

# BATTERIES AND CHARGERS

Rev. 12/13



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

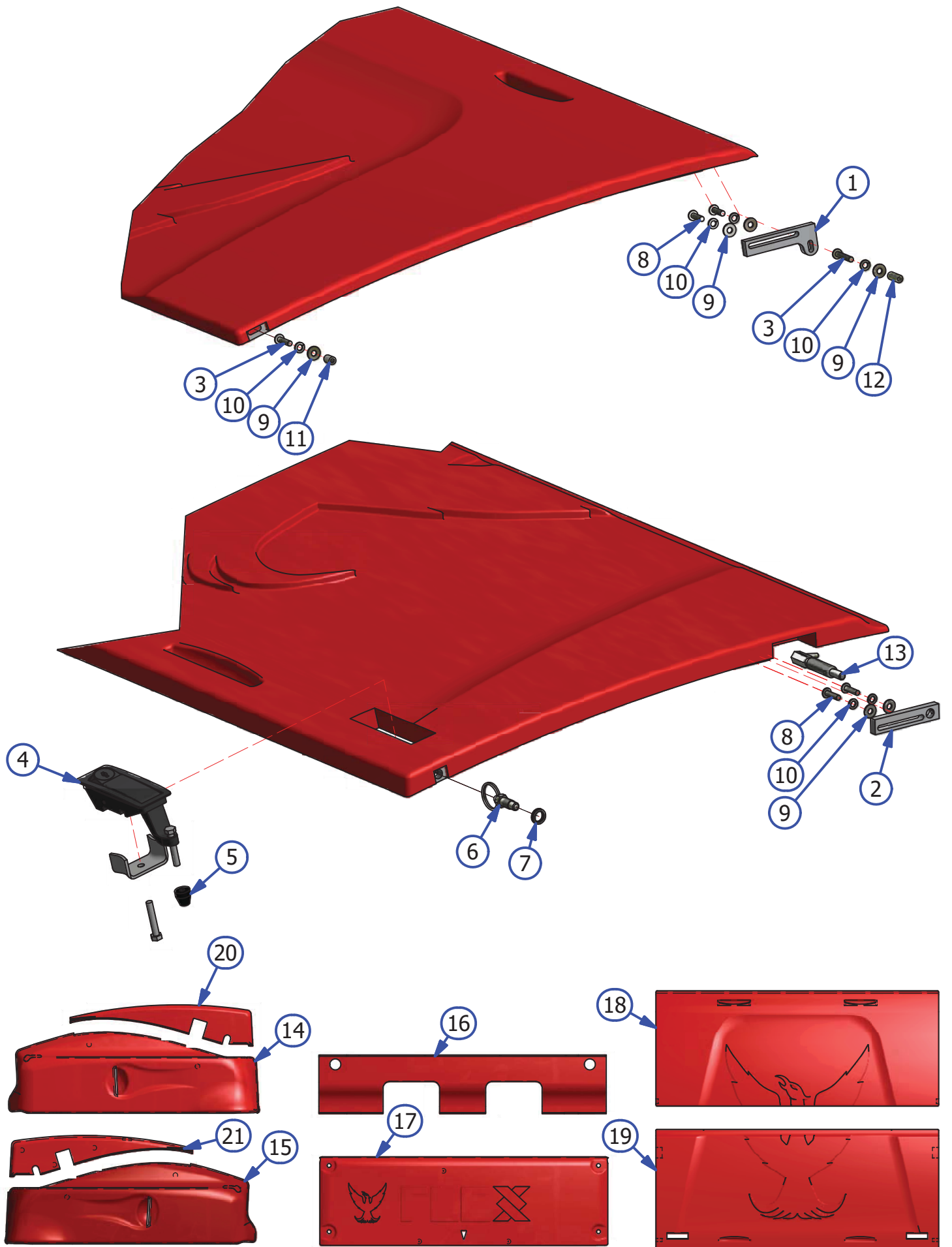
EXTERNAL BATTERY CHARGER ASSEMBLY – 230v

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

# LID AND COVER ASSEMBLY - FLEX

REV. 10/19

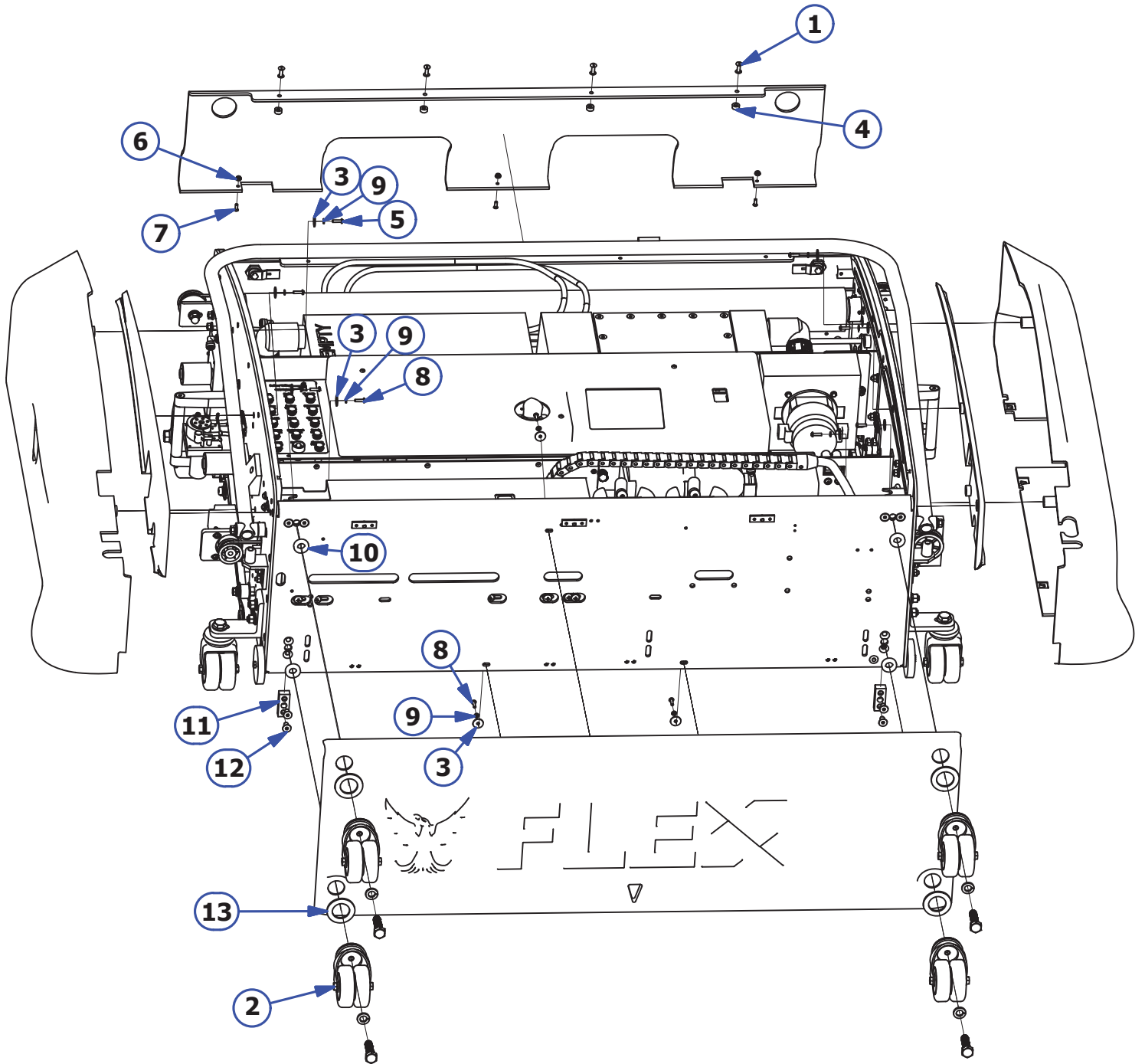
<u>NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	2	164-6262	SLIDING LID MOUNT (CLEANING LID)	EA
2	2	164-6233	SLIDING LID MOUNT (CONDITIONING LID)	EA
3	4	164-2072	SHCS 8-32 X 3/4 THREAD LOCKING PATCH	EA
4	2	153-2232L	FLUSH MOUNT LID LATCH (WITH LOCK)	EA
5	2	164-6164	LID LATCH BUMPER	EA
6	2	164-2002	DETENT - SPRING PLUNGER	EA
7	2	164-2041	SHIM FOR SCREW SHOULDER	EA
8	8	153-2086	MS PHILLIPS 8-32 X 5/8	EA
9	12	153-2002	FLAT WASHER #8	EA
10	12	153-2013	LOCK WASHER #10	EA
11	2	164-2044	STANDOFF FEMALE THREADED 8-32 X 3/8	EA
12	4	153-2027	JAM NUT 3/8-16	EA
13	2	164-2069M	SPRING PLUNGER THREADED	EA
14	1	164-8234-1525	FLEX LT SIDE GUARD - BLUE	EA
15	1	164-8235-1525	FLEX RT SIDE GUARD - BLUE	EA
16	1	164-8236A-1525	FRONT BUMPER - BLUE	EA
17	1	164-8049-1525	FLEX BACK PANEL - BLUE	EA
18	1	164-8230-1525	SLIDING CLEANER COMPARTMENT LID - BLUE	EA
19	1	164-8231-1525	SLIDING LID ASSEMBLY - BLUE	EA
20	1	164-6733-1525	LEFT SIDE GUARD FLEX UPPER - BLUE	EA
21	1	164-6732-1525	RIGHT SIDE GUARD FLEX UPPER - BLUE	EA



# PANEL EXPLOSION - FLEX

REV. 9/17

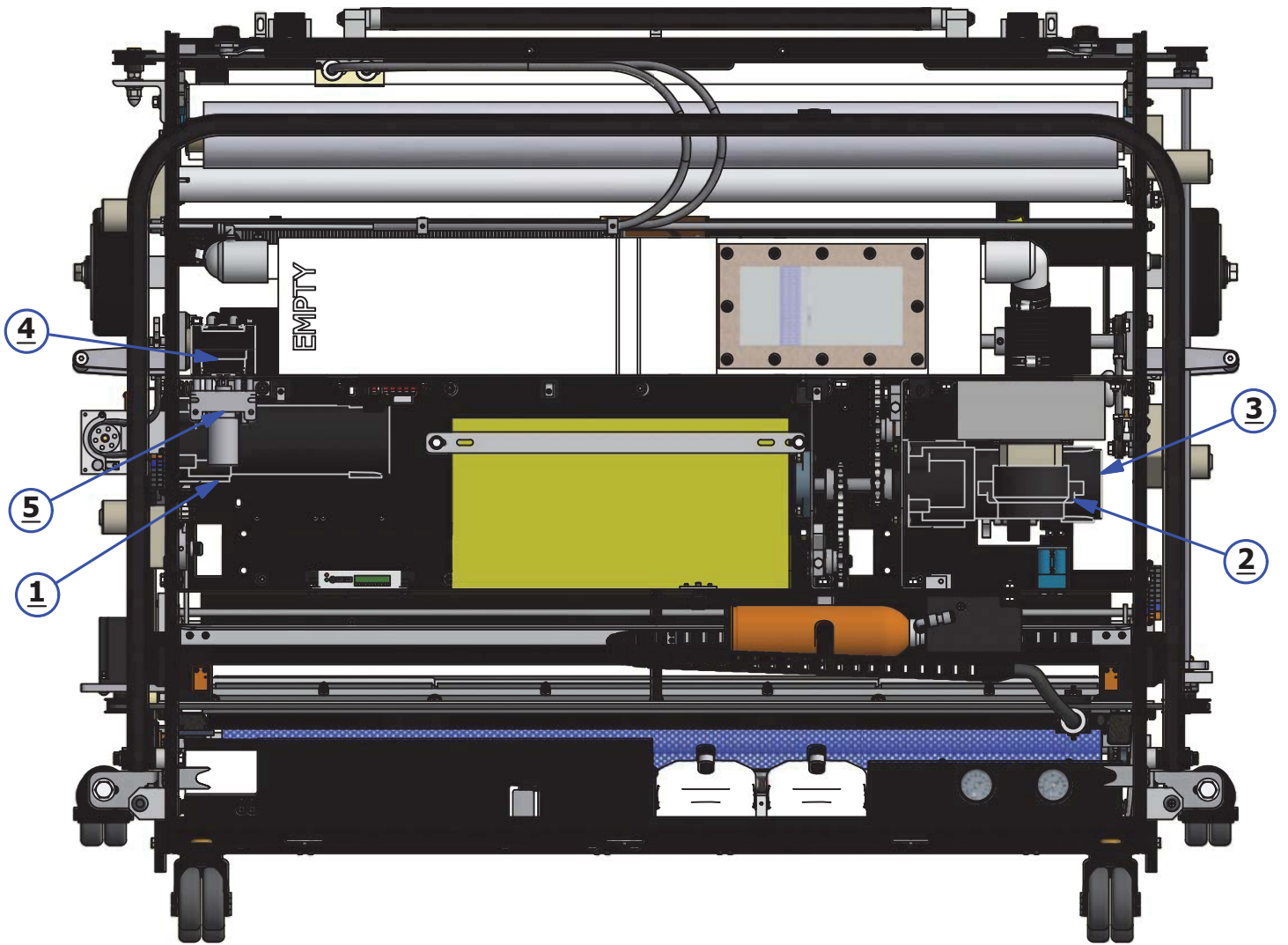
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	4	164-2066	BINDING POST	EA
2	4	164-8814	TRANSPORT CASTER ASSEMBLY - COMPLETE	EA
	4	153-0001BK	TRANSPORT CASTER - CASTER ONLY	EA
	4	153-2017	1/2 LOCKWASHER	EA
	4	164-2039	HHCS 1/2-13 X 1 3/4 GRADE 5	EA
3	11	153-2953	FENDER WASHER - #8	EA
4	4	164-2038	RUBBER BUMPER SBR	EA
5	4	153-2087	MS PHILLIPS - 8-32 X 3/4	EA
6	3	164-2051	THIN HEX LOCKNUT - 8-32	EA
7	3	153-2817	FHMS-8-32 X 1/2	EA
8	7	153-2086	MS PHILLIPS - 8-32 X 5/8	EA
9	11	153-2013	#10 LOCKWASHER	EA
10	4	164-2084	WASHER - OVERSIZED 1/2"	EA
11	4	164-6252	TRANSPORT CASTER MOUNT	EA
12	8	153-2802	FHSS - 5/16-18 X 5/8"	EA
13	4	164-2080	FELT WASHER (BLACK)	EA



# TOP VIEW - FLEX

REV. 10/19

<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
<b>1</b>	1	164-8414	BUFFER MOTOR - 24VDC - 500RPM - STANDARD	EA
	1	164-1254	BUFFER MOTOR BRUSHES (PAIR)	PR
	1	164-9016	BUFFER BELT STANDARD	EA
	1	158-9401	PULLEY (14 TOOTH 1/2" BORE)	EA
	2	164-1256	BRUSH CAP	EA
	2	164-1257	BRUSH SPRING	EA
	<b>1</b>	1	164-8014A	BUFFER MOTOR - 24VDC - 700RPM - VARIABLE BUFFER
1		164-1246	BUFFER MOTOR BRUSHES (PAIR)	PR
1		164-9017	BUFFER MOTOR BELT VARIABLE	EA
1		164-9014A	BUFFER MOTOR PULLEY ASSEMBLY	EA
1		164-1256	BRUSH CAP	EA
1		164-1257	BRUSH SPRING	EA
<b>2</b>		1	164-8602A	MAIN DRIVE MOTOR 24V
	1	164-1246	DRIVE MOTOR BRUSHES (PAIR)	PR
	1	154-9601	CHAIN (FOR 153-9002 SPROCKET)	EA
	1	153-9047	MASTER LINK #40	EA
	1	153-9048	OFFSET LINK #40	EA
	1	153-9002	SPROCKET - 40B13 (5/8 IN)	EA
	1	164-1256	BRUSH CAP	EA
	1	164-1257	BRUSH SPRING	EA
	<b>3</b>	1	158-8407	VACUUM MOTOR - 24VDC
1		158-8404D	CLEANER PUMP ASSEMBLY	EA
<b>4</b>	1	154-0861B	NORPRENE TUBING FOR CLEANER PUMP ASSEMBLY	EA
	1	158-8404	CLEANER PUMP MOTOR - 24VDC	EA

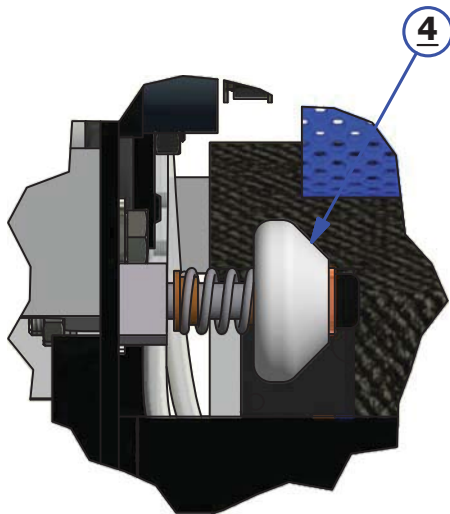
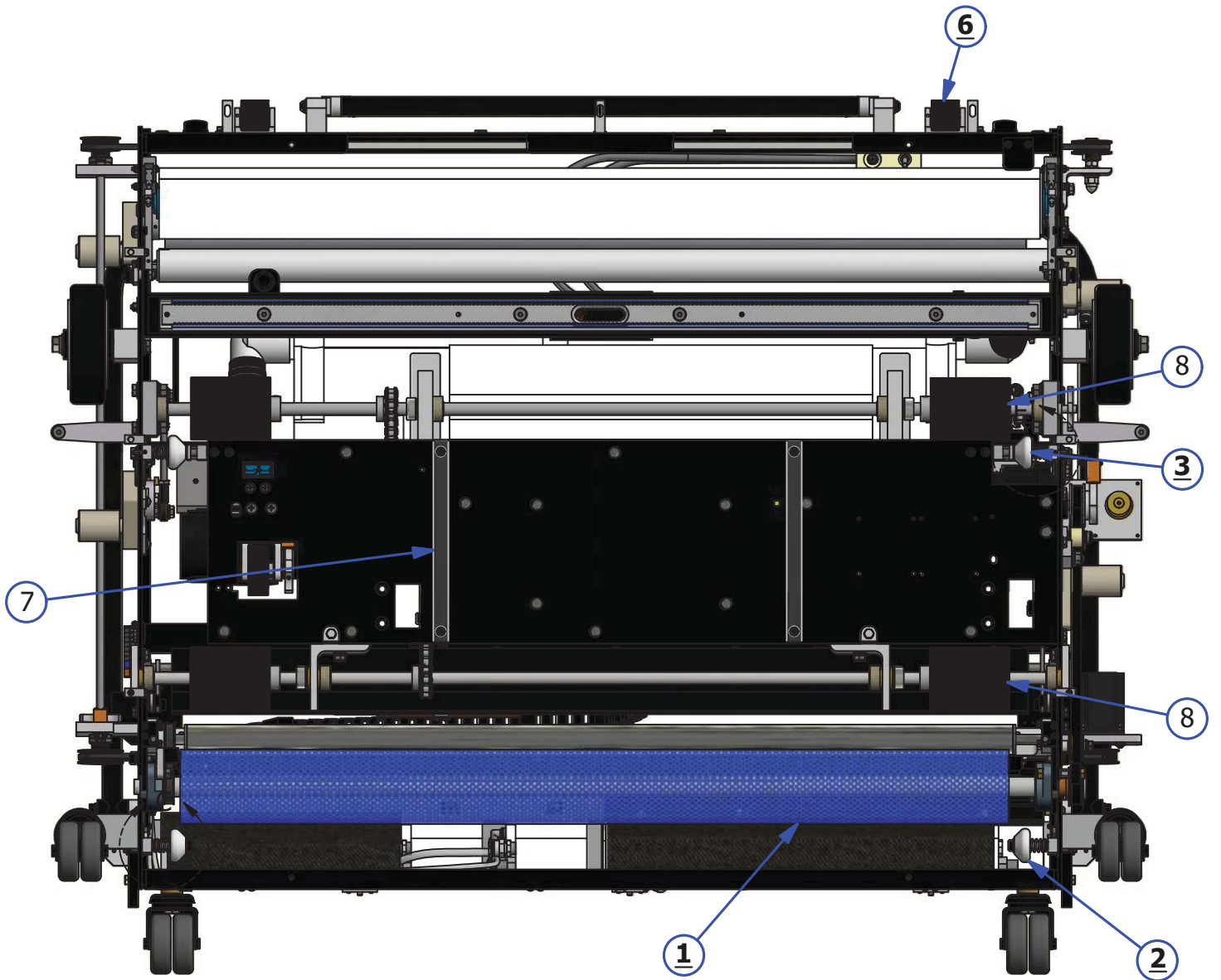


# BOTTOM - FLEX

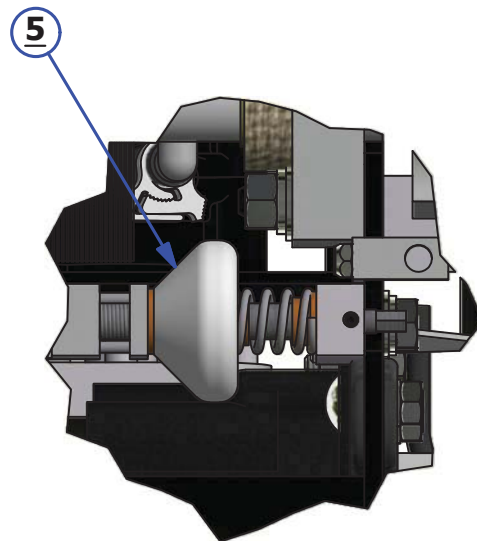
REV. 2/20

<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	164-9016	BUFFER BELT ASSEMBLY - NON-VARIABLE	EA
	1	164-9017	BUFFER BELT ASSEMBLY - VARIABLE BUFF	EA
2	2	158-8642	REAR GUIDE WHEEL ASSEMBLY - COMPLETE <i>THE BELOW ATTACHED PARTS ARE NOT SHOWN</i>	EA
	2	153-2407	SHOULDER BOLT 3/8 X 1 3/4	EA
	2	153-2978	SPRING - COMPRESSION FOR GUIDE WHEEL	EA
	2	158-8636	GUIDE WHEEL ASSEMBLY - REAR	EA
3	2	158-8643	FRONT GUIDE WHEEL ASSEMBLY - COMPLETE <i>THE BELOW ATTACHED PARTS ARE NOT SHOWN</i>	EA
	2	153-9803	FLANGED BUSHING - 3/8 X 1/2 X 3/4	EA
	2	153-2978	SPRING - COMPRESSION FOR GUIDE WHEEL	EA
	2	158-8637	GUIDE WHEEL ASSEMBLY - FRONT	EA
4	2	158-8636	GUIDE WHEEL ASSEMBLY - REAR (WHEEL ONLY)	EA
5	2	158-8637	GUIDE WHEEL ASSEMBLY - FRONT (WHEEL ONLY)	EA
6	2	153-7005R	MOMENTARY WHEEL ASSEMBLY (WHEEL ONLY)	EA
	2	153-6006	MOMENTARY WHEEL SHAFT	EA
	2	153-6029	MOMENTARY WHEEL HOUSING ASSEMBLY	EA
7		153-9803	SKID GUIDE	EA
8	4	153-7013	DRIVE WHEEL ASSEMBLY	EA





DETAIL A

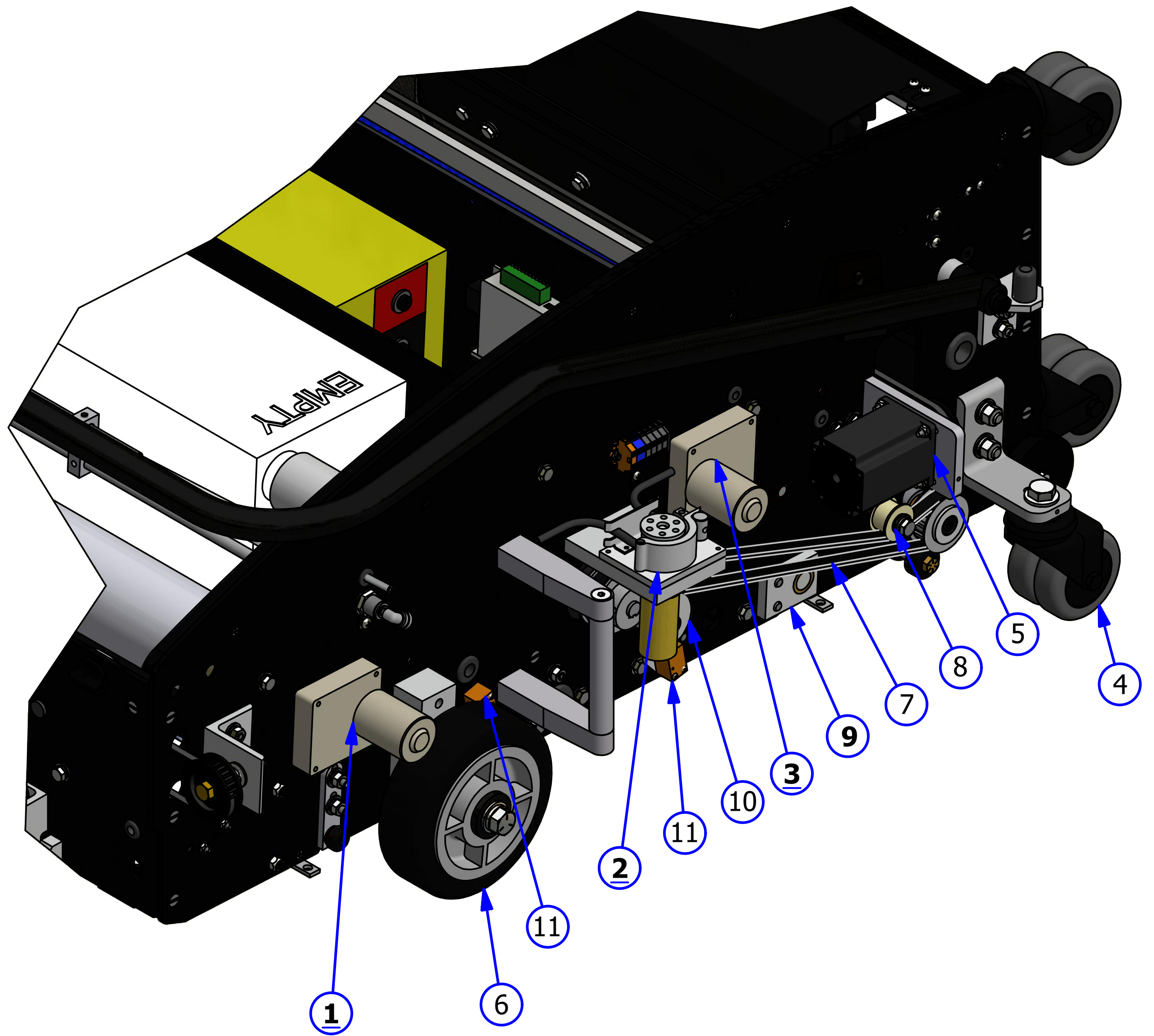


DETAIL B

# LEFT SIDE - FLEX

10/18

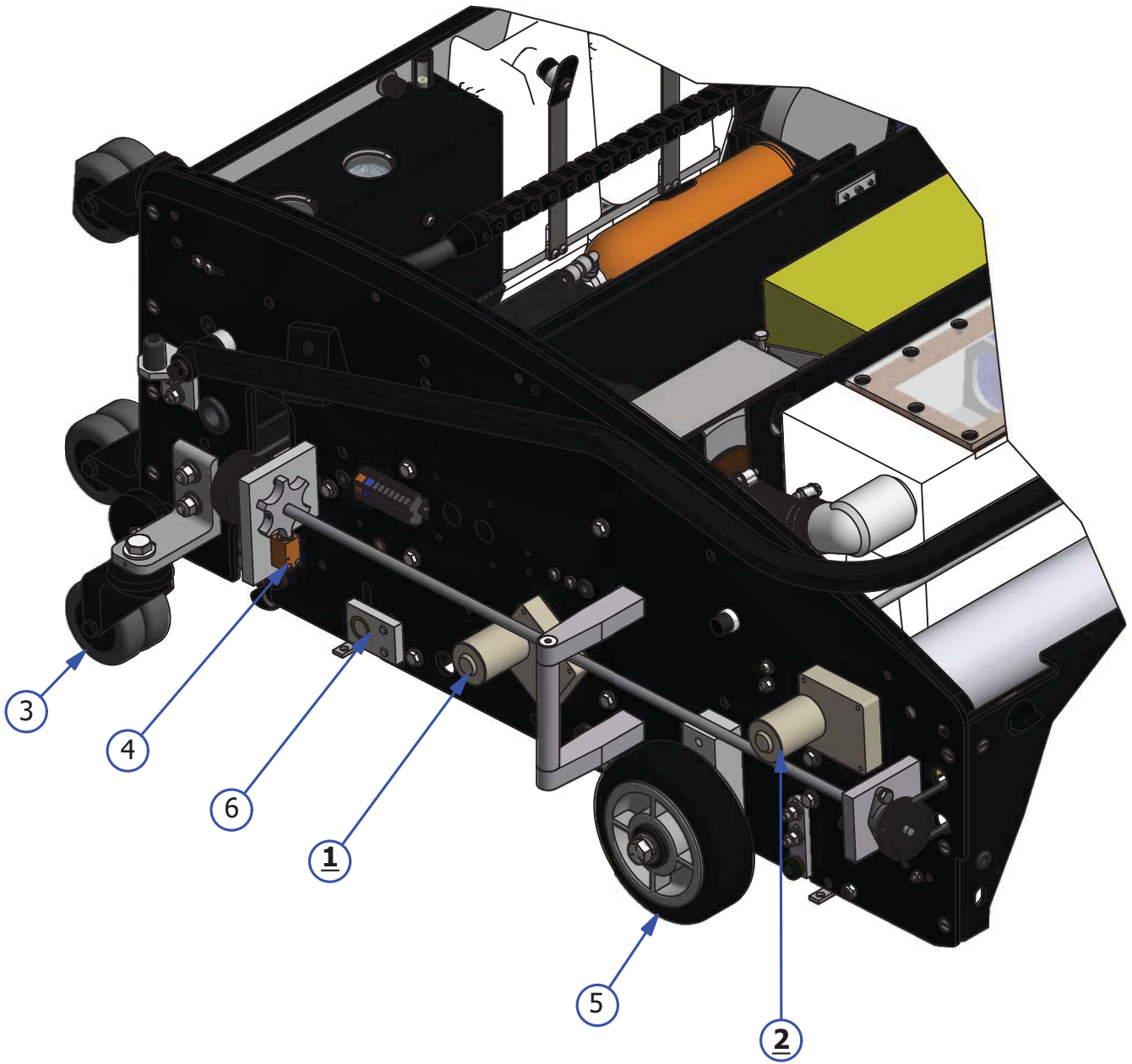
<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	2	158-8403	ASSEMBLY - DUSTER MOTOR 24VDC	EA
2	1	164-8027	CLEANER PUMP ASSEMBLY - CONCENTRATE (UPGRADE ONLY)	EA
		164-8025	CLEANER TUBING #14 FOR SUPER CONCENTRATE	EA
		164-8026	CLEANER TUBING #16 FOR REG CONCENTRATE	EA
3	1	158-8402	BUFFER LOWERING MOTOR	EA
4	2	164-0022	CASTER ASSEMBLY (3 INCH DUAL WHEEL)- BLACK	EA
5	1	164-8032	HEAD DRIVE MOTOR ASSEMBLY	EA
6	2	158-7002	6" WHEEL ASSEMBLY	EA
7	1	164-9016	BUFFER BELT ASSEMBLY - STANDARD	EA
	1	164-9017	BUFFER BELT ASSEMBLY - VARIABLE BUFF UPGRADE	EA
8	1	153-8039	BUFFER IDLER PULLEY	EA
9	2	154-8216	DRIVE MOTOR BEARING BLOCK	EA
10	1	164-8214	BUFFER IDLER PULLEY ASSY. (NO CAM)	EA
11	2	154-1220	PROXIMITY SENSOR	EA



# RIGHT SIDE - FLEX

REV. 9/17

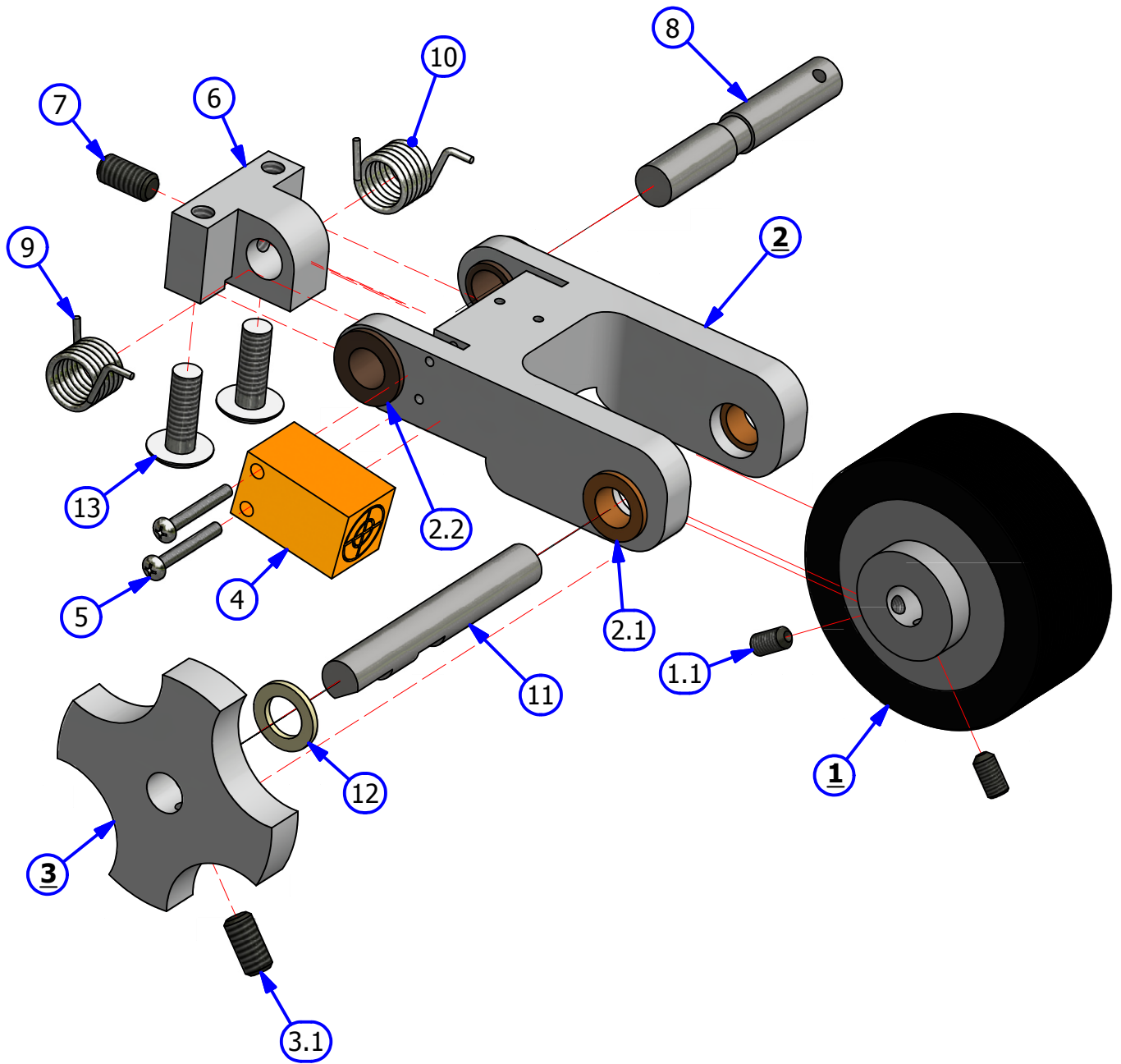
<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	2	158-8402	SQUEEGEE / BRUSH LIFT MOTOR - 24VDC	EA
2	2	158-8403	DUSTER MOTOR ASSEMBLY - 24VDC	EA
3	2	164-0022	CASTER ASSEMBLY (3 INCH DUAL WHEEL)- BLACK	EA
4	1	154-1220	PROXIMITY SENSOR	EA
5	2	153-7002	6" WHEEL ASSEMBLY	EA
6	2	164-8216	REAR DRIVE SHAFT BLOCK	EA



# LDS ASSEMBLY - FLEX

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	164-7001A	LDS WHEEL ASSEMBLY	
1.1	2	153-2201	SET SCREW - 10-32 X 3/8	EA
2	1	164-8052	LDS ARM ASSEMBLY	EA
2.1	2	153-9803	FLANGED BUSHING (3/8 X 1/2 X 1/4)	EA
2.2	2	153-9402	FLANGED BUSHING (3/8 x 1/2 x 1/2)	EA
3	1	164-6131A	FLEX LDS DISK	EA
3.1	1	153-2051	SET SCREW - 1/4-20 X 1/2	EA
4	1	154-1220	INDUCTIVE PROXIMITY SENSOR (TL-Q5MC1)	EA
5	2	153-2216A	MS PHILLIPS - 4-40 X 7/8	EA
6	1	164-6128	LDS ARM MOUNT	EA
7	1	153-2051	SET SCREW - 1/4-20 X 1/2	EA
8	1	164-6129	LDS ARM SHAFT	EA
9	1	153-2944	TORSION SPRING - RH	EA
10	1	153-2945	TORSION SPRING - LH	EA
11	1	164-6130	LDS WHEEL SHAFT	EA
12	1	153-2009	NYLON FLAT WASHER (3/8 - 0.060)	EA
13	2	153-2052A	MS PHILLIPS - 1/4-20 X 3/4 TRUSS HEAD	EA

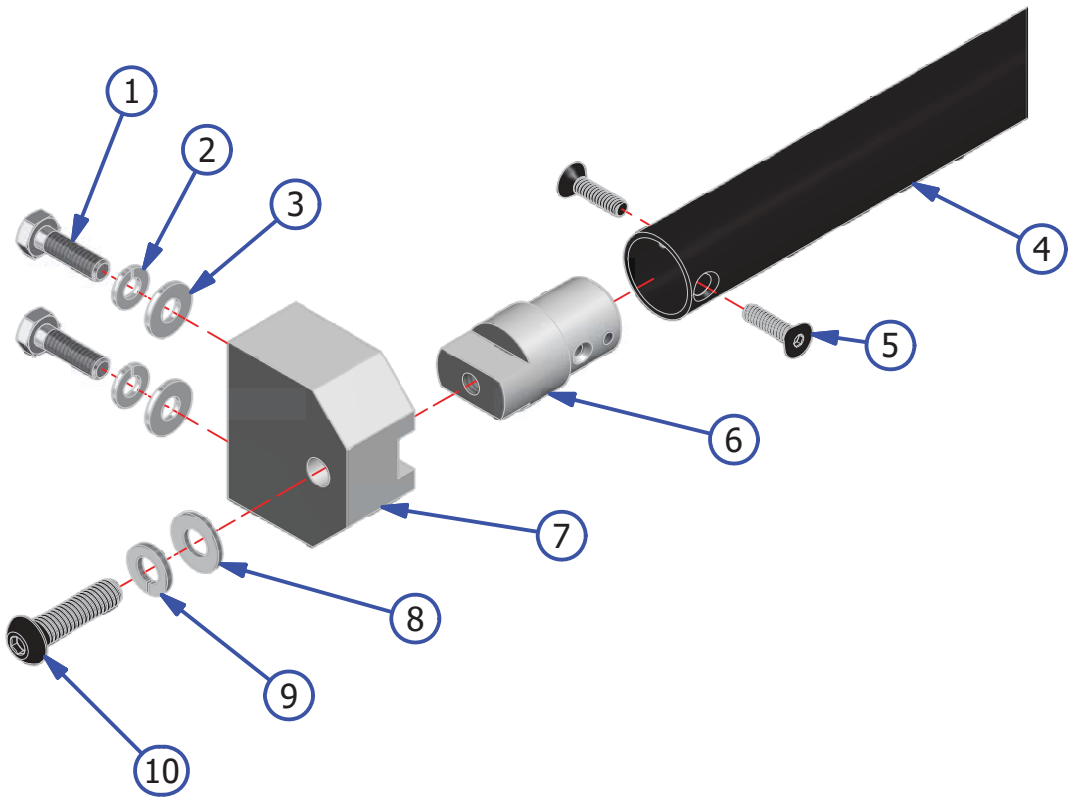


# FRONT HANDLE ASSEMBLY - FLEX

REV. 3/16

<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	4	153-2052	HHCS - 1/4-20 X 7/8	EA
2	4	153-2014	1/4 LOCKWASHER	EA
3	4	153-2004	1/4 FLATWASHER	EA
4	1	164-8073F	FRONT HANDLE - COMPLETE ASSY	EA
5	4	153-2996	SCREW - FHCS 10-24 X 3/4 BLACK OXIDE	EA
6	2	164-6072	FRONT HANDLE PLUG	EA
7	2	164-6087	FRONT HANDLE BRACKET	EA
8	2	153-2005	5/16 FLATWASHER	EA
9	2	153-2015	5/16 LOCKWASHER	EA
10	2	164-2045	BHSCS 5/16-18 X 1-1/4	EA

