



OPERATORS MANUAL
4:20

KEGEL LLC
1951 Longleaf Blvd.
Lake Wales, FL 33859
863-734-0200 | 800-280-2695

CHAPTER 7

Miscellaneous Parts

Stickers and Decals



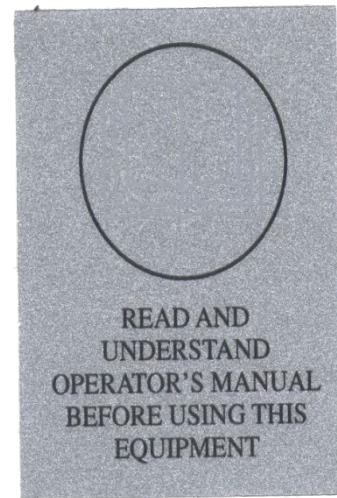
153-0037



154-0272



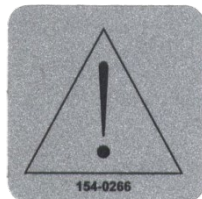
154-0274



158-0207



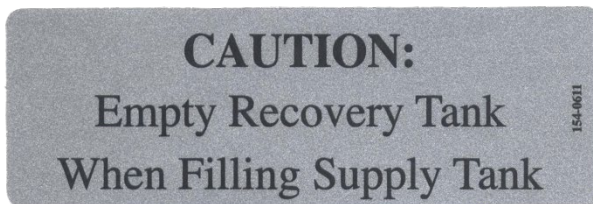
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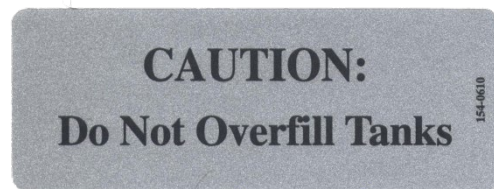
154-0266



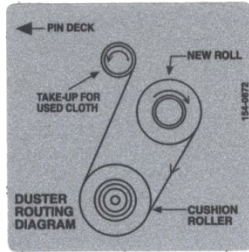
154-0269



154-0611



154-0610



154-0872



154-0270

WARNING: To reduce the risk of fire, use only commercially available bowling lane cleaners and conditioners intended for machine application.

154-0262

154-0262

CAUTION: Moving Parts - To Reduce The Risk Of Injury, Unplug Before Servicing.

154-0265

154-0265



164-00140-714C

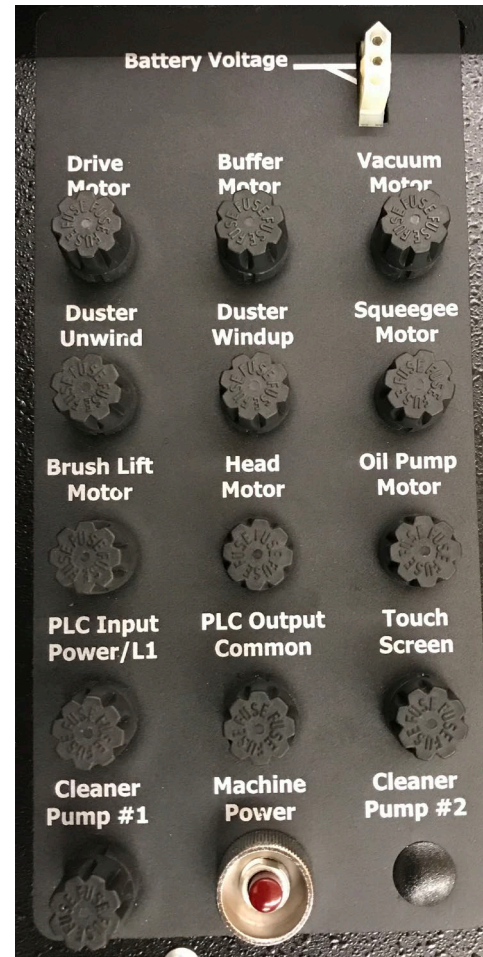


164-00150-714C



164-0024 - Part Number for the "K" only

164-0023W - Part Number for the "ION" only



164-0025

Fittings



Elbow-
1/4" Tube x 1/4" Tube
154-0243



Elbow-
3/8" Tube x 3/8" Tube
154-0256



Elbow-
3/8" NPT x 1/4" Tube - 154-0225
1/4" NPT x 1/4" Tube - 154-



Elbow-
1/4" Stem x 1/4" Tube
154-0222



Elbow-
3/8" Stem x 3/8" Tube
154-0258



Elbow-
1/4" Stem x 1/4" Hose
Barb
154-0226



Elbow-
1/4" Stem x 5/16" Hose
Barb
154-0227



Reducing Union-
1/4"x 3/16" - 154-0248



Union-
1/4" x 1/4" - 154-0241



Male Lure-
1/8" Hose Barb - 154-0863



Female Connector-
1/4" Tube x 1/8" FPT - 154-0257

CHAPTER 8

Mechanical Drawings

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BATTERIES AND CHARGERS

Rev. 12/13



158-1634 – K2 LITHIUM – 25.6 Ah



158-1634B – K2 LITHIUM – 38.4 Ah



158-1634C – K2 LITHIUM – 51.2 Ah

Battery Quick Disconnects

Red - 158-1407

Blue - 158-1408

ProNautic® Charger and Accessories



164-8471 -

EXTERNAL BATTERY CHARGER ASSEMBLY – 115V

164-8471 E

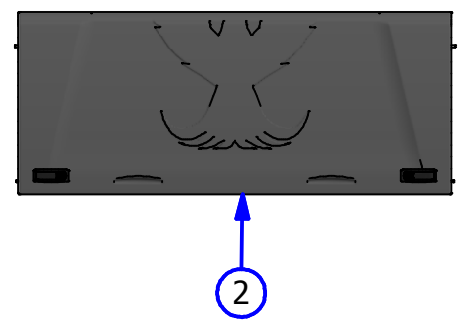
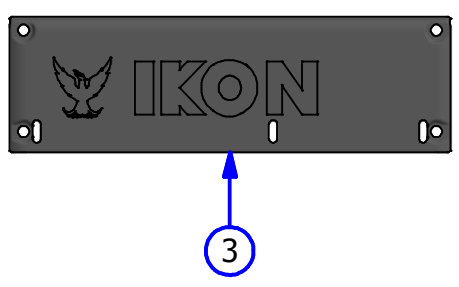
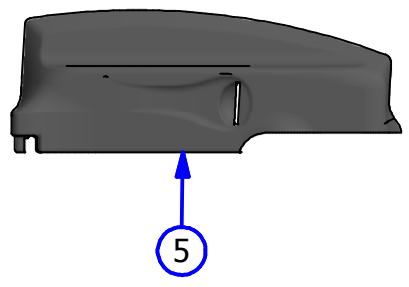
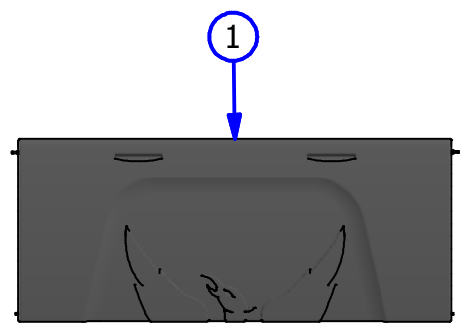
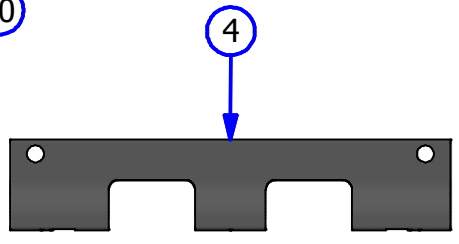
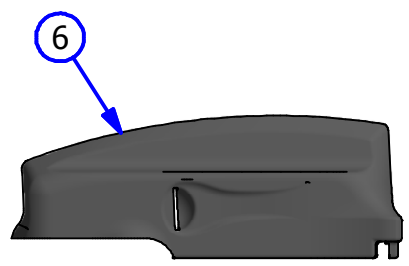
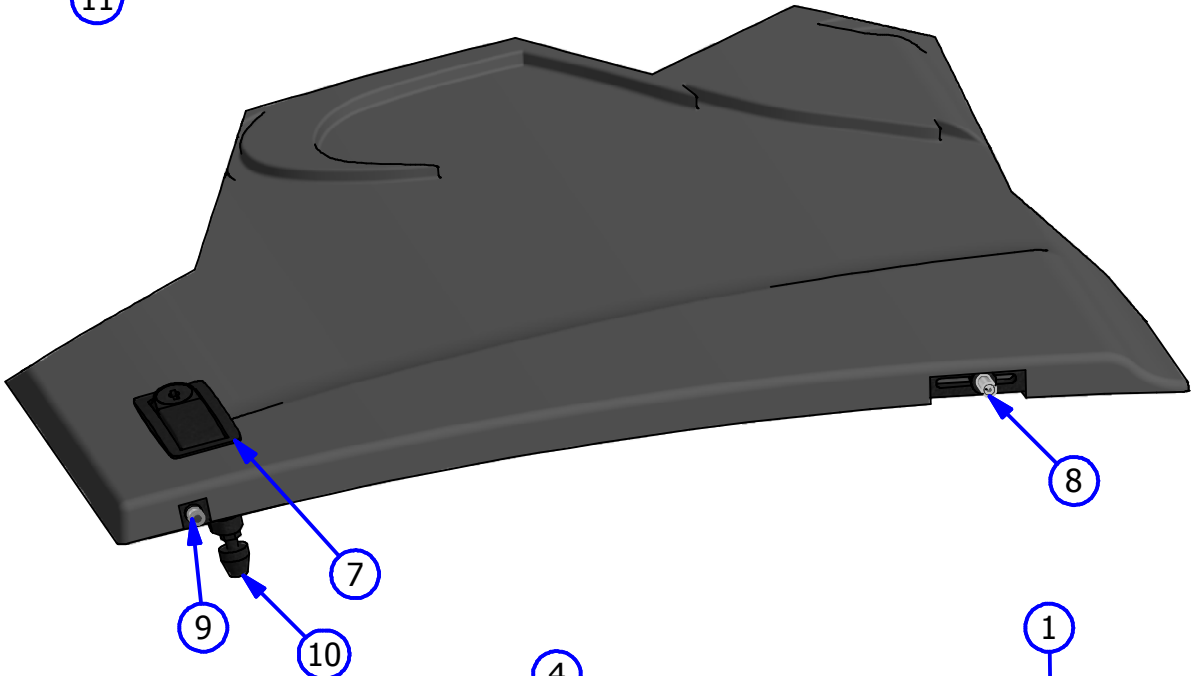
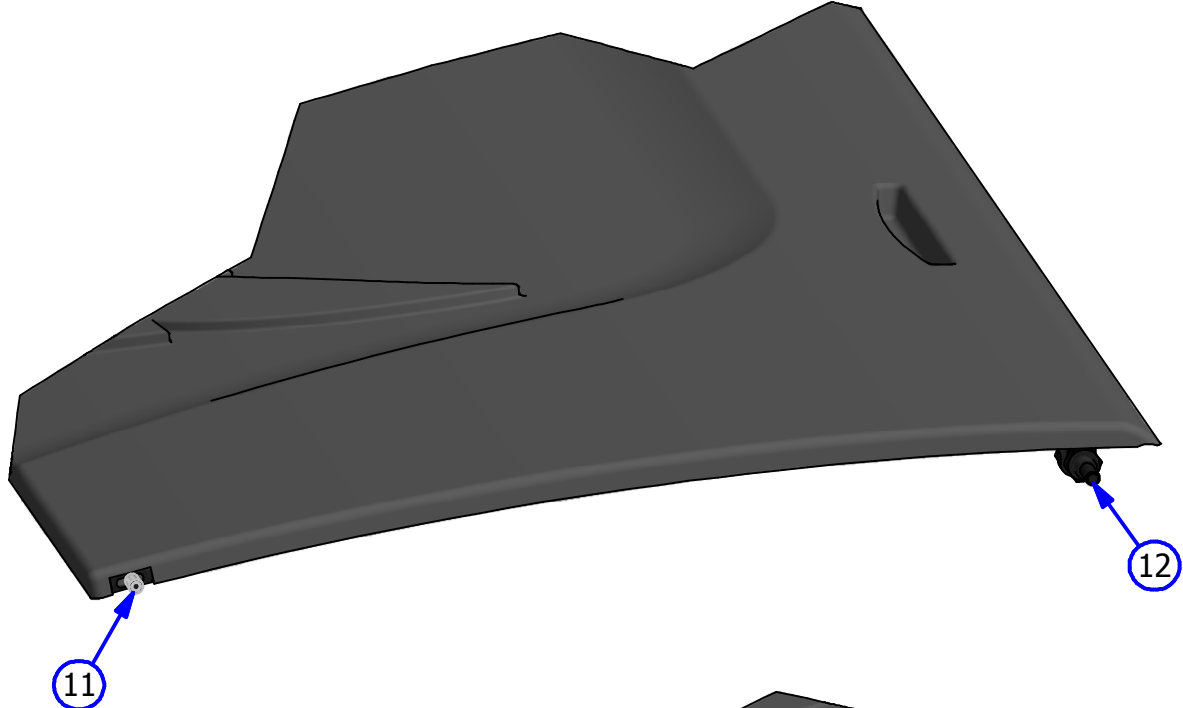
EXTERNAL BATTERY CHARGER ASSEMBLY – 230v

DC Power Cord Assembly – 6FT External – 164-8475

LID AND GUARDS

REV. 9/19

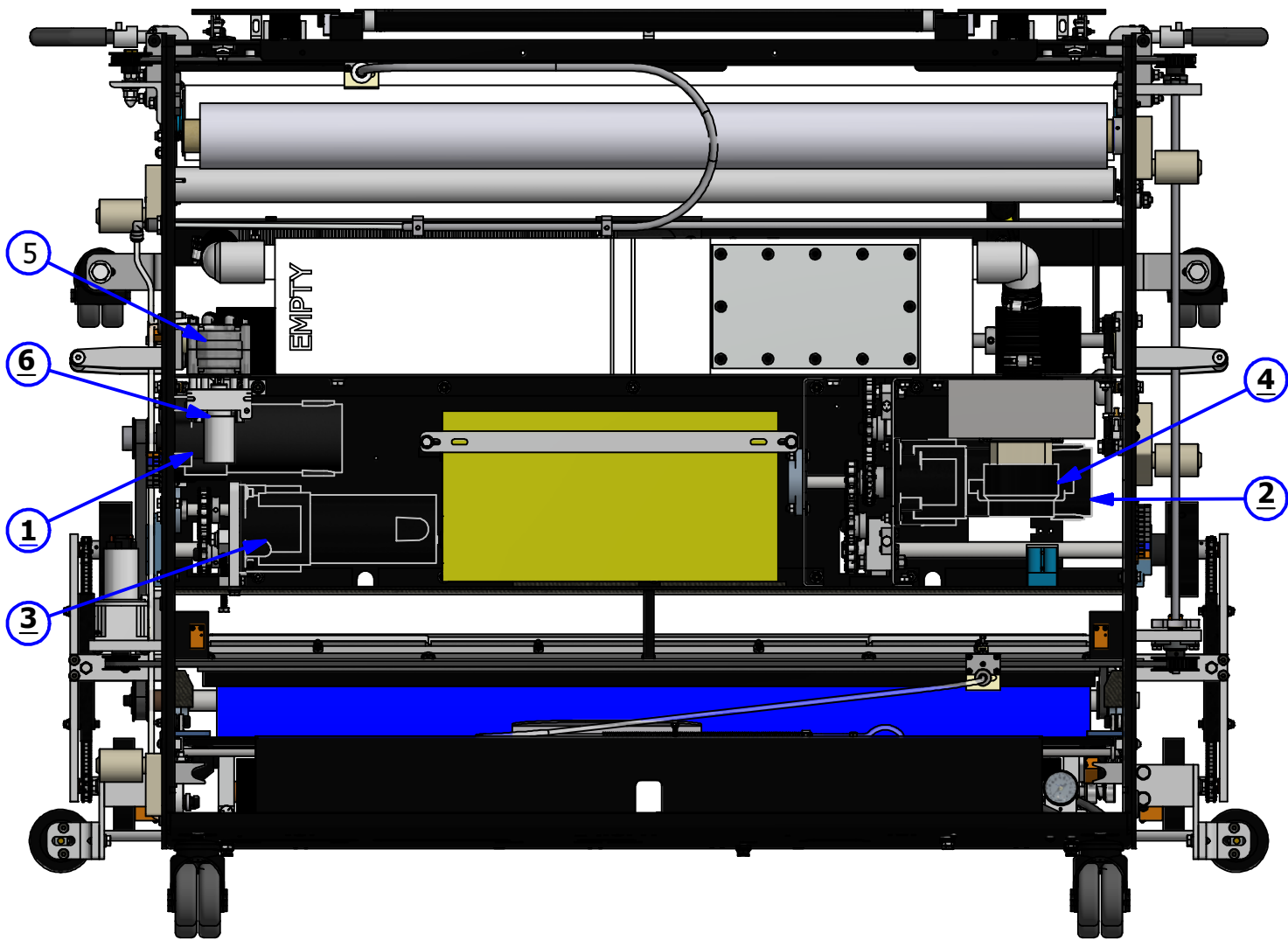
<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8801	SLIDING LID ASSEMBLY - HEAD	EA
2	1	164-8802	SLIDING LID ASSEMBLY - TAIL	EA
3	1	164-8830	REAR PANEL	EA
4	1	164-8804	FRONT BUMPER	EA
5	1	164-8233-2133	IKON WALKER RT SIDE GUARD - GRAY	EA
6	1	164-8232-2133	IKON WALKER LT SIDE GUARD - GRAY	EA
7	2	153-2232L	FLUSH MOUNT LID LATCH (WITH LOCK)	EA
8	2	164-2069	SPRING PLUNGER THREADED	EA
9	2	164-2002	DETENT - SPRING PLUNGER	EA
10	2	164-6164	LID LATCH BUMPER	EA
11	2	164-2044	STANDOFF FEMALE THREADED 8-32 X 3/8	EA
12	2	164-2069M	SPRING PLUNGER - MODIFIED	EA



TOP VIEW

REV. 10/19

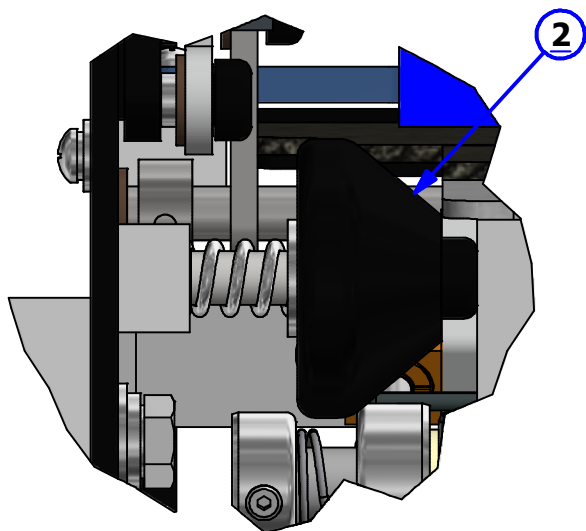
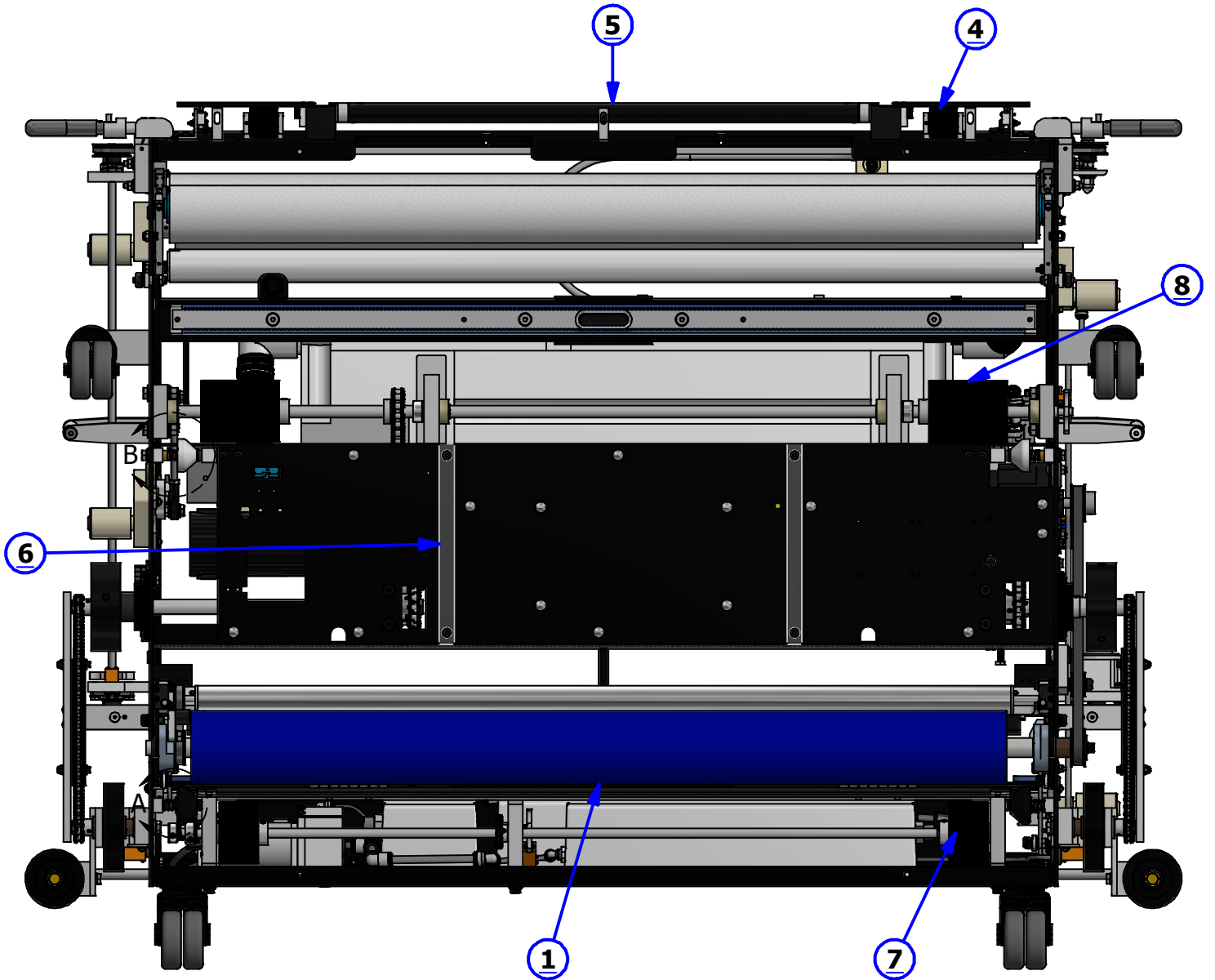
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8414	BUFFER MOTOR - 24VDC - 500RPM - STANDARD	EA
	1	164-1254	BUFFER MOTOR BRUSHES (PAIR)	PR
	1	164-9019	BUFFER BELT	EA
	1	164-9012	PULLEY (15 TOOTH 1/2" BORE)	EA
2	1	164-8602A	RIGHT MAIN DRIVE MOTOR 24V	EA
	1	164-1246	DRIVE MOTOR BRUSHES (PAIR)	PR
	1	153-9044A	ZTR CHAIN (40P29)	
	1	154-9601	DRIVE CHAIN (40P41)	EA
	2	153-9047	MASTER LINK #40	EA
	2	153-9048	OFFSET LINK #40	EA
	1	153-9002	SPROCKET - 40B13 (5/8 IN)	EA
	1	153-9003	SPROCKET - 40B10 (5/8 IN)	EA
3	1	164-8602	LEFT DRIVE MOTOR 24V	EA
	1	164-1246	DRIVE MOTOR BRUSHES (PAIR)	PR
	1	164-9018	ZTR CHAIN	EA
	1	153-9047	MASTER LINK #40	EA
	1	153-9048	OFFSET LINK #40	EA
	1	153-9003	SPROCKET - 40B10 (5/8 IN)	EA
4	1	158-8407	VACUUM MOTOR - 24VDC	EA
5	1	158-8404D	CLEANER PUMP ASSEMBLY	EA
	1	154-0861B	NORPRENE TUBING FOR CLEANER PUMP ASSEMBLY	EA
6	1	158-8404	CLEANER PUMP MOTOR - 24VDC	EA



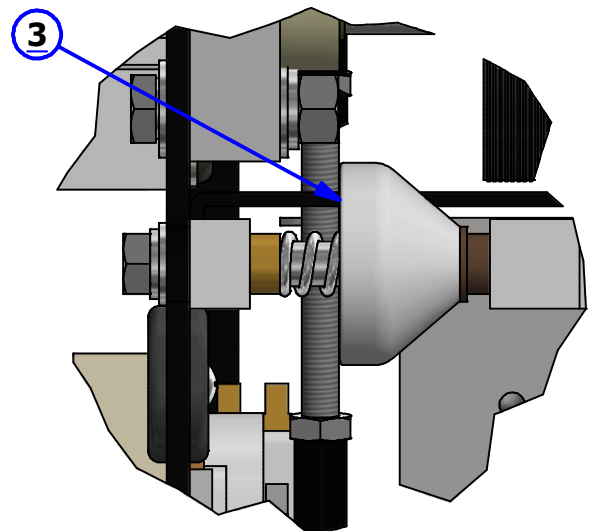
BOTTOM VIEW

REV. 4/20

<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8001A	BUFFER BRUSH ASSEMBLY	EA
	1	164-9019	BUFFER BELT ASSEMBLY	EA
2	2	164-8815	REAR EDGE GUIDE WHEEL ASSEMBLY - BLACK	EA
	2	153-2401	SPRING - COMPRESSION FOR GUIDE WHEEL (NOT SHOWN)	EA
	2	153-2407	BOLT FOR GUIDE ROLLER - FRONT (NOT SHOWN)	EA
	2	153-6417	REAR LANE EDGE GUIDE ROLLER MOUNT	EA
3	2	158-8637	FRONT LANE EDGE GUIDE ROLLER ASSEMBLY - WHITE	EA
	2	153-2401	SPRING - COMPRESSION FOR GUIDE WHEEL (NOT SHOWN)	EA
	2	153-2527	BOLT FOR GUIDE ROLLER - REAR (NOT SHOWN)	EA
	2	153-6417	FRONT LANE EDGE GUIDE ROLLER MOUNT	EA
4	2	153-7005R	MOMENTARY WHEEL ASSEMBLY (WHEEL ONLY) <i>THE BELOW ATTACHED PARTS ARE NOT SHOWN</i>	EA
	2	153-6006	MOMENTARY WHEEL SHAFT	EA
	2	153-6029	MOMENTARY WHEEL HOUSING ASSEMBLY	EA
	2	153-2049	SET SCREW	EA
5	1	164-8073	HANDLE ASSEMBLY (COMPLETE)	EA
6	2	158-6645	SKID GUIDE	EA
7	2	153-7002AA	LDS/DRIVE WHEEL (NO SET SCREW)	EA
	2	153-2819	SET SCREW (NOT SHOWN)	EA
8	2	153-7013	DRIVE WHEEL (NO SET SCREW)	EA
	2	153-2819	SET SCREW (NOT SHOWN)	EA



