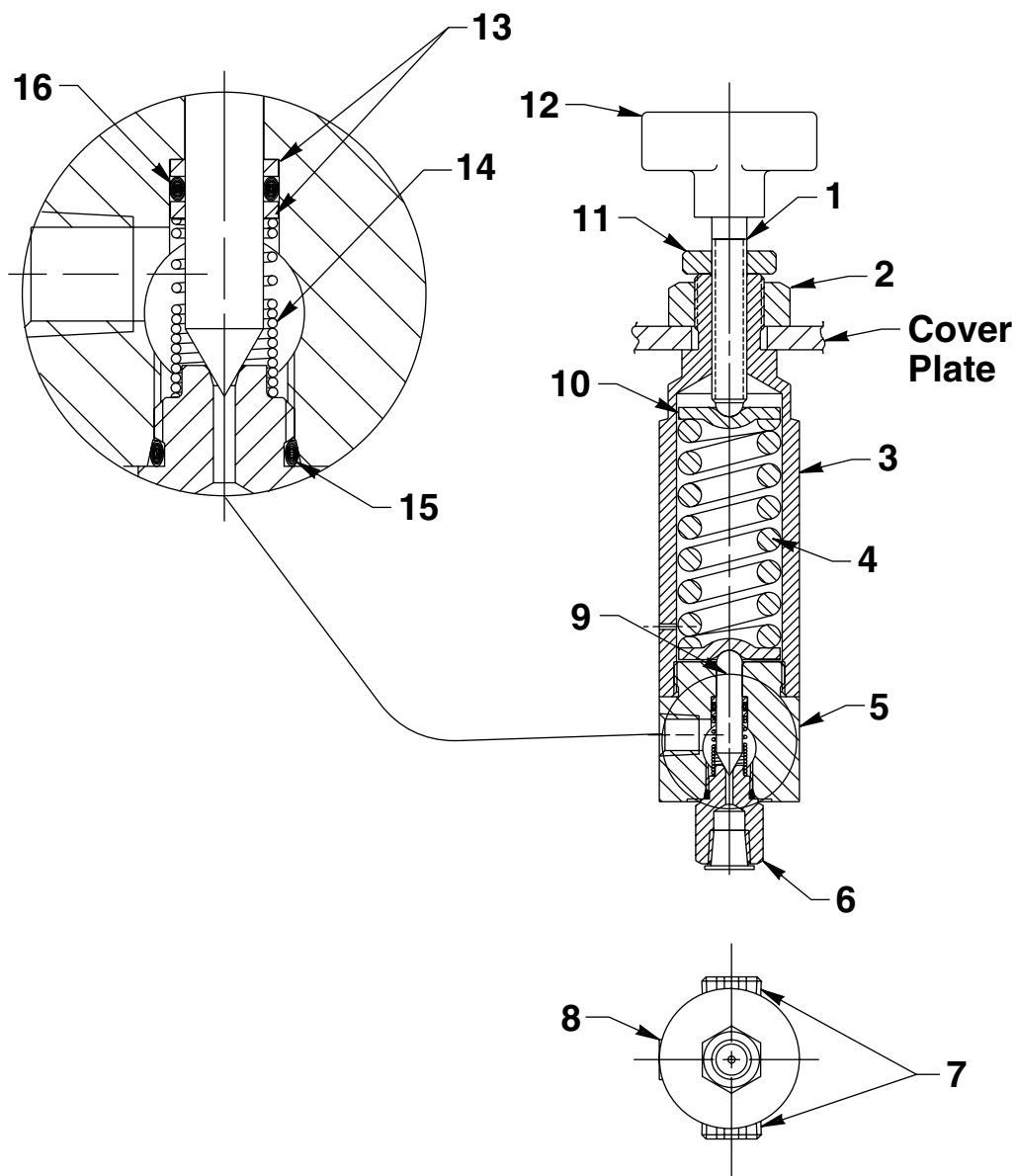
CROSS TORQUE IN 20/30 IN.LBS.
INCREMENTS IN ORDER SHOWN.



