



Electronic Service Manuals

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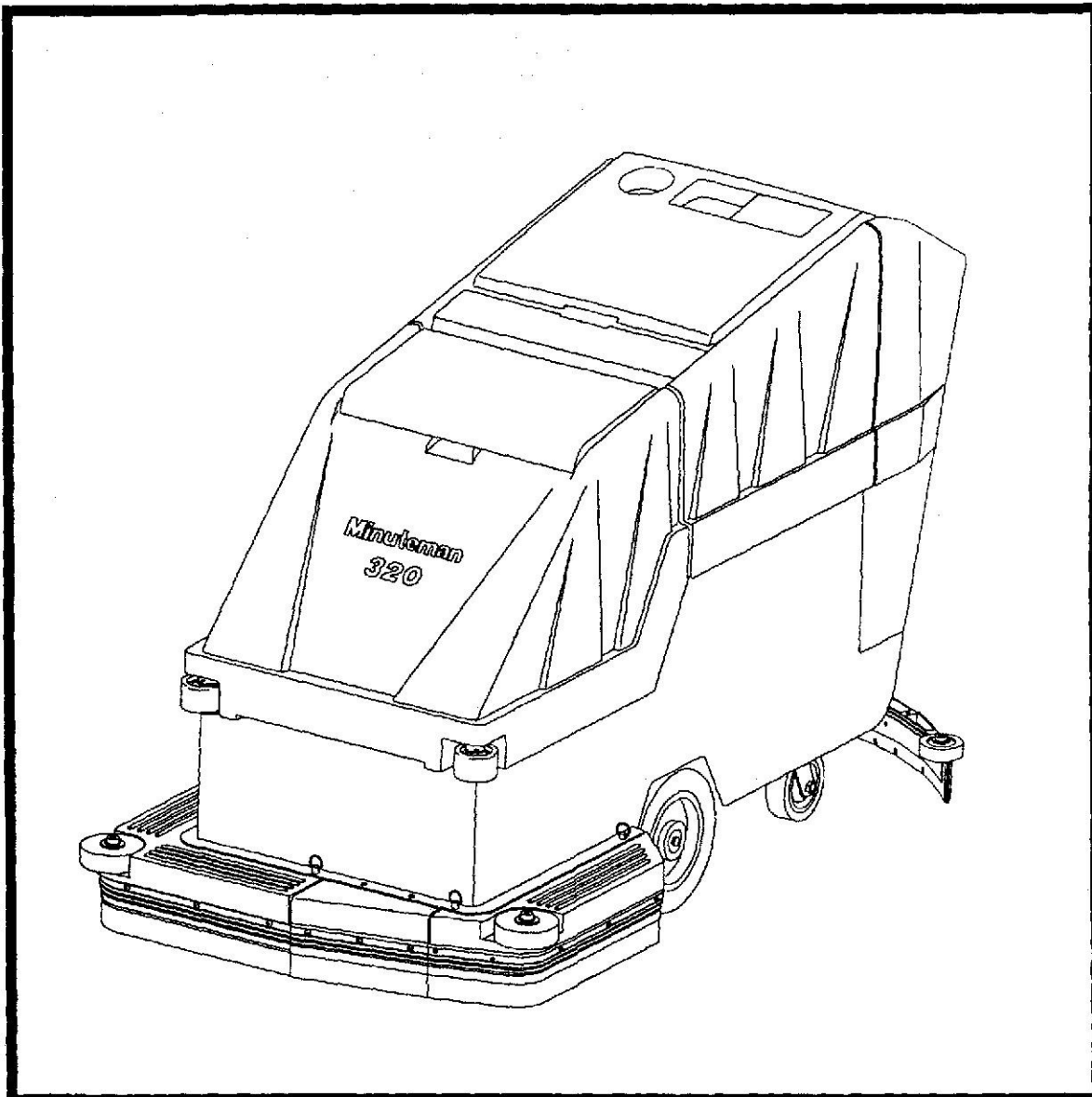
Serving the Cleaning Industry Since 1922

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320
Floor Scrubber
Traction Driven

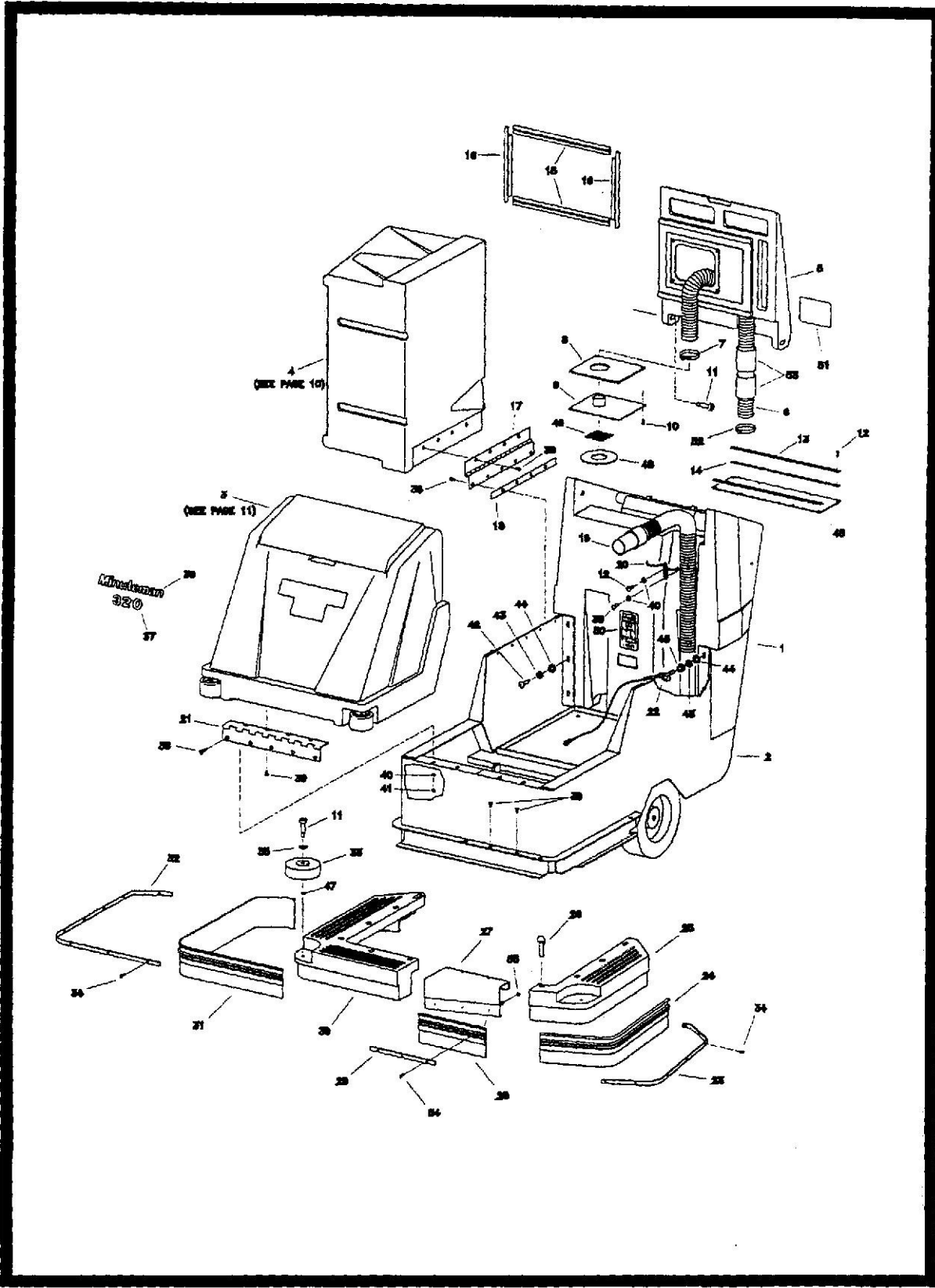
Model: MC32036
MC32037
MC32038
MC32036CE