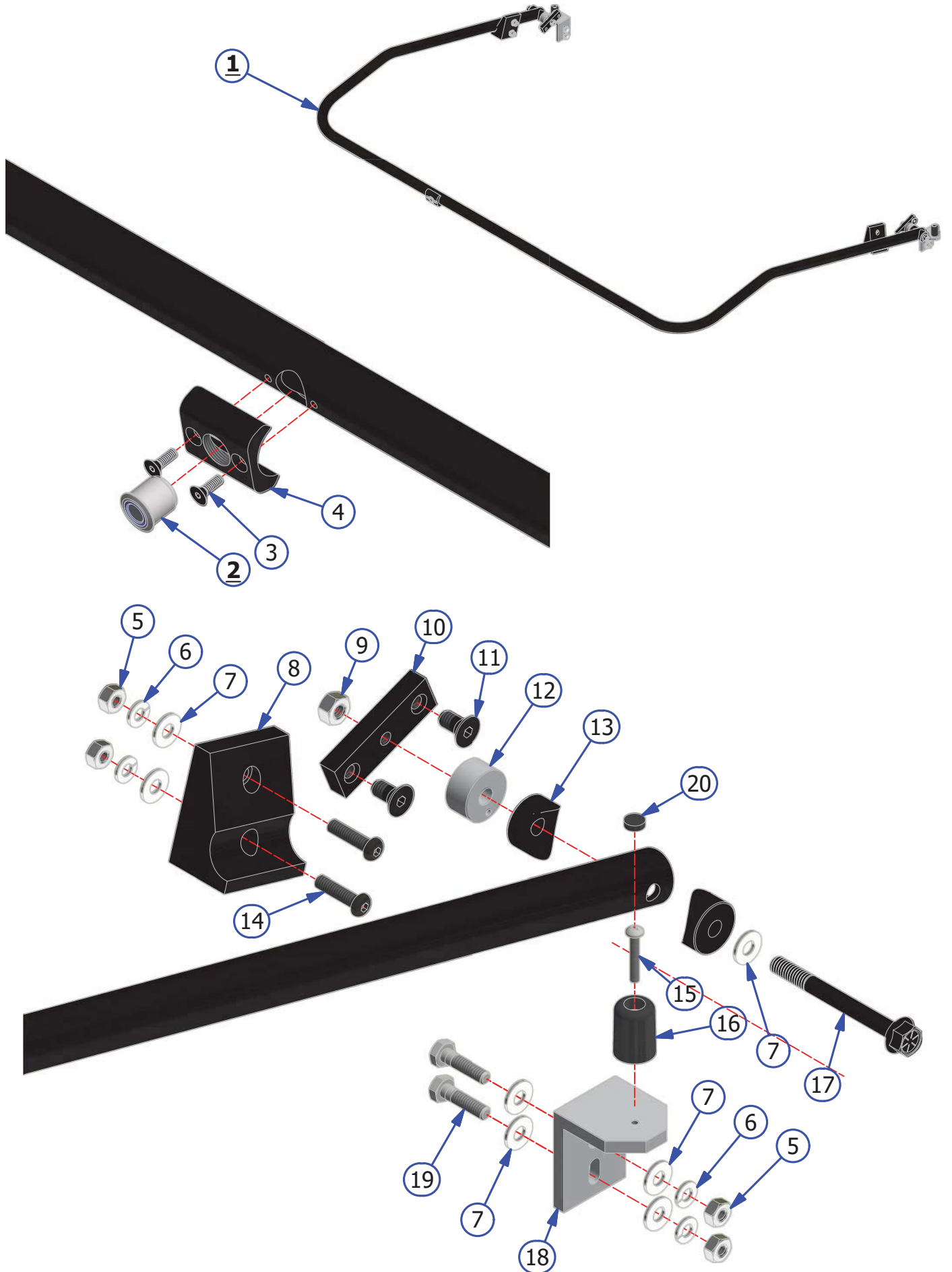




# HANDLE ASSEMBLY - FLEX

REV. 9/17

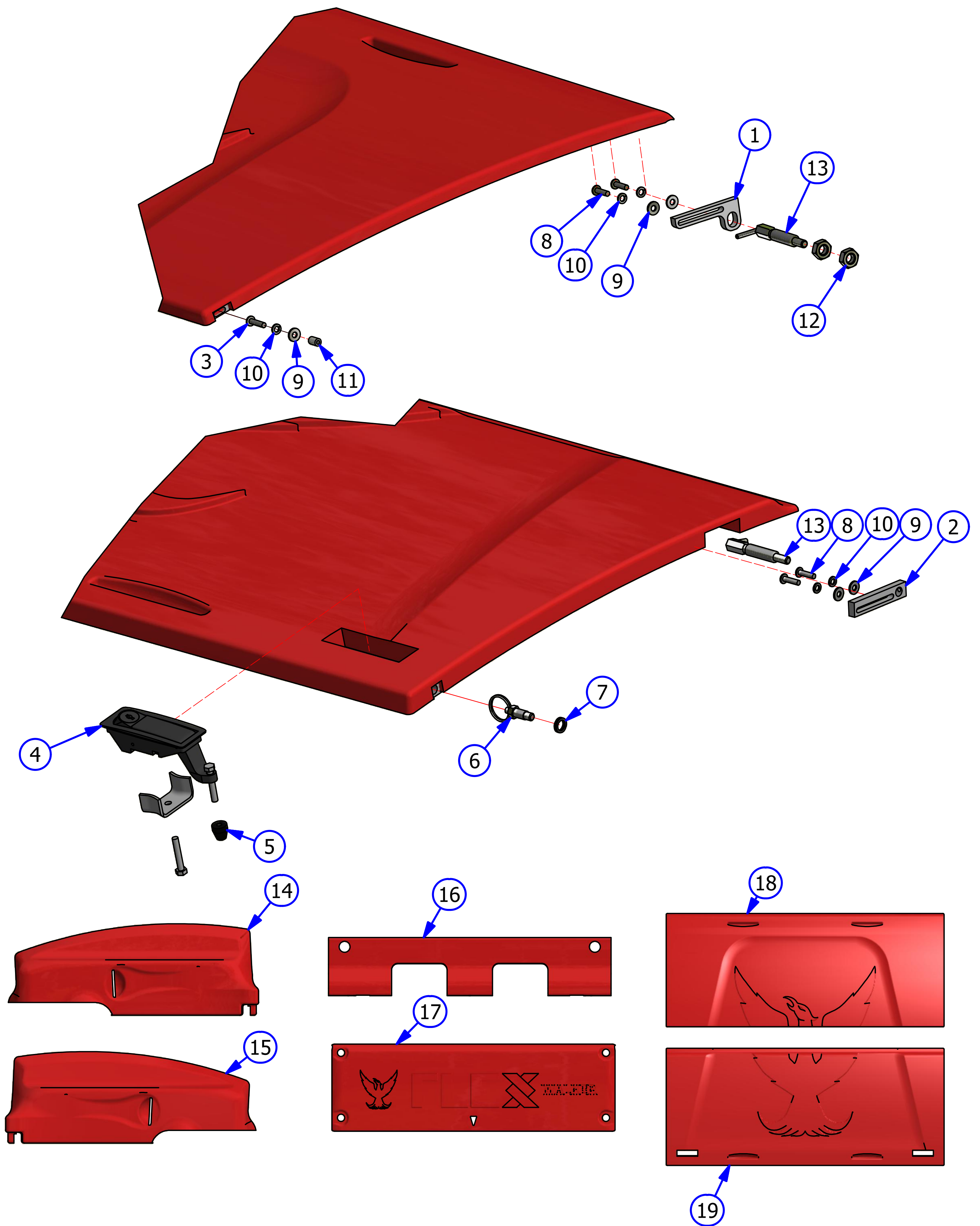
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8012	HANDLE ASSEMBLY (COMPLETE)	EA
2	1	164-8013	HANDLE BUTTON REPLACEMENT ASSEMBLY (W/WIRES)	EA
3	2	158-2003	SCREW 8-32 X 1/2 FHCS BLK OXIDE	EA
4	1	164-6083	BUTTON COLLAR	EA
5	8	153-2023	1/4-20 HEX NUT	EA
6	8	153-2014	1/4 LOCKWASHER	EA
7	14	153-2004	1/4 FLATWASHER	EA
8	2	164-6057	HANDLE CATCH	EA
9	2	153-2116	NYLOCK - 5/16-18	EA
10	2	164-6084	FLEX HANDLE MOUNT	EA
11	4	153-2802	FHSS - 5/16-18 X 5/8	EA
12	2	164-6058	FLEX HANDLE SPACER	EA
13	4	164-2001	UNTHREADED CURVED SPACER BLACK	EA
14	4	153-2053A	BHSS - 1/4-20 X 1	EA
15	2	153-2089	MS PHILLIPS - 8-32 X 1	EA
16	2	164-8213	RUBBER BUMPER-3/4 DIA X 1 HIGH	EA
17	2	164-2028	HHSCS 5/16-18 X 3 PARTIAL THREAD	EA
18	2	164-6081	FLEX HANDLE BUMPER MT	EA
19	4	153-2053	HHCS - 1/4-20 X 1	EA
20	2	164-6946	POLYURETHANE BUMPER PLUG	EA



# LID AND COVER ASSEMBLY - FLEX WALKER

REV. 10/19

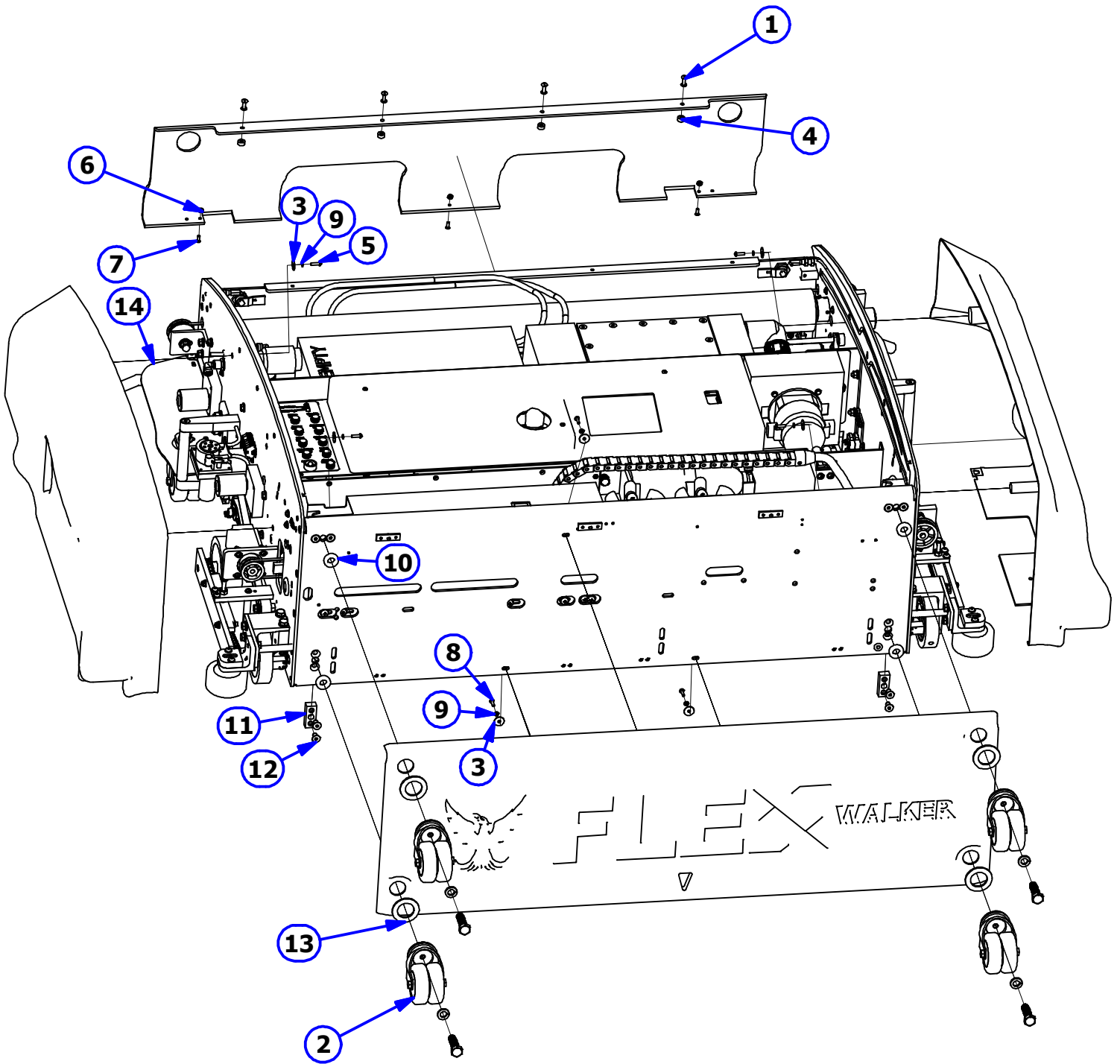
<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	2	164-6262	SLIDING LID MOUNT (CLEANING LID)	EA
2	2	164-6233	SLIDING LID MOUNT (CONDITIONING LID)	EA
3	4	164-2072	SHCS 8-32 X 3/4 THREAD LOCKING PATCH	EA
4	2	153-2232L	FLUSH MOUNT LID LATCH (WITH LOCK)	EA
5	2	164-6164	LID LATCH BUMPER	EA
6	2	164-2002	DETENT - SPRING PLUNGER	EA
7	2	164-2041	SHIM FOR SCREW SHOULDER	EA
8	8	153-2086	MS PHILLIPS 8-32 X 5/8	EA
9	12	153-2002	FLAT WASHER #8	EA
10	12	153-2013	LOCK WASHER #10	EA
11	2	164-2044	STANDOFF FEMALE THREADED 8-32 X 3/8	EA
12	4	153-2027	JAM NUT 3/8-16	EA
13	2	164-2069M	SPRING PLUNGER THREADED	EA
14	1	164-8232-2850	FLEX WALKER LT SIDE GUARD - BLACK	EA
15	1	164-8233-2850	FLEX WALKER RT SIDE GUARD - BLACK	EA
16	1	164-8236A-2850	FRONT BUMPER - BLACK	EA
17	1	164-8049-2850	FLEX BACK PANEL - BLACK	EA
18	1	164-8231-2850	SLIDING CLEANER COMPARTMENT LID - BLACK	EA
19	1	164-8231-2850	SLIDING LID ASSEMBLY - BLACK	EA



# PANEL EXPLOSION - FLEX WALKER

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	4	164-2066	BINDING POST	EA
2	4	164-8814	TRANSPORT CASTER ASSEMBLY - COMPLETE	EA
	6	153-0001BK	TRANSPORT CASTER - CASTER ONLY	EA
	4	153-2017	1/2 LOCKWASHER	EA
	4	164-2039	HHCS 1/2-13 X 1 3/4 GRADE 5	EA
3	9	153-2953	FENDER WASHER - #8	EA
4	4	164-2038	RUBBER BUMPER SBR	EA
5	4	153-2087	MS PHILLIPS - 8-32 X 3/4	EA
6	3	164-2051	THIN HEX LOCKNUT - 8-32	EA
7	3	153-2817	FHMS-8-32 X 1/2	EA
8	7	153-2086	MS PHILLIPS - 8-32 X 5/8	EA
9	11	153-2013	#10 LOCKWASHER	EA
10	4	164-2084	WASHER - OVERSIZED 1/2"	EA
11	4	164-6252	TRANSPORT CASTER MOUNT	EA
12	8	153-2802	FHSS - 5/16-18 X 5/8"	EA
13	4	164-2080	FELT WASHER (BLACK)	EA

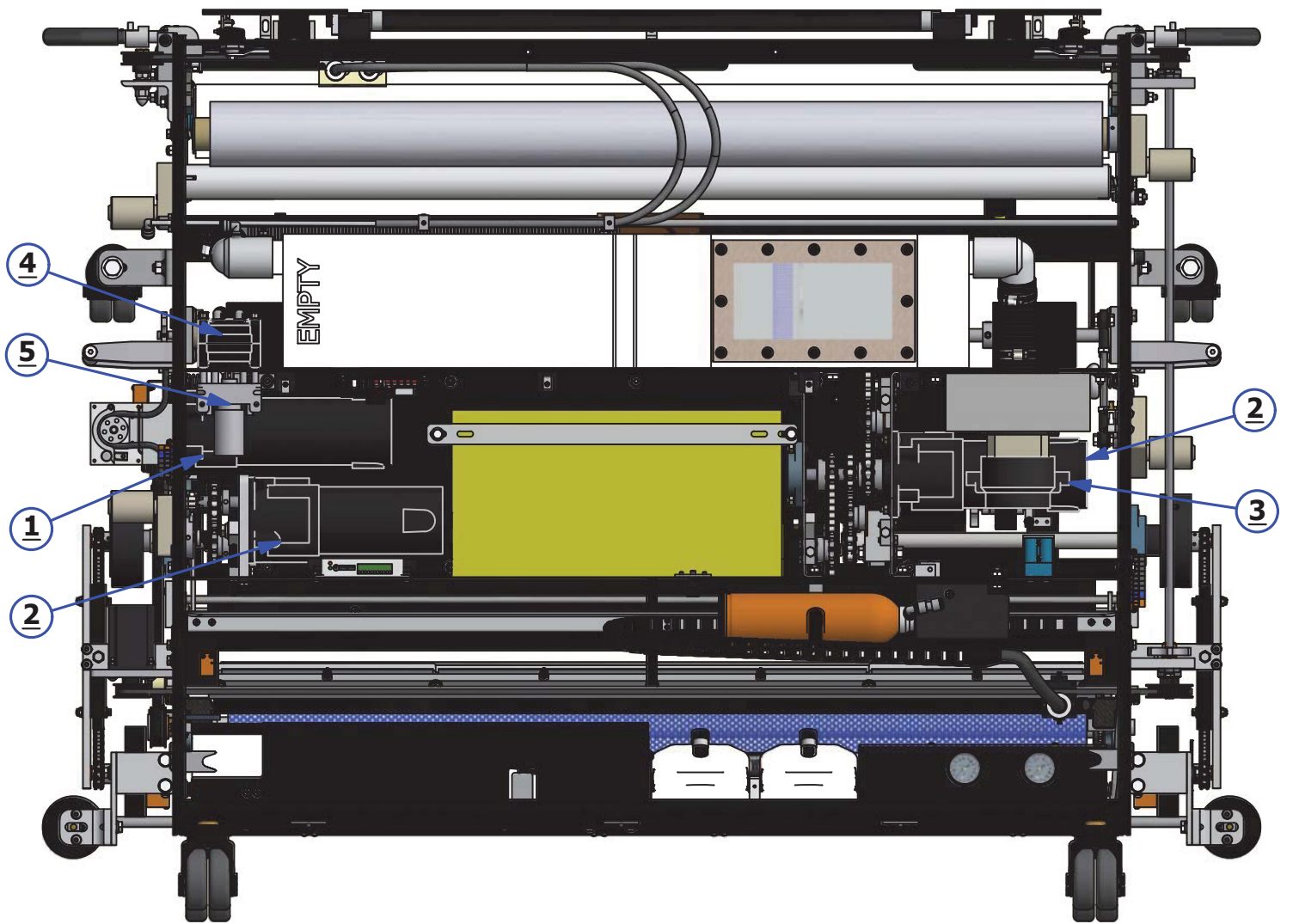


# TOP VIEW - FLEX WALKER

REV. 10/19

<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>	
<b>1</b>	1	164-8414	BUFFER MOTOR - 24VDC - 500RPM - STANDARD	EA	
	1	164-1254	BUFFER MOTOR BRUSHES (PAIR)	PR	
	1	164-9016	BUFFER BELT	EA	
	1	158-9401	PULLEY (14 TOOTH 1/2" BORE)	EA	
	1	164-1256	BRUSH CAP	EA	
	1	164-1257	BRUSH SPRING	EA	
	<b>1</b>	1	164-8014A	BUFFER MOTOR - 24VDC - 700RPM - VARIABLE BUFFER	EA
1		164-1246	BUFFER MOTOR BRUSHES (PAIR)	PR	
1		164-9017	BUFFER MOTOR BELT	EA	
1		164-9014A	BUFFER MOTOR PULLEY ASSEMBLY	EA	
1		164-1256	BRUSH CAP	EA	
1		164-1257	BRUSH SPRING	EA	
<b>2</b>		1	164-8602A	RIGHT MAIN DRIVE MOTOR 24V	EA
	1	164-8602	LEFT DRIVE MOTOR 24V	EA	
	1	164-1246	DRIVE MOTOR BRUSHES (PAIR)	PR	
	1	154-9601	CHAIN (FOR 153-9002, INSIDE AND OUTSIDE SPROCKET)	EA	
	1	153-9444	CHAIN (FOR 153-9003, MIDDLE SPROCKET)	EA	
	1	153-9047	MASTER LINK #40	EA	
	1	153-9048	OFFSET LINK #40	EA	
	1	153-9002	SPROCKET - 40B13 (5/8 IN) INSIDE AND OUTSIDE SPROCKET	EA	
	1	153-9003	SPROCKET - 40B10 (5/8 IN) INSIDE AND OUTSIDE SPROCKET	EA	
	1	164-1256	BRUSH CAP	EA	
	1	164-1257	BRUSH SPRING	EA	
	<b>4</b>	1	158-8404D	CLEANER PUMP ASSEMBLY	EA
		1	154-0861B	NORPRENE TUBING FOR CLEANER PUMP ASSEMBLY	EA
	<b>5</b>	1	158-8404	CLEANER PUMP MOTOR - 24VDC	EA

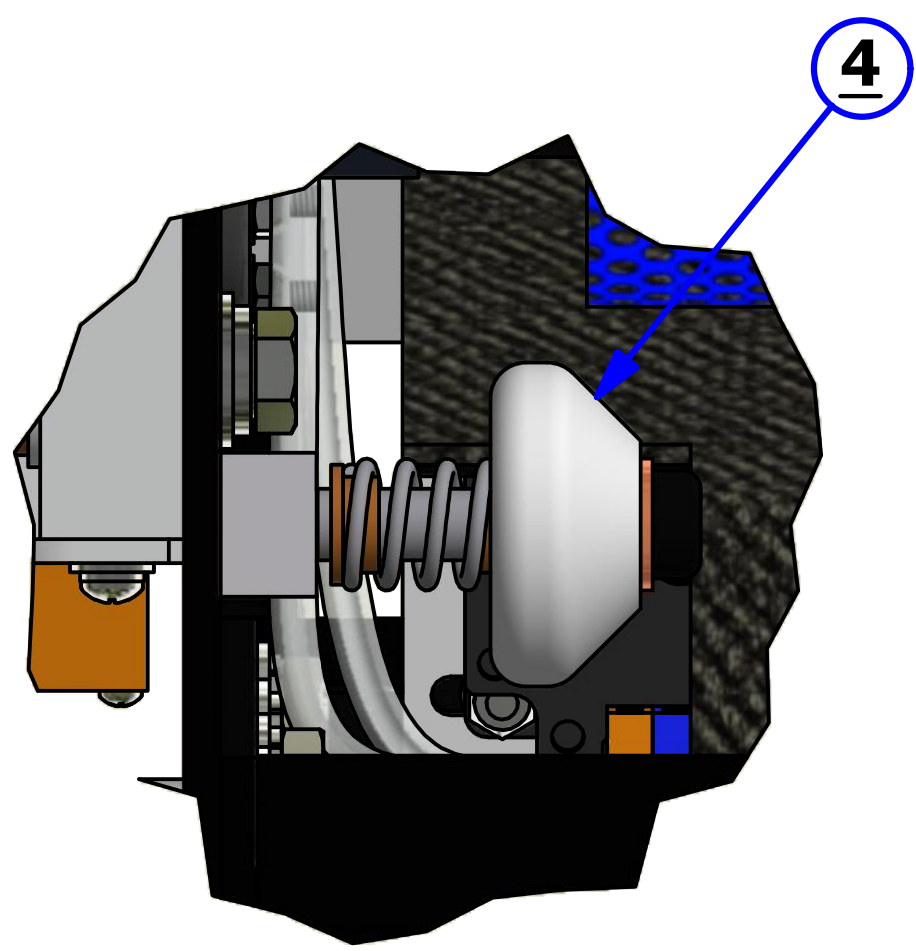
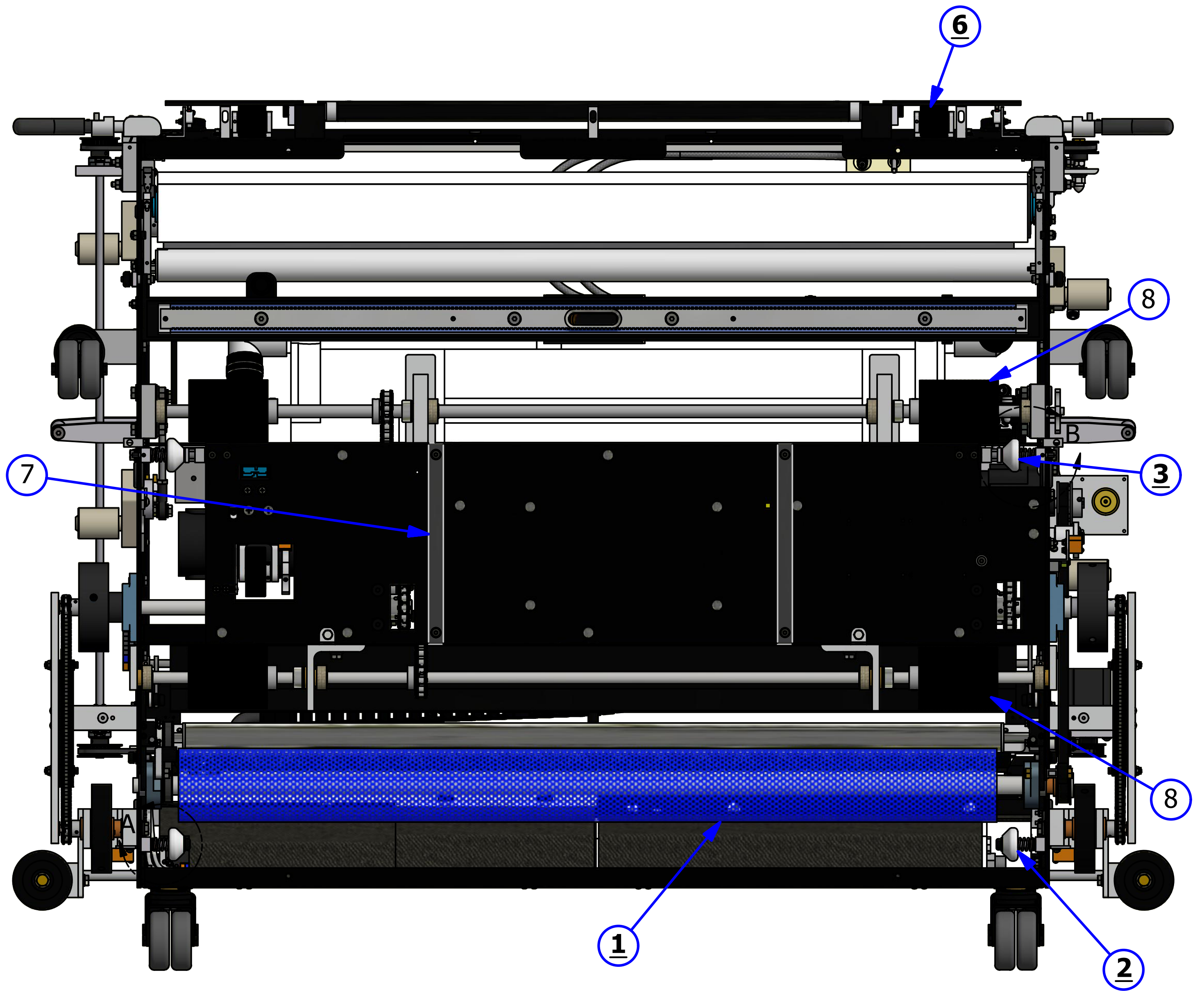




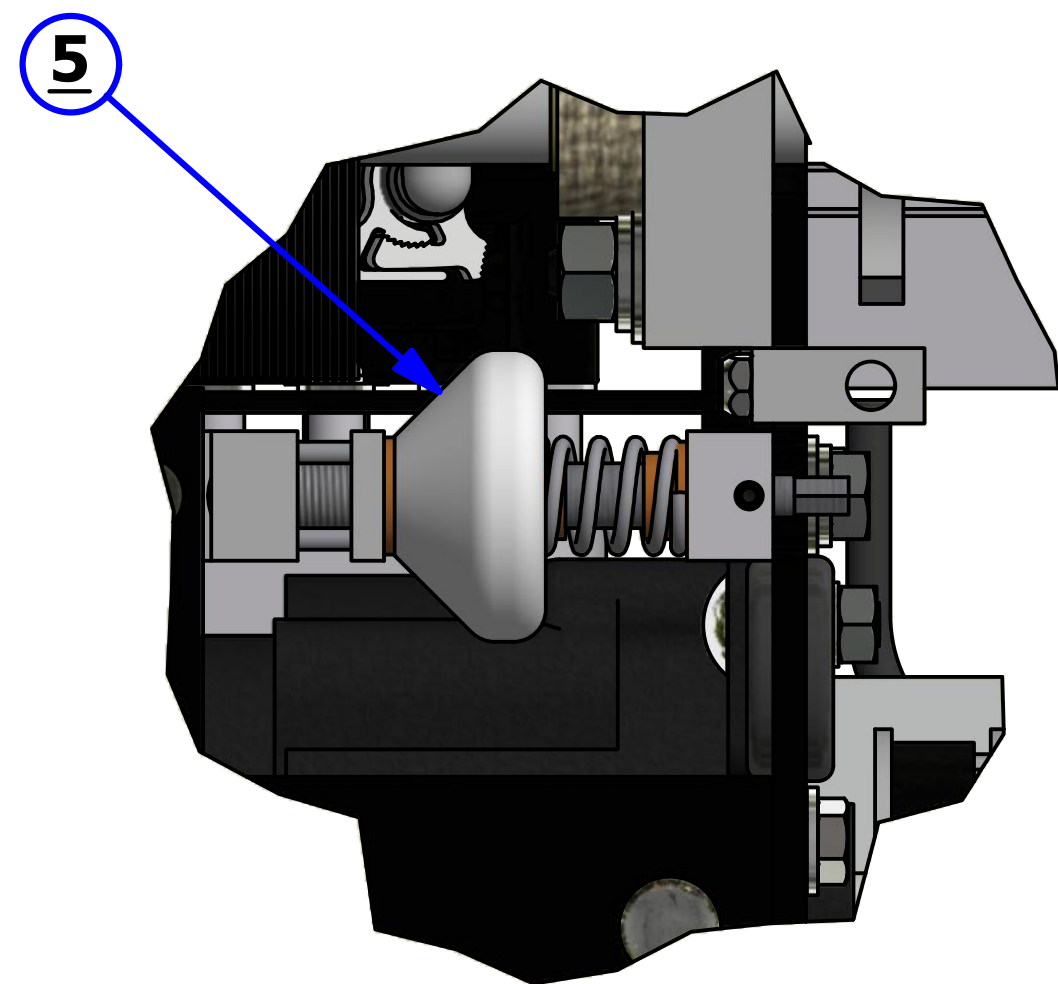
# BOTTOM - FLEX WALKER

REV. 2/20

<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	164-9016	BUFFER BELT ASSEMBLY NON-VARIABLE	EA
	1	154-9617	BUFFER BELT ASSEMBLY - VARIABLE BUFF	EA
2	2	158-8642	REAR GUIDE WHEEL ASSEMBLY - COMPLETE <i>THE BELOW ATTACHED PARTS ARE NOT SHOWN</i>	EA
	2	153-2407	SHOULDER BOLT 3/8 X 1 3/4	EA
	2	153-2978	SPRING - COMPRESSION FOR GUIDE WHEEL	EA
	2	158-8636	GUIDE WHEEL ASSEMBLY - REAR	EA
3	2	158-8643	FRONT GUIDE WHEEL ASSEMBLY - COMPLETE	EA
3.1	2	153-9803	FLANGED BUSHING - 3/8 X 1/2 X 3/4	EA
3.2	2	153-2978	SPRING - COMPRESSION FOR GUIDE WHEEL	EA
3.3	2	158-8637	GUIDE WHEEL ASSEMBLY - REAR	EA
4	2	158-8636	GUIDE WHEEL ASSEMBLY - REAR (WHEEL ONLY)	EA
5	2	158-8637	GUIDE WHEEL ASSEMBLY - FRONT (WHEEL ONLY)	EA
6	2	153-7005R	MOMENTARY WHEEL ASSEMBLY (WHEEL ONLY)	EA
	2	153-6006	MOMENTARY WHEEL SHAFT	EA
	2	164-6053	MOMENTARY WHEEL HOUSING ASSEMBLY	EA
7	2	153-9803	SKID GUIDE	EA
8	4	153-7013	DRIVE WHEEL ASSEMBLY	EA



DETAIL A

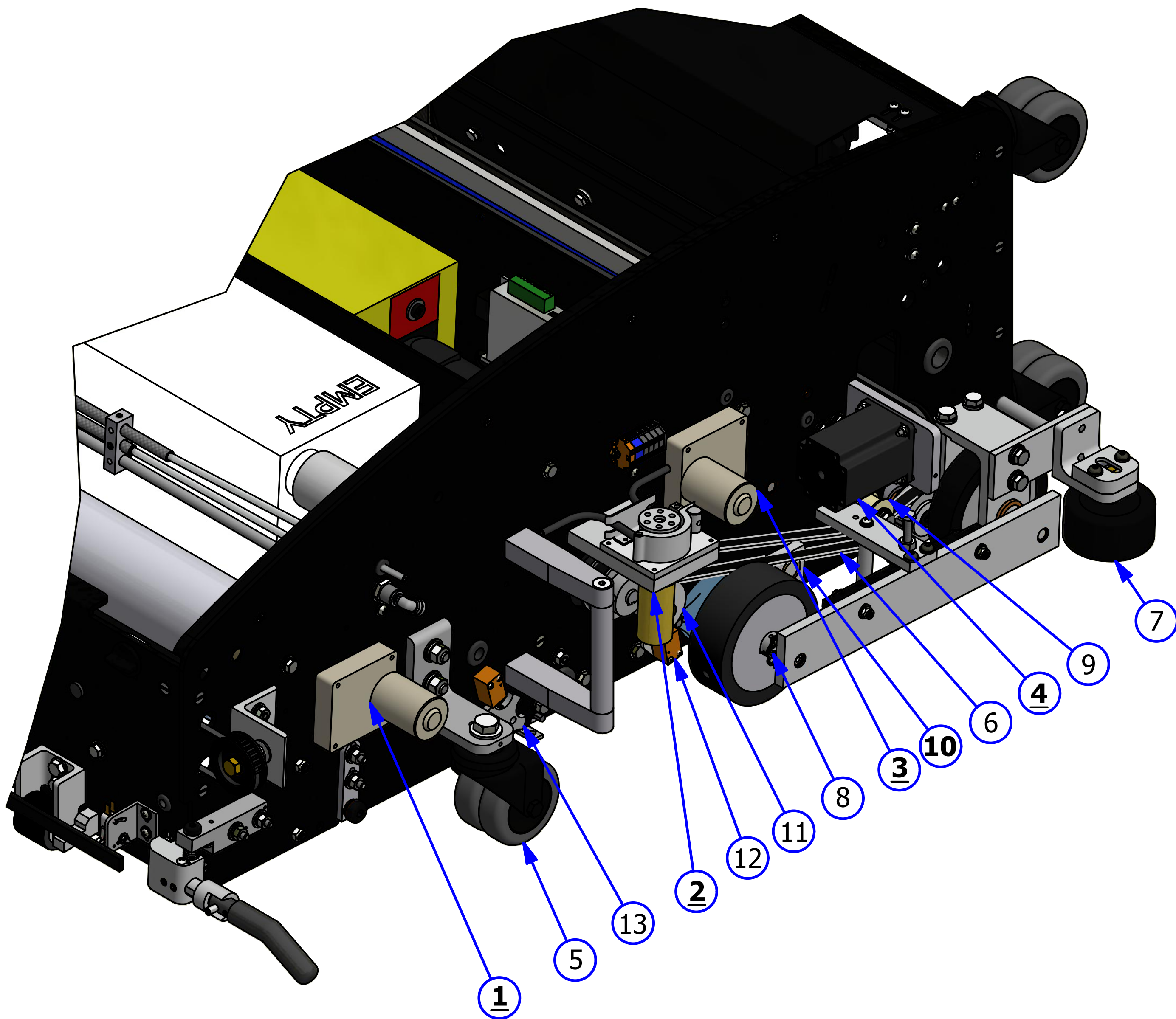


DETAIL B

# LEFT SIDE - FLEX WALKER

REV. 10/18

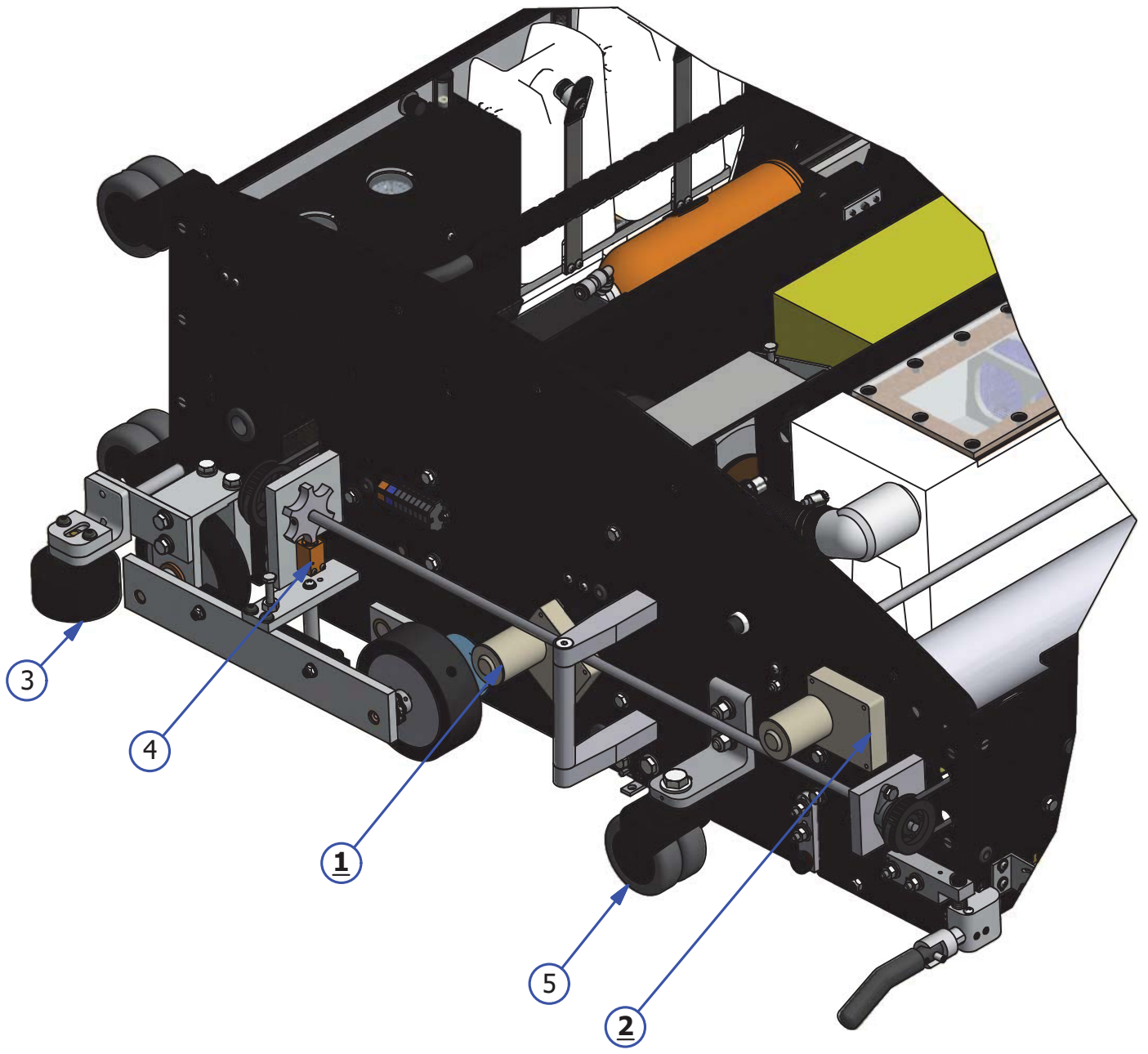
<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	2	158-8403	ASSEMBLY - DUSTER MOTOR 24VDC	EA
2	1	164-8027	CLEANER PUMP ASSEMBLY - CONCENTRATE (UPGRADE ONLY)	EA
		164-8025	CLEANER TUBING #14 FOR SUPER CONCENTRATE	EA
		164-8026	CLEANER TUBING #16 FOR REG CONCENTRATE	EA
3	1	158-8402	BUFFER LOWERING MOTOR	EA
4	1	164-8032	HEAD DRIVE MOTOR ASSEMBLY	EA
5	6	153-0001BK	CASTER ASSEMBLY (3 INCH DUAL WHEEL)- BLACK	EA
6	1	164-9016	BUFFER BELT ASSEMBLY - STANDARD	EA
	1	164-9017	BUFFER BELT ASSEMBLY - VARIABLE BUFF UPGRADE	EA
7	2	153-7203	BUMPER WHEEL ASSEMBLY	EA
8	1	164-9005	#35 CHAIN ZTR KICKUP	EA
	1	153-9046	MASTER LINK #35 (NOT SHOWN)	EA
9	1	153-8039	BUFFER IDLER PULLEY	EA
10	1	164-8216	DRIVE MOTOR BEARING BLOCK	EA
11	1	164-8214	BUFFER IDLER PULLEY ASSY. (NO CAM)	EA
12	1	154-1220	PROXIMITY SENSOR	EA
13	1	154-1220	PROXIMITY SENSOR	EA



# RIGHT SIDE - FLEX WALKER

REV. 1/16

<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	2	158-8402	SQUEEGEE/BRUSH LIFT MOTOR - 24VDC	EA
2	1	158-8403	DUSTER MOTOR ASSEMBLY - 24VDC	EA
3	1	153-7203	BUMPER WHEEL	EA
4	2	154-1220	PROXIMITY SENSOR	EA
5	6	153-0001BK	CASTER ASSEMBLY (3 INCH DUAL WHEEL)- BLACK	EA

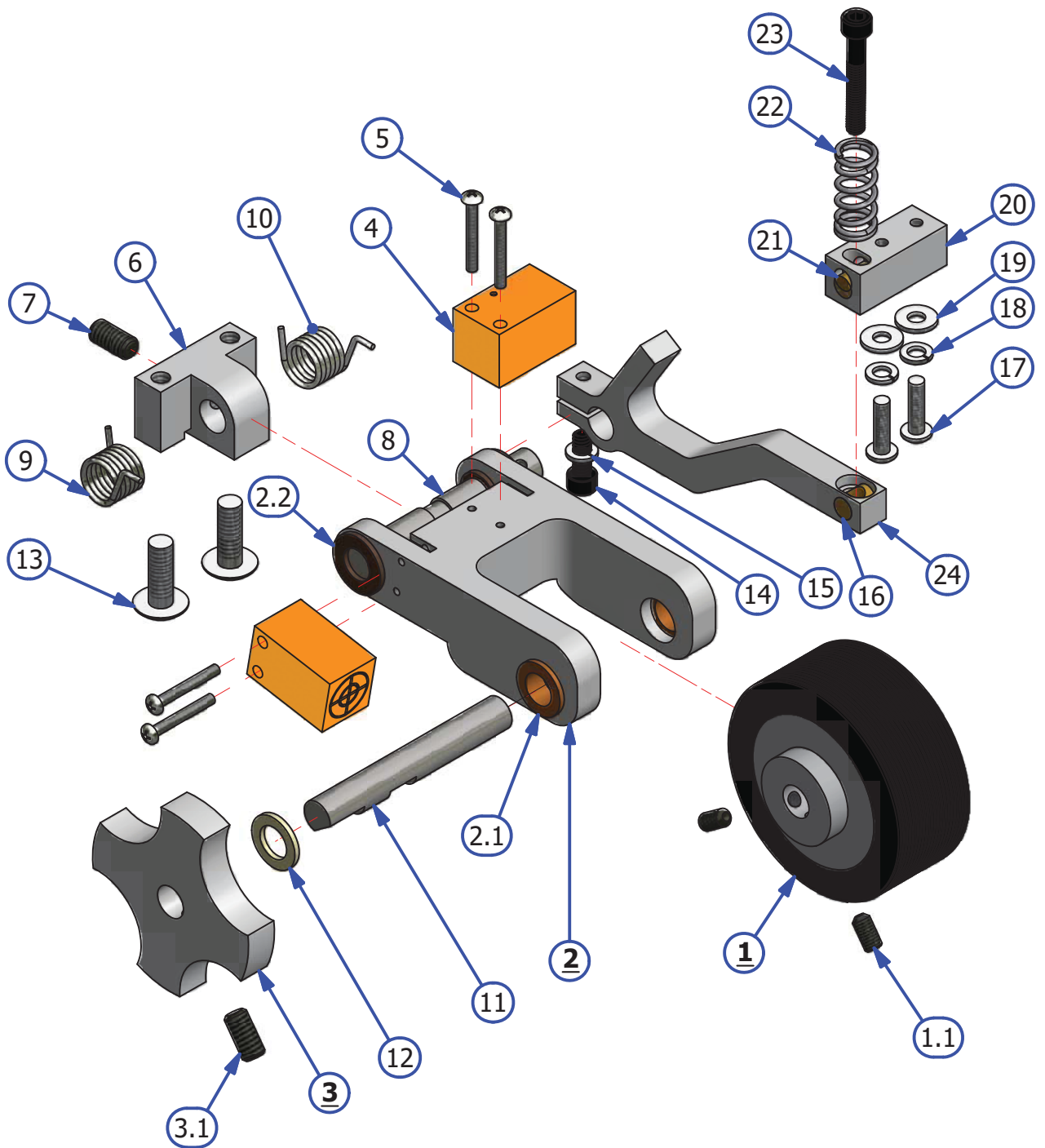


# LDS ASSEMBLY - FLEX WALKER

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	164-7001	LDS WHEEL ASSEMBLY	
1.1	2	153-2201	SET SCREW - 10-32 X 3/8	EA
2	1		LDS ARM ASSEMBLY	EA
2.1	2	153-9803	FLANGED BUSHING (3/8 X 1/2 X 1/4)	EA
2.2	2	154-9617	FLANGED BUSHING (3/8 x 1/2 x 3/8)	EA
3	1		FLEX LDS DISK	EA
3.1	1	153-2051	SET SCREW - 1/4-20 X 1/2	EA
4	2	154-1220	INDUCTIVE PROXIMITY SENSOR (TL-Q5MC1)	EA
5	2	153-2216A	MS PHILLIPS - 4-40 X 7/8	EA
6	1	164-6128	LDS ARM MOUNT	EA
7	1	153-2051	SET SCREW - 1/4-20 X 1/2	EA
8	1	164-6129	LDS ARM SHAFT	EA
9	1	153-2944	TORSION SPRING - RH	EA
10	1	153-2945	TORSION SPRING - LH	EA
11	1	164-6130	LDS WHEEL SHAFT	EA
12	1	153-2009	NYLON FLAT WASHER (3/8 - 0.060)	EA
13	2	153-2052A	MS PHILLIPS - 1/4-20 X 3/4 TRUSS HEAD	EA
14	1	153-2121	OXIDE ALLOY STL SHCS 10-24 X 1/2	EA
15	2	153-2013	LOCK WASHER #10	EA
16	1	164-6207	BRASS THREAD ROD	EA
17	2	153-2086	MS PHILLIPS 8-32 X 5/8	EA
18		153-2013	LOCK WASHER #10	EA
19	2	153-2002	FLAT WASHER #8	EA
20	1	164-6205	OLS ACTUATOR MOUNT	EA
21	1	164-6206	BRASS THRU ROD	EA
22	1	153-2093	SPRING - .42 OD X .75	EA
23	1	164-2059	SHCS 10-32 X 1 1/4	EA
24	1	164-6204	OLS ACTUATOR	EA

