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Parts List Manual
For Commercial Use Only



20" FLOORKEEPER "EZ" BRUSH DRIVE

MODEL NOS.
99105A & 99105B

For Operations & Maintenance see L2621EE

NOTES

This illustrated parts book covers:

MODEL	20"	20"
CAT. NO.	99105A*	99105B*
VOLTS	24V	24V
SERIES	E	E

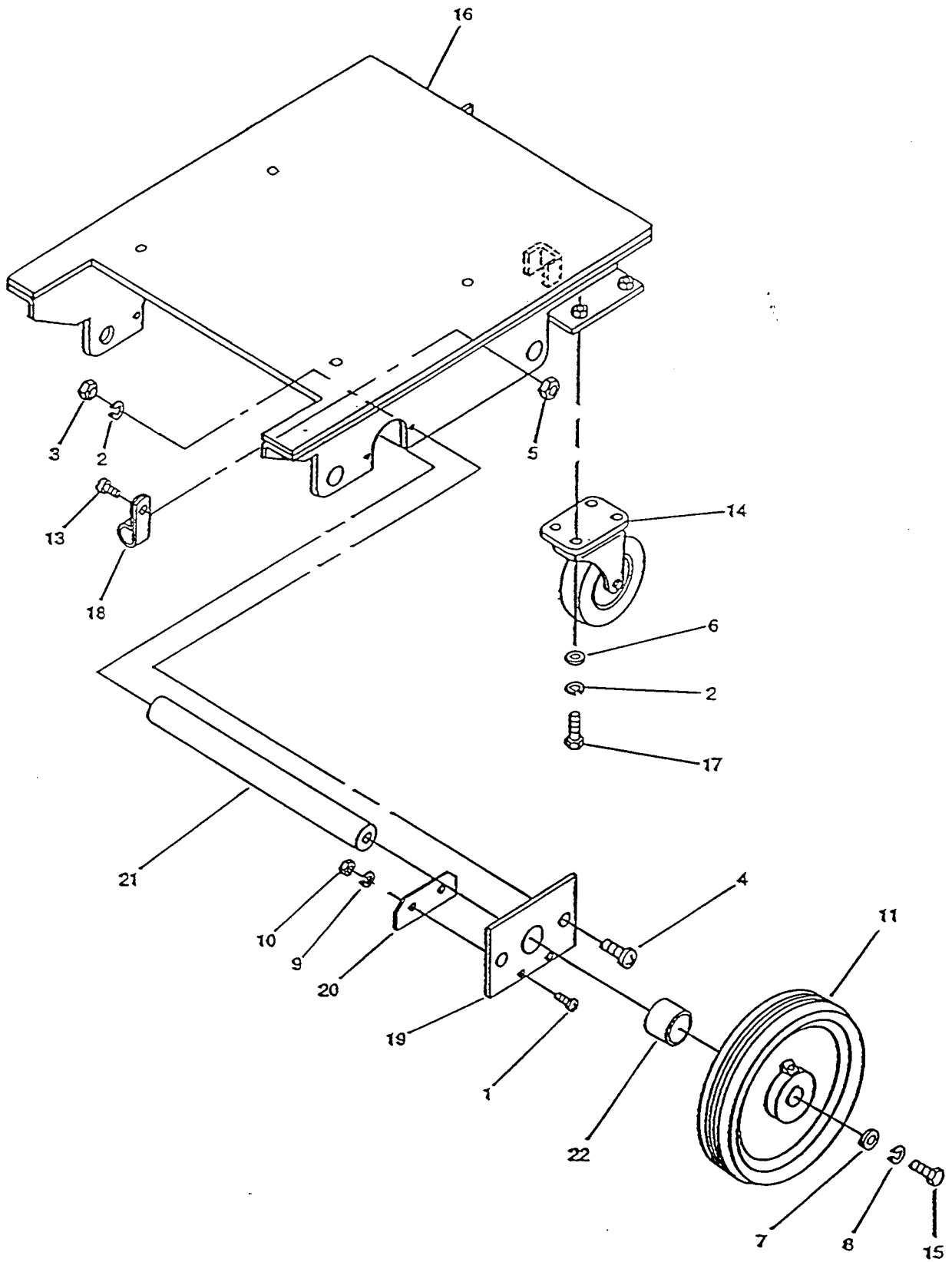
All specifications are subject to change without notice.



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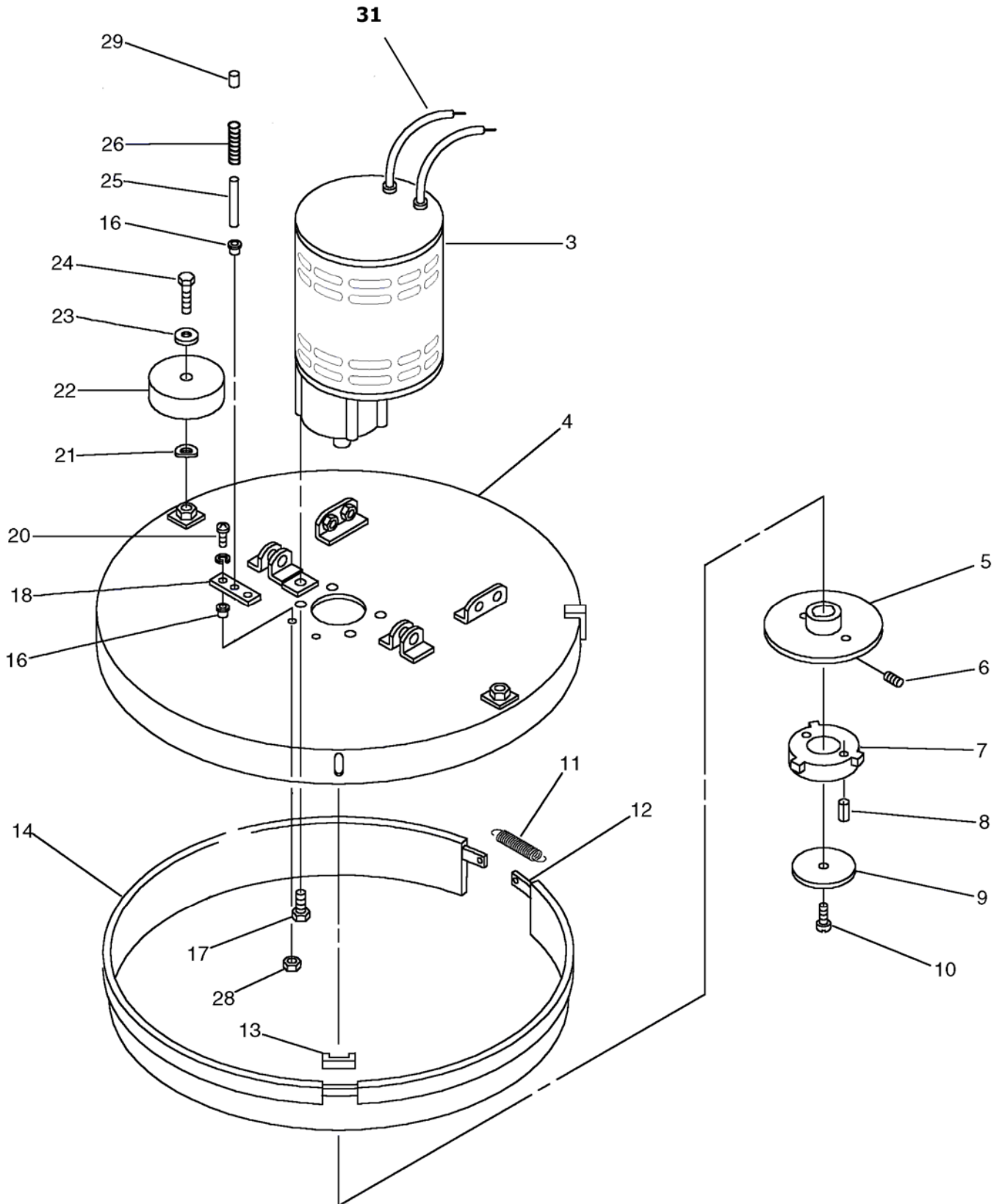
CHASSIS ASSEMBLY



