



Electronic Service Manuals

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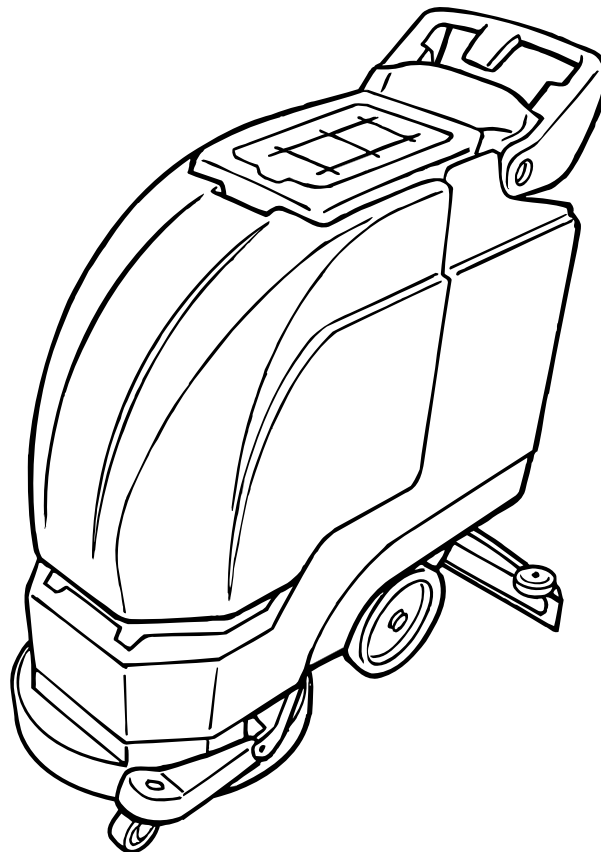


5100

Automatic Battery Scrubber

Model No.:
609139
609140 – Pac

Operator and Parts Manual

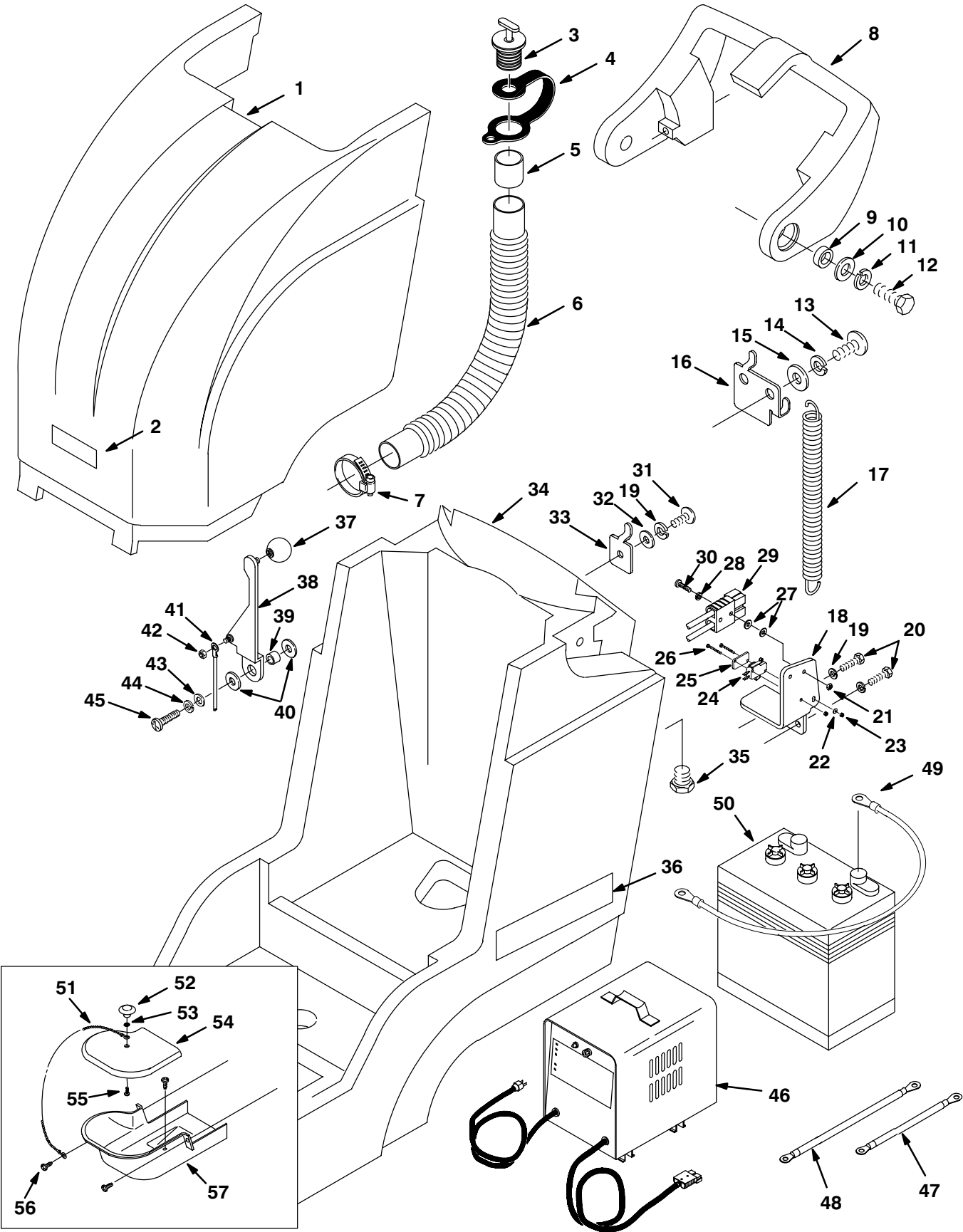


TENNANT COMPANY
Commercial Products
12875 RANSOM STREET
HOLLAND MI 49424 U.S.A.