DETAIL A

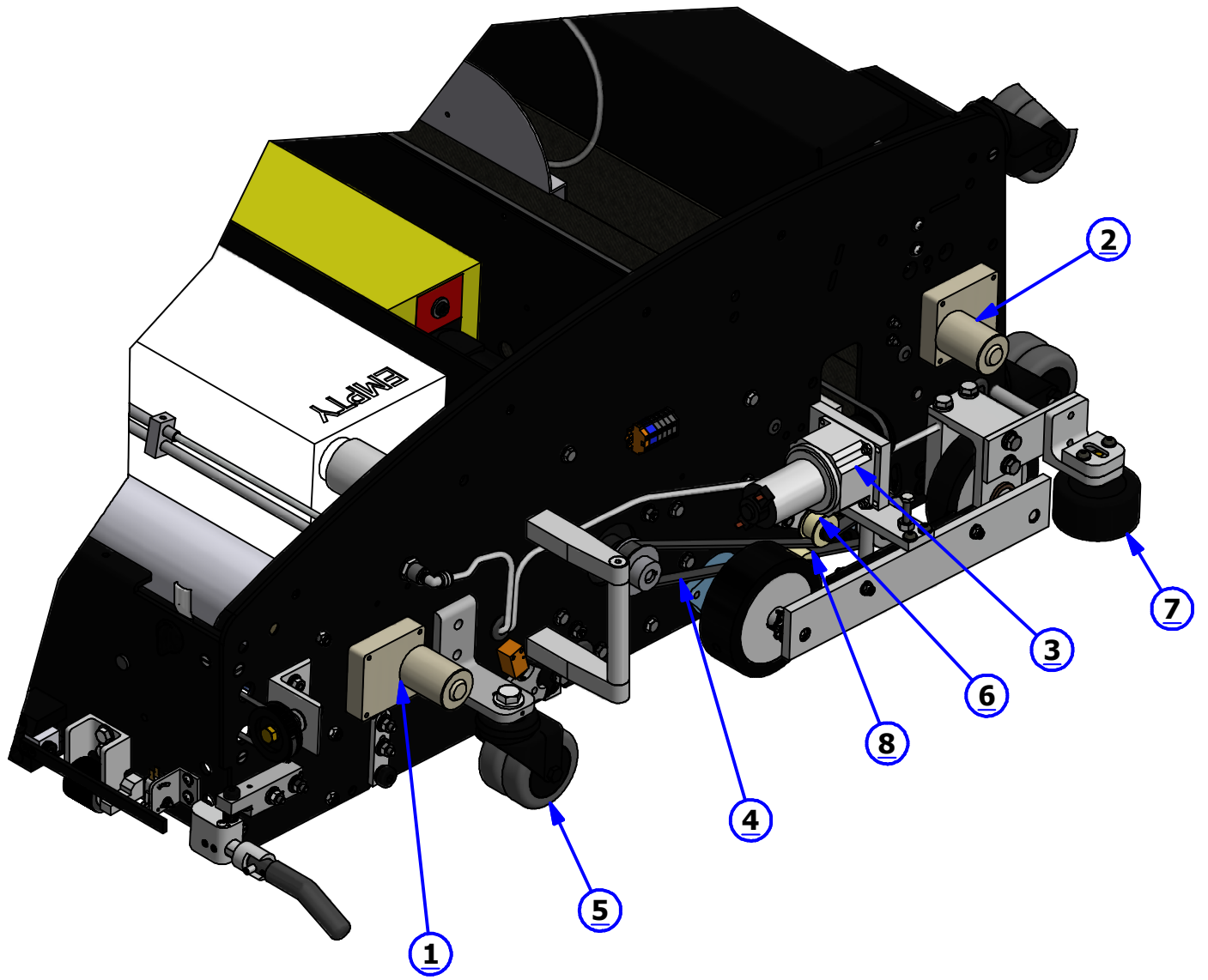


DETAIL B

LEFT SIDE VIEW

REV. 9/19

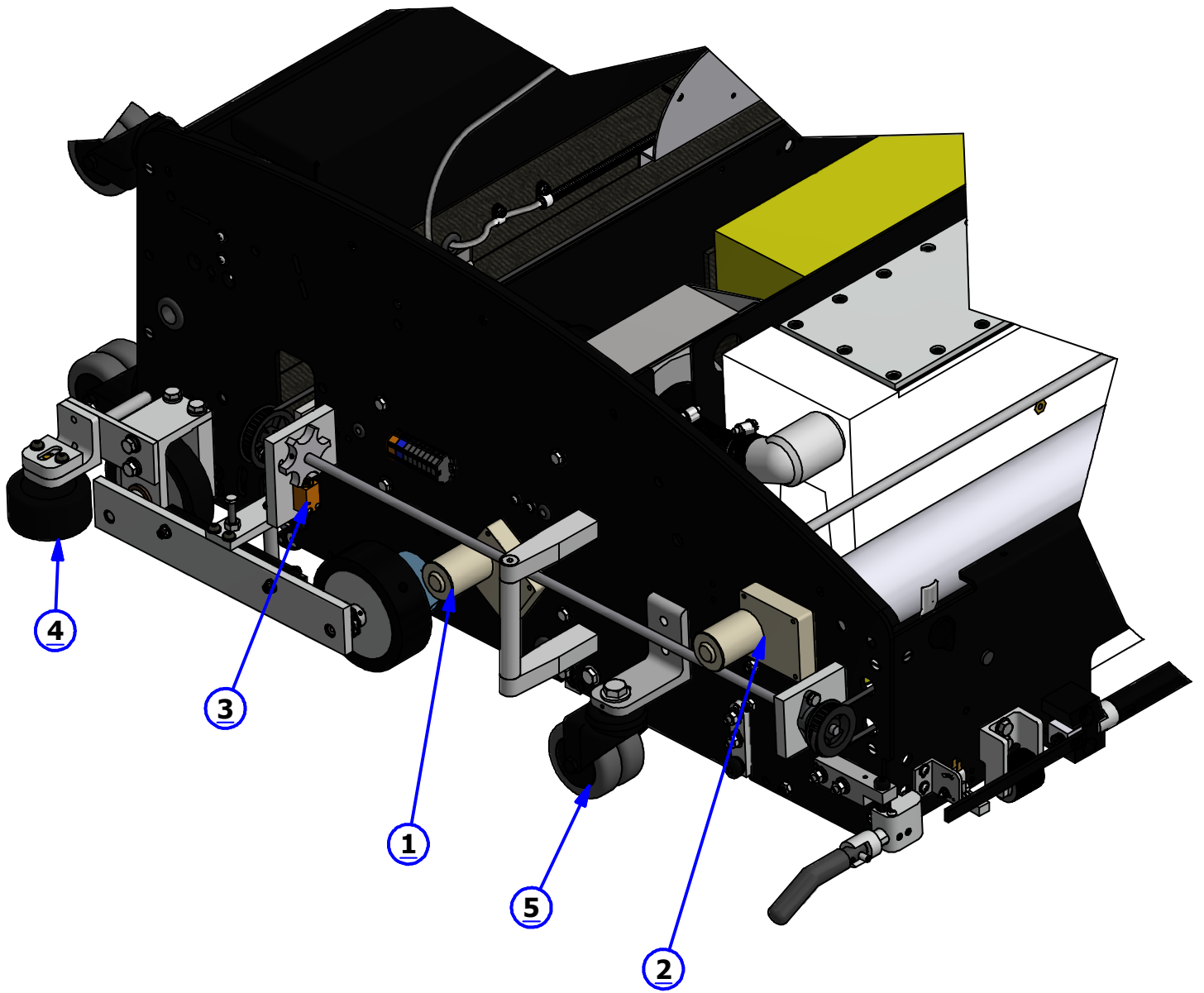
<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	2	158-8403	ASSEMBLY - DUSTER MOTOR 24VDC	EA
2	1	158-8402	BUFFER LOWERING MOTOR	EA
3	1	158-8405	HEAD DRIVE MOTOR ASSEMBLY	EA
		158-9403	PULLEY FOR HEAD DRIVE (NOT SHOWN)	EA
4	1	164-9019	BUFFER BELT ASSEMBLY	EA
5	6	153-0001BK	CASTER ASSEMBLY	EA
6	1	164-8831	BUFFER IDLER PULLEY (TOP ADJUSTABLE)	EA
7	2	153-7203	BUMPER WHEEL ASSEMBLY	EA
8	1	164-8211	BUFFER IDLER PULLEY (BOTTOM STATIONARY)	EA



RIGHT SIDE VIEW

REV. 9/19

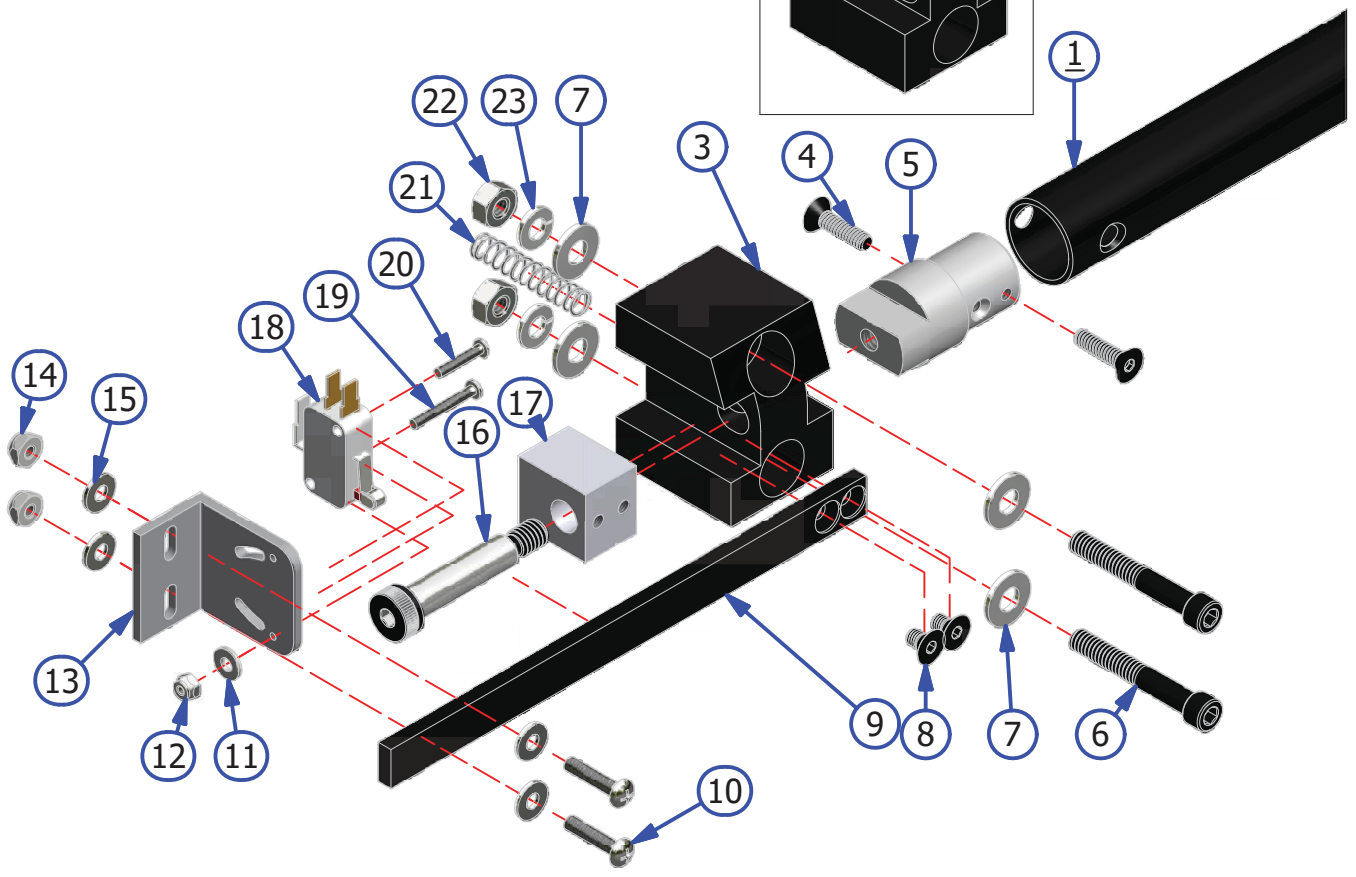
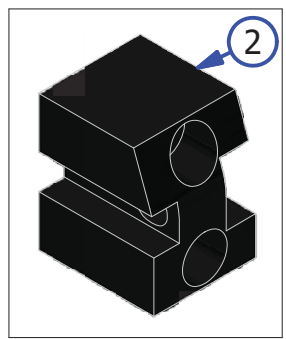
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1	2	158-8402	SQUEEGEE / BRUSH LIFT MOTOR - 24VDC	EA
2	2	158-8403	DUSTER MOTOR ASSEMBLY - 24VDC	EA
3	1	154-1220	PROXIMITY SENSOR	EA
4	2	153-7203	BUMPER WHEEL ASSEMBLY	EA
5	6	153-0001BK	CASTER ASSEMBLY	EA



FRONT HANDLE ASSEMBLY

REV. 10/19

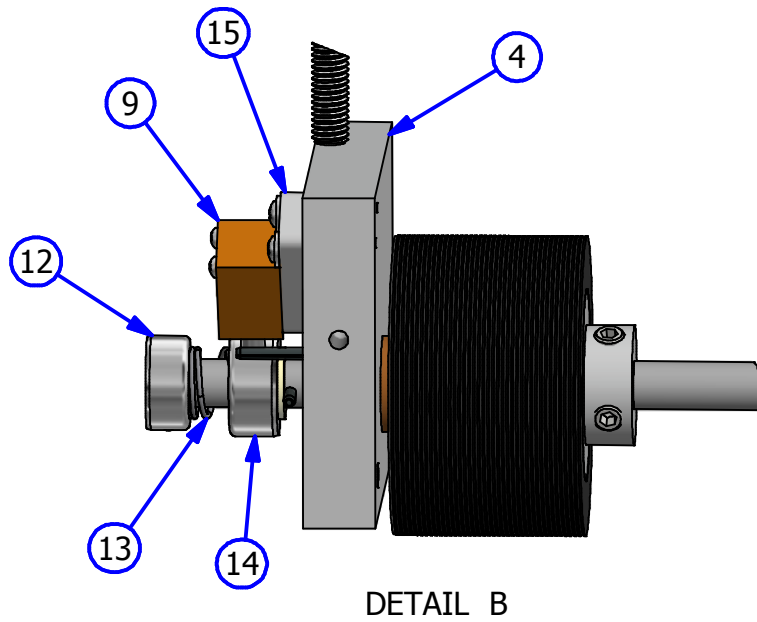
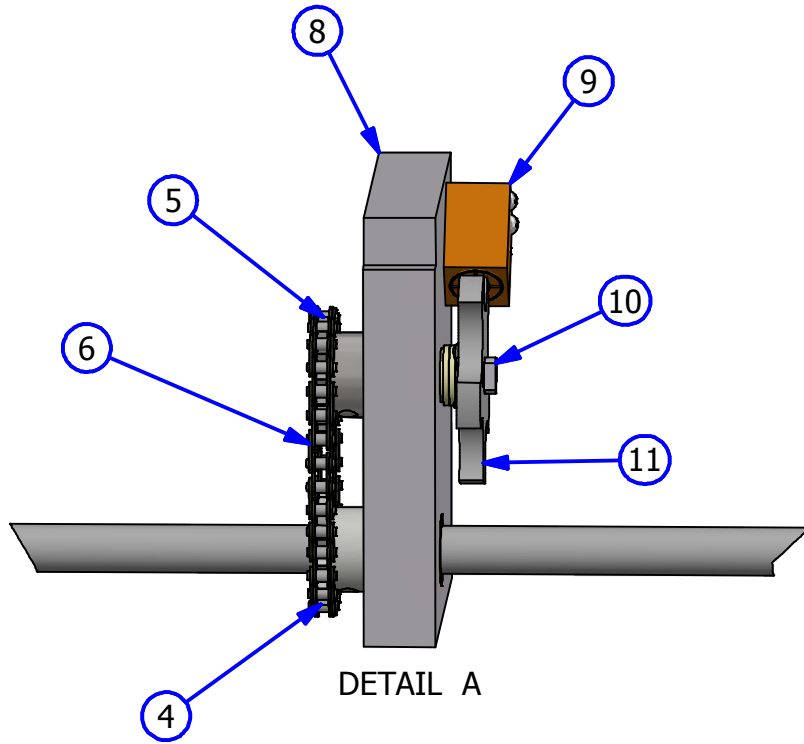
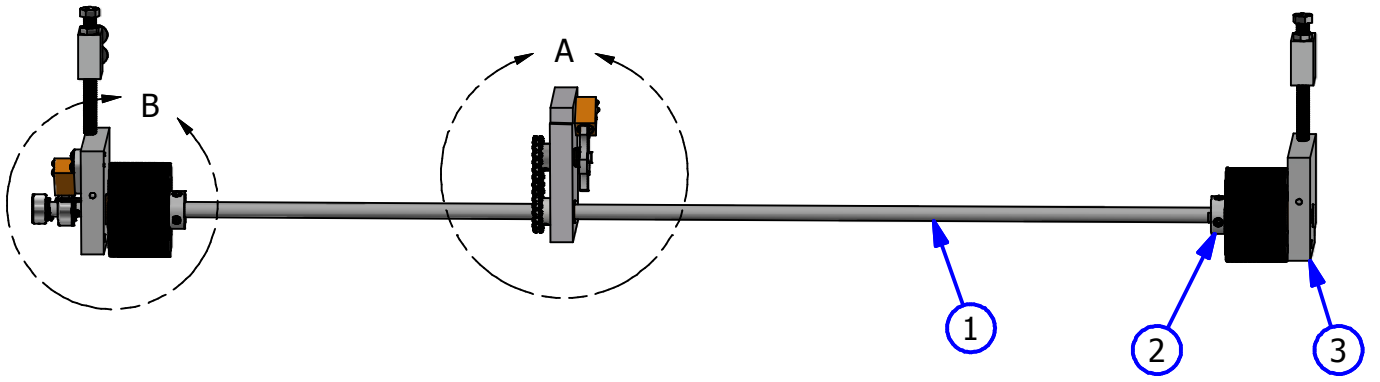
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<u>NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8073	FRONT HANDLE ASSEMBLY	EA
2	1	164-6069	FRONT HANDLE BLOCK (LT)	EA
3	1	164-6068	FRONT HANDLE BLOCK (RT)	EA
4	4	153-2996	SCREW - FHCS 10-24 X 3/4 BLACK OXIDE	EA
5	2	164-6072	FRONT HANDLE PLUG	EA
6	4	164-2009	SHCS-1/4-20	EA
7	8	153-2004	1/4 FLATWASHER	EA
8	4	164-2017	FHSCS-10-32 X 5/16	EA
9	2	164-6071	BUMPER ARM	EA
10	4	153-2087	MS PHILLIPS - 8-32 X 3/4	EA
11	2	153-2001	#6 FLATWASHER	EA
12	2	153-2231	LOCKNUT - 4-40	EA
13	2	164-6032	FLEX BUMPER SWITCH BRACKET	EA
14	4	153-2019	LOCKNUT - 8-32 (NYLOK)	EA
15	8	153-2002	#8 FLATWASHER	EA
16	2	164-2008	SHOULDER BOLT 3/8 X 1-1/2 5/16-18	EA
17	2	164-6070	BUMPER BAR BLOCK	EA
18	2	153-1203	MICROSWITCH W/ROLLER	EA
19	2	153-2216A	MS PHILLIPS - 4-40 X 7/8	EA
20	2	153-2216	MS PHILLIPS - 4-40 X 5/8	EA
21	2	164-2010	SPRING-0.300 OD X 1.50	EA
22	4	153-2023	1/4-20 HEX NUT	EA
23	4	153-2014	1/4 LOCKWASHER	EA



LDS/OLS ASSEMBLY

REV. 4/20

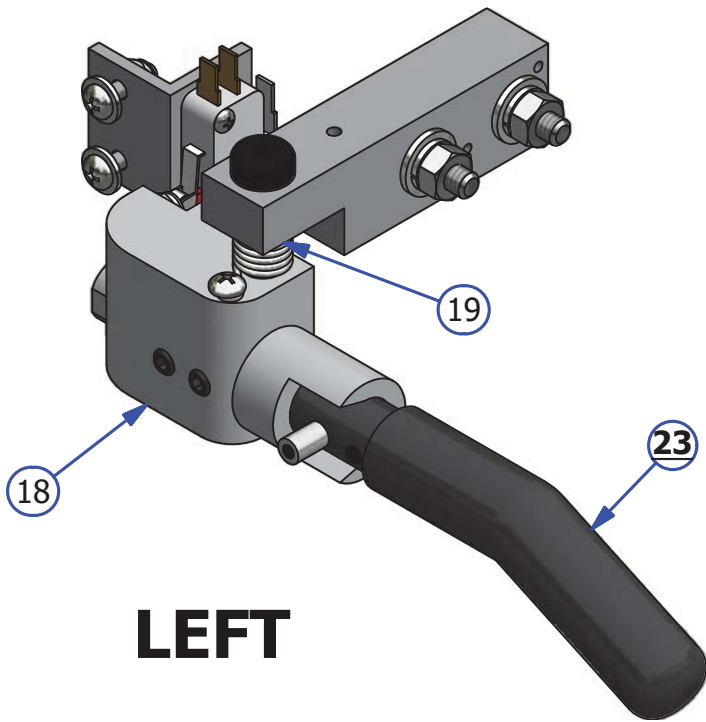
<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	154-6821	LDS SHAFT ASSEMBLY	
2	1	153-7002AA	LDS WHEEL ASSEMBLY	EA
	2	153-2819	SET SCREW - 10-32 X 3/8	EA
3	1	154-8619	LDS MOUNTING BLOCK ASSEMBLY - LEFT	EA
4	1	164-8829	LDS/OLS BLOCK ASSY (BLOCK W/ BUSHING & ROLL PIN ONLY)	EA
5	1	154-9213	SPROCKET 25B15 (1/2")	EA
6	1	154-9211	LDS AND TACH SENSOR DRIVE CHAIN #25	EA
	1	153-9045	MASTER LINK #25 (NOT SHOWN)	EA
7	1	153-9010	SPROCKET - 25B15 (3/8")	EA
8	1	154-8320	LDS MOUNTING BLOCK ASSEMBLY - CENTER	EA
9	2	154-1220	PROXIMITY SENSOR	EA
10	1	154-6264	SHAFT FOR TIMING DISK ASSEMBLY	EA
11	1	154-6717	5 TOOTH SENSOR DISK	EA
12	1	153-2902	STEEL COLLAR	EA
13	1	153-2713	SPRING	EA
14	1	153-8062	OLS COLLAR	EA
15	1	164-6278	OLS PROX SENSOR MOUNT PLATE	EA



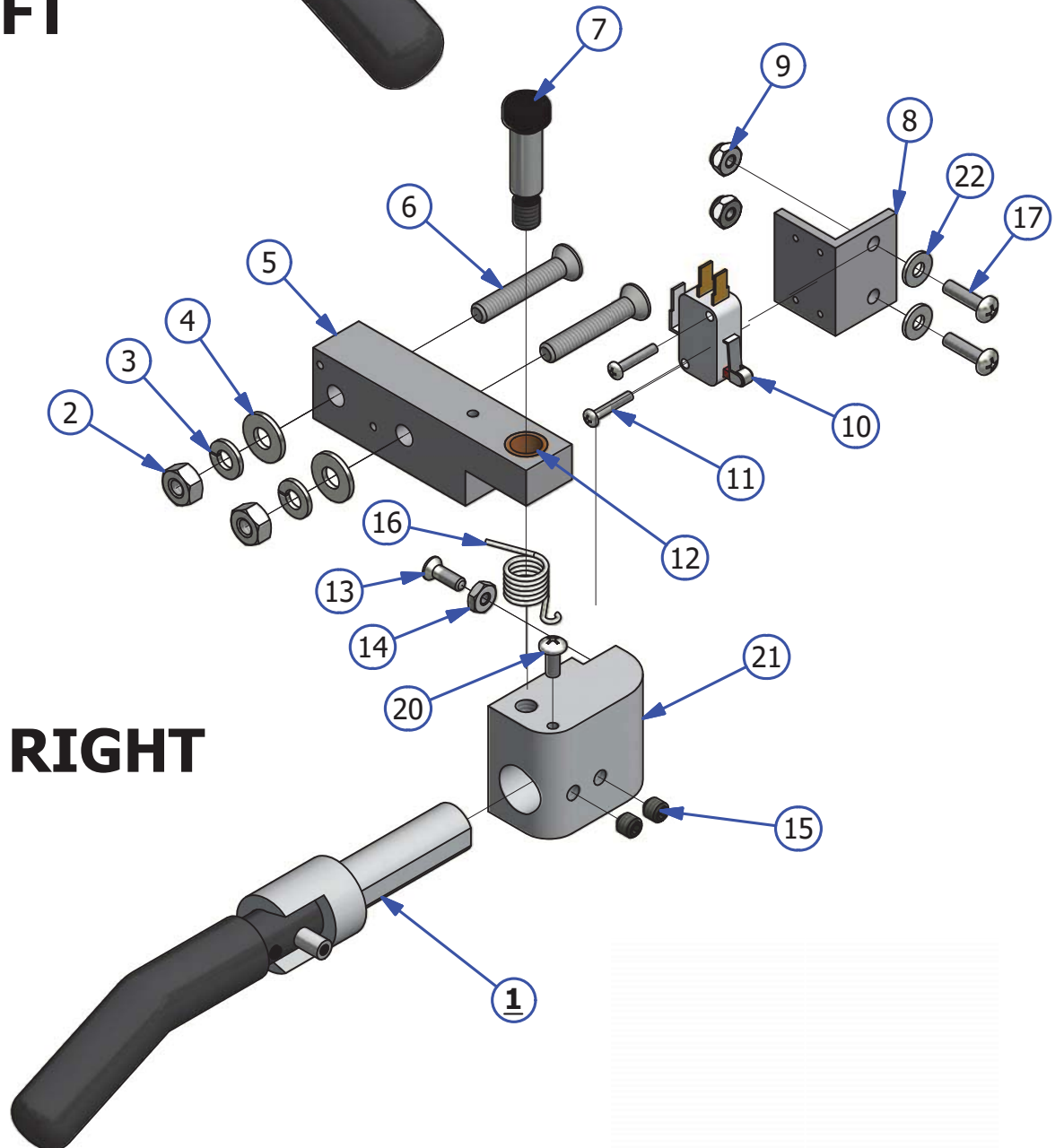
WHISKER ASSEMBLY

REV. 9/17

<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8825	RIGHT WHISHER ASSEMBLY	EA
2	4	153-2023	1/4-20 HEX NUT	EA
3	4	153-2014	1/4 LOCKWASHER	EA
4	4	153-2004	1/4 FLATWASHER	EA
5	2	158-8611	WHISKER BEARING BLOCK ASSEMBLY WITH BUSHING	EA
6	4	153-2227A	FHMS - 1/4-20 X 1-1/2	EA
7	2	153-2739	SHOULDER BOLT 3/8 IN DIA 1" LONG	EA
8	2	158-6641	WHISKER SWITCH MOUNT PLATE	EA
9	4	153-2231	LOCKNUT - 4-40	EA
10	2	153-1203	MICROSWITCH W/ROLLER	EA
11	4	153-2216A	MS PHILLIPS - 4-40 X 7/8	EA
12	2	154-9212	BUSHING ONLY	EA
13	2	153-2817	FLAT HEAD PHILLIPS - 8-32 X 1/2	EA
14	2	153-2414	HEX NUT - 8-32	EA
15	4	153-2051A	SET SCREW - 1/4-20 X 1/4	EA
16	1	153-2944	TORSION SPRING - RIGHT	EA
17	4	153-2086	MS PHILLIPS - 8-32 X 5/8	EA
18	1	164-6181	WHISKER SPRING MOUNT BLOCK - LEFT	EA
19	1	153-2945	TORSION SPRING - LEFT	EA
20	2	153-2086A	MS PHILLIPS - 8-32 X 3/8	EA
21	1	164-6182	WHISKER SPRING MOUNT BLOCK - RIGHT	EA
22	4	153-2002	FLAT WASHER #8	EA
23	1	164-8824	LEFT WHISKER ASSEMBLY	EA