CHASSIS ASSEMBLY

Item No.	Qty.	Part No.	Description
1	4	00086	Screw 1/4-20 X 1/4"
2	12	01577	Lockwasher 5/16"
3	7	01589	Lock Nut 5/16-18
4	4	02109	Screw 5/16-18 x 3/4"
5	3	10892	#8 - 1/2" Lock Screw
7	12	14142	Washer, Plain 5/16"
8	4	03321	Washer, Plain 3/8"
9	2	03536	Lockwasher 3/8"
10	6	01574	Lockwasher, 1/4" (H/S)
11	2	15274	Wheel
13	3	18309	Screw-#10-24 x 1/2 (ZP) Phillips Pan Head
14	2	18079	Caster
15	2	18104	Screw
16	1	19408	Chassis Frame
17	8	18111	Screw
18	6	18717	Cable Clamp
19	2	18827	Axle Adapter Plate
20	2	18828	Axle Locking Plate
21	1	18829	Axle
22	2	18834	Spacer
*	4	03736	Washer, Plain 3/8 ID (ZP)
*	2	05427	Screw-1/4-20 x 5/8 (ZP) Phillips Round Head *NOT SHOWN

BRUSH MOTOR & COVER

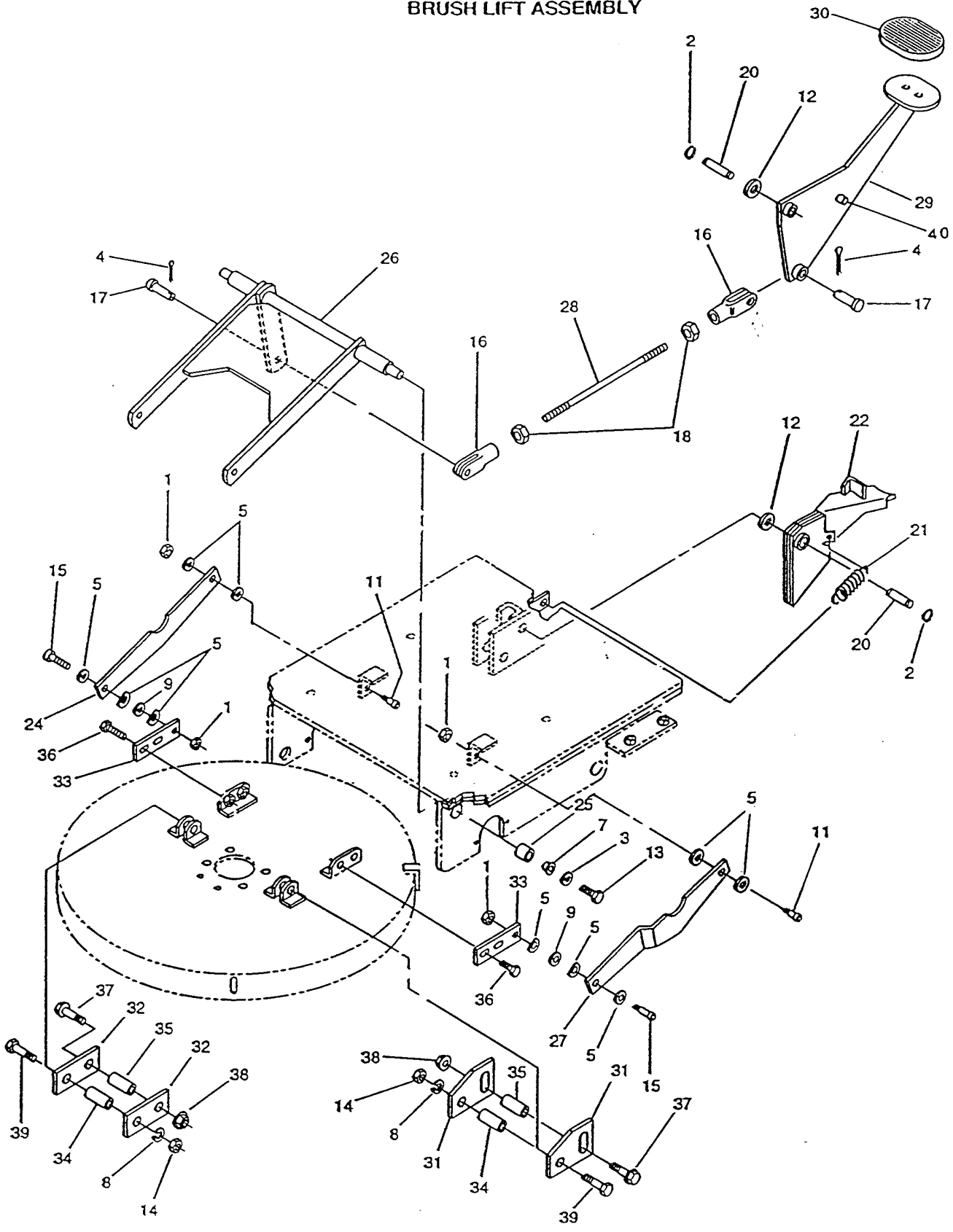


BRUSH MOTOR & COVER ASSEMBLY

Item No.	Qty.	Part No.	Description
3	1	18076	Motor, 1 HP
4	1	18148	Brush Cover, 20"
5	1	18388	Plate-Clutch Backing
6	1	14241	Set Screw
7	1	18389	Plate, Brush Retainer
8	2	18390	Pin
9	1	18640	Plate-Brush Clutch Retaining
10	1	18391	Screw
11	1	16472	Spring
12	1	18159	Bumper Strap, 20"
13	2	17733	Keeper
14	1	18161	Bumper, Brush Cover 20"
16	2	16347	Bearing, Flanged
17	4	16671	Screw
18	1	18558	Plate, Bearing Retaining
20	2	00600	Screw
21	2	07132	Washer, Wave
22	2	30044	Wheel
23	6	03736	Washer
24	2	18130	Screw
25	1	18165	Pin
26	1	06838	Spring, Compression
28	2	02956	Nut
29	1	18593	Cap
*30	1	99262	20" Pad Holder
31	1	16879	Label-Wire Marker Positive