■ OPERATION ■ SERVICE ■ PARTS ■ CARE



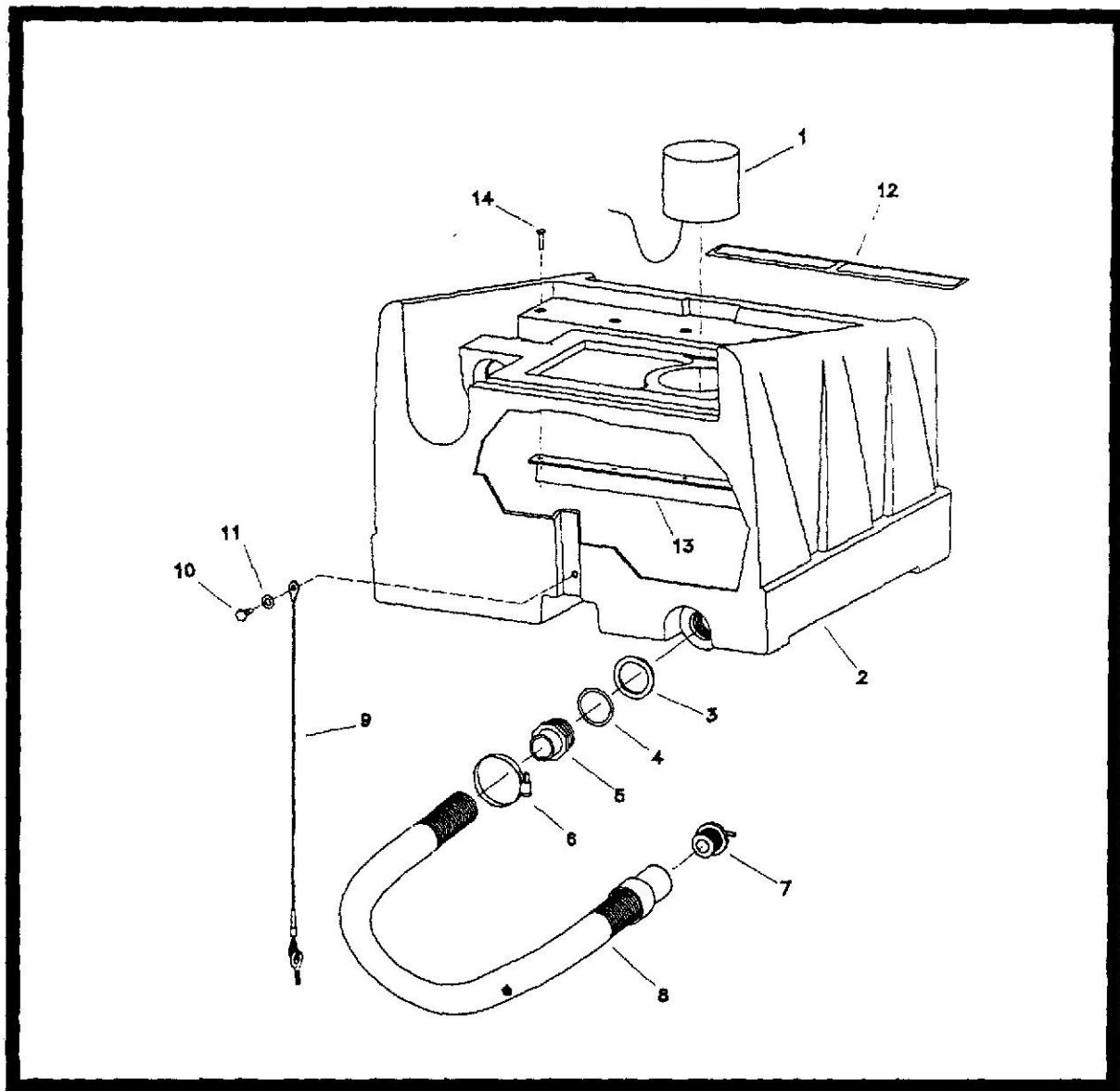
Revised 10/98

Minuteman[®]