LEFT

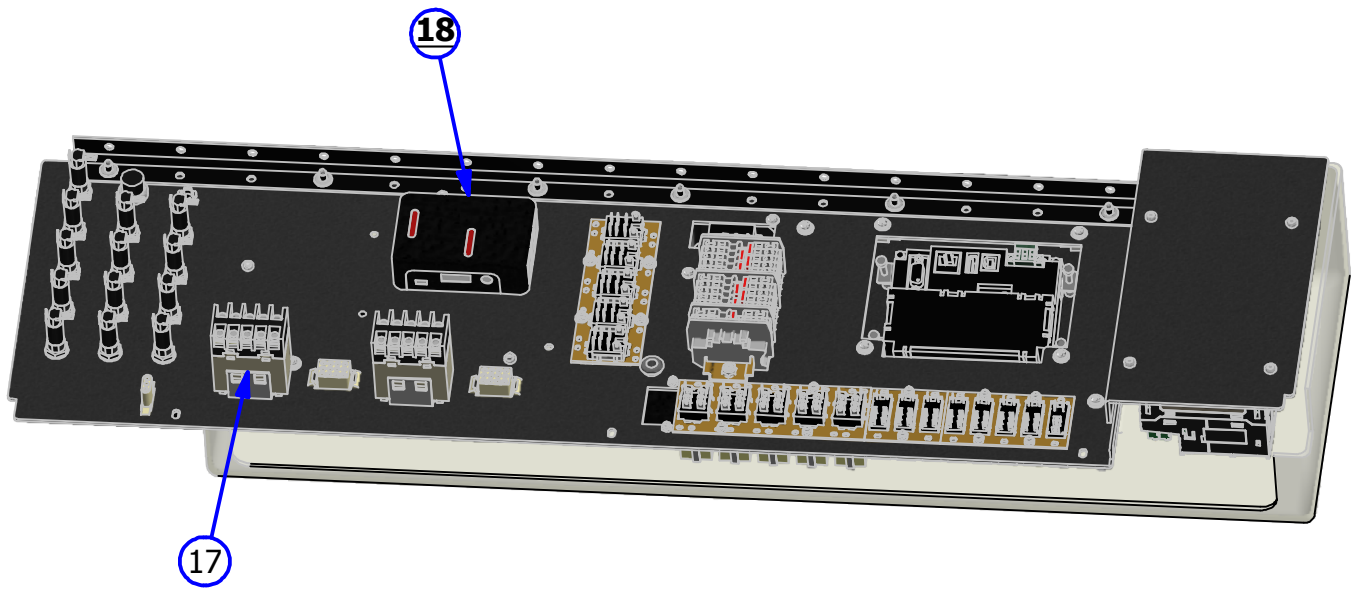
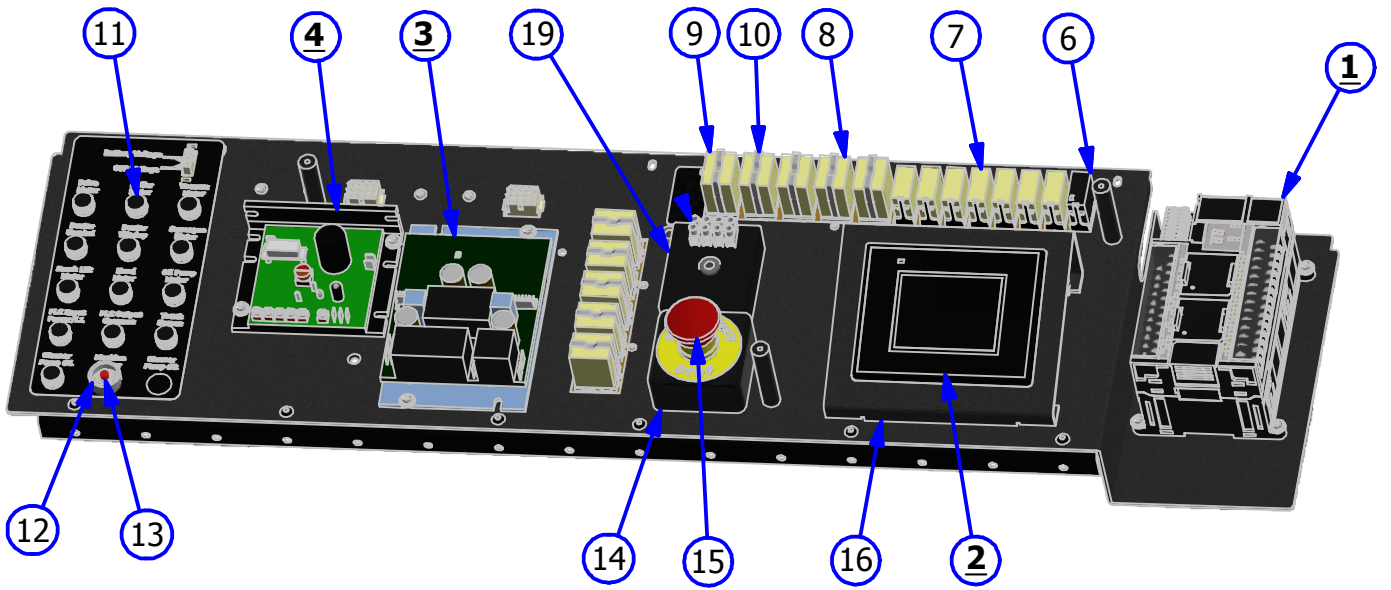
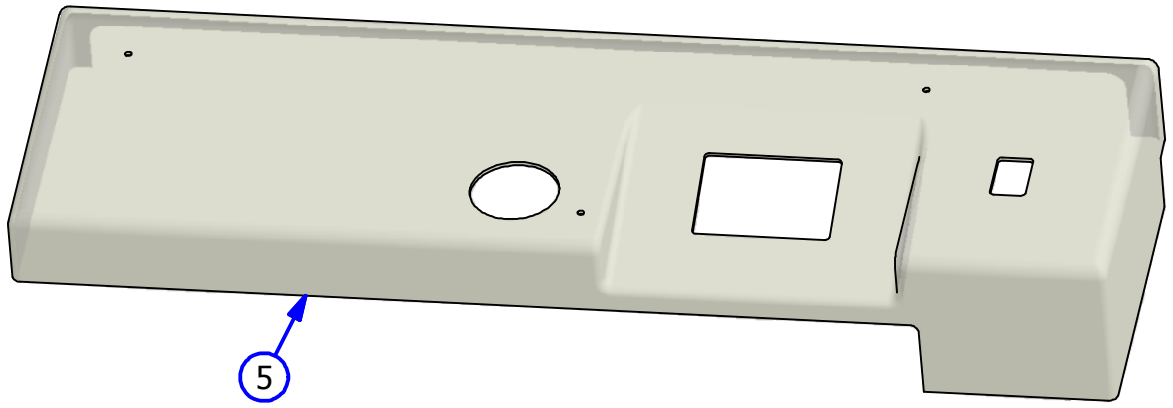


RIGHT

PLC PLATE ASSEMBLY

REV. 9/19

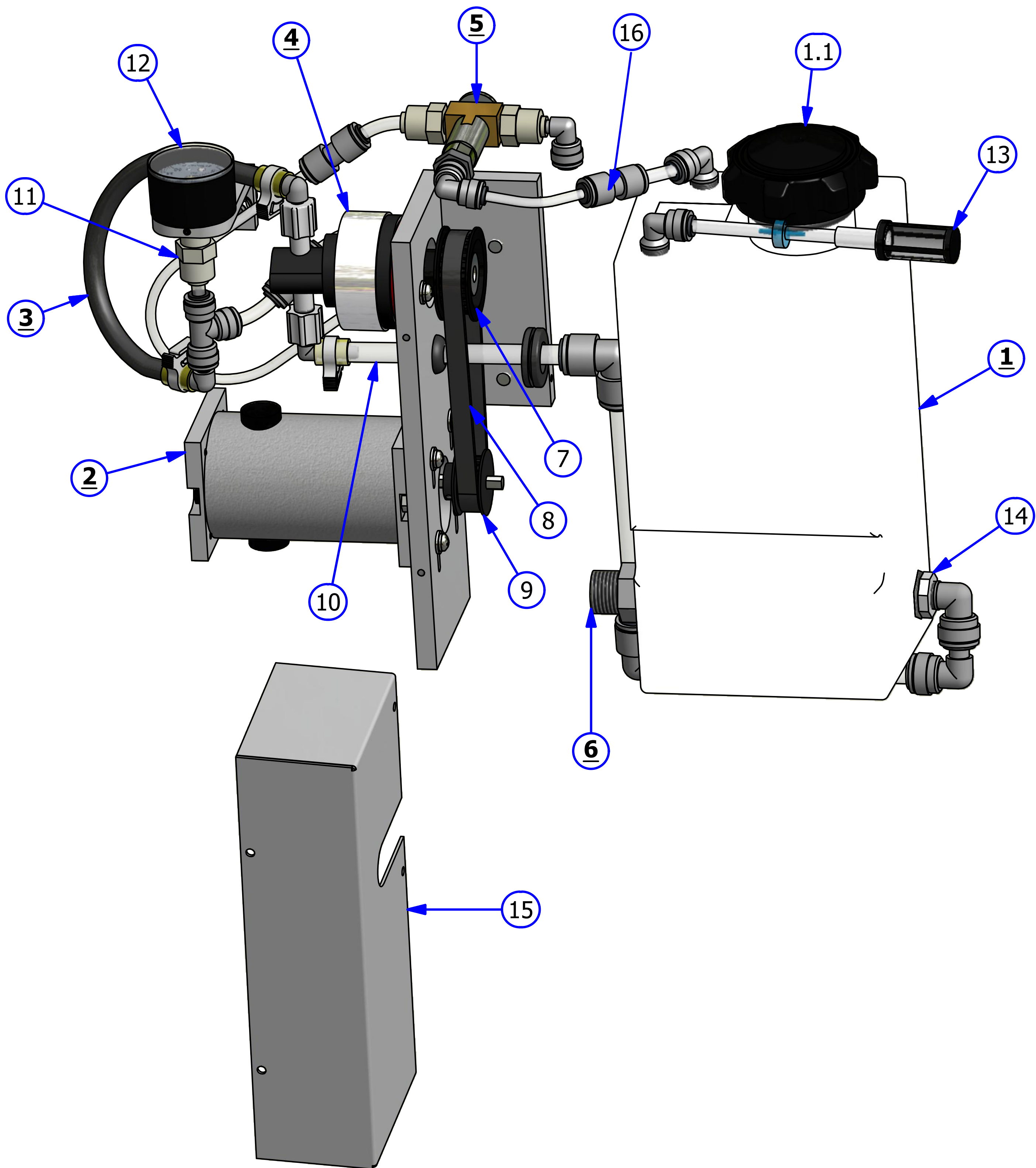
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<u>NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	158-1610P	PLC FOR IKON - SPECIFY SOFTWARE VERSION	EA
	1	158-1610S	SERIAL CONVERTER FOR FLEX	EA
	1	164-1235	CABLE TO TOUCHSCREEN - 24IN (NOT SHOWN)	EA
2	1	164-8803	TOUCH SCREEN ASSEMBLY	EA
	1	164-1234	SCREEN PROTECTOR (NOT SHOWN)	EA
3	1	164-8828	SPEED CONTROL ASSEMBLY - DRIVE	EA
4	1	164-8806	SPEED CONTROL ASSEMBLY - CLEANER PUMP	EA
5	1	164-6815	CLEAR PC PLATE COVER	EA
6	1	158-1460	RELAY SOLID STATE	EA
7	7	158-1458	RELAY - OMRON 24DC DPDT GENERAL PURPOSE	EA
8	9	158-1462	24 V RELAY DPDT 10A W/DIODE	EA
9	2	164-1231	LY3 RELAY	EA
10	2	164-1207	LY3 RELAY CLIP	EA
11	13	153-1028	PANEL-MOUNT FUSE HOLDER - UL (COMPLETE)	EA
12	1	153-1209	BUTTON GUARD	EA
13	1	158-8439	PUSH BUTTON (RED = NORMALLY OPEN)	EA
14	1	164-6161	E-STOP BOX	EA
15	1	164-8223	E-STOP SWITCH ASSEMBLY	EA
	1	164-1223B	BREAKER FOR ESTOP	EA
16	1	164-6805-2850	TOUCH SCREEN MOUNT	EA
17	2	158-1465	CONTACTOR 24VDC	EA
18	1	164-8820A	WI-FI ADAPTER REPLACEMENT ASSEMBLY	EA
19	1	158-6666	RESISITANCE ADJUSTMENT BOX ONLY	EA
	1	158-8619W	RESISTANCE WIRE FOR SPEED ADJUSTMENT 22 AWG	EA
	1	158-1611	MOLEX TERMINAL BLOCK	EA



OIL VALVE ASSEMBLY

REV. 4/20

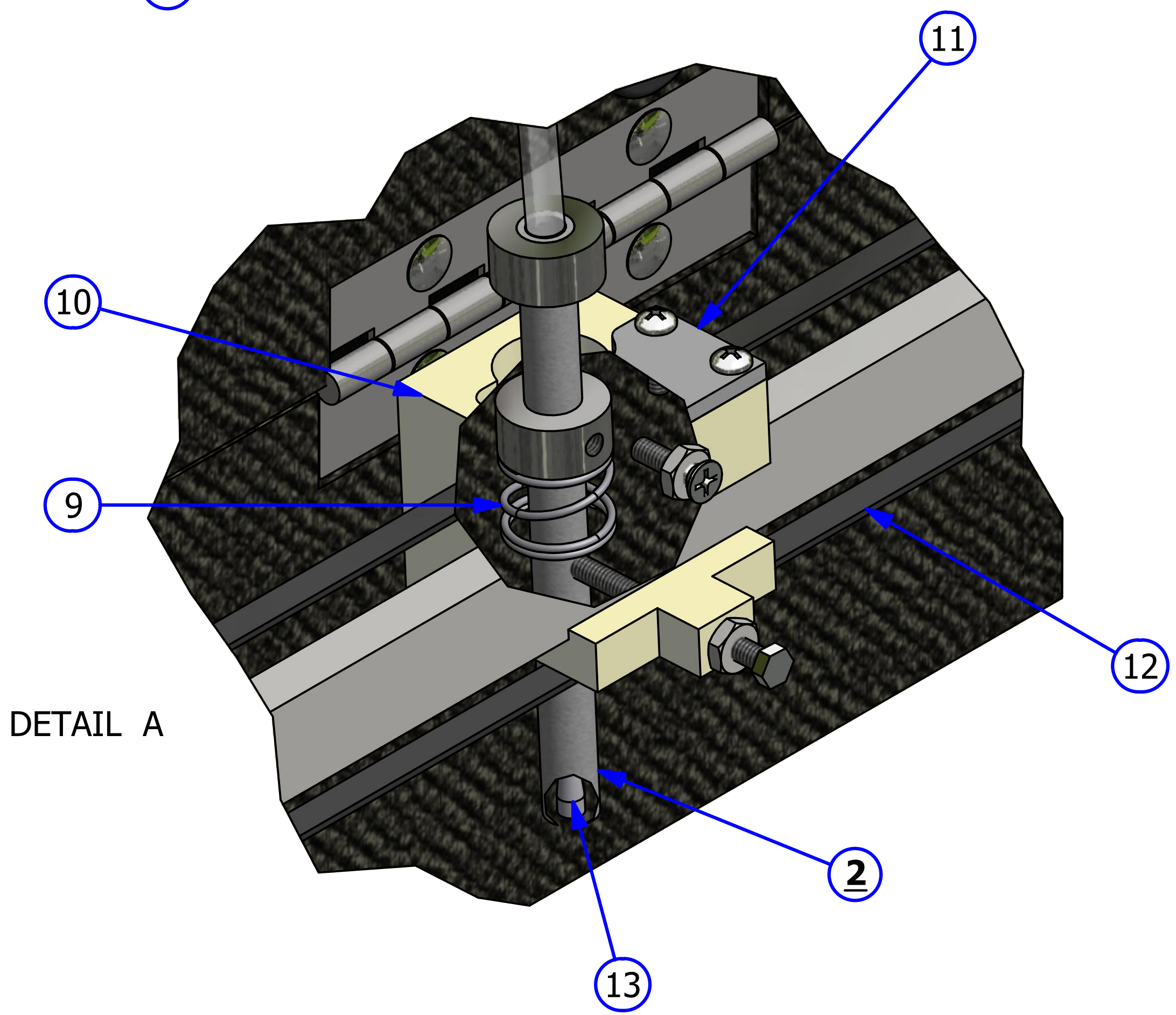
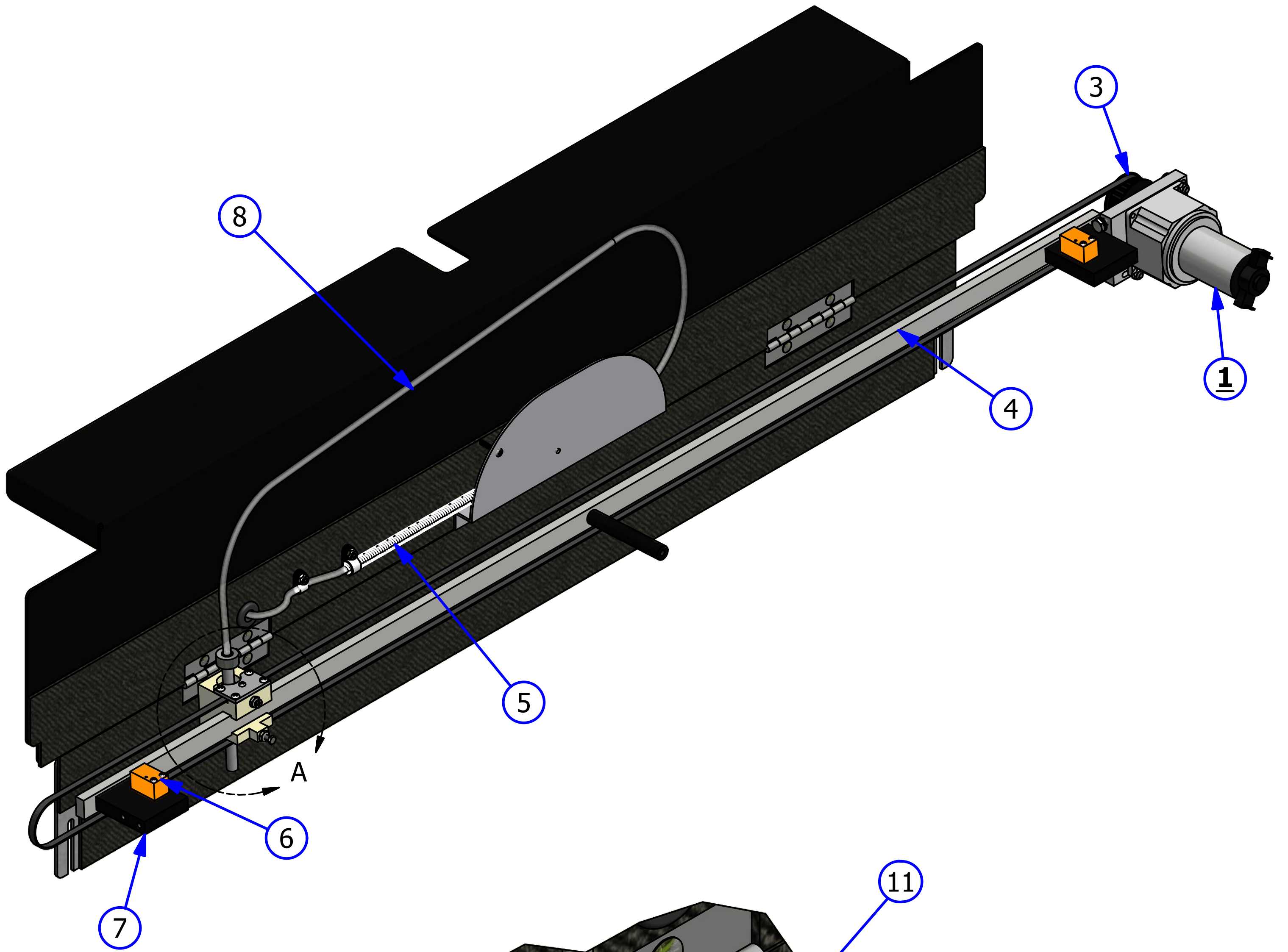
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
<u>1</u>	1	154-8682	CONDITIONER TANK ASSEMBLY	EA
	1	164-8081	SUPPLY TANK CAP (NOT SHOWN)	EA
	1	164-0021	GASKET FOR SUPPLY TANK CAP (NOT SHOWN)	EA
<u>2</u>	1	158-8401A	OIL PUMP MOTOR ASSEMBLY - GROSCHOPP	EA
	1	158-1422G	OIL PUMP MOTOR BRUSHES (PAIR)	EA
<u>3</u>	1	154-8816	PULSE SUPPRESSION TUBE	EA
<u>4</u>	1	154-1214	FLUID METERING PUMP-0.05 ML/STROKE	EA
<u>5</u>	1	154-8298	OIL CONTROL VALVE (24VDC) WITH EXTENDED WIRES	EA
				EA
6	1	154-8693	FLOAT SWITCH ASSEMBLY	EA
7	1	154-9607	PULLEY - (24XL 5/16" BORE)	EA
8	1	154-9202A	CONDITIONER PUMP BELT	EA
9	1	154-9404	PULLEY 16XL037 X 1/4" BORE	EA
10	16.5	154-0202	PUMP TUBING STOCK (3/8" OD X 1/4"ID)	IN
11	1	154-0257	FEMALE CONNECTOR - 1/4" TUBE X 1/8" FPT	EA
12	1	158-1613	PRESSURE GAUGE - 60PSI	EA
13	1	154-8817	MANUAL VENT VALVE ASSEMBLY	EA
14	1	154-0212	OIL TANK FILTER ASSEMBLY	EA
15	1	154-6287	GUARD FOR PUMP	EA
16	1	154-0248	REDUCING UNION CONNECTOR-1/4" X 3/16"	EA



OIL HEAD ASSEMBLY

REV. 10/19

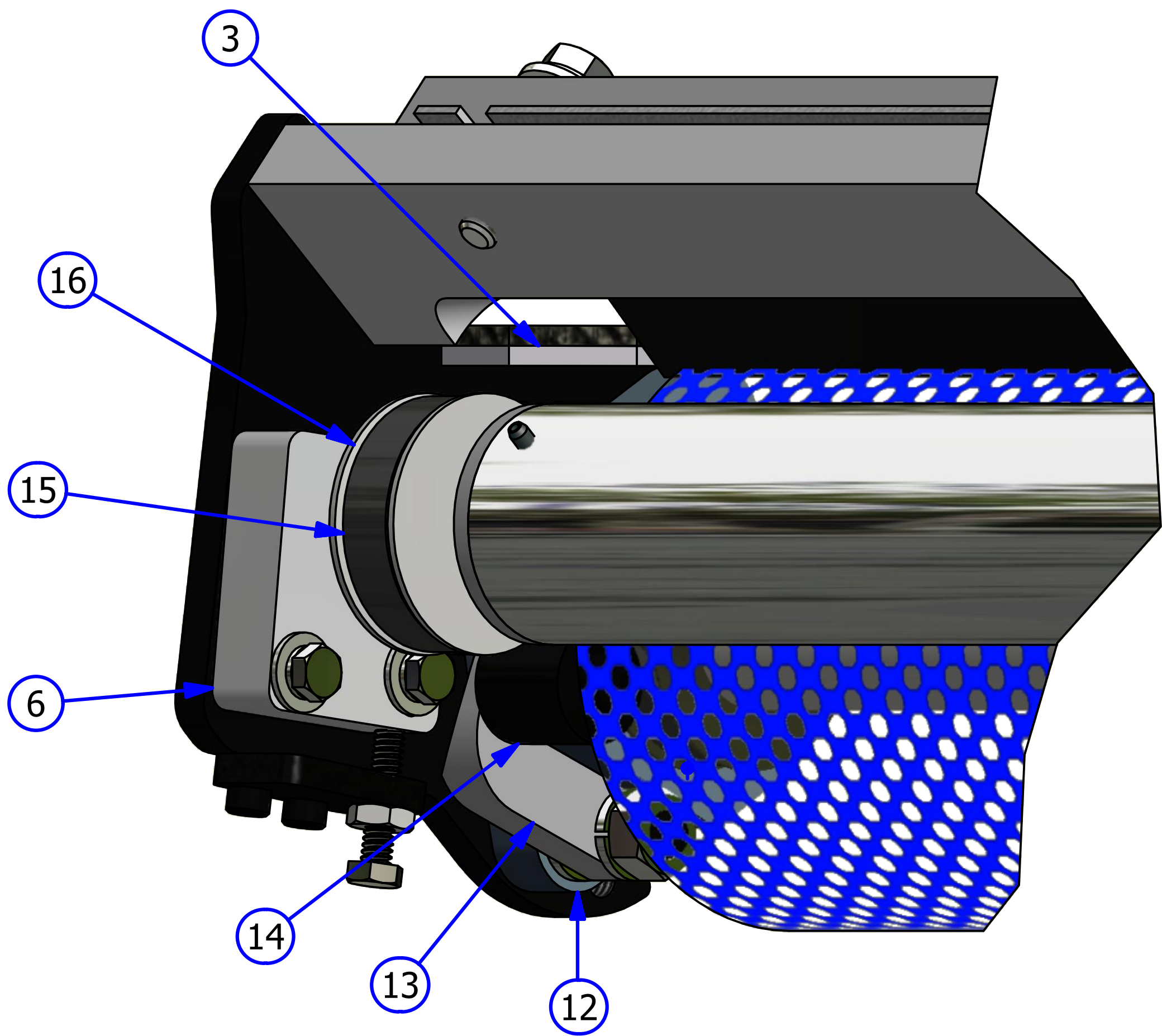
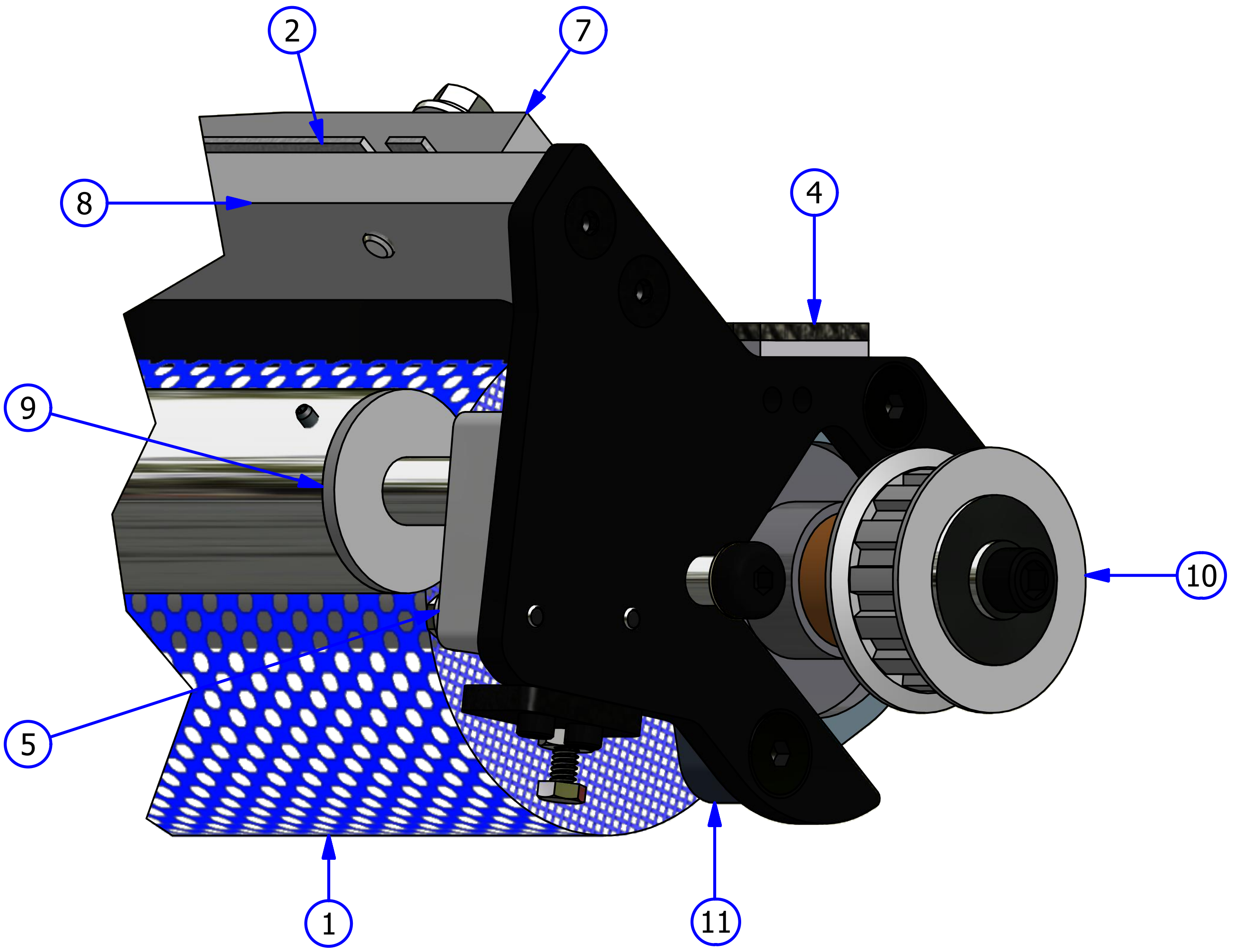
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
<u>1</u>	1	158-8405	OIL HEAD DRIVE MOTOR ASSEMBLY	EA
<u>2</u>	1	158-9403	OIL HEAD HOSE AND TIP ASSEMBLY	EA
3	1	154-9607	PULLEY	EA
4	1	154-6647A	SLIDING HEAD BAR ASSEMBLY	EA
5	1	154-0206	SPRING FOR OIL HOSE TIP ASSEMBLY	EA
6	2	154-0220	PROXIMITY SENSOR	EA
7	2	164-6280	HEAD BAR MOUNTING BLOCK	EA
8	1	154-0202A	PENCIL TUBING STOCK	IN
9	1	153-2713	OIL HEAD SPRING	EA
10	1	154-6893	OIL HEAD ASSEMBLY	EA
11	1	154-6646	HEAD MOUNT PLATE ASSEMBLY	EA
12	1	154-9201	OIL HEAD DRIVE BELT ASSEMBLY	EA
13	1	154-6832	OIL PENCIL TIP ASSEMBLY	EA



