

200 Floor Scrubber Battery

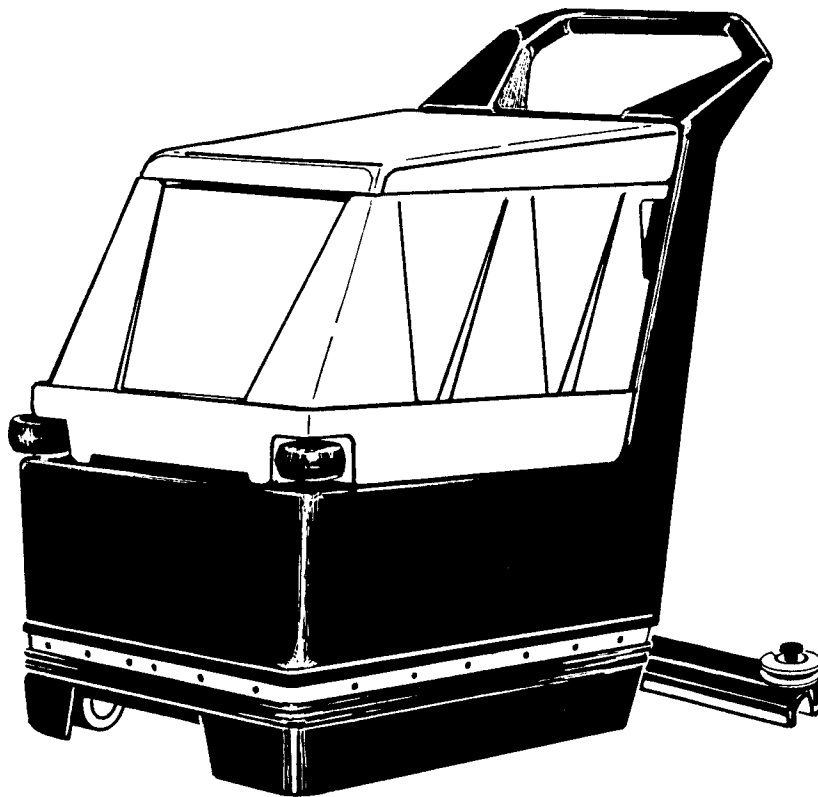
Model:
MC20024QP
MC20024CE

OPERATION

SERVICE

PARTS

CARE



Revised 8/03

Minuteman[®]

EC Declaration of Conformity

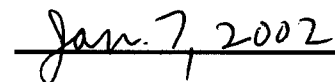
according to Directives 89/392, 89/336 and 72/73

We, Minuteman International Incorporated, of 111 South Rohlwing Road Addison Illinois 60101 USA, declare under our sole responsibility that the products MC20024CE, MC20025CE, MC20524, MC20525, PB20025CE, Automatic Floor Scrubbing machines to which this declaration relates corresponds to the relevant requirements of the EC Directives 89/392, 89/336 and 72/73. The following standards were used to determine compliance with the Directives: EN 292, EN 294, EN 811, EN 55011, EN 55104, EN 50082-2, EN 60335-1 and IEC 335-2-72.

| SOUND | | VIBRATION | | | | | | | | | | | | |
|---|------------------------|---|--------------------|--------|-------|---------|--------------|-------------------|-----------|-----|----------------------|------|--|--|
| 76 dB Operator | 73 dB At 3m | .9 m/s² At Operators Hand Grips | | | | | | | | | | | | |
| <p>Tests were conducted on 6/7/96 with calibrated sound and vibration equipment under the conditions noted below:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">General Condition:</td> <td style="width: 33%;">Cloudy</td> <td style="width: 33%;">Wind:</td> <td style="width: 33%;">0 km/hr</td> </tr> <tr> <td>Temperature:</td> <td>29^oC</td> <td>Humidity:</td> <td>85%</td> </tr> <tr> <td>Barometric Pressure:</td> <td>29.5</td> <td></td> <td></td> </tr> </table> | | | General Condition: | Cloudy | Wind: | 0 km/hr | Temperature: | 29 ^o C | Humidity: | 85% | Barometric Pressure: | 29.5 | | |
| General Condition: | Cloudy | Wind: | 0 km/hr | | | | | | | | | | | |
| Temperature: | 29 ^o C | Humidity: | 85% | | | | | | | | | | | |
| Barometric Pressure: | 29.5 | | | | | | | | | | | | | |



 Jeff Pollack, Standards Engineer



 Date

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IMPORTANT SAFETY INSTRUCTIONS

CAUTION

Operators must read and understand this manual before operating or maintaining this equipment.

- Keep hands and feet clear of moving parts while machine is in operation.
- All switches must be in the “OFF” position when charging batteries.
- Electrical motors and components can cause an explosion when operated near explosive materials or vapors. Do not operate this machine near flammable materials such as solvents, thinners, fuels, grain dusts, etc.
- Make sure all switches are turned “OFF” and battery connections are removed before performing any maintenance procedures.
- Store or park this machine on a level surface only.
- These machines are designed for level floor operation only. DO NOT OPERATE on ramps or inclines.
- Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glasses. Remove metal jewelry. Do not lay tools or metal objects on top of batteries.
- This machine is not suitable for picking up hazardous dust.

Charging batteries generates explosive gases. DO NOT CHARGE BATTERIES WHEN OPEN FLAMES OR SPARKS ARE PRESENT. DO NOT SMOKE. Make sure the charger is turned off before disconnecting it from the batteries. Charge the batteries in a well-ventilated area.

Maintenance and repairs must be performed by authorized personnel.

SAVE THESE INSTRUCTIONS

ELECTRICAL REQUIREMENTS:

This piece of equipment operates on 24 Volt DC.

BATTERY REQUIREMENTS:

2 x 12V 185 Amp Hour 20 Hour Rate Deepcycle P/N 956709

2 x 12V 105 Amp Hour 20 Hour Rate Deepcycle P/N 956712

Use adapter 740699.

BATTERY SERVICE AND INSTALLATION:

* Warning: Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glasses. Remove metal jewelry. Do not lay tools or metal objects on top of batteries.

BATTERY INSTALLATION:

1. Disconnect tank drain hose from rear of machine.
2. Disconnect vacuum recovery hose.
3. Raise tank assembly by gripping side hand holds, and tilting forward.
4. Position tank as shown below, figure 1, to hold tank in upright position.
5. Install batteries as shown in figure 2.

CHARGING OF BATTERIES:

Charging of batteries generates explosive gases. DO NOT CHARGE BATTERIES WHEN OPEN FLAMES OR SPARKS ARE PRESENT. DO NOT SMOKE. Make sure the charger is turned off before disconnecting it from the batteries. Charge the batteries in a well-ventilated area. Fluid levels should be checked before and after charging and maintained at the proper levels.