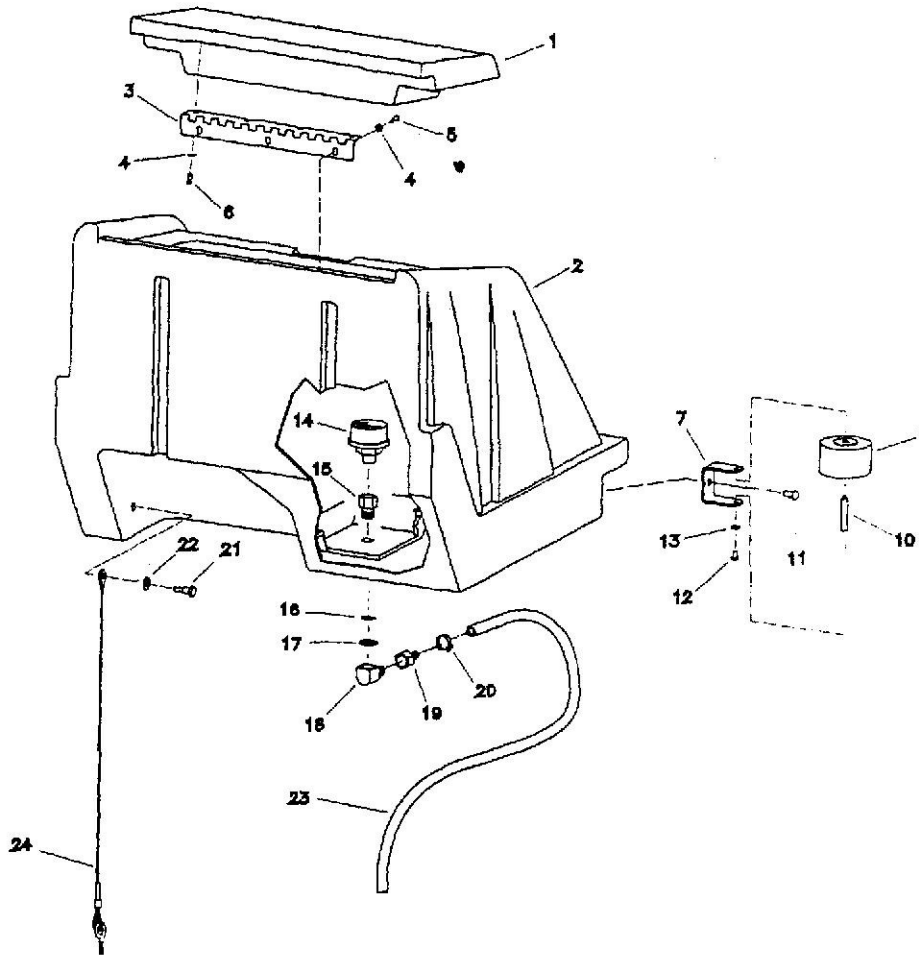
Parts List

Item	Part No.	Qty.	Description
1	320122	1	Console Machined
2	320101	1	Mainframe Assembly
3	320300	1	Solution Tank Assembly
4	320200	1	Recovery Tank Assembly
5	320146	1	Recovery Lid
6	320220	1	Vacuum Hose Long
7	260203	1	Wire Grip Hose Clamp
8	320222	1	Gasket
9	320178	1	Water Shut-Off Plate
10	712540	6	SCR-MC 10-24 x .37 SS TH
11	712102	4	Bolt-Shoulder 1/2 x 1.50
12	711161	11	SCR-HI/LO 10 x 5/8
13	260170	2	Retainer Flap
14	760263	2	Foam Tape 16.50"
15	320239	2	Lid Gasket Long
16	260157	2	Lid Gasket Short
17	320145	1	Recovery Tank Hinge
18	320144	1	Backing Strap
19	450054	1	Recovery Hose Assembly
20	320208	1	Retaining Hook
21	260087	1	Hinge
22	320206	1	Recovery Tank Cable
23	320224	1	Skirt Retainer - Left Side
24	320231	1	Rubber Skirt - Left Side
25	320124	1	Plastic Skirt - Left Side
26	320234	4	Skirt Pin
27	320235	1	Center Skirt Weldment
28	320232	1	Rubber Skirt - Center
29	320227	1	Skirt Retainer - Center
30	320123	1	Plastic Skirt - Right Side
31	320230	1	Rubber Skirt - Right Side
32	320223	1	Skirt Retainer - Right Side
33	804545	2	Gray Wheel
34	711106	15	SCR-ST-A 10 x .75 PL
35	711592	2	WSR-Nylon .5 x 1.06 x .06
36	715060	1	Decal "Minuteman"
37	715618	1	Decal "320"
38	712565	9	SCR-MC 1/4-20 x .75 SS
39	712560	11	SCR-MC 1/4-20 x .50 SS
40	711504	6	WSR-Flat 1/4 SS
41	712667	4	Nut-Nyloc 1/4-20
42	710196	5	SCR-MC 5/16 - 18 x .75 STPL
43	711545	6	WSR-Helical 5/16
44	711506	6	WSR-Flat 5/16 ST PL
45	320244	1	Lid Flap
46	711379	1	Nut-Flanged Wizz 5/16 - 18
47	832015	2	Spacer .38 x .50 x .14
48	260294	1	Gasket 2.0 x 4.0 x .125
49	807051	1	Screen Filter 4.0 x 4.0
50	715628	1	Battery Decal
51	715619	1	Warning Decal
52	831001	1	Crimp Clamp
53	260192	2	Sleeve
54	712536	3	SCR-MC 10-24 x .62 SS
55	712638	3	Nut Hex 10-24 SS Nyloc



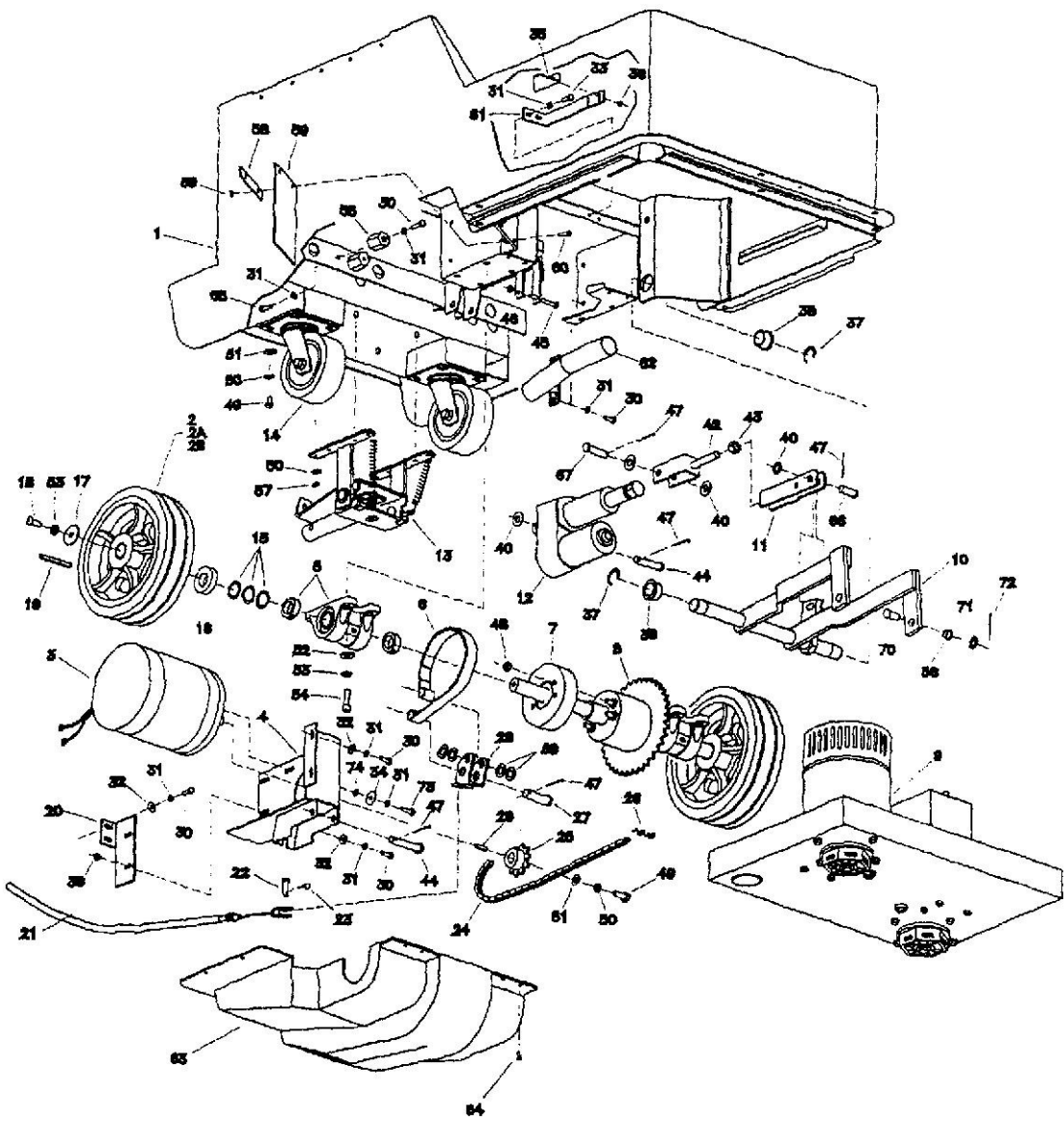
**320200
RECOVERY TANK ASSEMBLY**

Item	Part No.	Qty.	Description
1	260156	1	Foam Float Assembly
2	320121	1	Recovery Tank
3	828970	1	WSR-Neop 1.81 x 2.37
4	450081	1	WSR-SS 1.908 x 2.41 x .03
5	760220MCH	1	1.5 Adaptor Gray
6	260203	1	Hose Clamp Wire Grip
7	833316	1	Drain Plug 1 1/4
8	260202	1	Drain Hose Assembly
9	320206	1	Recovery Tank Cable
10	712575	1	5/16-18 x .75 HH SS
11	711506	1	WSR-Flat 5/16
12	715620	1	Decal "Maintenance Schedule"
13	320009	1	Backing Angle
14	712563	5	SCR-MC 1/4-20 x 1.00 FH