VIEW A-A

Item No.	Part No.	No. Req'd	Description
1	15642	5	Cap Screw (1/4-20 UNC X 5" Lg.; Torque to 55/65 in. lbs.)
2	21278-50	1	Internal Relief Valve (Set at 5,100/5,700 PSI)
3	47404BK2	1	Cover Plate
4	29682	1	Strainer
5	214866	1	Pressure Tube
6	215674	1	Accumulator Pipe Assembly
7	12696	1	Connector
8	14844	1	Connector
9	18969	1	Pipe Tee
10	16177	1	Tube Elbow
11	309912	1	High Pressure Pump
12	214720	1	Spacer

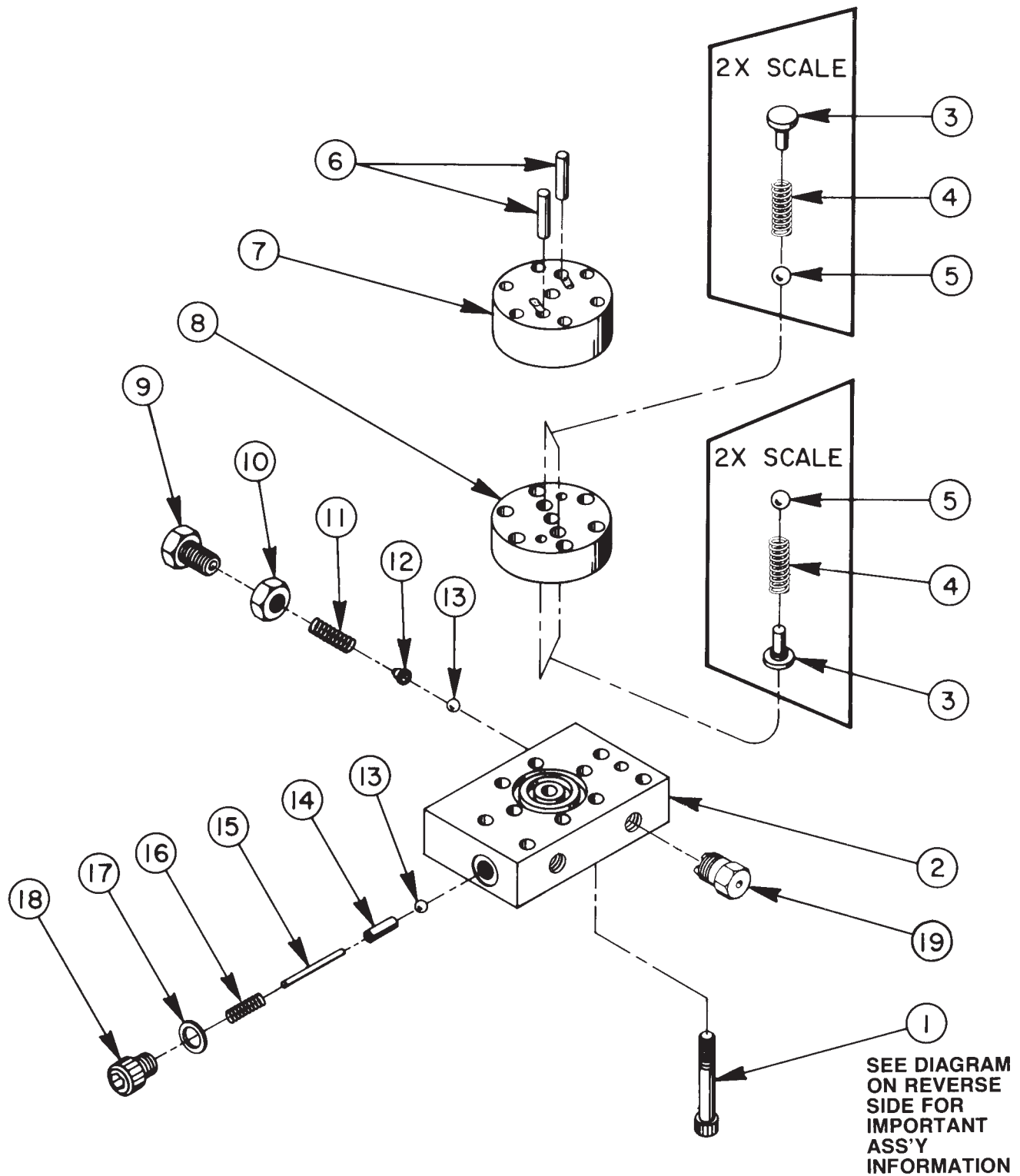
PRESSURE REGULATOR ASSY.