BRUSH LIFT ROD ASSEMBLY

REV. 4/20

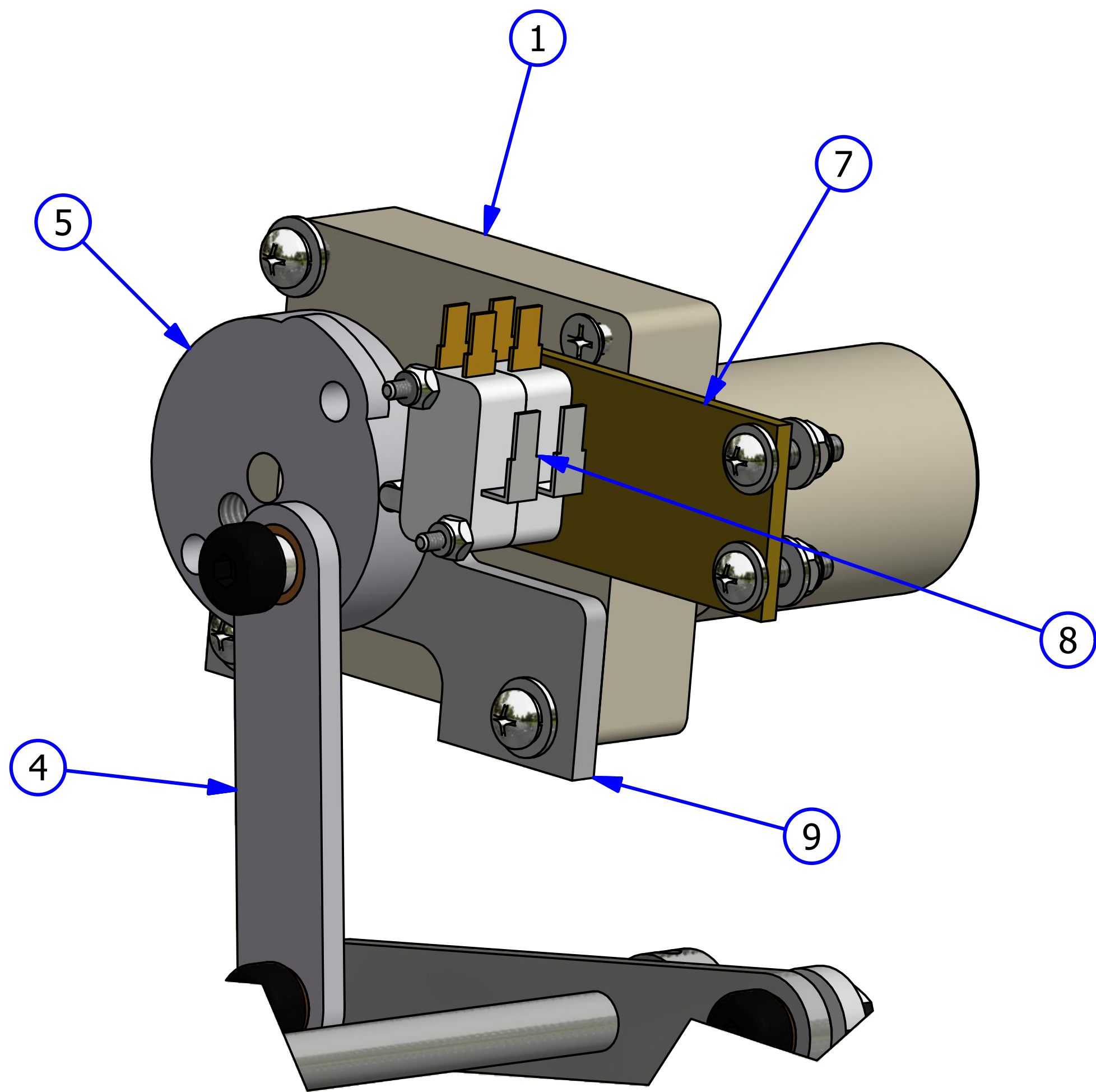
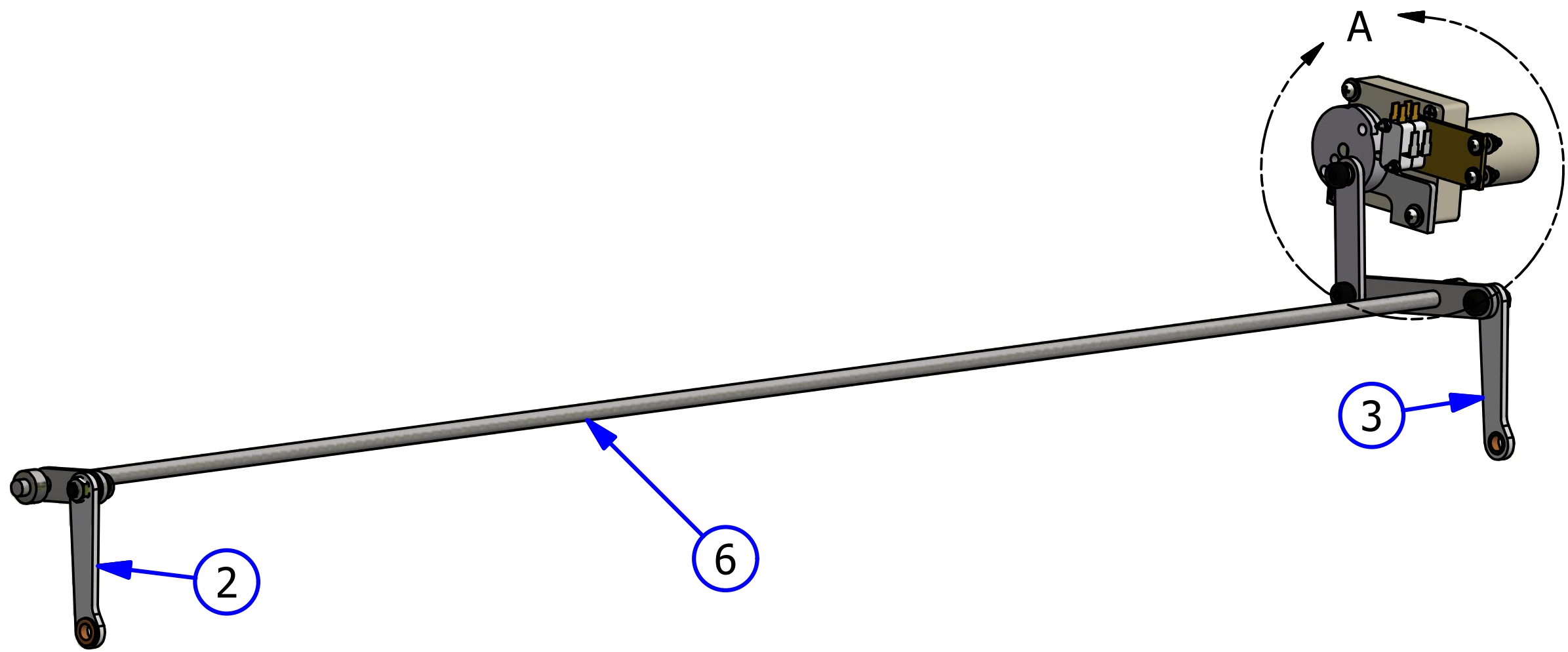
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	158-8402	MOTOR ASSEMBLY - 24VDC	EA
2	1	154-8639	BUFFER BRUSH LOWER LINK - RIGHT	EA
3	1	154-8638	BUFFER BRUSH LOWER LINK - LEFT	EA
4	1	154-8837	BRUSH LIFT ROD TO CAM LINK	EA
5	1	154-6243	MOTOR CAM-DUAL LOBES (STACKED SWITCHES)	EA
6	1	154-8637	BRUSH LIFT ROD ASSEMBLY	EA
7	1	154-6824	CAM SWITCH PLATE	EA
8	2	153-1203	MICROSWITCH W/ROLLER	EA
9	1	158-8634	SQUEEGEE/BRUSH MOUNT PLATE ASSEMBLY	EA
	1	158-9614	BALL BEARING MINIATURE (NOT SHOWN)	EA



OIL TRANSFER ASSEMBLY

REV. 4/20

<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8001A	BUFFER BRUSH ASSEMBLY	EA
2	1	164-0866	SINGLE TRANSFER BRUSH ASSEMBLY	EA
3	1	164-8805	DRIP PAD ASSEMBLY (SOLD IN PAIRS)	PR
4	1	164-8805	DRIP PAD ASSEMBLY (SOLD IN PAIRS)	PR
5	1	164-8046	BEARING MOUNT ASSEMBLY - LEFT	EA
6	1	164-8045	BEARING MOUNT ASSEMBLY - RIGHT	EA
7	1	158-6735	BRUSH TRACK MOUNT SUPPORT	EA
8	1	158-6732	SINGLE BRUSH TRACK MOUNT ASSEMBLY	EA
9	1	164-8008	TRANSFER ROLLER ASSEMBLY	EA
10	1	158-9402	BUFFER BRUSH PULLEY ASSEMBLY	EA
11	1	153-9816	FLANGED BUFFER BRUSH BEARING	EA
12	1	154-8640	FLANGED BUFFER BRUSH BEARING - ROTATED	EA
13	2	164-6051	TRANSFER ROLLER IDLER BELT BLOCK	EA
14	1	158-6742	TRANSFER ROLLER BELT IDLER ROLLER ASSEMBLY	EA
15	1	154-9203	TRANSFER ROLLER BELT ASSEMBLY	EA
16	1	164-9015	PULLEY ASSEMBLY	EA

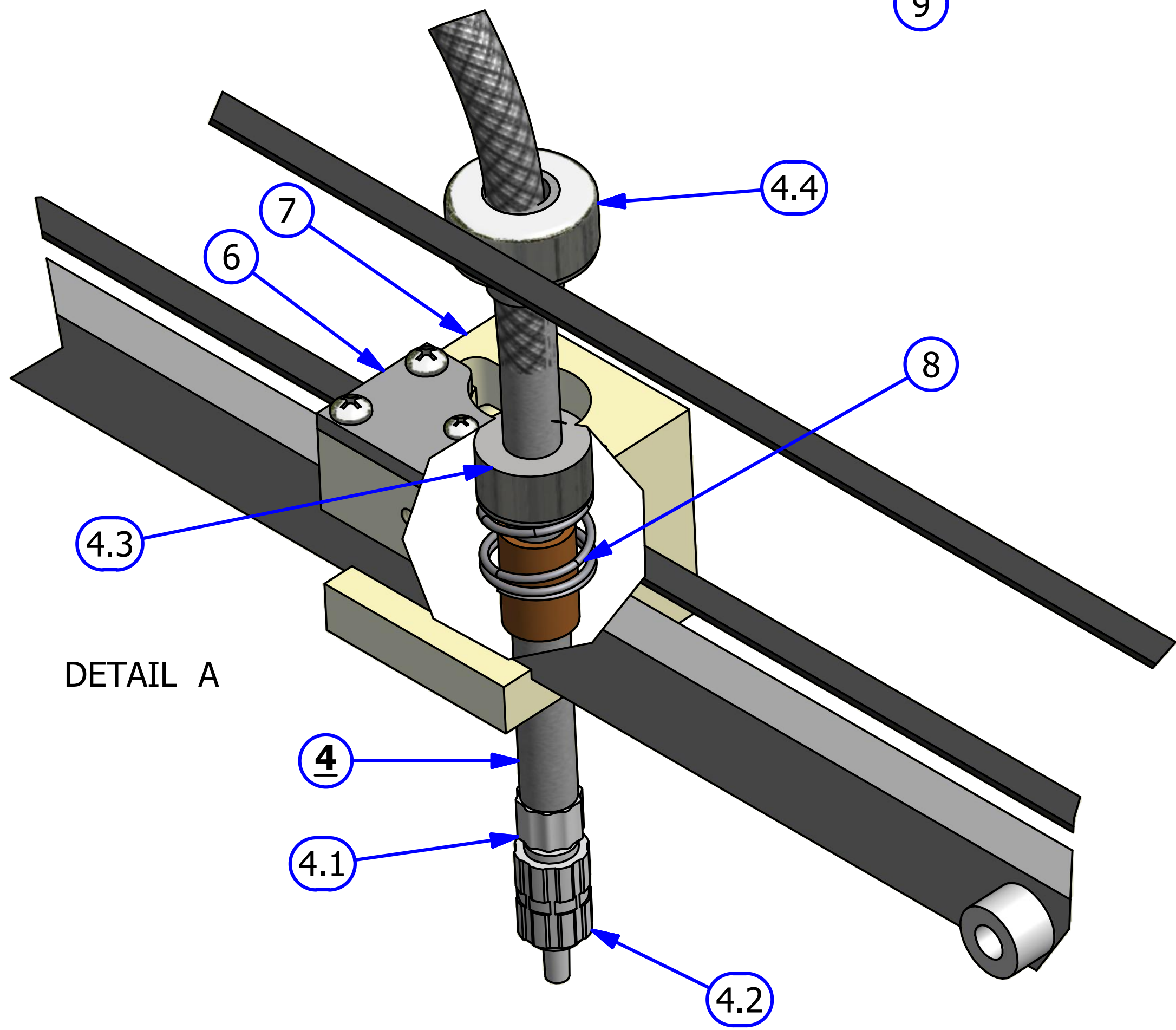
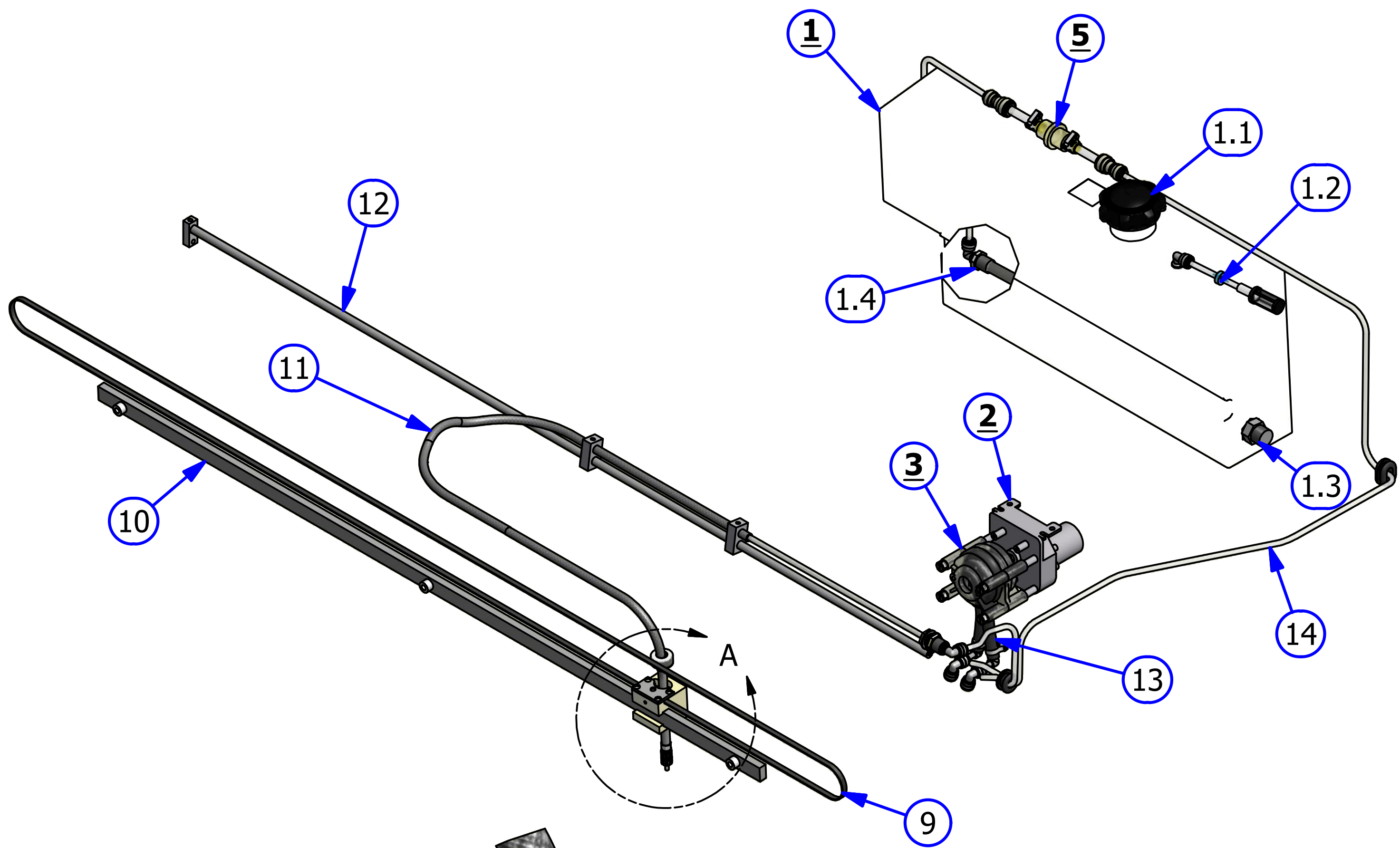


DETAIL A

CLEANER TANK AND HEAD ASSEMBLY

REV. 4/19

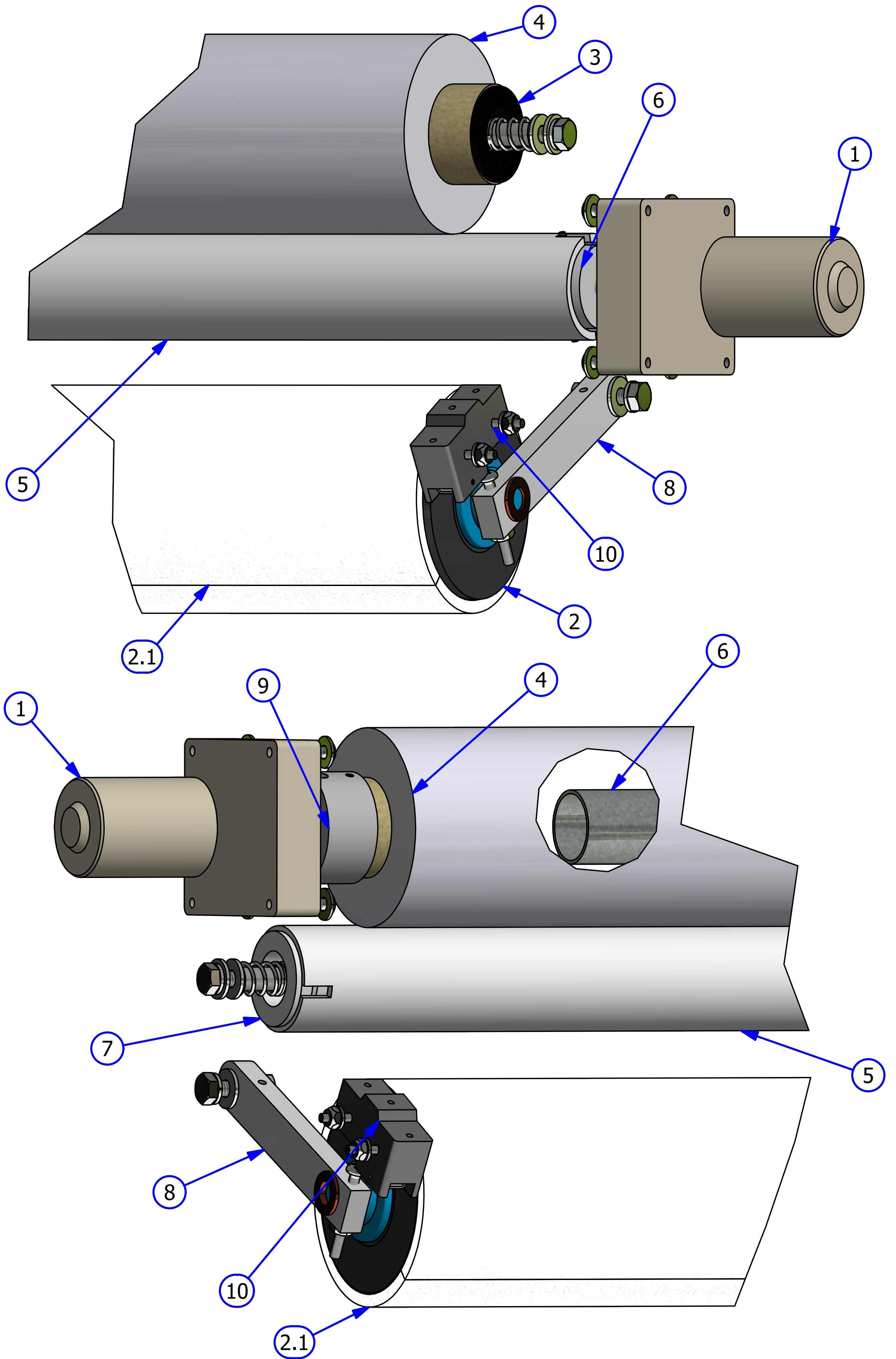
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	158-8433C	CLEANER SUPPLY TANK ASSEMBLY (COMPLETE)	EA
1.1	1	164-8081	CLEANER SUPPLY TANK CAP	EA
1.2	1	154-8817	MANUAL VENT VALVE ASSEMBLY	EA
1.3	1	154-8693	CLEANER FLOAT SWITCH ASSEMBLY	EA
1.4	1	154-0212B	FILTER ASSEMBLY	EA
1.5	1	164-0021	CLEANER SUPPLY CAP GASKET (NOT SHOWN)	EA
2	1	158-8404	CLEANER PUMP MOTOR ASSEMBLY	EA
3	1	158-8404D	CLEANER PUMP ASSEMBLY	EA
4	1	154-8852	CLEANER HOSE AND TIP ASSEMBLY	EA
4.1	1	154-0863	LURE HOSE BARB	EA
4.2	1	164-0012M	CLEANER TIP WITH CHECK VALVE	EA
4.3	1	153-2804	COLLAR - 3/8 X 3/4 X 3/8	EA
4.4	1	153-2902	COLLAR - 1/2 X 1 1/8 X 1/2	EA
5	1	154-8867A	IN LINE FILTER ASSEMBLY	EA
6	1	154-6646	CLEANER HEAD BELT MOUNT PLATE	EA
7	1	154-6882	CLEANER HEAD ASSEMBLY	EA
8	1	153-2713	SPRING FOR CLEANER HEAD ASSEMBLY	EA
9	1	154-9201	CLEANER HEAD BELT ASSEMBLY	EA
10	1	154-6877	CLEANER HEAD BAR ASSEMBLY	EA
11	1	154-0867	SPRING, CLEANER HOSE	EA
12	1	154-6889	CLEANER HOSE ROUTING BAR	EA
13	1	154-0861B	NORPRENE TUBING	EA
14	16	154-0202A	PENCIL TUBING STOCK - 1/4" OD X 1/8" ID	IN



DUSTER ASSEMBLY

REV. 10/19

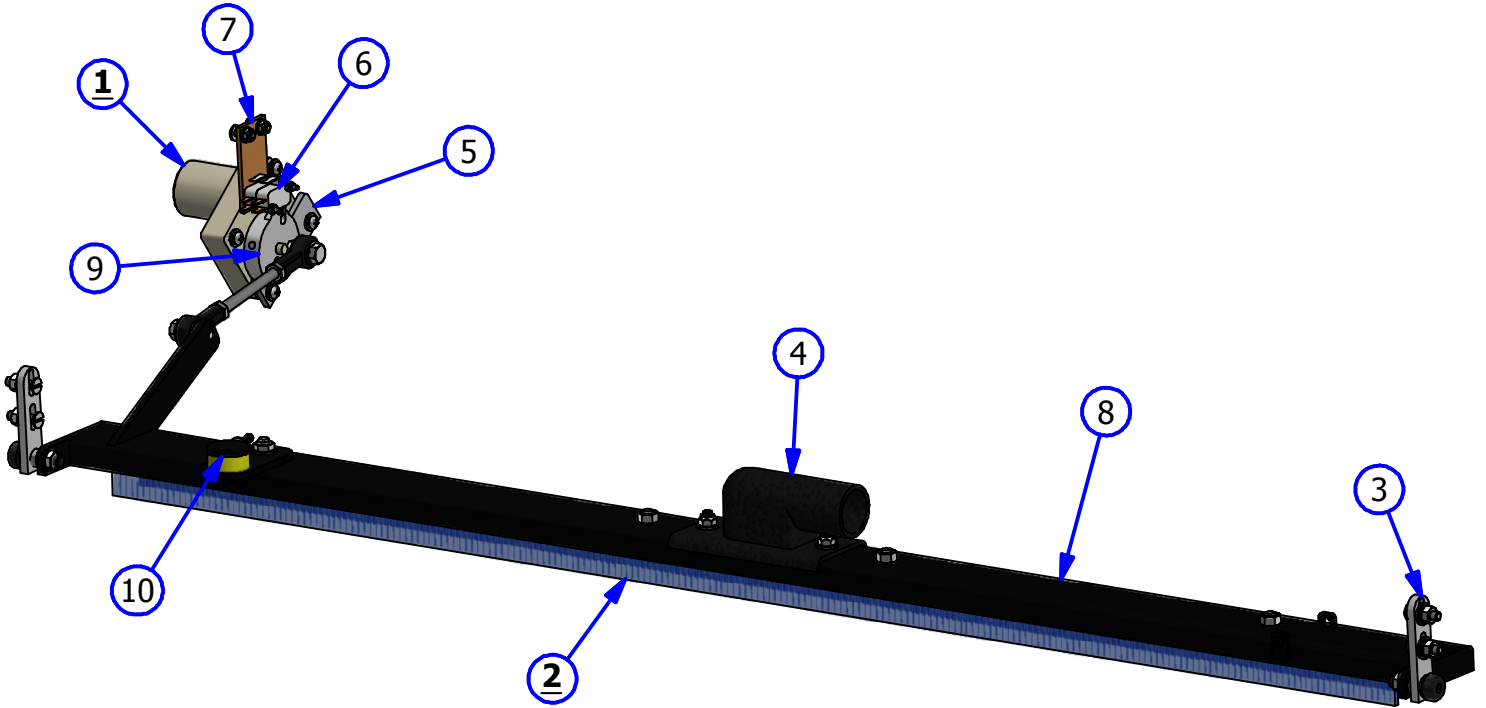
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	2	158-8403	DUSTER MOTOR ASSEMBLY	EA
2	1	164-8839	CUSHION ROLLER WITH WRAP ASSEMBLY	EA
3	1	164-6108A	DUSTER PLUG CARDBOARD CORE	EA
4	1	164-0047EZ	K2 SELECT DUSTER CLOTH (BOX OF 4)	CASE
5	1	154-0052	PVC TAKE UP REEL ASSEMBLY	EA
6	2	153-0429	DUSTER ROLL SUPPORT PIPE (40 INCH)	EA
7	1	164-6109A	UHMW DUSTER PLUG FOR PVC TAKE UP REEL	EA
8	2	164-8823	CUSHION ROLLER PIVOT ARM	EA
9	1	153-8202B	DUSTER SOLID DRIVE HUB (PVC)	EA
10	2	154-1603	MICROSWITCH WITHOUT ROLLER (LARGE)	EA