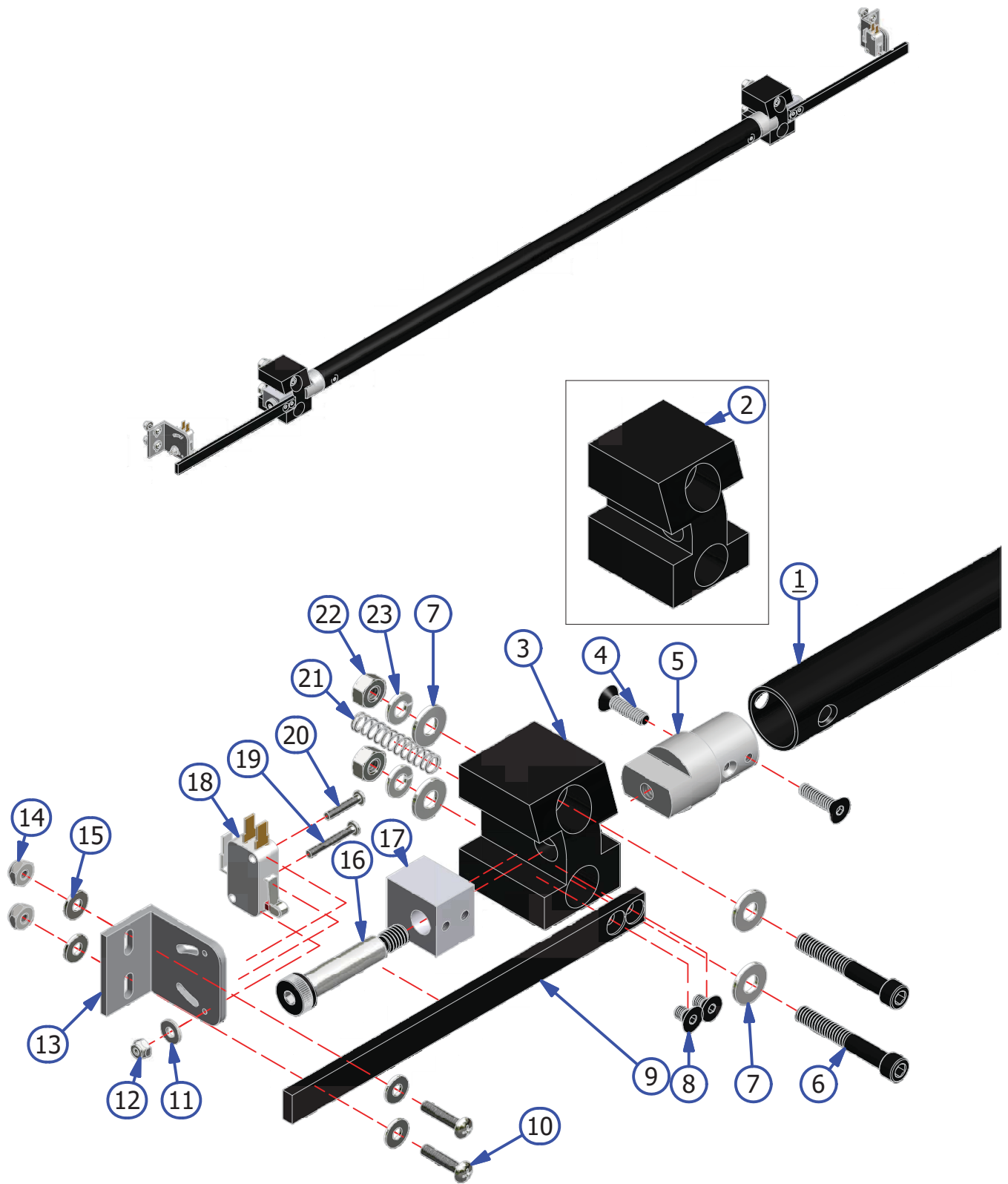




# FRONT HANDLE ASSEMBLY - FLEX WALKER

REV. 1/16

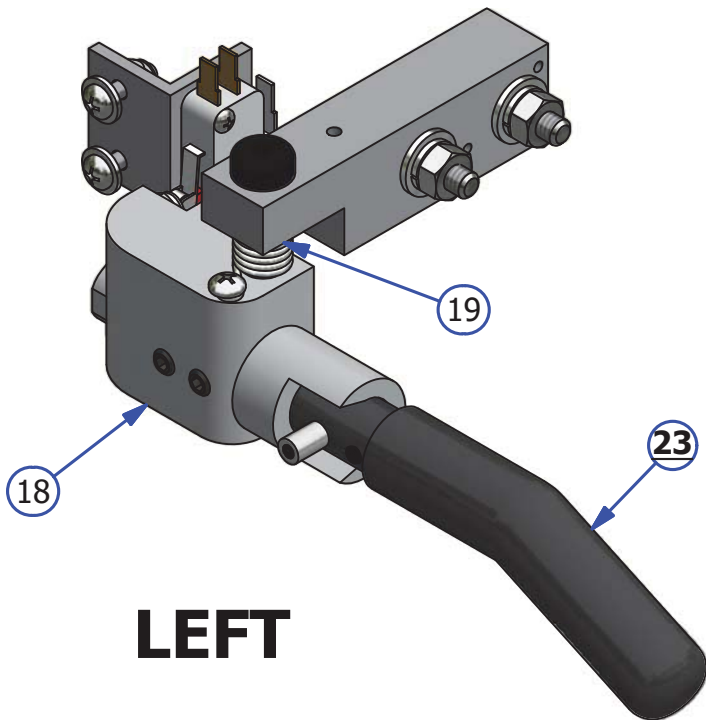
<u>INDEX</u>				
<u>NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8073	FRONT HANDLE ASSEMBLY	EA
2	1	164-6069	FLEX FRONT HANDLE BLOCK (LT)	EA
3	1	164-6068	FLEX FRONT HANDLE BLOCK (RT)	EA
4	4	153-2996	SCREW - FHCS 10-24 X 3/4 BLACK OXIDE	EA
5	2	164-6072	FRONT HANDLE PLUG	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



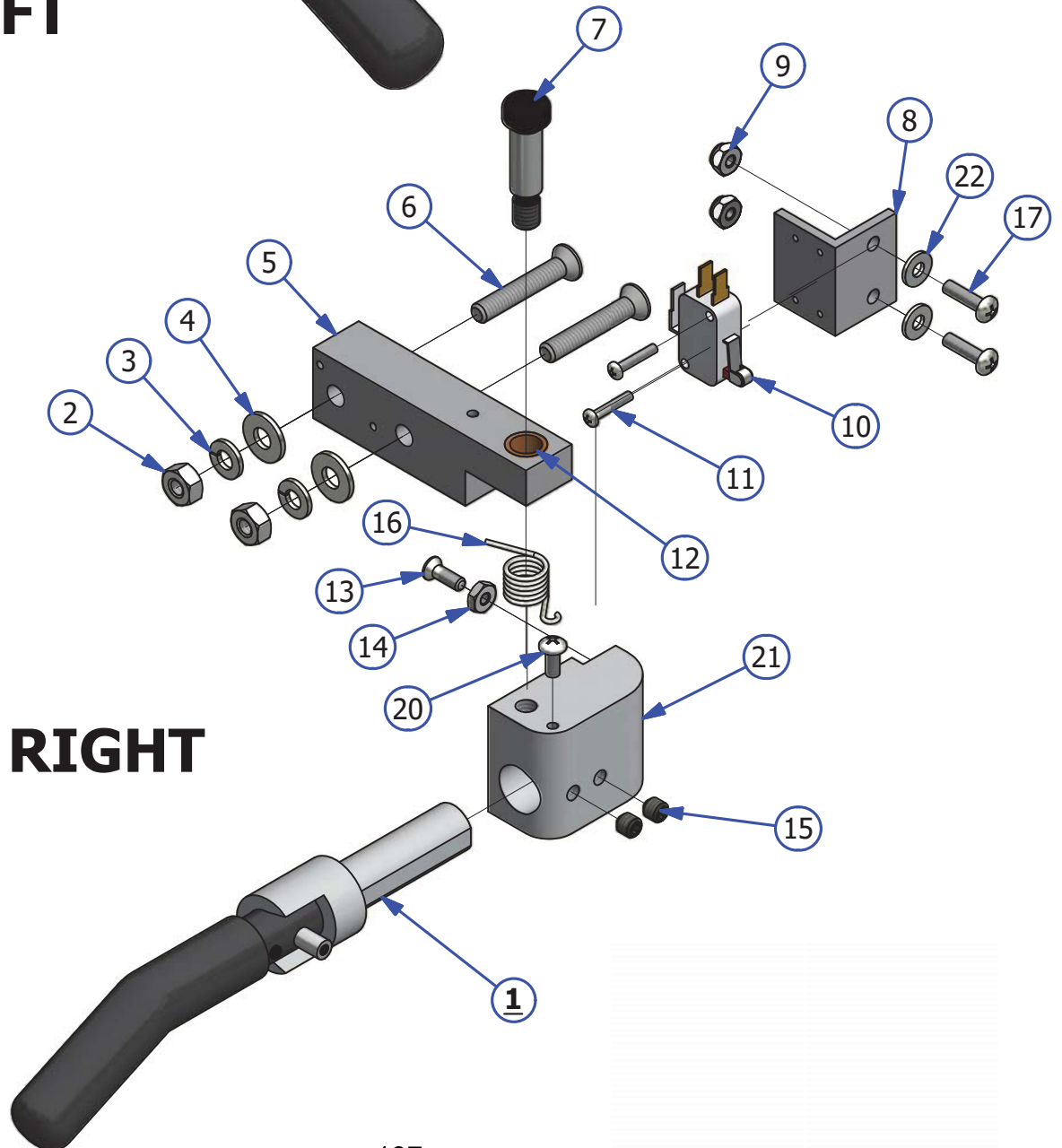
# WHISKER ASSEMBLY

REV. 9/17

<u>INDEX</u>		<u>PART</u>			
<u>NUMBER</u>	<u>QTY.</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



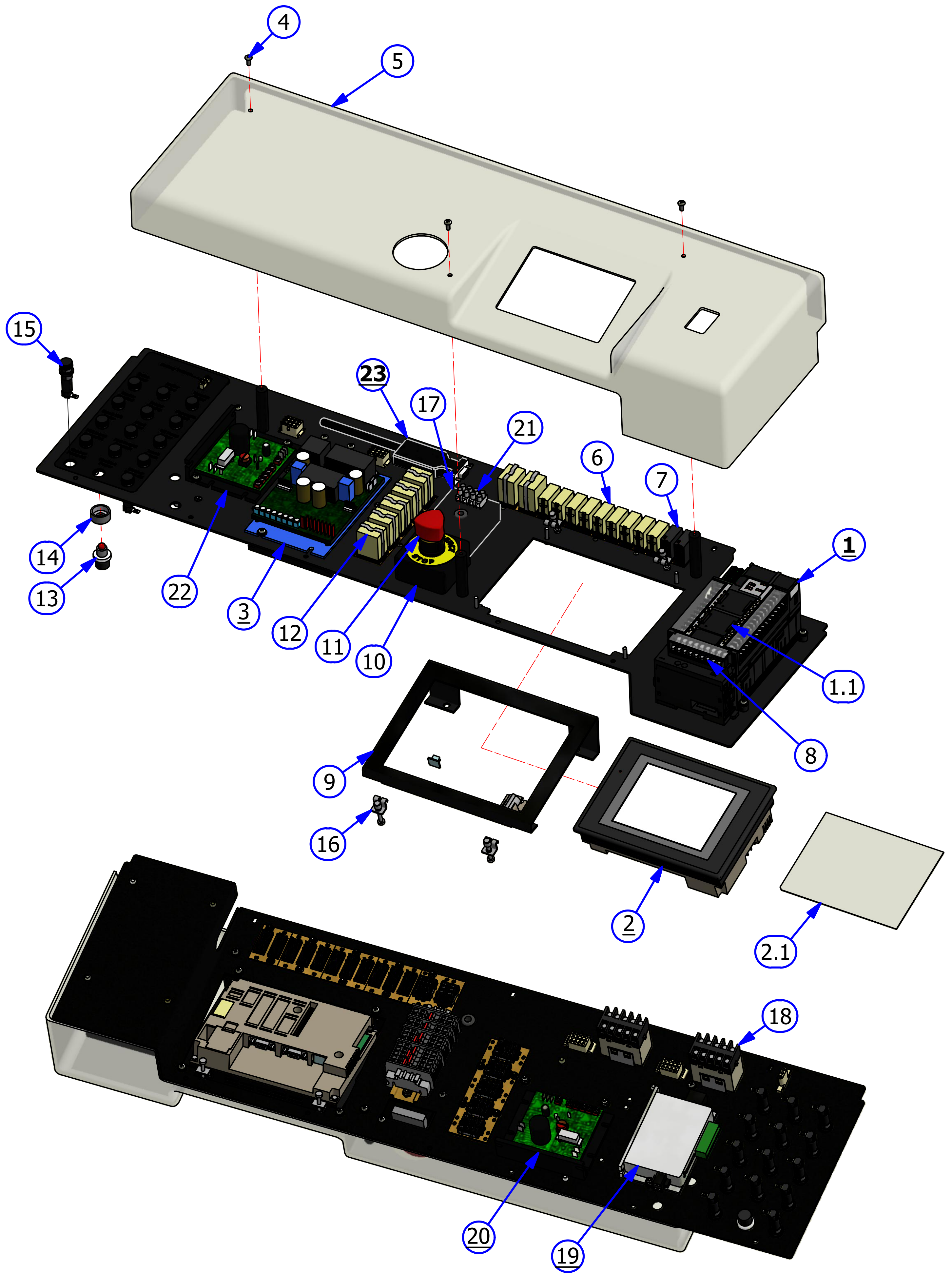
**LEFT**



**RIGHT**

# PLC PLATE ASSEMBLY

<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
<b>1</b>	1	158-1610P	PLC FOR FLEX - SPECIFY SOFTWARE VERSION	EA
1.1	1	158-1610S	SERIAL CONVERTER FOR FLEX	EA
	1	158-1610D	CABLE TO TOUCHSCREEN - 24IN (NOT SHOWN)	EA
<b>2</b>	1	164-8203	TOUCH SCREEN ASSEMBLY	EA
2.1	1	164-1245	SCREEN PROTECTOR	EA
<b>3</b>	1	164-8010	SPEED CONTROL ASSEMBLY - DRIVE	EA
4	7	153-2086A	MS PHILLIPS - 8-32 X 3/8	EA
5	1	164-6183	CLEAR PC PLATE COVER	EA
<b>6</b>	6	158-1458	RELAY - OMRON 24DC DPDT GENERAL PURPOSE	EA
6.1	6	164-1204	RELAY BASE FOR RELAY 158-1458	EA
<b>7</b>	2	158-1460	RELAY SOLID STATE	EA
7.1	2	164-1206	RELAY BASE FOR RELAY 154-1460	EA
8	1	164-1217	ANALOG OUTPUT (Buffer and/or Cleaner Upgrade only)	EA
9	1	164-6184	TOUCH SCREEN MOUNT 7"	EA
10	1	164-6161	E-STOP BOX	EA
<b>11</b>	1	164-8223	E-STOP SWITCH ASSEMBLY	EA
11.1	1	164-1223B	BREAKER FOR ESTOP	EA
<b>12</b>	6	158-1462	24 V RELAY DPDT 10A W/DIODE	EA
12.1	6	164-1203	RELAY BASE FOR RELAY 158-1462	EA
13	1	153-1408	PUSH BUTTON (RED = NORMALLY OPEN)	EA
14		153-1209	BUTTON GUARD	EA
15	14	153-1028	PANEL-MOUNT FUSE HOLDER - UL (COMPLETE)	EA
16	4	158-1610TC	TOUCH SCREEN MOUNT CLIP	EA
17	1	158-6666	RESISTANCE ADJUSTMENT BOX - MODIFIED	EA
18	2	158-1465	CONTACTOR 24VDC	EA
19	1	158-1605	STEPPER SPEED CONTROL BOARD	EA
20	1	164-8221	SPEED CONTROL BOARD - CLEANER/WATER	EA
21	1	158-1611	MOLEX TERMINAL BLOCK	EA
21.1	1	158-8619W	RESISTANCE WIRE ASSY - 22AWG	EA
22	1	164-8225	SPEED CONTROL ASSEMBLY - BUFFER DRIVE	EA
23	1	164-8220	WIFI ADAPTER	EA
	1	164-1239	COMMUNICATION CABLE	EA

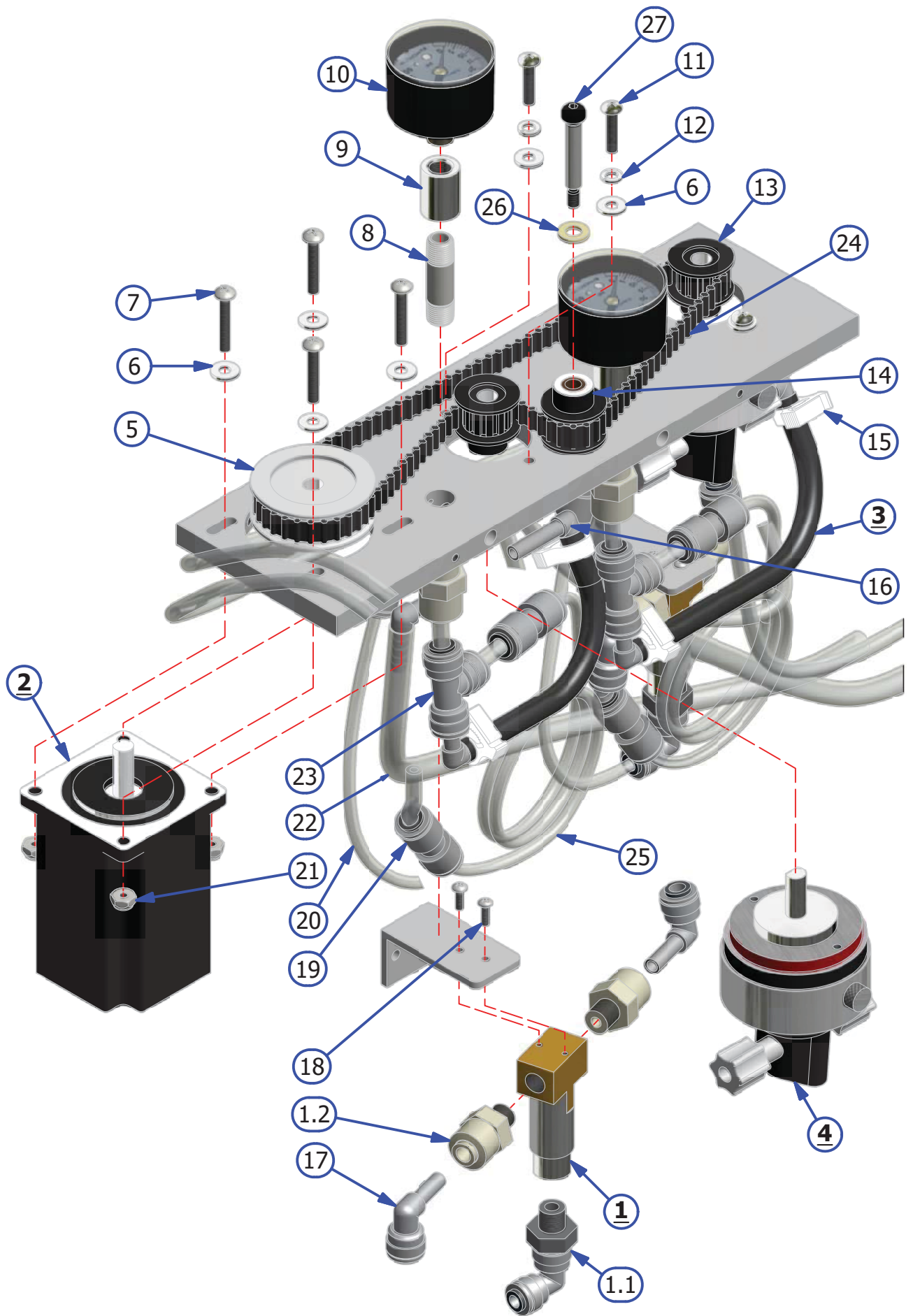


# OIL VALVE ASSEMBLY

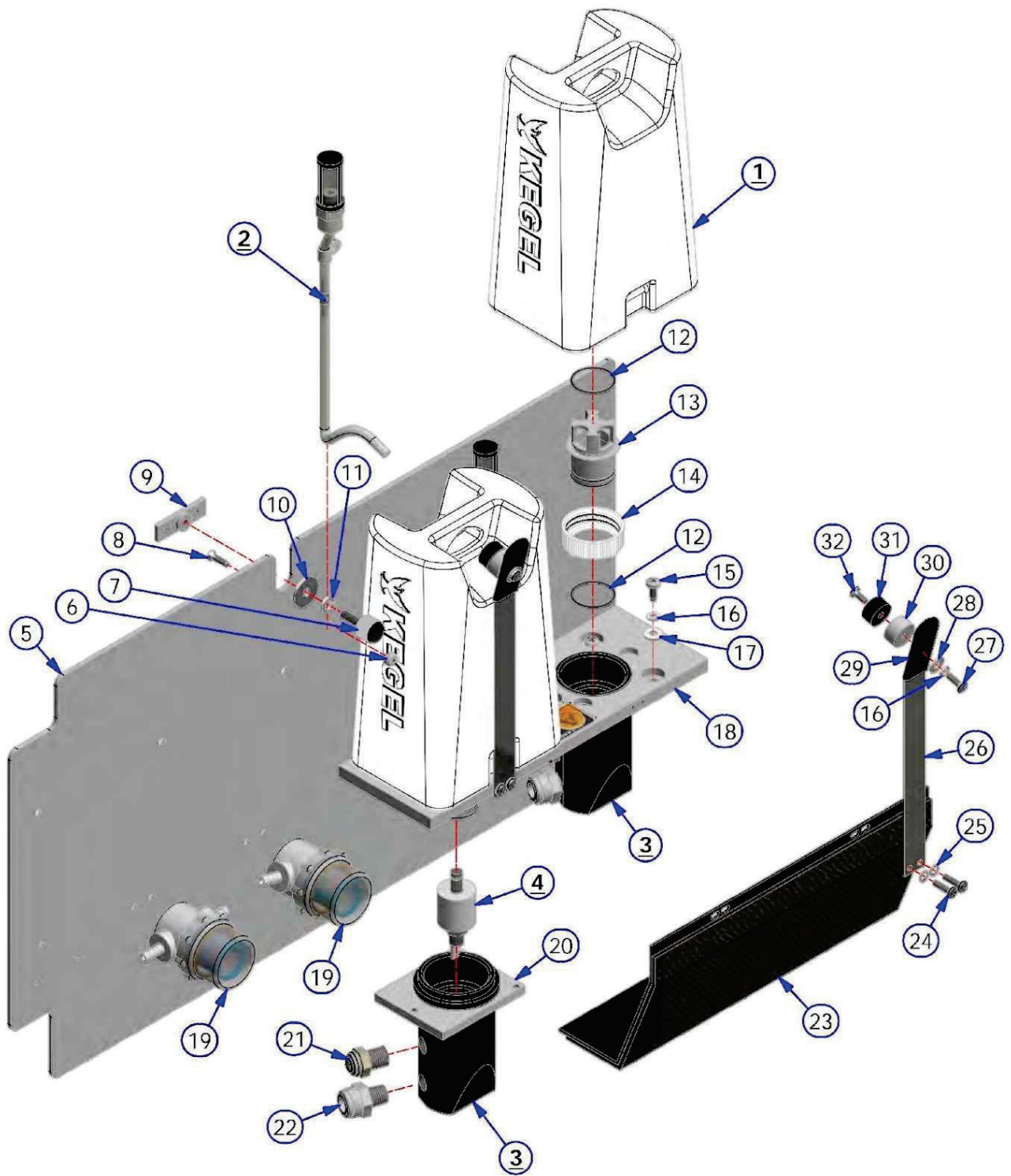
REV. 2/16

<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	2	154-8298	OIL CONTROL VALVE (24VDC) WITH EXTENEDED WIRES	EA
1.1	2	154-0613	ELBOW - 1/8 NPT X 3/16 TUBE	EA
1.2	4	154-0224	MALE CONNECTOR - 1/4" TUBE X 1/8 NPT	EA
2	1	158-8632	OIL STEPPER MOTOR ASSEMBLY	EA
3	2	164-8021	FLEX PULSE SUPRESSION TUBE	EA
4	2	154-1214	FLUID METERING PUMP-0.05 ML/STROKE	EA
5	1	158-9403	PULLEY - 26XL037 X 5/16" BORE	EA
6	8	153-2002	#8 FLATWASHER	EA
7	4	153-2089	MS PHILLIPS - 8-32 X 1	EA
8	2	164-0207	PIPE NIPPLE - THREADED BLK - 1/8 X 1 1/2	EA
9	2	154-0230	IN-LINE COUPLER (1/8 NPT) FLOAT	EA
10	2	158-1613	PRESSURE GAUGE - 60PSI	EA
11	4	153-2087	MS PHILLIPS - 8-32 X 3/4	EA
12	4	153-2013	#10 LOCKWASHER	EA
13	2	154-9208	PULLEY - 12XL - 5/16" BORE W/SET SCREW	EA
14	1	164-8029	OIL PUMP IDLER ASSEMBLY	EA
15	4	164-2046	HOSE CLAMP	EA
16	6	154-0226	ELBOW - TUBE TO HOSE BARB (1/4 X 1/4 ID)	EA
17	4	154-0222	ELBOW - 1/4" STEM X 1/4" TUBING OD	EA
18	4	153-2504	MS PHILLIPS - 4-40 X 3/8	EA
19	2	154-0248	REDUCING UNION CONNECTOR-1/4" X 3/16"	EA
20	1	154-0202A	PENCIL TUBING STOCK 1/4OD X 1/8ID	IN
21	4	153-2019	LOCKNUT - 8-32 (NYLOK)	EA
22	1	154-0202	PENCIL TUBING STOCK 3/8OD X 1/4ID	IN
23	2	153-0815	UNION TEE (1/4 X 1/4 X 1/4 - QUICK DISC)	EA
24	1	164-9008	TIMING BELT DOUBLE SIDED (220XL038	EA
25	1	154-0202B	PENCIL TUBING STOCK - 3/16 OD X 1/16 ID	IN
26	1	153-2510	NYLON WASHER - 1/4	EA
27	1	153-2803	SHOULDER BOLT - 1/4 X 1-1/4 (10-24)	EA





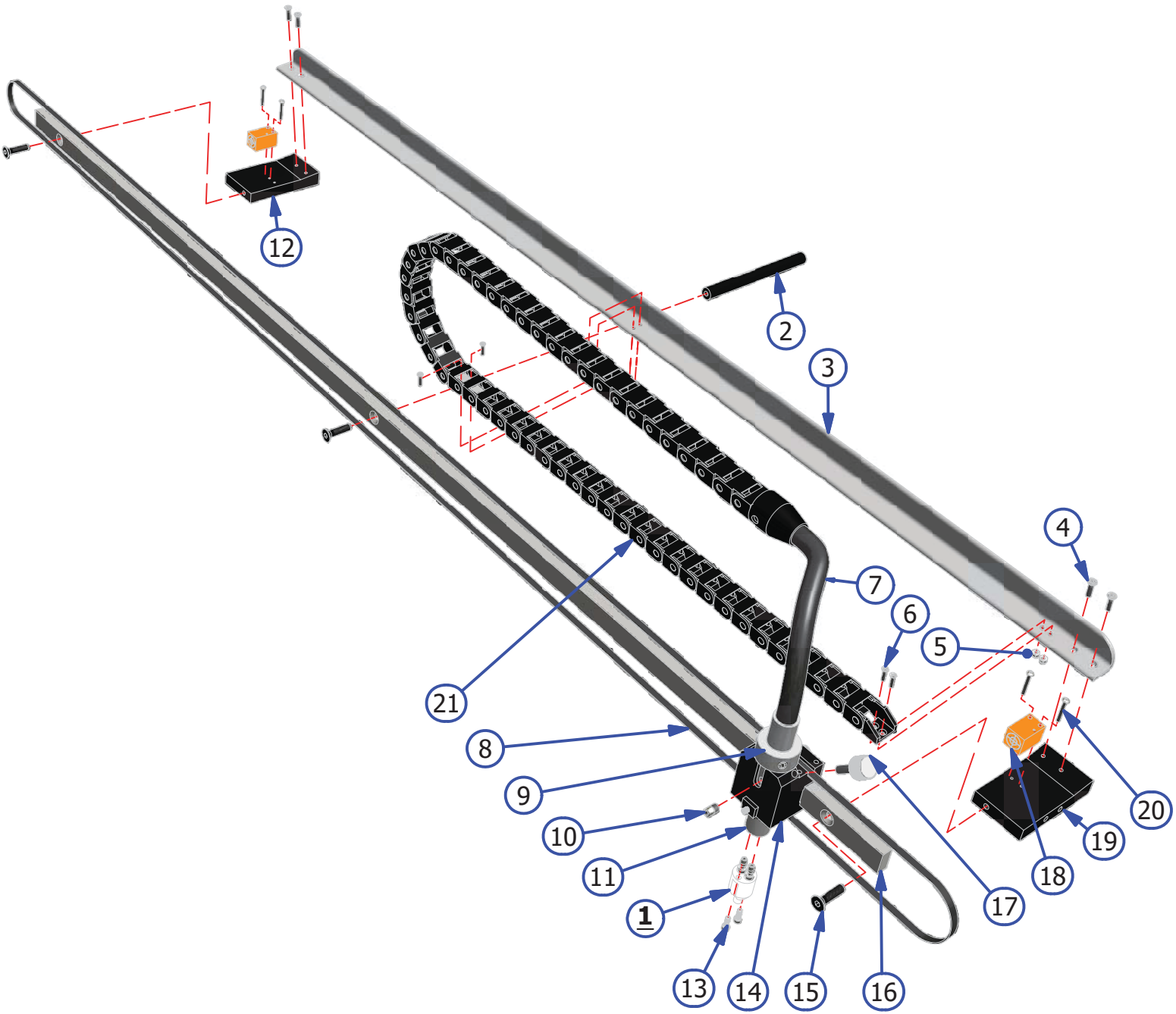
INDEX NUMBER	QTY.	PART NUMBER	DESCRIPTION	UOM
1	2	164-8015	FLEX 1.5L CARTRIDGE REPLACEMENT KIT <b>COMPLETE</b>	EA
	1	164-8015A	CARTRIDGE A/B ONLY - <b>NO PLUNGER</b>	EA
2	2	164-8007	OIL SUPPLY TANK VENT VALVE ASSEMBLY	EA
3	2	164-6260	CYLINDER SUB TANK ( <b>BLACK</b> )	EA
4	2	164-8237	FLOAT ASSEMBLY	EA
5	1	164-6124	OIL PLATE ASSEMBLY	EA
6	2	153-2019	LOCKNUT - <b>8-32 (NYLOK)</b>	EA
7	2	164-2016	THUMB SCREW - KNURLED HEAD	EA
8	2	153-2817	FLAT HEAD PHILLIPS - <b>8-32 X 1/2</b>	EA
9	1	164-6122	OIL PLATE MOUNT	EA
10	1	162-2013	FENDER WASHER <b>1/4 X 7/8</b>	EA
11	1	153-2014	LOCK WASHER <b>1/4</b>	EA
12	4	164-6079	VITON O-RING	EA
13	2	164-8015P	PLUNGER ASSEMBLY	EA
14	2	164-0004	CARTRIDGE CAP	EA
15	6	153-2605	MS PHILLIPS - <b>10-32 X 1/2 (SELF-TAP)</b>	EA
16	6	153-2013	<b>#10</b> LOCKWASHER	EA
17	6	153-2003	<b>#10</b> FLATWASHER	EA
18	1	164-6263	CYLINDER SUB TANK MOUNT BRACKET	EA
19	2	164-0215	IN-LINE STRAINER - <b>1/4</b> HOSE BARB	EA
20	2	164-6261	CYLINDER SUB TANK MOUNT PLATE	EA
21	2	154-0858	MALE CONNECTOR <b>1/4 TUBE - 1/4 NPTF</b>	EA
22	2	154-0814	FIITING - <b>1/4 NPT X 3/8 TUBE</b>	EA
23	4	164-8205	CYLINDER SUB TANK COVER ASSY. <b>W/FELT</b>	EA
24	6	153-2086	MS PHILLIPS - <b>8-32 X 5/8</b>	EA
25	4	153-2533	INTERNAL TOOTH LOCK WASHER - <b>#8</b>	EA
26	2	164-6169	SPRING STEEL	EA
27	1	153-2086A	MS PHILLIPS - <b>8-32 X 3/8</b>	EA
28	2	153-2035	BLIND RIVET WASHER - <b>3/16</b>	EA
29	2	164-2053	RECTANGLE CAP <b>1/16 X 3/4</b>	EA
30	2	164-6167	RUBBER BUMPER STANDOFF	EA
31	2	164-2052	RUBBER BUMPER <b>23/32</b> DIA.	EA
32	2	153-2541	MS PHILLIPS - <b>8-32 X 1/2</b>	EA



# OIL HEAD ASSEMBLY

REV. 12/18

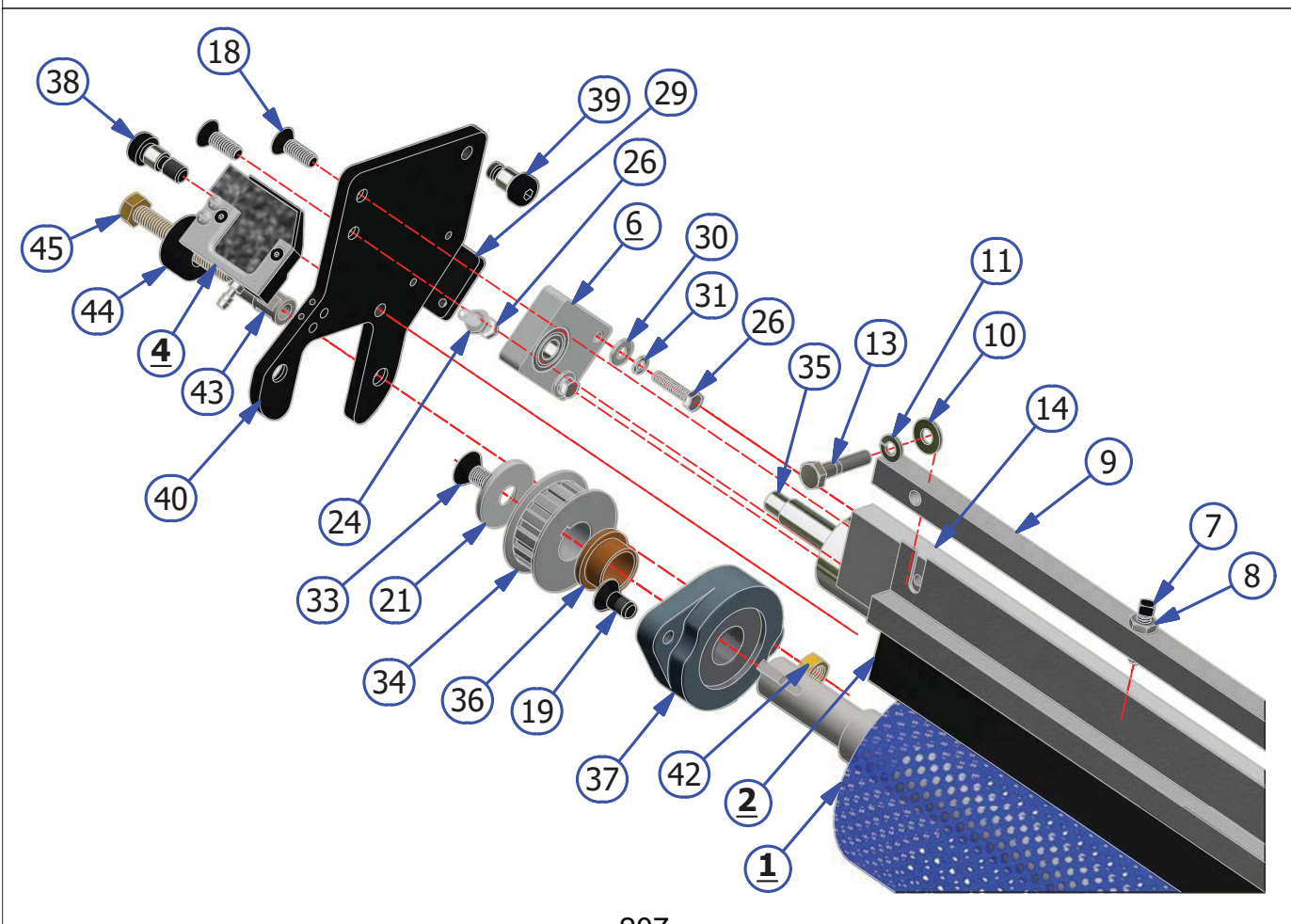
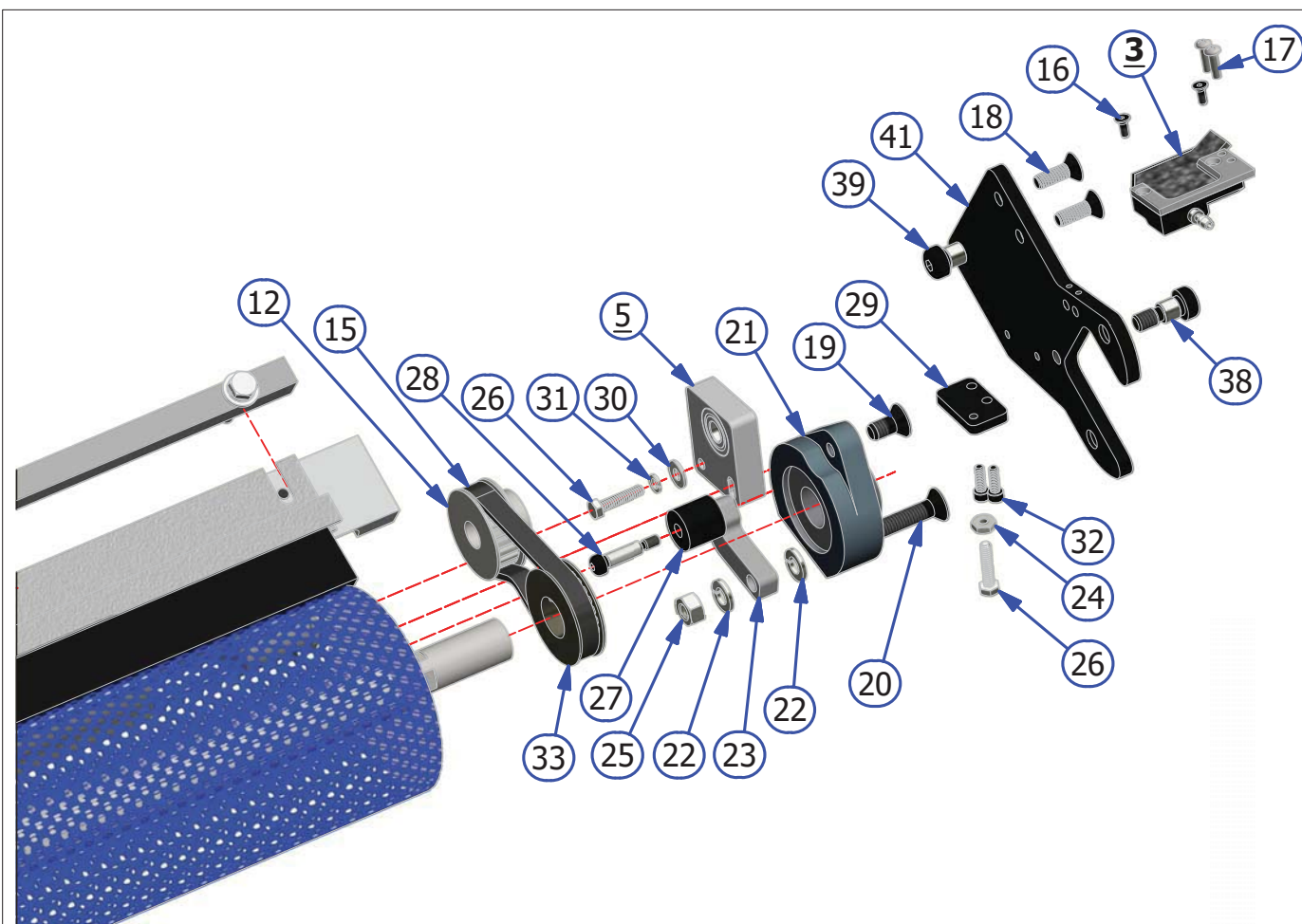
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8051	DUAL OIL TIP WITH FITTINGS	EA
2	1	164-6046	FLEX HEAD BAR SUPPORT	EA
3	1	164-6104	OIL TIP HOSE ANGLE	EA
4	5	153-2806	FLAT HEAD PHILLIPS - 8-32 X 5/8	EA
5	4	153-2231	LOCKNUT - 4-40	EA
6	4	153-2724	FHMS PHILLIPS - 4-40 X 1/2	EA
7	1	164-8023	OIL TUBE SLEEVE	EA
8	1	154-9201	BELT FOR HEAD DRIVE	EA
9	1	153-2937	SHAFT COLLAR 3/4" ID	EA
10	1	153-2972	THREADED PIN 1/4-20 FOR TIP AND HOSE ASSY	EA
11	1	164-6156	OIL TIP TUBE	EA
12	1	164-6102	LEFT HEAD BAR MOUNT	EA
13	2	153-2987	SCREW 6-32 X 3/8 SHCS	EA
14	1	164-6111	FLEX OIL HEAD ASSY	EA
15	3	153-2702	FHMS - 1/4-20 X 1 SELF-LOCKING	EA
16	1	154-6647A	SLIDING HEAD BAR (3/8) - STANDARD	EA
17	1	164-2016	THUMB SCREW - KNURLED HEAD	EA
18	2	154-1220	PROXIMITY SENSOR	EA
19	1	164-6103	RIGHT HEAD BAR MOUNT	EA
20	4	153-2216A	MS PHILLIPS - 4-40 X 7/8	EA
21	1	164-9009	FLEX-CABLE CARRIER	EA