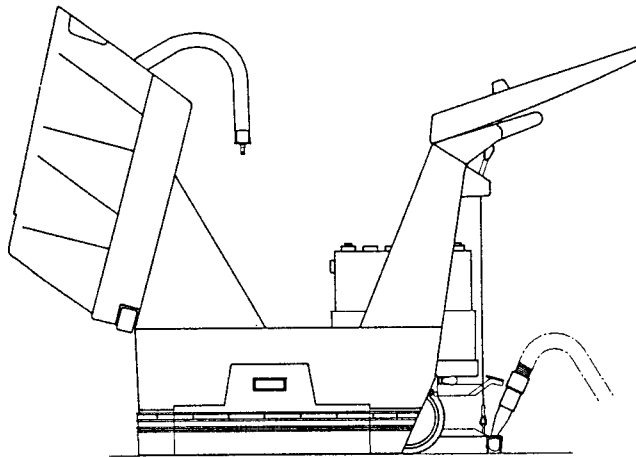


Figure 1

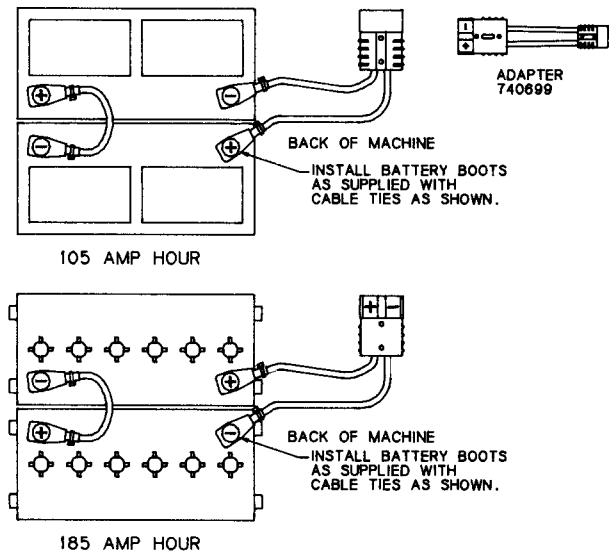
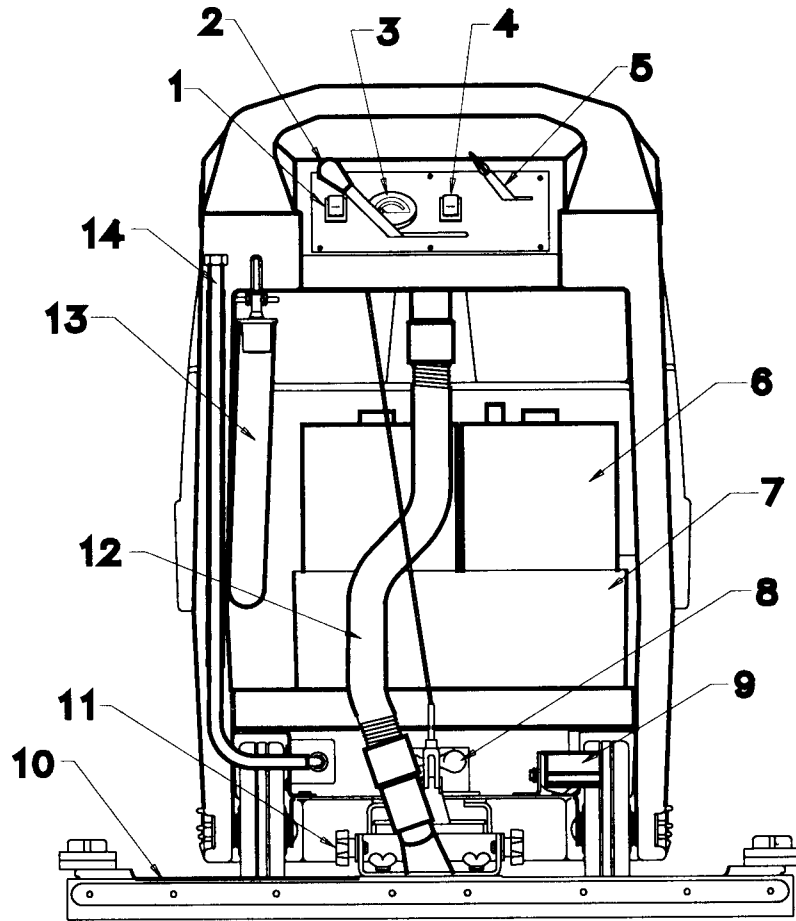


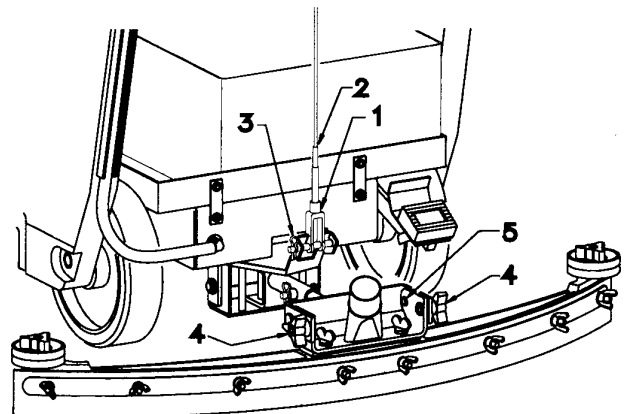
Figure 2



- | | |
|----------------------------|--|
| 1. Vacuum switch | 8. Power assist control |
| 2. Squeegee lift lever | 9. Foot pedal for lowering/raising brush |
| 3. Battery condition gauge | 10. Squeegee |
| 4. Brush switch | 11. Squeegee pitch control |
| 5. Solution control lever | 12. Recovery hose |
| 6. Batteries | 13. Recovery tank dump hose |
| 7. Battery liner | 14. Solution tank dump hose |

SQUEEGEE PITCH CONTROL ADJUSTMENTS

Some minor adjustments may be required due to floor types and conditions to extend downward travel. Remove clevis pin (3) and unscrew yoke (1) from cable (2). To adjust pitch (angle) of squeegee, loosen bolts (5) and knobs (4). Squeegee angular position can now be changed for best performance.



BRUSH INSTALLATION - REMOVAL

INSTALLATION - Figure 1

1. Disconnect batteries.
2. Set brush assist lever (A) to rabbit.
3. Raise brush mechanism (B) to the “up” position by depressing pedal downward as shown.
4. Remove side skirt (C) by lifting up and away.
5. Center brush (D) under machine as shown lining up center hex drive hub.
6. By releasing foot pedal (B) to lower brush mechanism, drive hub will engage.

REMOVAL - Figure 2

1. Disconnect batteries.
2. Set brush assist lever (A) to rabbit.
3. Raise brush mechanism (B) to “up” position by depressing pedal downward as shown.
4. Remove side skirt (C) by lifting up and away.
5. Brush has snap-on push-off clutch plate. By pushing brush away from machine and from side it will release brush assembly.

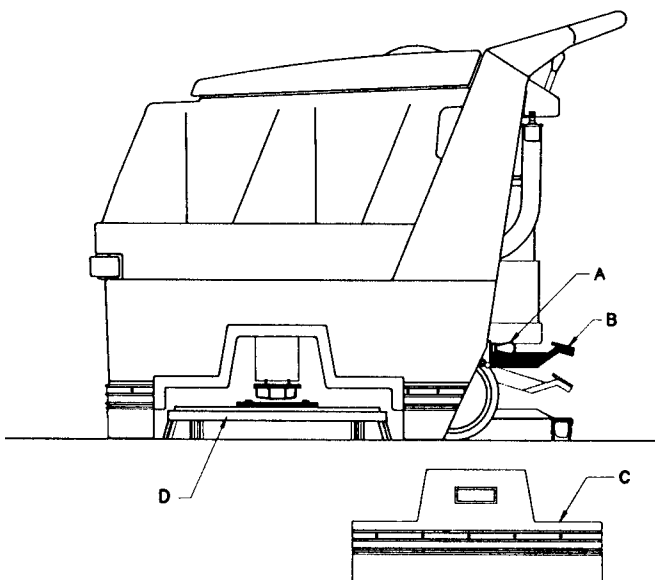


Figure 1

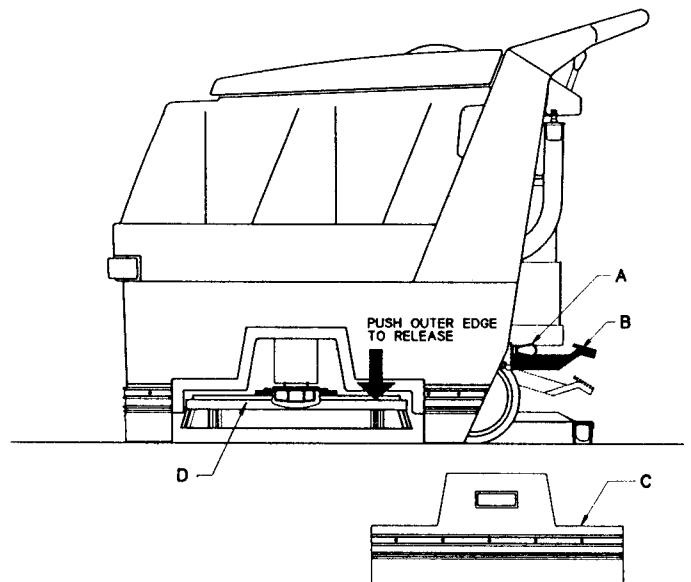


Figure 2

OPERATING INSTRUCTIONS

1. Filling: Fill the solution tank with the desired amount of water and add liquid cleaning solution to the proper dilution ratio. **DO NOT USE** powdered cleaning chemicals. Powders are unlikely to dissolve thoroughly, resulting in clogging the in-line solution filter. This can reduce or stop water flow to the brush.
2. Close lid.
3. Lower brush assembly.
 - To lower the brush, first push the pedal slightly towards the center of the machine (unlock it), then release it slowly.
 - To lift the brush, press the pedal down until lift mechanism engages.
4. Turn on brush switch.
5. Adjust solution control feed lever.
6. Turn on vacuum switch.
7. Lower squeegee assembly.