FAX: 1-800-678-4240
CUSTOMER SERVICE: 1-800-982-7658

609372
Rev. 00 (01-00)

SOLUTION TANK GROUP



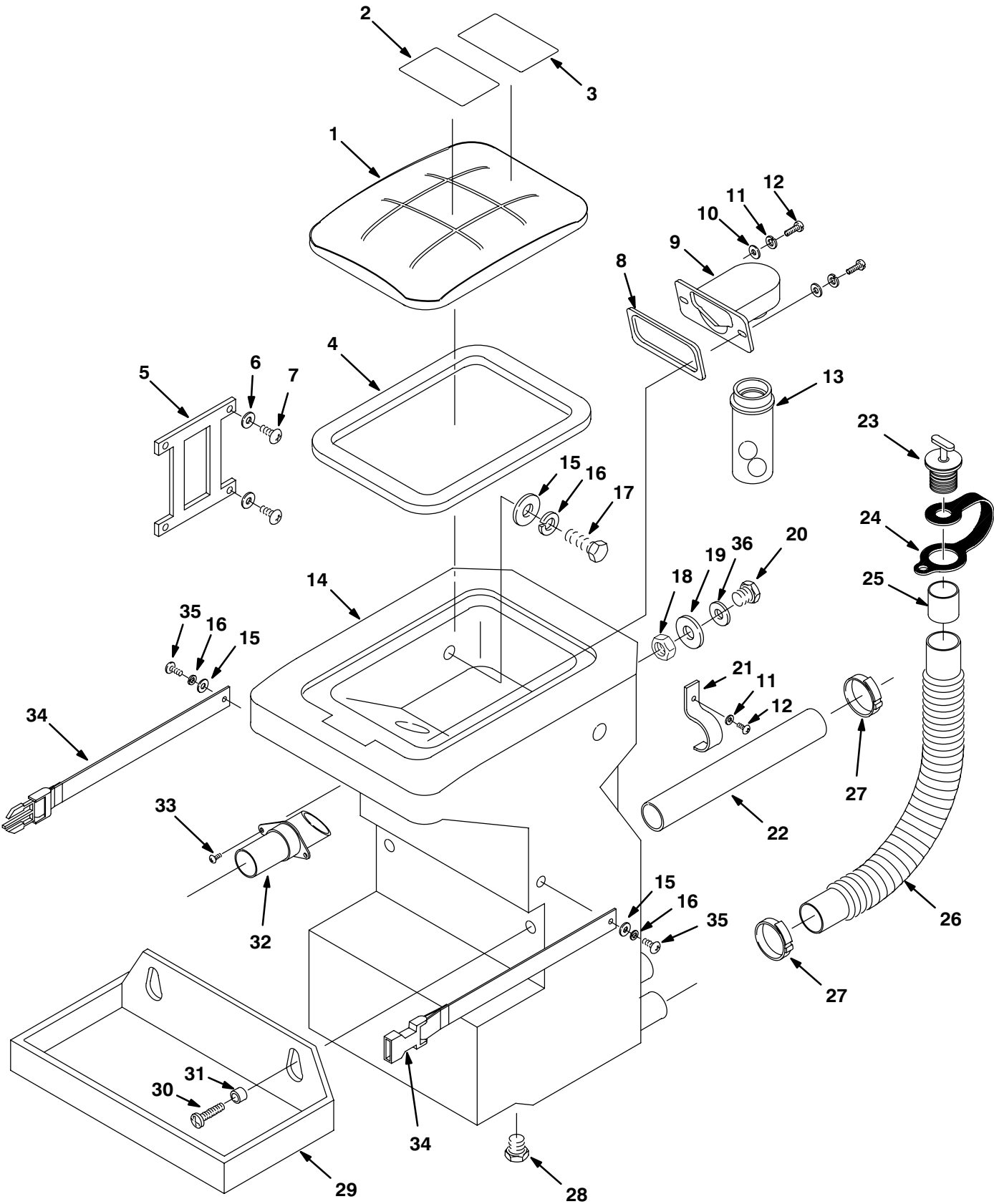
SOLUTION TANK GROUP

REF	PART #	DESCRIPTION	QTY.
1	609205	COVER, BATTERY, TEAL	1
2	120192	DECAL, TENNANT LOGO	1
3	621324	PLUG, EXPANSION	1
4	578441	●STRAP, DRAIN HOSE	1
5	630394	●SLEEVE	1
6	601459	●HOSE, DRAIN	1
7	140307	CLAMP	1
8	609207	HANDLE, TEAL	1
9	601434	SPACER	2
10	140045	WASHER, FLAT	2
11	140024	WASHER, LOCK	2
12	601435	SCREW, M12X30MM	2
13	140275	SCREW, M8X1.25X16MM	2
14	140015	WASHER, LOCK	2
15	140027	WASHER, FLAT	2
16	601496	CLIP, HOSE-SPRING	1
17	140423	SPRING	1
18	601466	BRACKET, CRG PLUG	1
19	140016	WASHER, LOCK	3
20	578321000	SCREW, M6X16MM	2
21	140539	NUT	2
22	200301012	WASHER, FLAT	1
23	579211	NUT	2
24	600437	●SWITCH, ROLLER 15A	1
25	601359	PLATE, SWITCH BCKNG	1
26	578187000	SCREW, M6X1.0X12MM	2
27	140026	WASHER, FLAT	4
28	140019	WASHER, LOCK	2
29	27833	●CONNECTOR, RED 50A	1

REF	PART #	DESCRIPTION	QTY.
30	140829	SCREW, 6-32X1	2
31	578321000	SCREW, M06X12MM	1
32	140000	WASHER, FLAT	1
33	601460	CLIP, DRAIN HOSE	1
34	609201	TANK, SOLUTION, TEAL	1
35	630146	PLUG	1
36	609066	DECAL, 5100	2
37	601425	KNOB, SQ. LEVER	1
38	601426	LEVER, SQUEEGEE	1
39	601427	SPACER	1
40	601437	WASHER, NYLON	2
41	601428	CABLE, SQUEEGEE	1
42	601476	NUT	1
43	140055	WASHER, FLAT	1
44	140015	WASHER, LOCK	1
45	630425	SCREW, M8X20MM	1
46	130948	CHARGER, 115V/24VDC 15A	1
47	603207	CABLE, BATTERY, #6X12" RED	1
48	603208	CABLE, BATTERY, #6X24" BLACK	1
49	602871	CABLE, JUMPER	1
50	130869	BATTERY, 12V 130AH	2
51	230513	ASM., CHAIN	1
52	578301	KNOB, COVER FUNNEL	1
53	140018	WASHER, #10 INTERNAL	1
54	606724	COVER, SOLUTION FUNNEL	1
55	578201000	SCREW, #10-32 X 1/2	1
56	606172	SCREW, M4 X .875	3
57	604936	FUNNEL, SOLUTION	1

● RECOMMENDED STOCK ITEMS

RECOVERY TANK GROUP



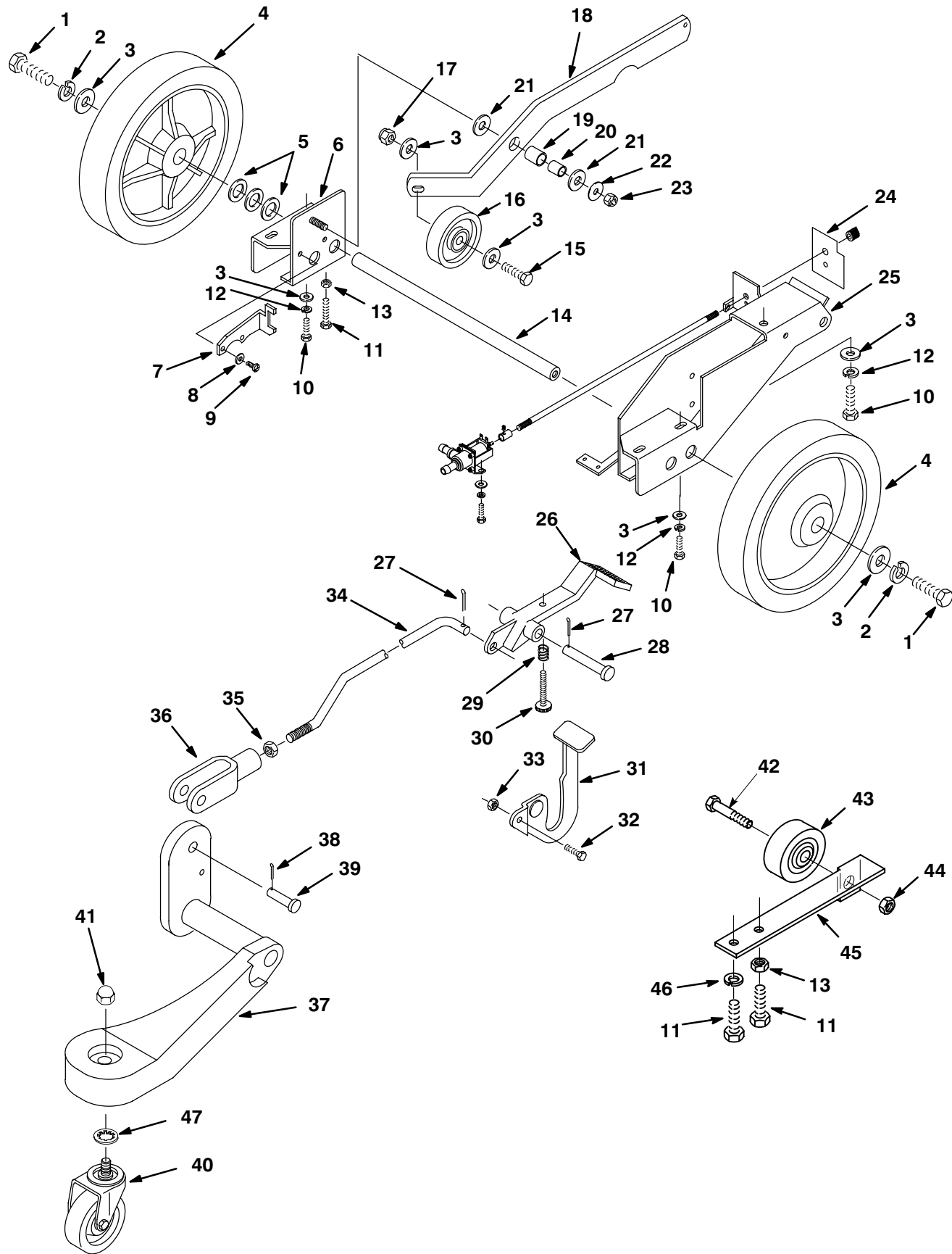
RECOVERY TANK GROUP

REF	PART #	DESCRIPTION	QTY.
1	630055	●COVER, TANK	1
2	630422	DECAL, BATT. CHRG	1
3	630420	DECAL, FLAMM. MAT'L	1
4	630367	●GASKET, REC. TANK	1
5	630056	STRAP, TANK COVER	1
6	630390	WASHER, FLAT	4
7	3701.6	SCREW, #6X3/8	4
8	630255	GASKET, FLOAT MOUNT	1
9	630053	MOUNT, FLOAT CAGE	1
10	140000	WASHER, FLAT	2
11	140016	WASHER, LOCK	3
12	600385	SCREW, M06X16MM	3
13	630052	●FLOAT CAGE W/BALL	1
14	609203	TANK, RECOVERY, TEAL	1
15	140027	WASHER, FLAT	4
16	140015	WASHER, LOCK	4
17	200607491	SCREW, M08X25MM	2
18	603418	NUT	1