# OIL TRANSFER ASSEMBLY

REV. 2/21

<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 LONG BRUSH ASSEMBLY (TRANSFER BRUSH)	EA
3	1	164-8019	FLEX RIGHT DRIP PAD ASSEMBLY	EA
	1	154-0228S	FELT MATERIAL 1/8" GREY	EA
4	1	164-8018	FLEX LEFT DRIP PAD ASSEMBLY	EA
	1	154-0228S	FELT MATERIAL 1/8" GREY	EA
5	1	164-8045	BEARING MOUNT ASSEMBLY - LEFT	EA
5.1	1	153-2309	BEARING ASSEMBLY 3/8 SHAFT	EA
6	1	164-8046	BEARING MOUNT ASSEMBLY - RIGHT	EA
6.1	1	153-2309	BEARING ASSEMBLY 3/8 SHAFT	EA
7	4	153-2306	CUP POINT SQ HEAD SET SCREW 1/4-20 X 1	EA
8	4	153-2304	JAM NUT - 1/4-20	EA
9	1	158-6735	BRUSH TRACK MOUNT SUPPORT	EA
10	5	153-2004	1/4 FLATWASHER	EA
11	5	153-2014	1/4 LOCKWASHER	EA
12	1	164-9015	PULLEY 24XLO37 3/8 BORE	EA
13	5	153-2054	HHCS - 1/4-20 X 1-1/4	EA
14	1	158-6732	SINGLE BRUSH TRACK MOUNT	EA
15	1	154-9203	BELT FOR TRANSFER ROLLER 100XLO37	EA
16	4	153-2831	SCREW - 6/32 X 3/8 FHCS	EA
17	4	153-2081	MS PHILLIPS - 6-32 X 1/2"	EA
18	4	153-2968	SCREW - 1/4-20 X 3/4 FHSHCS	EA
19	2	153-2802	FHSS - 5/16-18 X 5/8	EA
20	1	153-2513	FHSS - 5/16-18 X 1-1/2 STAINLESS	EA
21	1	154-8640	FLANGED BEARING-STD BRUSH (3/4" ROTATED)	EA
22	2	153-2015	5/16 LOCKWASHER	EA
23	1	164-6051	TRANSFER ROLLER IDLER BELT BLOCK	EA
24	2	153-2022	HEX NUT - 10-24	EA
25	1	153-2024	HEX NUT - 5/16-18	EA
26	6	153-2955	10-24 x 7/8 HEX HEAD MACHINE SCREW	EA
27	1	158-6742	TRANSFER ROLLER BELT IDLER	EA
28	1	153-2308	SHOULDER BOLT 1/4 X 3/4 10-24 THREAD	EA
29	2	164-6052	TRANSFER ROLLER ADJUSTMENT PLATE	EA
30	2	153-2035	BLIND RIVET WASHER - 3/16	EA
31	4	153-2013	#10 LOCKWASHER	EA
32	4	153-2999	SCREW - SHCS 8-32 X 1/2 BLACK OXIDE	EA
33	1	164-9007	PULLEY 24XLO37 3/4 BORE NO HUB NO KWY	EA
34	1	158-9402	PULLEY FOR BUFFER BRUSH ASSEMBLY	EA
35	1	164-8008	TRANSFER ROLLER ASSEMBLY	EA
36	1	164-9021	BUSHING - 3/4 1 X 5/8 PLAIN	EA
37	1	153-9816	FLANGED BUFFER BRUSH BEARING ASSEMBLY	EA
38	2	153-2801	SHOULDER BOLT - 3/8 X 3/8 (5/16-18)	EA
39	2	153-2801A	SHOULDER BOLT CUT - 3/8 X 3/8 (5/16-18)	EA
40	1	164-6013	LEFT BEARING MOUNT	EA
41	1	164-6014	RIGHT BEARING MOUNT	EA
42	1	162-2032	LOCKNUT CENTERLOCK 5/16-18	EA
43	1	164-6166	CONCENTRIC IDLER SLEEVE	EA
44	1	164-6165	BELT SLACK CONTROL IDLER	EA
45	1	164-2079	HHCS 5/16 X 2 1/4	EA
46	1	164-2058	FHSCS 5/16-24 X 3/4	EA

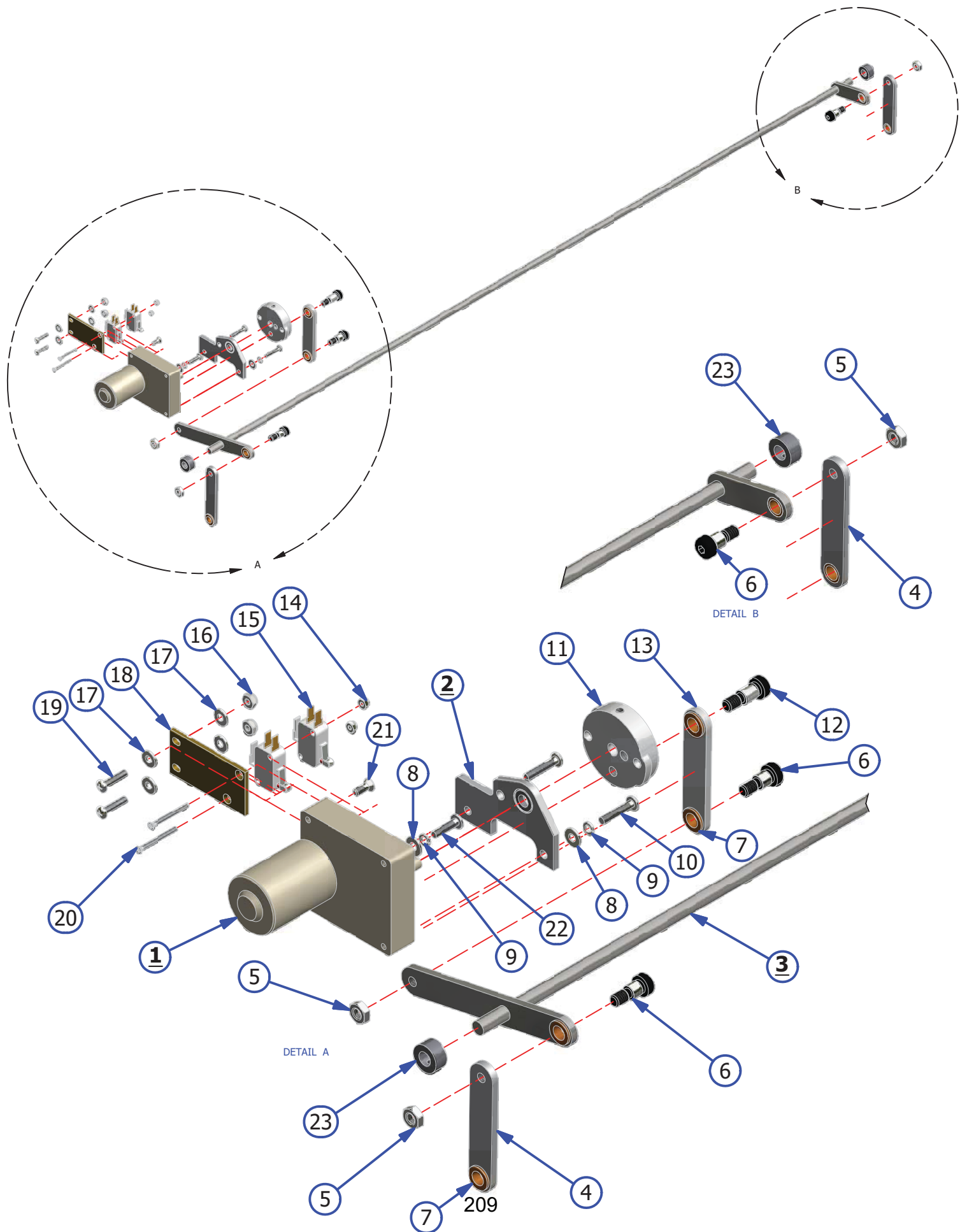


# BRUSH LIFT ROD ASSEMBLY

10/18

<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	158-8634	SQUEEGEE/BRUSH MOUNT PLATE ASSEMBLY	EA
	1	158-9614	BALL BEARING MINITURE	EA
3	1	164-8218	FLEX BRUSH LIFT ROD - 2016	EA
4	2	164-8084	FLEX BRUSH LIFT ROD TO BEARING LINK	EA
5	3	153-2027A	JAM NUT - 5/16-18	EA
6	5	153-2801	SHOULDER BOLT-3/8 X 3/8 (5/16-18)	EA
7	6	153-9803	FLANGED BUSHING (3/8 X 1/2 X 1/4)	EA
8	3	153-2003	#10 FLATWASHER	EA
9	3	153-2013	#10 LOCKWASHER	EA
10	2	153-2092	MS PHILLIPS - 10-32 X 1	EA
11	1	154-6243	MOTOR CAM-DUAL LOBES (STACKED SWITCHES)	EA
12	1	153-2515	SHOULDER BOLT - 3/8 X 1/2 (5/16-18)	EA
13	1	154-8837	FLEX BRUSH LIFT ROD TO CAM LINK	EA
14	2	153-2231	LOCKNUT - 4-40	EA
15	2	153-1203	MICROSWITCH W/ROLLER	EA
16	2	153-2019	LOCKNUT - 8-32 (NYLOK)	EA
17	4	153-2002	#8 FLATWASHER	EA
18	1	154-6824	CAM SWITCH PLATE	EA
19	2	153-2086	MS PHILLIPS - 8-32 X 5/8	EA
20	2	153-2727	4-40 X 1-1/4 FHMS	EA
21		153-2817	FLAT HEAD PHILLIPS - 8-32 X 1/2	EA
22	1	153-2091	MS PHILLIPS - 10-32 X 3/4	EA
23	2	153-2804	COLLAR - 3/8 X 3/4 X 3/8	EA





# VACUUM MOTOR ASSEMBLY

REV. 1/16

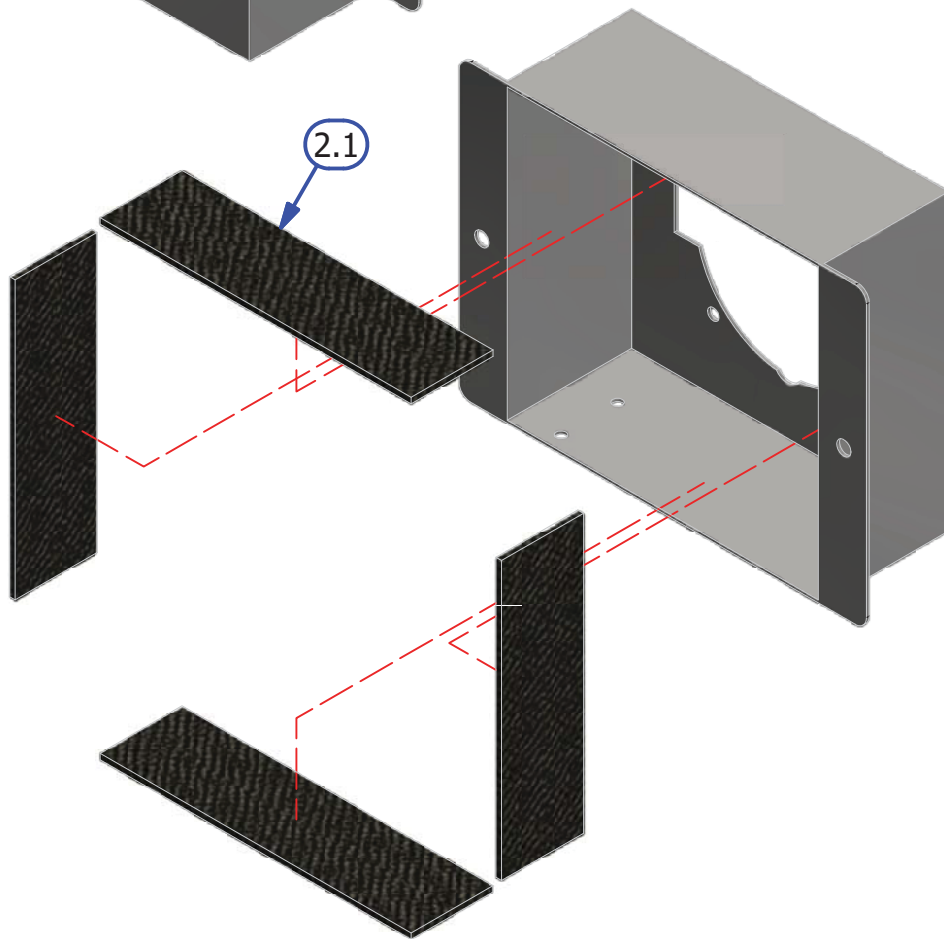
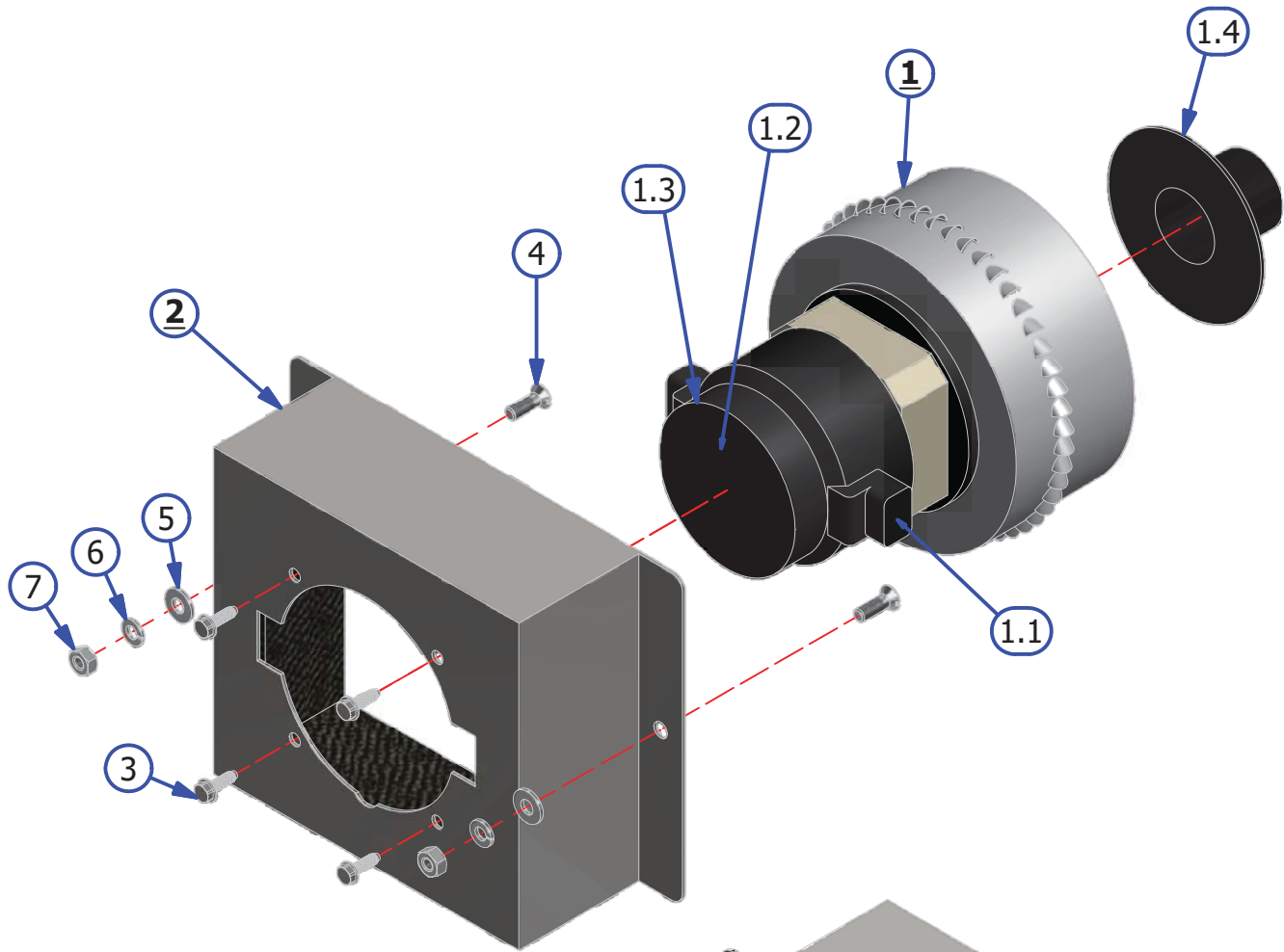
<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
<b>1</b>	<b>1</b>	<b>158-8407</b>	<b>VACUUM MOTOR ASSEMBLY (COMPLETE)</b>	
1.1	1	158-1421B	VACUUM MOTOR BRUSHES	PR
1.2	1	153-0204F	FAN BLADE	EA
1.3	1	153-0204H	FAN BLADE COVER	EA
1.4*	1	153-6221M	VACUUM WALL PLASTIC ADAPTER (See Below)	EA
<b>2</b>	<b>1</b>	<b>158-8618</b>	<b>VACUUM MOTOR HOUSING</b>	
2.1		154-0228S	STOCK - 1/8 IN GRAY FELT	IN
3	4	153-2830	HEX HEAD SELF TAP #10 X 5/8 SCREW	EA
4	2	153-2078	FHMS - 1/4 - 20 X 3/4	EA
5	2	153-2004	1/4 FLAT WASHER	EA
6	2	153-2014	1/4 LOCK WASHER	EA
7	2	153-2023	1/4/-20 HEX NUT	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.



# CLEANER TANK ASSEMBLY

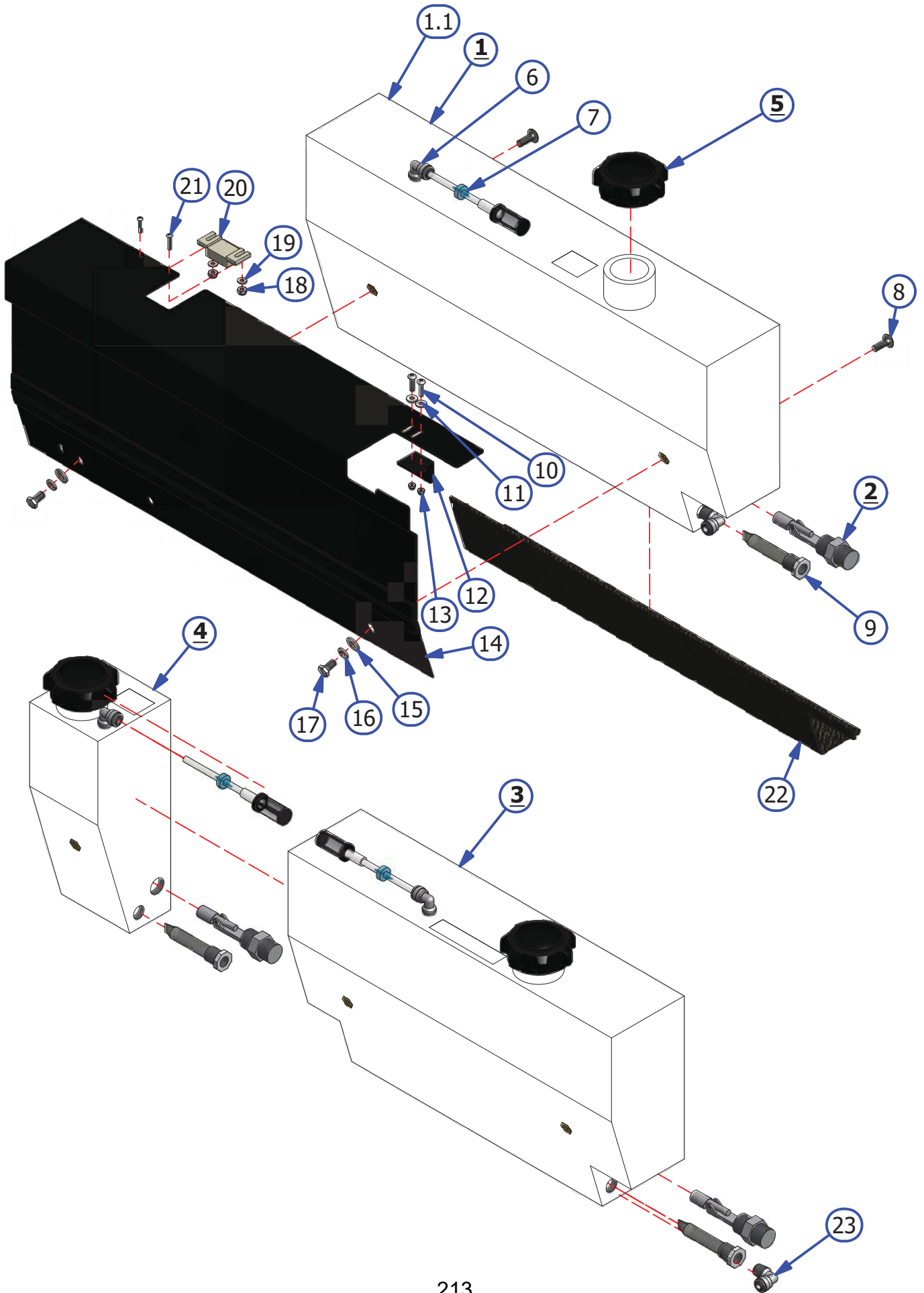
REV. 9/14

<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
<b>1</b>	1	164-8042	CLEANER SUPPLY TANK (COMPLETE)	EA
1.1	1	164-6016	CLEANER SUPPLY TANK ONLY	EA
<b>2</b>	1*	154-8693	CLEANER SUPPLY TANK FLOAT ASSEMBLY	EA
<b>3</b>	1	164-8041	FLEX UPGRADED WATER TANK ASSEMBLY (COMPLETE)	EA
3.1	1	164-6740	UPGRADED WATER TANK (TANK ONLY)	EA
<b>4</b>	1	164-8043	FLEX UPGRADED CLEANER TANK ASSEMBLY (COMPLETE)	EA
4.1	1	164-6741	UPGRADED CLEANER TANK (TANK ONLY)	EA
<b>5</b>	1*	164-8081	SUPPLY TANK CAP WITH GASKET	EA
5.1	1*	164-0021	GASKET FOR SUPPLY TANK CAP	EA
6	1	154-0223	ELBOW (90 DEGREE) 1/4NPT X 1/4IN TUBING	EA
7	1	154-8817	VENT VALVE ASSEMBLY	EA
8	2	153-2924	MS PHILLIPS - 1/4-20 X 3/4	EA
9	1*	154-0212B	FILTER ASSEMBLY FOR SUPPLY TANK	EA
10	2	153-2086	MS PHILLIPS - 8/32 X 5/8	EA
11	2	153-2002	FLAT WASHER #8	EA
12	1	154-6827M	MOUNTING ANGLE - MOLDED PLASTIC	EA
13	2	153-2231	LOCKNUT - 4-40	EA
14	1	164-8078	SPLASH GUARD (SPECIFY COLOR)	EA
15	2	153-2004	FLAT WASHER 1/4	EA
16		153-2014	LOCK WASHER 1/4	EA
17	2	153-2726	1/4-20 X 1/2 HHCS	EA
18	2	153-2019	LOCKNUT - 8-32 (NYLOK)	EA
19	2	153-2001	FLAT WASHER #6	EA
20	1	154-0609	MAGNETIC CATCH / PLATE ASSEMBLY	EA
21	2	153-2216	MS PHILLIPS 4-40 X 5/8	EA
22	1	164-8212	FELT KIT - 24" X 1/8 48" X 9" X 1/8"	IN



## **TECHNICAL NOTE**

\*FOR MACHINES WITH THE UPGRADED CLEANING SYSTEM, THESE PARTS ARE QUANTITY OF TWO.

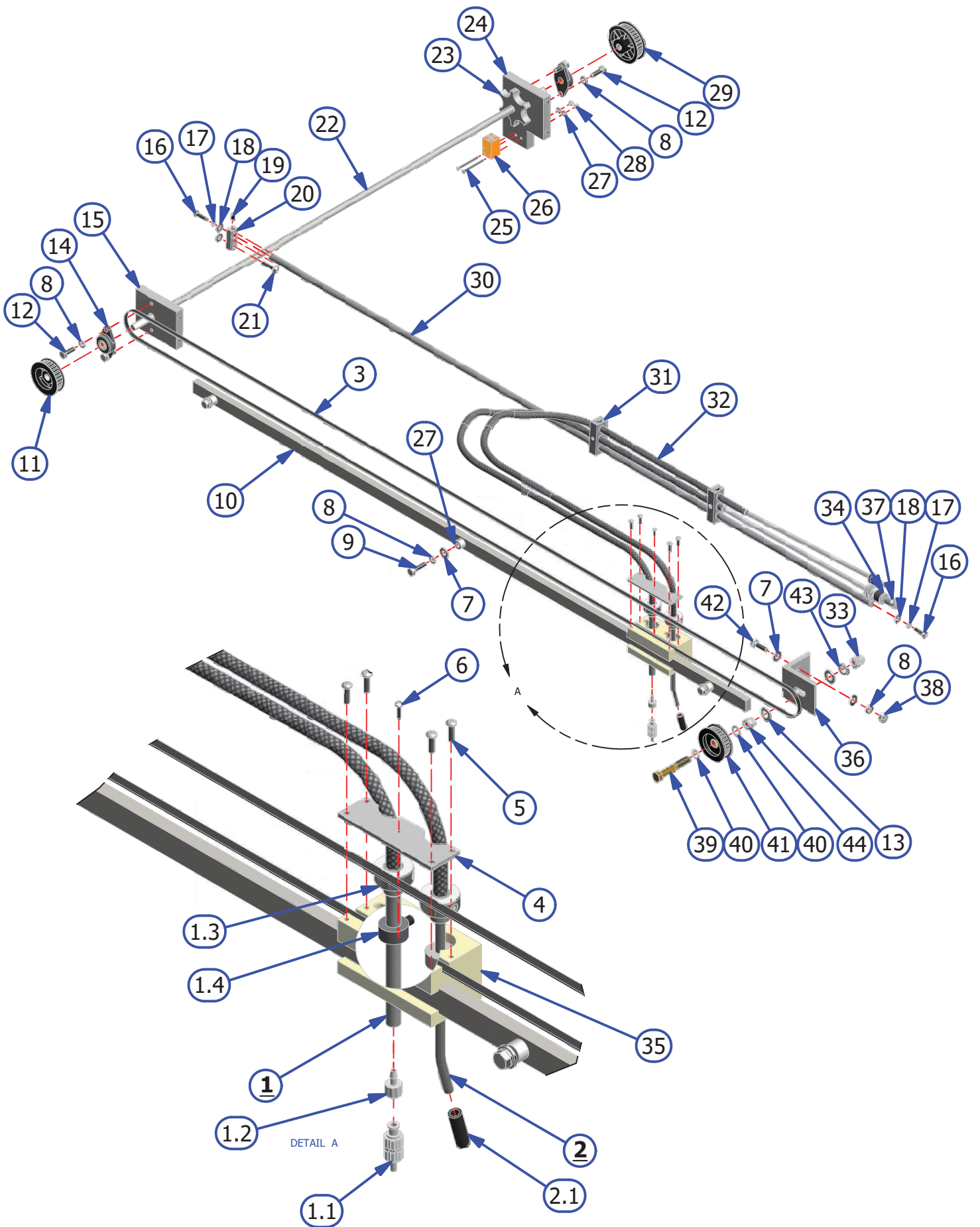


# CLEANER HEAD ASSEMBLY

REV. 4/19

<u>INDEX NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	154-8852	CLEANER HOSE AND TIP ASSEMBLY (COMPLETE)	EA
1.1	1	164-0012M	CLEANER TIP WITH CHECK VALVE	EA
1.2	1	154-0863	FITTING - MALE LUER TO 1/8 IN HOSE BARB	EA
1.3	1	153-2713	SPRING - TIP RETAINER	EA
1.4	1	153-2804	COLLAR - 3/8 X 3/4 X 3/8	EA
1.5	1	153-2902	COLLAR - 1/2 X 1 1/8 X 1/2	EA
2*	1	164-8228	PINDECK TREATMENT TIP ASSEMBLY	EA
2.1*	1	164-2067	PINDECK TREATMENT TIP COVER	EA
3	1	154-9201	HEAD DRIVE BELT ASSEMBLY	EA
4*	1	164-6230	CLEANER HEAD BELT MOUNT	EA
5	4	153-2081	MS PHILLIPS - 6-32 X 1/2	EA
6*	1	153-2504	MS PHILLIPS - 4-40 X 3/8	EA
7	1	153-2004	FLAT WASHER	EA
8	1	153-2014	LOCKWASHER - 1/4	EA
9	1	153-2053	HHCS - 1/4 X 1"	EA
10	1	154-6877	CLEANER HEAD GUIDE BAR	EA
11	1	154-9205B	PULLEY (28XL 3/8 BORE)	EA
12	1	153-2603	HHCS 1/4-20 X 3/4	EA
13	1	153-2006	FLAT WASHER 3/8	EA
14	2	154-9804	FLANGED BEARING FOR CLEANER DRIVE SHAFT	EA
15	1	154-6878	CLEANER HEAD DRIVE SHAFT BLOCK	EA
16	4	153-2091	MS PHILLIPS - 10-32 X 3/4	EA
17	4	153-2013	LOCK WASHER #10	EA
18	4	153-2003	FLAT WASHER #10	EA
19	2	153-2051A	SET SCREW - 1/4-20 X 1/4	IN
20	1	164-6090	CLEANER HOSE SHAFT MOUNT	EA
21	2	153-2092	MS PHILLIPS - 10-32 X 1	EA
22	1	164-6047	FLEX CLEANER HEAD DRIVE SHAFT	EA
23	1	154-6884	6 TOOTH SENSOR DISK	EA
24	2	164-6064	CLEANER HEAD IDLER MOUNT BLOCK	EA
25	2	153-2516	MS PHILLIPS - 4-40 X 1-1/2	EA
26	1	154-1220	PROXIMITY SENSOR	EA
27	2	153-2001	FLAT WASHER #6	EA
28	2	153-2231	LOCKNUT - 4-40	EA
29	1	154-9805	PULLEY - 32XL037 - 3/8 BORE DF DBL SET	EA
30	1	154-6889	CLEANER HOSE ROUTING BAR	EA
31*	2	164-6231	HOSE SPRING MOUNT BLOCK	EA
32	2	154-0867	CLEANER HOSE SPRING	EA
33	1	153-2030	ACORN NUT 3/8 - 16	EA
34	1	154-0221	BULK HEAD UNION	EA
35*	1	164-6224	CLEANER HEAD ASSEMBLY	EA
36	1	164-6048	CLEANER HEAD IDLER MOUNT	EA
37	1	154-0222	ELBOW - 1/4 IN STEM X 1/4 IN TUBING OD	EA
38	1	153-2023	HEX NUT - 1/4-20	EA
39	1	153-2815	HHCS - 3/8-16 X 2-1/4 (GRADE 8)	EA
40	1	153-2009	NYLON FLAT WASHER	EA
41	1	154-8862	PULLEY - (28XL037 - 1/2 BORE NO SET	EA
42	1	153-2052	HHCS - 1/4-20 X 7/8"	EA
43	1	153-2016	LOCK WASHER 3/8"	EA
44	1	153-2025	HEX NUT - 3/8-16	EA

\*PINDECK TREATMENT UPGRADED MACHINES ONLY



# DUSTER ASSEMBLY

REV. 1/18

<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
<b>1</b>	<b>1</b>	<b>153-8839</b>	<b>CUSHION ROLLER WITH WRAP ASSEMBLY</b>	EA
1.1		154-8839A	CUSHION ROLLER COVER - SIZE A	EA
1.2		154-8839B	CUSHION ROLLER COVER - SIZE B	EA
1.3		154-8839C	CUSHION ROLLER COVER - SIZE C	EA
1.4		154-8839D	CUSHION ROLLER COVER - SIZE D	EA
1.5		154-8839E	CUSHION ROLLER COVER - SIZE E	EA
<b>2</b>	<b>2</b>	<b>158-8403</b>	<b>DUSTER MOTOR ASSEMBLY</b>	EA
<b>3</b>	<b>1</b>	<b>153-8824</b>	<b>PVC TAKE UP REEL</b>	EA
4	8	153-2003	#10 - FLATWASHER	EA
5	8	153-2091	MS PHILLIPS - 10-32 X 3/4	EA
6	2	153-2050	SET SCREW 1/4-28 X 3/8	EA
7	1	153-8201B	DUSTER DRIVE HUB ASSEMBLY (1/4-28)	EA
8	4	153-2603	HHCS - 1/4-20 X 3/4	EA
9	2	153-2014	LOCK WASHER 1/4"	EA
10	8	153-2004	FLAT WASHER 1/4-20	EA
11	2	164-6175	CUSHION ROLLER STUD	EA
12	4	164-2081	DUSTER SPRING FOR STUD MOUNT	EA
13	2	164-6174	DUSTER PLUG STUD	EA
14	2	153-2090	MS - PHILLIPS - -32 X 1-1/2	EA
15	2	164-8823	CUSHION ROLLER ARM ASSY (STUD MOUNT)	EA
16	2	153-2414	HEX NUT 8-32	EA
17	8	153-2018	LOCKNUT 6-32	EA
18	2	154-1603	MICROSWITCH WITHOUT ROLLER (LARGE)	EA
19	8	153-2001	FLAT WASHER #6	EA
20	4	153-2085	MS PHILLIPS - 6-32 X 1 1/4	EA
21	2	153-9051	CUSHION ROLLER PLUG WITH STUD	EA
22	1	153-0429	DUSTER ROLL SUPPORT PIPE (40 INCH)	EA
23	1	164-6108A	DUSTER PLUG CARDBOARD CORE (STUD MOUNT)	EA
24	1	164-6109A	DUSTER PLUG FOR PVC CORE (STUD MOUNT)	EA
25	1	153-8202B	DUSTER SOLID DRIVE HUB (PVC)	EA
26	1	153-0047EZ	K2 SELECT DUSTER CLOTH (BOX OF 4)	CASE
27	2	153-2006	FLATWASHER - 3/8"	EA

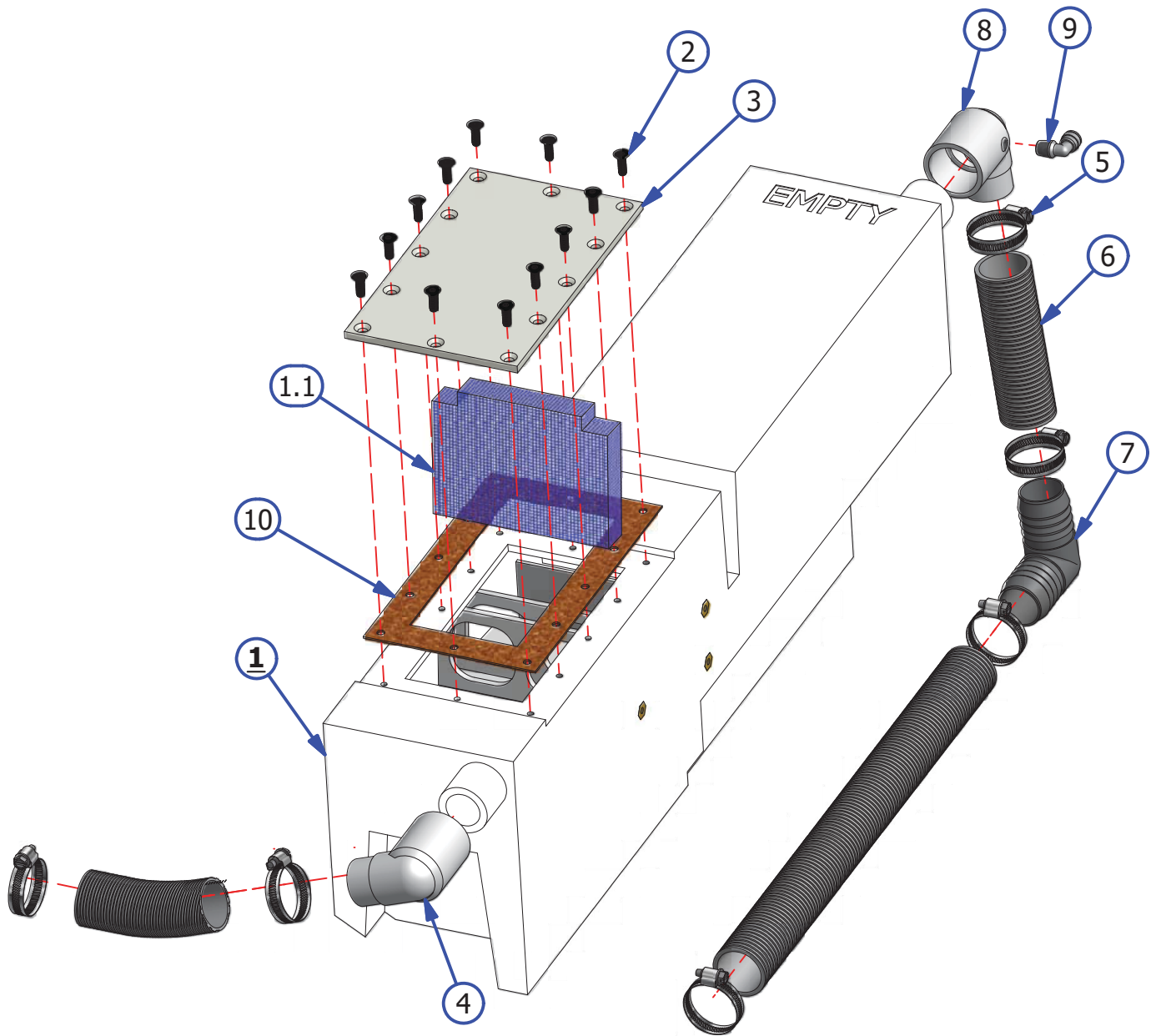




# RECOVERY TANK

REV. 2/16

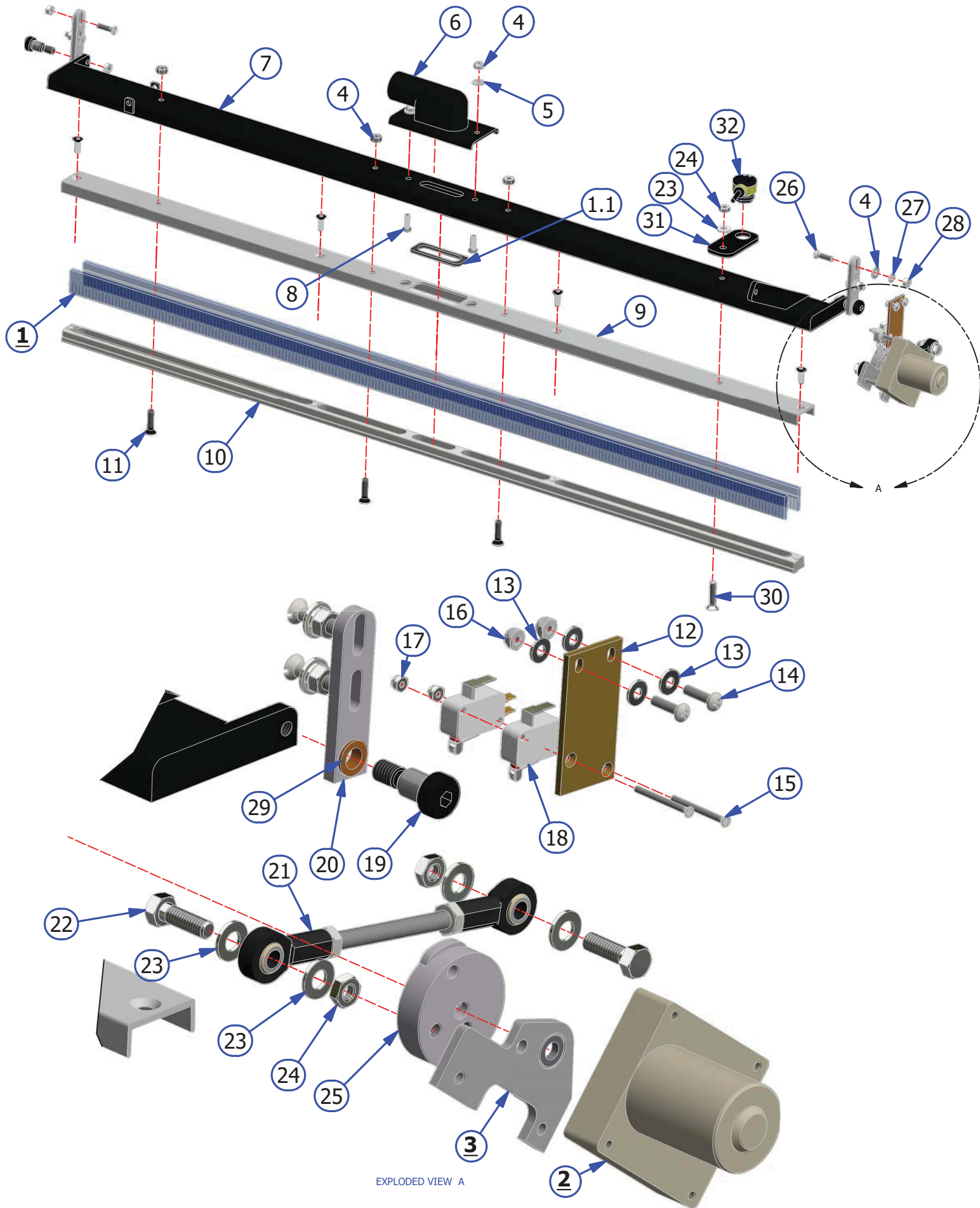
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8017	FLEX RECOVERY TANK	EA
1.1	1	164-8017F	RECOVERY TANK FILTER	EA
2	12	153-2968	SCREW - 1/4-20 X 3/4 FSHCS	EA
3	1	164-6120	FLEX RECOVERY TANK COVER PLATE	EA
4	1	153-8827T	1-1/4 PVC ELBOW-TANK INLET (NO THREADS)	EA
5	6	153-2406	HOSE CLAMP (2 INCH)	EA
6	1	154-0260	FLEXIBLE HOSE - SOLD BY THE INCH	IN
7	1	154-0607	PVC ELBOW - 1-1/2 BARB X 1-1/2 BARB	EA
8	1	158-6244	ELBOW -RECOVERY TANK WITH TAPPED HOLE	EA
9	1	154-0223	ELBOW - 1/4" TUBE X 1/4" NPT	EA
10	1	158-0405	FLEX RECOVERY TANK GASKET	EA