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

Item No.	Part No.	No. Req'd	Description
9	309079	1	Poppet
10	215428	2	Spring Retainer
11	215683	1	Regulator Locking Nut (3/8-24)
12	215693	1	Knob
13	215430	2	Washer (.385 x .282 x .050)
14	215431	1	Sleeve Spring
15	13755	1	O-ring (.558 x .414 x .072)
16	10266	1	O-ring (3/8 X 1/4 X 1/16)

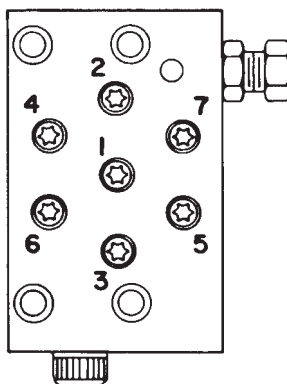
HIGH PRESSURE PUMP ASSY.



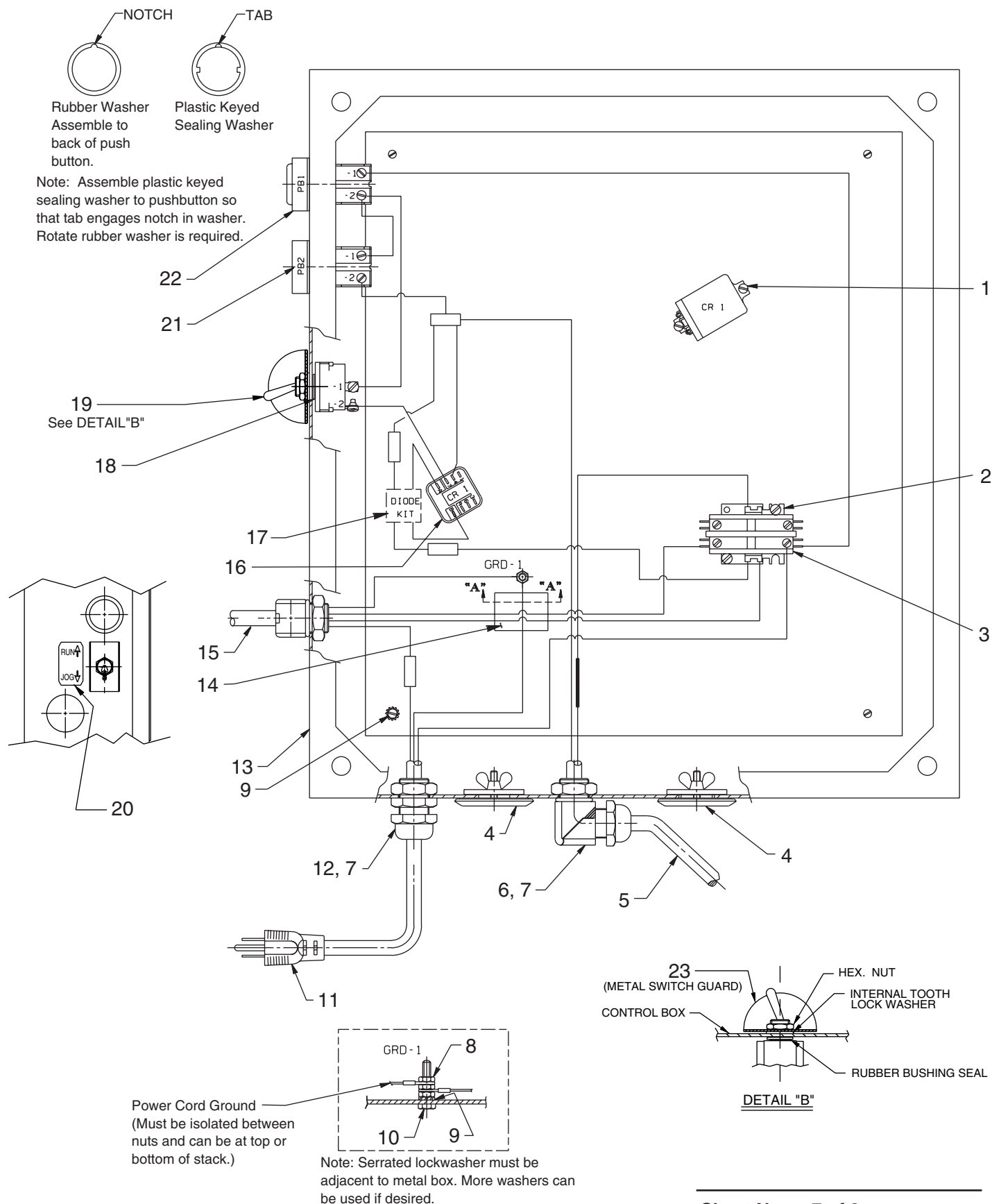
Item No.	Part No.	No. Req'd	Description
1	*16747	7	Torx Drive Cap Screw (1/4-28 x 1-3/4 Lg.; See diagram below)
2	*36912	1	Pump End Plate
3	*24549	4	Valve Guide
4	*10445	4	Compression Spring (.161 O.D. x 23/32 Lg.)
5	*12223	4	Steel Ball (3/16 dia.)
6	*21628	2	Piston (9/32 dia.)
7	*48020	1	Pump Barrel
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	306957	1	Air Bleed Valve