REF	PART #	DESCRIPTION	QTY.
19	14194	WASHER, RUBBER	1
20	603417	SCREW, 5/8-11X1	1
21	601462	CLAMP	1
22	240177	TUBE, BASE INLET	1
23	621324	PLUG, EXPANSION	1
24	578441	STRAP, DRAIN HOSE	1
25	630394	SLEEVE, DRAIN HOSE	1
26	601459	HOSE, DRAIN 1 1/2X15"	1
27	140307	CLAMP	2
28	630147	PLUG, 3/4 NPT	1
29	601430	TRAY, BATTERY	1
30	601438	SCREW, 3/8-16X5/8	2
31	601439	SPACER	2
32	160485	●ADAPTER, HOSE	1
33	200070382	SCREW, M05X10MM	2
34	601431	STRAP, BATTERY	1
35	140275	SCREW, M08X1.25MM	2
36	601437	WASHER, NYLON	1

● RECOMMENDED STOCK ITEMS

WHEEL GROUP



WHEEL GROUP

REF	PART #	DESCRIPTION	QTY.
1	140201	SCREW, 3/8-16X3/4	2
2	140017	WASHER, LOCK	2
3	140028	WASHER, FLAT	9
▽4	25656	●WHEEL	2
	103071	●BEARING, WHEEL	2
5	140047	WASHER	3
6	601447	MOUNT, AXLE	1
7	601474	BRACKET, FILTER	1
8	140016	WASHER, LOCK	2
9	578321000	SCREW, M6X16MM	2
10	140276	SCREW, M10X1.5X16MM	5
11	200607491	SCREW, M8X1.25X25MM	3
12	140333	WASHER, LOCK	5
13	200101017	NUT	2
14	601448	AXLE	1
15	140256	SCREW, 3/8-16X2 1/2	1
16	601469	●WHEEL	1
17	140515	NUT	1
18	601458	MOUNT, WHEEL BRUSH	1
19	630188	BEARING	1
20	630189	SLEEVE, BEARING	1
21	630447	WASHER, NYLON	2
22	140055	WASHER, FLAT	1
23	200160017	NUT, LOCK	1
24	601491	DECAL, SOL. CONTROL	1
25	601446	MOUNT, AXLE PEDAL	1

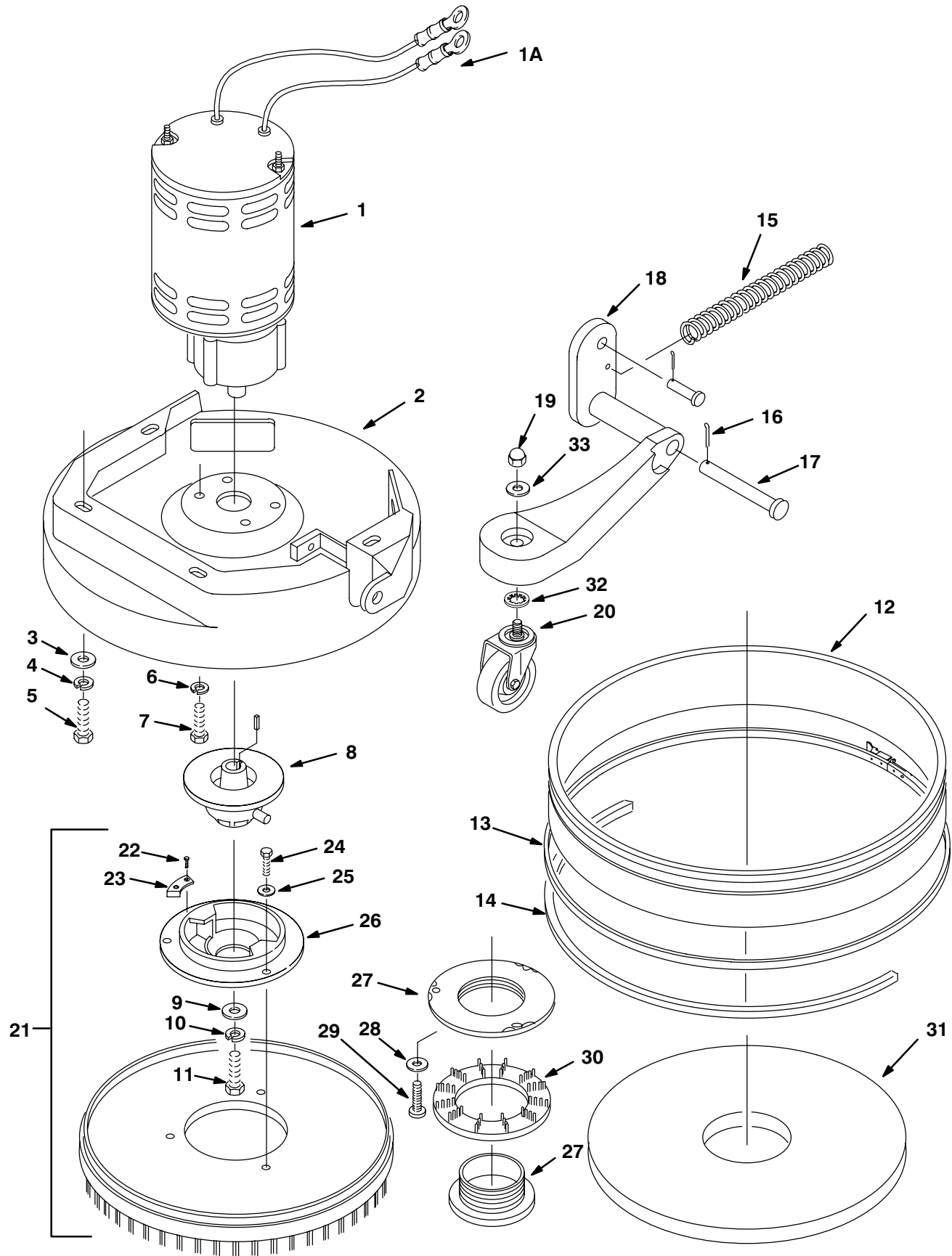
REF	PART #	DESCRIPTION	QTY.
26	601444	PEDAL HEAD LIFT	1
27	140630	PIN, COTTER	2
28	601471	PIN, CLEVIS	1
29	578140000	SPRING	1
30	603145	KNOB	1
31	601445	PEDAL, LATCH RELEASE	1
32	140275	SCREW, M8X1.25X16MM	1
33	200160017	NUT	1
34	601442	ROD, CASTER MOUNT	1
35	578242000	NUT	1
36	578085000	YOKE, ADJUSTMENT	1
37	601441	MOUNT, CASTER	1
38	612254000	PIN, HAIRPIN	1
39	140608	PIN, CLEVIS	1
40	601443	●CASTER, SWIVEL	1
41	3058	NUT	1
42	630478	SCREW, SHOULDER	1
43	630477	WHEEL, 2"	1
44	601108000	NUT, LOCK	1
45	604323	BRACKET, STOP	1
46	140015	WASHER, LOCK	1
47	140029	WASHER, INT. TOOTH	1

▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

PAD DRIVER GROUP



PAD DRIVER GROUP

REF	PART #	DESCRIPTION	QTY.
▽1	601499	●MOTOR, BRUSH 24VDC	1
▲	603638	●CARBON BRUSH (4/PK)	4
▲	630609	GEARBOX	1
▲	140632	KEY	1
1A	130111	TERMINAL, RING	2
2	601440	HEAD CASTING	1
3	140028	WASHER, FLAT	4
4	140333	WASHER, LOCK	4
5	140276	SCREW, M10X1.5X16MM	4
6	140017	WASHER, LOCK	4
7	140202	SCREW, 3/8-16X1	4
8	601449	HUB, BRUSH DRIVE	1
9	069764631	WASHER, FLAT	1
10	140015	WASHER, LOCK	1
11	140219	SCREW, 5/16-18X1	1
12	601493	●SKIRT, SPLASH GUARD	1
13	601495	ASM., SKIRT BAND	1
14	604744	BUMPER, EXTRUSION 30"	1
15	603148	SPRING	1
16	612254000	PIN, HAIRPIN	1
17	069764083	PIN, CLEVIS	1