# SQUEEGEE ASSEMBLY

REV. 10/18

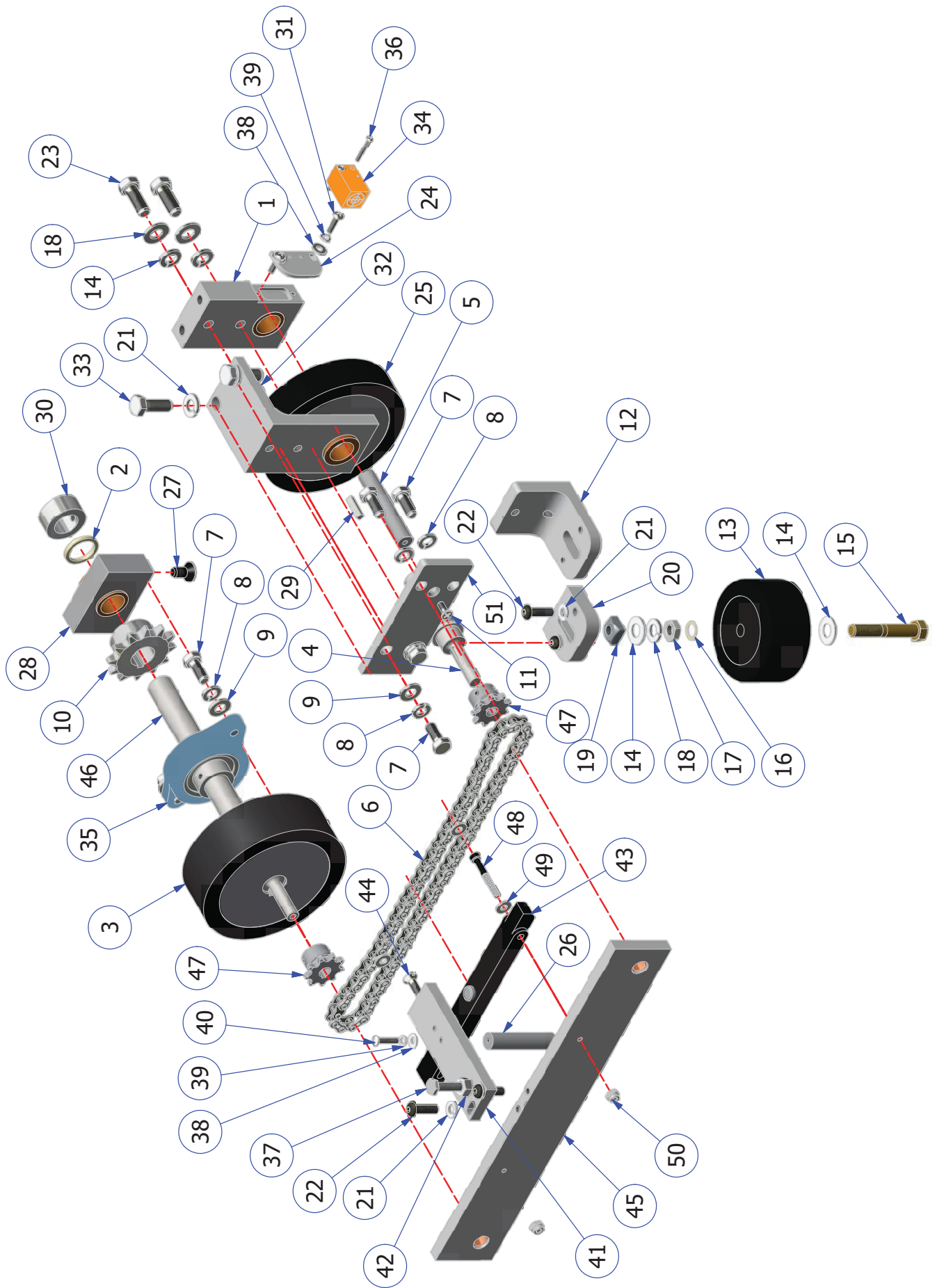
<u>INDEX</u> <u>NUMBER</u>	<u>QTY.</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UOM</u>
1	1	164-8038K	SQUEEGEE BLADE AND GASKET REPLACEMENT (1 SET)	EA
1.1	1	164-0003	GASKET	EA
2	1	158-8402	MOTOR ASSEMBLY -24VDC	EA
3	1	158-8634	SQUEEGEE/BRUSH MOUNT PLATE ASSEMBLY	EA
	1	158-9614	BALL BEARING MINITURE	EA
4	2	153-2020	LOCKNUT - 1/4-20 (NYLOK)	EA
5	6	153-2004	1/4 FLATWASHER	EA
6	1	154-6677A	SQUEEGEE HOSE ADAPTER NYLON	EA
7	1	154-6339	SQUEEGEE MOUNT ANGLE - BLACK (USE 154-6339-2850)	EA
8	2	164-2023	BHSCS 1/4-20 X 3/4	EA
9	1	164-6074	EXTRUDED SQUEEGEE CHANNEL	EA
10	1	164-6075	MACHINED SQUEEGEE CHANNEL INSERT	EA
11	3	153-2503	FHSS - 5/16-18 X 1-1/4	EA
12	1	154-6824	SQUEEGEE CAM SWITCH PLATE	EA
13	4	153-2002	#8 FLATWASHER	EA
14	2	153-2086	MS PHILLIPS - 8-32 X 5/8	EA
15	2	153-2727	4-40 X 1-1/4 FHMS	EA
16	2	153-2019	LOCKNUT - 8-32 (NYLOK)	EA
17	2	153-2231	LOCKNUT - 4-40	EA
18	2	153-1203	MICROSWITCH W/ROLLER	EA
19	2	153-2303	SHOULDER BOLT-3/8 X 5/8 (5/16-18)	EA
20	1	154-8802	SQUEEGEE ADJUSTMENT ARM	EA
21	2	153-0211	ROD END	EA
22	2	153-2061	HHCS - 5/16-18 X 1	EA
23	5	153-2005	5/16 FLATWASHER	EA
24	3	153-2027A	JAM NUT - 5/16-18	EA
25	1	154-6243	MOTOR CAM-DUAL LOBES (STACKED SWITCHES)	EA
26	4	153-2079	FHCS - 1/4 X 20 1 BLACK ALLOY	EA
27	4	153-2014	LOCK WASHER 1/4"	EA
28	4	153-2023	1/4-20 HEX NUT	EA
29	2	153-9803	BUSHING	EA
30	1	153-2513	FHSS - 5/16-18 X 1-1/2	EA
31	1	164-6176	FAILSAFE SENSOR MOUNT PLATE	EA
32	1	164-1241	FAILSAFE BEAM SENSOR	EA



# ZTR ASSEMBLY - LEFT

REV. 3/16

<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	FLEX 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	2	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	FLEX 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	FLEX ZTR SHAFT SUPPORT	EA
46	1	164-6028	FLEX 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

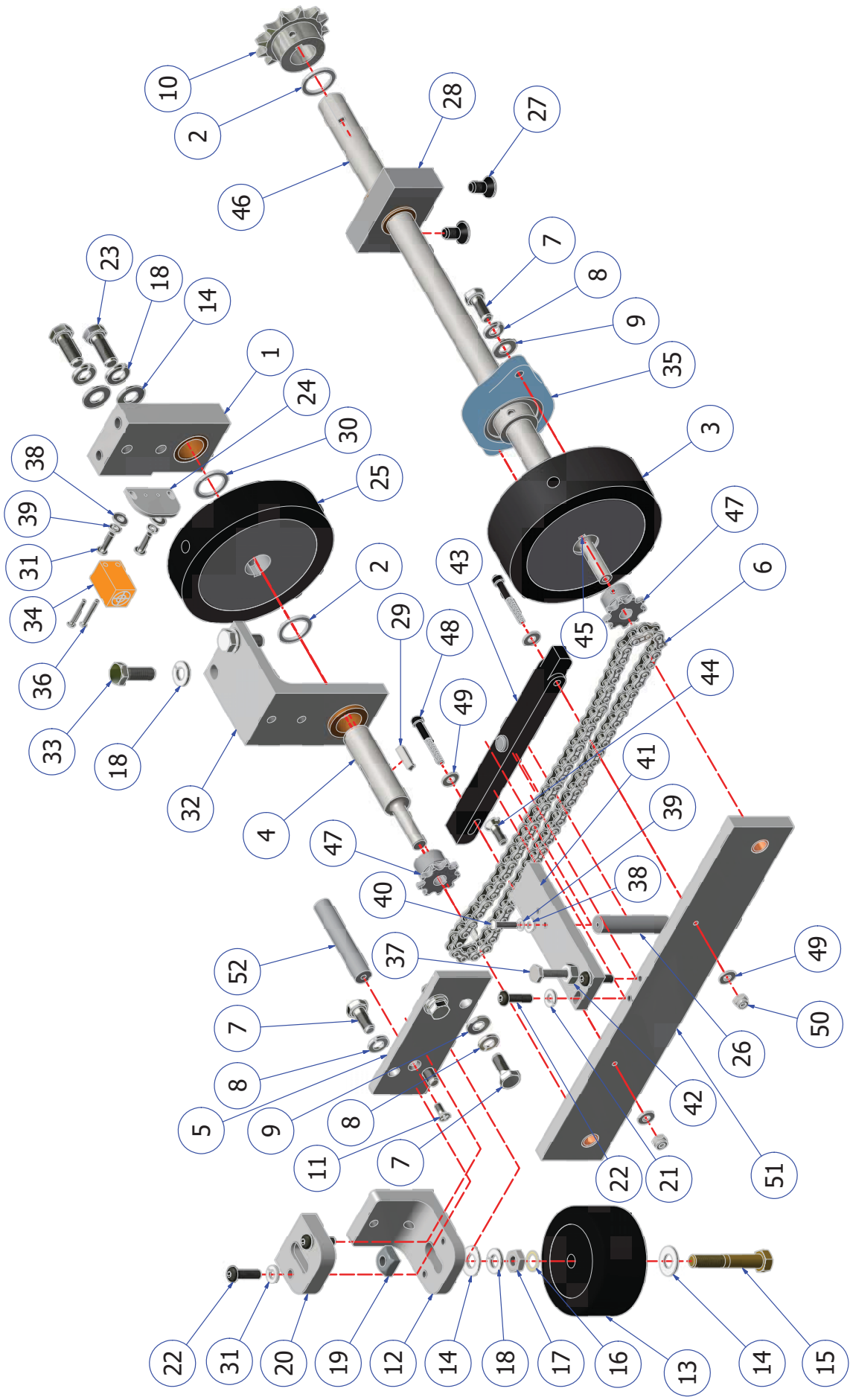


# ZTR ASSEMBLY - RIGHT

REV. 3/16

<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	FLEX 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	FLEX 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	FLEX 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	FLEX ZTR SHAFT SUPPORT	EA
52	1	158-6705	BUMPER WHEEL SIDE POST	EA







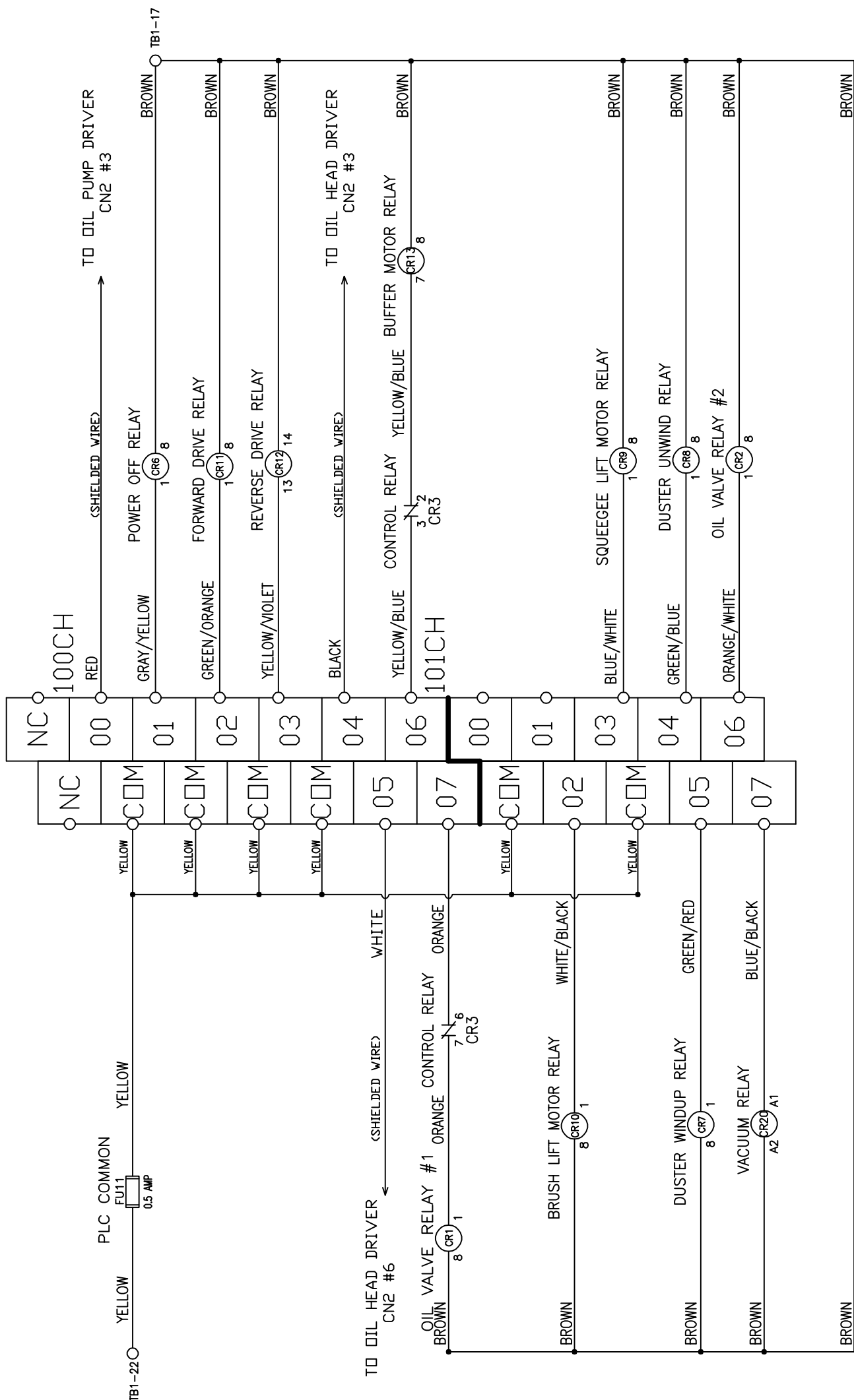
# CHAPTER 9

## FLEX ELECTRICAL DRAWINGS

The following diagrams show wiring schematics for the Kustodian Walker. Detailed diagrams for the Ion follow this section. If you have any questions please call 863-734-0200 or email [tech@kegel.net](mailto:tech@kegel.net).

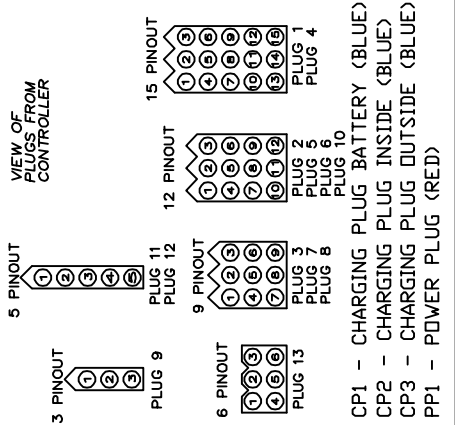
Flex Motor Wiring Layout	230
Flex Output Wiring Layout	231
Flex Input Wiring Layout	232
Flex Speed Control Wiring Layout	233
Flex Analog Wiring Layout	234
Flex Terminal Block Wiring Layout	235
Flex Power Wiring Layout	236
Flex Voltage Regulator Wiring Layout	237
Flex Oil Pump Driver & Motor Wiring Layout	238
Flex Oil-Cleaner Head Driver & Motor Wiring Layout	239
Flex L-R & R-L Head Proximity Sensor Wiring Layout	240
Flex Oil Valves Wiring Layout	241
Flex Buffer Motor Wiring Layout	242
Flex Variable Buffer Wiring Layout	243
Flex Brush Lift Motor Wiring Layout	244
Flex Vacuum Wiring Layout	245
Flex Squeegee Motor & Switch Wiring Layout	246
Flex Duster Unwind Motor & Switch Wiring Layout	247
Flex Duster Windup Motor & Switch Wiring Layout	248
Flex Cleaner Pump #1 Wiring Layout	249
Flex Cleaner Pump #2 Wiring Layout	250
Flex Start Button & Duster Presoak Button Wiring Layout	251
Flex Oil Float & Cleaner Float Wiring Layout	252
Flex Speed Tach & LDS Wiring Layout	253
Flex LED Tank Light Wiring Layout	254
Flex Trigger Solenoid Wiring Layout	255

DMRON  
SYSMAC  
CPIH  
OUTPUTS



LEGEND

- CR1 - OIL VALVE RELAY TANK A
  - CR2 - OIL VALVE RELAY TANK B
  - CR3 - CONTROL RELAY
  - CR4 - DUSTER POLARITY SWITCH RELAY
  - CR5 - PIN DECK TREATMENT RELAY
  - CR6 - POWER OFF RELAY
  - CR7 - DUSTER WINDUP MOTOR RELAY
  - CR8 - DUSTER UNWIND MOTOR RELAY
  - CR9 - SQUEEGEE LIFT MOTOR RELAY
  - CR10 - BRUSH LIFT MOTOR RELAY
  - CR11 - FORWARD DRIVE MOTOR RELAY
  - CR12 - REVERSE DRIVE MOTOR RELAY
  - CR13 - BUFFER MOTOR RELAY
  - CR14 -
  - CR15 -
  - CR16 -
  - CR17 -
  - CR18 -
  - CR19 - VACUUM MOTOR RELAY
  - CR20 - POWER RELAY
- 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 2.25A
  - FU9 - OIL PUMP MOTOR 2.25A
  - FU10 - PLC INPUT POWER/L1 0.5A
  - FU11 - PLC OUTPUT COMMON 0.5A
  - FU12 - TOUCH SCREEN 0.5A
  - FU13 - CLEANER PUMP #1 3.2A
  - FU14 - CLEANER PUMP #2 3.2A
  - FU15 - CVR POWER 25A/30A
  - FU16 - LED LIGHTS 1A
  - FU17 - TRIGGER SOLENOID 3.2A
- PL1 - 10-PIN SIDE PLUG (15)
  - PL2 - 10-PIN SIDE PLUG (12)
  - PL3 - 10-PIN SIDE PLUG (9)
  - PL4 - 7-PIN SIDE PLUG (15)
  - PL5 - 7-PIN SIDE PLUG (12)
  - PL6 - DRIVE SPEED BOARD PLUG (12)
  - PL7 - CLEANER PUMP #1 SPEED BOARD PLUG (9)
  - PL8 - CLEANER PUMP #2 SPEED BOARD PLUG (9)
  - PL9 -
  - PL10 - BUFFER SPEED BOARD PLUG (12)
  - PL11 - BUFFER MOTOR PLUG (5)
  - PL12 - BUFFER MOTOR VARIABLE SPEED PLUG (5)
  - PL13 - OIL PLATE ASSEMBLY PLUG (6)
- TB1 - TERMINAL BLOCK 1 (MAIN)
  - TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
  - TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
  - TB4 - TERMINAL BLOCK 4 (OIL PLATE)

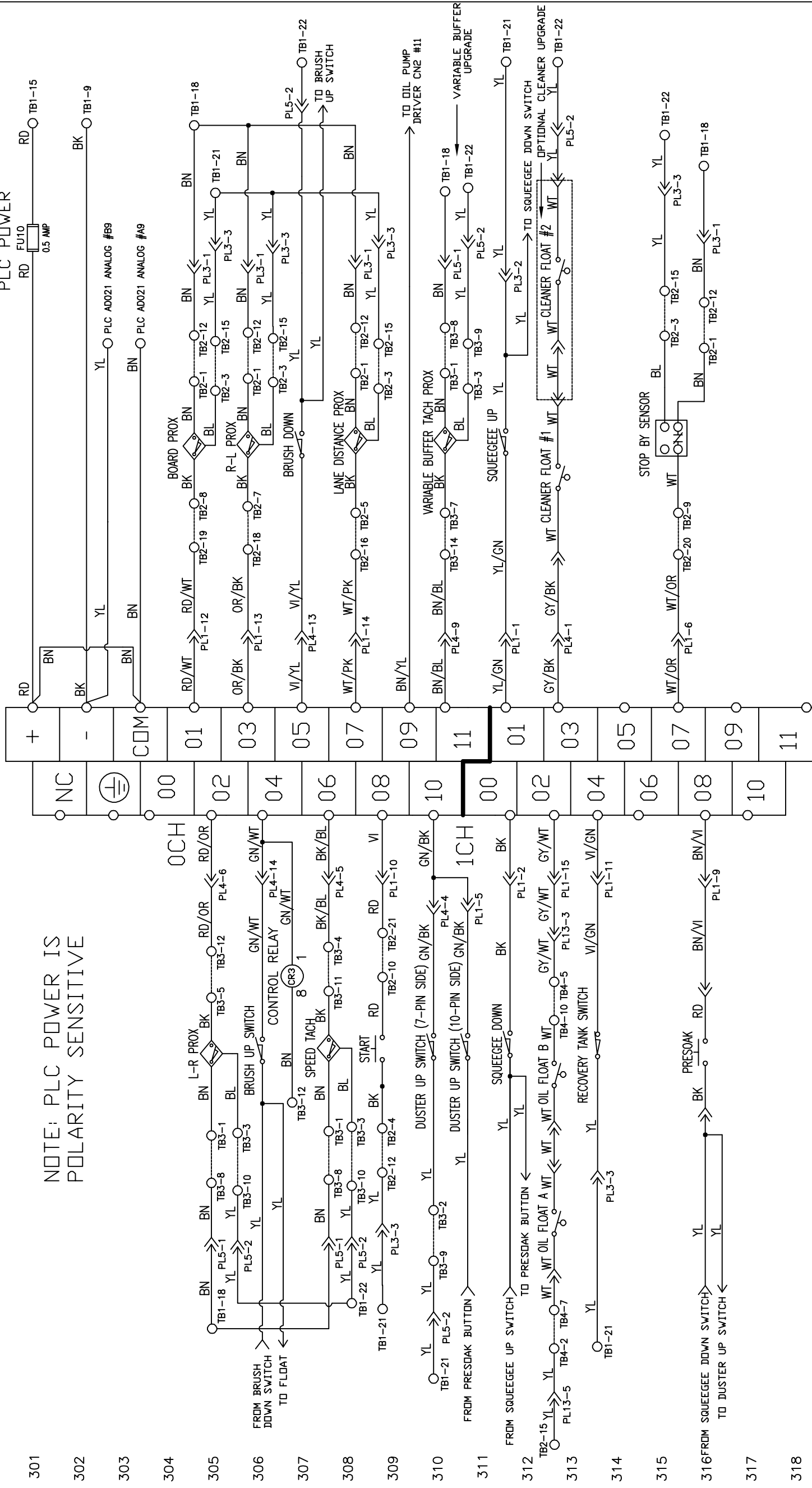


MATERIAL		KEGEL LLC	
N/A		1951 LONGLEAF BLVD. LAKE WALES, FL 33859 (888) 734-0200	
DESCRIPTION		OUTPUT WIRING SCHEMATIC	
DRAWN BY	DATE	DO NOT SCALE DRAWING	
SLS	07/23/18	SIZE	QTY/MACHINE PART NUMBER
APPROVED:	REV DATE	C	N/A
MP		SCALE	N/A
DOC REV		SHEET	2 OF 26

200  
201  
202  
203  
204  
205  
206  
207  
208  
209  
210  
211  
212  
213  
214  
215  
216  
217  
218

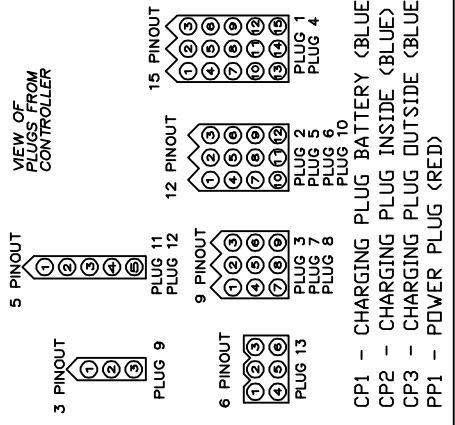
OMRON SYSMAC CP1H INPUTS

NOTE: PLC POWER IS  
POLARITY SENSITIVE



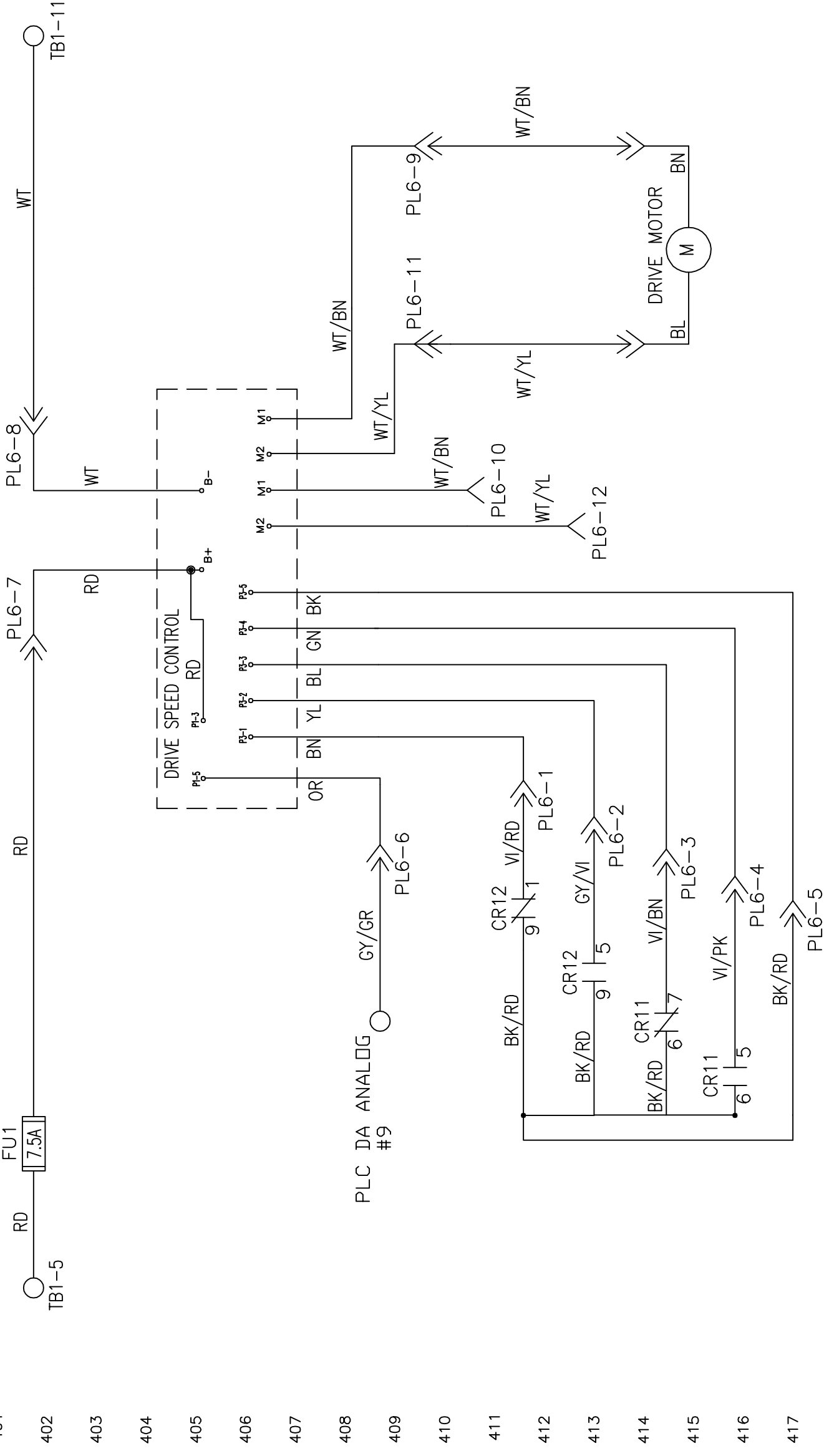
LEGEND

- CR1 - OIL VALVE RELAY TANK A
- CR2 - OIL VALVE RELAY TANK B
- CR3 - CONTROL RELAY
- CR4 - DUSTER POLARITY SWITCH RELAY
- CR5 - PIN DECK TREATMENT RELAY
- CR6 - POWER OFF RELAY
- CR7 - DUSTER WINDUP MOTOR RELAY
- CR8 - DUSTER UNWIND MOTOR RELAY
- CR9 - SQUEEGEE LIFT MOTOR RELAY
- CR10 - BRUSH LIFT MOTOR RELAY
- CR11 - FORWARD DRIVE MOTOR RELAY
- CR12 - REVERSE DRIVE MOTOR RELAY
- CR13 - BUFFER MOTOR RELAY
- CR14 -
- CR15 -
- CR16 -
- CR17 -
- CR18 - VACUUM MOTOR RELAY
- CR20 - POWER RELAY
- 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 2.25A
- FU9 - OIL PUMP MOTOR 2.25A
- FU10 - PLC INPUT POWER/L1 0.5A
- FU11 - PLC OUTPUT COMMON 0.5A
- FU12 - TOUCH SCREEN 0.5A
- FU13 - CLEANER PUMP #1 3.2A
- FU14 - CLEANER PUMP #2 3.2A
- FU15 - CVR POWER 25A/30A
- FU16 - LED LIGHTS 1A
- FU17 - TRIGGER SOLENOID 3.2A
- PL1 - 10-PIN SIDE PLUG (15)
- PL2 - 10-PIN SIDE PLUG (12)
- PL3 - 10-PIN SIDE PLUG (9)
- PL4 - 7-PIN SIDE PLUG (15)
- PL5 - 7-PIN SIDE PLUG (12)
- PL6 - DRIVE SPEED BOARD PLUG (12)
- PL7 - CLEANER PUMP #1 SPEED BOARD PLUG (9)
- PL8 - CLEANER PUMP #2 SPEED BOARD PLUG (9)
- PL9 -
- PL10 - BUFFER SPEED BOARD PLUG (12)
- PL11 - BUFFER MOTOR PLUG (5)
- PL12 - BUFFER MOTOR VARIABLE SPEED PLUG (5)
- PL13 - OIL PLATE ASSEMBLY PLUG (6)
- TB1 - TERMINAL BLOCK 1 (MAIN)
- TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
- TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
- TB4 - TERMINAL BLOCK 4 (OIL PLATE)



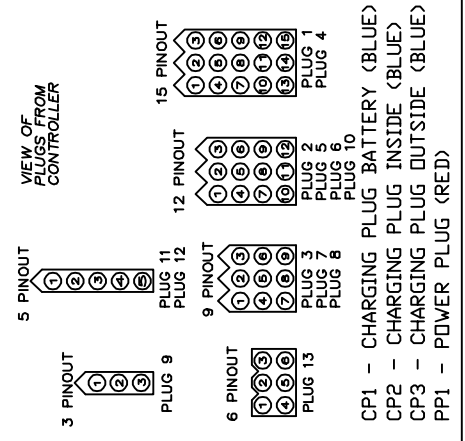
MATERIAL		N/A	
DESCRIPTION		INPUT WIRING SCHEMATIC	
DRAWN BY	DATE	DO NOT SCALE DRAWING	SIZE
SLS	07/23/18		QTY/MACHINE PART NUMBER
APPROVED:	REV DATE		C
MP			FLEX 2019
DOC REV		SCALE	N/A
			SHEET 3 OF 26

KEGEL P/N  
154-1270



**LEGEND**

- CR1 - OIL VALVE RELAY TANK A
- CR2 - OIL VALVE RELAY TANK B
- CR3 - CONTROL RELAY
- CR4 - DUSTER POLARITY SWITCH RELAY
- CR5 - PIN DECK TREATMENT RELAY
- CR6 - POWER OFF RELAY
- CR7 - DUSTER WINDUP MOTOR RELAY
- CR8 - DUSTER UNWIND MOTOR RELAY
- CR9 - SQUEEGEE LIFT MOTOR RELAY
- CR10 - BRUSH LIFT MOTOR RELAY
- CR11 - PLC OUTPUT COMMON 0.5A
- CR12 - TOUCH SCREEN 0.5A
- CR13 - CLEANER PUMP #1 3.2A
- CR14 - CLEANER PUMP #2 3.2A
- CR15 - CVR POWER 25A/30A
- CR16 - LED LIGHTS 1A
- CR17 - TRIGGER SOLENOID 3.2A
- CR18 - VACUUM MOTOR RELAY
- CR20 - POWER RELAY
- 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 2.25A
- FU9 - OIL PUMP MOTOR 2.25A
- FU10 - PLC INPUT POWER/L1 0.5A
- FU11 - PLC OUTPUT COMMON 0.5A
- FU12 - TOUCH SCREEN 0.5A
- FU13 - CLEANER PUMP #1 3.2A
- FU14 - CLEANER PUMP #2 3.2A
- FU16 - LED LIGHTS 1A
- FU17 - TRIGGER SOLENOID 3.2A
- PL1 - 10-PIN SIDE PLUG (15)
- PL2 - 10-PIN SIDE PLUG (12)
- PL3 - 10-PIN SIDE PLUG (9)
- PL4 - 7-PIN SIDE PLUG (15)
- PL5 - 7-PIN SIDE PLUG (12)
- PL6 - DRIVE SPEED BOARD PLUG (12)
- PL7 - CLEANER PUMP #1 SPEED BOARD PLUG (9)
- PL8 - CLEANER PUMP #2 SPEED BOARD PLUG (9)
- PL9 - BUFFER SPEED BOARD PLUG (12)
- PL10 - BUFFER MOTOR PLUG (5)
- PL11 - BUFFER MOTOR VARIABLE SPEED PLUG (5)
- PL12 - BUFFER MOTOR VARIABLE SPEED PLUG (5)
- PL13 - OIL PLATE ASSEMBLY PLUG (6)
- TB1 - TERMINAL BLOCK 1 (MAIN)
- TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
- TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
- TB4 - TERMINAL BLOCK 4 (OIL PLATE)



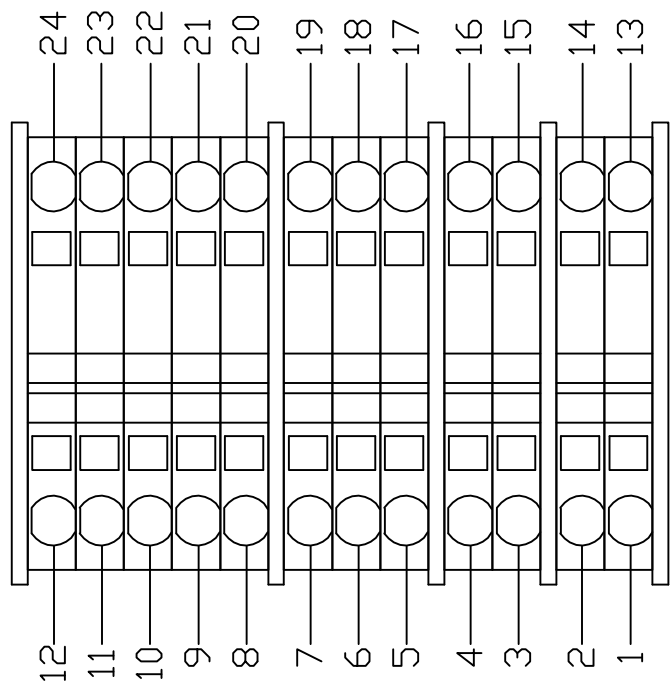
- CP1 - CHARGING PLUG BATTERY (BLUE)
- CP2 - CHARGING PLUG INSIDE (BLUE)
- CP3 - CHARGING PLUG OUTSIDE (BLUE)
- PPI - POWER PLUG (RED)

<b>MATERIAL</b>		N/A	
<b>DESCRIPTION</b>	SPEED CONTROL SCHEMATIC		
<b>DRAWN BY</b>	<b>DATE</b>	<b>DO NOT SCALE DRAWING</b>	<b>REV DATE</b>
SLS	07/23/18		
<b>APPROVED:</b>	<b>REV DATE</b>	<b>SIZE</b>	<b>QTY/MACHINE PART NUMBER</b>
MP		C	N/A
<b>DOC REV</b>	<b>SCALE</b>	<b>N/A</b>	<b>SHEET 4 OF 26</b>

1951 LONGLEAF BLVD.  
LAKES WALKER, FL 33669  
(866) 734-0200

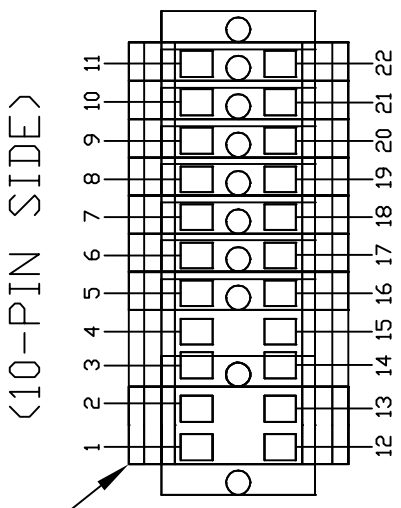


# TB1 <MAIN>



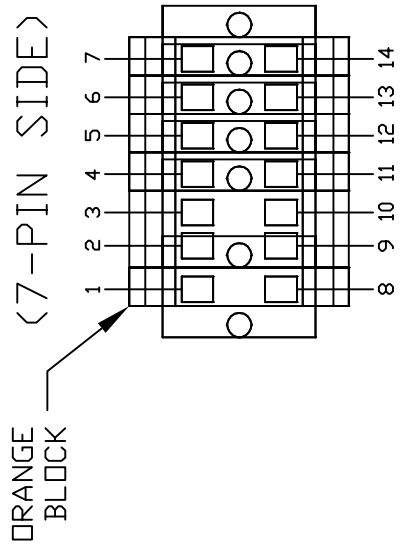
# TB2

<10-PIN SIDE>



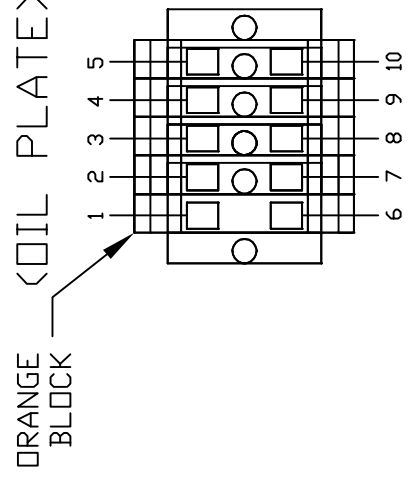
# TB3

<7-PIN SIDE>



# TB4

<OIL 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 <OIL PLATE>

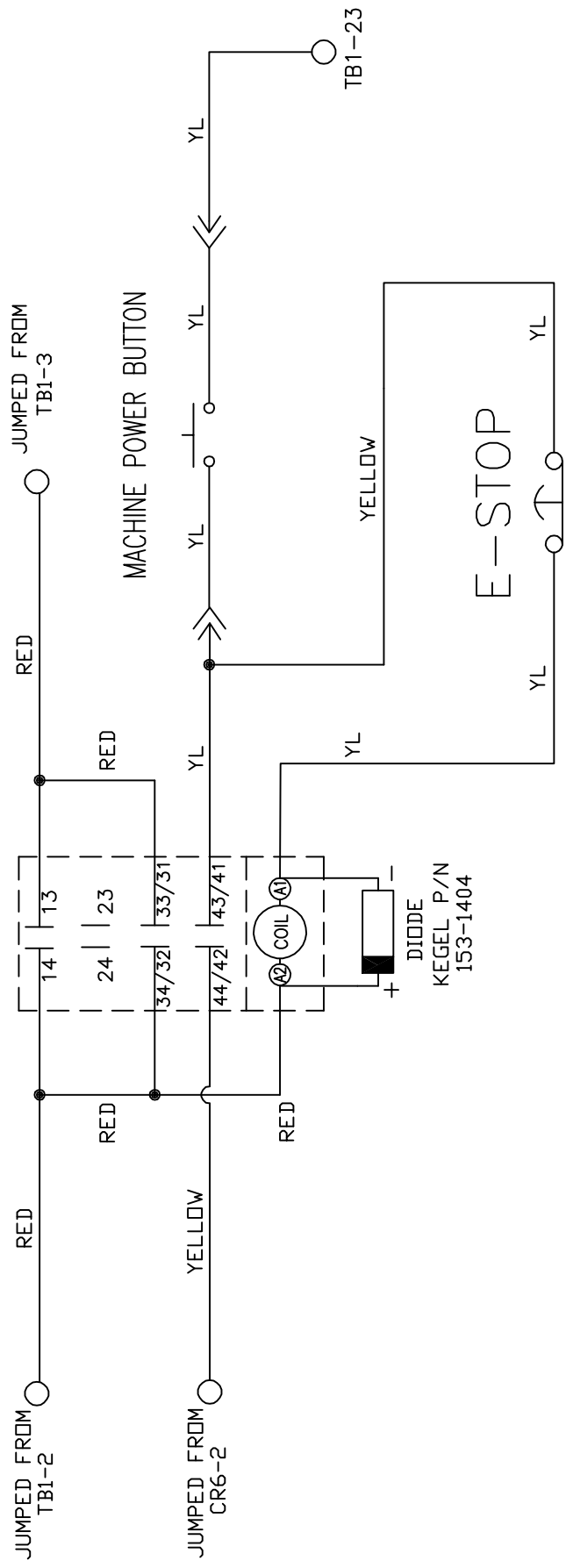
MATERIAL NA	KEGEL LLC	1981 LONGLEAF BLVD. LAKES WALKER, FL 33609 (813) 734-0900
	DESCRIPTION TERMINAL BLOCK LAYOUT	
DRAWN BY SLS	DATE 07/23/18	DO NOT SCALE DRAWING
APPROVED MP	REV DATE	
SCALE N/A	SIZE C	REV FLEX 2019
REV	SECRET	6 OF 26



4 3 2 1

D C B A

POWER RELAY  
CR20

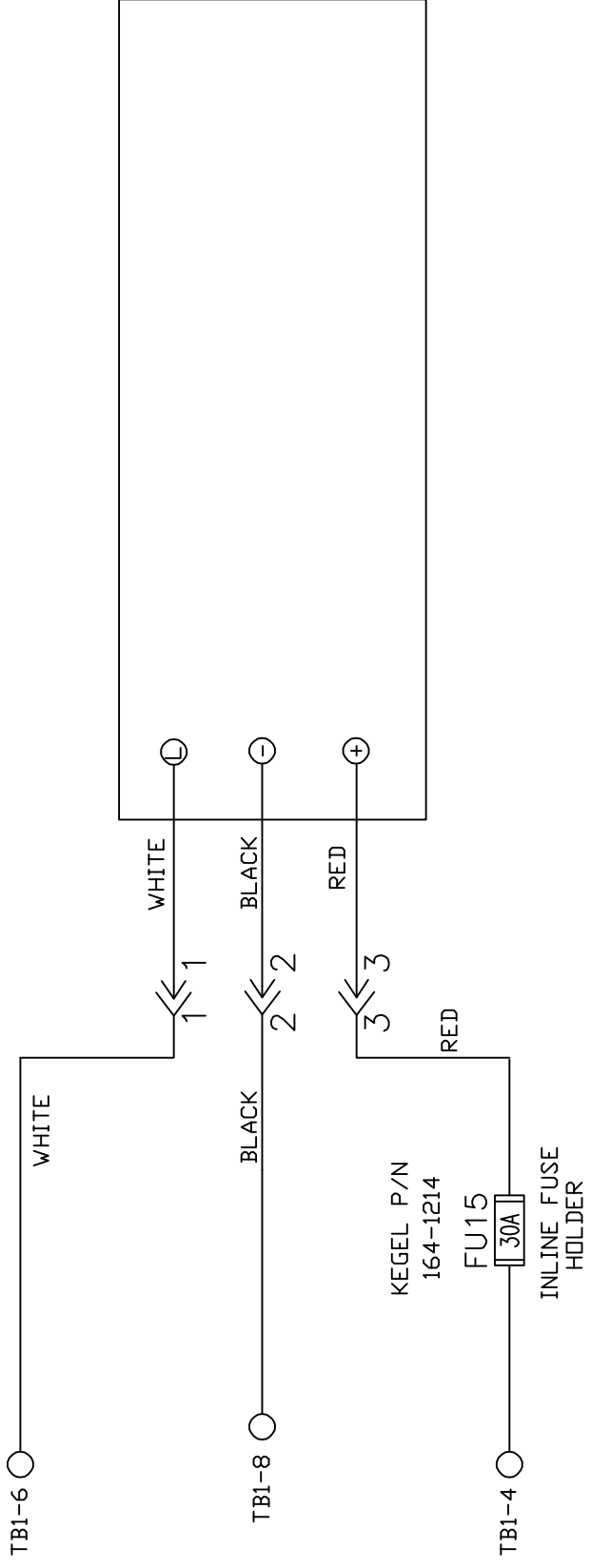


MATERIAL		KEGEL LLC		1951 LONGLEAP BLVD. LAKE WALES, FL 33869 (888) 734-0200	
N/A		DESCRIPTION		POWER RELAY WIRING	
DRAWN BY	DATE	DO NOT SCALE DRAWING		SIZE	QTY/MACHINE PART NUMBER
SLS	07/23/18			A	N/A
APPROVED:	REV DATE			A	N/A
MP				A	N/A
DOC				SCALE	N/A
REV				SHEET	7 OF 26