SQUEEGEE ASSEMBLY

REV. 4/20

<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	158-8402	MOTOR ASSEMBLY -24VDC	EA
2	1	164-8038K	SQUEEGEE BLADE AND GASKET REPLACEMENT (1 SET)	EA
	1	164-0003	GASKET (NOT SHOWN)	EA
3	2	154-8802	SQUEEGEE ADJUSTMENT ARM	EA
4	1	154-6677A	SQUEEGEE HOSE ADAPTER NYLON	EA
5	1	158-8634	SQUEEGEE/BRUSH MOUNT PLATE ASSEMBLY	EA
	1	158-9614	BALL BEARING MINIATURE (NOT SHOWN)	EA
6	2	153-1203	MICROSWITCH W/ROLLER	EA
7	1	154-6824	SQUEEGEE CAM SWITCH PLATE	EA
8	1	154-6339-2850	SQUEEGEE MOUNT ANGLE	EA
9	1	154-6243	MOTOR CAM-DUAL LOBES (STACKED SWITCHES)	EA
10	1	164-1241	FAILSAFE BEAM SENSOR	EA



RECOVERY TANK AND VACUUM MOTOR

REV. 5/16

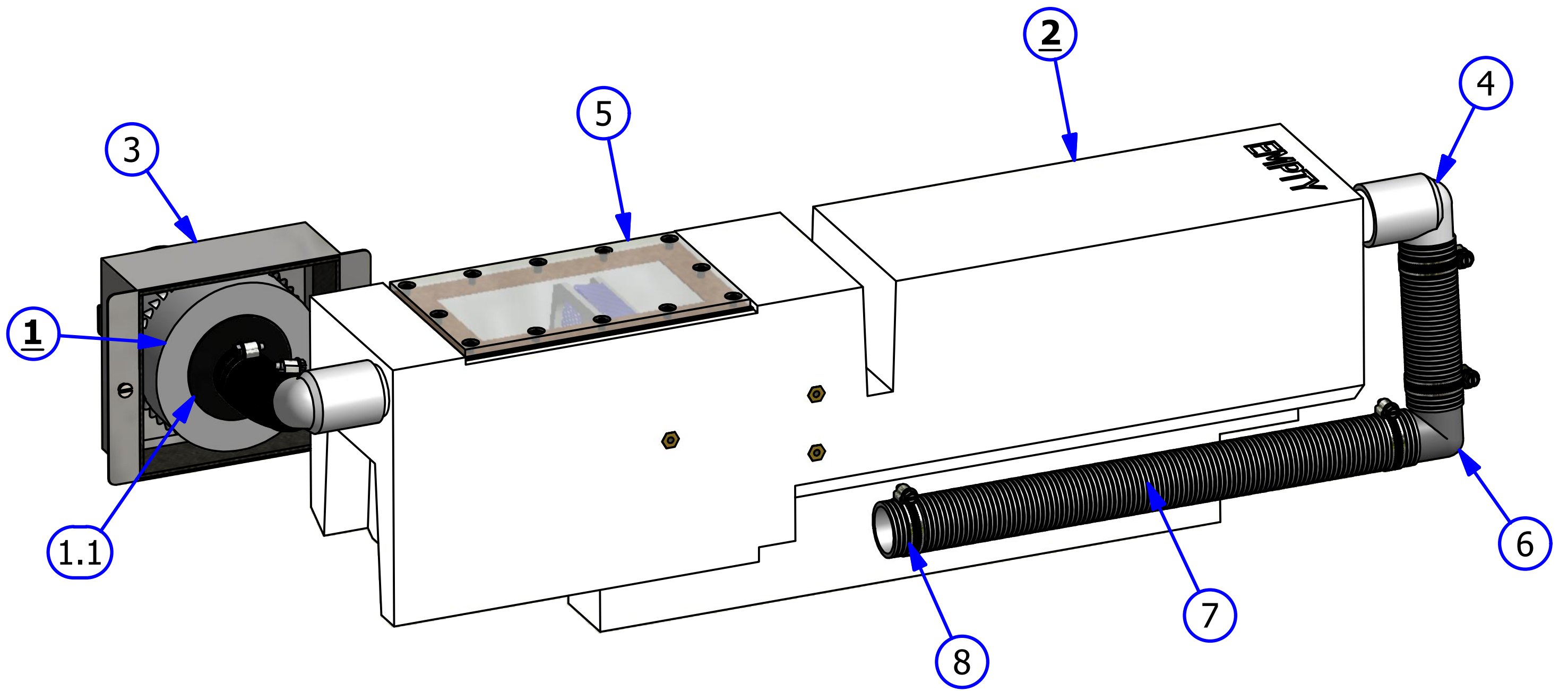
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
<u>1</u>	1	158-8407	VACUUM MOTOR ASSEMBLY	EA
1.1	1	153-6221M	VACUUM HOSE ADAPTER	EA
	1	158-1421B	VACUUM MOTOR BRUSHES (NOT SHOWN)	EA
2	1	164-8017	RECOVERY TANK	EA
	1	164-8017F	RECOVERY TANK FILTER (NOT SHOWN)	EA
	1	158-0405	RECOVERY TANK GASKET (NOT SHOWN)	EA
	12	153-2968	SCREW - 1/4" X 3/4" FSHCS (NOT SHOWN)	EA
4	2	153-8827T	1-1/4 PVC ELBOW-TANK INLET (NO THREADS)	EA
5	1	164-6120	RECOVERY TANK COVER PLATE	EA
6	1	154-0607	PVC ELBOW - 1-1/2 BARB X 1-1/2 BARB	EA
7	40	154-0260	FLEXIBLE HOSE - SOLD BY THE INCH	IN
8	6	153-2406	HOSE CLAMP (2 INCH)	EA



TECHNICAL NOTE

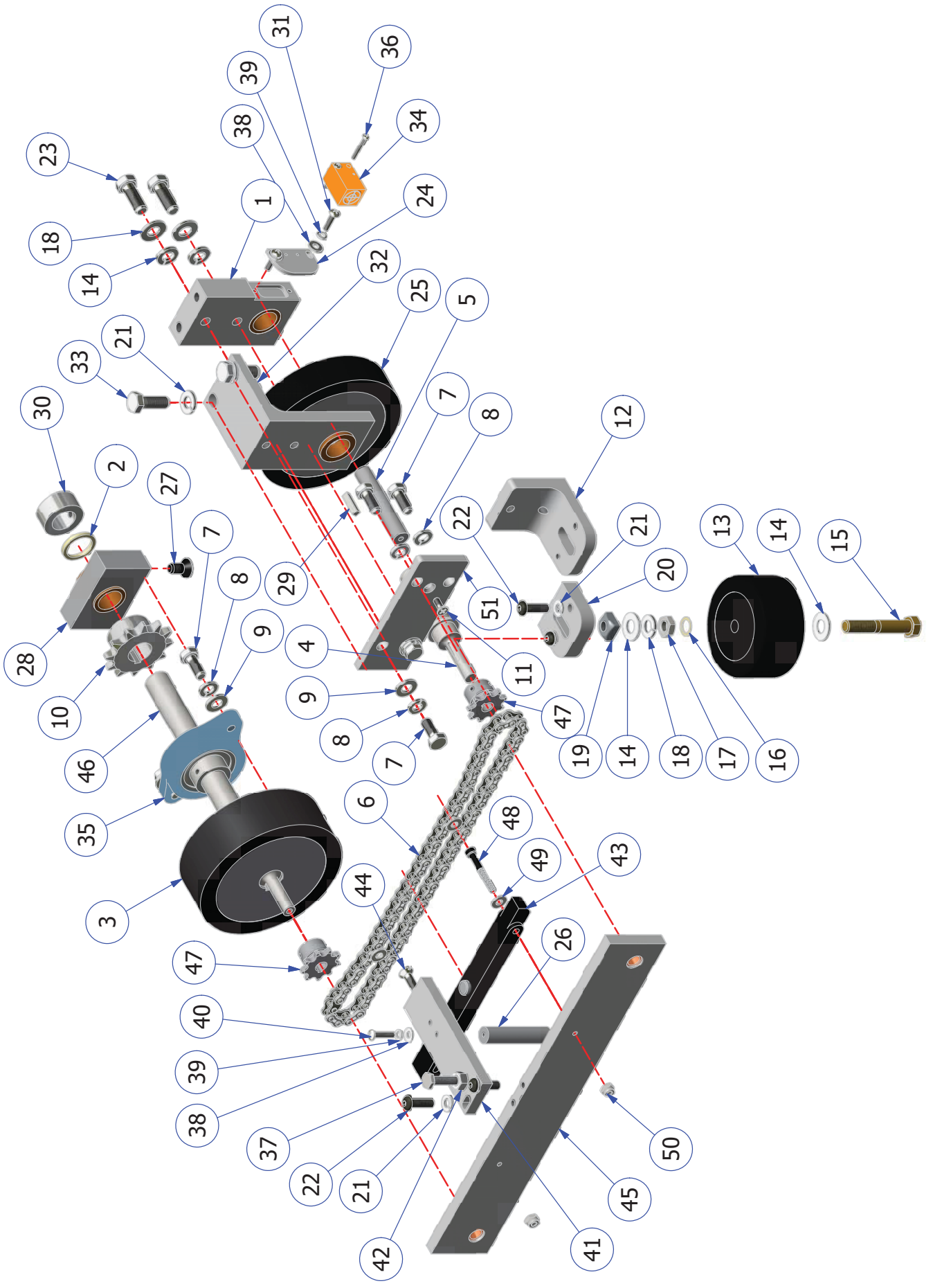
WHEN ATTACHING PART NUMBER 153-6221M, USE A TWO (2) PART EPOXY AND ALLOW TO DRY ACCORDING TO DIRECTIONS.

BE CAREFUL NOT TO CRUSH THE VACUUM MOTOR HOUSING INTO INTERNAL BLADES.



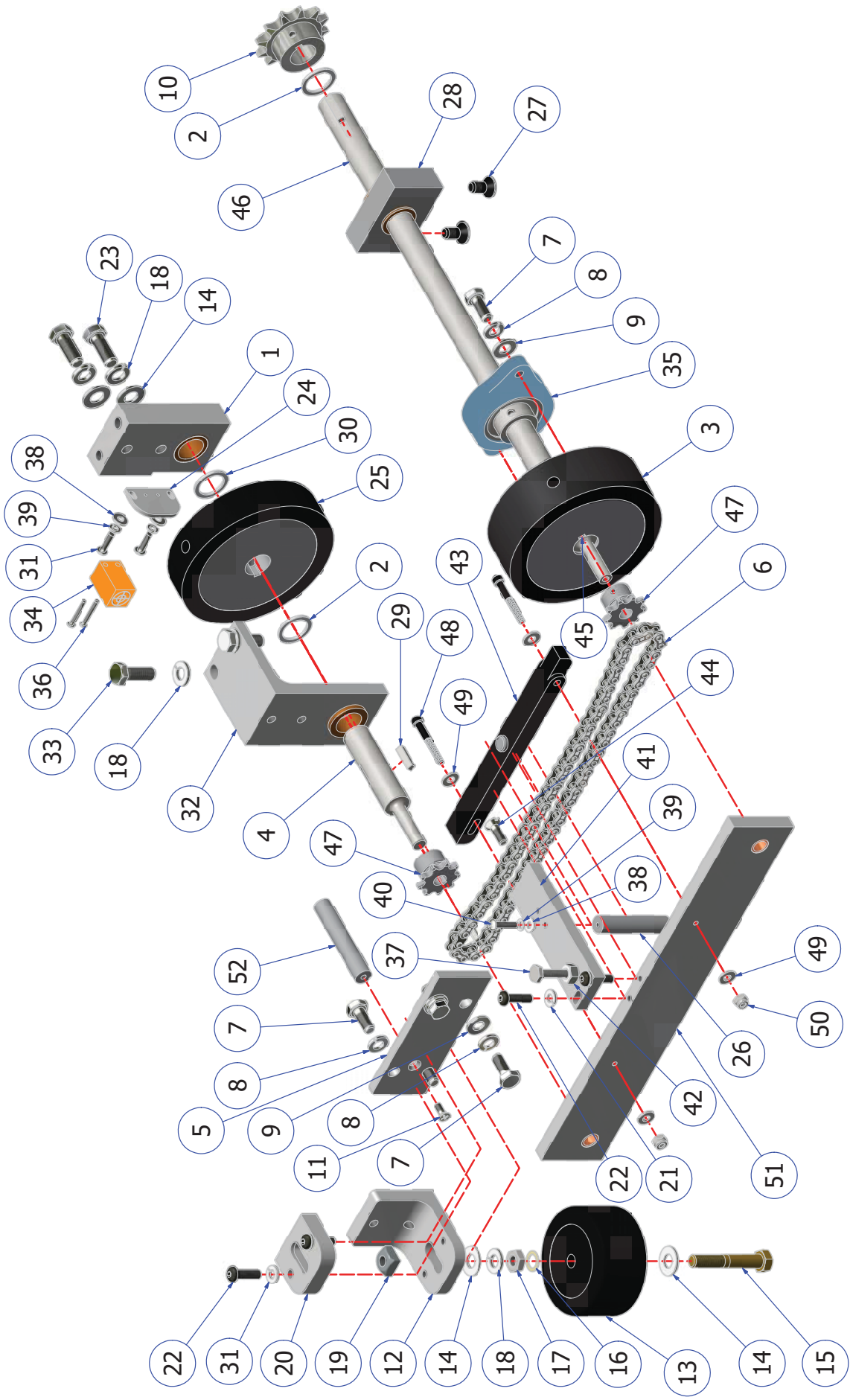
ZTR ASSEMBLY - LEFT

<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-6034	KICK UP WHEEL MOUNTING BLOCK	EA
2	3	153-2939	NYLON WASHER 3/4" X 1/16"	EA
3	2	158-7001	DRIVE WHEEL 4.5 IN	EA
4	1	164-6030	KICK-UP WHEEL SHAFT	EA
5	1	158-6705	BUMPER WHEEL SIDE POST	EA
6	1	164-9005	CHAIN (35P67) ZTR KICKUP	EA
7	6	153-2602	HHCS - 5/16-18 X 3/4	EA
8	6	153-2015	5/16 LOCKWASHER	EA
9	4	153-2005	5/16 FLATWASHER	EA
10	1	158-9602	SPROCKET 40BAH 3/4 BORE WITH KEYWAY AND SET	EA
11	1	153-2604	MS FLAT PHILLIPS - 10-32 X 1/2	EA
12	1	164-6038	BUMPER WHEEL MOUNT ANGLE	EA
13	1	153-7203	BUMPER WHEEL	EA
14	2	153-2006	3/8 FLATWASHER	EA
15	1	153-2815	HHCS - 3/8-16 X 2-1/4 (GRADE 8)	EA
16	1	153-2531	NYLON FLAT WASHER - 3/8 (0.030)	EA
17	1	153-2027	JAM NUT - 3/8-16	EA
18	1	153-2016	3/8 LOCKWASHER	EA
19	1	164-2005	SQUARE NUT - 3/8-16	EA
20	1	164-6039	BUMPER WHEEL NUT RETAINER	EA
21	4	153-2014	1/4 LOCKWASHER	EA
22	4	153-2052A	BHSS - 1/4-20 X 7/8	EA
23	2	153-2066	HHCS - 3/8-16 X 1	EA
24	1	164-6222	ZTR PROXIMITY SENSOR MOUNT	EA
25		164-7002A	1" WIDE KICK UP WHEEL ASSEMBLY	EA
26	1	164-6162	GUARD STAND OFF	EA
27	2	153-2802A	FHSS - 5/16 X 5/8	EA
28	1	158-8601	ZTR SHAFT BUSHING BLOCK ASSEMBLY	EA
29	1	153-2100	KEYSTOCK - 3/16 X 3/4	EA
30	1	153-2937	SHAFT COLLAR 3/4" ID	EA
31	2	153-2086	MS PHILLIPS - 8-32 X 5/8	EA
32	1	164-8220	KICK UP WHEEL ANGLE ASSEMBLY	EA
33	2	153-2055	HHCS - 1/4-20 X 1-1/2	EA
34	1	154-1220	INDUCTIVE PROXIMITY SENSOR	EA
35	1	153-9816	3/4 IN FLANGED BEARING - 5/16-18 TAPPED	EA
36	2	153-2216A	MS PHILLIPS - 4-40 X 7/8	EA
37	1	153-2528	HHCS - 1/4"-20 X 1-3/4"	EA
38	1	153-2002	#8 FLATWASHER	EA
39	1	153-2013	#10 LOCKWASHER	EA
40	1	153-2087	MS PHILLIPS - 8-32 X 3/4	EA
41	1	164-6033	ZTR SUPPORT MOUNT	EA
42	1	153-2304	JAM NUT	EA
43	1	164-6031	ZTR CHAIN TENSIONER	EA
44	1	153-2078	FHMS - 1/4-20 X 3/4"	EA
45	1	164-6040	ZTR SHAFT SUPPORT	EA
46	1	164-6028	ZTR DRIVE SHAFT - LEFT	EA
47	2	164-9003	SPROCKET - 40B10 (5/8")	EA
48	2	164-2004	SHCS - 10-24 X 1-1/2	EA
49	2	153-2035	BLIND RIVET WASHER - 3/16	EA
50	2	153-2208	LOCKNUT - 10-24 (NYLOK)	EA
51	1	164-6221	BUMPER WHEEL PLATE	EA



ZTR ASSEMBLY - RIGHT

<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8219	KICK UP WHEEL MOUNTING BLOCK	EA
2	2	153-2939	NYLON WASHER 3/4" X 1/16"	EA
3	1	158-7001	DRIVE WHEEL 4.5 IN	EA
4	1	164-6030	KICK-UP WHEEL SHAFT	EA
5	1	164-6221	BUMPER WHEEL PLATE	EA
6	1	164-9005	CHAIN (35P67) ZTR KICKUP	EA
7	6	153-2602	HHCS - 5/16-18 X 3/4	EA
8	6	153-2015	5/16 LOCKWASHER	EA
9	4	153-2005	5/16 FLATWASHER	EA
10	1	158-9602	SPROCKET 40BAH 3/4 BORE WITH KEYWAY AND SET	EA
11	1	153-2604	MS FLAT PHILLIPS - 10-32 X 1/2	EA
12	1	164-6038	BUMPER WHEEL MOUNT ANGLE	EA
13	1	153-7203	BUMPER WHEEL	EA
14	2	153-2006	3/8 FLATWASHER	EA
15	1	153-2815	HHCS - 3/8-16 X 2-1/4 (GRADE 8)	EA
16	1	153-2531	NYLON FLAT WASHER - 3/8 (0.030)	EA
17	1	153-2027	JAM NUT - 3/8-16	EA
18	1	153-2016	3/8 LOCKWASHER	EA
19	1	164-2005	SQUARE NUT - 3/8-16	EA
20	1	164-6039	BUMPER WHEEL NUT RETAINER	EA
21	4	153-2014	1/4 LOCKWASHER	EA
22	4	153-2052A	BHSS - 1/4-20 X 7/8	EA
23	2	153-2066	HHCS - 3/8-16 X 1	EA
24	1	164-6222	ZTR PROXIMITY SENSOR MOUNT	EA
25	2	164-7002A	1" WIDE KICK UP WHEEL ASSEMBLY	EA
26	1	164-6162	GUARD STAND OFF	EA
27	2	153-2802	FHSS - 5/16 X 5/8	EA
28	1	158-8601	ZTR SHAFT BUSHING BLOCK ASSEMBLY	EA
29	1	153-2100	KEYSTOCK - 3/16 X 3/4	EA
30	1	158-9601	BUSHING FLANGED - 3/4 ID X 7/8 OD	EA
31	2	153-2086	MS PHILLIPS - 8-32 X 5/8	EA
32	1	164-8220	KICK UP WHEEL ANGLE ASSEMBLY	EA
33	4	153-2066	HHCS - 3/8-16 x 1	EA
34	1	154-1220	INDUCTIVE PROXIMITY SENSOR	EA
35	1	153-9816	3/4 IN FLANGED BEARING - 5/16-18 TAPPED	EA
36	2	153-2216A	MS PHILLIPS - 4-40 X 7/8	EA
37	1	153-2528	HHCS - 1/4"-20 X 1-3/4"	EA
38	1	153-2002	#8 FLATWASHER	EA
39	1	153-2013	#10 LOCKWASHER	EA
40	1	153-2087	MS PHILLIPS - 8-32 X 3/4	EA
41	1	164-6033	ZTR SUPPORT MOUNT	EA
42	1	153-2304	JAM NUT	EA
43	1	164-6031	ZTR CHAIN TENSIONER	EA
44	1	153-2078	FHMS - 1/4-20 X 1" SELF LOCKING	EA
45	1	153-2102	KEYSTOCK - 3/16 X 1-1/4"	EA
46	1	164-6029	ZTR DRIVE SHAFT - RIGHT	EA
47	2	164-9003	SPROCKET - 40B10 (5/8")	EA
48	2	164-2004	SHCS - 10-24 X 1-1/2	EA
49	4	153-2035	BLIND RIVET WASHER - 3/16	EA
50	2	153-2208	LOCKNUT - 10-24 (NYLOK)	EA
51	1	164-6040	ZTR SHAFT SUPPORT	EA
52	1	158-6705	BUMPER WHEEL SIDE POST	EA



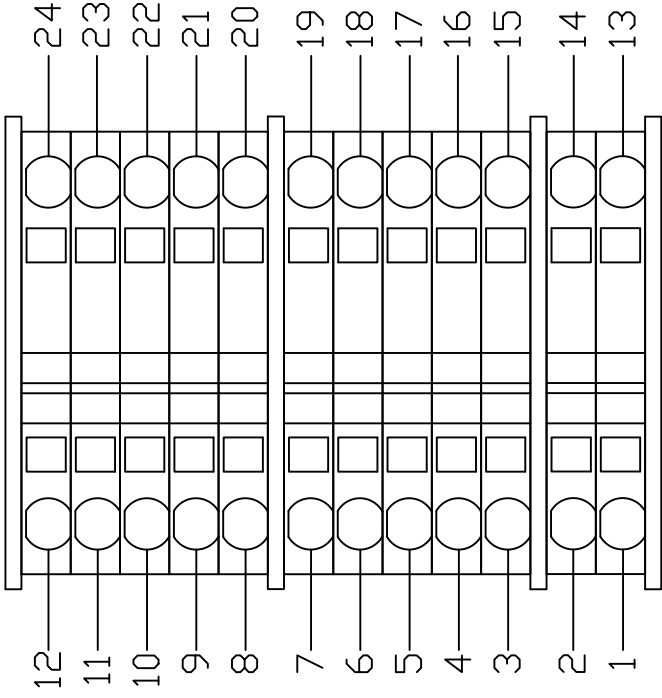
CHAPTER 9

IKON WALKER ELECTRICAL DRAWINGS

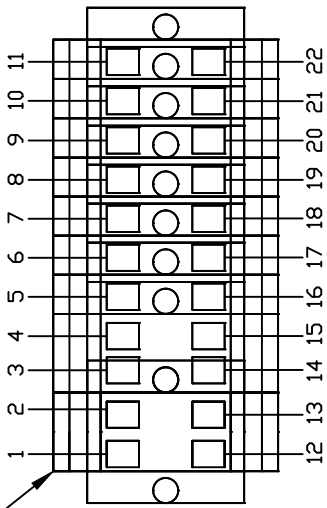
Terminal Block Wiring Layout.....	149
Output Wiring Layout.....	150
Input Wiring Layout	151
Speed Control Wiring Layout	152
Analog Wiring Layout	153
Motor Wiring Layout.....	154
Power Contactor Wiring Layout	155
Oil Pump Motor Wiring Layout	156
Oil-Cleaner Head Motor Wiring Layout	157
Oil Valve Wiring Layout	158
Buffer Motor Wiring Layout	159
Brush Lift Motor Wiring Layout	160
Vacuum Wiring Layout.....	161
Squeegee Motor & Switch Wiring Layout.....	162
Duster Unwind Motor & Switch Wiring Layout.....	163
Duster Windup Motor & Switch Wiring Layout	164
Cleaner Pump Speed Control Wiring Layout	165
Oil Float & Cleaner Float Wiring Layout.....	166
Speed Tach & LDS Wiring Layout	167
LED Tank Light Wiring Layout.....	168

4 3 2 1

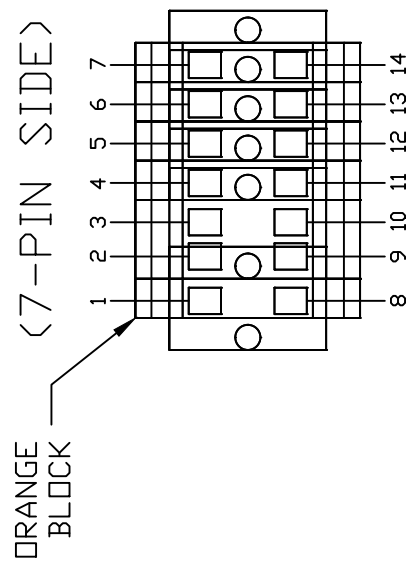
TB1
<MAIN>



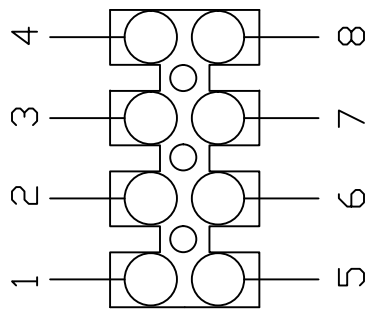
DRANGE BLOCK
TB2
<10-PIN SIDE>



TB3
<7-PIN SIDE>



TB4
<TOP PLC PLATE>

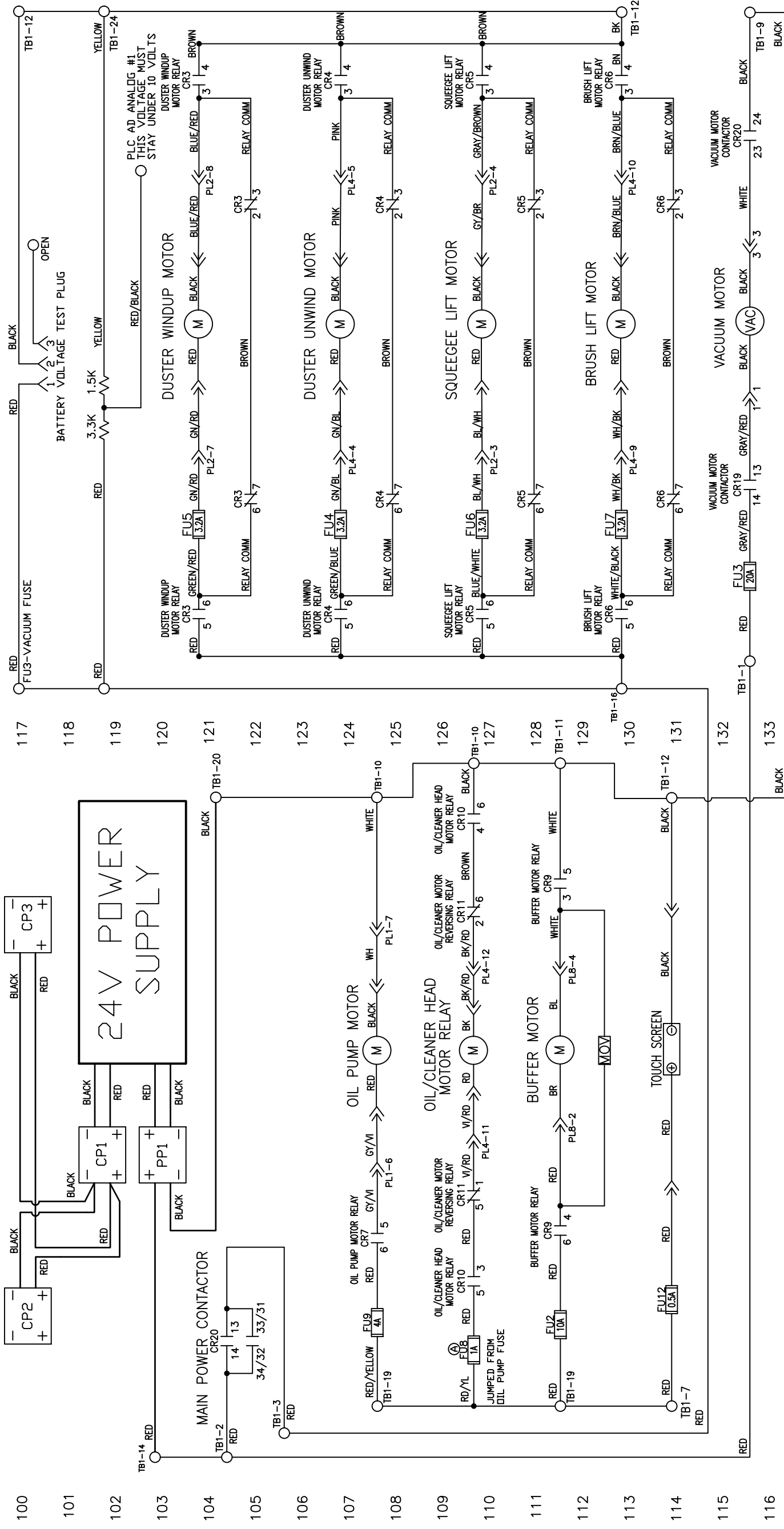


LEGEND

- TB1 - TERMINAL BLOCK 1 <MAIN>
- TB2 - TERMINAL BLOCK 2 <10-PIN SIDE>
- TB3 - TERMINAL BLOCK 3 <7-PIN SIDE>
- TB4 - TERMINAL BLOCK 4 <TOP PC PLATE>