After Use:

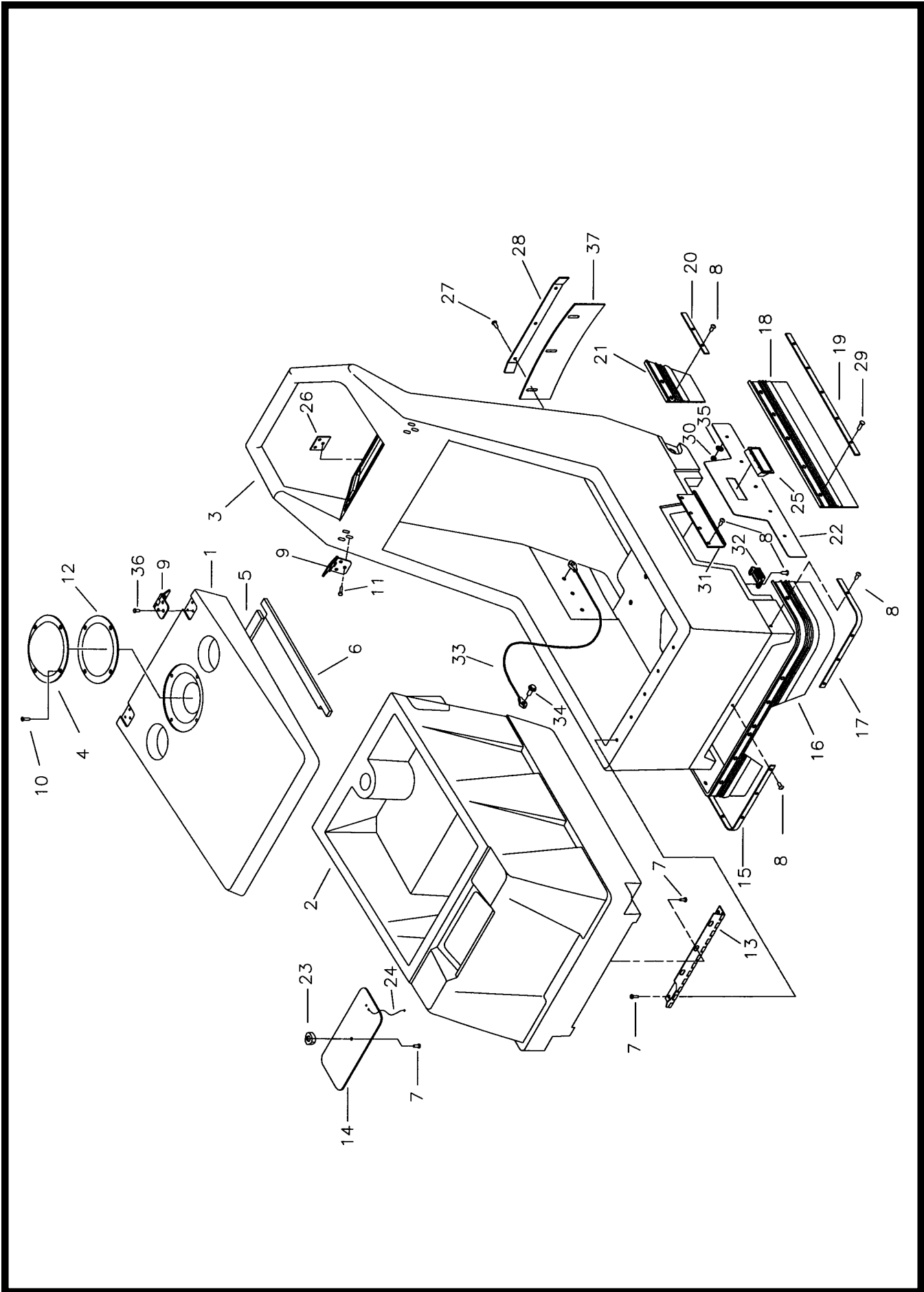
1. Turn off solution feed.
2. Switch off brush and raise.
3. Raise squeegee assembly.
4. Turn off vacuum motor.

Solution and recovery tanks should be emptied after every use.

MAINTENANCE:

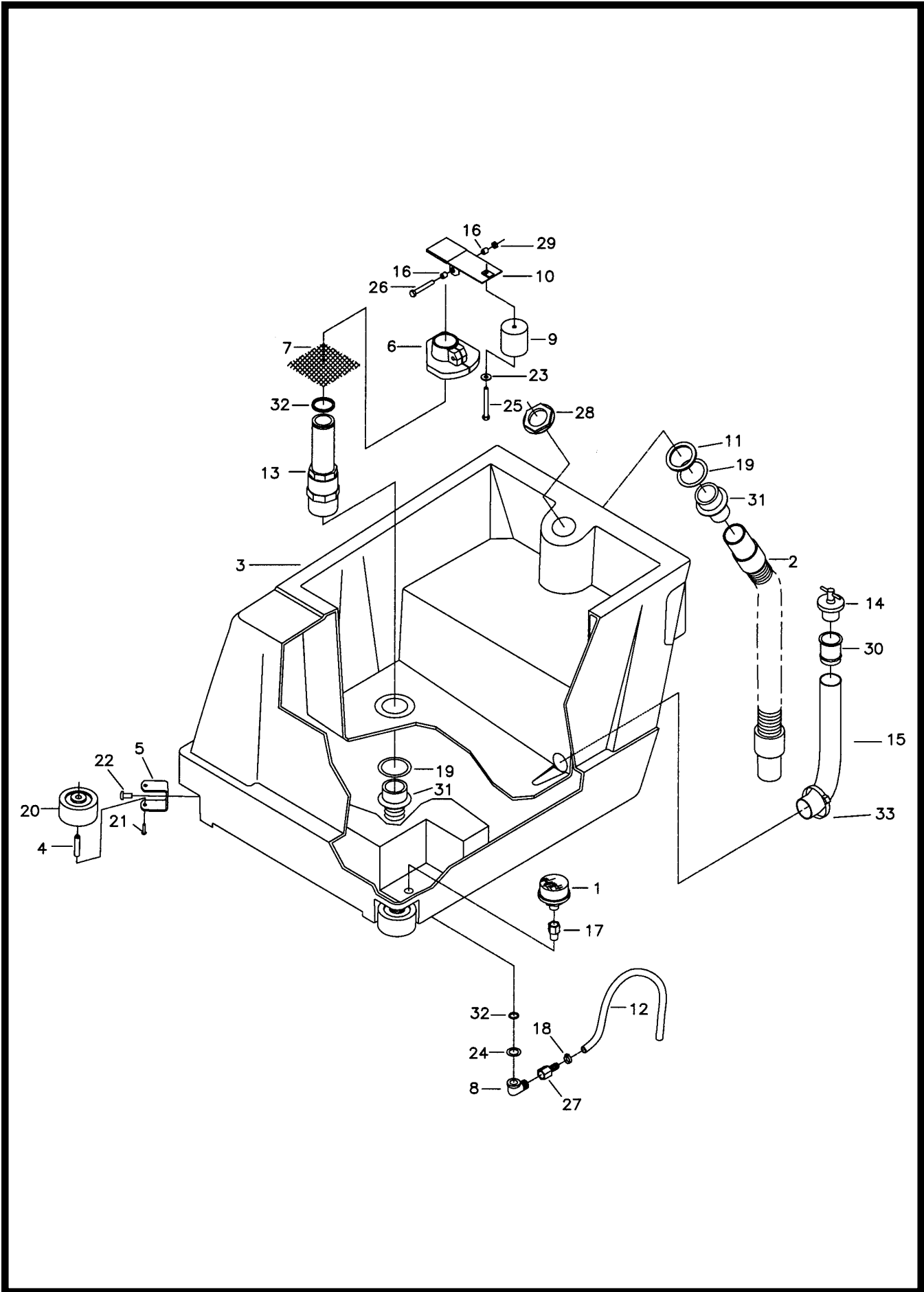
- | | |
|---------|---|
| Daily | <ol style="list-style-type: none">1. Clean float assembly & squeegee blades. Vac filter.2. Recharge batteries (check battery acid levels before and after charging). |
| Monthly | <ol style="list-style-type: none">1. Check wear on squeegee blades.2. Grease rear wheels.3. Grease pivot points on brush motor assembly. |

Every 500 hours check condition of carbon brushes on vacuum motor and brush drive motor.