4 3 2 1

D C B A

# VOLTAGE REGULATOR

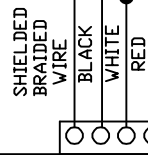
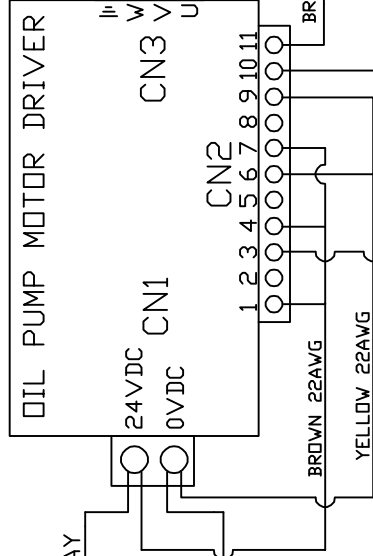


MATERIAL		KEGEL LLC		1951 LONGLEAP BLVD. LAKE WALES, FL 33859 (888) 734-0200	
N/A		DESCRIPTION			
VOLTAGE REGULATOR WIRING				DO NOT SCALE DRAWING	
DRAWN BY	DATE	SIZE	QTY/MACHINE	PART NUMBER	
SLS	07/23/18	A	N/A	FLEX	2019
APPROVED:	REV DATE	SCALE	N/A	SHEET	8 OF 26
MP					
DOC					
REV					

# OIL PUMP MOTOR



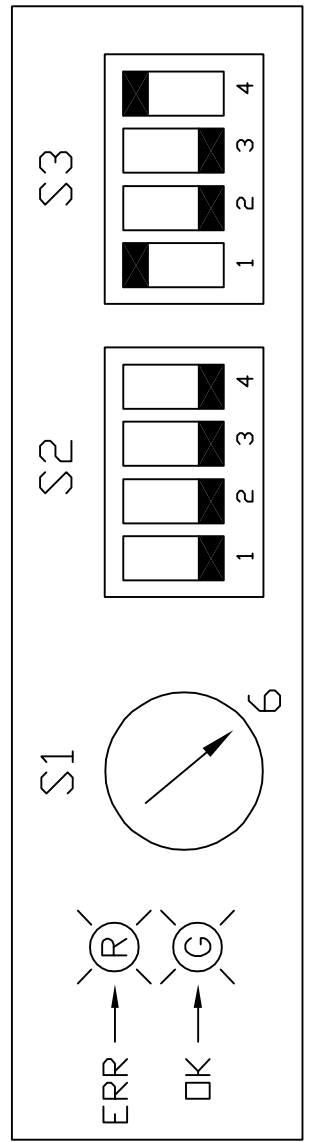
KEGEL P/N  
154-1266



SHIELDED WIRE

SHIELDED WIRE

SHIELDED WIRE



MATERIAL	N/A		1951 LONGLEAP BLVD. LAKE WALES, FL 33869 (888) 734-0200
DESCRIPTION	OIL PUMP DRIVER & MOTOR WIRING		
DATE	07/23/18	DO NOT SCALE DRAWING	
REV DATE		SIZE	QTY/MACHINE PART NUMBER
SLS	MP	A	N/A
APPROVED:		SCALE	N/A
DOC		SHEET	9 OF 26
REV			

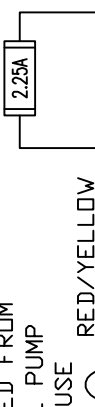
# OIL HEAD MOTOR

M

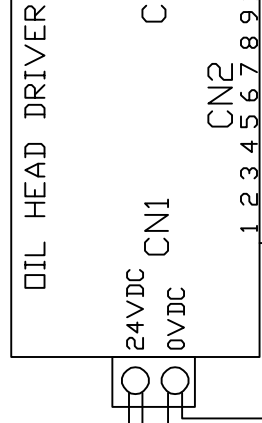
YELLOW/BLACK  
WHITE/BLUE  
RED/DRANGE

KEGEL P/N  
154-1266  
FU9

JUMPED FROM  
OIL PUMP  
FUSE



WHITE/RED



OIL PUMP MOTOR  
DRIVER CN2 #10

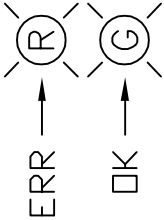
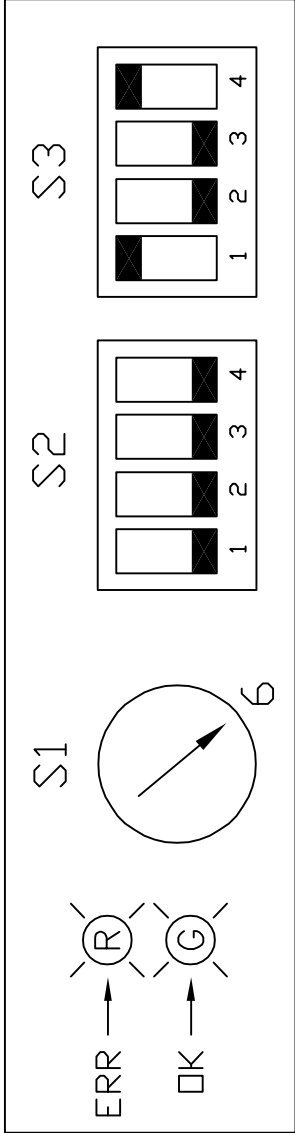
BROWN/YELLOW

WHITE

BLACK

PLC OUTPUTS  
CH100 #05  
PLC OUTPUTS  
CH100 #04

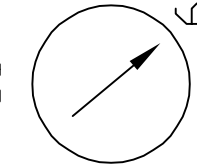
SHIELDED WIRE



S1

S2

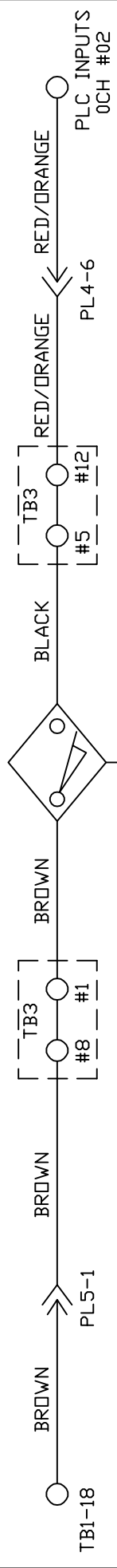
S3



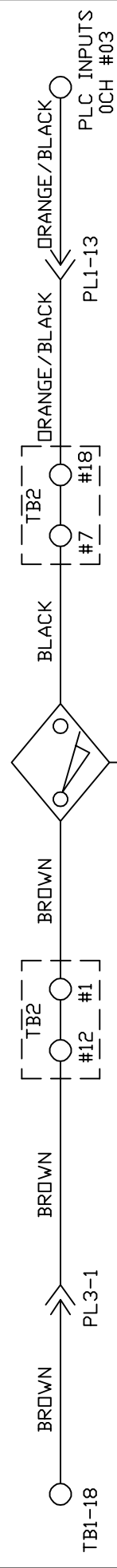
MATERIAL	N/A	KEGEL LLC	1951 LONGLEAF BLVD. LAKE WALES, FL 33869 (888) 734-0200
DESCRIPTION	OIL HEAD DRIVER & MOTOR WIRING		
DRAWN BY	SLS	DATE	07/23/18
APPROVED:	MP	REV DATE	
DO NOT SCALE DRAWING	SIZE	QTY/MACHINE	PART NUMBER
	A	N/A	FLEX 2019
SCALE	N/A	SHEET	10 OF 26

4 3 2 1

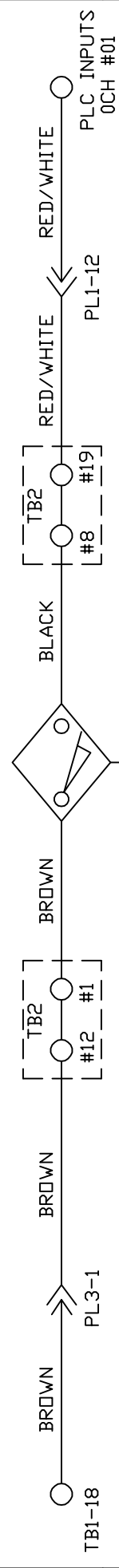
### L-R HEAD PROX



### R-L HEAD PROX



### BOARD PROX

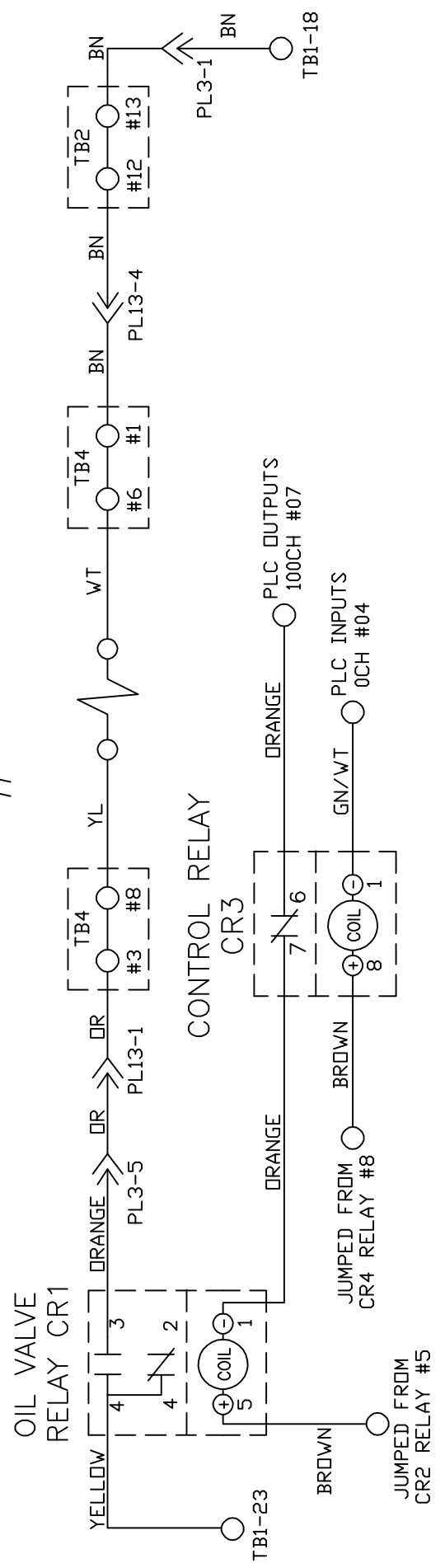


MATERIAL		1951 LONGLEAP BLVD. LAKE WALES, FL 33669 (888) 784-0200	
N/A		KEGEL LLC	
DESCRIPTION			
L-R, R-L & BOARD PROX WIRING			
DRAWN BY	DATE	DO NOT SCALE DRAWING	
SLS	07/23/18	SIZE	QTY/MACHINE PART NUMBER
APPROVED:		A	N/A
MP		SCALE	N/A
DOC REV		SHEET	11 OF 26

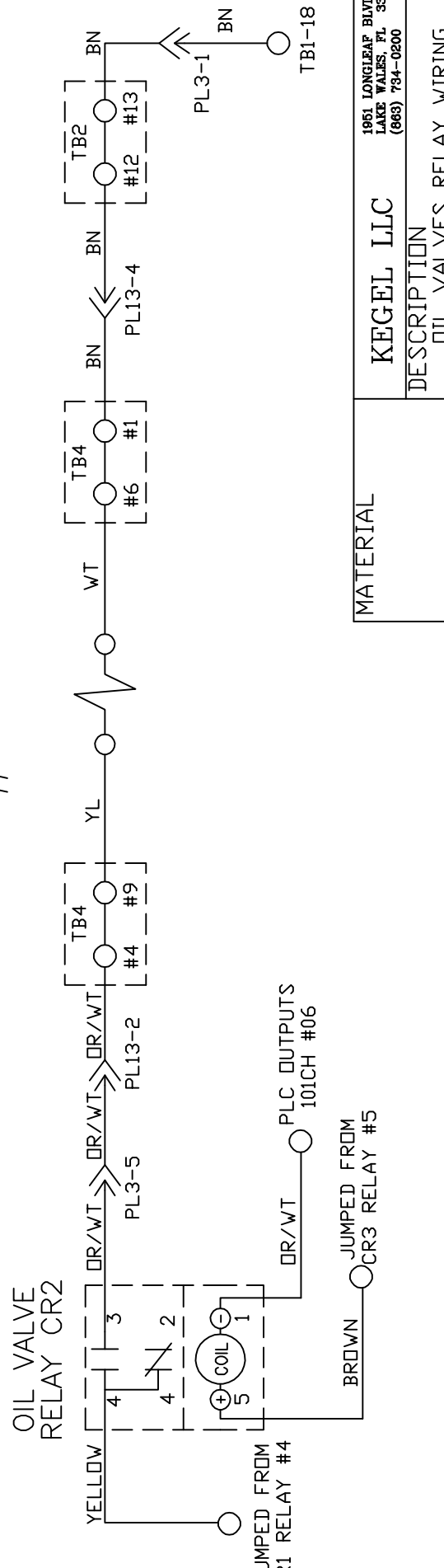
4 3 2 1

4 3 2 1

# OIL VALVE #1 - TANK A



# OIL VALVE #2 - TANK B



MATERIAL		KEGEL LLC 1951 LONGLEAP BLVD. LAKE WALES, FL 33869 (888) 734-0200	
DESCRIPTION		OIL VALVES RELAY WIRING	
DRAWN BY	DATE	DO NOT SCALE DRAWING	
SLS	07/23/18	SIZE	QTY/MACHINE PART NUMBER
APPROVED:	REV DATE	A	N/A
MP		SCALE	N/A
DOC		SHEET	12 OF 26
REV			

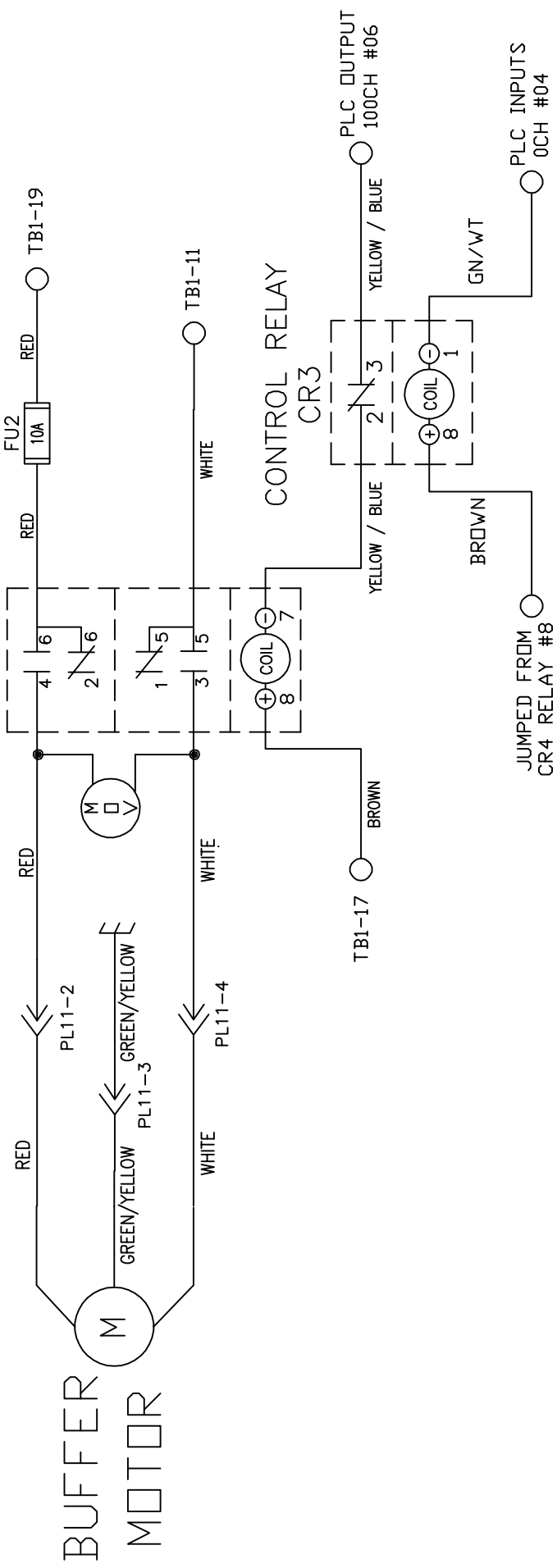
4 3 2 1

4 3 2 1

D C B A

BUFFER MOTOR RELAY CR13

KEGEL P/N  
154-1273



BUFFER MOTOR

MATERIAL	N/A		
DATE	07/23/18		
REV DATE			
DO NOT SCALE DRAWING			
DESCRIPTION	BUFFER MOTOR WIRING		
SIZE	A	N/A	FLEX 2019
QTY/MACHINE	PART NUMBER		
SCALE	N/A	SHEET 13 OF 26	

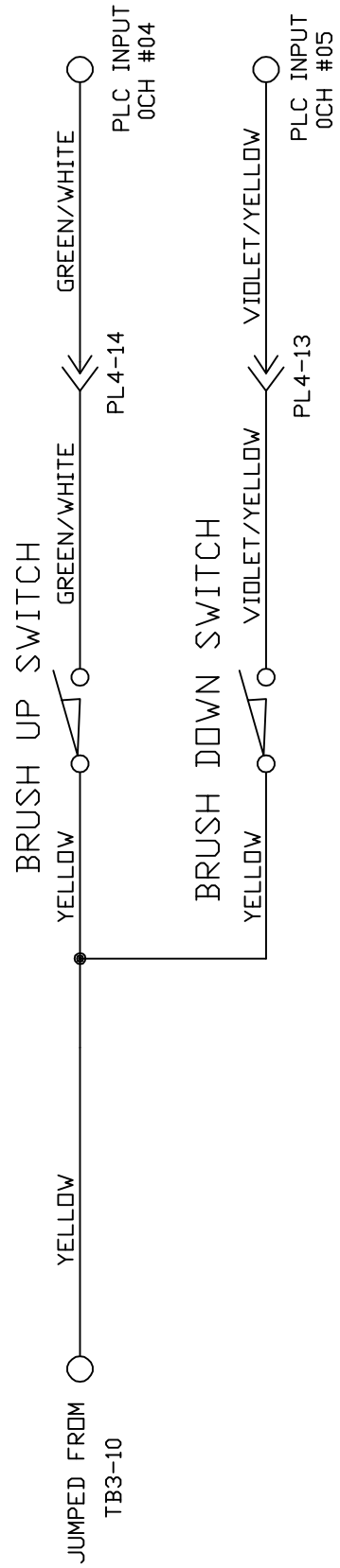
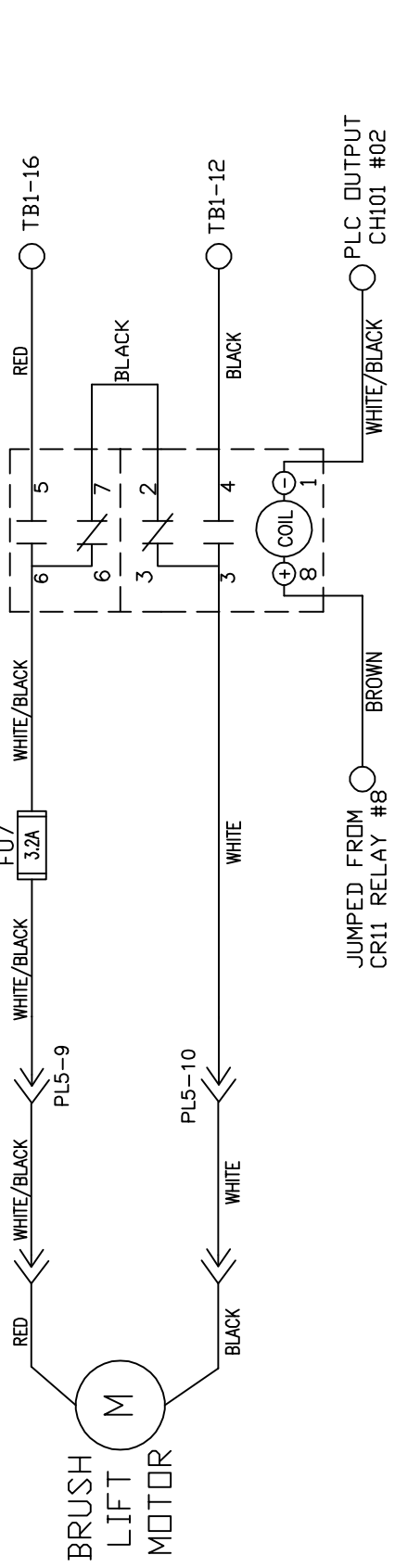




4 3 2 1

BRUSH LIFT  
MOTOR RELAY CR10

KEGEL P/N  
154-1267  
FU7  
3.2A



MATERIAL	N/A	
DESCRIPTION	BRUSH LIFT MOTOR & SWITCH WIRING DO NOT SCALE DRAWING	
DRAWN BY	DATE	REV
SLS	07/23/18	
APPROVED:	REV DATE	
MP		
DOC	SCALE	SHEET
REV	N/A	15 OF 26

1951 LONGLEAP BLVD.  
LAKE WALES, FL 33869  
(888) 734-0200

BRUSH LIFT MOTOR & SWITCH WIRING  
DO NOT SCALE DRAWING

SIZE QTY/MACHINE PART NUMBER

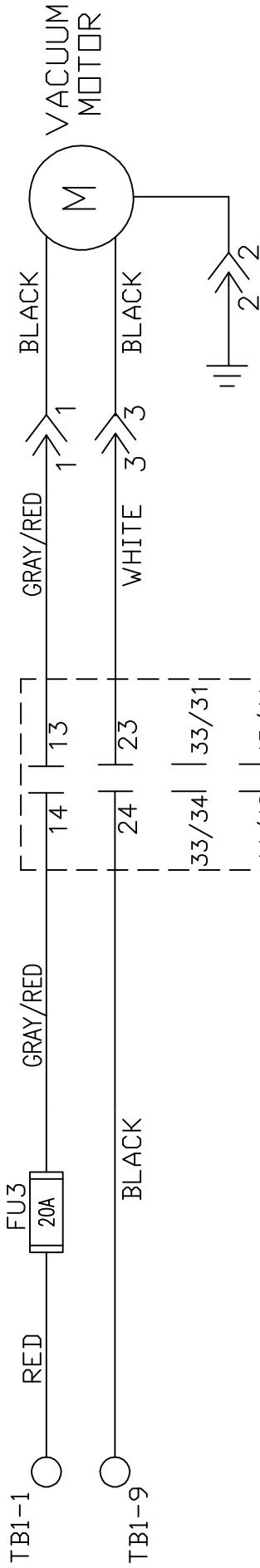
A N/A FLEX 2019

SCALE N/A SHEET 15 OF 26

2 3 4

# VACUUM MOTOR RELAY CR19

KEGEL P/N  
154-1274

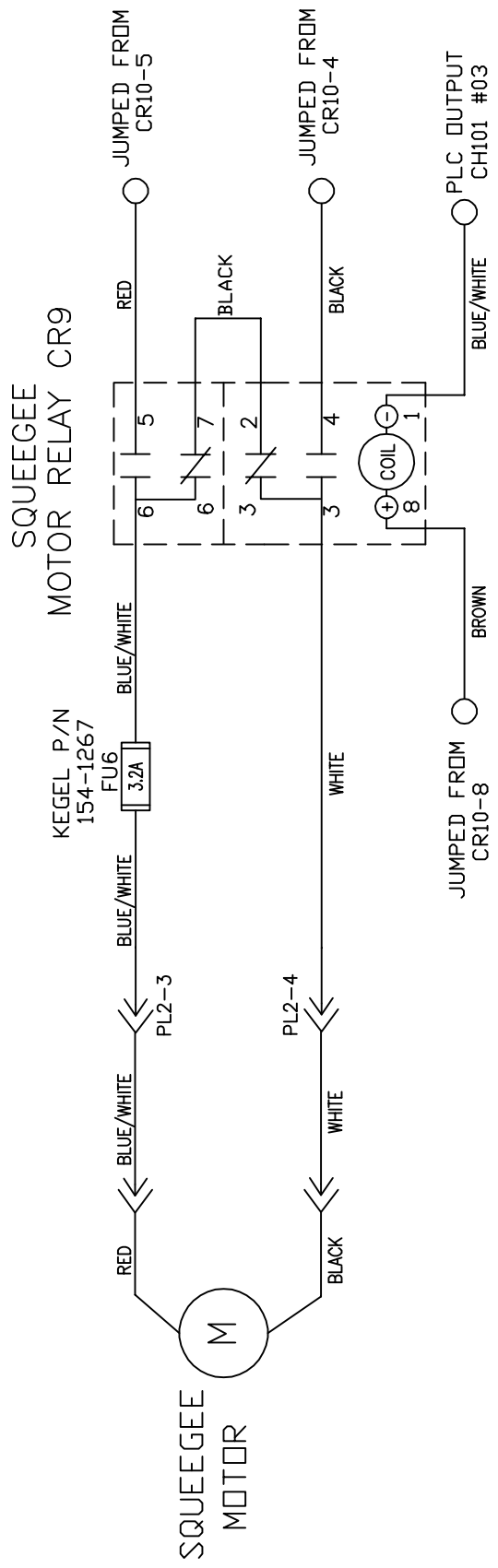


PLC OUTPUTS  
101CH #07

DIODE  
KEGEL P/N  
153-1404

MATERIAL	KEGEL LLC		1951 LONGLEAP BLVD. LAKE WALES, FL 33869 (888) 734-0200	
	DESCRIPTION VACUUM MOTOR WIRING			
DRAWN BY	SLS	DATE	DO NOT SCALE DRAWING	
APPROVED:	MP	REV DATE	SIZE	QTY/MACHINE PART NUMBER
			A	N/A FLEX 2019
DWG REV			SCALE	N/A SHEET 16 OF 26

4 3 2 1



MATERIAL		KEGEL LLC		1951 LONGLEAP BLVD. LAKE WALES, FL 33869 (888) 734-0200	
N/A		DESCRIPTION			
DRAWN BY SLS		SQUEEGEE MOTOR & SWITCH WIRING			
DATE 07/23/18		DO NOT SCALE DRAWING			
APPROVED: MP		SIZE A	QTY/MACHINE N/A	PART NUMBER FLEX 2019	
DOC REV		SCALE N/A	N/A	SHEET 17	OF 26

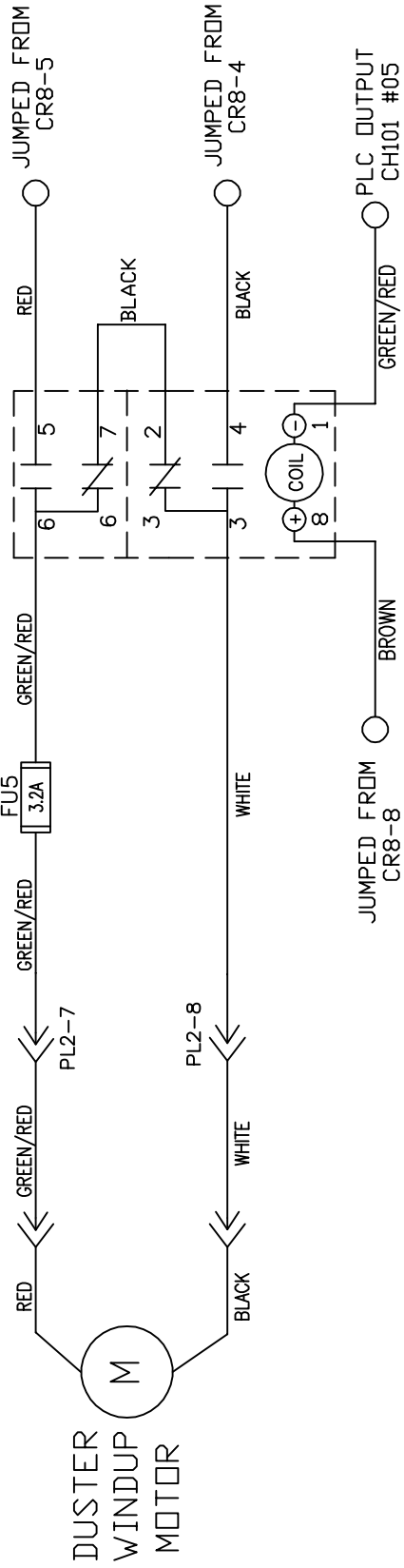
1 2 3 4



4 3 2 1

DUSTER WINDUP  
MOTOR RELAY CR7

KEGEL P/N  
154-1267  
FU5  
3.2A



7-PIN SIDE  
DUSTER UP SWITCH

10-PIN SIDE  
DUSTER UP SWITCH

DUSTER  
WINDUP  
MOTOR

MATERIAL	N/A	
DESCRIPTION	DUSTER WINDUP & SWITCH WIRING DO NOT SCALE DRAWING	
DRAWN BY	DATE	REV DATE
SLS	07/23/18	
APPROVED:	MP	
SIZE	QTY/MACHINE	PART NUMBER
A	N/A	FLEX 2019
SCALE	N/A	SHEET 19 OF 26

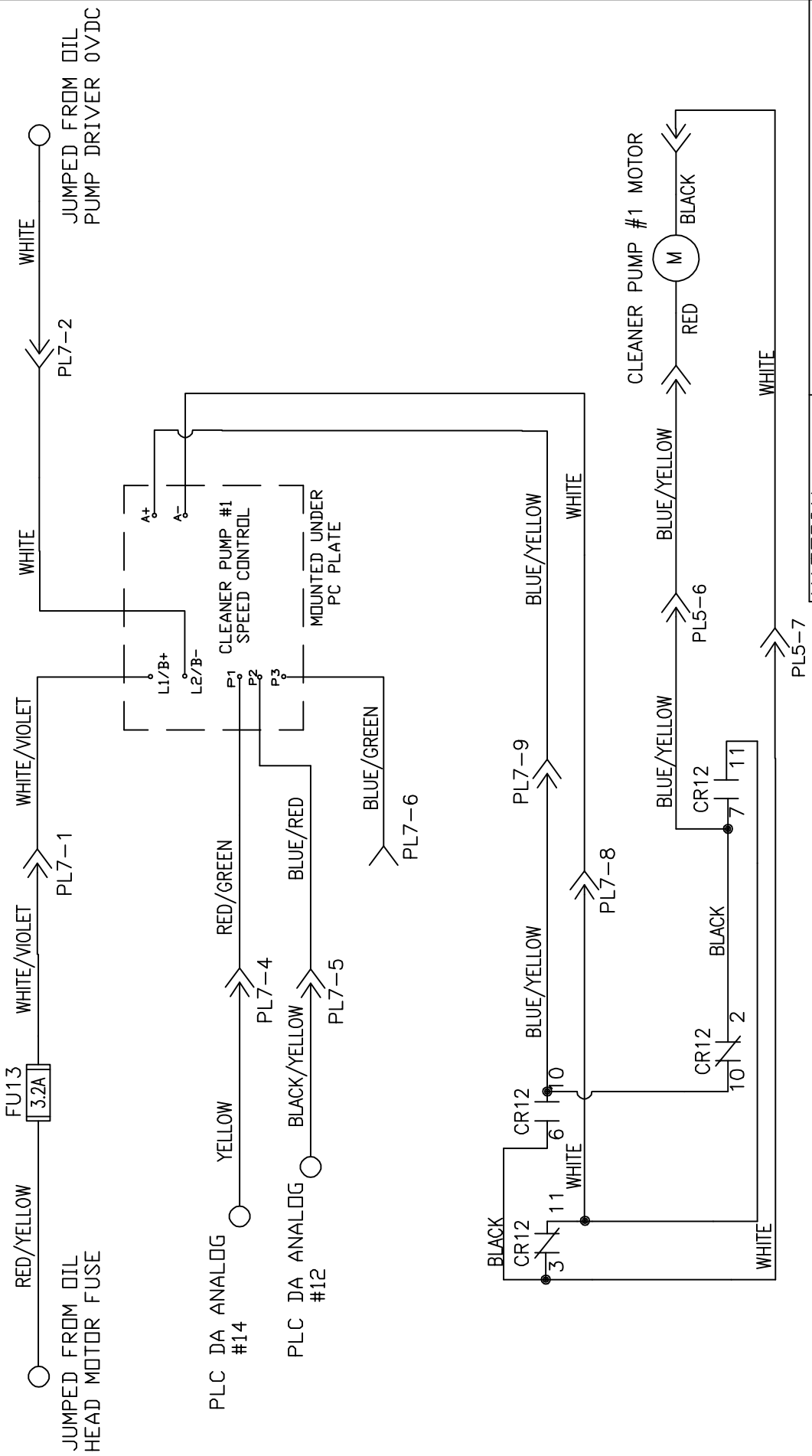
D C B A

2 3 4 1

247

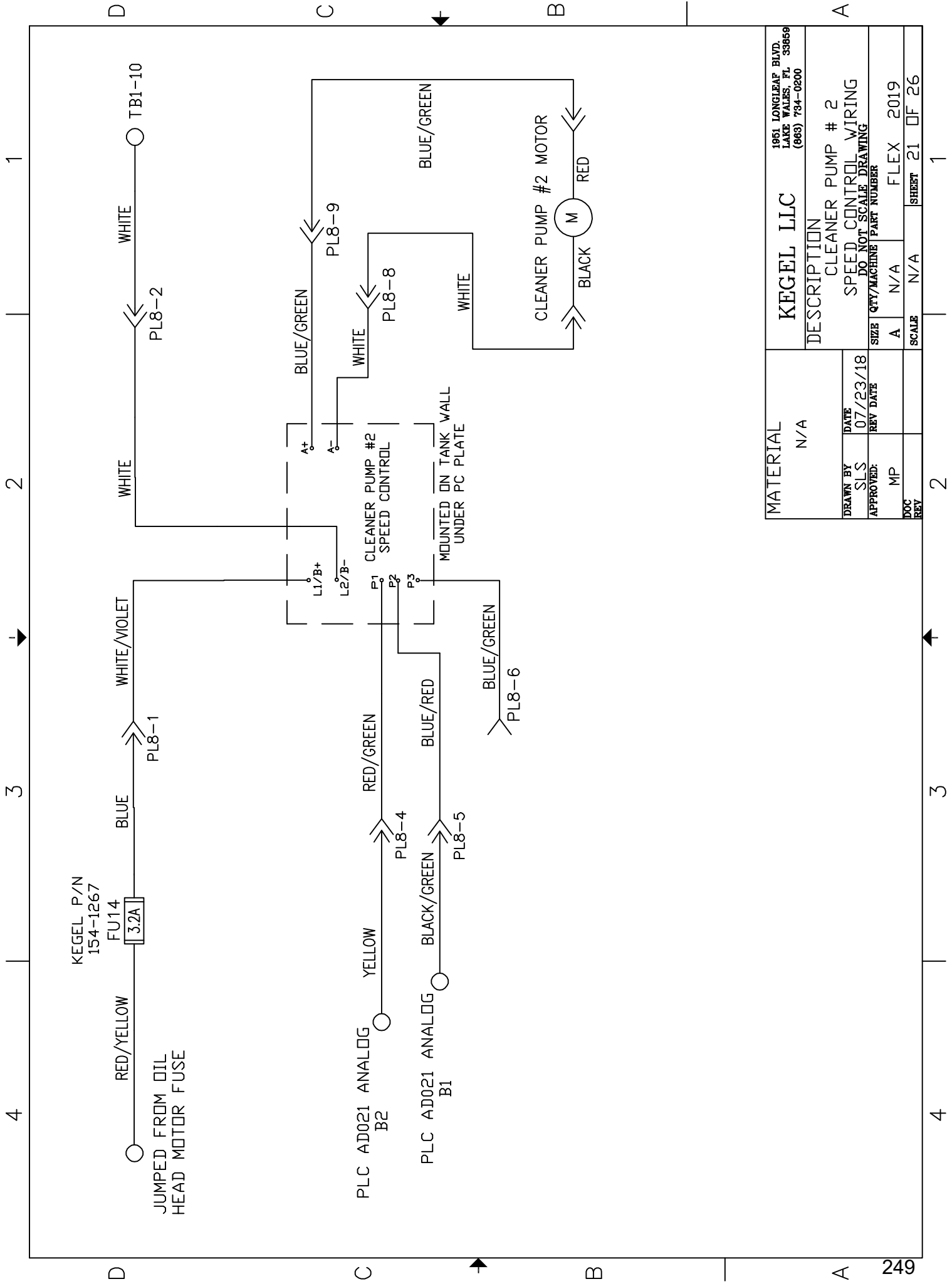
4 3 2 1

KEGEL P/N  
154-1267



MATERIAL	N/A	DESCRIPTION	CLEANER PUMP # 1 SPEED CONTROL WIRING DO NOT SCALE DRAWING
DRAWN BY	SLS	DATE	07/23/18
APPROVED:	MP	REV DATE	
DOC REV		SIZE	A
		QTY/MACHINE	N/A
		SCALE	N/A
		MP	FLEX
		REV	2019
		SHEET	20 OF 26

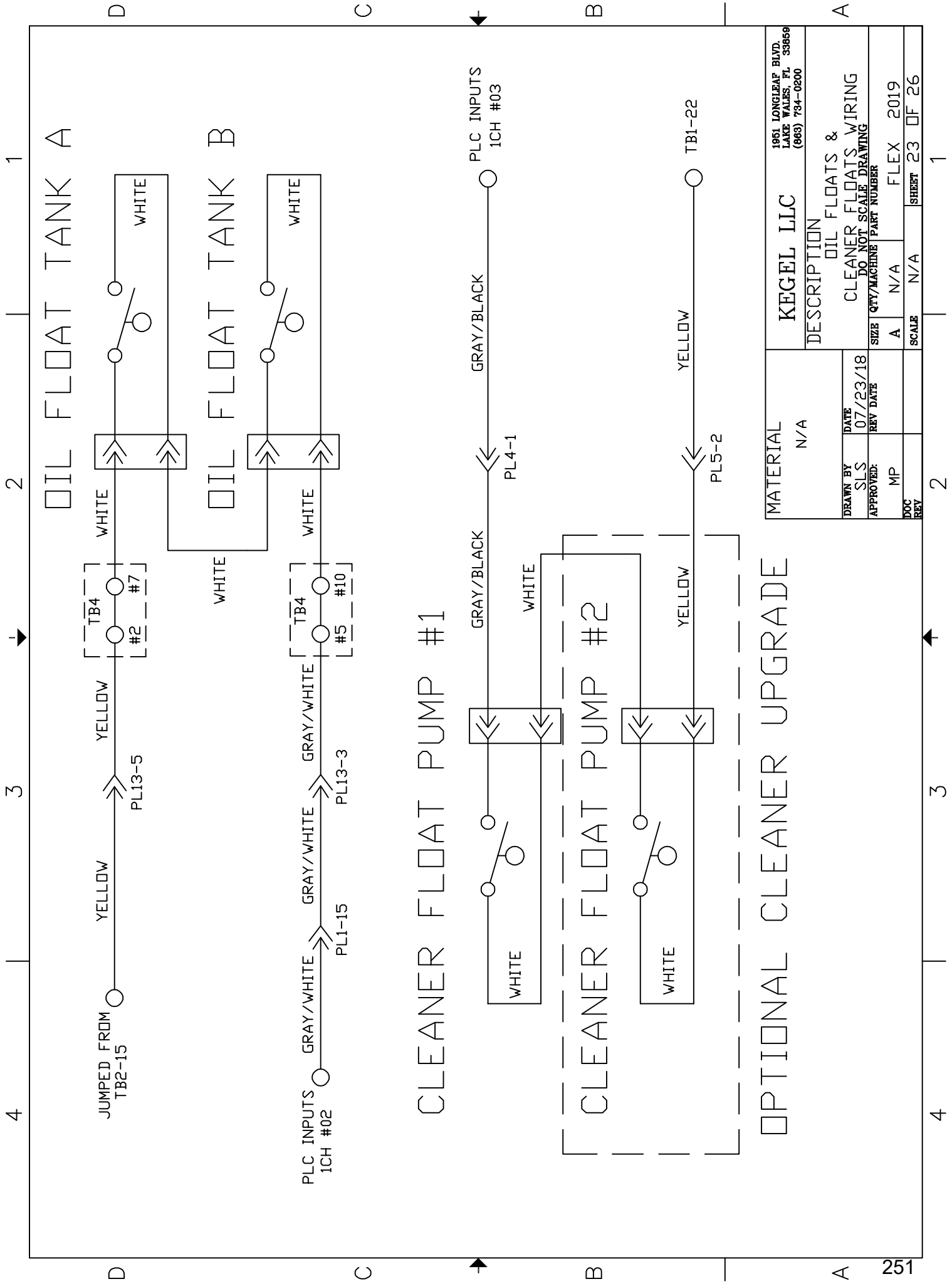
1 2 3 4



MATERIAL	KEGEL LLC		1951 LONGLEAP BLVD. LAKE WALES, FL 33869 (888) 734-0200	
	DESCRIPTION			
	CLEANER PUMP # 2			
	SPEED CONTROL WIRING			
	DO NOT SCALE DRAWING			
DRAWN BY	DATE	SIZE	QTY/MACHINE	PART NUMBER
SLS	07/23/18	A	N/A	FLEX 2019
APPROVED:	REV DATE	SCALE	N/A	SHEET 21 OF 26
MP				
DOC REV				



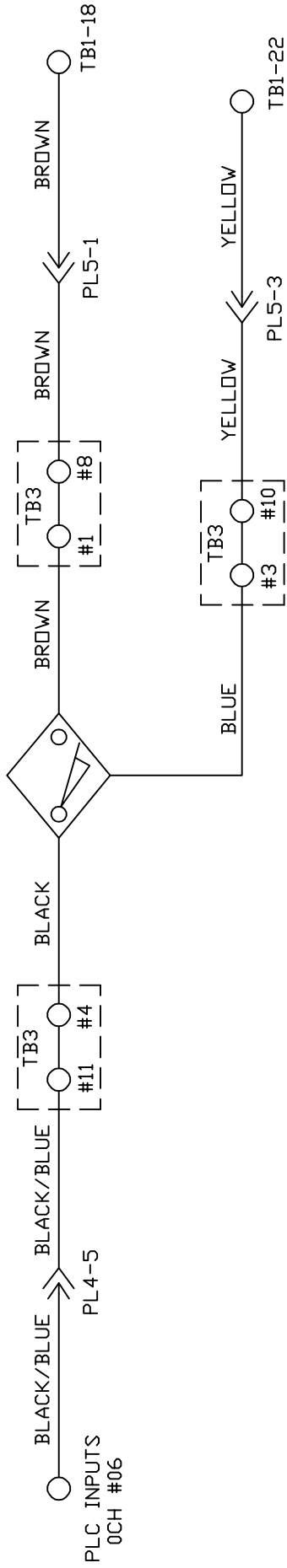




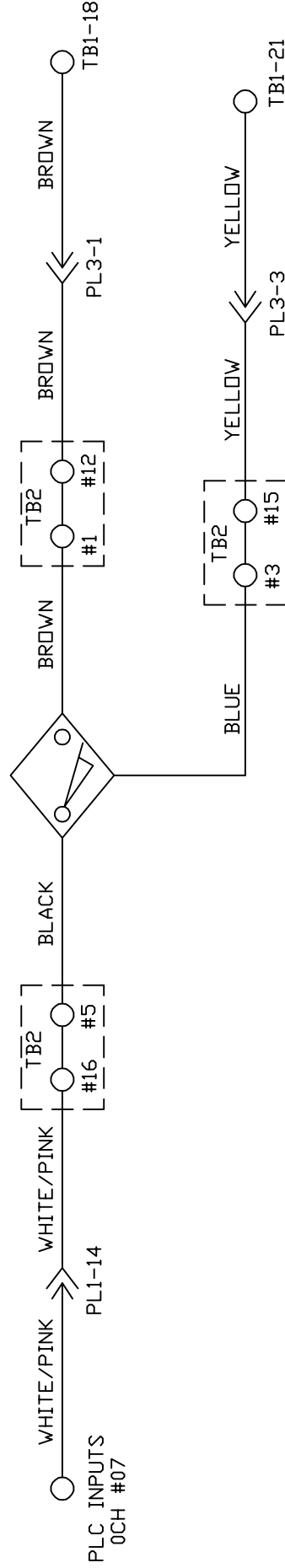
MATERIAL		KEGEL LLC		1951 LONGLEAP BLVD. LAKE WALES, FL 33869 (888) 734-0200	
N/A		DESCRIPTION		OIL FLOATS & CLEANER FLOATS WIRING DO NOT SCALE DRAWING	
DRAWN BY	DATE	SIZE	QTY/MACHINE	PART NUMBER	
SLS	07/23/18	A	N/A	FLEX	2019
APPROVED:	REV DATE	SCALE	N/A	SHEET	23 OF 26
MP					
DOC					
REV					