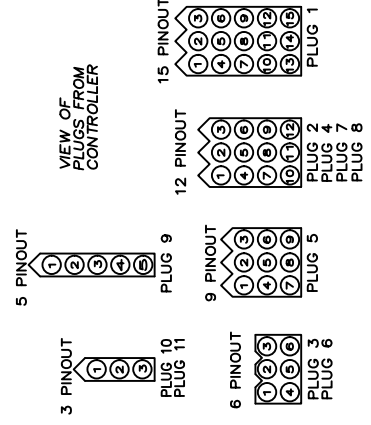
MATERIAL N/A		KEGEL LLC 1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (863) 734-0200	
DESCRIPTION TERMINAL BLOCK LAYOUT			
DRAWN BY SLS	DATE 9-20-19	DO NOT SCALE DRAWING	
APPROVED: TW	REV DATE	SIZE A	QTY/MACHINE PART NUMBER N/A
DOC REV	TW	SCALE N/A	17-6400
		SHEET N/A	1 OF 20

4 3 2 1



LEGEND

- CR1 - OIL VALVE RELAY
 - CR2 - POWER OFF RELAY
 - CR3 - DUSTER WINDUP MOTOR RELAY
 - CR4 - DUSTER UNWIND MOTOR RELAY
 - CR5 - SQUEEGEE LIFT MOTOR RELAY
 - CR6 - BRUSH LIFT MOTOR RELAY
 - CR7 - OIL PUMP MOTOR RELAY
 - CR8 - CLEANER PUMP REVERSING RELAY
 - CR9 - BUFFER MOTOR RELAY
 - CR10 - OIL/CLEANER HEAD POWER REVERSING RELAY
 - CR11 - OIL/CLEANER HEAD REVERSING RELAY
 - CR12 - FORWARD DRIVE MOTOR RELAY
 - CR13 - REVERSE DRIVE MOTOR RELAY
 - CR14 - WHISKER CONTROL RELAY
 - CR15 - 7 PIN WHISKER RELAY
 - CR16 - 10 PIN WHISKER RELAY
 - CR17 - ZTR ENABLE RELAY
 - CR18 - ZTR REVERSING RELAY
 - CR19 - VACUUM MOTOR CONTACTOR
 - CR20 - MAIN POWER CONTACTOR
- FU1 - DRIVE MOTOR 7.5A
 - FU2 - BUFFER MOTOR 10A/20A
 - FU3 - VACUUM MOTOR 20A
 - FU4 - DUSTER UNWIND 3.2A
 - FU5 - DUSTER WINDUP 3.2A
 - FU6 - SQUEEGEE MOTOR 3.2A
 - FU7 - BRUSH LIFT MOTOR 3.2A
 - FU8 - HEAD DRIVE MOTOR 1A
 - FU9 - OIL PUMP MOTOR 4A
 - FU10 - PLC INPUT POWER/L1 0.5A
 - FU11 - PLC OUTPUT COMMON 0.5A
 - FU12 - TOUCH SCREEN 0.5A
 - FU13 - CLEANER PUMP 3.2A
 - FU14 - WHISKER CONTROL RELAY
 - FU15 - CVR POWER 25A/30A
 - FU16 - LED LIGHT 1A
- PL1 - 10-PIN SIDE PLUG (15)
 - PL2 - 10-PIN SIDE PLUG (12)
 - PL3 - 10-PIN SIDE PLUG (6)
 - PL4 - 7-PIN SIDE PLUG (12)
 - PL5 - 7-PIN SIDE PLUG (9)
 - PL6 - 7-PIN SIDE PLUG (6)
 - PL7 - DRIVE SPEED BOARD PLUG (12)
 - PL8 - CLEANER PUMP SPEED BOARD PLUG (12)
 - PL9 - BUFFER MOTOR PLUG (5)
 - PL10 - 10-PIN SIDE DRIVE MOTOR PLUG (3)
 - PL11 - 7-PIN SIDE DRIVE MOTOR PLUG (3)
 - CP1 - CHARGING PLUG BATTERY (BLUE)
 - CP2 - CHARGING PLUG INSIDE (BLUE)
 - CP3 - CHARGING PLUG OUTSIDE (BLUE)
 - PP1 - POWER PLUG (RED)
 - TB1 - TERMINAL BLOCK 1 (MAIN)
 - TB2 - TERMINAL BLOCK 2 (7-PIN SIDE)
 - TB3 - TERMINAL BLOCK 3 (10-PIN SIDE)
 - TB4 - TERMINAL BLOCK 4 (PC PLATE)

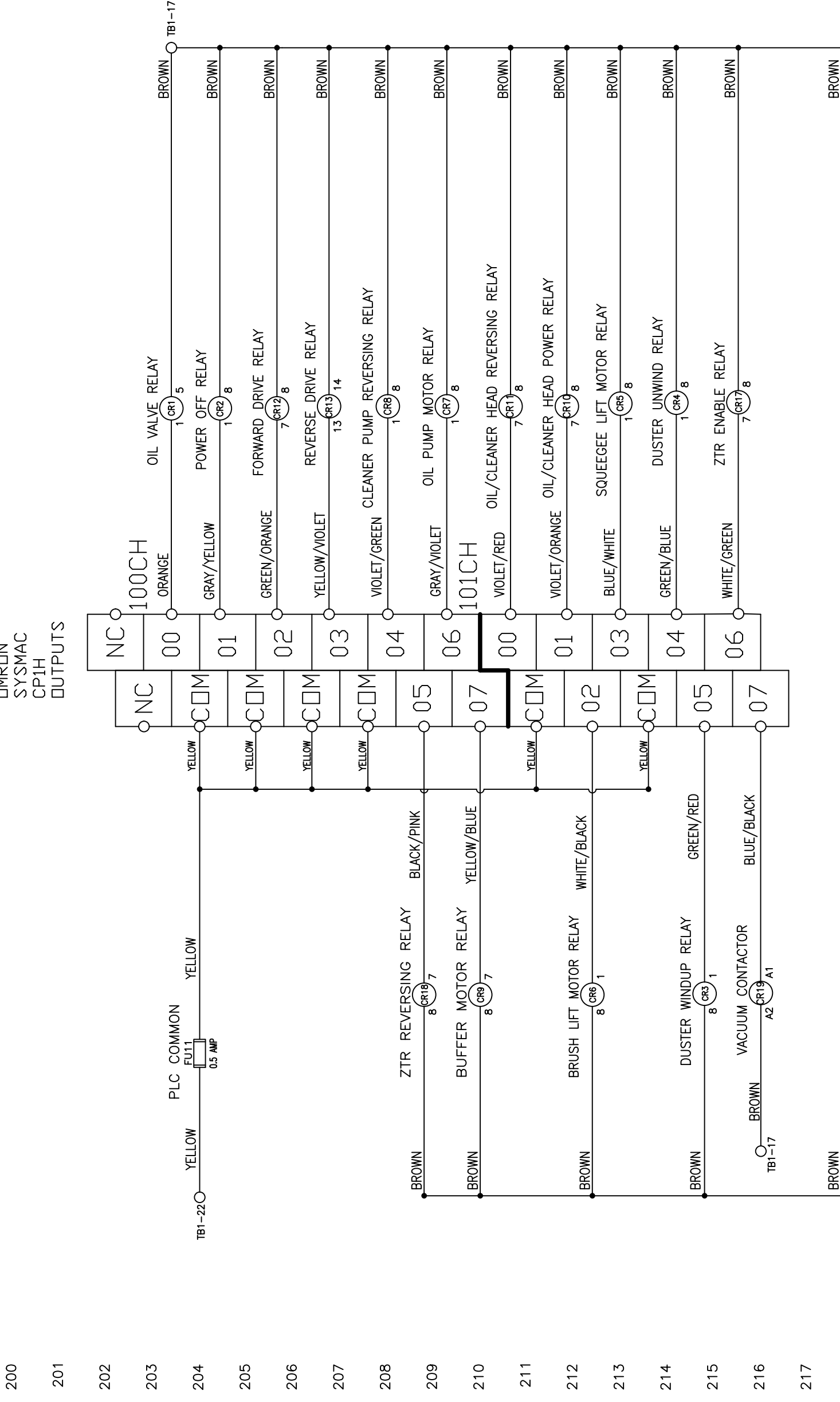


REV	LTR	DATE	DESCRIPTION

MATERIAL		N/A	
DRAWN BY	SLS	DATE	9-20-19
APPROVED:	TW	REV DATE	
DOC REV		SCALE	N/A
SHEET	2	OF	20

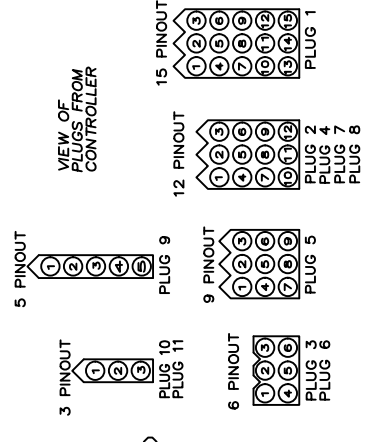
DESCRIPTION		KEGEL	
MOTOR WIRING SCHEMATIC		1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (883) 734-0200	
DO NOT SCALE DRAWING	SIZE	QTY/MACHINE	PART NUMBER
	C	N/A	17-6400

OMRON
SYSMAC
CPIH
OUTPUTS



LEGEND

- CR1 - OIL VALVE RELAY
- CR2 - POWER OFF RELAY
- CR3 - DUSTER WINDUP MOTOR RELAY
- CR4 - DUSTER UNWIND MOTOR RELAY
- CR5 - SQUEEGEE LIFT MOTOR RELAY
- CR6 - BRUSH LIFT MOTOR RELAY
- CR7 - OIL PUMP MOTOR RELAY
- CR8 - CLEANER PUMP REVERSING RELAY
- CR9 - BUFFER MOTOR RELAY
- CR10 - OIL/CLEANER HEAD POWER RELAY
- CR11 - OIL/CLEANER HEAD REVERSING RELAY
- CR12 - FORWARD DRIVE MOTOR RELAY
- CR13 - REVERSE DRIVE MOTOR RELAY
- CR14 - WHISKER CONTROL RELAY
- CR15 - 7 PIN WHISKER RELAY
- CR16 - 10 PIN WHISKER RELAY
- CR17 - ZTR ENABLE RELAY
- CR18 - ZTR REVERSING RELAY
- CR19 - VACUUM MOTOR CONTACTOR
- CR20 - MAIN POWER CONTACTOR
- FU1 - DRIVE MOTOR 7.5A
- FU2 - BUFFER MOTOR 10A/20A
- FU3 - VACUUM MOTOR 20A
- FU4 - DUSTER UNWIND 3.2A
- FU5 - DUSTER WINDUP 3.2A
- FU6 - SQUEEGEE MOTOR 3.2A
- FU7 - BRUSH LIFT MOTOR 3.2A
- FU8 - HEAD DRIVE MOTOR 1A
- FU9 - OIL PUMP MOTOR 4A
- FU10 - PLC INPUT POWER/L1 0.5A
- FU11 - PLC OUTPUT COMMON 0.5A
- FU12 - TOUCH SCREEN 0.5A
- FU13 - CLEANER PUMP 3.2A
- FU14 - CVR POWER 25A/30A
- FU16 - LED LIGHT 1A
- PL1 - 10-PIN SIDE PLUG (15)
- PL2 - 10-PIN SIDE PLUG (12)
- PL3 - 10-PIN SIDE PLUG (6)
- PL4 - 7-PIN SIDE PLUG (12)
- PL5 - 7-PIN SIDE PLUG (9)
- PL6 - 7-PIN SIDE PLUG (6)
- PL7 - DRIVE SPEED BOARD PLUG (12)
- PL8 - CLEANER PUMP SPEED BOARD PLUG (12)
- PL9 - BUFFER MOTOR PLUG (5)
- PL10 - 10-PIN SIDE DRIVE MOTOR PLUG (3)
- PL11 - 7-PIN SIDE DRIVE MOTOR PLUG (3)
- CP1 - CHARGING PLUG BATTERY (BLUE)
- CP2 - CHARGING PLUG INSIDE (BLUE)
- CP3 - CHARGING PLUG OUTSIDE (BLUE)
- PP1 - POWER PLUG (RED)
- TB1 - TERMINAL BLOCK 1 (MAIN)
- TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
- TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
- TB4 - TERMINAL BLOCK 4 (PC PLATE)



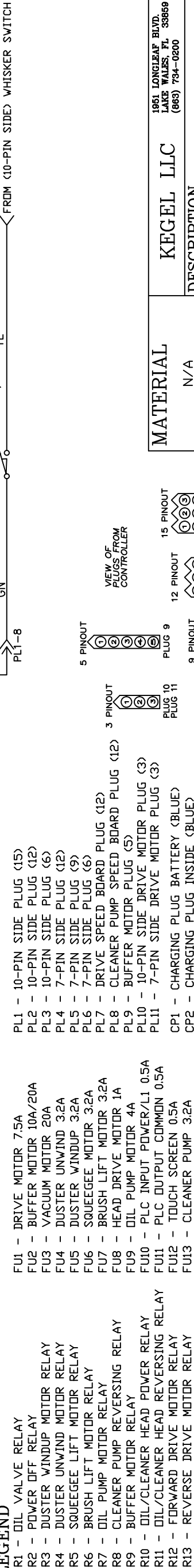
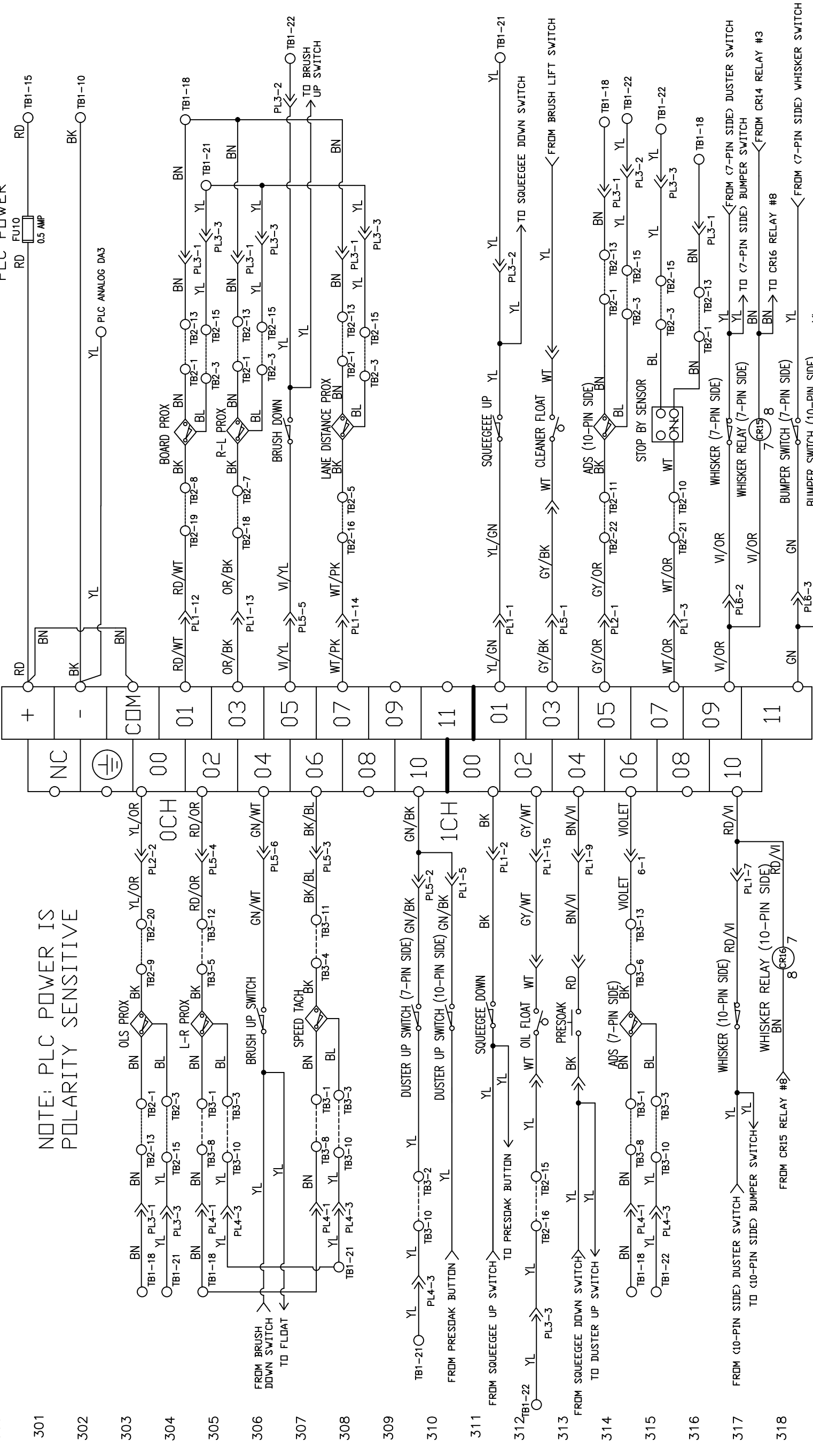
MATERIAL		DESCRIPTION	
N/A		OUTPUT WIRING SCHEMATIC	
DRAWN BY	DATE	DO NOT SCALE DRAWING	
SLS	9-20-19	SIZE	QTY/MACHINE/PART NUMBER
APPROVED:	REV DATE	C	N/A
TW		SCALE	N/A
DOC		SHEET	3 OF 20
REV			

1951 LONGLEAF BLVD.
LAKE WALES, FL 33859
(863) 734-0200

OMRON SYSMAC CP1H INPUTS

PLC POWER

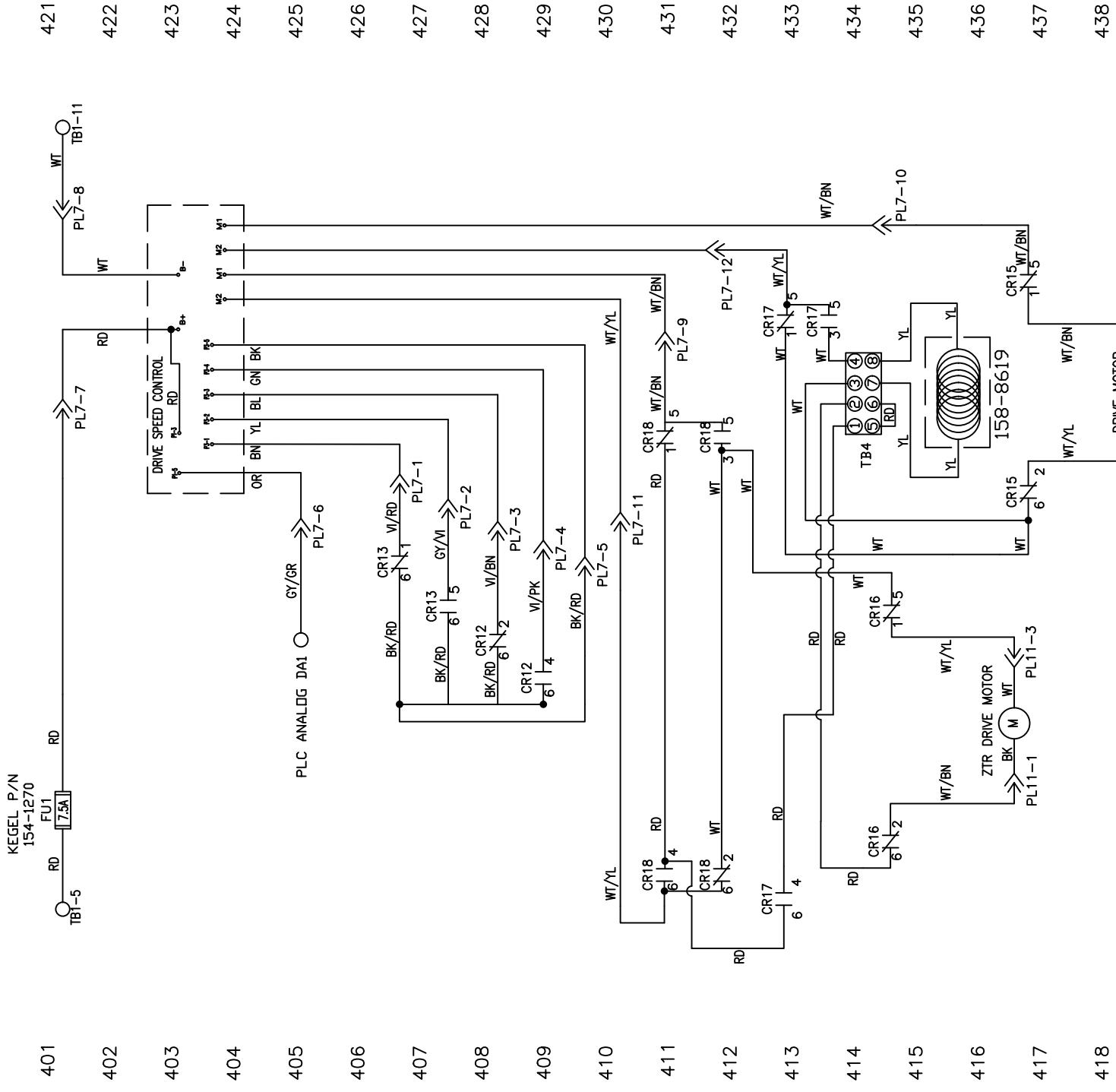
NOTE: PLC POWER IS
POLARITY SENSITIVE



MATERIAL		DESCRIPTION	
N/A		INPUT WIRING SCHEMATIC	
DRAWN BY	SLS	DATE	9-20-19
APPROVED:	T.W.	REV DATE	
NOV REV		SIZE	C
		QTY/MACHINE	17-6400
		SCALE	N/A
		SHEET	4 OF 20

KEGEL LLC		1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (866) 754-0200	
DO NOT SCALE DRAWING			
PART NUMBER			

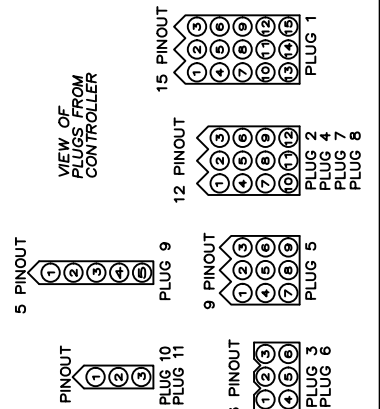
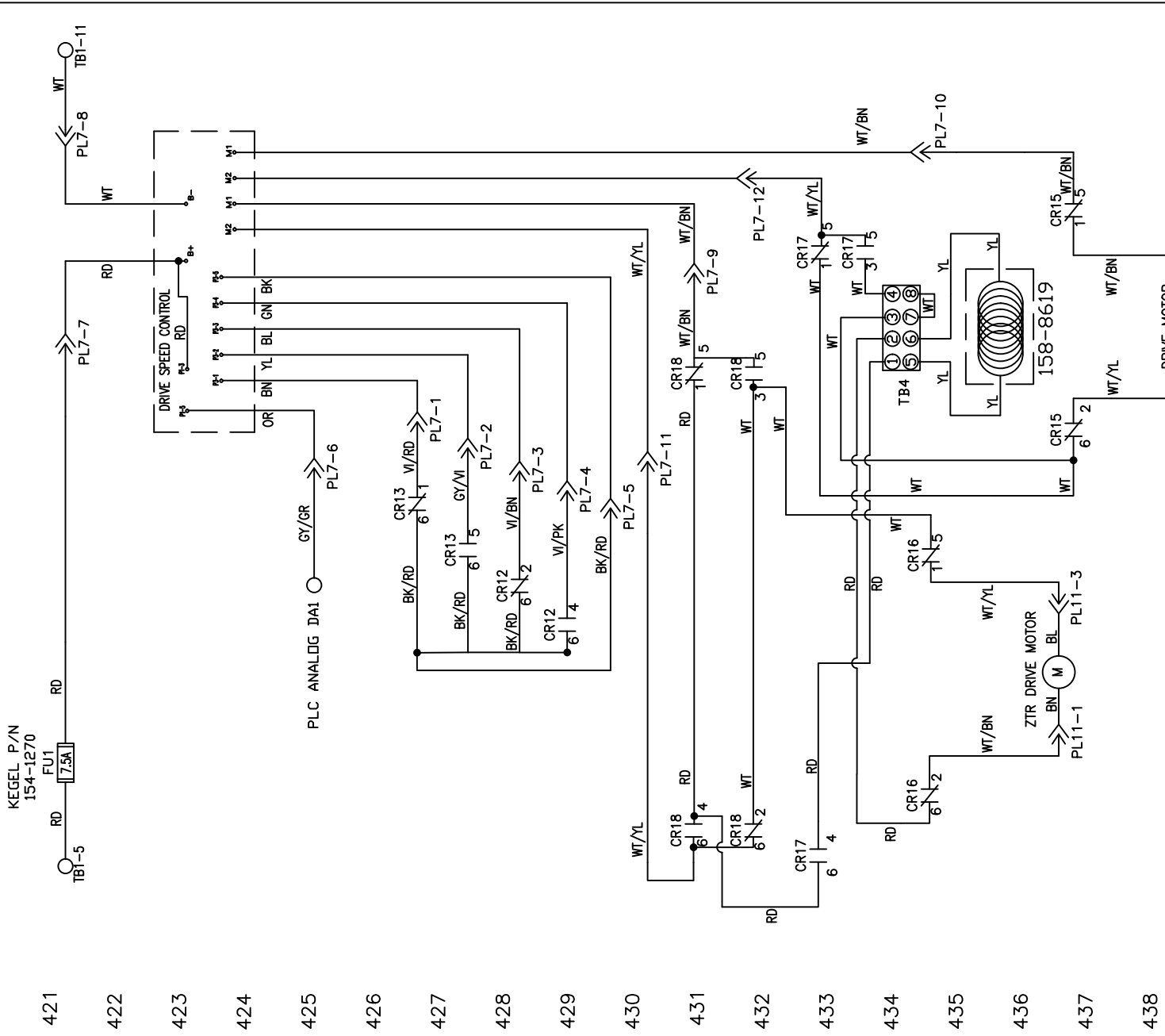
SCHEMATIC FOR RESISTOR WIRE ON MAIN DRIVE MOTOR