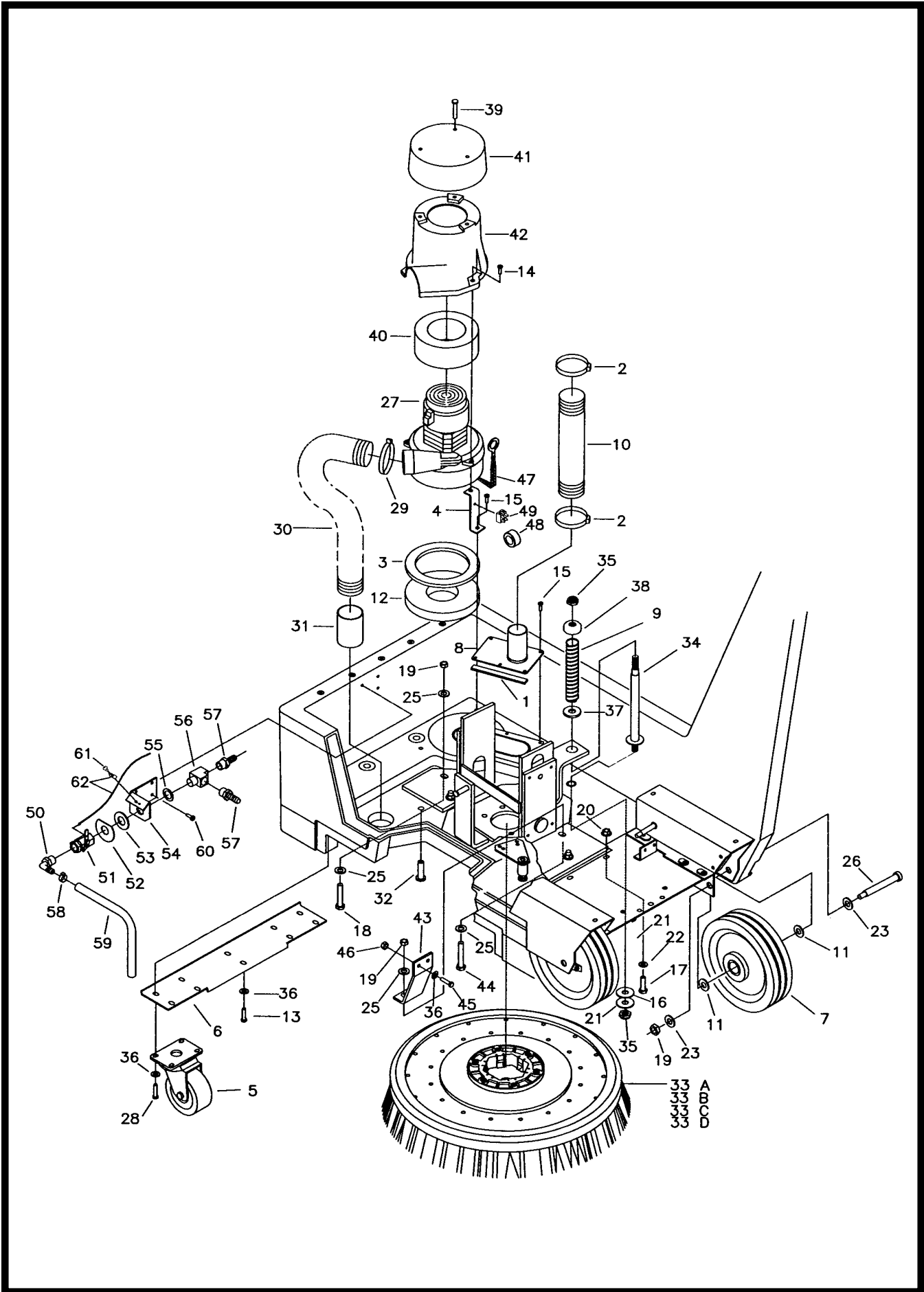
Parts List

| Item | Part No. | Qty. | Description |
|------|-----------|------|-------------------------------------|
| 1 | 210002 | 1 | Lid Assembly Recovery |
| 2 | 210001MCH | 1 | 20" Solution/Recovery Tank Assembly |
| 3 | 210000MCH | 1 | 20" Base Assembly |
| 4 | 210004 | 1 | Recovery Dome |
| 5 | 210006 | 2 | Lid Gasket |
| 6 | 210007 | 2 | Lid Gasket |
| 7 | 712565 | 10 | SCR-MC 1/4-20 x .62 SS |
| 8 | 711106 | 25 | SCR-ST-A 10 x .75 PL |
| 9 | 430044MCH | 2 | Hinge Lid 20" |
| 10 | 712810 | 4 | SCR-MC 10-24 x .37 STPL |
| 11 | 712536 | 6 | SCR-MC 10-24 x .62 SS TH |
| 12 | 210005 | 1 | Dome Gasket |
| 13 | 260087 | 1 | Hinge |
| 14 | 450066 | 1 | Solution Tank Cover |
| 15 | 210055 | 1 | Side Skirt Retainer |
| 16 | 210052 | 1 | Splash Skirt |
| 17 | 210056 | 1 | Skirt Retainer Front |
| 18 | 210053 | 1 | Skirt at Access Panel |
| 19 | 210057 | 1 | Skirt Retainer at Access Panel |
| 20 | 210058 | 1 | Skirt Retainer at Wheel |
| 21 | 210054 | 1 | Skirt at Wheel |
| 22 | 210059 | 1 | Access Panel |
| 23 | 833214 | 1 | Knob 3-Sided |
| 24 | 450062 | 1 | Cord, Nylon |
| 25 | 210061 | 1 | Pocket Pull |
| 26 | 430126 | 2 | Hinge Backing Plate |
| 27 | 210078 | 1 | Retainer |
| 28 | 711104 | 3 | SCR-ST 10 x .50 |
| 29 | 712822 | 5 | No. 10-24 x .50 Lg. Screw |
| 30 | 712900 | 5 | Nut-Hex 10-24 STPL |
| 31 | 210063 | 1 | Access Panel Hanger |
| 32 | 210027 | 2 | Magnetic Catch |
| 33 | 833463 | 1 | Titl. Cable |
| 34 | 712042 | 1 | 5/16-18 x .62 Wizz Bolt HH |
| 35 | 711533 | 5 | WSR-Internal Lock #10 |
| 36 | 712540 | 6 | SCR-MC 10-24 x .37 SS TR |
| 37 | 210077 | 1 | Skirt |