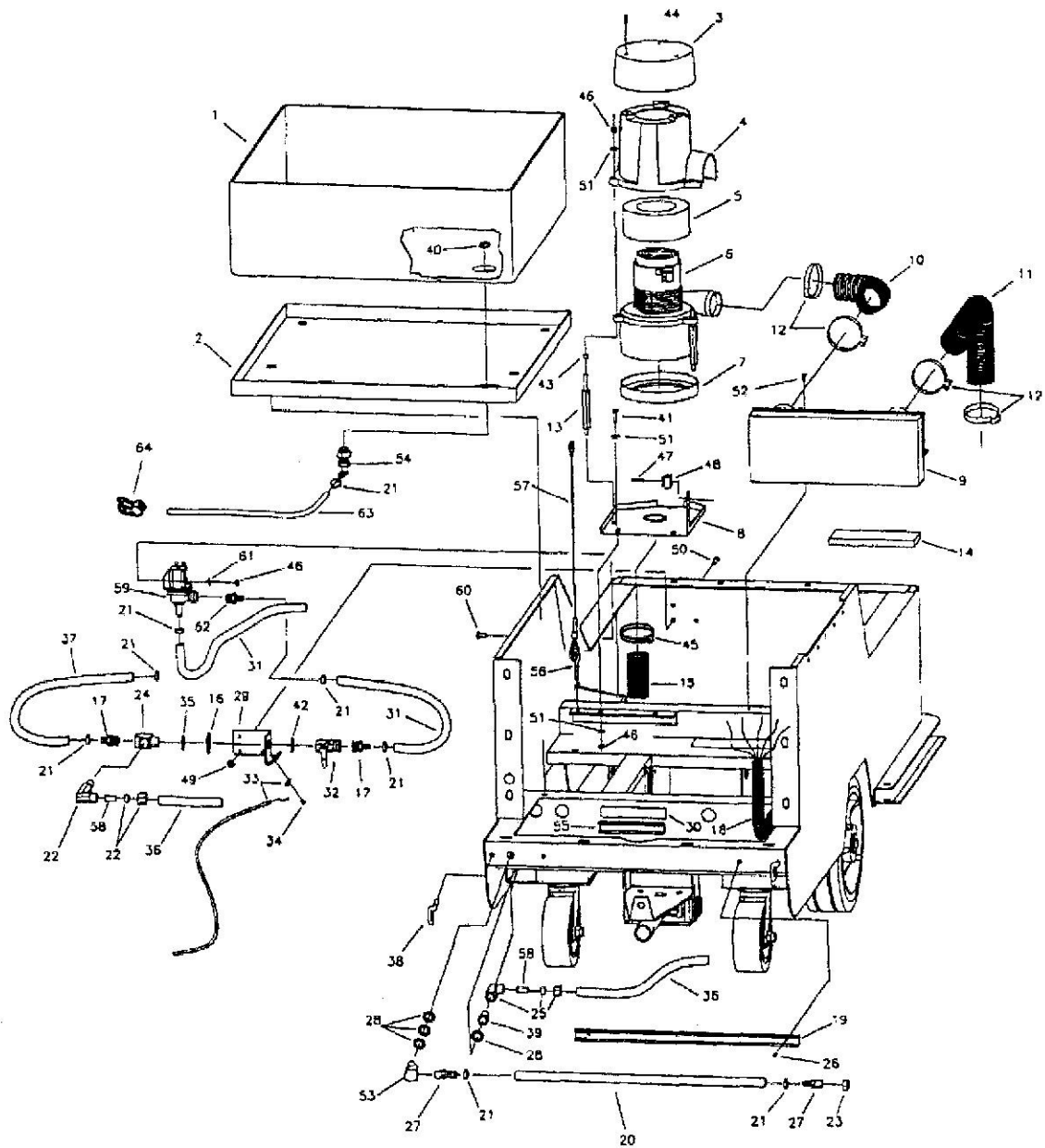
**320300
SOLUTION TANK ASSEMBLY**

Item	Part No.	Qty.	Description
1	260029	1	Solution Lid
2	320120	1	Solution Tank
3	450021	1	Hinge
4	712764	7	WSR-SS #10
5	712536	3	SCR-MC 10-24 x .62 SS TH
6	712540	4	SCR-MC 10-24 x .37 SS TH
7	832949	2	Bracket - Bumper
8			
9	832896	2	Guide Wheel
10	833254	2	Bumper Wheel Axle
11	710985	2	SCR-SC 3/8-16 x .62
12	710353	2	SCR-MC 10-32 x .37
13	711553	2	WSR-Internal Lock 10
14	130118	1	Solution Strainer M3-40
15	210409	1	Adapter Brass 3/8 FPT x 3/8 MPT
16	210414	1	O-Ring
17	711513	1	WSR-Flat .69 x 1.06 x .03 SS
18	830062	1	90° Street Elbow 3/8 x 3/8
19	210410	1	3/8 Hose BARB x 3/8 FPT Brass
20	450076	1	Crimp Clamp SS 185R
21	712575	1	5/16-18 x .75 HH SS
22	711506	1	WSR-Flat 5/16
23	320252	1	Hose, Nylon
24	320246	1	Solution Tank Cable