LEGEND

- CR1 - OIL VALVE RELAY
- CR2 - POWER OFF RELAY
- CR3 - DUSTER WINDUP MOTOR RELAY
- CR4 - DUSTER UNWIND MOTOR RELAY
- CR5 - SQUEEGEE LIFT MOTOR RELAY
- CR6 - SQUEEGEE MOTOR RELAY
- CR7 - BRUSH LIFT MOTOR RELAY
- CR8 - OIL PUMP MOTOR RELAY
- CR9 - CLEANER PUMP REVERSING RELAY
- CR10 - BUFFER MOTOR RELAY
- CR11 - OIL/CLEANER HEAD POWER RELAY
- CR12 - OIL/CLEANER HEAD REVERSING RELAY
- CR13 - FORWARD DRIVE MOTOR RELAY
- CR14 - REVERSE DRIVE MOTOR RELAY
- CR15 - WHISKER CONTROL RELAY
- CR16 - WHISKER RELAY
- CR17 - 10 PIN WHISKER RELAY
- CR18 - ZTR ENABLE RELAY
- CR19 - ZTR REVERSING RELAY
- CR20 - VACUUM MOTOR CONTACTOR
- FU1 - DRIVE MOTOR 7.5A
- FU2 - BUFFER MOTOR 10A/20A
- FU3 - VACUUM MOTOR 20A
- FU4 - DUSTER UNWIND 3.2A
- FU5 - DUSTER WINDUP 3.2A
- FU6 - SQUEEGEE MOTOR 3.2A
- FU7 - BRUSH LIFT MOTOR 3.2A
- FU8 - HEAD DRIVE MOTOR 1A
- FU9 - OIL PUMP MOTOR 4A
- FU10 - PLC INPUT POWER/L1 0.5A
- FU11 - PLC OUTPUT COMMON 0.5A
- FU12 - TOUCH SCREEN 0.5A
- FU13 - CLEANER PUMP 3.2A
- FU14 - CVR POWER 25A/30A
- FU15 - LED LIGHT 1A
- PL1 - 10-PIN SIDE PLUG (15)
- PL2 - 10-PIN SIDE PLUG (12)
- PL3 - 10-PIN SIDE PLUG (6)
- PL4 - 7-PIN SIDE PLUG (12)
- PL5 - 7-PIN SIDE PLUG (9)
- PL6 - 7-PIN SIDE PLUG (6)
- PL7 - DRIVE SPEED BOARD PLUG (12)
- PL8 - CLEANER PUMP SPEED BOARD PLUG (12)
- PL9 - BUFFER MOTOR PLUG (5)
- PL10 - 10-PIN SIDE DRIVE MOTOR PLUG (3)
- PL11 - 7-PIN SIDE DRIVE MOTOR PLUG (3)
- CP1 - CHARGING PLUG BATTERY (BLUE)
- CP2 - CHARGING PLUG INSIDE (BLUE)
- CP3 - CHARGING PLUG OUTSIDE (BLUE)
- PP1 - POWER PLUG (RED)
- TB1 - TERMINAL BLOCK 1 (MAIN)
- TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
- TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
- TB4 - TERMINAL BLOCK 4 (PC PLATE)

SCHEMATIC FOR RESISTOR WIRE ON ZTR DRIVE MOTOR



MATERIAL		KEGEL LLC	
N/A		1951 LONGLEAF BLVD. LAKE WALKER, FL 38668 (866) 734-0200	
DESCRIPTION		SPEED CONTROL SCHEMATIC	
DRAWN BY	DATE	SIZE	QTY/MACHINE PART NUMBER
SLS	9-20-19	C	N/A
APPROVED:	REV DATE	SCALE	SHEET
T/W	N/A	N/A	5 OF 20

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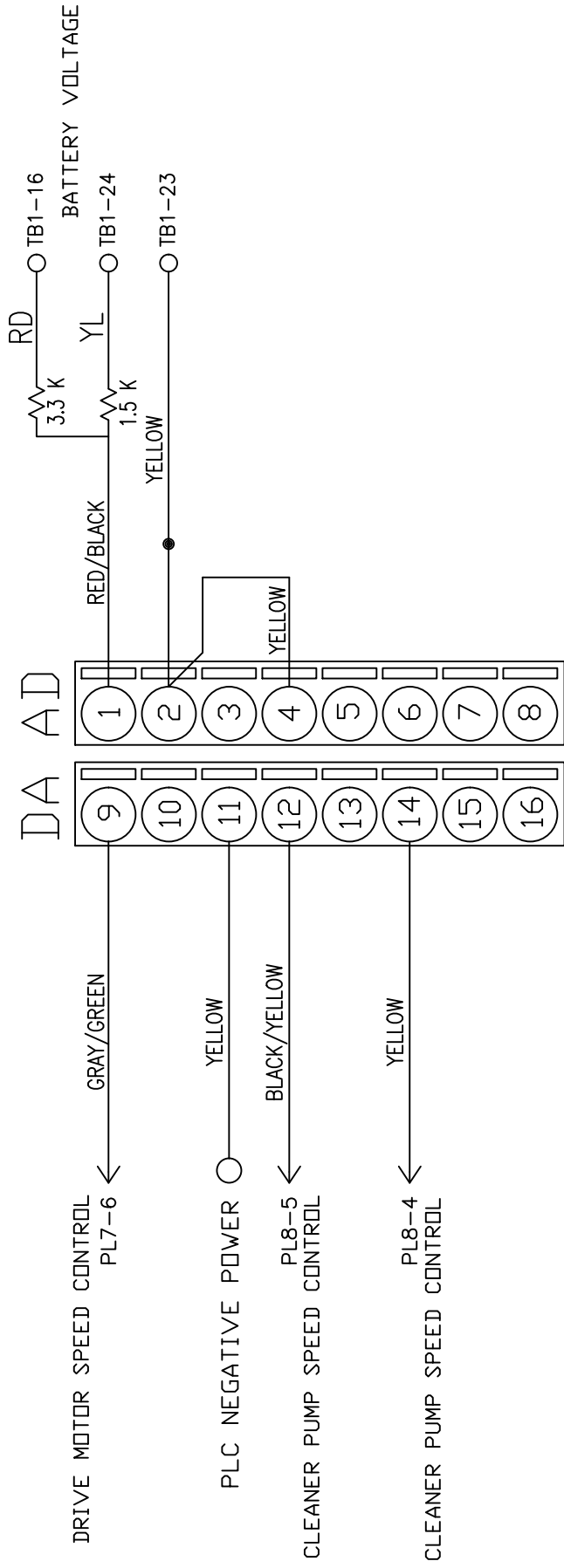
415

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BUILT IN PLC ANALOG



MATERIAL		N/A	
DESCRIPTION		1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (863) 734-0200	
DRAWN BY		SLS	
DATE		9-20-19	
APPROVED:		TW	
DO NOT SCALE DRAWING		DO NOT SCALE DRAWING	
SIZE		A	
QTY/MACHINE		N/A	
PART NUMBER		17-6400	
SCALE		N/A	
SHEET		6 OF 20	

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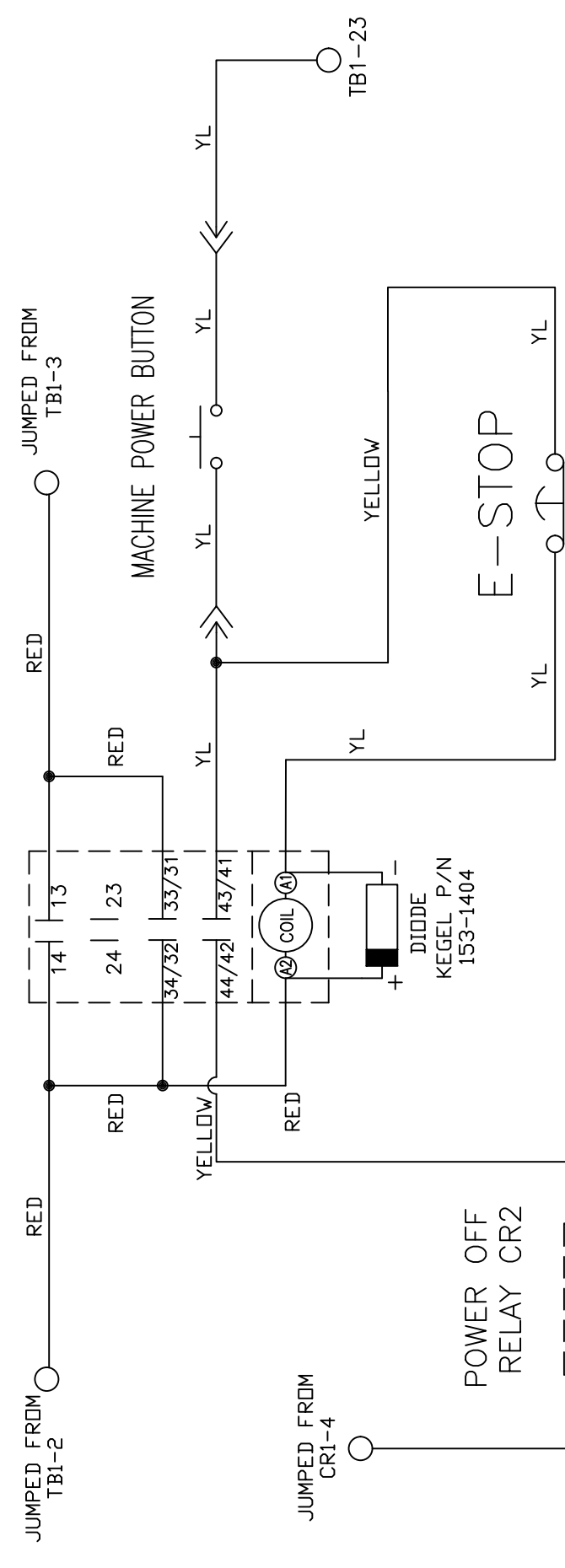
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POWER CONTACTOR CR20



MATERIAL	N/A	
DESCRIPTION	POWER CONTACTOR & RELAY WIRING	
DRAWN BY	SLS	DATE 9-20-19
APPROVED:	TW	REV DATE
SIZE	A	QTY/MACHINE PART NUMBER N/A
SCALE	N/A	17-6400
SHEET	7	OF 20

1951 LONGLEAF BLVD.
LAKE WALES, FL 33859
(863) 734-0200

KEGEL LLC

DO NOT SCALE DRAWING

17-6400

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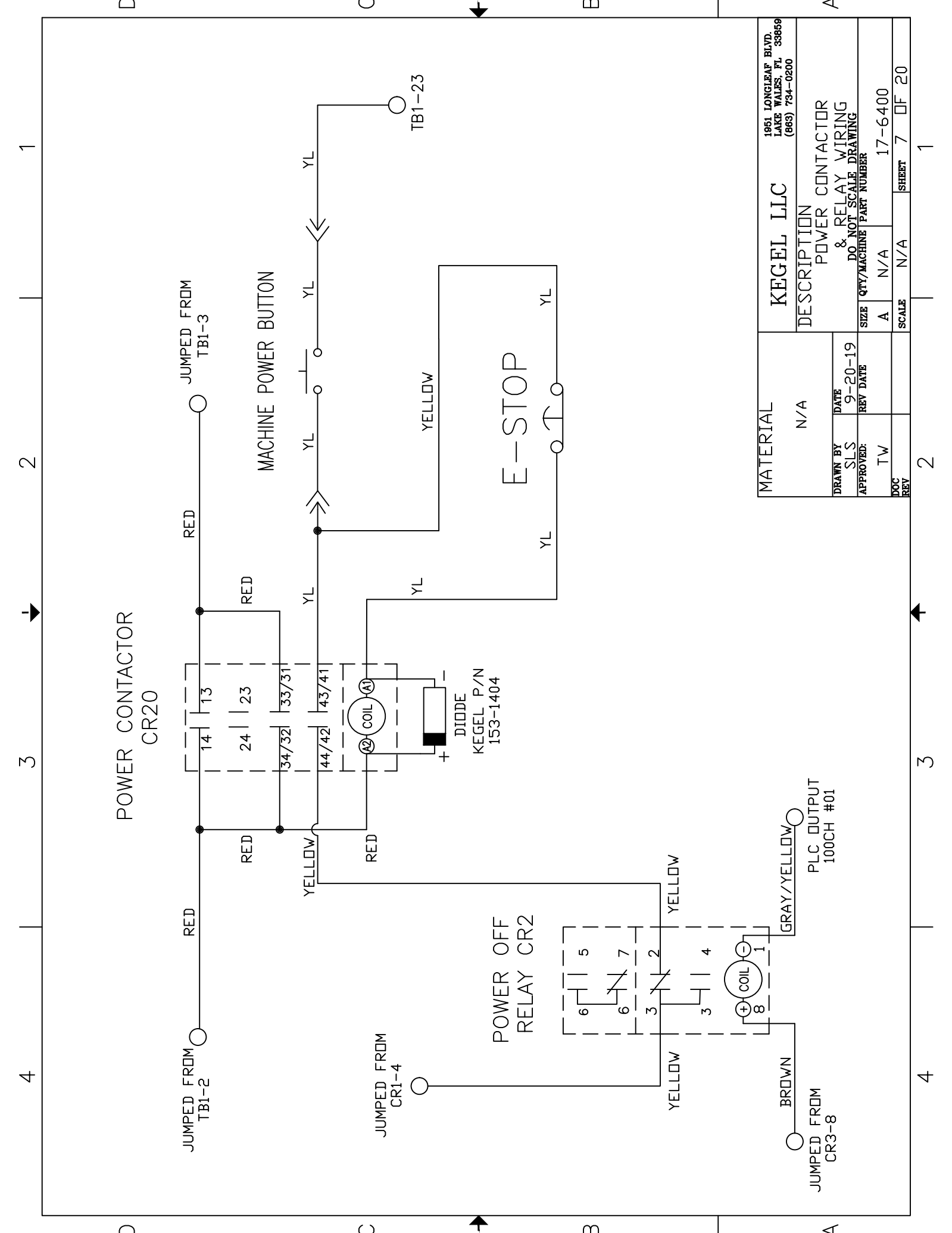
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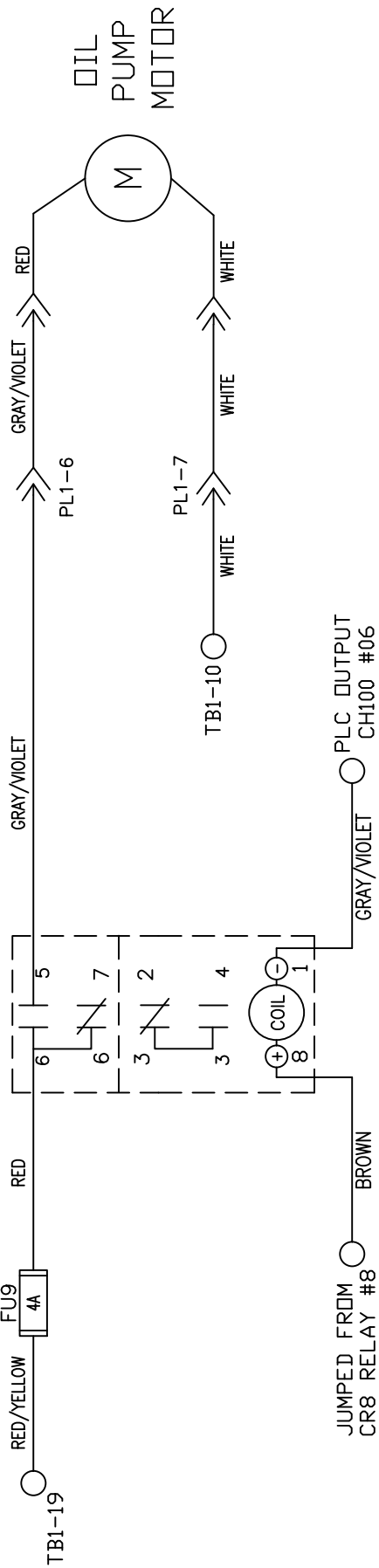
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OIL PUMP MOTOR RELAY CR7

KEGEL P/N
154-1268



MATERIAL	N/A	
DESCRIPTION	OIL PUMP MOTOR WIRING	
DRAWN BY	DATE	DO NOT SCALE DRAWING
SLS	9-20-19	SIZE
APPROVED:	REV DATE	QTY/MACHINE
TW		A
DOC		SCALE
REV		N/A
		SHEET
		8
		OF
		20

1951 LONGLEAF BLVD.
LAKE WALES, FL 33859
(888) 734-0200

17-6400

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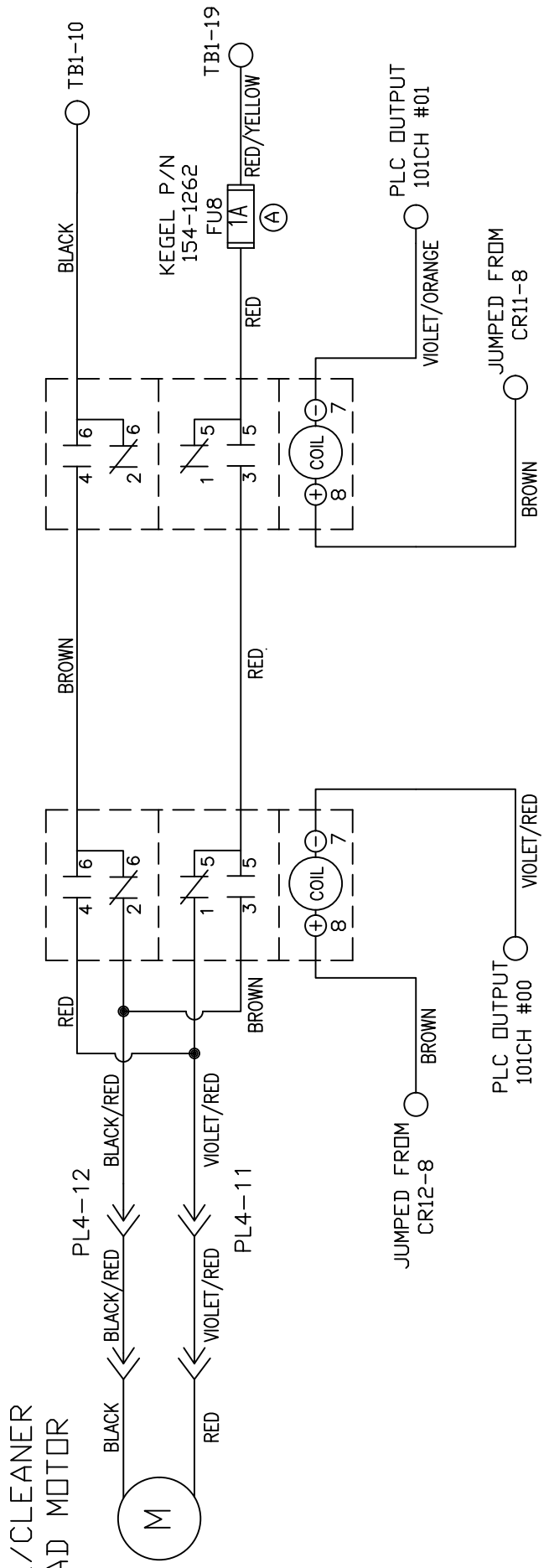
C

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OIL/CLEANER MOTOR REVERSING RELAY CR11

OIL/CLEANER HEAD MOTOR RELAY CR10



MATERIAL		KEGEL LLC		1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (863) 734-0200	
N/A		DESCRIPTION			
DRAWN BY		DATE		DO NOT SCALE DRAWING	
SLS		9-20-19		OIL-CLEANER HEAD MOTOR WIRING	
APPROVED:		REV DATE		SIZE	
TW		A		QTY/MACHINE PART NUMBER	
DOC		N/A		A	
REV		N/A		SCALE	
		N/A		17-6400	
		SHEET		9 OF 20	

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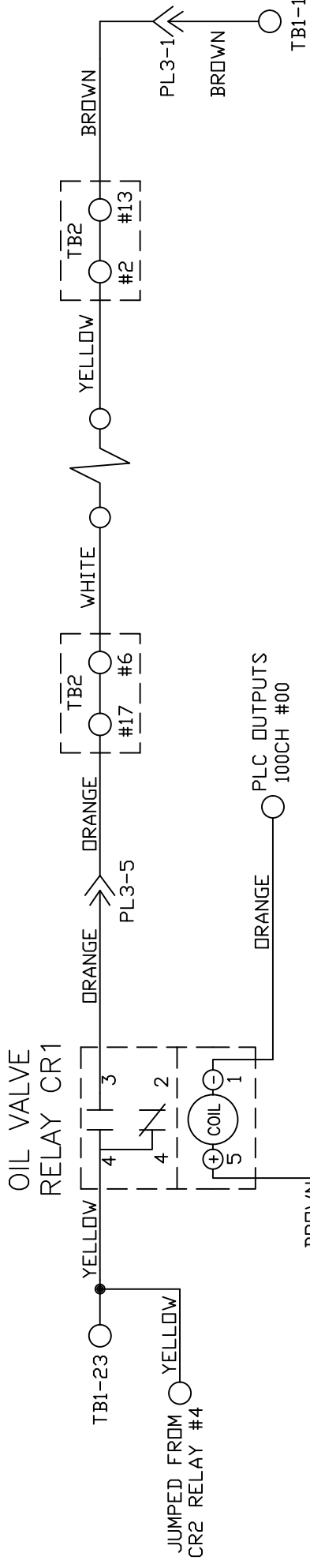
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OIL VALVE



MATERIAL		1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (863) 734-0200	
DESCRIPTION		OIL VALVE RELAY WIRING	
DRAWN BY	DATE	DO NOT SCALE DRAWING	
SLS	9-20-19	SIZE	QTY/MACHINE PART NUMBER
APPROVED:	REV DATE	A	N/A
TW		SCALE	N/A
DOC REV		SHEET	10 OF 20

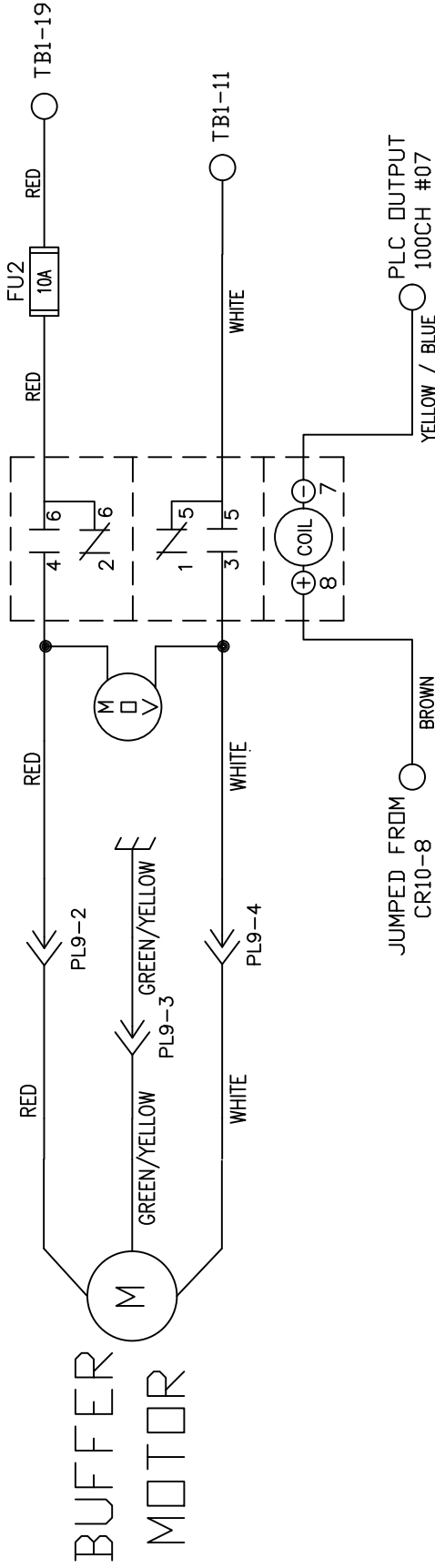
1 2 3 4

1 2 3 4

D C B A

BUFFER MOTOR RELAY CR9

KEGEL P/N
154-1273



BUFFER MOTOR

MATERIAL	N/A		
DRAWN BY	DATE	DO NOT SCALE DRAWING	
SLS	9-20-19	SIZE	QTY/MACHINE PART NUMBER
APPROVED:	REV DATE	A	N/A
TW		SCALE	N/A
DOC REV		SHEET	11 OF 20

KEGEL LLC
1951 LONGLEAF BLVD.
LAKE WALES, FL 33859
(863) 734-0200

DESCRIPTION
BUFFER MOTOR WIRING

DO NOT SCALE DRAWING

SIZE QTY/MACHINE PART NUMBER

A N/A 17-6400

SCALE N/A SHEET 11 OF 20

1

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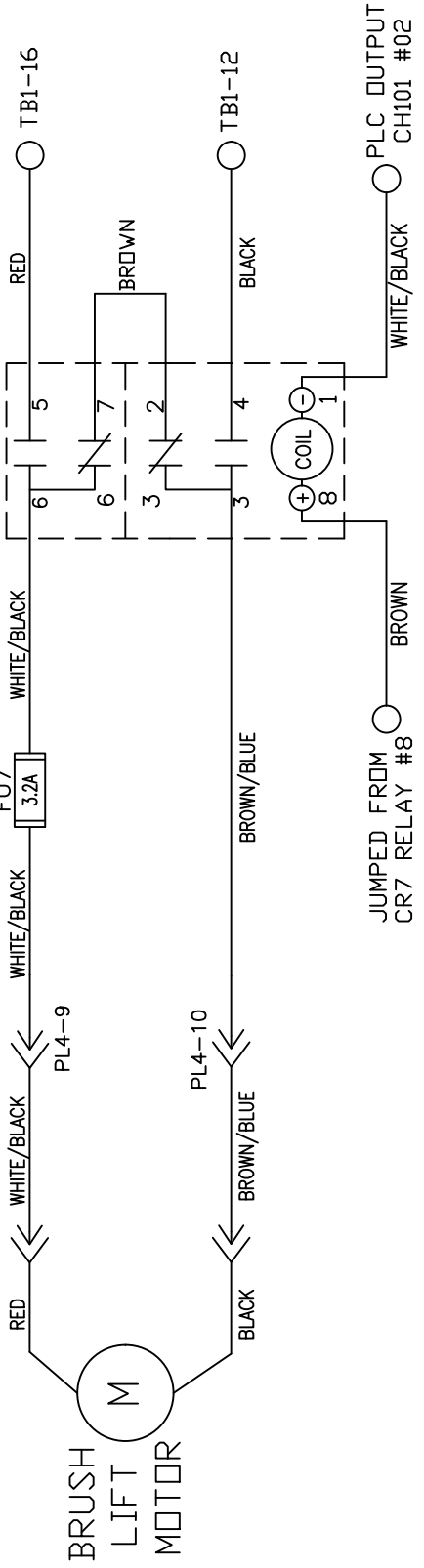
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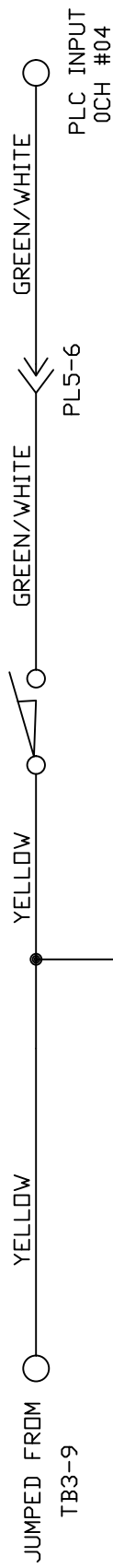
4 3 2 1

BRUSH LIFT MOTOR RELAY CR6

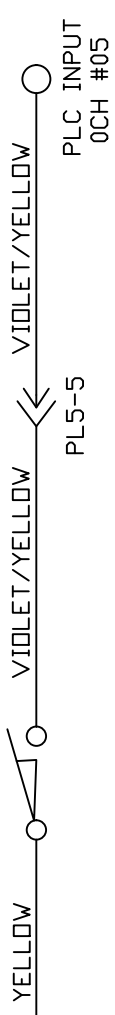
KEGEL P/N
154-1267
FU7
3.2A



BRUSH UP SWITCH



BRUSH DOWN SWITCH



MATERIAL	N/A	
DESCRIPTION	BRUSH LIFT MOTOR & SWITCH WIRING DO NOT SCALE DRAWING	
DRAWN BY	SLS	DATE 9-20-19
APPROVED:	TW	REV DATE
DOC REV	A	N/A
SCALE	N/A	17-6400
SHEET	12	OF 20