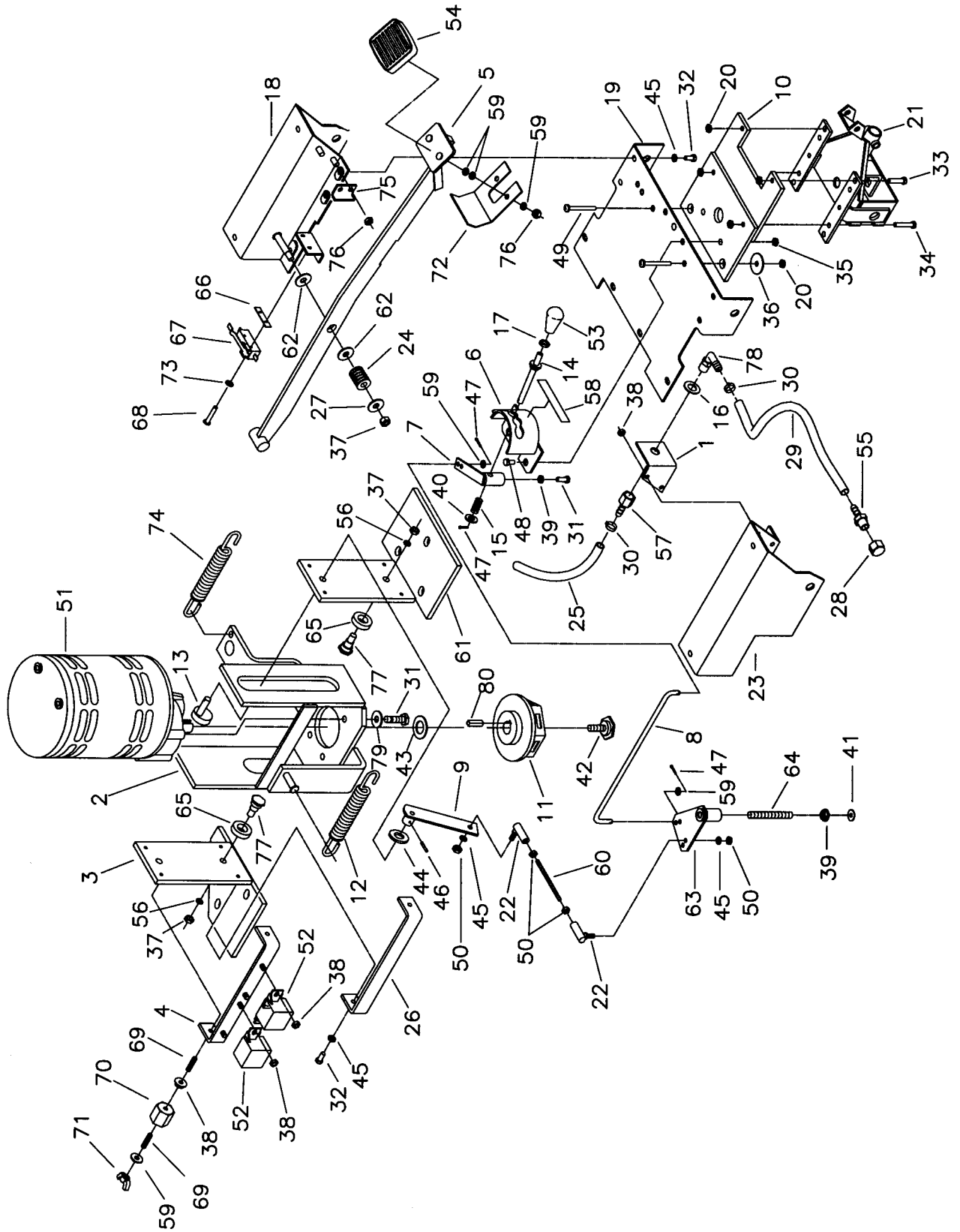
Parts List

| Item | Part No. | Qty. | Description |
|------|-----------|------|-----------------------------|
| 1 | 130118 | 1 | Solution Strainer M3-40 |
| 2 | 210068 | 1 | Vac Recover Hose 34.5 C/L |
| 3 | 210001MCH | 1 | Sol/Recovery Tank Assembly |
| 4 | 833254 | 2 | Bumper Wheel Axle |
| 5 | 832949 | 2 | U-Bracket Wheel Mount |
| 6 | 200173 | 1 | Float Housing |
| 7 | 430050 | 1 | Filter Screen 4 x 4 |
| 8 | 830062 | 1 | Fitting Brass 90 3/8MPT |
| 9 | 430089 | 1 | Float |
| 10 | 430090 | 1 | Float Valve Weldment |
| 11 | 828970 | 1 | WSR-Neop 1.81 x 2.37 x .9 |
| 12 | 210401 | 1 | Solution Hose |
| 13 | 210009 | 1 | Standpipe Assembly |
| 14 | 833316 | 1 | Drain Plug 1 1/4 |
| 15 | 210121 | 1 | Dump Hose 200 Series |
| 16 | 762384 | 2 | Bushing .277 x .375 x .37 |
| 17 | 210409 | 1 | Fitting Brass 3/8MPT |
| 18 | 450076 | 2 | Crimp Clamp SS 185R |
| 19 | 450081 | 3 | WSR SS 1.908 x 2.41 x .03 |
| 20 | 832896 | 2 | Guide Wheel |
| 21 | 710353 | 2 | SCR-MC 10-32 x .37 ST PL |
| 22 | 710985 | 2 | SCR-SC 3/8-16 x .62 |
| 23 | 711504 | 1 | WSR-Flat 1/4 ID SS |
| 24 | 711594 | 1 | WSR-Flat .56 x .88 x .03 NI |
| 25 | 712092 | 1 | SCR Nylon 1/4-20 x 2.5 |
| 26 | 712568 | 1 | SCR-MC 1/4-20 x 2.25 SS |
| 27 | 210410 | 1 | Fitting Brass 3/8FPT |
| 28 | 828971 | 1 | Nut 1 1/2 Pipe Thread |
| 29 | 712667 | 1 | Nut-Hex 1/4-20 SS NYLOC |
| 30 | 760343 | 1 | Tube Hose 24/32B |
| 31 | 450083 | 2 | Hose Adapter |
| 32 | 832326 | 1 | O Ring |
| 33 | 260203 | 1 | Hose Clamp |



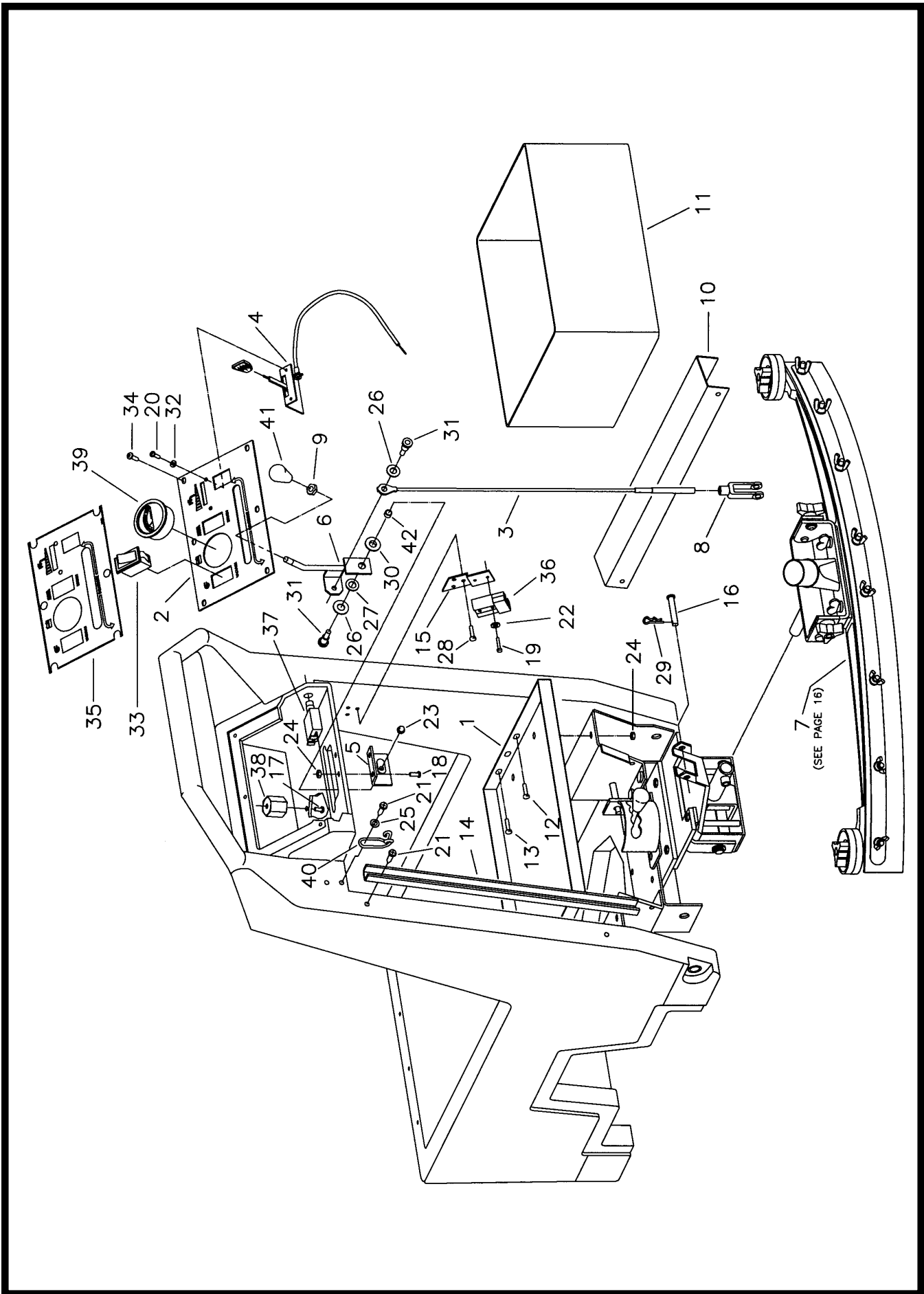
Parts List

| Item | Part No. | Qty. | Description | Item | Part No. | Qty. | Description |
|------|----------|------|-------------------------------|------|-----------|------|-------------------------------|
| 1 | 250041 | 1 | Seal, Rubber .12 x .62 x 14.5 | 33A | 381041 | 1 | Strata-Grit Brush |
| 2 | 831001 | 2 | Crimp Clamp | 33B | 381040 | 1 | Poly-Grit Brush |
| 3 | 290017 | 1 | Gasket, 4.31 x 5.81 x .19 | 33C | 381039 | 1 | Nylon Brush Assembly Complete |
| 4 | 430018 | 3 | Z Bracket | 33D | 381038 | 1 | Pad Driver |
| 5 | 762333 | 2 | Caster 3.5" | 34 | 210083 | 1 | Adjust Rod Weldment |
| 6 | 210010 | 1 | Caster Mtg. Brkt. | 35 | 364-816 | 2 | Nut-Nyloc 1/2-13 Half |
| 7 | 210003 | 2 | 8" Wheel | 36 | 711505 | 12 | WSR-Flat 1/4 |
| 8 | 430069 | 1 | Vacuum Manifold Assembly | 37 | 711512 | 1 | WSR-Flat .75 x 1.37 x .08 |
| 9 | 828301 | 1 | Spring Squeegee Pressure | 38 | 828264 | 1 | Washer Cup |
| 10 | 210074 | 1 | Vacuum Hose 1.5 x 31 C/L | 39 | 711160 | 3 | #10 Hi/Lo Screw x .63 |
| 11 | 430149 | 2 | Bushing .531 x 1 x .25 SS | 40 | 380064 | 1 | Foam Ring |
| 12 | 460019 | 1 | Gasket 3.75 x 5.75 x .75 | 41 | 840011 | 1 | Vac Motor Cover, Top |
| 13 | 710178 | 2 | SCR-MC 1/4-20 x .50 STPL | 42 | 840012 | 1 | Vac Motor Cover, Bottom |
| 14 | 710182 | 3 | SCR-MC 1/4-20 x 1.00 | 43 | 210098 | 1 | Reinforcing Bracket |
| 15 | 711106 | 9 | SCR-ST-A 10 x .75 PL | 44 | 711244 | 1 | BLT-HH 3/8-16 x 1.75 |
| 16 | 711559 | 1 | WSR-Internal Lock | 45 | 711204 | 2 | BLT-HH 1/4-20 x .75 |
| 17 | 711231 | 4 | BLT-HH 5/16-18 x 1.25 STPL | 46 | 711373 | 2 | Nut-Nylock 1/4-20 |
| 18 | 711243 | 5 | BLT-HH 3/8-167 x 1.5 STPL | 47 | 742281 | 1 | Ground Strap |
| 19 | 711380 | 8 | Nut-Nyloc 3/8-16 | 48 | 742254 | 1 | Torroid Ferrite |
| 20 | 711425 | 3 | Nut-Flanged Wizz 1/4-20 | 49 | 832996 | 1 | Terminal Block |
| 21 | 711510 | 2 | WSR-Flat .5 x 1.37 x .10 | 50 | 450040 | 1 | Elbow 3/8MPT x 3/8Barb |
| 22 | 711506 | 4 | WSR-Flat 5/16 STPL | 51 | 809413MCH | 1 | Solution Valve |
| 23 | 711509 | 6 | WSR-Flat 1/2 STPL | 52 | 829463 | 1 | WSR-Flat D .75 x 2.00 x .05 |
| 24 | 711517 | 2 | WSR-Flat .77 x 1.37 x .03 | 53 | 828975 | 1 | WSR-Neo .75 x 1.5 x .09 |
| 25 | 711515 | 6 | WSR-Flat .44 x .87 x .07 | 54 | 210370 | 1 | Solution Valve Bracket |
| 26 | 710874 | 2 | SCR-SC 1/2 x 13 x 3.75 | 55 | 711512 | 1 | WSR-Flat .75 x 1.37 x .08 |
| 27 | 740063 | 1 | Vac Motor 2ST24V 116157-00 | 56 | 210408 | 1 | 3/8 Brass Tee |
| 28 | 710180 | 8 | SCR-MC 1/4-20 x .75 | 57 | 342430 | 2 | Hose Barb 3/8MPT x 3/8Barb |
| 29 | 829067 | 1 | Crimp Clamp | 58 | 450076 | 1 | Crimp Clamp |
| 30 | 210075 | 1 | Hose Rubber Flex 2 x 15" | 59 | 450056 | 1 | Solution Hose 21" |
| 31 | 801013 | 1 | Sleeve, Hose | 60 | 711106 | 3 | SCT-ST-A 10 x .75 PL |
| 32 | 832136 | 1 | Nylon Sleeve Sol. Feed | 61 | 711124 | 1 | SCR-ST 10 x .37 |
| | | | | 62 | 210045 | 1 | Solution Control Cable |