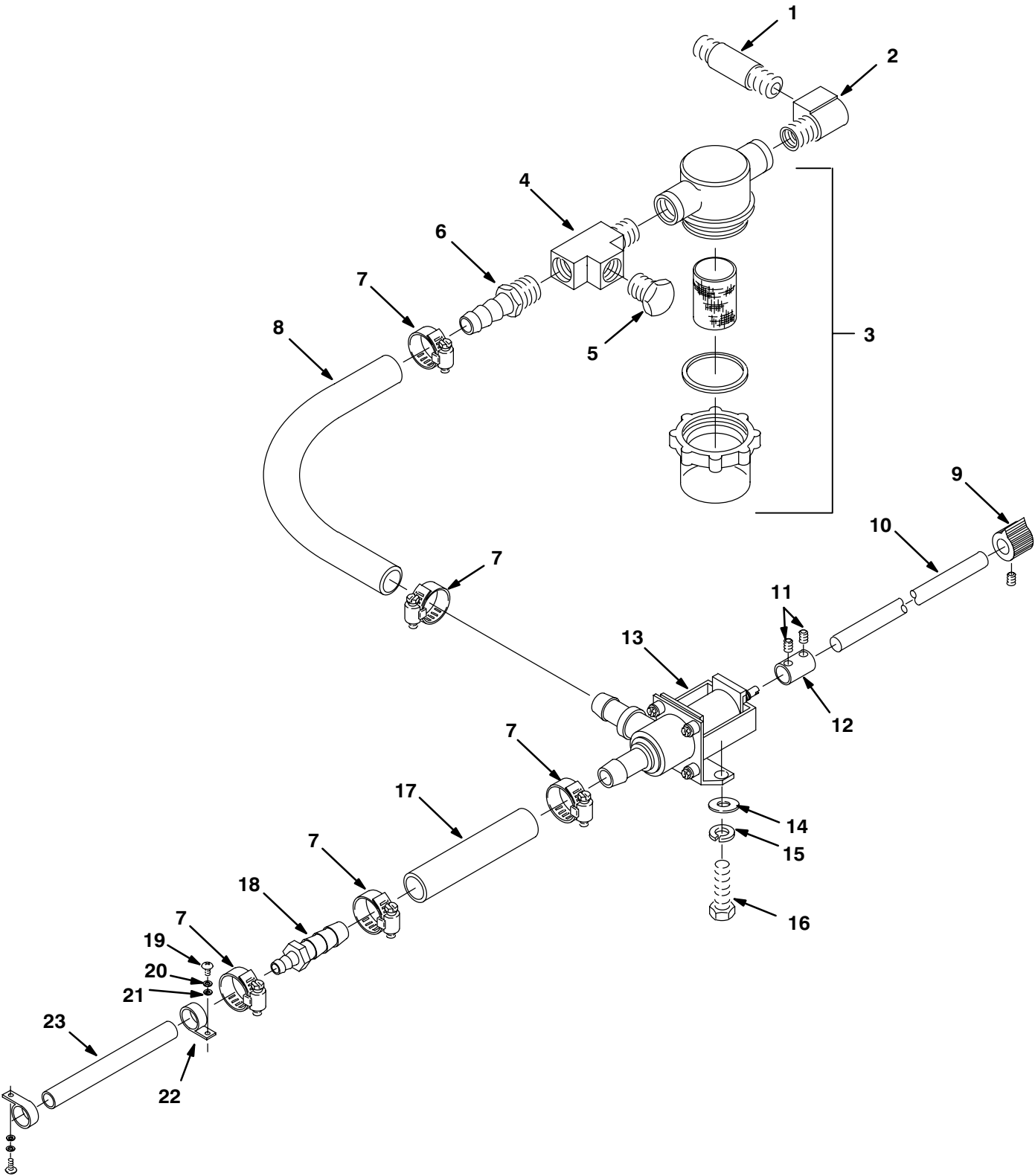
REF	PART #	DESCRIPTION	QTY.
18	601441	MOUNT, CASTER	1
19	3058	NUT	1
20	601443	CASTER, SWIVEL	1
▽21	370000	ASM.,BRUSH 17"NYLON (OPTIONAL)	1
	370002	ASM., BRUSH 17" GRIT (OPTIONAL)	1
	370007	ASM., BRUSH 17" POLY (OPTIONAL)	1
	370003	ASM., PAD DRIVER 17" (OPTIONAL)	1
▲22	603439	SCREW, #6X5/16	4
▲23	603438	PLATE, WEAR	2
▲24	578580	SCREW, M06X35MM	3
▲25	140000	WASHER, FLAT	3
▲26	601453	●PLATE, CLUTCH	1
▲27	630473	●CENTERLOCK	1
▲28	140007	WASHER, FLAT	3
▲29	200070351	SCREW, M4X025MM	3
▲30	630472	RETAINER, BRUSH PAD	1
31	NA	PAD	1
32	140029	WASHER, INT. TOOTH	1
33	3148.816	WASHER, FLAT	1

▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

PLUMBING GROUP



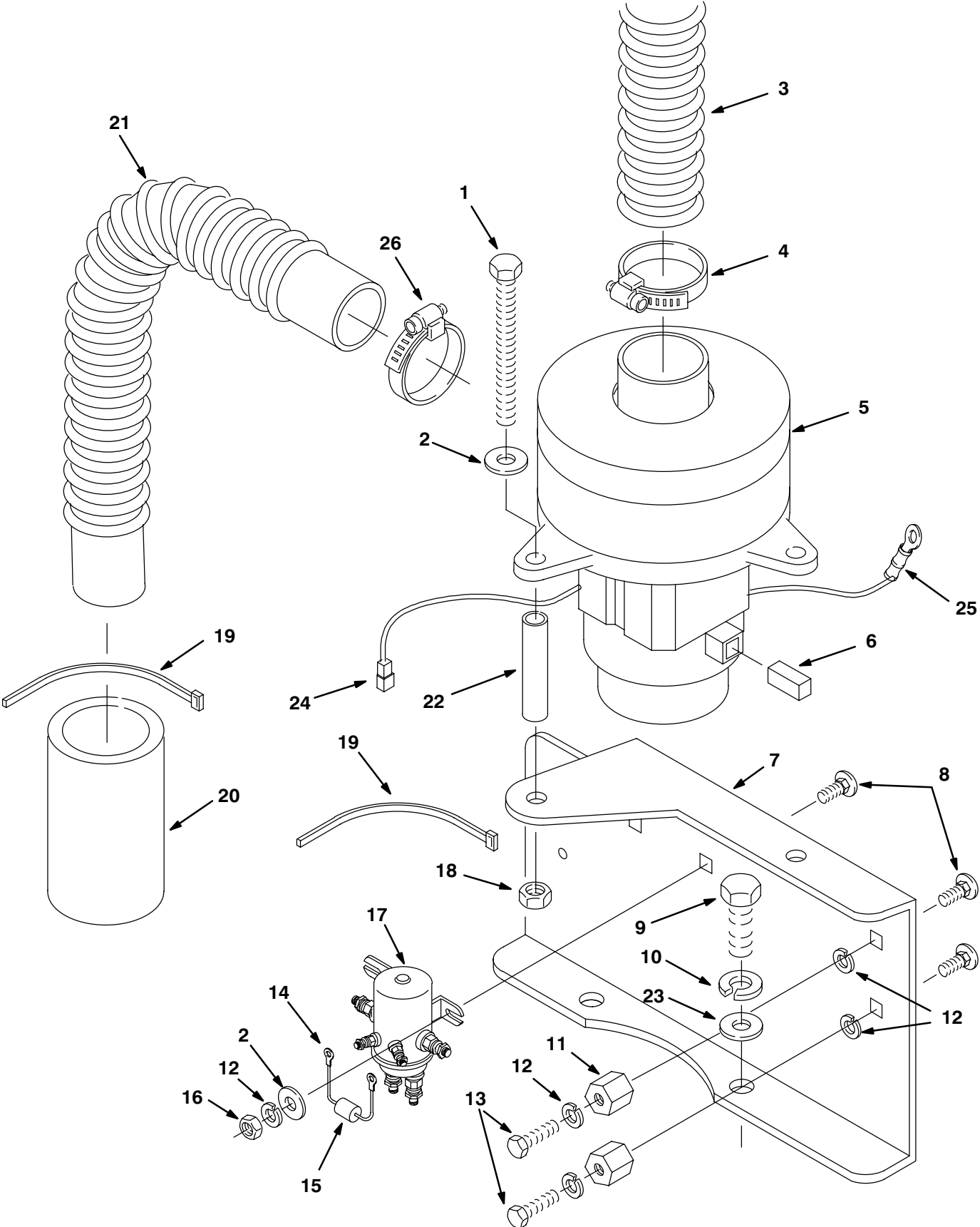
PLUMBING GROUP

REF	PART #	DESCRIPTION	QTY.
1	601489	FITTING, NIPPLE	1
2	150420	ELBOW, STREET 3/8 90°	1
3	601475	●SCREEN, FILTER	1
4	601483	TEE, STREET 3/8 NPT	1
5	630146	PLUG, 3/8 NPT	1
6	14884	HOSE BARB	1
7	140310	CLAMP	5
8	630379	TUBING, VINYL, 1/2 ID X 8.25"	1
9	626121	KNOB, WATER VALVE	1
10	601473	ROD, WATER VALVE	1
11	069762095	SCREW, SET 10–24X.25	2
12	601472	COUPLING	1

REF	PART #	DESCRIPTION	QTY.
13	630022	●VALVE, SOLENOID 24VDC	1
14	140000	WASHER, FLAT	2
15	140016	WASHER, LOCK	2
16	140272	SCREW, M6X1.0X16MM	2
17	069760725	TUBING, VINYL, 1/2 ID X 3.25"	1
18	630164	FITTING, STREET	1
19	579259	SCREW, M04X12MM	2
20	140023	WASHER, LOCK	2
21	200301014	WASHER, FLAT	2
22	140328	CLAMP	2
23	578569	HOSE, 1/4 ID X 4.5"	1

● RECOMMENDED STOCK ITEMS

VACUUM MOTOR GROUP



VACUUM MOTOR GROUP

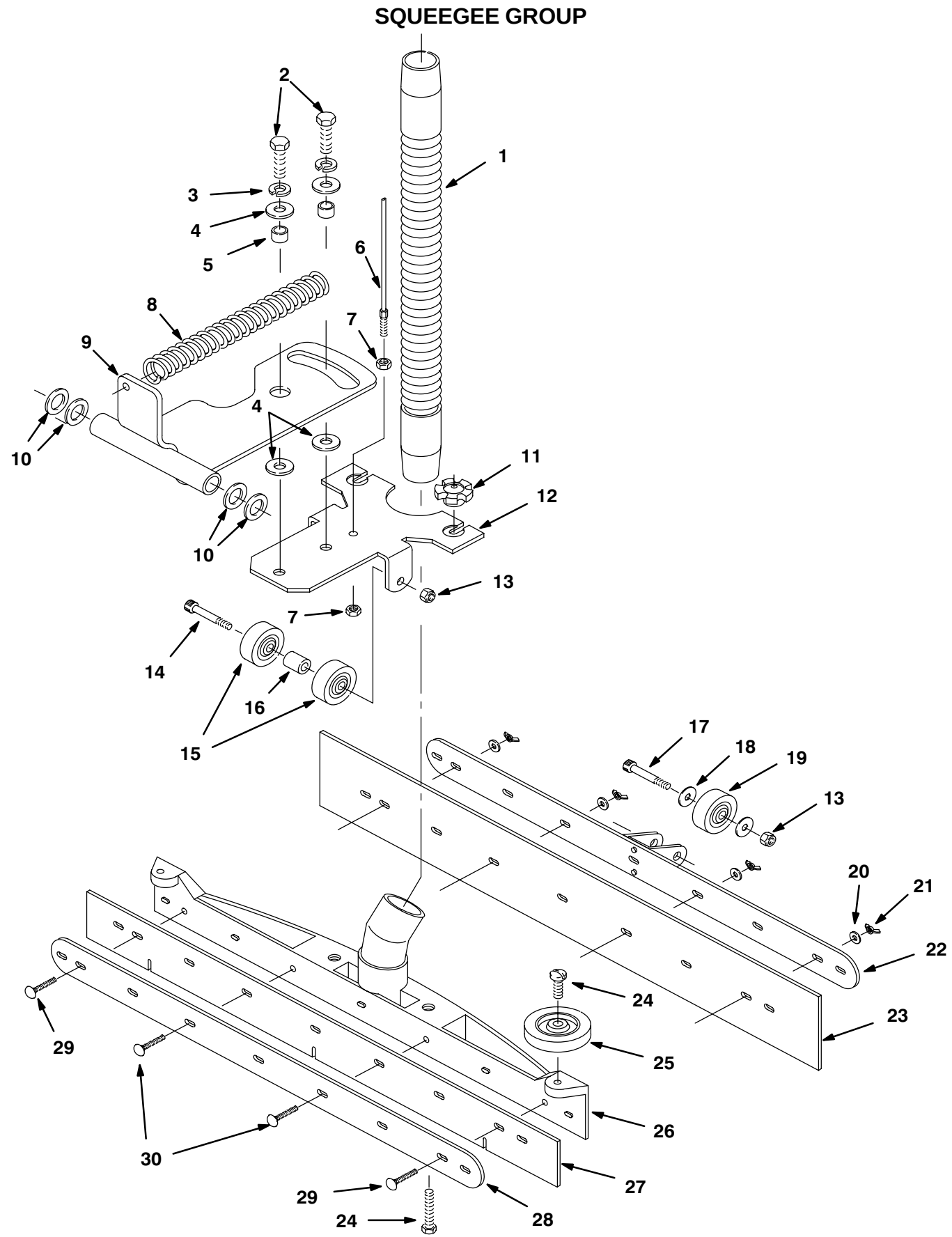
REF	PART #	DESCRIPTION	QTY.
1	630432	SCREW, M06X50MM	2
2	140000	WASHER, FLAT	4
3	160426	●HOSE, VAC 1.5X15"	1
4	140307	CLAMP	1
▽5	601468	●MOTOR, VAC 24V 2-STG	1
▲6	190163	●CARBON BRUSH (2/PK)	2
7	601463	BRACKET, VAC MOTOR	1
8	069767164	SCREW, .25-20X.50	4
9	140272	SCREW, M6X1.0X16MM	2
10	140016	WASHER, LOCK	2
11	578427	TERMINAL, STANDOFF	2
12	140016	WASHER, LOCK	4
13	140259	SCREW, 1/4-20X5/8	2

REF	PART #	DESCRIPTION	QTY.
14	130125	RING, TERMINAL	2
15	130423	●DIODE, 400V/6.0A	1
16	140510	NUT	2
17	601467	●SOLENOID, SPDT 24V	1
18	140284	NUT	2
19	130041	WIRE TIE	2
20	600009	MUFFLER, VAC EXHAUST	1
21	160459	●HOSE, VAC 1.5X16"	1
22	019686096	SPACER	2
23	140000	WASHER, FLAT	2
24	130096	TERMINAL	1
25	281001014	TERMINAL, RING	1
26	140308	CLAMP	1

▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS



SQUEEGEE GROUP

REF	PART #	DESCRIPTION	QTY.
1	160617	●HOSE, VAC W/CUFF	1
2	140237	SCREW, 1/2-13X1	2
3	140024	WASHER, LOCK	2
4	140045	WASHER, FLAT	4
5	140139	BUSHING	2
6	601428	CABLE, SQUEEGEE	1
7	601476	NUT	2
8	603149	SPRING	1
9	601452	BRACKET, SQ. PIVOT	1
10	140047	WASHER, FLAT	4
11	27257	●KNOB	2
12	601451	BRACKET, SQ. MOUNT	1
13	601108000	NUT	2
14	603144	SCREW, 3/8X3	1
15	630477	WHEEL	2
16	603368	SPACER	1
17	600187	SCREW, 3/8X1 1/4	1
18	140028	WASHER, FLAT	2
19	630477	●WHEEL	1