4 3 2 1

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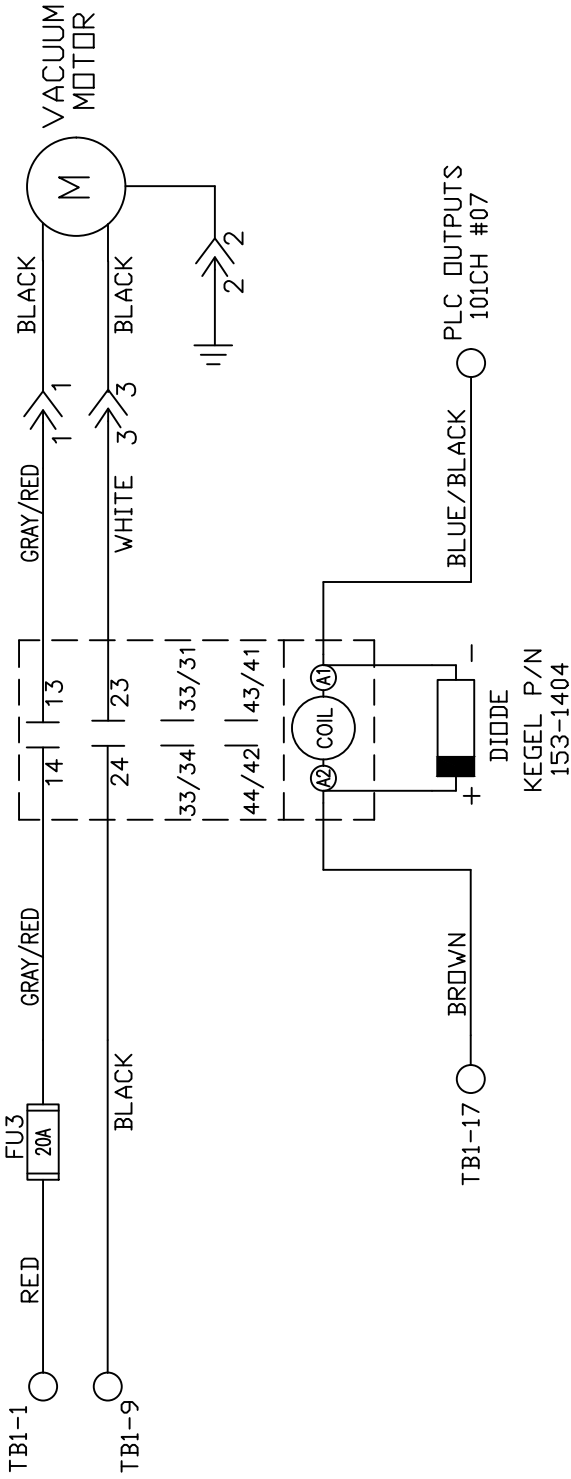
D

C

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VACUUM MOTOR
CONTACTOR CR19



MATERIAL	KEGEL LLC		1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (863) 734-0200	
	DESCRIPTION			
	VACUUM MOTOR WIRING			
DRAWN BY	DATE	DO NOT SCALE DRAWING		
SLS	9-20-19	SIZE	QTY/MACHINE	PART NUMBER
APPROVED:	REV DATE	A	N/A	17-6400
TW		SCALE	N/A	SHEET 13 OF 20
DOC REV				

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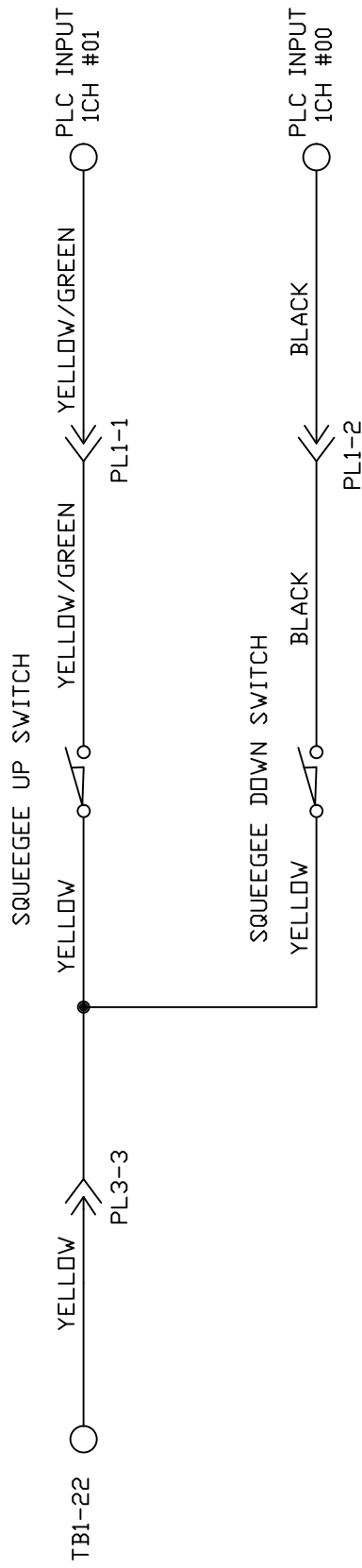
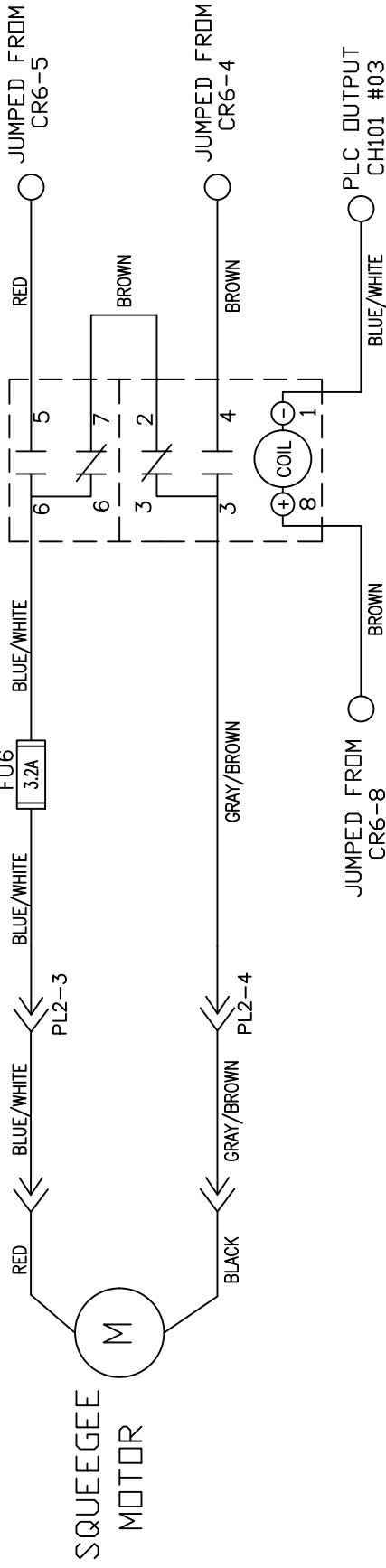
C

B

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SQUEEGEE MOTOR RELAY CR5

KEGEL P/N
154-1267



MATERIAL	N/A
DESCRIPTION	SQUEEGEE MOTOR & SWITCH WIRING DO NOT SCALE DRAWING
DRAWN BY	SLS
DATE	9-20-19
APPROVED:	TW
SIZE	A
QTY/MACHINE	N/A
PART NUMBER	17-6400
SCALE	N/A
SHEET	14
OF	20

KEGEL LLC
1951 LONGLEAF BLVD.
LAKE WALES, FL 33859
(863) 734-0200

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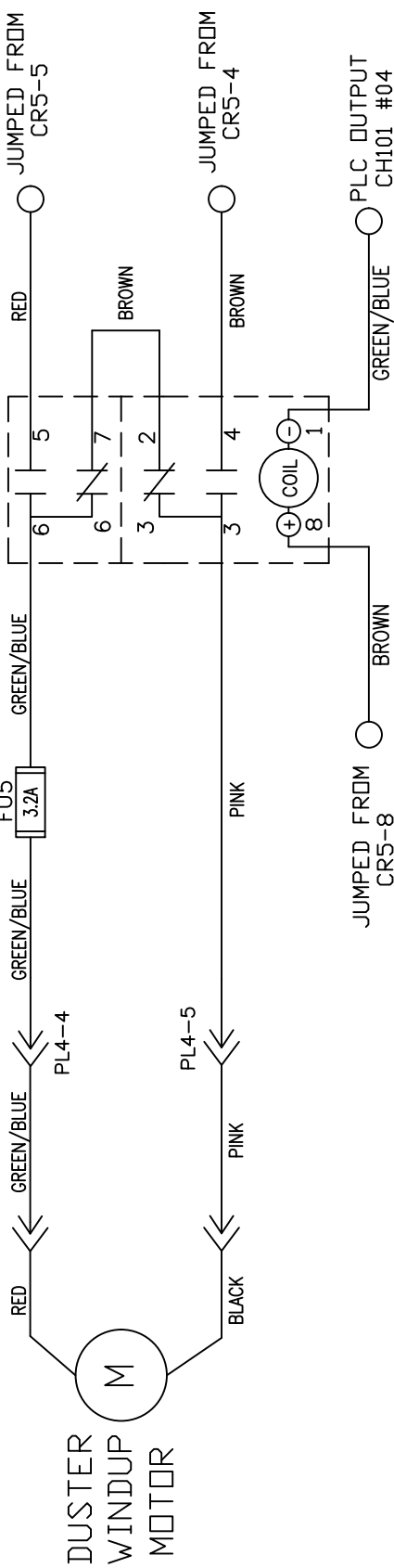
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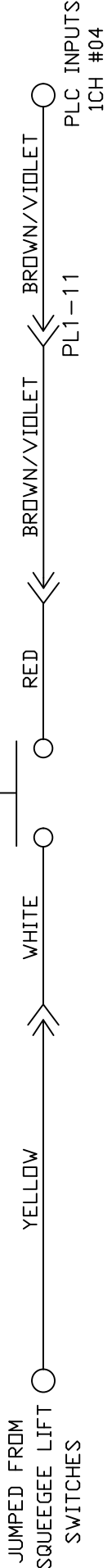
4

DUSTER UNWIND MOTOR RELAY CR4

KEGEL P/N
154-1267



DUSTER/PRESOAK BUTTON



MATERIAL N/A		KEGEL LLC 1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (863) 734-0200	
DRAWN BY SLS	DATE 9-20-19	DESCRIPTION DUSTER UNWIND MOTOR	
APPROVED: TW	REV DATE	DUSTER/PRESOAK BUTTON WIRING DO NOT SCALE DRAWING	
	SIZE A	QTY/MACHINE N/A	PART NUMBER 17-6400
DOC REV	SCALE N/A	SHEET 15	DF 20

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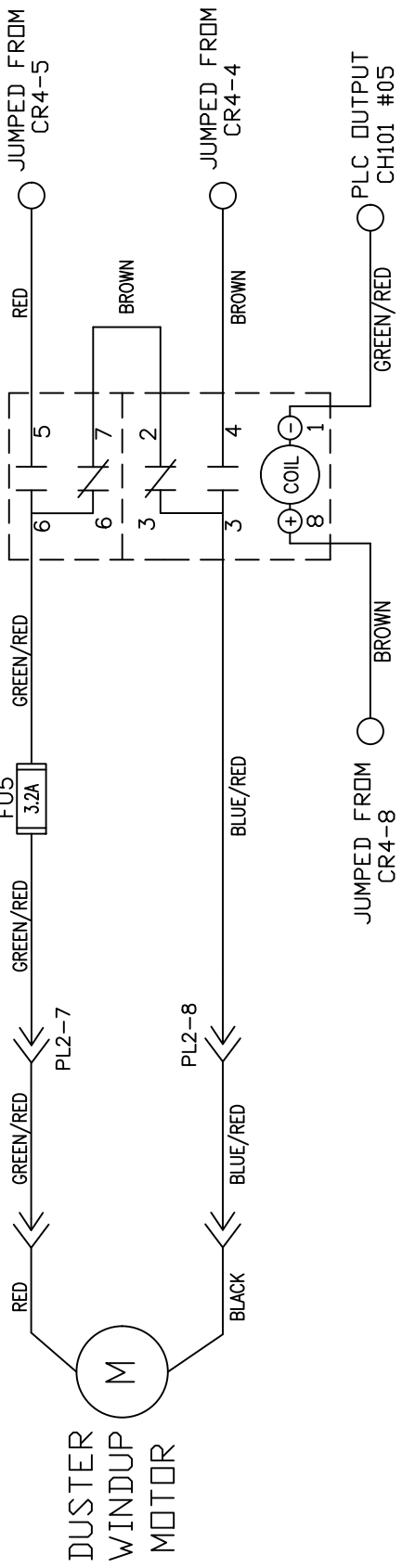
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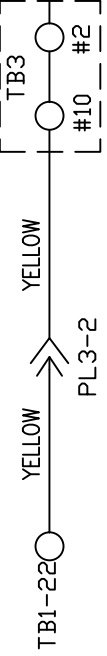
4

DUSTER WINDUP MOTOR RELAY CR3

KEGEL P/N
154-1267
FU5
3.2A



7-PIN SIDE DUSTER UP SWITCH



10-PIN SIDE DUSTER UP SWITCH



PLC INPUT
OCH #10

MATERIAL N/A		KEGEL LLC 1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (863) 734-0200	
DRAWN BY SLS	DATE 9-20-19	DESCRIPTION DUSTER WINDUP & SWITCH WIRING DO NOT SCALE DRAWING	
APPROVED: TW	REV DATE	SIZE A	QTY/MACHINE PART NUMBER N/A
DOC REV		SCALE N/A	17-6400
		SHEET 16	DF 20

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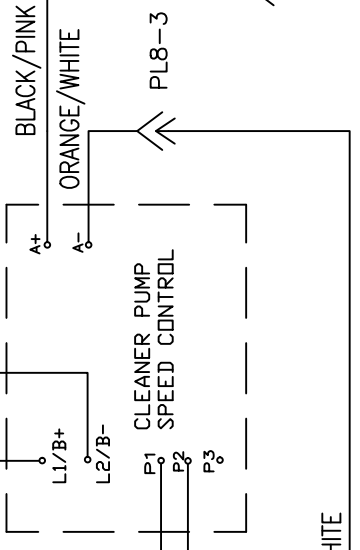
D C B A

KEGEL P/N
154-1267



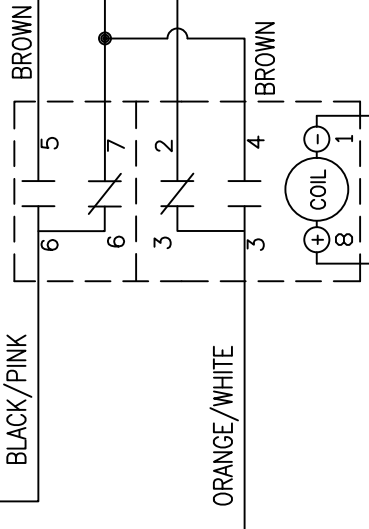
PLC DA ANALOG #14

PLC DA ANALOG #12



YELLOW
BLACK/YELLOW
ORANGE/WHITE
BLACK/PINK

CLEANER REVERSING RELAY CR8



BLUE/YELLOW
WHITE
BLACK/PINK

CLEANER PUMP MOTOR



RED
BLACK

JUMPED FROM CR9-8
BROWN
VIOLET/GREEN
PLC OUTPUTS 100CH #04

MATERIAL	N/A	
DESCRIPTION	CLEANER PUMP	
DRAWN BY	DATE	SIZE
SLS	9-20-19	QTY/MACHINE PART NUMBER
APPROVED:	REV DATE	A
TW		N/A
DOC REV	SCALE	N/A
		17-6400
		SHEET 17 OF 20

KEGEL LLC
1951 LONGLEAF BLVD.
LAKE WALES, FL 33859
(863) 734-0200

DO NOT SCALE DRAWING

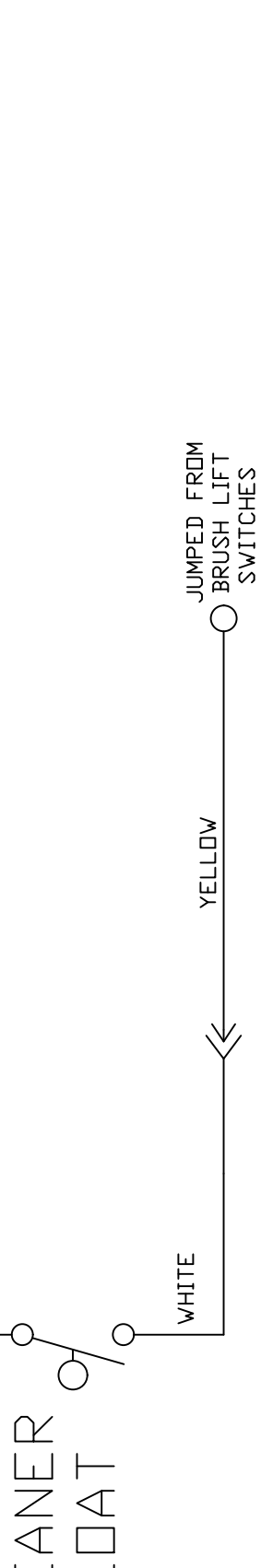
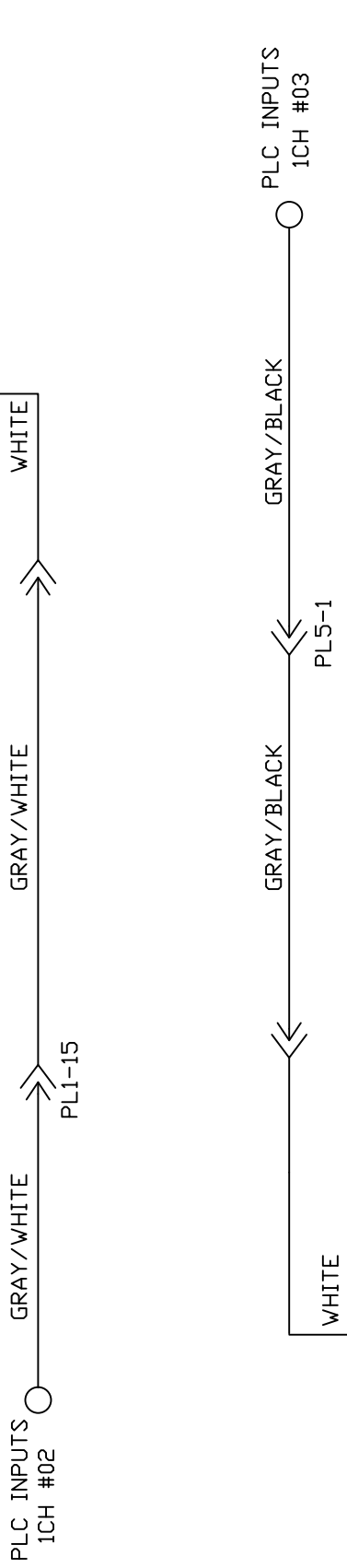
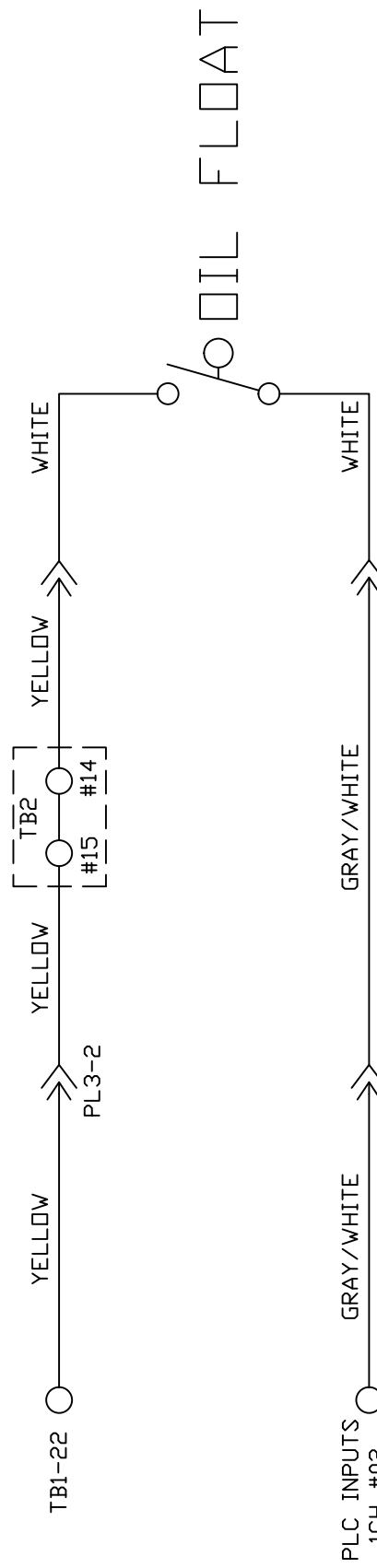
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MATERIAL N/A		KEGEL LLC 1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (863) 734-0200	
DRAWN BY SLS	DATE 9-20-19	DESCRIPTION OIL & CLEANER FLOAT WIRING DO NOT SCALE DRAWING	
APPROVED: TW	REV DATE	SIZE A	QTY/MACHINE PART NUMBER N/A
DOC REV		SCALE N/A	17-6400
		SHEET 18	OF 20

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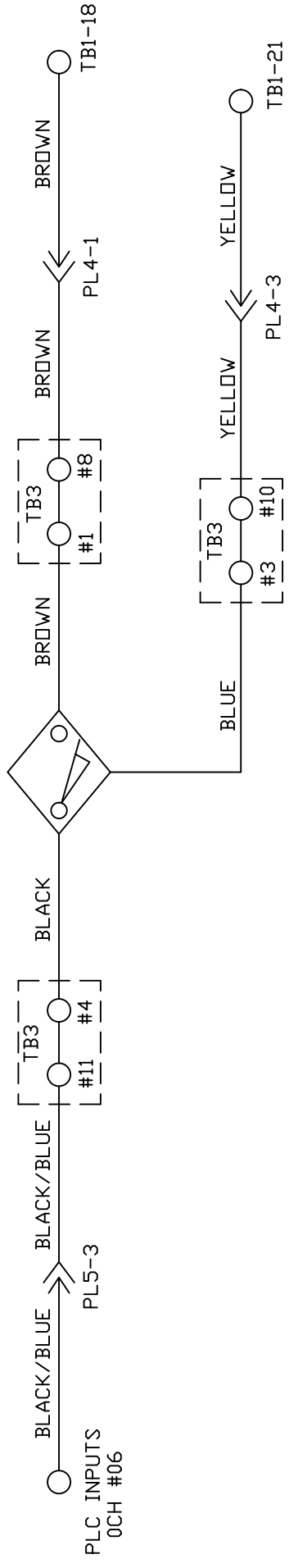
3

4

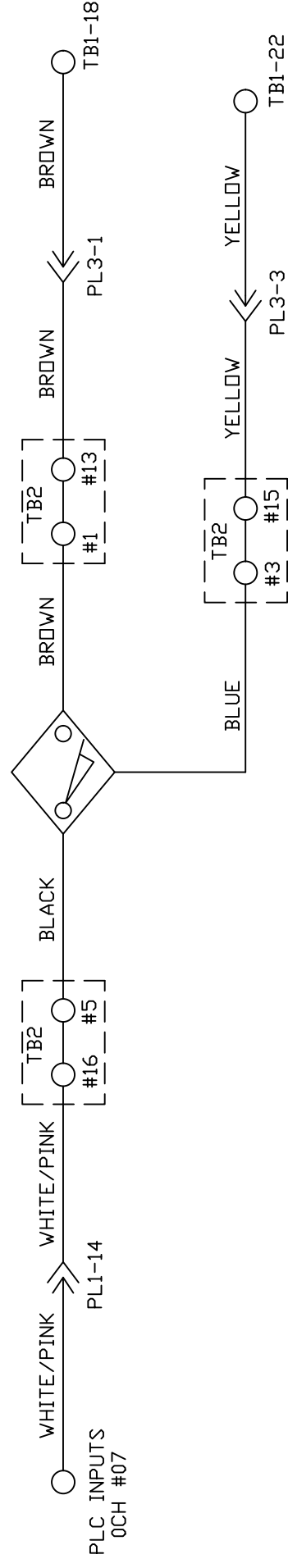
1

4 3 2 1

SPEED TACH PROX



LANE DISTANCE PROX



MATERIAL		N/A	
DRAWN BY	DATE	1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (863) 734-0200	
SLS	9-20-19	KEGEL LLC	
APPROVED:	REV DATE	DESCRIPTION	
TW		SPEED TACH &	
DOC		LANE DISTANCE WIRING	
REV		DO NOT SCALE DRAWING	
		SIZE	QTY/MACHINE PART NUMBER
		A	N/A
		SCALE	N/A
			17-6400
		SHEET	19 OF 20

4 3 2 1

1

2

3

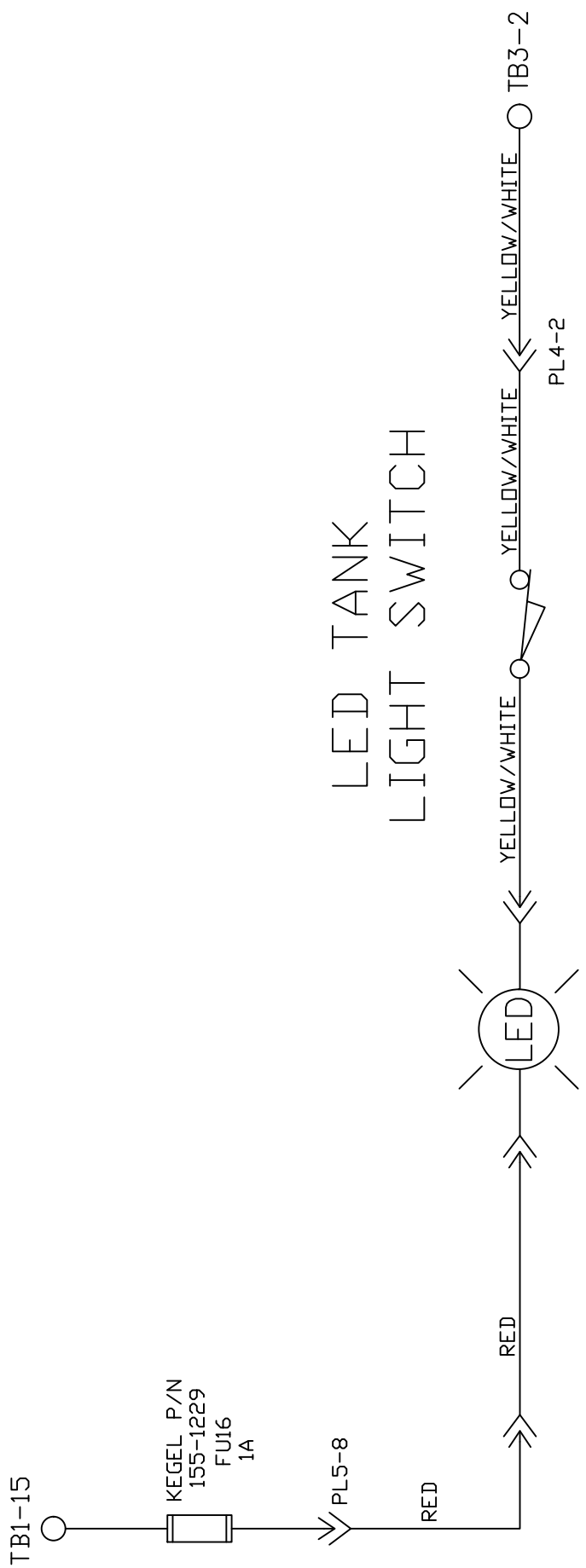
4

D

C

B

A



MATERIAL		KEGEL LLC		1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (863) 734-0200	
N/A		DESCRIPTION			
LED TANK LIGHT WIRING					
DRAWN BY	DATE	DO NOT SCALE DRAWING		SIZE	
SLS	9-20-19	QTY/MACHINE	PART NUMBER	A	N/A
APPROVED:	REV DATE	A	N/A	17-6400	
TW		SCALE	N/A	SHEET	20 OF 20
DOC REV					

1

2

3

4

D

C

B

A