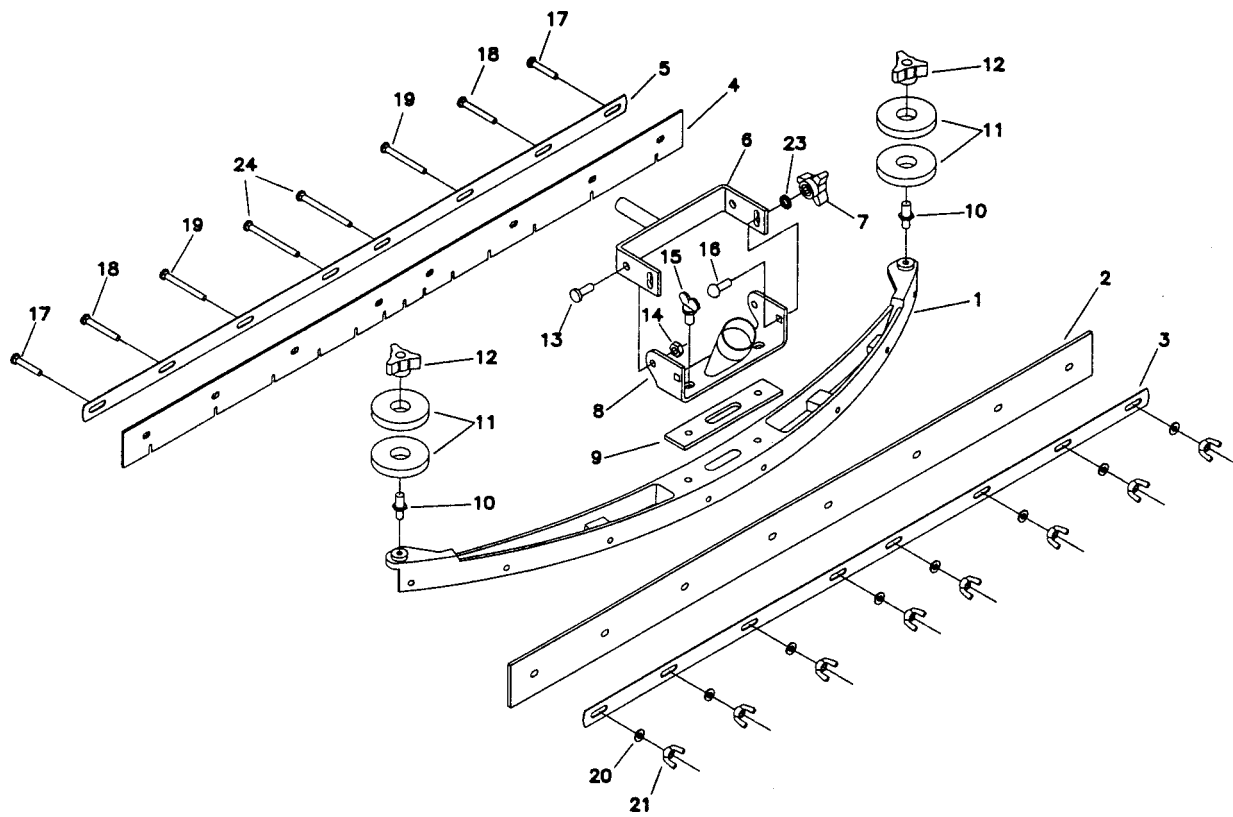
Parts List

| Item | Part No. | Qty. | Description | Item | Part No. | Qty. | Description |
|------|----------|------|-------------------------------|------|----------|------|-------------------------------|
| 1 | 100000 | 1 | Mounting Brkt. Quick Disc | 41 | 711515 | 1 | WSR-Flat .44 x .87 x .07 |
| 2 | 210042 | 1 | Motor Mount Weldment | 42 | 210066 | 1 | Drive Hub Retainer Bolt |
| 3 | 210110 | 1 | Motor Brkt. Weldment | 43 | 711517 | 2 | WSR-Flat .77 x 1.37 x .03 |
| 4 | 430013 | 1 | Stabilizer Bracket | 44 | 711523 | 2 | WSR-Wave .37 x .68 x .02 |
| 5 | 210039 | 1 | Lift Lever Weldment | 45 | 711535 | 9 | WSR-Helical .26 x .50 x .02 |
| 6 | 430019 | 1 | Speed Control Weldment | 46 | 711615 | 1 | Rollpin .12 x .75 |
| 7 | 430022 | 1 | Control Pivot Weldment | 47 | 711803 | 3 | Cotter Pin .06 x .75 |
| 8 | 210030 | 1 | Speed Control Rod | 48 | 712042 | 3 | Bolt-WSR HH 5/16-18 x .62 |
| 9 | 430026 | 1 | Speed Control Weldment | 49 | 712576 | 2 | SCR-MC 1/4-20 x 1.25 SS |
| 10 | 210126 | 1 | Mounting Plate Weldment | 50 | 712666 | 4 | Nut-Hex Jam 1/4-28 SS |
| 11 | 430035 | 1 | Drive Hub | 51 | 740209 | 1 | Gearmotor 24V |
| 12 | 210035 | 1 | Spring, Extension | 52 | 740241 | 2 | Contacto 24V 50AMP |
| 13 | 430054 | 1 | Pivot Cam | 53 | 760592 | 2 | Knob Oval Tapered |
| 14 | 430055 | 1 | Threaded Connecting Rod | 54 | 210142 | 1 | Pedal |
| 15 | 430056 | 1 | Compression Spring | 55 | 828952 | 1 | 3/8 BARB x 1/4 MPT |
| 16 | 711579 | 3 | WSR-Flat .56 x 1.00 | 56 | 711546 | 2 | WSR-Helical 3/8 |
| 17 | 711420 | 1 | Nut-Hex Jam 5/16-18 STPL | 57 | 833473 | 1 | Hose Barb 1/4 FPT x 3/8 Barb |
| 18 | 210016 | 1 | Wheel Mount Strut Right | 58 | 715136 | 1 | Decal Diecut Speed Control |
| 19 | 210011 | 1 | Mtg. Plate Wheel Carriage | 59 | 711505 | 6 | WSR-Flat 1/4 |
| 20 | 712667 | 6 | Nut-Hex 1/4-20 SS | 60 | 210028 | 1 | 1/4-28 x 2.00 Threaded Rod |
| 21 | 210455 | 1 | Squeeze Mechanism Complete | 61 | 210108 | 1 | Motor Brkt. Weldment |
| 22 | 430080 | 2 | Balljoint (SP1002) | 62 | 210033 | 2 | Oilite-WSR |
| 23 | 210015 | 1 | Wheel Mount Strut Left | 63 | 210031 | 1 | Pivot Weldment |
| 24 | 210047 | 1 | Die Spring | 64 | 210029 | 1 | 3/8-16 U.N.C. Threaded Rod |
| 25 | 210073 | 1 | Solution Dump Hose Nylon 41" | 65 | 361254 | 2 | Bearing |
| 26 | 430106 | 1 | Stabilizer Bar Lower | 66 | 711443 | 1 | Tinnerman Clip |
| 27 | 711509 | 1 | WSR-Flat 1/2 | 67 | 740129 | 1 | Switch |
| 28 | 430114 | 1 | Nylon Cap 1/4 FPT HC4 | 68 | 710307 | 2 | SCR-MC 6-32 x 1.00 |
| 29 | 430118 | 1 | Clear Dump Hose C/L 24" | 69 | 833638 | 2 | Brass Stud 1/4-20 x 1.00 |
| 30 | 450076 | 1 | Crimp Clamp SS 185R | 70 | 740132 | 1 | Isulator (Glastic) |
| 31 | 710986 | 5 | SCR-SC 3/8-16 x 1.00 STPL | 71 | 711368 | 1 | 1/4-20 Nyloc Wing Nut |
| 32 | 711202 | 9 | BLT-HH 1/4-20 x .50 STPL | 72 | 210076 | 1 | Foot Guard |
| 33 | 711564 | 2 | BLT-HH 1/4-20 x 1.00 | 73 | 711551 | 2 | Washer Flat |
| 34 | 712566 | 2 | BLT-HH 1/4-20 x 1.25 | 74 | 260211 | 1 | Spring |
| 35 | 712683 | 2 | Nut-Nyloc 5/16-18 SS | 75 | 210387 | 1 | Pedal Stop |
| 36 | 712761 | 2 | WSR-Flat .28 x 1.25 x .059 SS | 76 | 711373 | 2 | Nut-Nyloc 1/4-20 |
| 37 | 711328 | 2 | Nut-Hex 3/8-16 | 77 | 210124 | 2 | Bearing Stud |
| 38 | 711425 | 10 | Nut-Flanged Wizz 1/4-20 | 78 | 833325 | 1 | Elbow Pls. 1/4 MPT x 3/8 Barb |
| 39 | 711439 | 2 | Nut-Flanged Wizz 3/8-16 | 79 | 711555 | 1 | WSR-Lock 3/8 Internal |
| 40 | 711506 | 3 | WSR-Flat 5/16 STPL | 80 | 320268 | 1 | Key 1/4 x 5/16 x 1 |