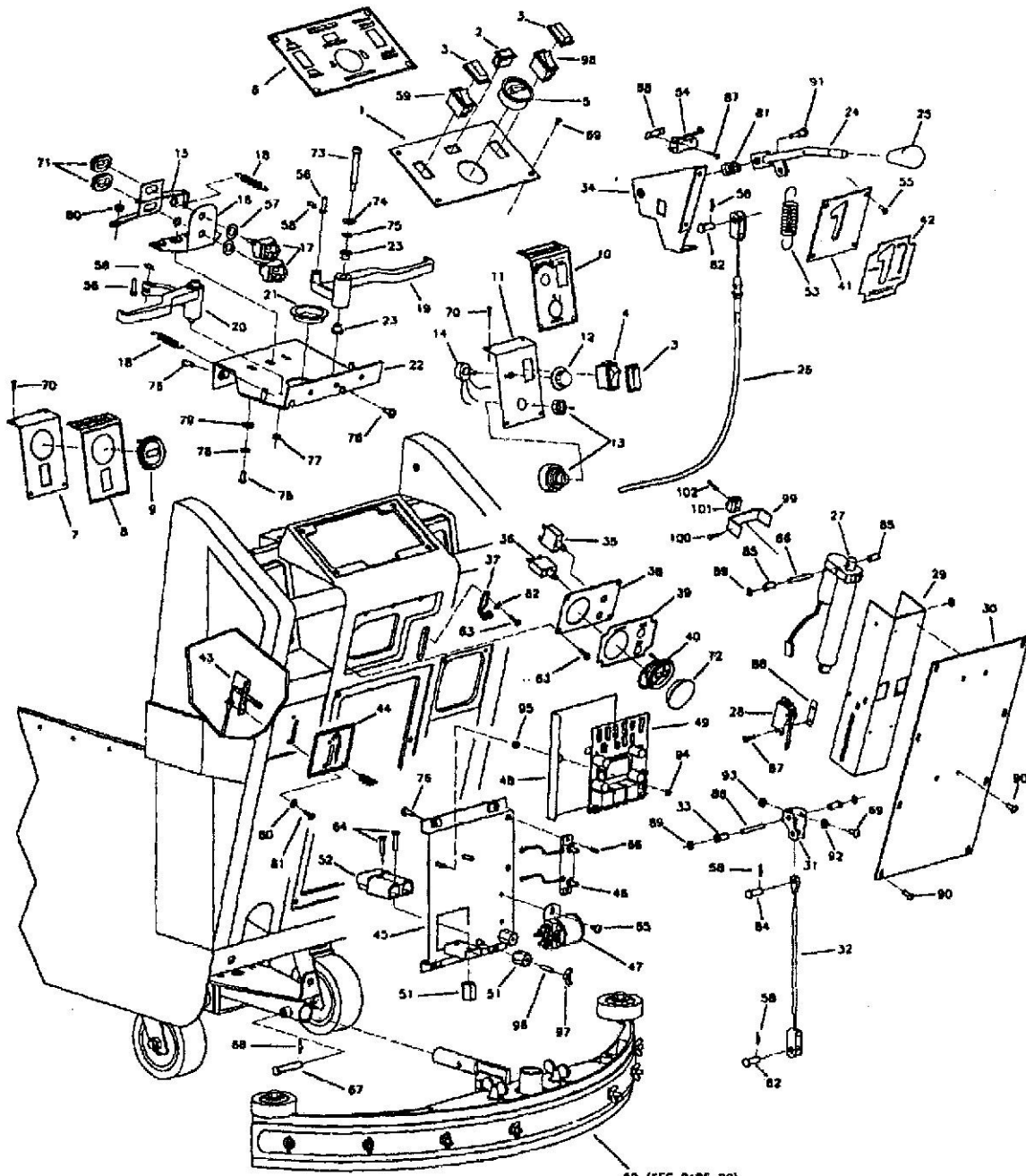
Parts List

Item	Part No.	Qty.	Description	Item	Part No.	Qty.	Description
1	320101	1	Mainframe Weldment	37	809237	2	Retaining Ring
2	809983	2	Wheel - Solid	38	809236	2	1 Oilite Flanged Bushing
2A	828169	2	Wheel - Pneumatic	39	260036	1	Pin
2B	833910	2	Wheel - Foam Filled	40	712310	4	WSR-Flat .52 x .87 x .06
3	833850	1	Drive Motor	41	711713	1	1/2 Retaining Ring
4	320137	1	Motor Mount Bracket	42	320140	1	Yoke Weldment
5	828002	2	Pillow Block Bearing Assy.	43	711334	1	Nut-Hex 1/2-13
6	760210	1	Brake Band	44	711669	2	Clevis Pin 1/2 x 2.25
7	760591MCH	1	Brake Hub	45	712574	1	BLT-SS Carr 1/4-20 x 3.00
8	830544	1	Differential	46	711373	3	Nut-Nyloc 1/4-20
9	320500	1	Scrubhead Assy. Complete	47	380-532-20	5	Cotter Key
10	320131	1	Lever Weldment	48	711383	4	Nut-Hex Ctr. Lock 5/16-18
11	320148	1	Linkage Arm	49	711228	9	BLT-HH 5/16-18 x .75
12	740802	1	Actuator	50	711545	13	WSR-Helical 5/16
13	320450	1	Squeezeee Mech. Asm. Comp.	51	711515	9	WSR-Flat .38 x .82 x .05
14	827110	2	Caster	52	712767	8	WSR-Flat 3/8 SS
15	711526	6	Wave Washer	53	712769	8	WSR-Helical 3/8 SS
16	88-153-A	2	Spacer	54	712590	8	SCR-SC 3/8-16 x 1.25 SS
17	809226	2	WSR-Flat 3/8	55	740132	2	Insulator
18	711250	2	BLT-HH 3/8-16 x 1.75	56	260041	2	1/2" Oilite Bushing
19	809227	2	Key	57	712680	4	5/16-18 Nut SS
20	260189	1	Anchor Bracket	58	320214	1	Retainer Strap
21	320210	1	Brake Cable Assembly	59	320213	1	Splash Guard
22	711668	1	Clevis Pin 3/8 x 1	60	710180	2	SCR-MC 1/4-20 x .75
23	833374	1	Cotter Pin	61	320175	1	Bracket Arm
24	760602	1	Drive Chain	62	320236	1	Vacuum Pipe Weldment
25	760601	1	Sprocket	63	320240	1	Cover, Differential
26	833629	1	Master Link	64	712534	8	SCR-MC 10-24 x .50 SS
27	760568	1	Clevis Pin	65	711202	2	BLT-HH 1/4-20 x .50
28	320181	1	Brake Bracket	66	712108	1	Clevis Pin 1/2 x 1.25
29	833621	1	1/4 x 1/4 x 1.0 Key	67	712109	1	Clevis Pin 1/2 x 1.75
30	711203	12	BLT-HH 1/4-20 x 5/8	68	711579	4	WSR-Flat .56 x 1.00
31	711544	22	WSR-Helical 1/4	69	711425	2	Nut-Flanged Wizz 1/4-20
32	711505	8	WSR-Flat 1/4	70	711672	2	Clevis Pin 1/2 x 2
33	711206	2	BLT-HH 1/4-20 x 3/4	71	711594	2	WSR-Flat .56 x .88 x .03
34	711519	4	WSR-Flat .25 x 1.00 x .05	72	809311	2	Cotter Pin
35	320174	1	Switch Bracket	73	713003	4	BLT-HH 1/4 - 20 x 3/4 #5
36	711427	2	Nut-Flanged Wizz 10-24	74	711565	4	WSR-Internal Lock 1/4



Parts List

Item	Part No.	Qty.	Description
1	320215	1	Battery Tray Liner
2	320118	1	Battery Tray
3	840011	1	Vac Motor Cover, Top
4	840012	1	Vac Motor Cover, Bottom
5	380064	1	Foam Ring
6	740228	1	Vac Motor 36V 3-Stage
7	290017	1	Molded Gasket
8	320119	1	Motor Platform
9	320185	1	Exhaust Manifold Weldment
10	833191	1	Hose Rubber Flex 2 x 9
11	320216	1	Hose Rubber Flex 2 x 20
12	829067	4	Crimp Clamp
13	833265PLT	3	Stand-Off 1/4-20
14	809412	1	Gasket Support
15	320241	1	Vacuum Hose Short
16	828975	1	WSR-Neop .75 x 1.5 x .09
17	320265	2	3/8 DUBL-Barb x 3/8 MPT
18	742001	1	Wire Harness
19	430120	1	U-Channel
20	260181	1	Hose, Clear 18"
21	450076	9	Crimp Clamp SS 185R
22	420009	1	Hose Fitting (Male Elbow)
23	430114	1	Nylon Cap 1/4 FPT HC4
24	210408	1	3/8 Brass Tee
25	420065	1	Hose Fitting (Female Elbow)
26	711124	2	SCR-ST 10 x .38 NI
27	828952	3	3/8 Barb x 1/4 MPT
28	712760	4	WSR-Flat .56 x 1.00 SS
29	210370	1	Solution Valve Bracket
30	760263	1	Foam Tape 5"
31	320253	2	Valve Solution Hose
32	809413MCH	1	Solution Valve
33	210045	1	Solution Control Cable
34	711124	1	SCR-ST-B 10 x .37 NI
35	711512	1	WSR-Flat .75 x 1.37 x .08
36	320218	1	Clear Hose, Dump
37	320252	1	Wire Hose, Supply
38	712086	2	5/16 Wire Eyebolt
39	830708	1	Reducer 3/8 x 1/4
40	320272	1	Nut-PLS 1/4 NPT
41	712565	2	SCR-MC 1/4-20 x .63 SS
42	711517	1	WSR-Flat .77 x 1.37 X .03
43	762073	3	Spacer
44	711106	3	SCR-ST-A 10 x .75
45	260203	2	Hose Clamp Wire Grip
46	712667	7	Nut Nyloc 1/4-20 SS
47	711128	1	SCR-ST 8 x .63
48	832996	1	Terminal Block
49	712638	3	Nut-Hex 10-24 SS Nyloc
50	712537	3	SCR-MC 10-24 x .75 SS TH
51	711505	4	WSR-Flat 1/4
52	72-416-10	2	SCR-TF 1/4-20
53	831306	1	Street 90° 1/4 x 1/4
54	320271	1	90° Nozzle Fitting
55	260180	1	U-Channel 5"
56	712026	1	1/4 Wire Eyebolt
57	320246	1	Solution Tank Cable
58	420011	2	Sleeve Insert
59	740494	1	Water Valve 36VDC
60	712565	2	SCR-MC 1/4-20 x .62 SS
61	711504	2	WSR-Flat 1/4 ID SS
62	320264	1	3/8 DUBL-Barb x 1/4 MPF
63	260224	1	18" Hose
64	320273	1	Hose Shut-Off Clamp