4 3 2 1

# SPEED TACH PROX



# LANE DISTANCE PROX



MATERIAL		N/A	
DRAWN BY	DATE	1951 LONGLEAP BLVD. LAKE WALES, FL 33869 (888) 734-0200	
SLS	07/23/18	DESCRIPTION	
APPROVED:	REV DATE	SPEED TACH & LANE DISTANCE WIRING DO NOT SCALE DRAWING	
MP		SIZE	QTY/MACHINE PART NUMBER
		A	N/A
DOC		SCALE	N/A
REV			FLEX 2019
			SHEET 24 OF 26

4 3 2 1

4 3 2 1

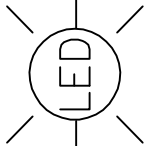
TB1-15

KEGEL P/N  
155-1229  
FUJ16  
1A

PL4-12

RED/GREEN

RED/GREEN



YELLOW/WHITE

YELLOW

YELLOW

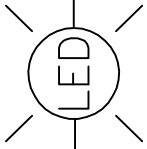
YELLOW



LED TANK  
LIGHT SWITCH

YELLOW

LED ARROW  
LIGHT



RED/GREEN

D

C

B

A

D

C

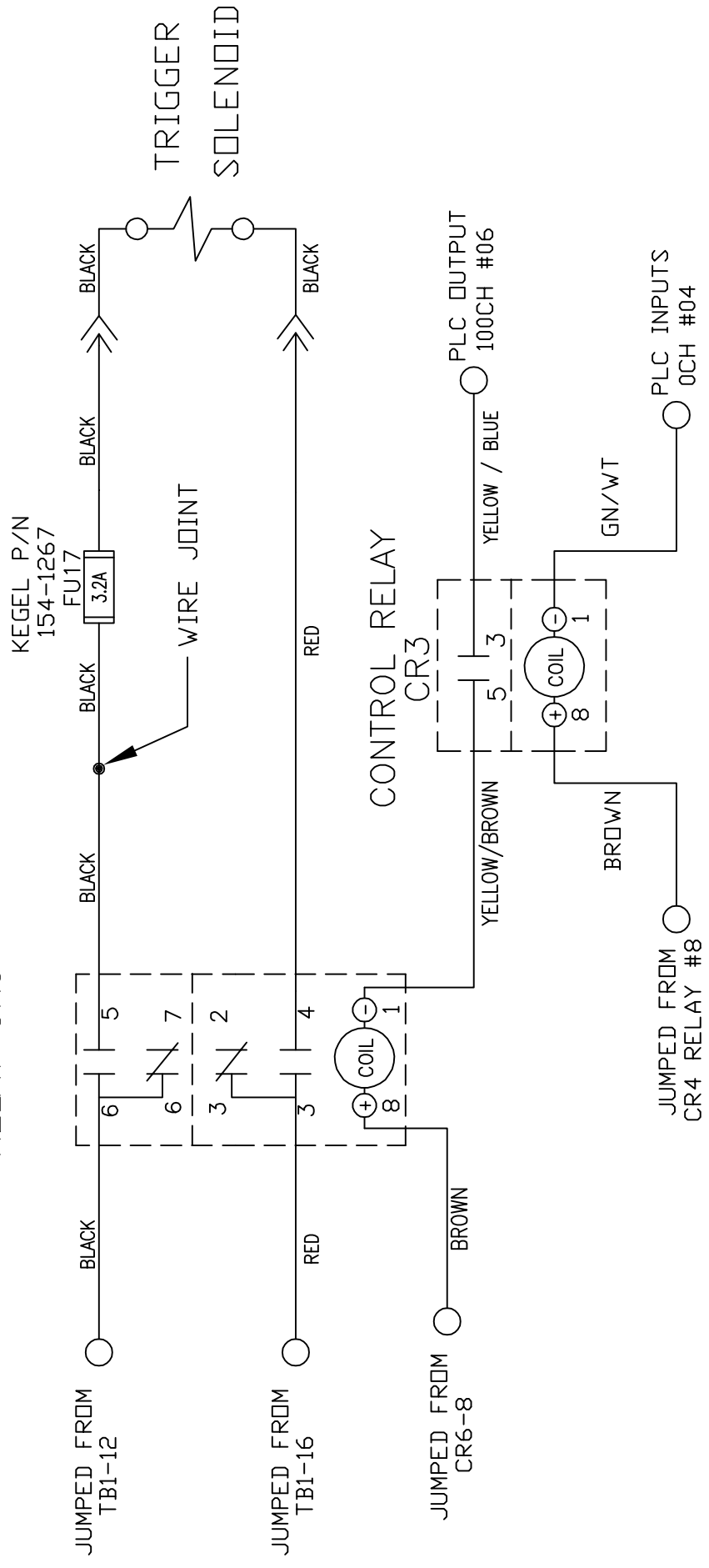
B

A

MATERIAL		KEGEL LLC		1951 LONGLEAP BLVD. LAKE WALES, FL 33869 (888) 734-0200	
N/A		DESCRIPTION LED TANK LIGHT WIRING			
DRAWN BY	DATE	DO NOT SCALE DRAWING			
SLS	07/23/18	SIZE	QTY/MACHINE	PART NUMBER	
APPROVED:	REV DATE	A	N/A	FLEX	2019
MP		SCALE	N/A	SHEET	25 OF 26
DOC					
REV					

4 3 2 1

# PIN DECK TREATMENT RELAY CR5



MATERIAL		KEGEL LLC		1951 LONGLEAP BLVD. LAKE WALES, FL 33869	
N/A		DESCRIPTION		TRIGGER SOLENOID WIRING	
DRAWN BY	DATE	DO NOT SCALE DRAWING		SIZE	QTY/MACHINE PART NUMBER
SLS	07/23/18			A	N/A
APPROVED:	REV DATE			SCALE	N/A
MP					FLEX 2019
DOC				SHEET	26 OF 26
REV					

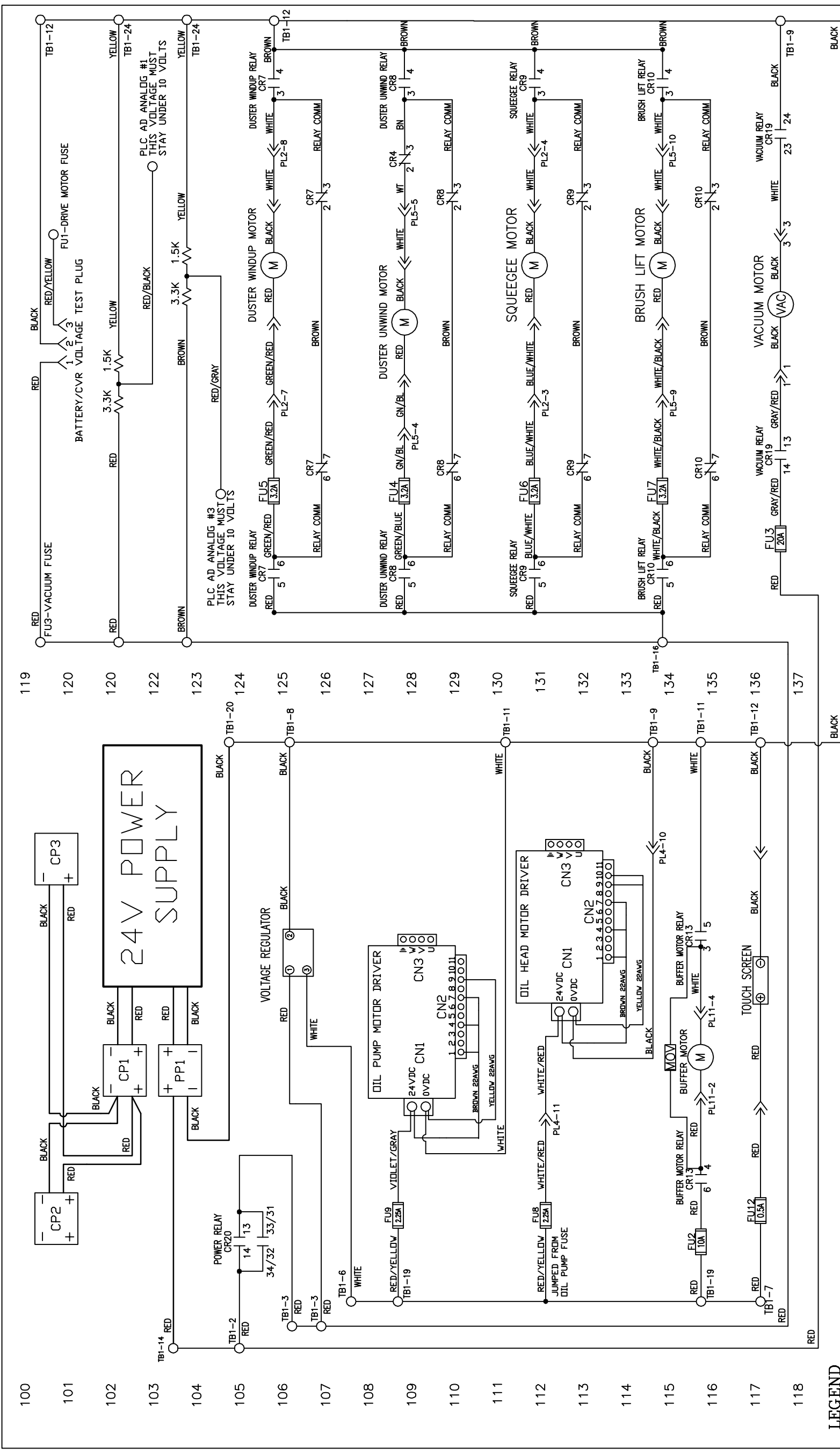
4 3 2 1

4 3 2 1

# FLEX WALKER ELECTRICAL DRAWING

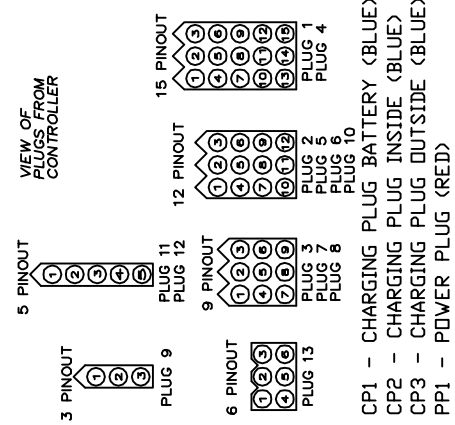
The following diagrams show wiring schematics for the Kustodian Walker. Detailed diagrams for the Ion follow this section. If you have any questions, please call 863-734-0200 or email [tech@kegel.net](mailto:tech@kegel.net).

Flex Walker Motor Wiring Layout.....	251
Flex Walker Output Wiring Layout.....	252
Flex Walker Input Wiring Layout.....	253
Flex Walker Speed Control Wiring Layout.....	254
Flex Walker Analog Wiring Layout.....	255
Flex Walker Terminal Block Wiring Layout.....	256
Flex Walker Power Wiring Layout.....	257
Flex Walker Voltage Regulator Wiring Layout.....	258
Flex Walker Oil Pump Driver & Motor Wiring Layout.....	259
Flex Walker Oil-Cleaner Head Driver & Motor Wiring Layout.....	260
Flex L-R & R-L Proximity Sensor Wiring Layout.....	261
Flex Oil Valves Wiring Layout.....	262
Flex Buffer Motor Wiring Layout.....	263
Flex Variable Buffer Motor Wiring Layout.....	264
Flex Brush Lift Motor Wiring Layout.....	265
Flex Vacuum Motor Wiring Layout.....	266
Flex Squeegee Motor & Switch Wiring Layout.....	267
Flex Duster Unwind Motor & Switch Wiring Layout.....	268
Flex Duster Windup Motor & Switch Wiring Layout.....	269
Flex Cleaner Pump #1 Wiring Layout.....	270
Flex Cleaner Pump #2 Wiring Layout.....	271
Flex Start Button & Duster Presoak Button Wiring Layout.....	272
Flex Oil Float & Cleaner Float Wiring Layout.....	273
Flex Speed Tach & LDS Wiring Layout.....	274
Flex LED Tank Light Wiring Layout.....	275
Flex 7 Pin & 10 pin Side Approach Distance Sensor Wiring.....	276
Flex Walker Bumper & Whisker Switch Wiring.....	277



**LEGEND**

- CR1 - OIL VALVE RELAY TANK A
  - CR2 - OIL VALVE RELAY TANK B
  - CR3 - CONTROL RELAY
  - CR4 - DUSTER POLARITY SWITCH RELAY
  - CR5 - PIN DECK TREATMENT RELAY
  - CR6 - POWER OFF RELAY
  - CR7 - DUSTER WINDUP MOTOR RELAY
  - CR8 - DUSTER UNWIND MOTOR RELAY
  - CR9 - SQUEEGEE LIFT MOTOR RELAY
  - CR10 - BRUSH LIFT MOTOR RELAY
  - CR11 - FORWARD DRIVE MOTOR RELAY
  - CR12 - REVERSE DRIVE MOTOR RELAY
  - CR13 - BUFFER MOTOR RELAY
  - CR14 - WHISKER ENABLE RELAY
  - CR15 - WHISKER 7 PIN SIDE RELAY
  - CR16 - WHISKER 10 PIN SIDE RELAY
  - CR17 - ZTR ENABLE RELAY
  - CR18 - ZTR REVERSE RELAY
  - CR19 - VACUUM MOTOR RELAY
  - CR20 - POWER RELAY
- 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 2.25A
  - FU9 - OIL PUMP MOTOR 2.25A
  - FU10 - PLC INPUT POWER/L1 0.5A
  - FU11 - PLC OUTPUT COMMON 0.5A
  - FU12 - TOUCH SCREEN 0.5A
  - FU13 - CLEANER PUMP #1 3.2A
  - FU14 - CLEANER PUMP #2 3.2A
  - FU15 - CVR POWER 25A/30A
  - FU16 - LED LIGHTS 1A
  - FU17 - TRIGGER SOLENOID 3.2A
- PL1 - 10-PIN SIDE PLUG (15)
  - PL2 - 10-PIN SIDE PLUG (12)
  - PL3 - 10-PIN SIDE PLUG (9)
  - PL4 - 7-PIN SIDE PLUG (15)
  - PL5 - 7-PIN SIDE PLUG (12)
  - PL6 - DRIVE SPEED BOARD PLUG (12)
  - PL7 - CLEANER PUMP #1 SPEED BOARD PLUG (9)
  - PL8 - CLEANER PUMP #2 SPEED BOARD PLUG (9)
  - PL9 - ZTR DRIVE MOTOR PLUG (3)
  - PL10 - BUFFER SPEED BOARD PLUG (12)
  - PL11 - BUFFER MOTOR PLUG (5)
  - PL12 - BUFFER MOTOR VARIABLE SPEED PLUG (5)
  - PL13 - OIL PLATE ASSEMBLY PLUG (6)
- TB1 - TERMINAL BLOCK 1 (MAIN)
  - TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
  - TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
  - TB4 - TERMINAL BLOCK 4 (OIL PLATE)
  - TB5 - TERMINAL BLOCK 5 (TOP PLC PLATE)

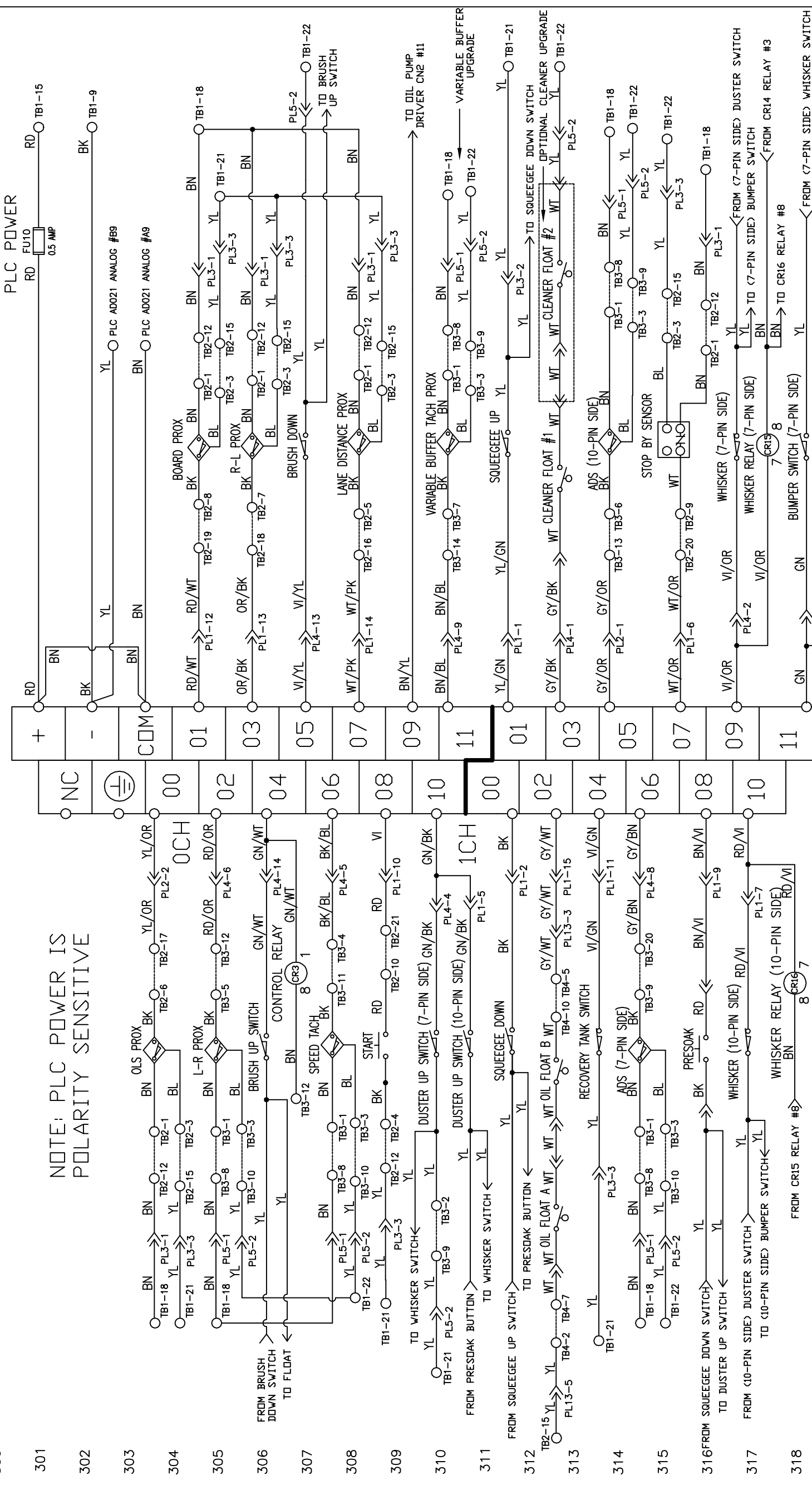


<b>MATERIAL</b>		N/A	
<b>DESCRIPTION</b>		MOTOR WIRING SCHEMATIC	
<b>DRAWN BY</b>	<b>DATE</b>	<b>DO NOT SCALE DRAWING</b>	<b>SIZE</b>
SLS	07/23/18		C N/A
<b>APPROVED:</b>	<b>REV DATE</b>	<b>QTY/MACHINE PART NUMBER</b>	<b>SCALE</b>
MP			N/A
<b>DOC REV</b>	<b>SHEET</b>	<b>1 OF</b>	<b>27</b>

1951 LONGLEAF BLVD.  
LAKE WALES, FL 33859  
(866) 784-0200

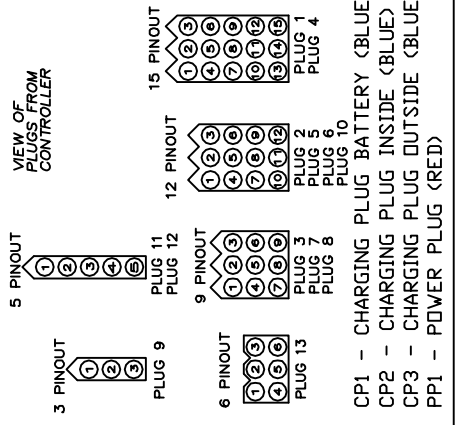


NOTE: PLC POWER IS POLARITY SENSITIVE



LEGEND

- CR1 - OIL VALVE RELAY TANK A
- CR2 - OIL VALVE RELAY TANK B
- CR3 - CONTROL RELAY
- CR4 - DUSTER POLARITY SWITCH RELAY
- CR5 - PIN DECK TREATMENT RELAY
- CR6 - POWER OFF RELAY
- CR7 - DUSTER WINDUP MOTOR RELAY
- CR8 - DUSTER UNWIND MOTOR RELAY
- CR9 - SQUEEGEE LIFT MOTOR RELAY
- CR10 - BRUSH LIFT MOTOR RELAY
- CR11 - FORWARD DRIVE MOTOR RELAY
- CR12 - REVERSE DRIVE MOTOR RELAY
- CR13 - BUFFER MOTOR RELAY
- CR14 - WHISKER ENABLE RELAY
- CR15 - WHISKER 7 PIN SIDE RELAY
- CR16 - WHISKER 10 PIN SIDE RELAY
- CR17 - ZTR ENABLE RELAY
- CR18 - ZTR REVERSE RELAY
- CR19 - VACUUM MOTOR RELAY
- CR20 - POWER RELAY
- 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 2.25A
- FU9 - OIL PUMP MOTOR 2.25A
- FU10 - PLC INPUT POWER/L1 0.5A
- FU11 - PLC OUTPUT COMMON 0.5A
- FU12 - TOUCH SCREEN 0.5A
- FU13 - CLEANER PUMP #1 3.2A
- FU14 - CLEANER PUMP #2 3.2A
- FU15 - CVR POWER 25A/30A
- FU16 - LED LIGHTS 1A
- FU17 - TRIGGER SOLENOID 3.2A
- PL1 - 10-PIN SIDE PLUG (15)
- PL2 - 10-PIN SIDE PLUG (12)
- PL3 - 10-PIN SIDE PLUG (9)
- PL4 - 7-PIN SIDE PLUG (15)
- PL5 - 7-PIN SIDE PLUG (12)
- PL6 - DRIVE SPEED BOARD PLUG (12)
- PL7 - CLEANER PUMP #1 SPEED BOARD PLUG (9)
- PL8 - CLEANER PUMP #2 SPEED BOARD PLUG (9)
- PL9 - ZTR DRIVE MOTOR PLUG (3)
- PL10 - BUFFER SPEED BOARD PLUG (12)
- PL11 - BUFFER MOTOR PLUG (5)
- PL12 - BUFFER MOTOR VARIABLE SPEED PLUG (5)
- PL13 - OIL PLATE ASSEMBLY PLUG (6)
- TB1 - TERMINAL BLOCK 1 (MAIN)
- TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
- TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
- TB4 - TERMINAL BLOCK 4 (OIL PLATE)
- TB5 - TERMINAL BLOCK 5 (TOP PLC PLATE)

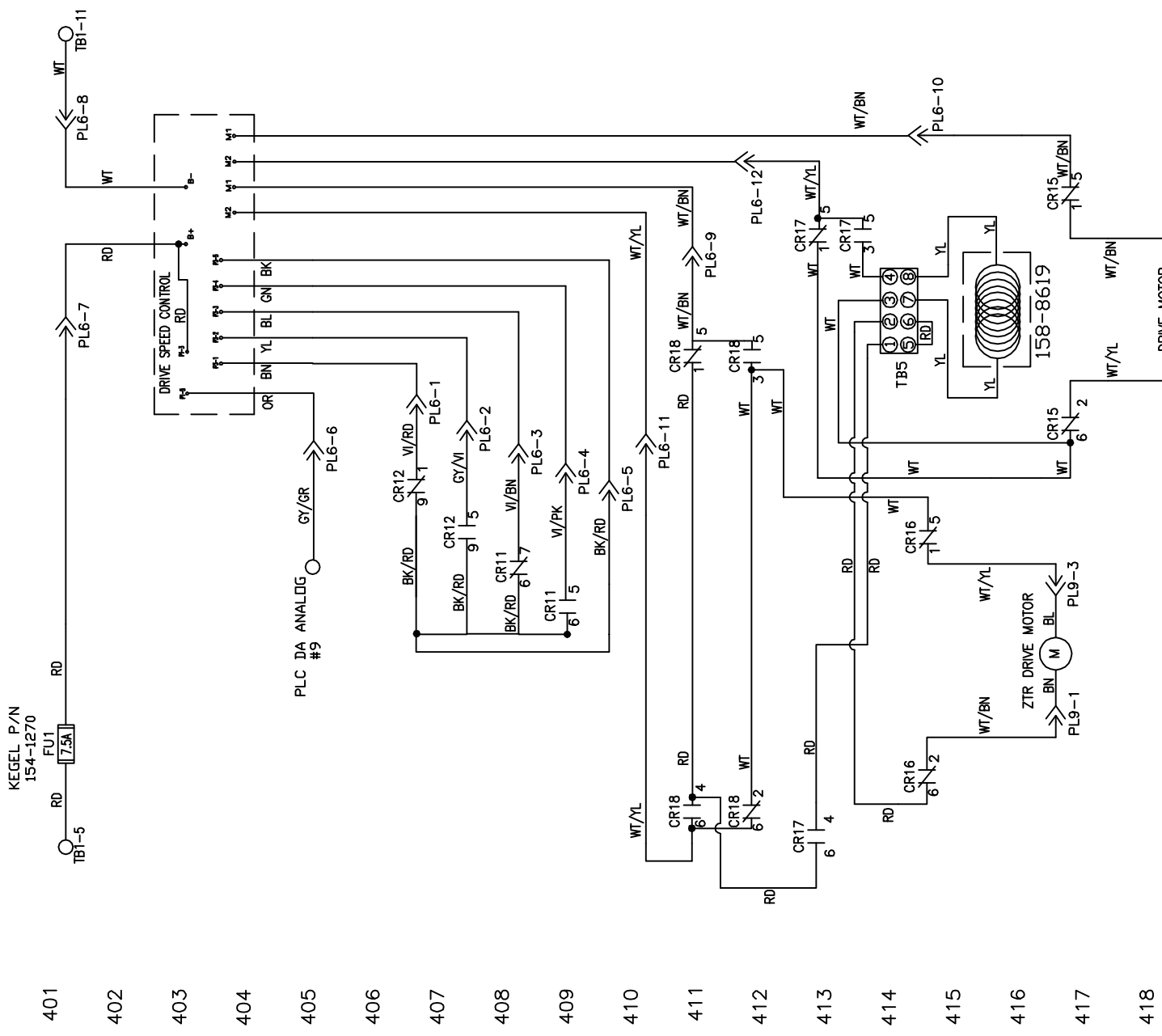


MATERIAL		N/A	
DESCRIPTION		INPUT WIRING SCHEMATIC	
DRAWN BY	DATE	DO NOT SCALE DRAWING	
SLS	07/23/18	SIZE	QTY/MACHINE PART NUMBER
APPROVED:	REV DATE	C	FLEX WALKER 2019
DOC	REV	SCALE	N/A
		SHEET	3 OF 27

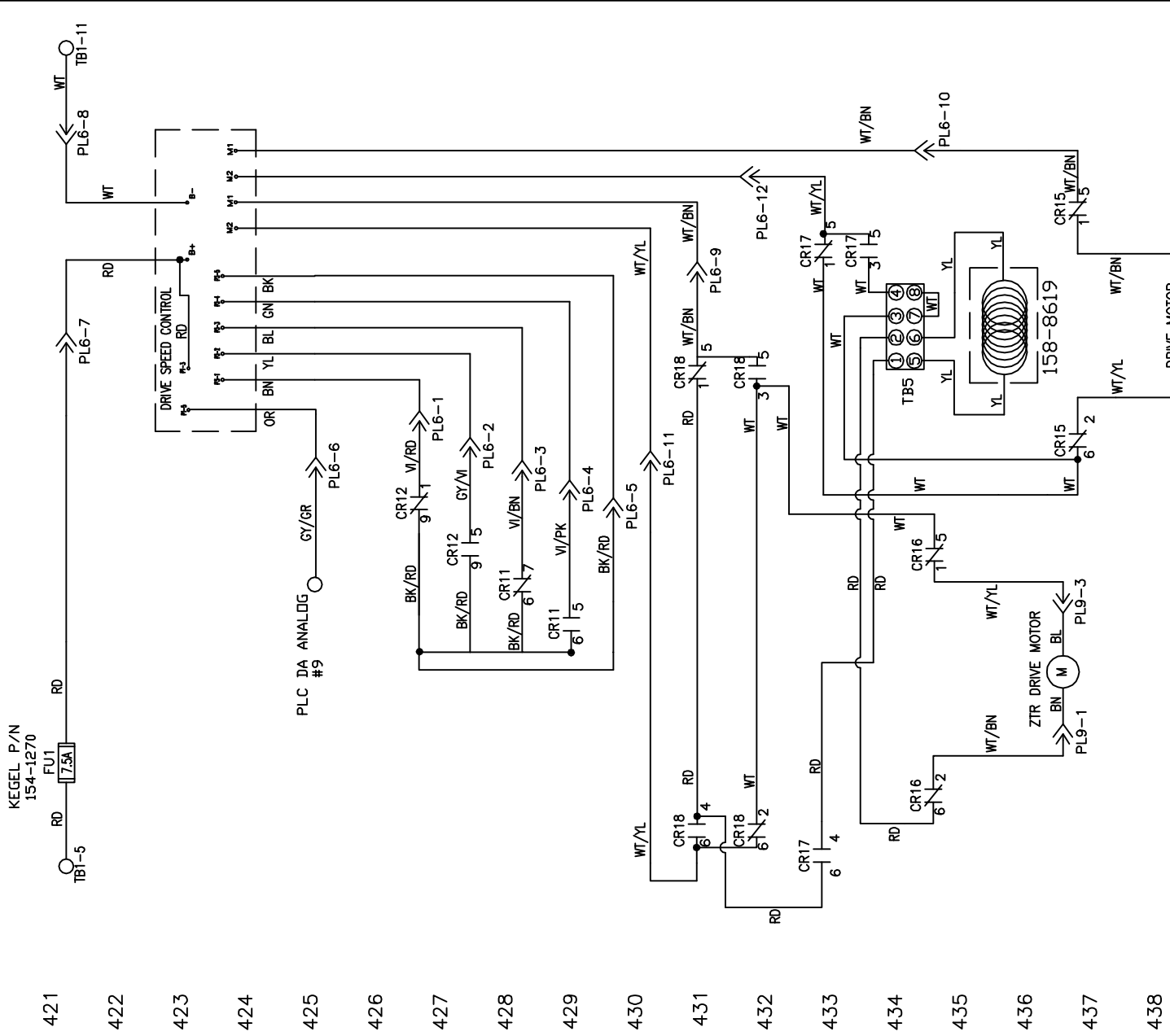
1951 LONGLEAF BLVD.  
LAKE WALKER, FL 33569  
(866) 734-0200



SCHEMATIC FOR RESISTOR WIRE ON MAIN DRIVE MOTOR

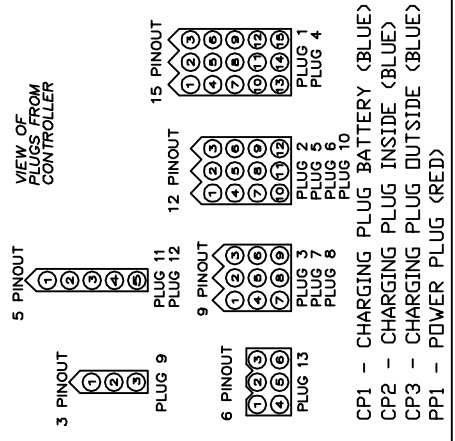


SCHEMATIC FOR RESISTOR WIRE ON ZTR DRIVE MOTOR



LEGEND

- CR1 - OIL VALVE RELAY TANK A
- CR2 - OIL VALVE RELAY TANK B
- CR3 - CONTROL RELAY
- CR4 - DUSTER POLARITY SWITCH RELAY
- CR5 - PIN DECK TREATMENT RELAY
- CR6 - POWER OFF RELAY
- CR7 - DUSTER WINDUP MOTOR RELAY
- CR8 - DUSTER UNWIND MOTOR RELAY
- CR9 - SQUEEGEE LIFT MOTOR RELAY
- CR10 - BRUSH LIFT MOTOR RELAY
- CR11 - FORWARD DRIVE MOTOR RELAY
- CR12 - REVERSE DRIVE MOTOR RELAY
- CR13 - BUFFER MOTOR RELAY
- CR14 - WHISKER ENABLE RELAY
- CR15 - WHISKER 7 PIN SIDE RELAY
- CR16 - WHISKER 10 PIN SIDE RELAY
- CR17 - ZTR ENABLE RELAY
- CR18 - ZTR REVERSE RELAY
- CR19 - VACUUM MOTOR RELAY
- CR20 - POWER RELAY
- 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 2.25A
- FU9 - OIL PUMP MOTOR 2.25A
- FU10 - PLC INPUT POWER/L1 0.5A
- FU11 - TOUCH SCREEN 0.5A
- FU12 - CLEANER PUMP #1 3.2A
- FU13 - CLEANER PUMP #2 3.2A
- FU14 - CVR POWER 25A/30A
- FU15 - LED LIGHTS 1A
- FU16 - TRIGGER SOLENOID 3.2A
- FU17 - TRIGGER SOLENOID 3.2A
- PL1 - 10-PIN SIDE PLUG (15)
- PL2 - 10-PIN SIDE PLUG (12)
- PL3 - 10-PIN SIDE PLUG (9)
- PL4 - 7-PIN SIDE PLUG (15)
- PL5 - 7-PIN SIDE PLUG (12)
- PL6 - DRIVE SPEED BOARD PLUG (12)
- PL7 - CLEANER PUMP #1 SPEED BOARD PLUG (9)
- PL8 - CLEANER PUMP #2 SPEED BOARD PLUG (9)
- PL9 - ZTR DRIVE MOTOR PLUG (3)
- PL10 - BUFFER SPEED BOARD PLUG (12)
- PL11 - BUFFER MOTOR PLUG (5)
- PL12 - BUFFER MOTOR VARIABLE SPEED PLUG (5)
- PL13 - OIL PLATE ASSEMBLY PLUG (6)
- TB1 - TERMINAL BLOCK 1 (MAIN)
- TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
- TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
- TB4 - TERMINAL BLOCK 4 (OIL PLATE)
- TB5 - TERMINAL BLOCK 5 (TOP PLC PLATE)



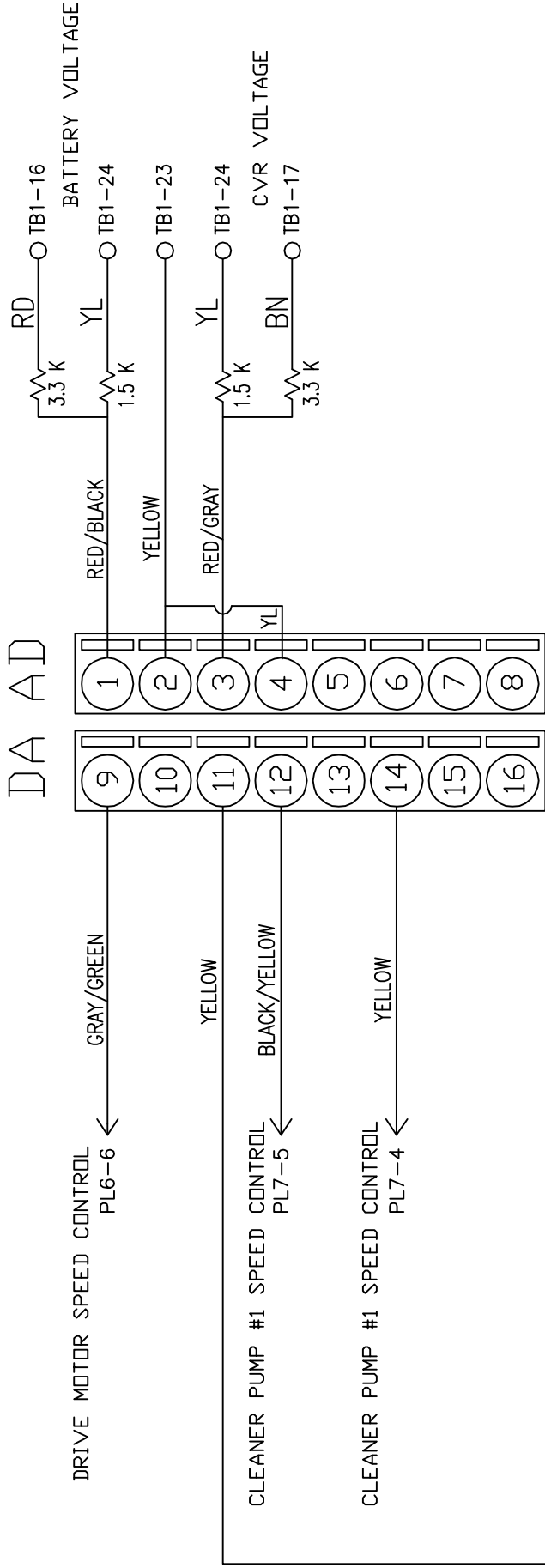
MATERIAL		N/A	
DESCRIPTION	SPEED CONTROL SCHEMATIC		
DATE	07/23/18	DO NOT SCALE DRAWING	
DRAWN BY	SLS	REV DATE	
APPROVED:	MP	SIZE	QTY/MACHINE PART NUMBER
DOC REV		C	N/A
		SCALE	N/A
		SHEET	4 OF 27

1951 LONGLEAF BLVD.  
LAKES WALKER, FL 33669  
(866) 734-0200

420  
421  
422  
423  
424  
425  
426  
427  
428  
429  
430  
431  
432  
433  
434  
435  
436  
437  
438

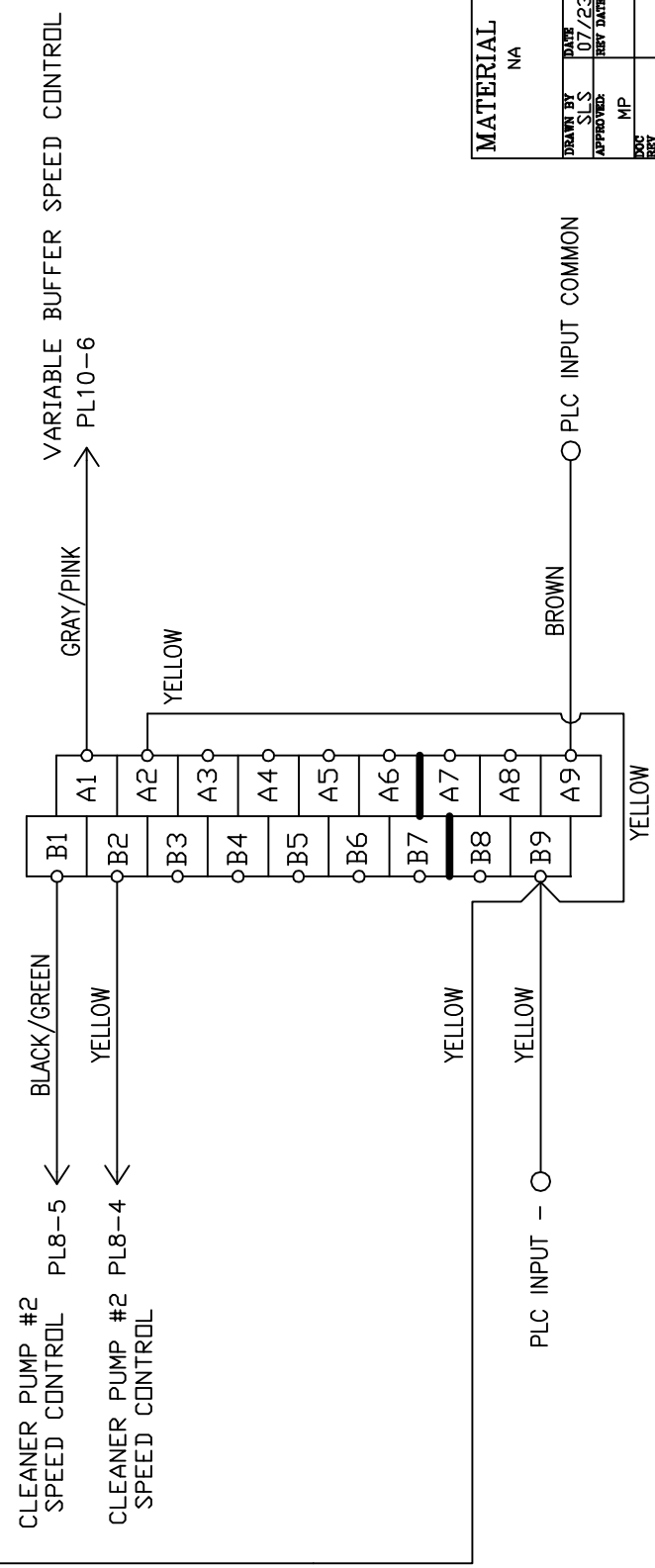
400  
401  
402  
403  
404  
405  
406  
407  
408  
409  
410  
411  
412  
413  
414  
415  
416  
417  
418

# BUILT IN PLC ANALOG



YELLOW

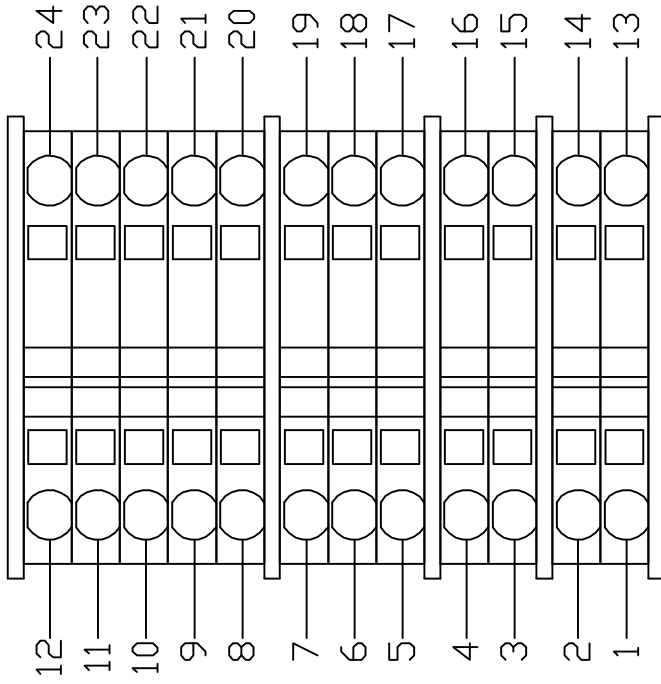
# AD021 ANALOG ADD ON UNIT



MATERIAL		KEGEL	
NA		1981 LONGLEAF BLVD. LAKE WALKER, FL 33609 (813) 724-0900	
DESCRIPTION		ANALOG WIRING SCHEMATIC	
DRAWN BY		DO NOT SCALE DRAWING	
SLS		DATE	
07/23/18		REV DATE	
APPROVED:		SIZE	
MP		C	
REV		SCALE	
5		N/A	
DF		SECRET	
27		FLEX WALKER 2019	