Parts List

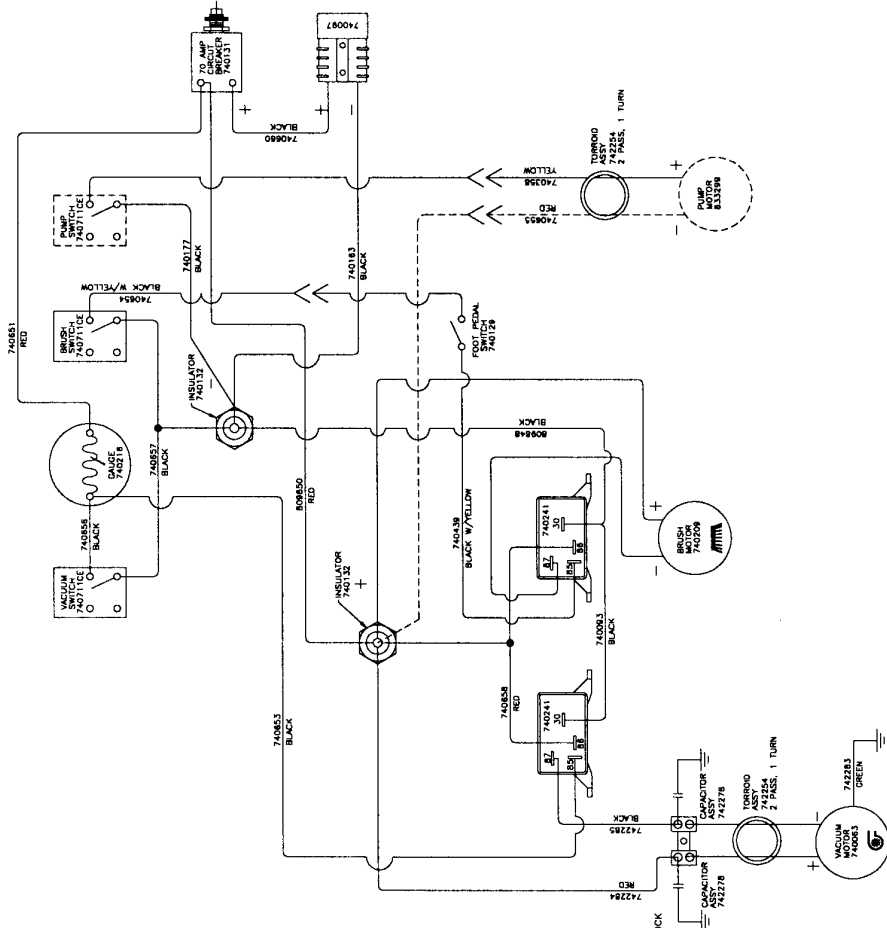
| Item | Part No | Qty | Description |
|------|----------|-----|------------------------------|
| 1 | 210012 | 1 | Battery Tray |
| 2 | 210026SP | 1 | Dashboard, Screen Printed |
| 2A | 210026CE | 1 | Dashboard, CE |
| 3 | 210406 | 1 | Squeegee Lift Cable |
| 4 | 210045 | 1 | Solution Control Cable |
| 5 | 430059 | 1 | Squeegee Lift Brkt. Assembly |
| 6 | 430060 | 1 | Squeegee Lift Arm Assembly |
| 7 | 210452 | 1 | Squeegee Assembly Complete |
| 8 | 881009 | 1 | Yoke |
| 9 | 711420 | 1 | Nut-Hex Jam 5/16-18 |
| 10 | 210064 | 1 | Battery Spacer |
| 11 | 210048 | 1 | Battery Liner |
| 12 | 710197 | 1 | SCR-MC 5/16-18 x .75 STPL |
| 13 | 710195 | 5 | SCR-MC 5/16-18 x .50 STPL |
| 14 | 430120 | 1 | U Channel |
| 15 | 210072 | 1 | Anderson Plg. Brkt. |
| 16 | 210415 | 1 | Clevis Pin .312 x 1.69 |
| 17 | 710178 | 1 | SCR-MC 1/4-20 x .50 STPL |
| 18 | 710180 | 2 | SCR-MC 1/4-20 x .75 STPL |
| 19 | 710383 | 2 | SCR-MC 1/4-20 x 1.25 |
| 20 | 711124 | 2 | SCR-ST-B 10 x .37 NI |
| 21 | 711161 | 4 | SCR HI/LO 10 x 3/4 PL |
| 22 | 711554 | 2 | WSR-Internal Lock 1/4 ID |
| 23 | 711352 | 1 | Nut-Acorn 1/4-20 ST N1 |
| 24 | 711425 | 2 | Nut-Flanged Wizz 1/4-20 |
| 25 | 711503 | 2 | WSR-Flat #10 |
| 26 | 711506 | 2 | WSR-Flat 5/16 STPL |
| 27 | 711523 | 1 | WSR-Wave .37 x .68 x .02 |
| 28 | 830504 | 3 | SCR-1/4-14 x .75 Pan |
| 29 | 711808 | 1 | Cotter Pin-Hair #13 |
| 30 | 829014 | 1 | Flanged Bushing |
| 31 | 712041 | 2 | Blt-Sder 1/4-20 x .44 x .37 |
| 32 | 712320 | 2 | WSR-Nylon .22 x .45 x .04 |
| 33 | 740801CE | 2 | Switch Rocker |
| 34 | 712822 | 6 | SCR-THMS 10-24 x .50 STPL |
| 35 | 715059CE | 1 | Decal Lexan Dashboard, CE |
| 36 | 740159 | 1 | SB1 75 Plug Red |
| 37 | 740131 | 1 | Brkr, Circuit Drive Motor 70 |
| 38 | 740132 | 1 | Insulator (Glastic) |
| 39 | 740216 | 1 | Gauge Battery Cond. |
| 40 | 760286 | 1 | Wire Formed Hook |
| 41 | 760592 | 1 | Knob Oval Tapered |
| 42 | 762058 | 1 | Spacer .319 x .375 x .250 |