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

BOLT TIGHTENING SEQUENCE



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

MOTOR CONTROL ASSY.**115/230 V., 60 Hz.**

Item No.	Part No.	No. Req'd	Description
1	10159	2	Rd. Hd. Machine Screw (#6-32 UNC x 5/16 Lg.)
2	10166	2	Rd. Hd. Machine Screw (#10-24 x 1/2 Lg.)
3	420718-1	1	Contactor (For 100186)
	420718-2	1	Contactor (For 100186-230)
4	216669	2	Hole Plug
5	52203	1	Pressure Switch
6	216667	2	90° Strain Relief
7	216680	3	Conduit Locknut
8	10197	3	Hex. Nut (#10-24)
9	11108	2	Washer (#10 External Tooth)
10	104484	1	Hex. Hd. Machine Screw (#10-24 x 3/4 Lg.)
11	25229	1	Cord Set (14/3 SJTO; For 100186)
	308752	8 ft.	Elec. Cable (For 100186-230)
12	216666	1	Strain Relief
13	250001	1	Electrical Control Box w/ Cover & Panel
14	205189	1	Decal (Ground)
15	309022	1.42 ft.	Electrical Cable (14/4 SJO)
16	18842	1	Relay (For 100186)
	39520	1	Relay (For 100186-230)
17	250608	1	Diode Kit
18	216670	1	Washer (Toggle Switch)
19	12301	1	Toggle Switch
20	352081	1	Decal (Run-Jog)
21	39282	1	Pushbutton Switch (Green)
22	39283	1	Pushbutton Switch (Red)
23	352061	1	Metal Switch Guard

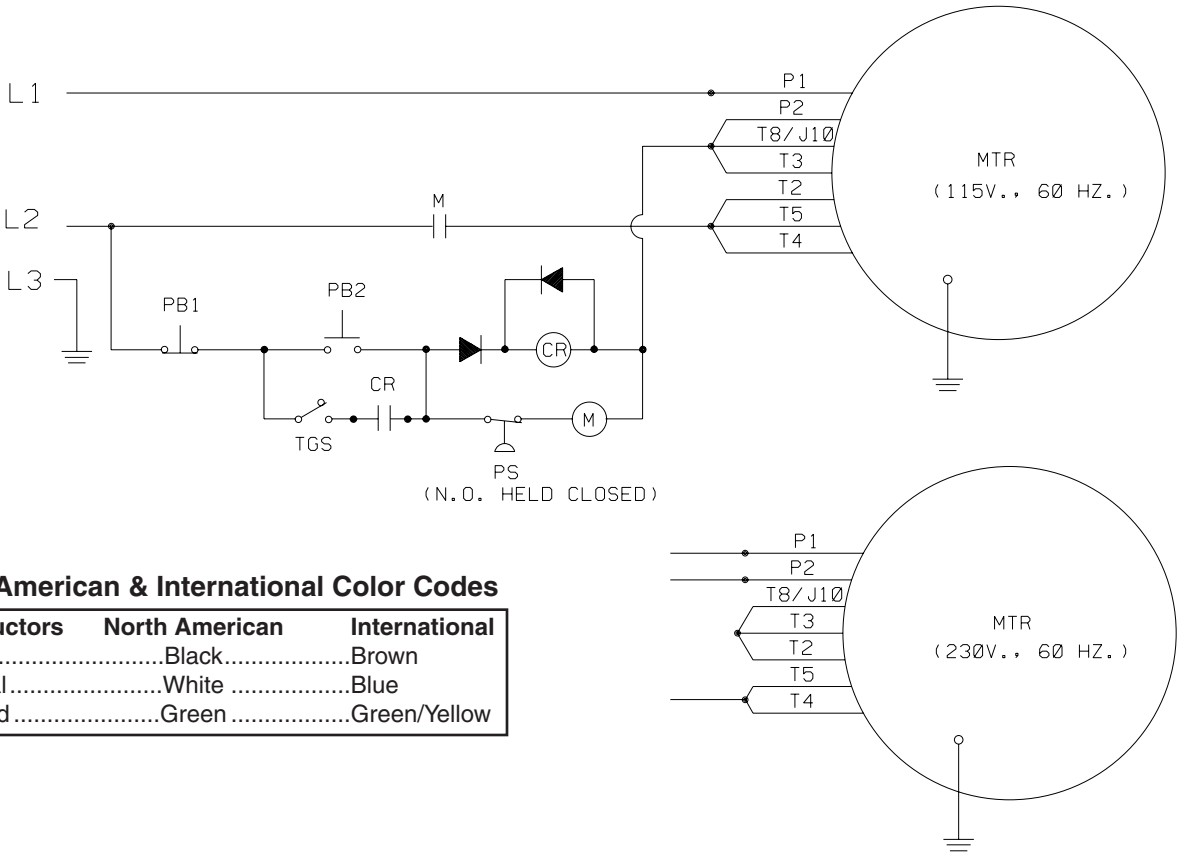
Note: Shaded areas reflect last revision(s) made to this form.