# TB1

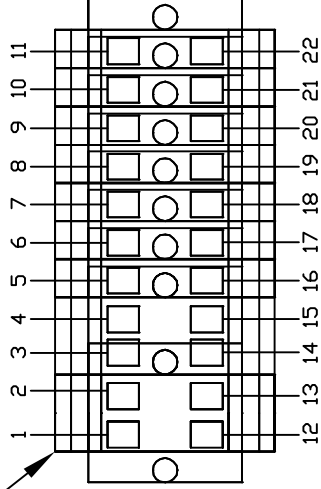
<MAIN>



# TB2

<10-PIN SIDE>

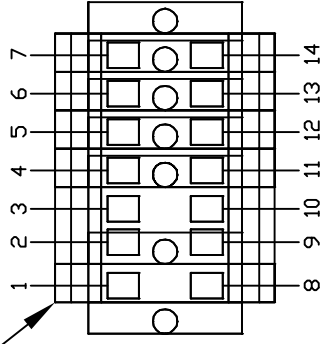
ORANGE  
BLOCK



# TB3

<7-PIN SIDE>

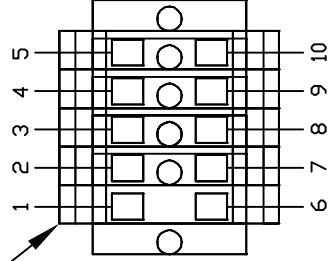
ORANGE  
BLOCK



# TB4

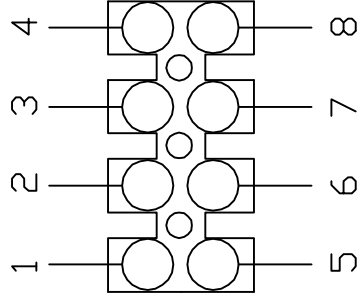
<OIL PLATE>

ORANGE  
BLOCK



# TB5

<TOP PLC PLATE>



## LEGEND

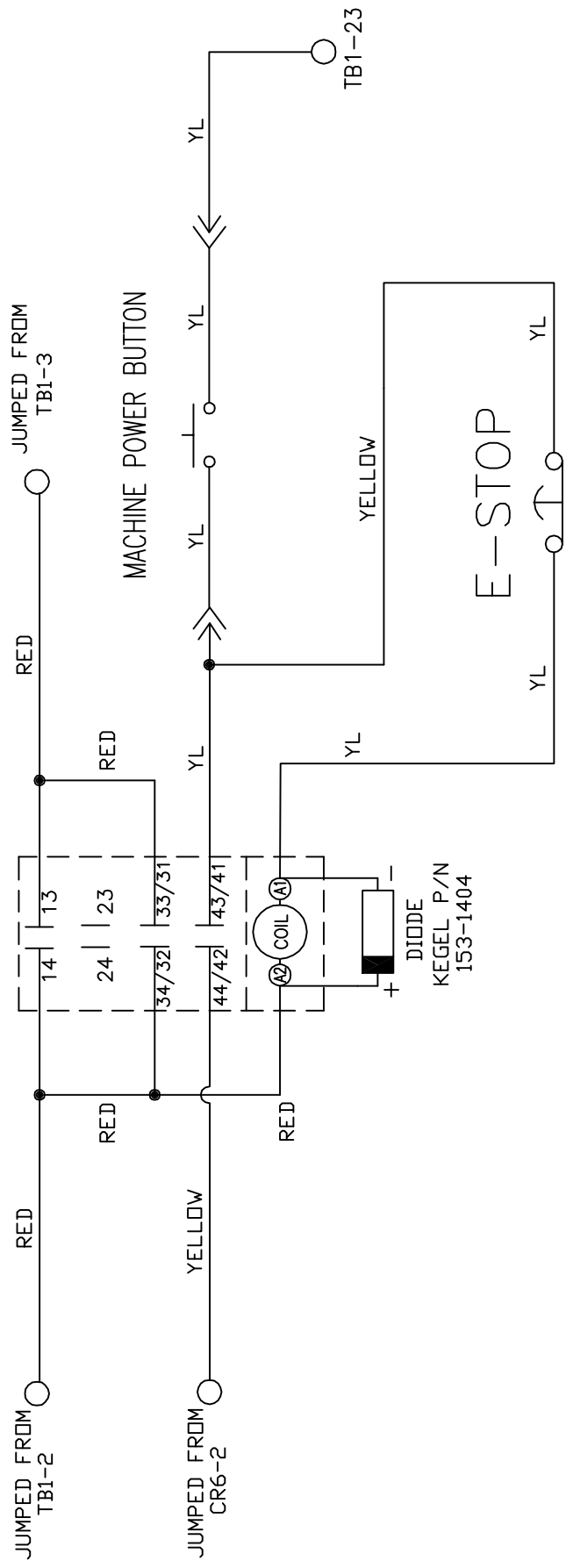
- TB1 - TERMINAL BLOCK 1 <MAIN>
- TB2 - TERMINAL BLOCK 2 <10-PIN SIDE>
- TB3 - TERMINAL BLOCK 3 <7-PIN SIDE>
- TB4 - TERMINAL BLOCK 4 <OIL PLATE>
- TB5 - TERMINAL BLOCK 5 <TOP PLC PLATE>

MATERIAL NA		KEGEL		1981 LONGLEAF BLVD. LAKES WALKER, FL 33669 (813) 734-0900	
DRAWN BY SLS		DATE 07/23/18		DESCRIPTION TERMINAL BLOCK LAYOUT	
APPROVED: MP		REV DATE		DO NOT SCALE DRAWING SIZE / QTY/MACHINE PART NUMBER	
DOC REV	SCALE	N/A	SECRET	FLEX WALKER	2019
				6	DF 27

4 3 2 1

D C B A

POWER RELAY  
CR20

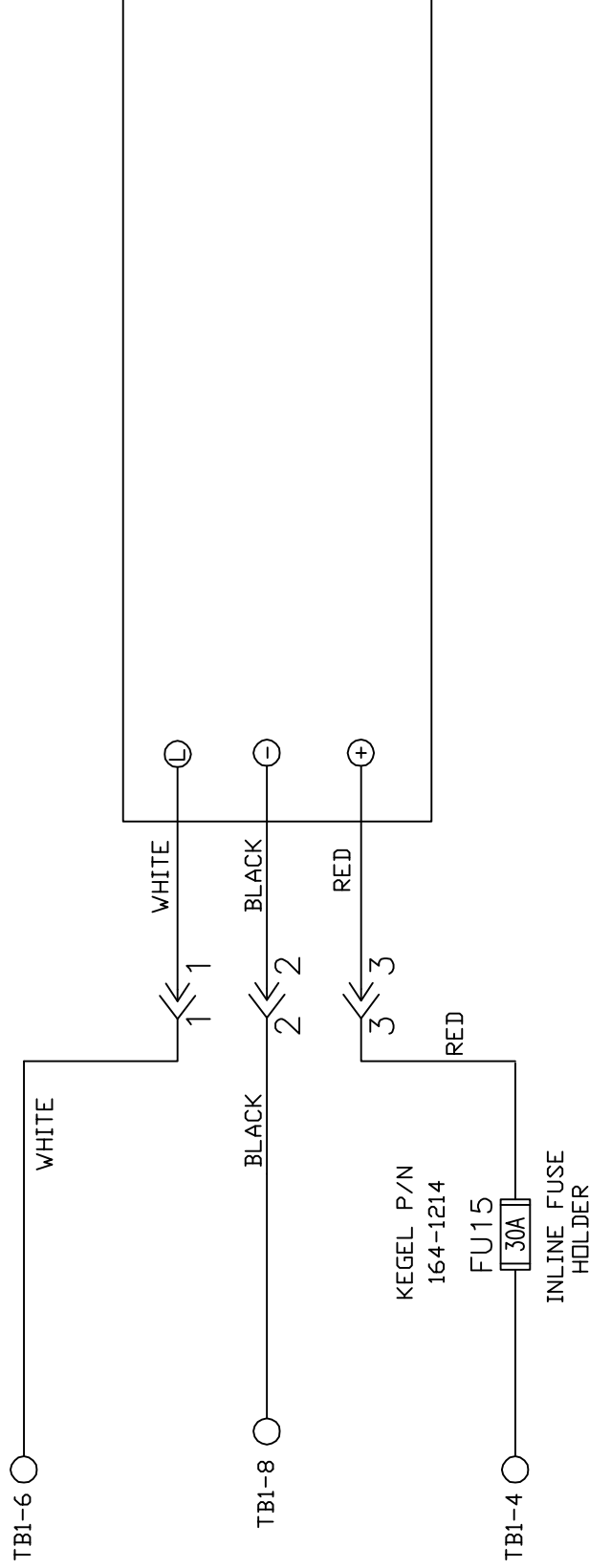


MATERIAL		1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
N/A		THE KEGEL CO. (888) 734-0200	
DESCRIPTION		POWER RELAY WIRING	
DRAWN BY	DATE	DO NOT SCALE DRAWING	
SLS	07/23/18	SIZE	QTY/MACHINE PART NUMBER
APPROVED:	REV DATE	A	N/A
MP		SCALE	N/A
DOC		SHEET	7 OF 27
REV			

4 3 2 1

D C B A

# VOLTAGE REGULATOR

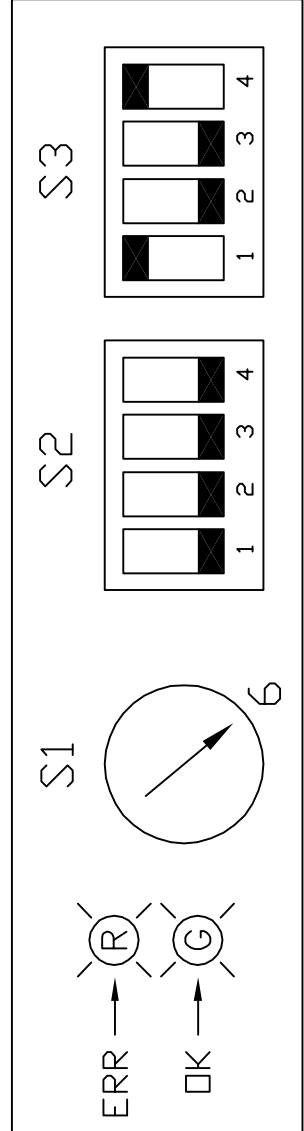
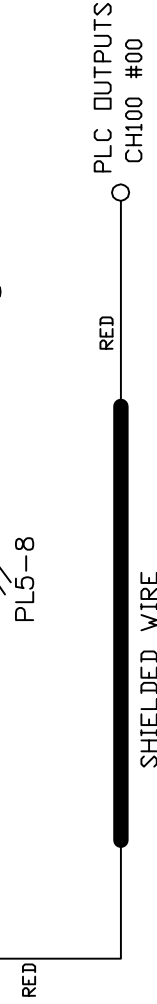
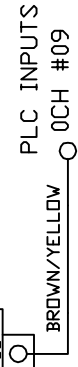
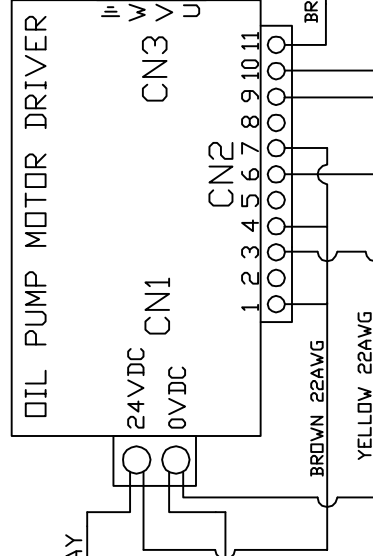
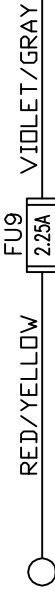


MATERIAL		THE KEGEL CO. 1951 LONGLEAP BLVD. LAKE WALES, FL 33869			
N/A		DESCRIPTION			
		VOLTAGE REGULATOR WIRING			
DRAWN BY	DATE	SIZE	QTY/MACHINE	PART NUMBER	DO NOT SCALE DRAWING
SLS	07/23/18	A	N/A	FLEX WALKER	2019
APPROVED:	REV DATE	SCALE	N/A	SHEET	8 OF 27
MP					
DOC					
REV					

# OIL PUMP MOTOR



KEGEL P/N  
154-1266



MATERIAL		THE KEGEL CO.		1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
N/A		DESCRIPTION		OIL PUMP DRIVER & MOTOR WIRING	
DRAWN BY	DATE	DO NOT SCALE DRAWING		SIZE	
SLS	07/23/18	QTY/MACHINE		PART NUMBER	
APPROVED:	REV DATE	A	N/A	FLEX WALKER	2019
MP		SCALE	N/A	SHEET	9 OF 27
DOC					
REV					

4 3 2 1

D C B A

4 3 2 1

D C B A

# OIL HEAD MOTOR

M

YELLOW/BLACK  
WHITE/BLUE  
RED/ORANGE

KEGEL P/N  
154-1266  
FU9  
2.25A

JUMPED FROM  
OIL PUMP  
FUSE

WHITE/RED

RED/YELLOW

BLACK

TB1-9

OIL HEAD DRIVER

24VDC  
0VDC

CN3  
CN1  
CN2

BROWN/YELLOW

OIL PUMP MOTOR  
DRIVER CN2 #10

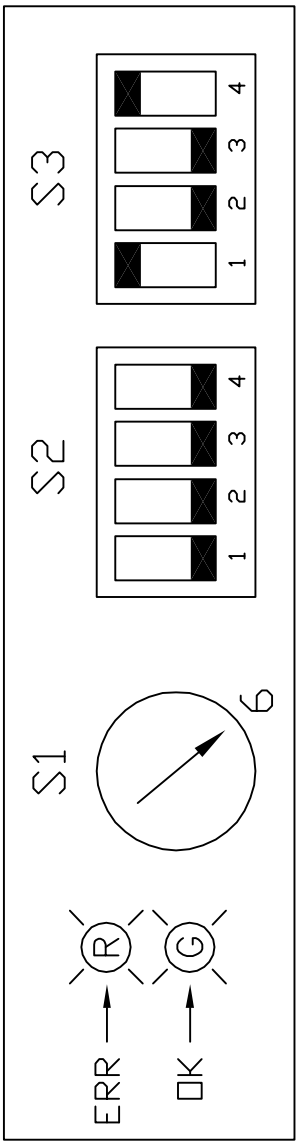
WHITE

BLACK

PLC OUTPUTS  
CH100 #05

PLC OUTPUTS  
CH100 #04

SHIELDED WIRE



MATERIAL		THE KEGEL CO.		1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
N/A		DESCRIPTION		OIL HEAD DRIVER & MOTOR WIRING	
DRAWN BY	DATE	DO NOT SCALE DRAWING		SIZE	
SLS	07/23/18	QTY/MACHINE PART NUMBER		A	N/A
APPROVED:	REV DATE	SCALE		N/A	N/A
MP		SHEET		10	OF 27
DOC		REV			

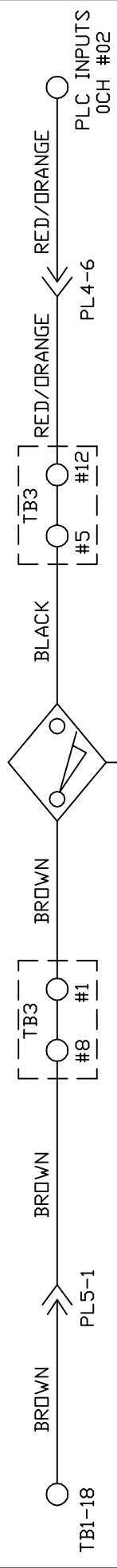
4 3 2 1

D C B A

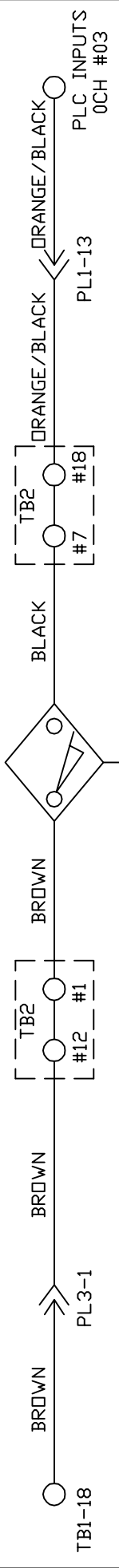
1 2 3 4

4 | 3 | 2 | 1

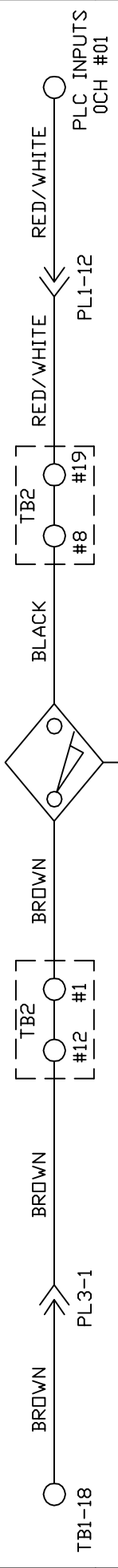
### L-R HEAD PROX



### R-L HEAD PROX



### BOARD PROX

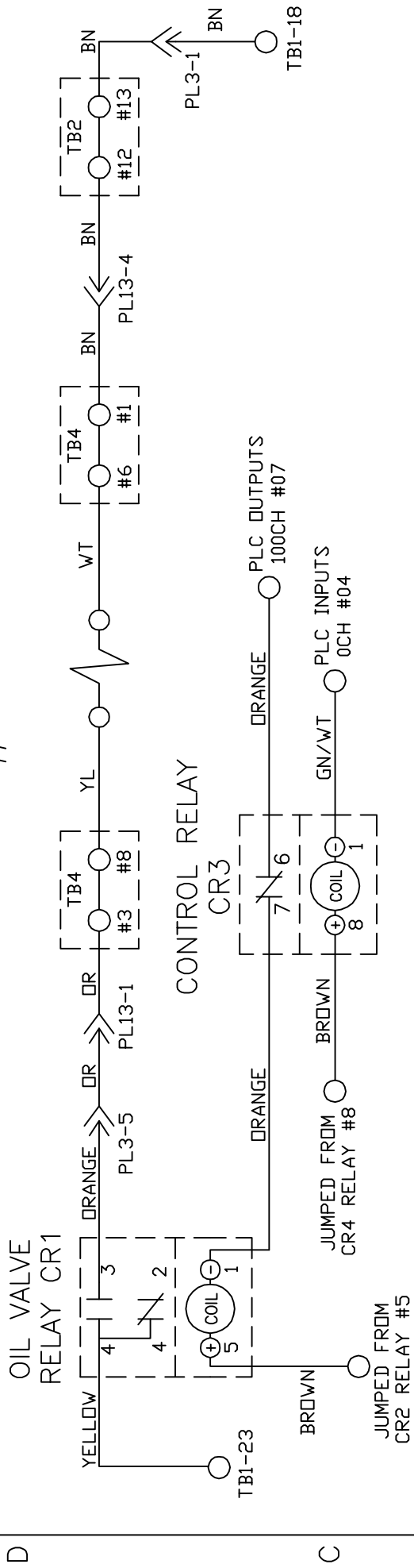


MATERIAL		1951 LONGLEAF BLVD. LAKE WALES, FL 33669	
N/A		THE KEGEL CO. (688) 784-0200	
DESCRIPTION			
L-R, R-L & BOARD PROX WIRING			
DRAWN BY	DATE	DO NOT SCALE DRAWING	
SLS	07/23/18	SIZE	QTY/MACHINE PART NUMBER
APPROVED:	REV DATE	A	N/A
MP		SCALE	N/A
DOC		SHEET	11 OF 27
REV			

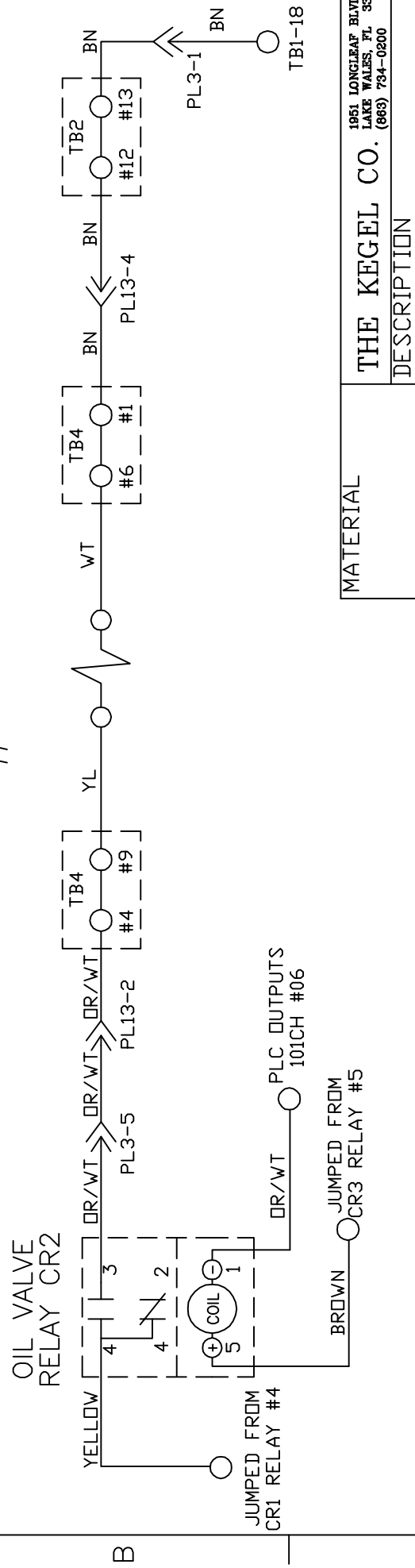
4 | 3 | 2 | 1



# OIL VALVE #1 - TANK A



# OIL VALVE #2 - TANK B



MATERIAL		THE KEGEL CO. (866) 734-0200 1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
DESCRIPTION		OIL VALVES RELAY WIRING	
DRAWN BY	DATE	DO NOT SCALE DRAWING	
SLS	07/23/18	SIZE	QTY/MACHINE PART NUMBER
APPROVED:	REV DATE	A	N/A
MP		SCALE	N/A
DOC REV		SHEET	12 OF 27

4      3      2      1

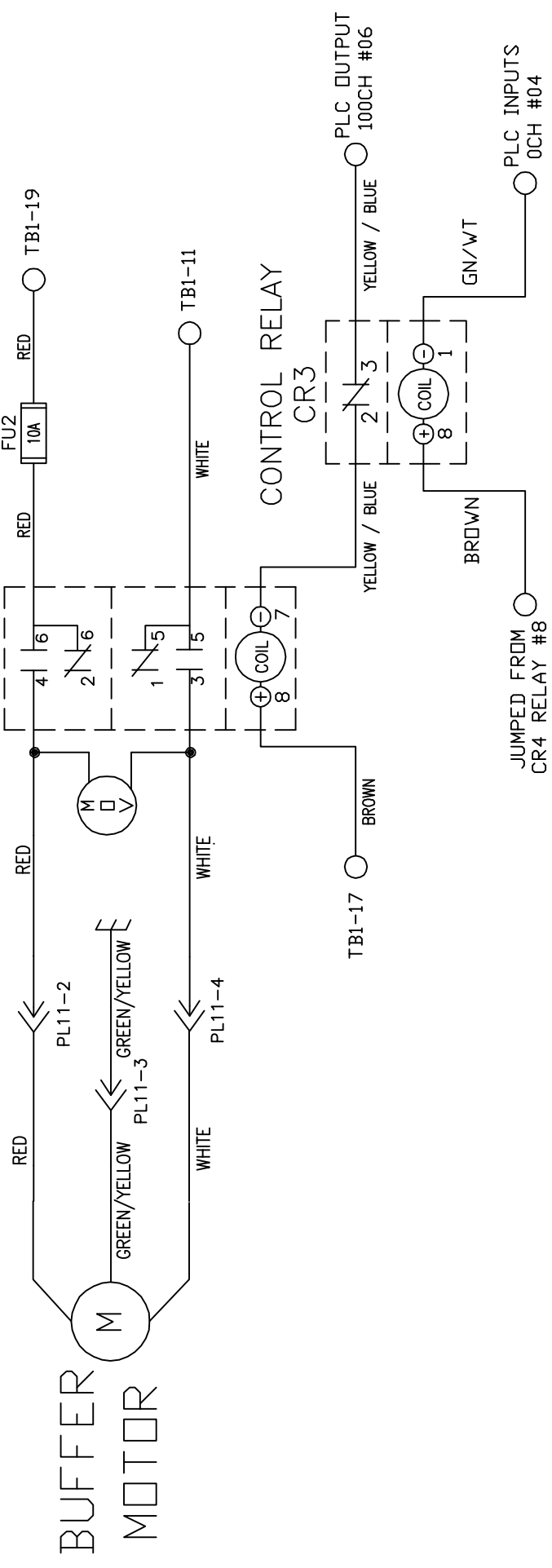
D      C      B      A

4 3 2 1

D C B A

BUFFER MOTOR RELAY CR13

KEGEL P/N  
154-1273



BUFFER MOTOR

MATERIAL		1951 LONGLEAP BLVD. LAKE WALES, FL 33669	
N/A		THE KEGEL CO. (888) 734-0200	
DESCRIPTION			
BUFFER MOTOR WIRING			
DO NOT SCALE DRAWING			
DRAWN BY	DATE	SIZE	QTY/MACHINE PART NUMBER
SLS	07/23/18	A	N/A
APPROVED:	REV DATE	SCALE	N/A
MP		SHEET	13 OF 27
DOC REV			

4 3 2 1

D C B A







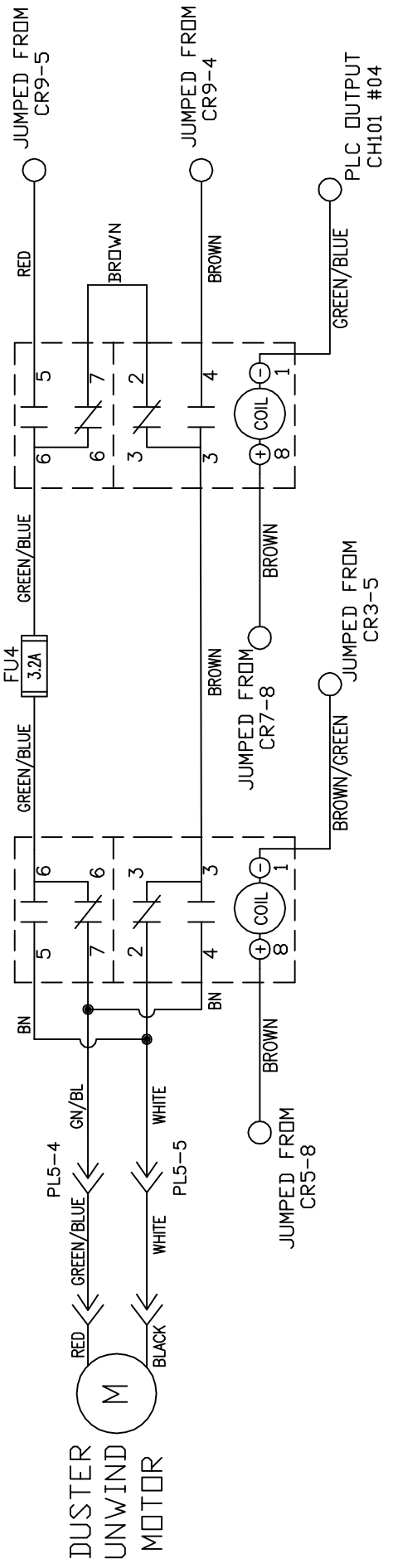


4 3 2 1

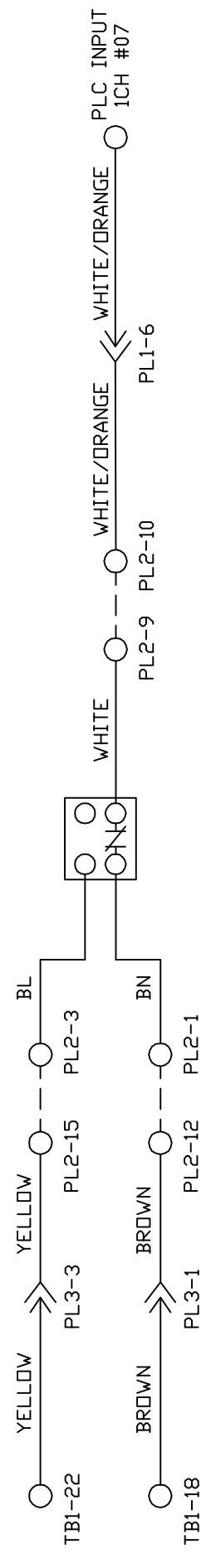
DUSTER POLARITY  
RELAY CR4

DUSTER UNWIND  
MOTOR RELAY CR8

KEGEL P/N  
154-1267  
FU4  
3.2A



STOP BY SENSOR



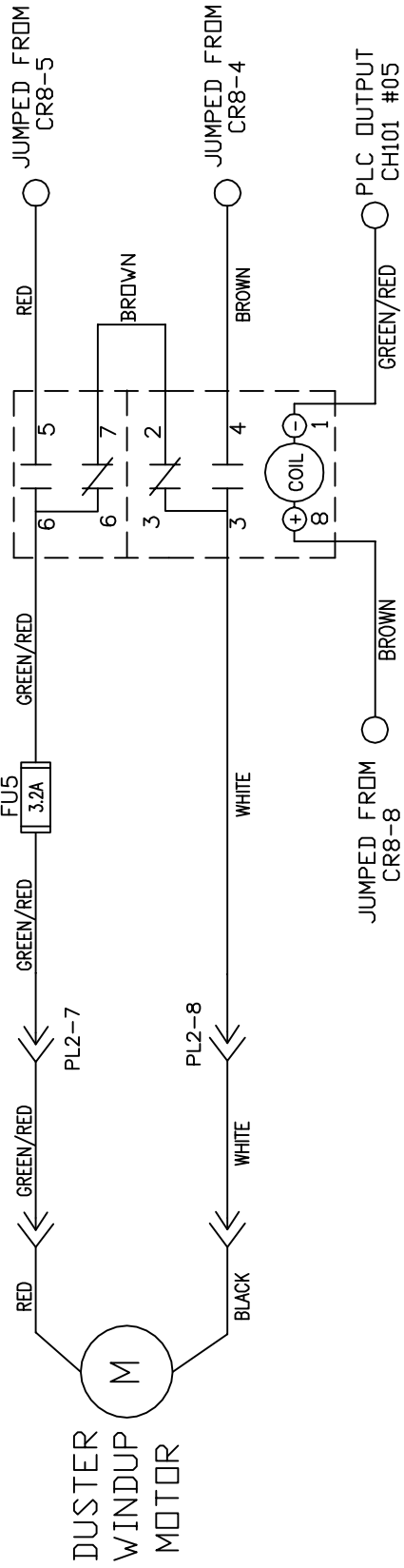
MATERIAL N/A		1951 LONGLEAF BLVD. LAKE WALES, FL 35869	
DESCRIPTION DUSTER UNWIND & STOP BY SENSOR WIRING DO NOT SCALE DRAWING		THE KEGEL CO. (888) 734-0200	
DRAWN BY SLS	DATE 07/23/18	SIZE A	QTY/MACHINE PART NUMBER N/A
APPROVED: MP	REV DATE	SCALE N/A	SHEET 18 OF 27
DOC REV			

4 3 2 1

4 3 2 1

### DUSTER WINDUP MOTOR RELAY CR7

KEGEL P/N  
154-1267



7-PIN SIDE  
DUSTER UP SWITCH

10-PIN SIDE  
DUSTER UP SWITCH

DUSTER WINDUP MOTOR

MATERIAL N/A		THE KEGEL CO. (888) 734-0200 1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
DATE 07/23/18	DESCRIPTION DUSTER WINDUP & SWITCH WIRING DO NOT SCALE DRAWING		
REV DATE	SIZE A	QTY/MACHINE N/A	PART NUMBER N/A
MP	SCALE N/A	FLEX WALKER 2019	SHEET 19 OF 27
DOC REV	REV		

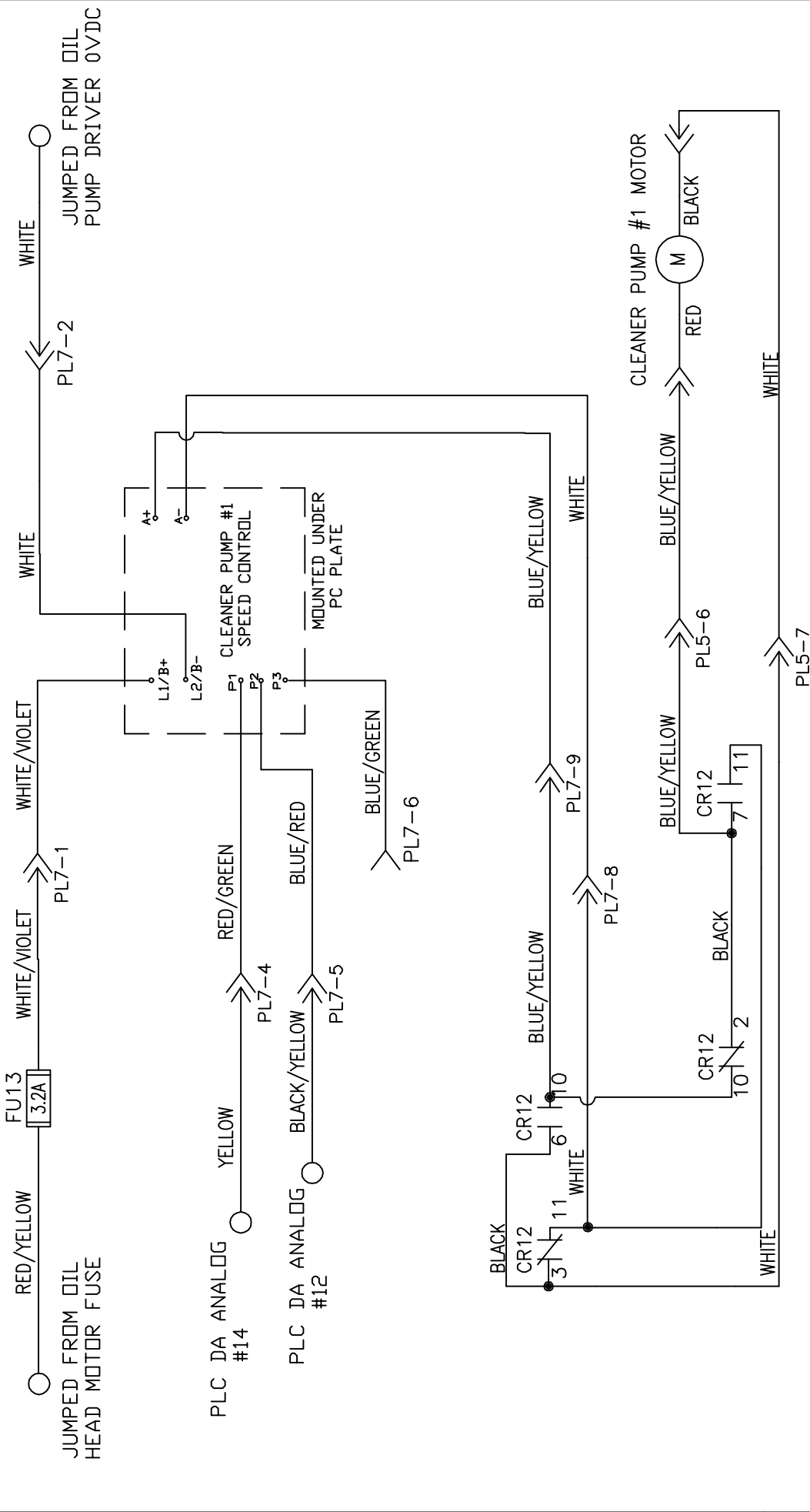
4 3 2 1

D C B A



4 3 2 1

KEGEL P/N  
154-1267



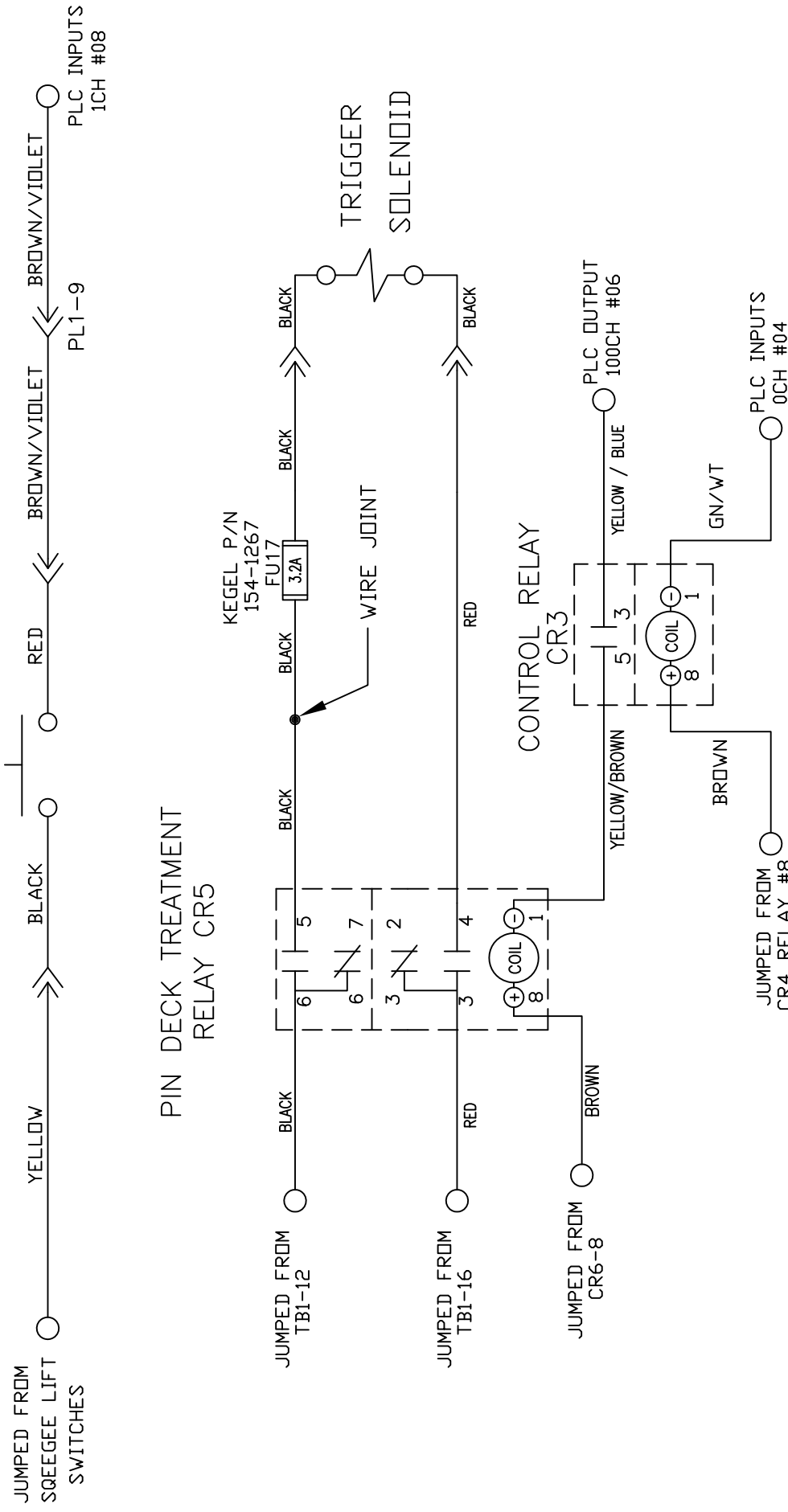
MATERIAL		1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
N/A		THE KEGEL CO. (888) 734-0200	
DRAWN BY	DATE	DESCRIPTION	
SLS	07/23/18	CLEANER PUMP # 1	
APPROVED:	REV DATE	SPEED CONTROL WIRING	
MP		DO NOT SCALE DRAWING	
DOC	SIZE	QTY/MACHINE	PART NUMBER
REV	A	N/A	FLEX WALKER 2019
	SCALE	N/A	SHEET 20 OF 27

1 2 3 4





# DUSTER/PRESOAK BUTTON



MATERIAL		THE KEGEL CO. (669) 734-0200	
N/A		1951 LONGLEAF BLVD. LAKE WALES, FL 33859	
DRAWN BY	DATE	DESCRIPTION	
SLS	07/21/15	DUSTER/PRESOAK BUTTON	
APPROVED:	REV DATE	& TRIGGER SOLENOID	
MP		DO NOT SCALE DRAWING	
DOC	SIZE	QTY/MACHINE	PART NUMBER
REV	A	N/A	FLEX WALKER 2016
	SCALE	N/A	SHEET 22 OF 27

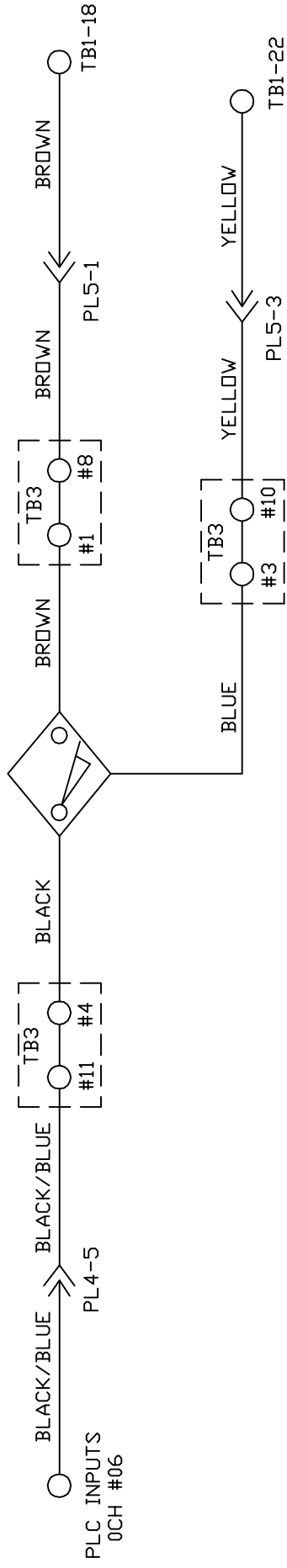
4 3 2 1

4 3 2 1

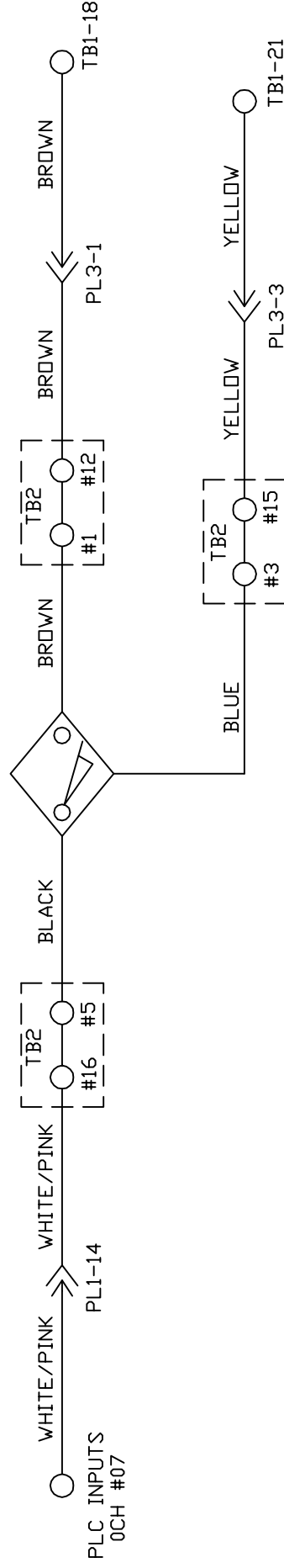


4 3 2 1

# SPEED TACH PROX



# LANE DISTANCE PROX



MATERIAL		1951 LONGLEAP BLVD. LAKE WALKER, FL 33669	
N/A		THE KEGEL CO. (866) 734-0200	
DRAWN BY	DATE	DESCRIPTION	
SLS	07/23/18	SPEED TACH & LANE DISTANCE WIRING	
APPROVED:	REV DATE	DO NOT SCALE DRAWING	
MP		SIZE	QTY/MACHINE PART NUMBER
		A	N/A
DOC		SCALE	N/A
REV			FLEX WALKER 2019
			SHEET 24 OF 27

4 3 2 1