REF	PART #	DESCRIPTION	QTY.
20	140000	WASHER, FLAT	4
21	140536	NUT, WING	4
22	601457	STRIP, REAR RETAINER	1
23	601455	●BLADE, SQ. REAR	1
	601486	●BLADE, SQ. LINATEX (OPTIONAL)	1
	601488	●BLADE, SQ. URETHANE (OPTIONAL)	1
24	140799	SCREW, 5/16-18X1 1/2	4
25	630450	WHEEL	2
26	601450	CASTING, SQUEEGEE	1
27	601454	●BLADE, SQ. FRONT	1
	601485	●BLADE, SQ. LINATEX (OPTIONAL)	1
	601487	●BLADE, SQ. URETHANE (OPTIONAL)	1
28	601456	STRIP, FRONT RETAINER	1
29	612184000	SCREW, .25-20X1.5	2
30	612186000	SCREW, .25-20X2.5	2

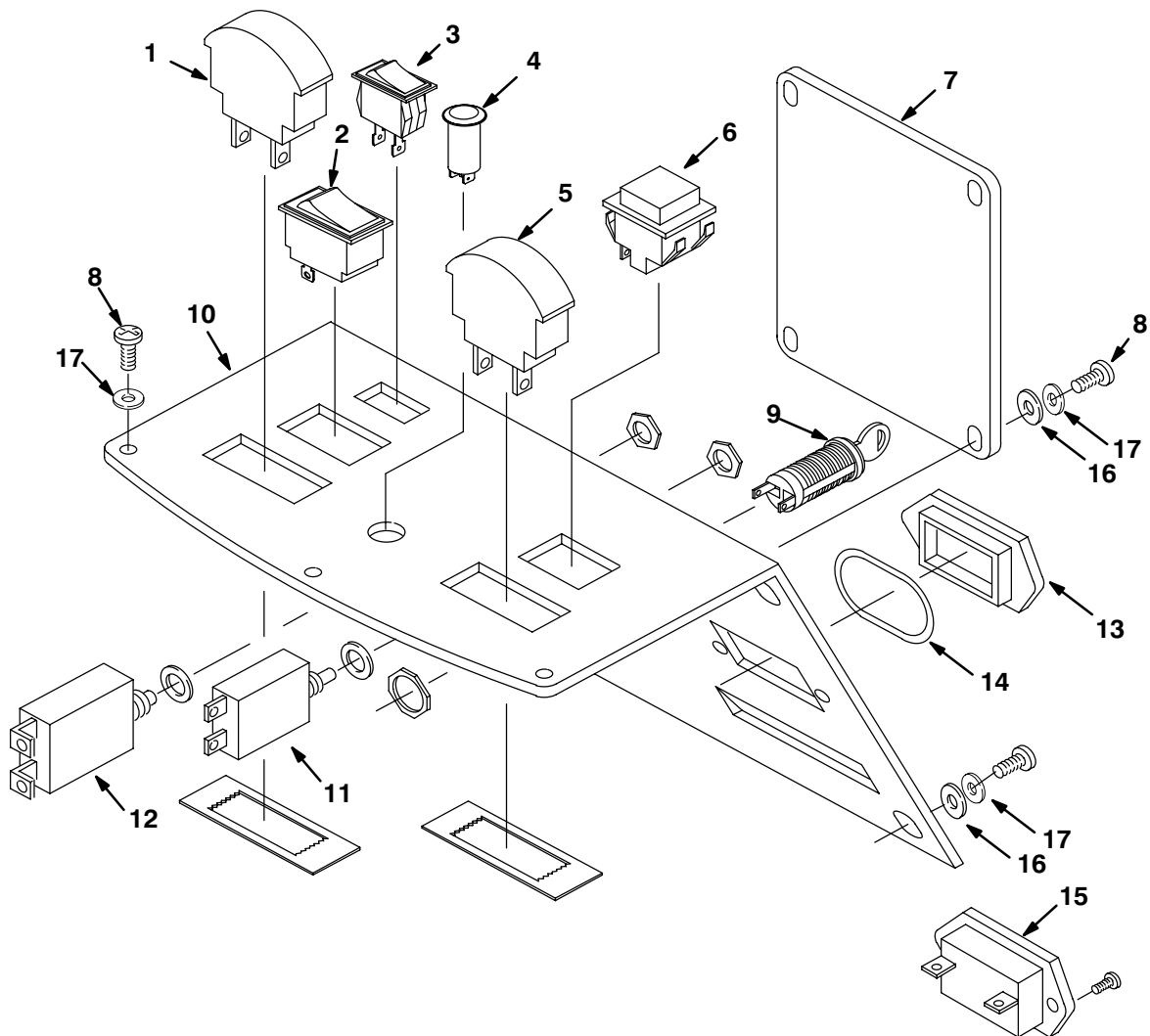
● RECOMMENDED STOCK ITEMS

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REF	PART #	DESCRIPTION	QTY.
14	578082000	SPACER	2
15	578002000	ARM, TRIGGER	2
16	601429	CONSOLE, TRIGGER	1
17	140061	WASHER, LOCK	3
18	578193000	SCREW, M04X25MM	3
19	578430	WASHER, FLAT	1
20	130712	●SWITCH, PULSE	1
21	601423	BRACKET, LATCH RIGHT	1
22	601465	BRACKET, LATCH LEFT	1
23	140027	WASHER, FLAT	4
24	140015	WASHER, LOCK	4
25	630425	SCREW, M8X20MM	4

● RECOMMENDED STOCK ITEMS

CONTROL CONSOLE GROUP

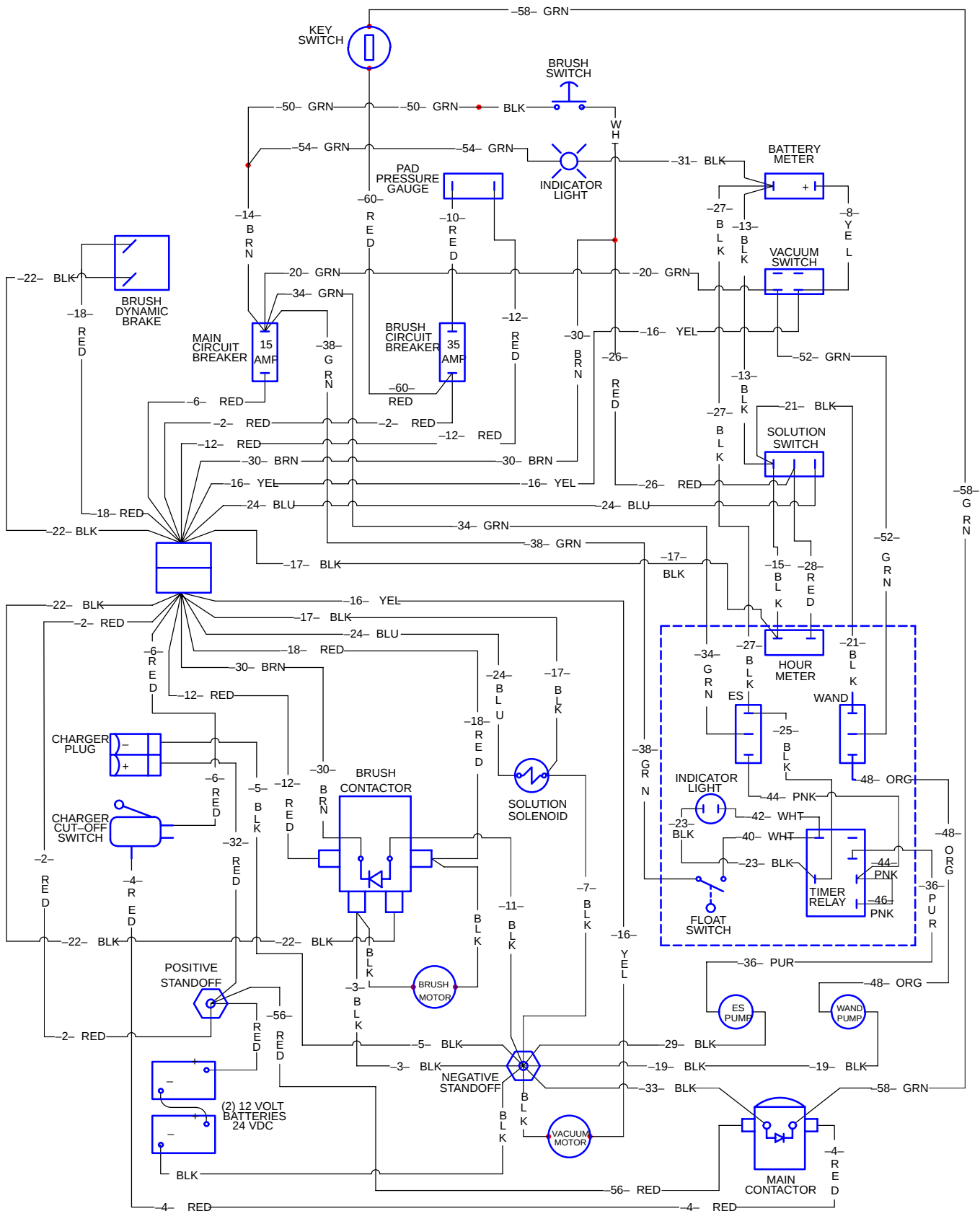


REF	PART #	DESCRIPTION	QTY.
1	130015	●METER, BATT. VOLT	1
2	19417	●SWITCH, ON/OFF	1
3	630419	●SWITCH, ROCKER SPST	1
4	130738	●LIGHT, GRN INDICATOR	1
5	603212	●GAUGE, BRUSH PRESS.	1
6	130441	●SWITCH, PAD RELEASE	1
7	601415	PANEL	1
8	578141000	SCREW, M5X10MM	9
9	612462	●KEY SWITCH	1