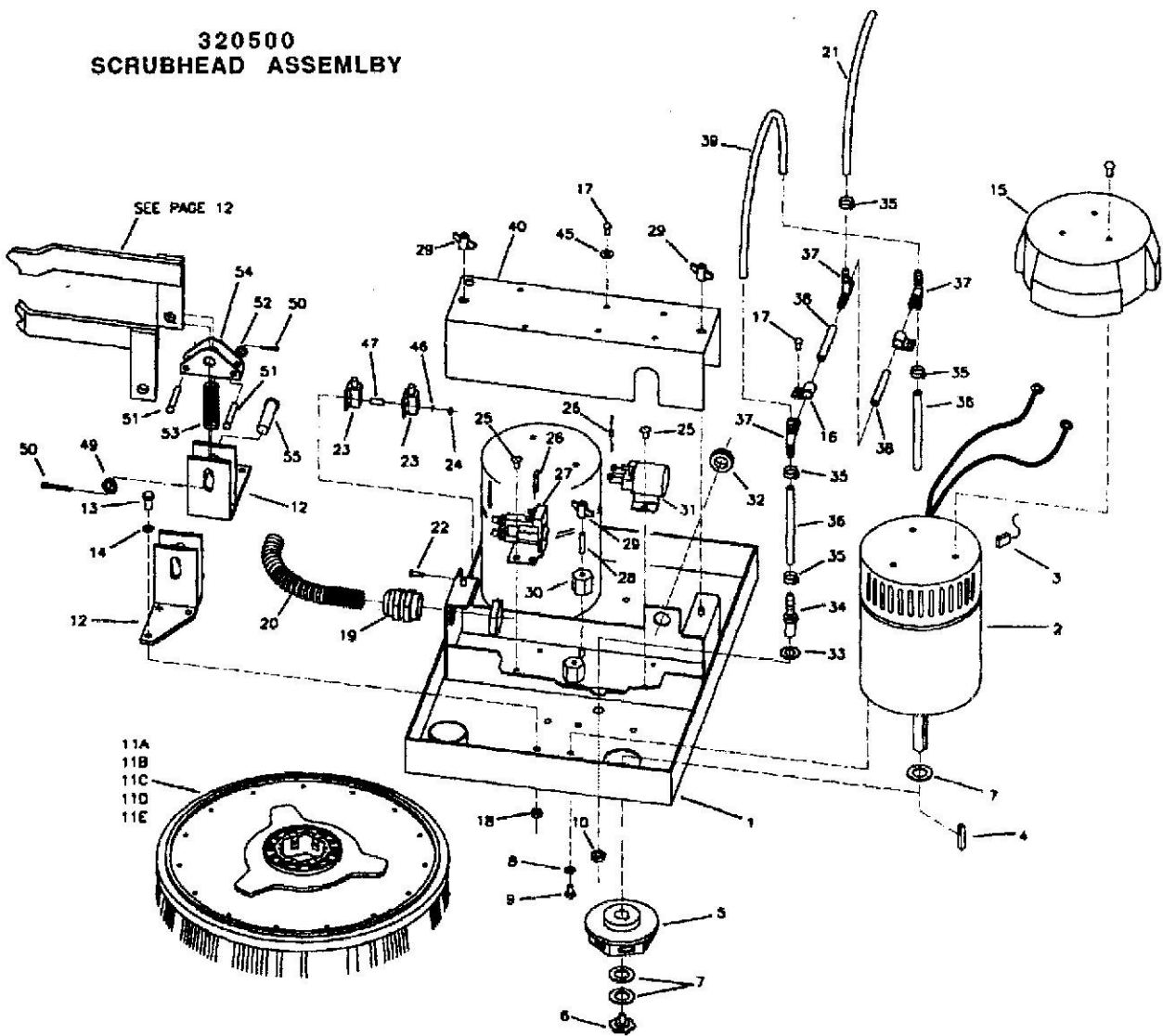


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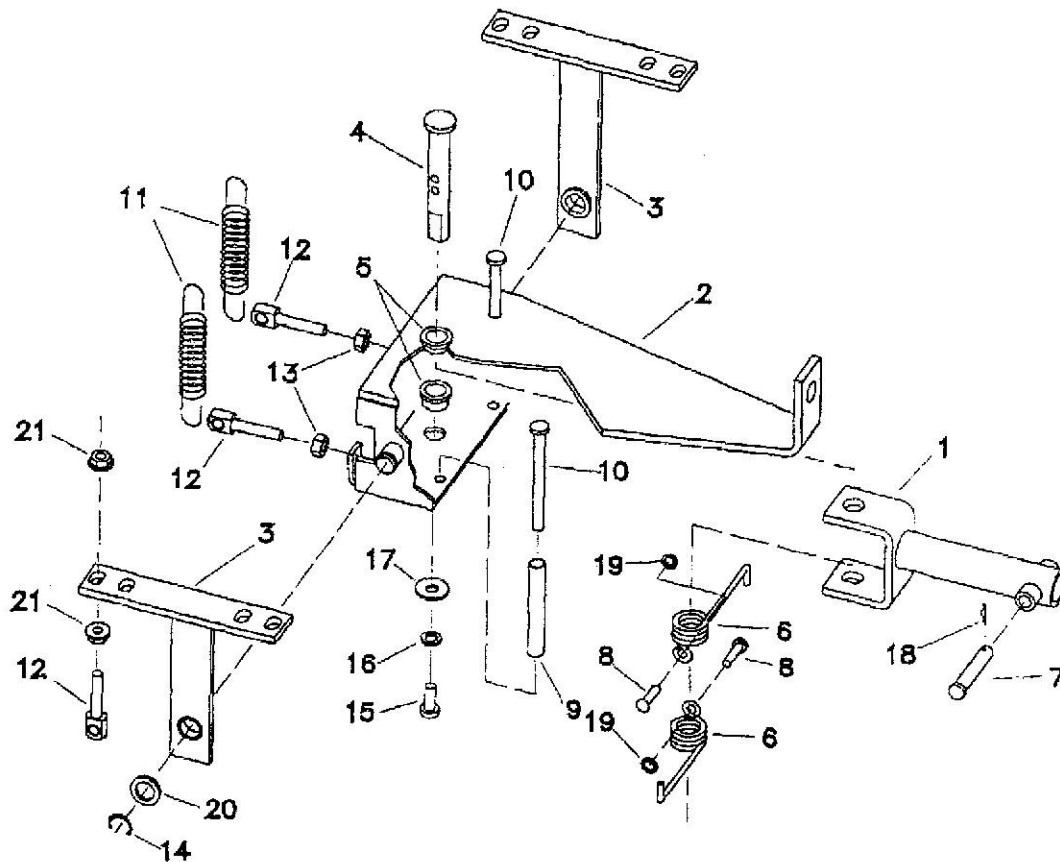
Parts List