*Not Shown

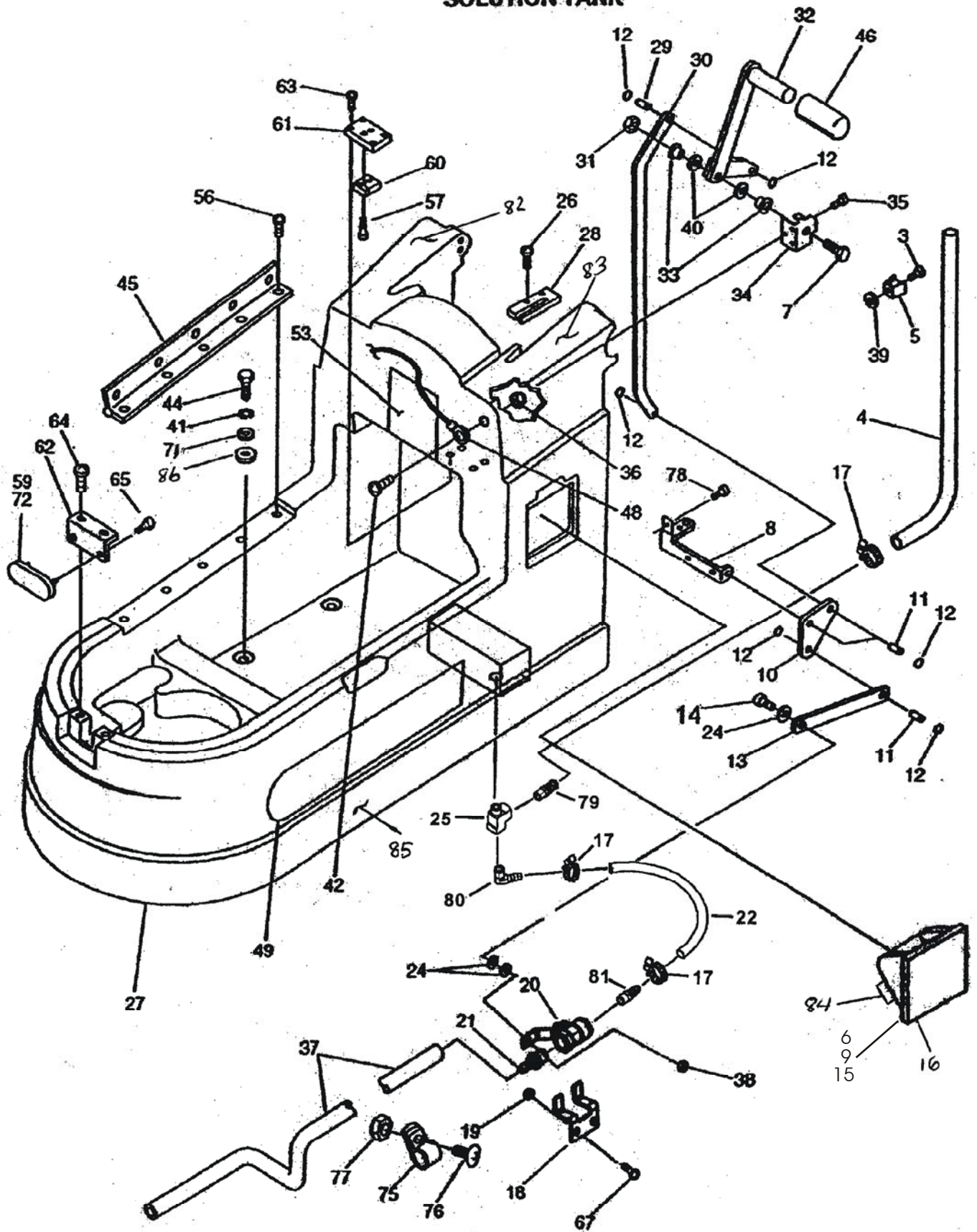
BRUSH LIFT ASSEMBLY



BRUSH LIFT ASSEMBLY

Item No.	Qty.	Part No.	Description
1	2	01589	Lock Nut 5/16-18
2	4	03470	Retaining Ring
3	2	03321	Washer
4	2	03395	Cotter Pin
5	11	03736	Washer – Flat 3/8"
7	2	03955	Bushing
8	2	06387	Lock Washer 1/2"
9	2	07132	Washer, Wave
11	2	15677	Screw-Socket Hd. Shoulder 3/8D X 3/8 (ZP)
12	4	19616	Washer-Plain 1/2" ID (ZP)
13	2	16671	Screw
14	2	16673	Nut-Finished Hex 1/2-13 (SS)
15	2	15677	Screw, Shoulder
16	2	18081	Clevis
17	2	18083	Clevis Pin
18	2	18093	Nut
20	2	18122	Pin
21	1	18952	Spring, Extension
22	1	18758	Weldment, Brush Lift Latch
24	1	18166	Arm, Right Hand
25	2	18179	Bearing
26	1	18184	Weldment, Brush Lift
27	1	18185	Arm, Left Hand
28	1	18191	Lift Rod
29	1	19076	Weldment-Brush Lift
30	1	19006	Pad, Motor Lift Pedal
31	2	18835	Brush Lift Adjustment Plate
32	2	18836	Brush Lift Mounting Plate
33	2	18837	Brush Deck Level Adjust Plate
34	2	18843	Spacer-1/2" Dia.
35	2	18844	Spacer-3/8" Dia.
36	4	18872	Screw 5/6-18 x 1/2"
37	2	18873	Screw 3/8-16 x 1-1/4"
38	2	18874	Locknut 3/8-16
39	2	18875	Screw 1/2-13 x 1-1/2"
40	1	19078	Pin-Spring