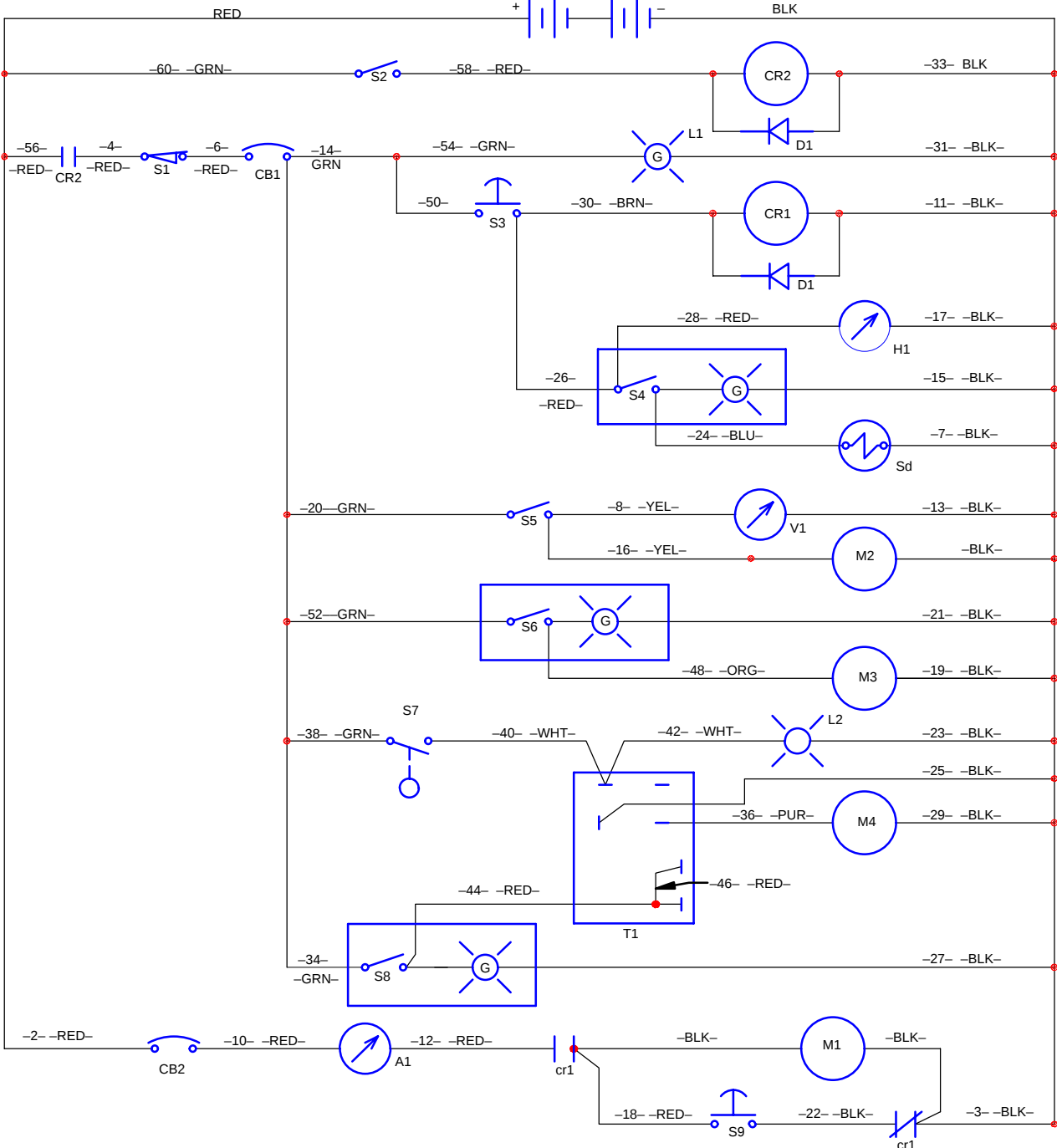
REF	PART #	DESCRIPTION	QTY.
10	601414	PANEL, CONSOLE	1
11	130752	●BKR, CIRCUIT 20AMP	1
12	602951	●BKR, CIRCUIT 35AMP	1
13	222519	PLUG, HOUR METER	1
14	603224	O-RING	1
15	630143	●METER, HOUR (OPTIONAL)	1
16	140011	WASHER, FLAT	6
17	140018	WASHER, LOCK	9

● RECOMMENDED STOCK ITEMS

Tennant 5100 (01-00)



LADDER DIAGRAM



REF LEGEND

RED= Red
BLK= Black
GRN= Green
WHT= White
ORG= Orange
BLU= Blue
BRN= Brown
PUR= Purple
YEL= Yellow
A1= Ammeter
Cr1 = Contactor Coil
cr1= Contactor Relay