Item	Part No.	Qty.	Description	Item	Part No.	Qty.	Description
1	320202	1	Dashboard	51	740132	3	Insulator Glastic
1CE	320202CE	1	Dashboard, CE	52	740147	1	Connector
2	742010	1	Indicator Light, 36V DC	53	760594	1	Extension Spring
3	802657	3	Switch Boot	54	740128	2	Snap Switch
3A	740811	1	Switch Boot, CE	55	712565	4	SCR-MC 1/4-20 x .62
4	809754	1	Rocker Switch	56	881002	2	Clevis Pin 5/16 x 1.00
4A	740711CE	1	Rocker Switch, CE	57	711579	2	WSR-Flat .56 x 1.00
5	740135	1	Meter, 100A DC - Pressure	58	809311	5	Cotter Pin 7/64 x 1.0
6	715610	1	Decal - Dash 320	59	740800	1	Rocker Switch - Momentary
7	320203	1	Battery Gauge Bracket	59CE	740800CE	1	Rocker Switch - Momentary, CE
8	715611	1	Reverse Decal	60	712320	2	WSR Nylon .22 x .45 x .04
9	740136	1	Battery Condition	61	711125	2	SCR-ST-B 10 x .50
10	715608	1	Forward Decal	62	711503	2	WSR-Flat 10
11	260255	1	Speed Control Bracket	63	711161	6	SCR-HI/LO 10 x .75
11CE	260255CE	1	Speed Control Bracket, CE	64	711210	2	Bolt-HH 1/4-20 x 1.25
12	809874	1	Knob	65	710178	2	SCR-MC 1/4-20 x .50
13	741005	1	Key Switch (optional)	66	712536	2	SCR-MC 10-24 x .62 ST PL
14	740368	1	Potentiometer Assembly	67	711671	1	Clevis Pin - .306 x 2.125
15	320147	1	Switch Actuator Weldment	68	711808	1	Cotter Pin
16	320187	1	Dual Switch Bracket	69	712540	5	SCR-MC 10-24 x .37 TH
17	827060	2	Forward/Reverse Switches	70	711161	8	SCR HI/LO 10 x .75
18	210413	2	Return Springs	71	260274	2	Rubber Grommet
19	260070MCH	1	Right Handle	72	833823	1	2" Hole Plug
20	260069MCH	1	Left Handle	73	712100	2	Bolt-Shoulder 3/8 x 2.25
21	762400	1	Heyco Bushing	74	711515	2	WSR-Flat .38 x .82 x .05
22	320186	1	Control Lever Mtg Brkt.	75	711523	2	WSR-Wave .38 x .68 x .01
23	260066	4	3/8 Oillite Flanged Bushing	76	710180	15	SCR-MC 1/4-20 x .75
24	320205	1	Emergency Brake Lever	77	711420	2	Nut-Hex Jam 5/16-18
25	760592	1	Knob	78	711544	3	WSR-Helical 1/4
26	320210	1	Cable, Brake Assembly	79	711505	3	WSR-Flat 1/4
27	320166	1	Linear Actuator - Squeegee	80	832015	2	Spacer
28	833329	1	Micro Switch	81	833102	1	Spring, Compression
29	320212	1	Actuator Support	82	711668	2	Clevis Pin 3/8 x 1.0
30	320176	1	Back Panel	83	711575	1	WSR-Flat .312 x .75
31	320161	1	Clevis, Squeegee Cable	84	881002	1	Clevis Pin 5/16 x .88
32	320211	1	Cable, Squeegee Cable	85	833277PLT	2	Actuator Bush Plated
33	833286PLT	2	Actuator Bush Plated	86	833294	2	Actuator Pin
34	320198	1	Brake Bracket Weldment	87	710207	6	SCR-MC 6-32 x 1.0
35	740247	1	30 AMP Circuit Breaker	88	711430	3	Tinnerman Clip
36	742266	1	60 AMP Circuit Breaker	89	711720	4	Retaining Ring - E Ext. .25
37	760286	1	Wire Formed Hook	90	712822	12	SCR-MC 10-24 x .50 TH
38	320207	1	Circuit Breaker Faceplate	91	712081	1	Shoulder Bolt 5/16
39	715617	1	Circuit Breaker Decal	92	712764	1	WSR-SS #10
40	833824	1	SS Washer 2 x 2.43 x .035	93	712638	1	Nut-Hex 10-24 SS Nyloc
41	320201	1	Parking Brake Faceplate	94	711372	2	Nut-Nyloc 8-32
42	715616	1	Parking Brake Decal	95	762073	2	Bushing .259 x .375 x .265
43	210045	1	Cable Solution Control	96	833638	3	Brass Stud
44	715604	1	Decal Solution	97	711368	3	Wing-Nut 1/4-20
45	320197	1	Electrical Panel	98	740801	1	Rocker Switch
46	740134	1	Shunt	98CE	740801CE	1	Rocker Switch CE
47	740243	1	Solenoid 36V	99	320247	1	Terminal Block Bracket, CE
48	805637	1	SCR Insulator	100	711104	1	SCR-ST 10 x .5, CE
49	740803	1	Speed Control 36V	101	740036	1	Terminal Block, CE
50	320600	1	Squeegee Assy. Complete	102	712088	1	SCR Hi-Lo, CE