SOLUTION TANK



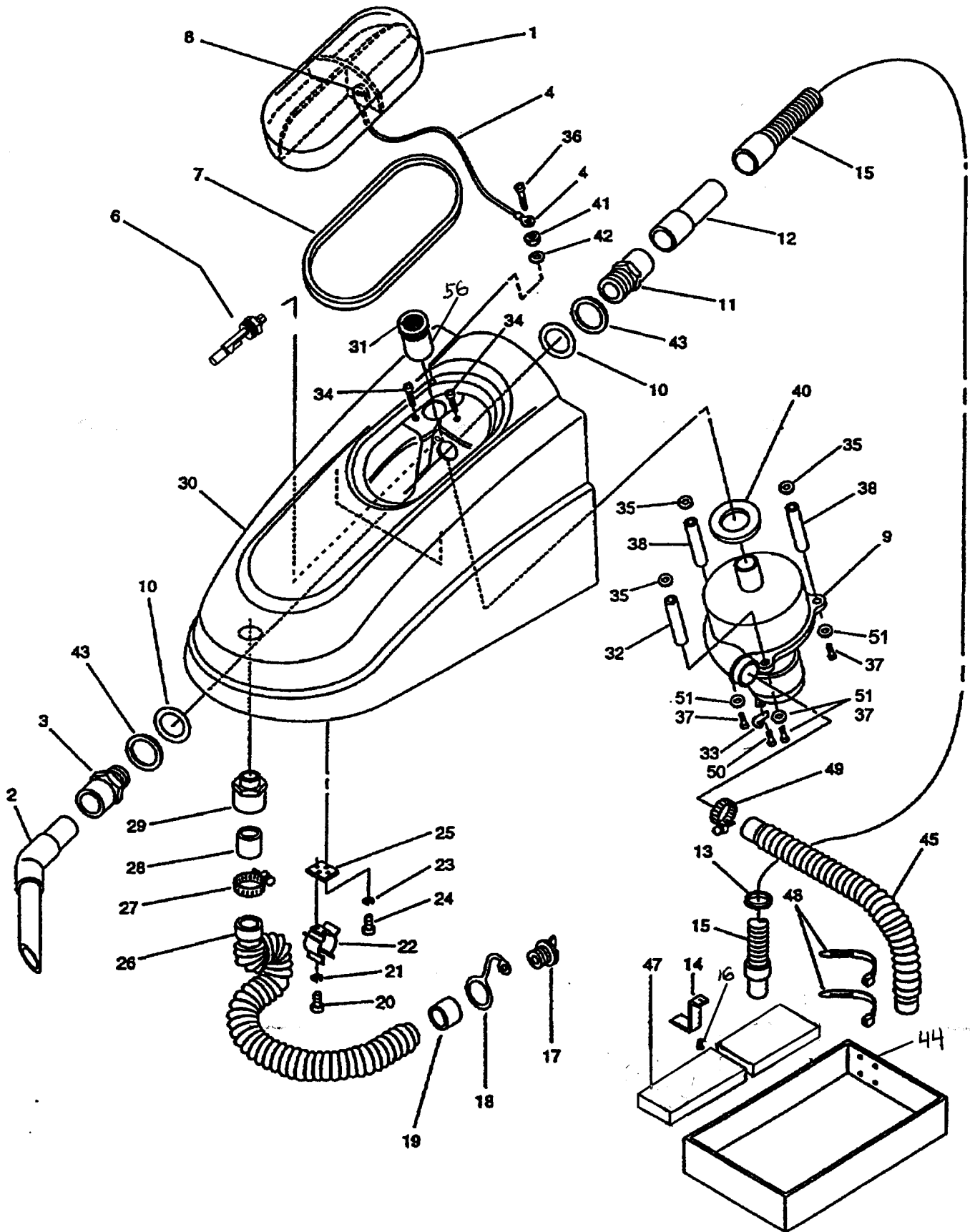
SOLUTION TANK ASSEMBLY

No.	Qty	Part No.	Description	No.	Qty	Part No.	Description
3	3	00128	Screw	59	2	17376	Nut (Included with Item #72)
4	1	32231	Drain Tube	60	1	18237	Charger Connector
5	2	18468	Clip, Sight Tube	61	1	18239	Connector Mtg. Plate
6	3	03124	Rivet-Blind 3/16 Dia x .656	62	1	18240	Light Mtg. Bracket (Included with Item #72)
7	1	03320	Screw	63	4	18253	Screw
8	1	18652	Solution Control Bracket	64	2	18309	Screw
9	2	11219	Washer-Plain #10 ID (ZP)	65	2	18336	Screw (Included with Item #72)
10	1	18328	Plate, Solution Control	67	2	05427	Screw
11	3	18261	Pin	71	4	03321	Washer-Plain .391 ID (ZP)
12	8	18316	Retaining Ring	72	1	18859	Warning Light Assembly Kit (Includes items 59, 62 & 65)
13	1	18329	Bar, Lower Link	75	2	18717	5/8" Dia. Cable Clamp
14	1	15677	Screw, Shoulder	76	2	18309	Screw #10-24
15	1	12671	Weight	77	3	10892	Nut, #10-24
16	1	18209	Fill Door	78	1	19945	Screw-Truss Head 1/4"-20 x 5/8"
17	3	07626	Clamp	79	1	31649	Fitting, 3/8 NPT x 5/8" Barbed Hose
18	1	18684	Bracket Sol. Valve Clamp	80	1	31647	Elbow Fitting, 3/8 NPT x 1/2" Barbed Hose
19	2	07533	Nut	81	1	31645	Fitting, 3/8 NPT x 1/2" Barbed Hose
20	1	31253	Valve, Solution Release	82	1	18376	Decal-Squeegee Control
21	1	18485	Fitting	83	1	18364	Decal-Solution Control
22	1	31646	Solution Tube 1/2" ID, 13" long	84	1	18338	Plate-Solution Fill Cover Stop
24	2	03736	Washer	85	1	16094	Decal-Recovery Drain
25	1	31648	Runtee Fitting, 3/8 NPT	86	4	18644	Washer-Plain 1/4 ID (Neo)
26	2	18253	Screw				
27	1	18455	Solution Tank w/Opening				
	1	18207	Solution Tank (No Opening)				
28	1	18466	Plate, Control Handle Stop				
29	1	18262	Pin				
30	1	18330	Bar, Upper Link				
31	1	03868	Nut				
32	1	18319	Weldment, Solution Control Handle				
33	2	16347	Bearing, Flange				
34	1	18249	Bracket, Handle Pivot				
35	3	16136	Screw				
36	2	10894	Locknut				
37	1	18431	Solution Tube – 31"				
38	1	01589	Nut				
39	1	01246	Washer				
40	2	19616	Washer				
41	4	01577	Washer				
42	2	18339	Screw				
44	4	16031	Screw				
45	1	18229	Hinge				
46	1	10721	Grip				
*47	1	18308	Access Panel				
48	1	18359	Stop Cable				
49	1	30816	DECAL-TORNADO W/ LOGO				
53	1	18377	Decal, Battery Maintenance				
*54	1	18381	Decal, C.B. Identification				
*55	1	15734	Decal, Level Gauge				
56	10	06192	Screw				
57	2	14544	Screw				
*58	1	30812	Decal Tornado				

*Not Shown

Special service note: All solution drainage tube components (see diagram opposite) between the Solution Tank (item 27) and the forward Solution Tube (item 37) are also available as a Solution Hose Kit #31657. Except for existing hose clamps, this Kit includes all needed drainage components between the Solution Tank and the forward Solution Hose (diagram items 25, 79, 80, 22, 81, 20, 21, & 18). The Kit offers better flow and reliability than any previous subsystem, and is intended as a retrofit for any Series "D" EZ's using an inline filter, as well as all earlier Series machines.