PARTS INCLUDED BUT NOT SHOWN
250150 1 Decal (CSA)

ELECTRICAL SCHEMATIC
115 V., 60 Hz., SINGLE PHASE



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



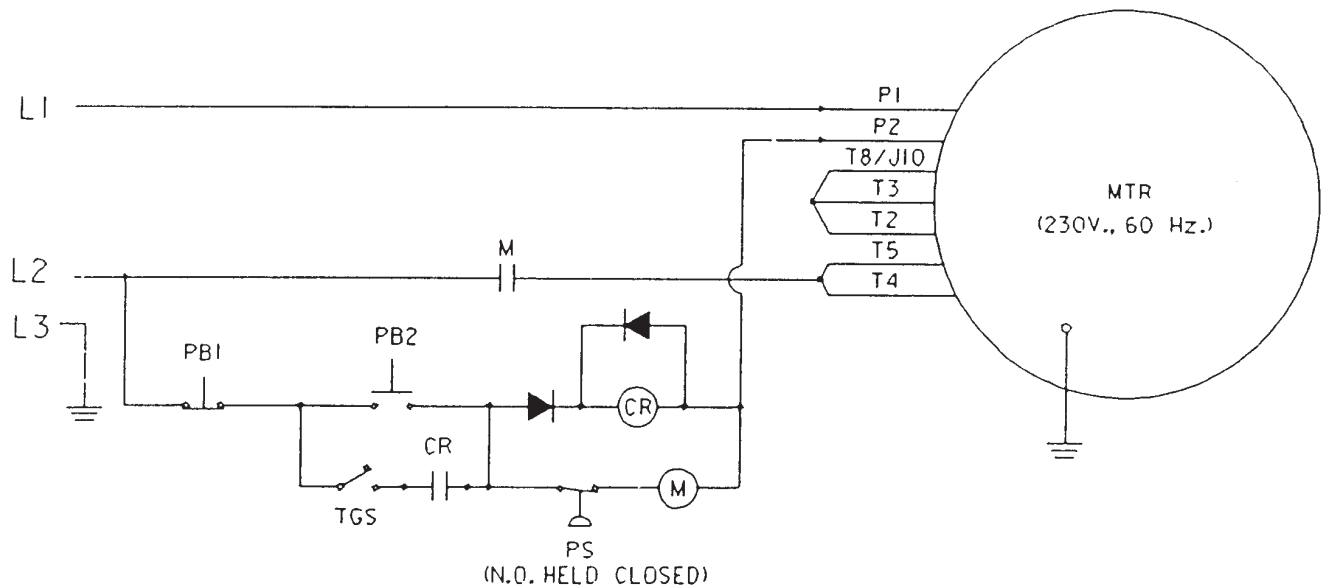
North American & International Color Codes

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

ELECTRICAL SCHEMATIC
230 V., 60 Hz., SINGLE PHASE



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