**320500
SCRUBHEAD ASSEMBLY**

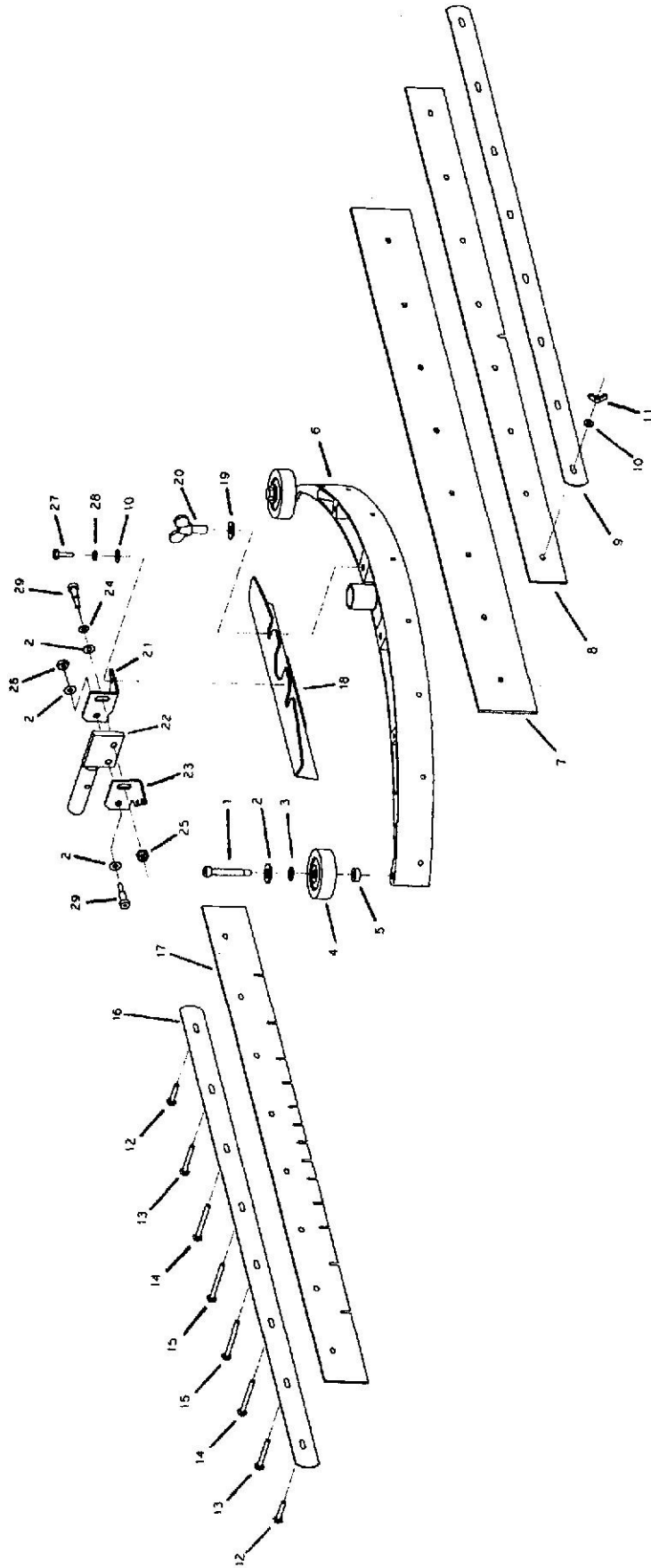


Item	Part No.	Qty.	Description	Item	Part No.	Qty.	Description
1	320152	1	Motor Pan Weldment	27	740242	1	Contactora 36V
2	833379	2	Motor 36V	28	833638	2	Brass Stud
3	833474	1	Carbon Brush Set	29	711368	4	Wing Nut
4	833621	2	Key	30	740132	2	Insulator
5	430035	2	Drive Hub	31	740243	1	Solenoid 36V
6	210066	2	Retainer Bolt	32	260274	2	Rubber Grommet
7	711517	4	WSR-Flat .77 x 1.37 x .03	33	712760	2	WSR-Flat
8	711544	8	WSR-Helical 1/4	34	828952	2	3/8 BARB x 1/4 MPT
9	711203	8	BLT-HH 1/4-20 x 50	35	450076	4	Crimp Clamp SS 185R
10	260183	2	Nut-PLS 1/4 NPT	36	320254	2	Hose
11A	430131	2	Bassine Brush	37	260178	3	3/8 BARB Tee
11B	430111	2	Polygrit Brush	38	320250	2	Short Solution Hose
11C	430034	2	Nylon Brush	39	320251	1	By-Pass Hose
11D	430108	2	Pad Driver	40	320173	1	Cover
11E	430132	2	Stata-Grit Brush	41	742011	1	6 AWG Black Wire Assembly
12	320158	2	Lift Bracket Weldment	42	742012	1	16 AWG Red Wire Assembly
13	712575	6	BLT-HH 5/16-18 x .75 SS	43	742013	1	16 AWG Red Wire Assembly
14	711545	6	WSR-Helical 5/16	44	742016	1	14 AWG Black/Yellow Wire Assy.
15	320219	2	Brush Motor Cover	45	712764	4	WSR-Flat 10 SS
16	827998	2	P-Clamp	46	711552	2	WSR-Internal Lock #8
17	712536	6	SCR-MC 10-24 x .63 SS	47	761964	2	Spacer .196 x .312 x .75
18	712680	6	Nut 5/16-18 SS	48	742121	1	Solenoid Wire Harness
19	210405	1	Liquid Tight Fitting	49	711594	2	WSR-Flat .56 x .88 x .03
20	742001	1	Cable Harness Scrubhead	50	809311	6	Cotter Pin
21	320253	1	Valve Solution Hose	51	711671	4	Clevis Pin .31 x 2.13
22	710330	2	SCR-MC 8-32 x .62	52	711506	4	WSR-Flat 5/16 STPL
23	740282	1	Switch	53	260137	2	Compressin Spring
24	711304	2	Nut-Hex 8-32	54	320255	2	Bracket, Spring Support
25	710177	4	SCR-MC 1/4-20 x .37	55	711672	2	Clevis Pin 1/2 x 2
26	742000	2	Diode Assembly				



**320450
SQUEEGEE MECHANISM
ASSEMBLY**

Item	Part No.	Qty.	Description
1	320160	1	Yoke Weldment
2	320162	1	Spring Housing Weldment
3	320008	2	Pivot Bracket Weldment
4	210375	1	Swivel Pin
5	260041	2	1/2 Oilite Bushing
6	210391	2	Torsion Spring SS
7	711671	1	Clevis Pin 5/16 x 2.125
8	712536	2	SCR-MC 10-24 x .62
9	210400	2	Spacer Tube
10	710592	2	SCR-MC 1/4-20 x 2.75
11	430051	2	Return Spring
12	260292	4	Swing Bolt
13	712665	2	Nut-Hex 1/4-20
14	711715	2	3/4 Retaining Ring
15	712562	1	Bolt-HH 1/4-20 x .75 SS
16	712758	1	WSR-Helical 1/4 SS
17	711504	1	WSR-Flat .25 I.D. SS
18	711808	1	Cotter Pin
19	712320	2	WSR-Nylon .22 x .45 x .04
20	711517	2	WSR-Flat .75 x 1.375 x .09 SS
21	711425	4	Nut-Flange Whip 1/4-20



**320600
SQUEEGEE ASSEMBLY COMPLETE**

Item	Part No.	Qty.	Description	Item	Part No.	Qty.	Description
1	712091	2	Bolt-Shoulder 3/8 x 1.50	16	320193	1	Front Blade Strap
2	711507	5	WSR-Flat .37 x 1.12 x .06	17	320196	1	Squeegee Blade
3	711592	2	WSR-Nylon .50 x 1.06 x .06	18	320191	1	Squeegee Mounting Bracket
4	808829	2	Squeegee Blumper Wheel	19	711578	2	WSR-Flat 1/2 Brass
5	832015	2	Spacer	20	260287	2	Wing-Bolt 1/2-13 x 1.00
6	320190MCH	1	Squeegee Mechanism	21	320156	1	Mounting Bracket, Right
7	320194	1	Rear Squeegee Blade	22	320154	1	Squeegee Mount Weldment
8	320195	1	Reinforcement Blade	23	320157	1	Mounting Bracket, Left
9	320192	1	Rear Blade Strap	24	712301	1	Nut-Flanged Wizz 5/16-18
10	711504	12	WSR-Flat .25 x .56 SS	25	711379	1	Nut-Nyloc 5/16-18
11	715668	8	Wing Nut 1/4-20 SS	26	711374	1	Bolt-HH 1/4-20 x .75 SS
12	712571	2	Bolt-SS Cair 1/4-20 x 1.50	27	712562	4	Nut-HH 1/4-20 x .75 SS
13	712572	2	Bolt-SS Cair 1/4-20 x 2.00	28	712758	4	WSR-Helical 1/4 SS
14	712573	2	Bolt-SS Cair 1/4-20 x 2.50	29	712081	2	Bolt-Shoulder 3/8 x .75
15	712574	2	Bolt-SS Cair 1/4-20 x 3.00				

WIRING DIAGRAM CE MODEL