RECOVERY TANK w/VAC MOTOR

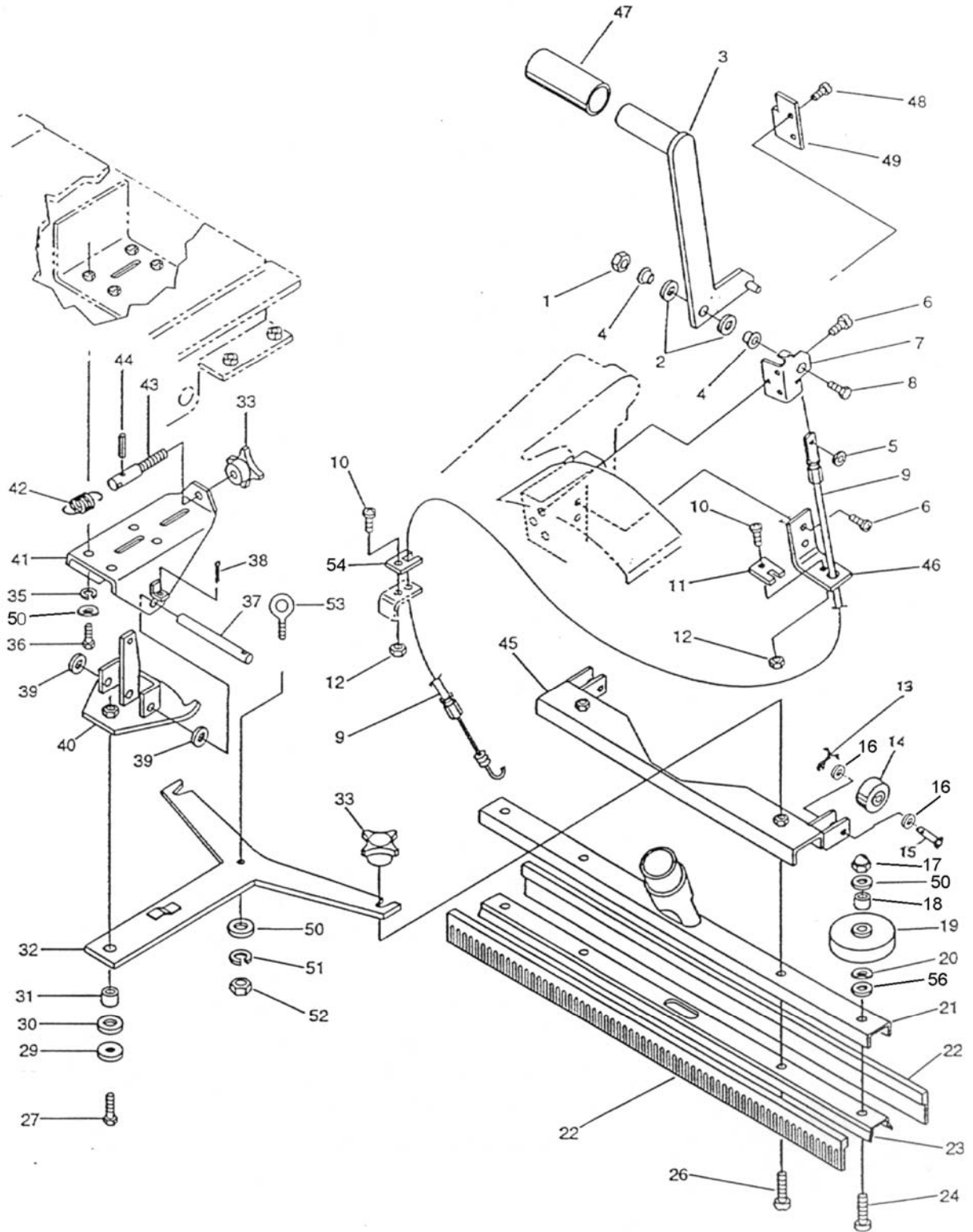


RECOVERY TANK w/VAC MOTOR ASSEMBLY

Item No.	Qty.	Part No.	Description
1	1	18741	Access Cover, Recovery Tank
2	1	18799	Deflector, Intake
3	1	15088	Adaptor Fitting
4	1	18789	Cover Retaining Cable
6	1	19708	Float Switch
7	1	18742	Gasket
8	1	18790	Cable Clasp
9	1	31129	Assembly-Vac. Motor
10	2	05781	Gasket
11	1	15096	Fitting, Female Adapter
12	1	18259	Sleeve, Hose
14	1	18241	Bracket Hose Support
15	1	18747	Hose, 1 1/2"
16	2	18253	Screw-T.F.PLT60, Pan Head #8-16 X 3/4"
17	1	18226	Plug
18	1	18358	Strap, Hose Plug Retainer
19	1	18357	Sleeve, Recovery Drain
20	6	01734	Screw
21	6	01246	Lockwasher
22	3	18671	Clip, Drain Hose
23	6	01905	Lockwasher
24	6	01993	Screw
25	3	18439	Plate
26	1	19286	Hose, 1 1/2"
27	1	16091	Clamp, Hose
28	1	18401	Sleeve
29	1	18052	Fitting, Male Adapter
30	1	31990	Tank, Recovery
31	1	19398	Vac Motor Intake Screen
32	1	18846	Housing, Vac Filter Spacer
33	1	17392	Filter Cover Assembly Cable Clamp
34	2	18342	Screw
35	3	14142	Washer
36	1	17177	Screw-Hex.Head Cap 1/4"-20 x 1-1/4"(SS)
37	3	18333	Screw-Phil.Pan 1/4-20 x 1.00 (ZP)
38	2	18349	Spacer
40	1	18847	Gasket
41	1	17508	Nut
42	1	18885	Washer
43	2	18886	Washer
44	1	18688	Battery Tray
45	1	18687	Vac. Motor Exhaust Hose
47	2	32344	Wood Block (Battery Stop) 2 x 8 x 6-3/4 (Black) (12V ONLY)
48	2	18706	Tie Wrap
49	1	14858	Hose Clamp
50	1	04651	Screw-TCT(F) Pan Hd. #10-24 x 1/2"
51	3	00851	Washer-Plain 1/4"
*52	2	98799	Battery (99105A)
*53	4	99506	Battery (99105B)
*54	1	99510	Battery Charger
*55	2	30725	Cable (99105B)
56	1	18861	Stand Pipe-Vacuum Motor