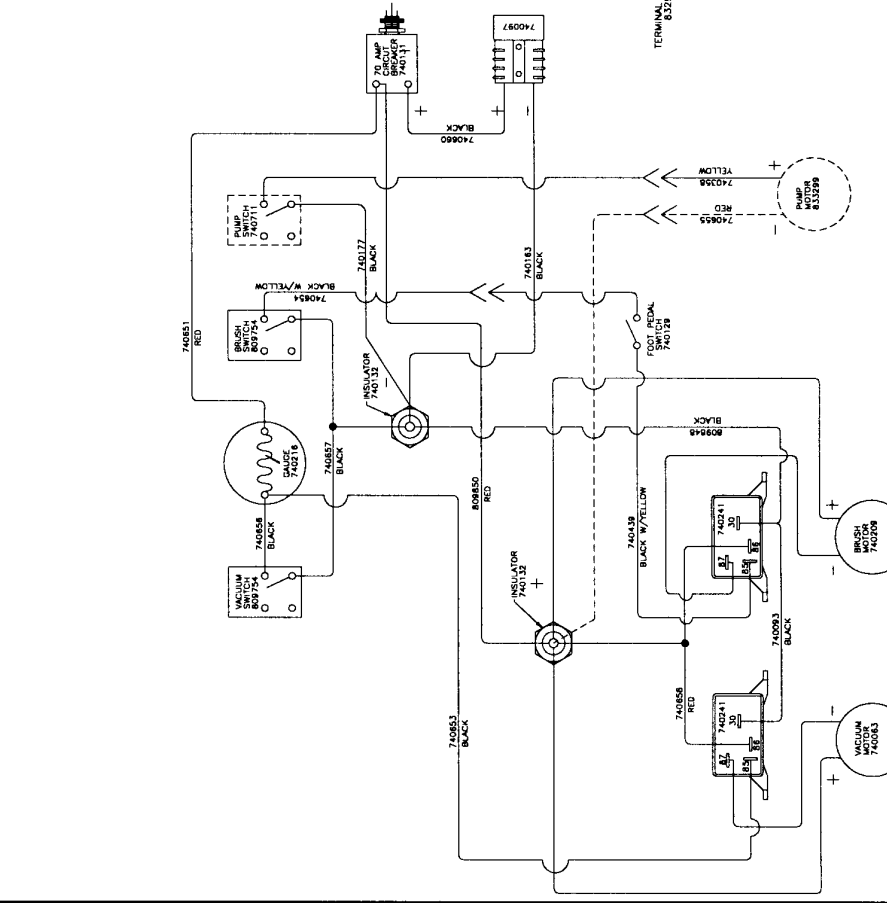
Parts List

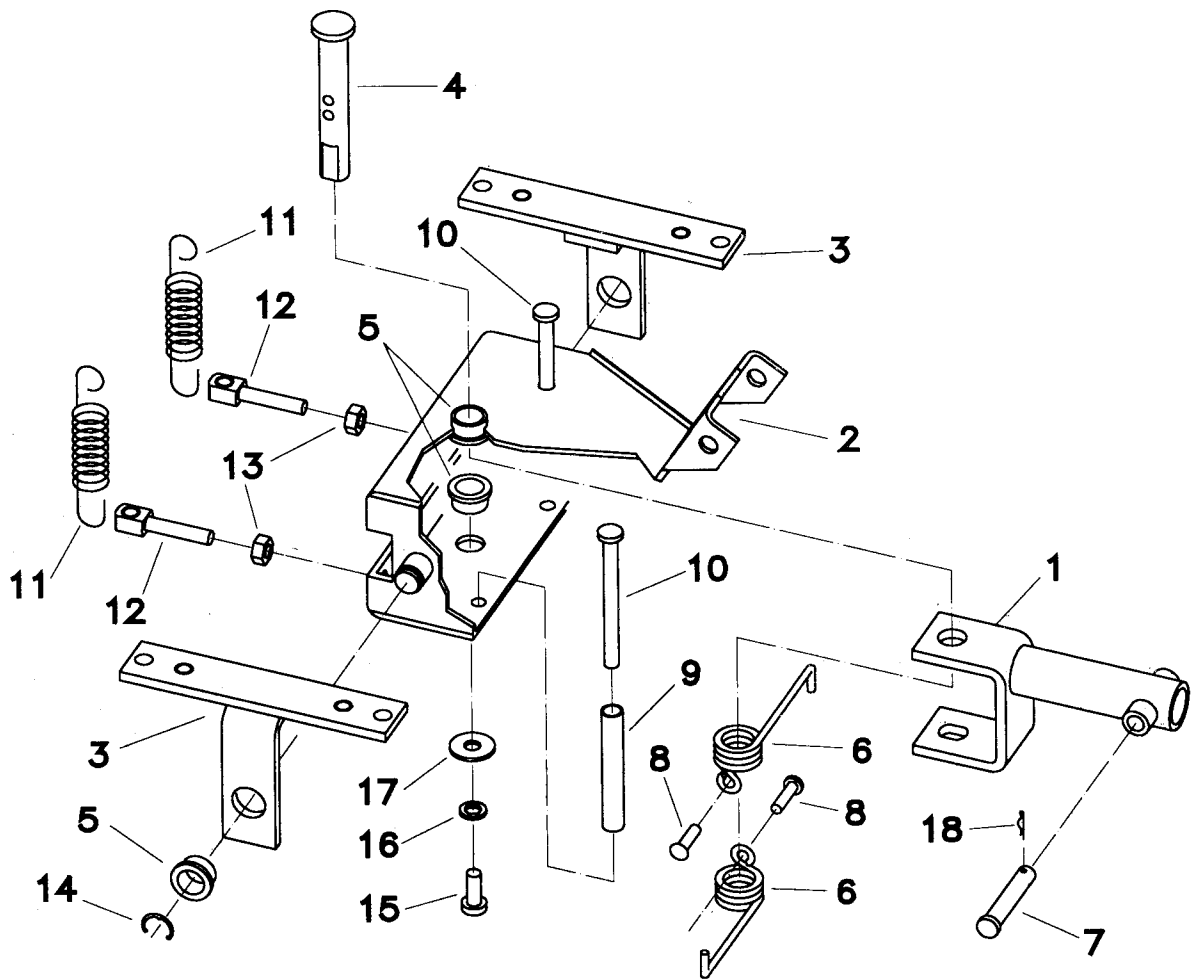
| Item | Part No. | Qty. | Description |
|------|-----------|------|----------------------------|
| 1 | 210351MCH | 1 | Squeegee Casting |
| 2 | 210352 | 1 | Rear Squeegee Blade |
| 3 | 210353 | 1 | Rear Squeegee Strap |
| 4 | 210354 | 1 | Front Squeegee Blade |
| 5 | 210355 | 1 | Front Squeegee Strap |
| 6 | 210381 | 1 | Pitch Control Bracket |
| 7 | 210118 | 2 | Knob 3-Sided 5/16 Nyloc |
| 8 | 210357 | 1 | Tube Bracket |
| 9 | 210390 | 1 | Squeegee Gasket |
| 10 | 430075 | 2 | Threaded Insert |
| 11 | 430085 | 4 | Squeegee Bumper Wheel |
| 12 | 430074 | 2 | Adjusting Nut |
| 13 | 710975 | 2 | SCR-SC 5/16-18 x .87 BH |
| 14 | 711374 | 2 | Nut-Nyloc 5/16-18 |
| 15 | 260267 | 2 | Wing Bolt 3/8-16 x .75 |
| 16 | 70-516-16 | 2 | Bolt-Carr 5/16 x 1.00 |
| 17 | 712571 | 2 | Bolt-SS Carr 1/4-20 x 1.50 |
| 18 | 712572 | 2 | Bolt-SS Carr 1/4-20 x 2.00 |
| 19 | 712573 | 2 | Bolt-SS Carr 1/4-20 x 2.50 |
| 20 | 711504 | 8 | WSR-Flat .25 x .56 SS |
| 21 | 712668 | 8 | Wing Nut 1/4-20 SS |
| 22 | 210102 | 1 | Reinforcing Blade |
| 23 | 711539 | 2 | WSR-External Lock 3/8 |
| 24 | 712574 | 2 | Bolt-SS Carr 1/4-20 x 3.00 |

WIRING DIAGRAM CE MODEL



WIRING DIAGRAM STANDARD MODEL





Parts List

| Item | Part No. | Qty. | Description |
|------|----------|------|---------------------------|
| 1 | 210379 | 1 | Yoke Weldment |
| 2 | 210372 | 1 | Spring Housing Weldment |
| 3 | 210392 | 2 | Pivot Bracket Weldment |
| 4 | 210375 | 1 | Swivel Pin |
| 5 | 260041 | 4 | ½ Oilite Bushing |
| 6 | 210391 | 2 | Torsion Spring SS |
| 7 | 210415 | 1 | Clevis Pin |
| 8 | 712811 | 2 | SCR-MC 10-24 x .50 |
| 9 | 210400 | 2 | Spacer Tube |
| 10 | 710592 | 2 | SCR-MC ¼-20 x 2.75 |
| 11 | 210413 | 2 | Return Spring |
| 12 | 260292 | 2 | Swing Bolt |
| 13 | 711316 | 2 | Nut-Hex ¼-20 |
| 14 | 711713 | 2 | ½ Retaining Ring |
| 15 | 710180 | 1 | SCR-MC ¼-20 x .75 |
| 16 | 711535 | 1 | WSR-Helical ¼ |
| 17 | 711519 | 1 | WSR-Flat .25 x 1.00 x .06 |
| 18 | 711808 | 1 | Cotter Pin |

LIMITED WARRANTY

Minuteman International, Inc. warrants to the original purchaser/user that this product is free from defects in workmanship and materials under normal use and service for a period of three years from date of purchase. In addition, Minuteman International, Inc. will, at its option, honor labor warranty claims for the first 12 months from date of sale, provided such claims are submitted through and approved by factory authorized repair stations. Minuteman International, Inc. will, at its option, repair or replace without charge, except for transportation costs, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals.

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If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

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