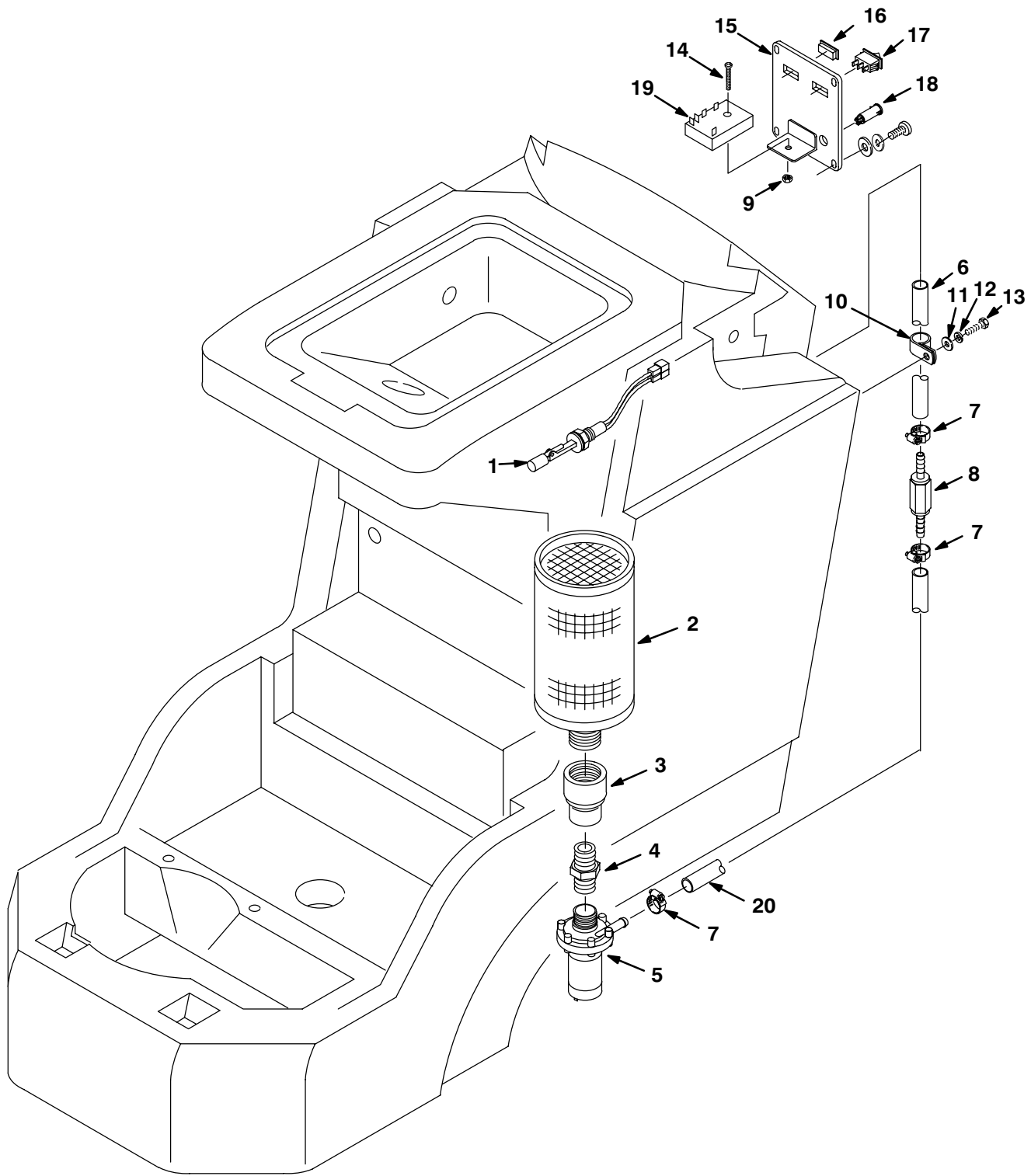
REF LEGEND

CB1 = Circuit Bkr. Main 20A
CB2 = Breaker, Circuit 35A
D1 = Diode
H1 = Hourmeter
L1 = Light, Indicator
L2 = Light, Full Tank
M1 = Motor, Brush
M2 = Motor, Vacuum
M3 = Motor, Wand
M4 = Motor, Recycle
S1 = Switch, Chg Cut-off

REF LEGEND

S2= Switch, Key
S3= Switch, Brush
S4= Switch, Solution
S5= Switch, Vacuum
S6= Switch, Wand
S7= Switch, Float
S8= Switch, Recycle
S9= Switch, Brush Off
Sd= Valve, Solenoid
T1= Relay, Timer
V1= Voltmeter

ES™ (EXTENDED SCRUB) KIT



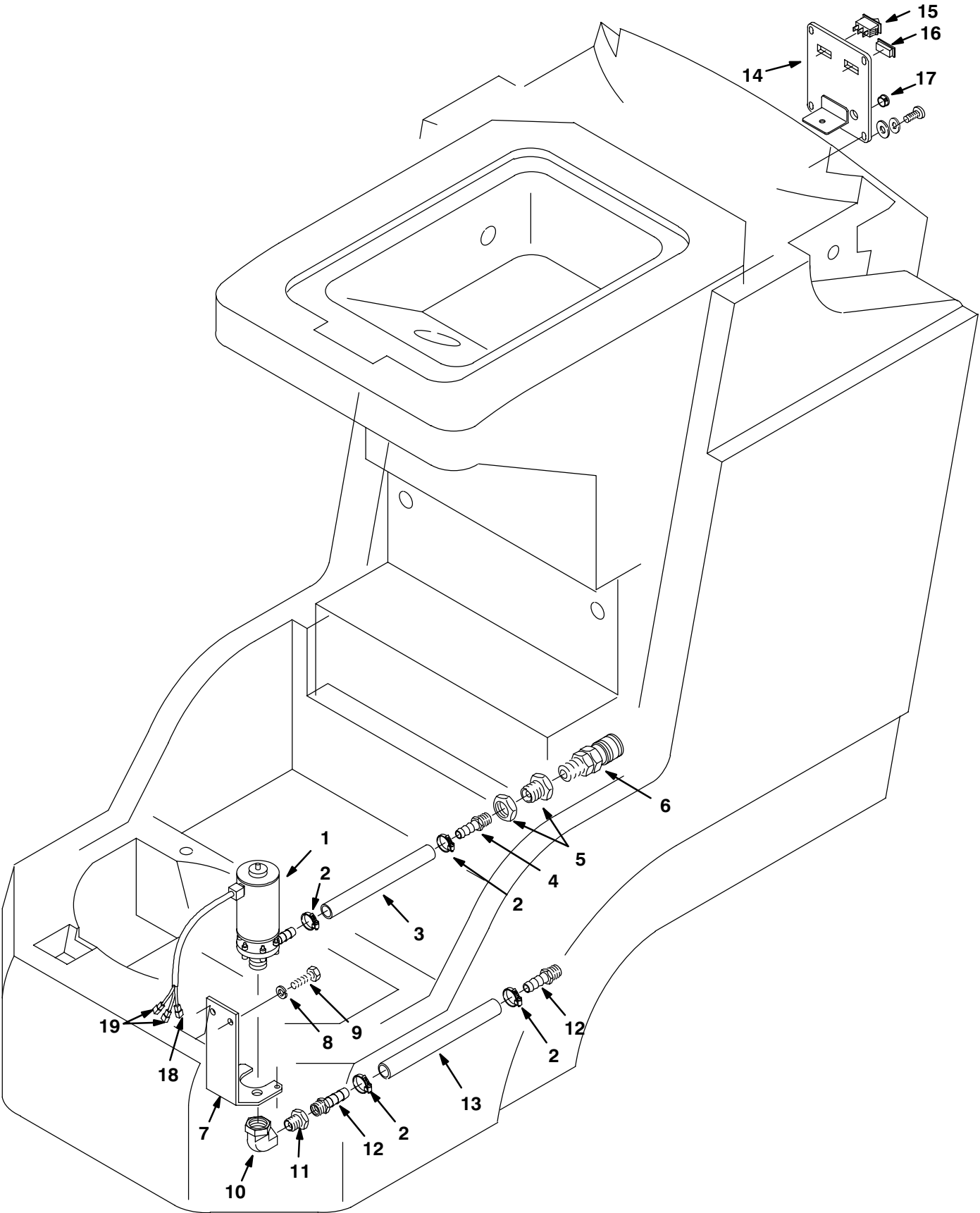
ES™ (EXTENDED SCRUB) KIT

REF	PART #	DESCRIPTION	QTY.
	603172	●KIT, ES™	1
1	603166	●SWITCH, LIQUID LEVEL	1
2	578445	●FILTER, SCREEN	1
3	601484	FITTING, REDUCER	1
4	630385	FITTING, NIPPLE	1
5	630136	●PUMP, 24VDC	1
6	606363	TUBING, 3/8 ID X 13"	1
7	140310	CLAMP	3
8	210044	●VALVE, CHECK	1
9	140283	NUT	1
10	140316	CLAMP	1

REF	PART #	DESCRIPTION	QTY.
11	140000	WASHER, FLAT	1
12	140016	WASHER, LOCK	1
13	578321000	SCREW, M6X16MM	1
14	578008000	SCREW, M05X3.3	1
15	601416	PANEL, ACCESSORY	1
16	582150	PLUG, ACCESSORY	1
17	630419	●SWITCH, ROCKER	1
18	130738	LIGHT, INDICATOR	1
19	630145	●RELAY, TIMER 24V	1
20	606363	TUBING, 3/8 ID X 13"	1

● RECOMMENDED STOCK ITEMS

WAND PUMP KIT



WAND PUMP KIT

REF	PART #	DESCRIPTION	QTY.
	603173	●KIT, WAND PUMP	1
1	630136	●PUMP, 24VDC	1
2	140310	CLAMP	4
3	575501000	TUBING, 3/8 ID X 8"	1
4	150516	HOSE BARB	1
5	150300	CONNECTOR, ANCHOR	1
6	575520000	QUICK CONNECTOR	1
7	601479	BRACKET, WAND PUMP	1
8	140016	WASHER, LOCK	2
9	200031433	SCREW, M6X12MM	2

REF	PART #	DESCRIPTION	QTY.
10	630251	FITTING, ELBOW 90°	1
11	630252	FITTING, BUSHING	1
12	150538	HOSE BARB	2
13	606325	TUBING, 3/8 ID X 24"	1
14	601416	PANEL, ACCESS.	1
15	630419	●SWITCH, ROCKER	1
16	582150	PLUG, ACCESSORY	1
17	069764626	PLUG, HOLE	1
18	130125	RING, TERMINAL	1
19	130133	TERMINAL, MALE DISCONNECT	2

OPTIONAL KITS

PART #	DESCRIPTION
603172	●KIT, ES™
603173	●KIT, WAND PUMP

PART #	DESCRIPTION
603171	●KIT, ES™ & WAND PUMP
603174	●KIT, HOUR METER

- RECOMMENDED STOCK ITEMS