*Not Shown

SQUEEGEE ASSEMBLY

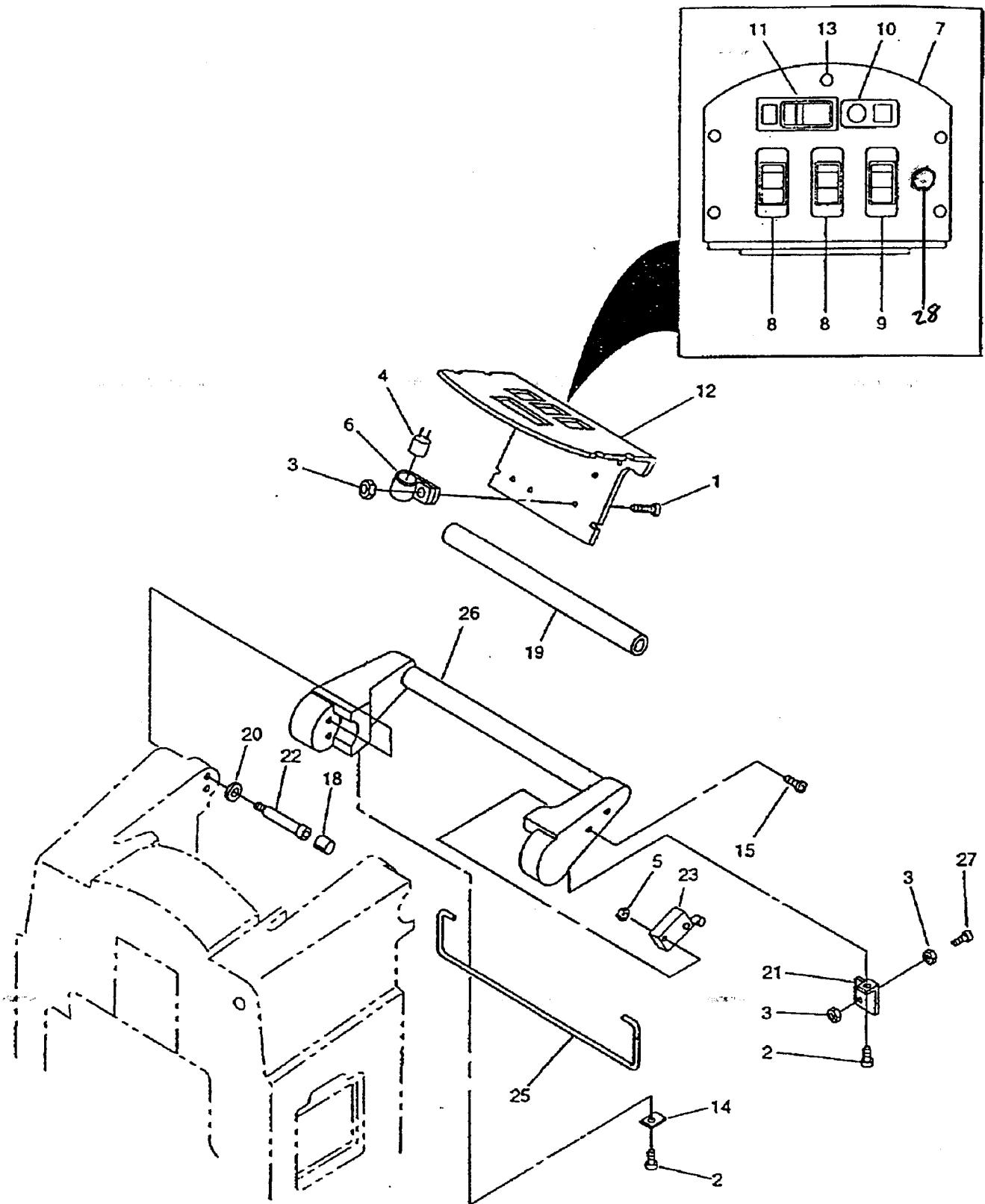


SQUEEGEE ASSEMBLY

Item No.	Qty.	Part No.	Description
1	1	03868	Nut
2	2	19616	Washer
3	1	18314	Handle, Squeegee Control
4	2	16347	Bearing, Flanged
5	1	18655	Push Nut
6	5	16136	Screw
7	1	18249	Bracket, Handle Pivot
8	1	03320	Screw
9	1	19910	Cable Assy-Squeegee
10	2	03660	Screw
11	1	18651	Plate, Control Cable Clasp
12	2	10894	Nut
13	2	30227	Pin - Cotter (Ext. Prong)
14	2	18400	Wheel
15	2	30226	Pin-Clevis .320 DIA / 1-1/4"LG
16	4	00696	Washer-Plain #10 ID (ZP)
17	2	17130	Nut Acom
18	2	17400	Spacer
19	2	11053	Rub Wheel
20	2	07132	Washer, Wave
21	1	18136	Channel, Outer - 20"
22	1	18709	Squeegee Blade Set - 20"
23	1	18663	Squeegee Blade Retainer - 20"
24	2	18680	Screw-Flat Hd. Cap
26	2	18681	Screw
27	1	03320	Screw
29	1	03914	Washer
30	1	18145	Bearing
31	1	18146	Pivot
32	1	18141	Weldment, Towing Arm
33	3	18119	Knob
35	4	01577	Lockwasher
36	4	18111	Screw
37	1	18142	Shaft, Pivot
38	1	16254	Cotter Pin
39	2	16347	Bearing
40	1	18114	Weldment, Pivot Frame
41	1	18144	Weldment, Pivot Frame
42	1	18568	Spring
43	1	18138	Spring Adjuster
44	1	18176	Pin
45	1	18206	Weldment, Wheel Support
46	1	18650	Bracket, Control Cable
47	1	10721	Grip
48	3	18253	Screw
49	1	18548	Lever Stop Bracket
50	7	14142	1/4" Flat Washer
51	1	01574	1/4" Lock Washer
52	1	01497	1/4" - 20 Nut
53	1	18695	Eye Bolt
54	1	19796	Plate-Control Cable Clasp
56	2	00851	Washer-Plain 1/4"
*	1	16586	Washer-Lock (I/T) 3/8"

*Not Shown

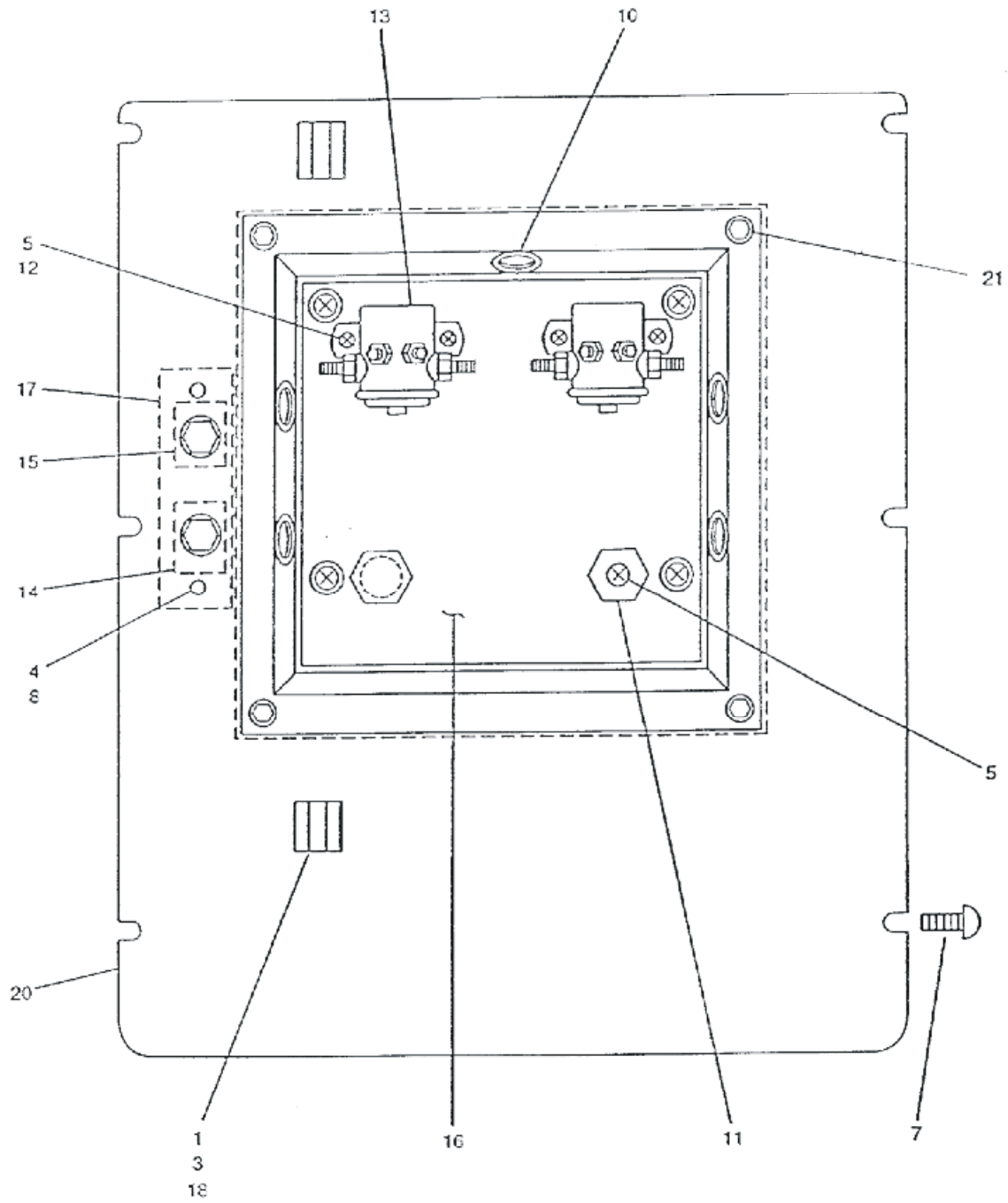
CONTROL / INSTRUMENT SYSTEM



CONTROL/INSTRUMENT SYSTEM

Item No.	Qty.	Part No.	Description
1	2	16075	Screw-Phil. Pan Hd. #8-32 X 1/2 (ZP)
2	2	02071	Screw
3	1	02956	Locknut
4	1	14827	Flasher Relay
5	2	15560	Nut-Lock Hex (KEPS) # 4-40
6	1	15913	Clamp - Cable 1-1/8" Dia.
7	1	18212	Panel, Instrument
8	2	18216	Switch
9	1	18217	Switch
10	1	18218	Indicator Light, Red
11	1	18221	Gauge, Battery Condition
12	1	31028	Panel-Controller (Partial View. Rest shown on Rear Access Panel w/Relays)
13	9	18253	Screw
14	1	18266	Plate, Speed Control Bar Ret.
15	2	18323	Screw
18	1	18593	Cap-Screw Thread, Black Vinyl
19	1	18402	Grip
20	4	14142	5/16" Flat Washer
21	1	18675	Bracket, Dead Man Handles-top
22	4	08079	Screw-Shoulder Socket Hd. 5/16D X 1-1/2 (zinc-plated)
23	1	15542	Switch-Push Button S.P.D.T. (10 A)
25	1	18895	Brush Actuation Lever (Speed Control)
26	1	18896	Handle-Control
27	1	18897	Screw-Phil Flat Hd. #8-32 X 1-1/4 (ZP)
28	1	19329	Pin-Retaining Access Panel

REAR ACCESS PANEL w/RELAYS

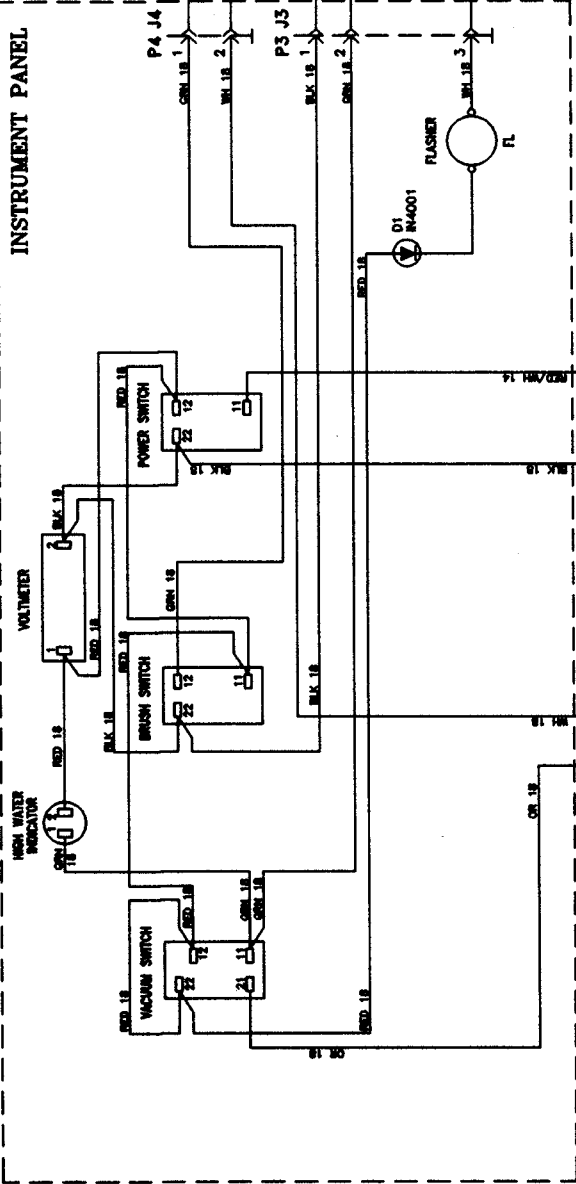


REAR ACCESS PANEL w/RELAYS

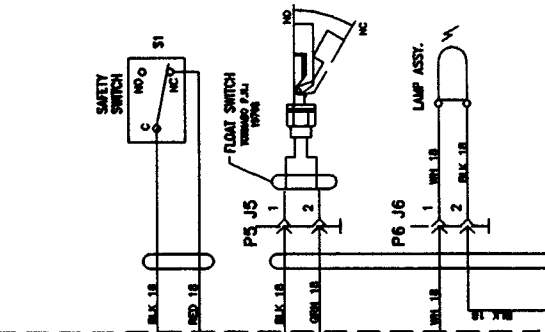
Item No.	Qty.	Part No.	Description
1	4	00128	Screw
4	2	03660	Screw
5	10	04442	Screw
7	8	06192	Screw
8	4	10894	Locknut
10	4	15330	Grommet
11	2	15345	Insulator Bushing
12	4	15545	Retainer Nut
13	2	18213	Relay
14	1	18219	Circuit Breaker, 25A
15	1	18220	Circuit Breaker, 45A
16	1	18255	Relay Mtg. Plate
17	1	18355	Plate, Cir. Brk. Mtg.
18	2	18468	Clip, Sight Tube
20	1	31028	Panel-Controller (Partial View. Rest shown on Control/Instrument System)
21	4	19329	Pin-Retaining Access Panel
*	1	18308	Cover, Panel
*	3	02958	Nut-Hex Lock (KEPS) #6-32
*	0.5 ft	16674	Grommet-Cont. SER Plastic 3/16
*	1	18850	Wiring Diagram Label
		*	NOT SHOWN

WIRING DIAGRAM FOR
MODEL 99105 FLOORKEEPER®

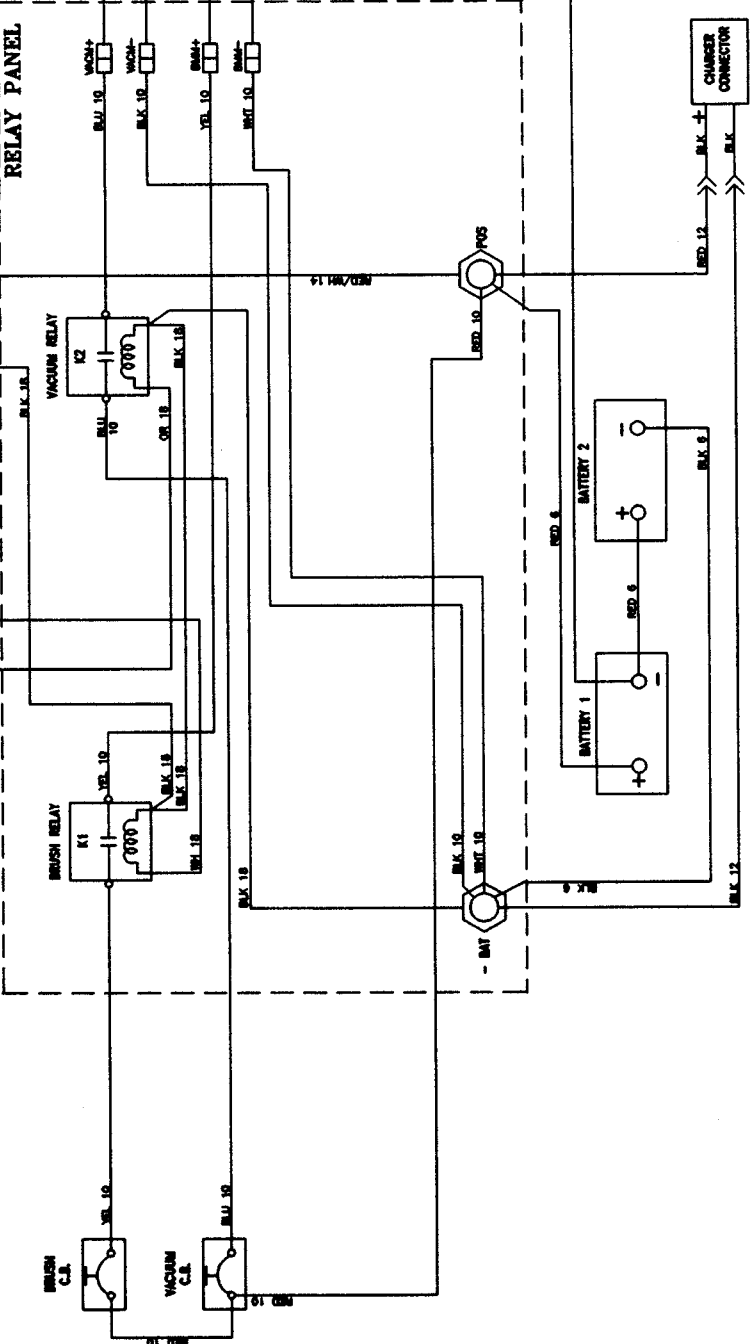
VIEWED FROM REAR OF PANEL



INSTRUMENT PANEL



VIEWED FROM FRONT



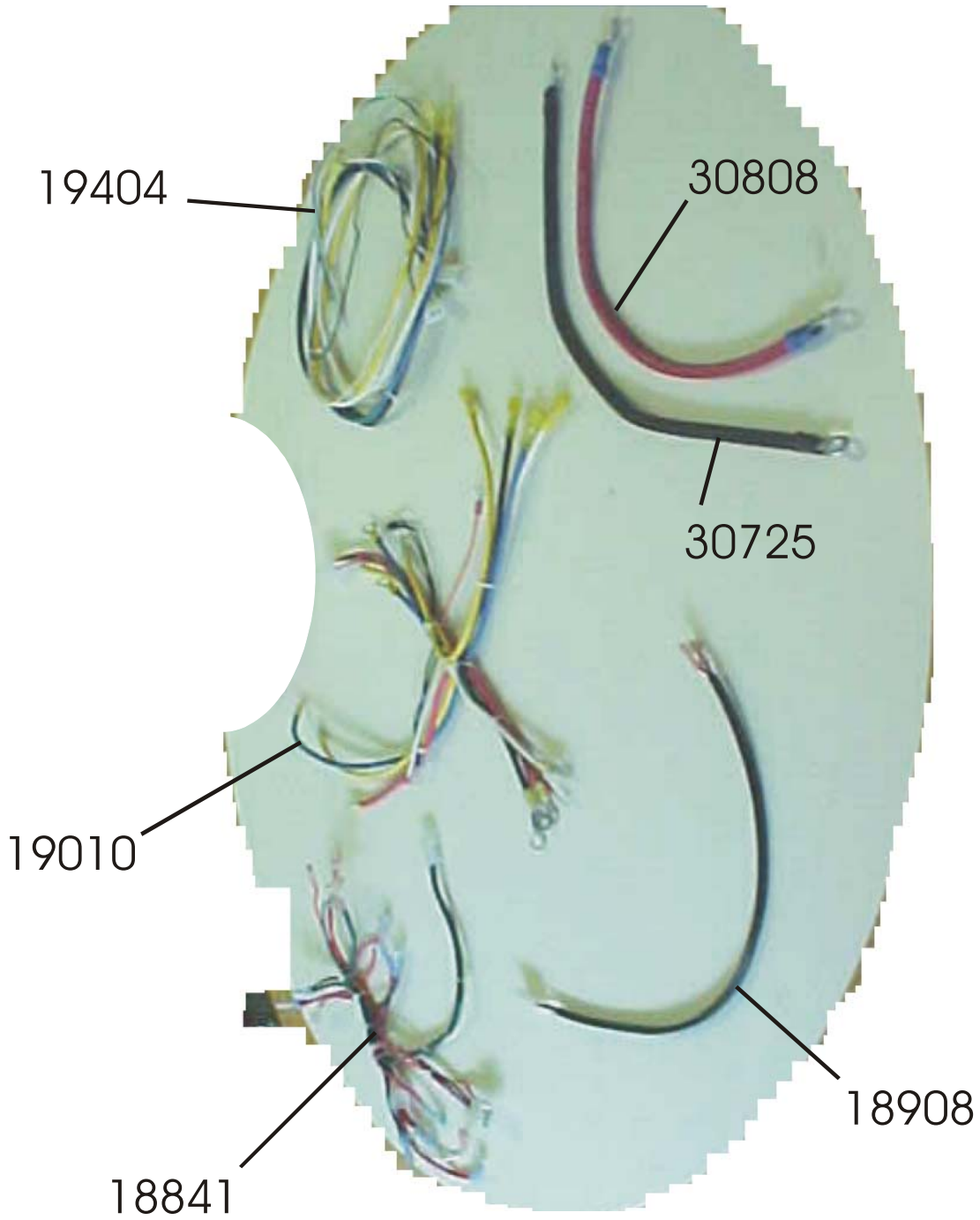
BREUER/TORNADO CORPORATION
CHICAGO, ILLINOIS 60656 USA

CONTROL WIRING

Item No.	Qty.	Part No.	Description
*1	3	10428	Clip-Lead Retainer (Self Adhs)
2	1	15458	Rectifier Assembly
4	4	19405	Terminal-Q.D. Male 12-10 GA. Ful. Ins.
5	1	18980	Cable-Batt. 6 GA x 12" Black
6	1	18981	Cable-Batt. 6 GA x 12" Red
7	1	18841	Wiring Harness-Instrument Panel
8	1	19010	Wiring Harness-Relay Panel
9	1	19404	Wiring Harness-Main
10	1	18888	Lead-10 GA x 3" Red
11	1	18908	Wiring Harness-Safety Switch
12	1	19273	Assy-Battery Charger Connector
14	1	30725	Cable-Battery Jumper 6 GA x 10" Black

*Not Shown

WIRING HARNESSSES



WIRING HARNESSSES

Item No.	Qty.	Part No.	Description
1	1	18841	Wiring Harness-Instrument Panel
2	1	18908	Wiring Harness-Safety Switch
3	1	19010	Wiring Harness-Relay Panel
4	1	19404	Wiring Harness-Main
5	1	30725	Cable-Battery, Jumper 6 GA x 17" Black
6	1	30808	Cable-Battery 6 GA x 16" Red

MAINTENANCE PARTS

Item No.	Qty.	Part No.	Description
1	1	03276	Hydrometer
2	1	18555	Grease 930-2 (14-1/2 oz. Cartridge)
3	1	18554	Grease SOG (11 oz. Cartridge)
5	2	98799	12 Volt Battery (Wet)
6	1	18709	20" Squeegee Blade Replacement (Set of 2)
7	1	*99506	6 Volt Battery (Wet)
8	1	*99505	6 Volt Battery (Dry)
9	1	10994	Clutch Plate
10	1	90599	Pad Retainer

*Optional

ACCESSORIES

Item No.	Qty.	Part No.	Description
1	1	99262	20" Pad Holder (99105)
2	1	99260	20" Firm Poly Scrub Brush
3	1	99263	20" Grit Brush
4	1	90676	1-1/2" Wet Attachment Set
5	1	99510	20 Amp, 24 V Battery Charger (99105)