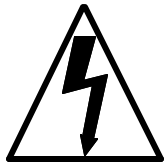
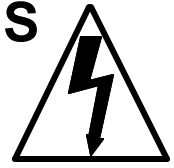


# WRANGLER 20 B



## IMPORTANT SAFETY INSTRUCTIONS



READ AND UNDERSTAND ALL INSTRUCTIONS  
BEFORE OPERATING OR SERVICING MACHINE

**DANGER!** Failure to Observe These Instructions Can Cause Personal Injury to Machine Operator, By-standers or Possible Machine Damage.

- \* **NEVER** attempt to operate this machine unless you have been trained in its operation.
- \* **NEVER** allow an untrained person to operate this machine.
- \* Use this machine **ONLY** as described in this manual.
- \* **NEVER** attempt to operate this machine if it is not working properly or has been damaged in any manner.
- \* **NEVER** disconnect or modify any switch or safety device (circuit breaker) on this machine.
- \* **ALWAYS** operate this machine from the rear control panel, not from the side.
- \* **NEVER** drop or insert any object into any machine opening.
- \* **ALWAYS** keep face, fingers, hair or any body part, or loose clothing away from any machine opening or moving part (revolving brush, pad driver, or vacuum motor).
- \* **NEVER** operate this machine with any air opening blocked. Keep all air openings free of dust, lint, hair etc.
- \* **NEVER** spray this machine with water or any liquids.
- \* **NEVER** allow the vacuum motor or battery charging plug to get wet. The vacuum motor and battery charging plug will short out if wet.
- \* **NEVER** operate this machine when battery charger is plugged in.
- \* **NEVER** operate this machine in an explosive atmosphere (grain dust, flammable liquids or fumes).
- \* **NEVER** use flammable liquids (gas, kerosene, solvents or thinners) to clean floor.
- \* **ALWAYS** turn the brush switch **OFF** when attaching pads or brushes.
- \* **NEVER** operate this machine with the splash skirt removed.
- \* **NEVER** leave this machine unattended.
- \* **ALWAYS** store this machine indoors in a dry, cool area.

**PERSONAL INJURY AND PROPERTY DAMAGE FROM THIS MACHINE OVERTURNING, BATTERIES FALLING OUT OF THE MACHINE OR BATTERIES LEAKING ACID CAN OCCUR IF YOU DO NOT FOLLOW THESE PRECAUTIONS:**

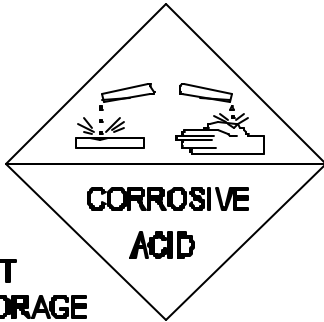
- \* **ALWAYS** be sure that the ramp is secured to the vehicle before attempting to load / unload.
- \* **ALWAYS** use extreme caution when operating this machine on a ramp or loading / unloading this machine into or out of a truck. Use extreme caution if the ramp is wet, oily or covered with cleaning chemicals.
- \* **NEVER** turn this machine on an ramp or incline.
- \* **NEVER** stop this machine on a ramp or incline.
- \* **NEVER** attempt to climb a grade or operate this machine on a ramp or incline of more than 20 degrees.
- \* **NEVER** park or store this machine near a dock, on ramps, near a furnace, boiler, open flame, or other high heat source.
- \* **NEVER** allow this machine to freeze.
- \* **NEVER** store any items on this machine.

**ALL** repair service must be performed by an NSS authorized distributor/service station. Use only NSS original equipment parts.

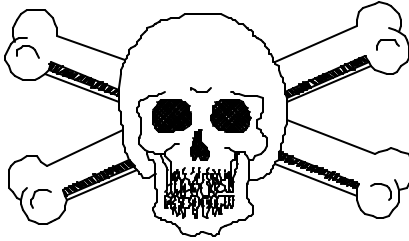
## SAVE THESE INSTRUCTIONS



# BATTERY INSTALLATION INSTRUCTIONS



**WET  
STORAGE  
BATTERY**



**POISON/DANGER  
CAUSES SEVERE BURNS**

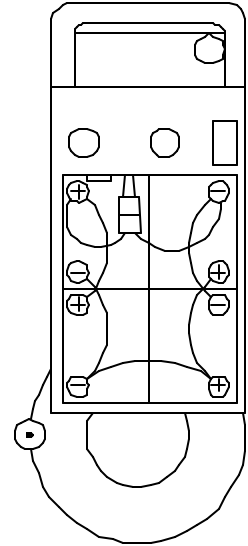
**READ BEFORE INSTALLING OR SERVICING  
BATTERIES TO PREVENT PERSONAL INJURY.**

- \* **ALWAYS** wear eye protection and protective clothing when working with the batteries.
- \* The batteries contain **ACID**. Avoid contact with skin or clothing.
- \* **ANTIDOTE:**
  - EYES** Flush with water 15 minutes, Call physician.
  - INTERNAL** Drink water or milk. Follow with Milk of Magnesia, beaten egg or vegetable oil. Call physician.
- \* Service should be done only by authorized, trained personnel.
- \* Charge batteries in a well ventilated area with the battery compartment opened by raising the recovery tank.
- \* **Batteries generate explosive gases - keep sparks, flames, burning cigarettes, or other ignition sources away at all times.**
- \* Never lay anything on top of batteries, to prevent arcing.
- \* Turn off all switches during installation and service.
- \* To maintain machine balance, always slide batteries into position as shown on the battery installation decal.
- \* Connect the batteries as shown on the battery installation decal to avoid shorting out the batteries and the electrical system.
- \* Disconnect the battery leads before performing any service or repairs.
- \* **ALWAYS** make sure the battery charger is turned off when connecting / disconnecting to machine to prevent sparking.

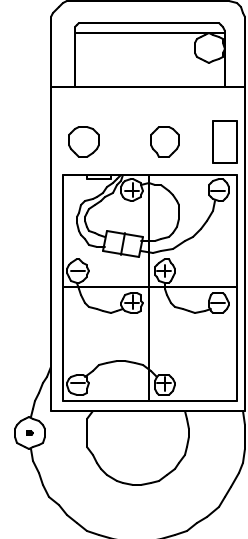
## STORAGE

- \* **ALWAYS** store machine indoors in a dry, cool area.
- \* **ALWAYS** empty and rinse clean the solution and recovery tanks after every use.
- \* **ALWAYS** remove and clean the squeegee assembly after every use.
- \* **ALWAYS** remove the pad driver or brush after every use.
- \* **NEVER** store machine near furnaces, boilers or open flames which may damage machine.
- \* **NEVER** store any item on the machine.
- \* **ALWAYS** protect the machine from freezing temperatures.

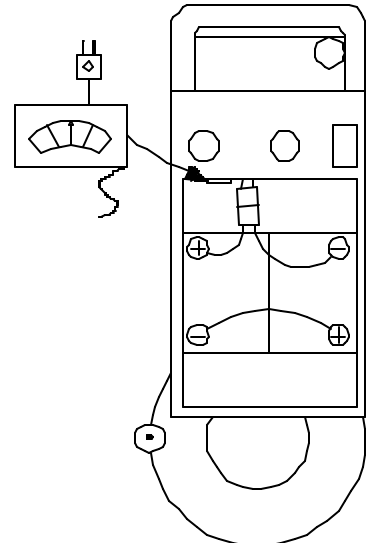
**4 X 12 VOLT**



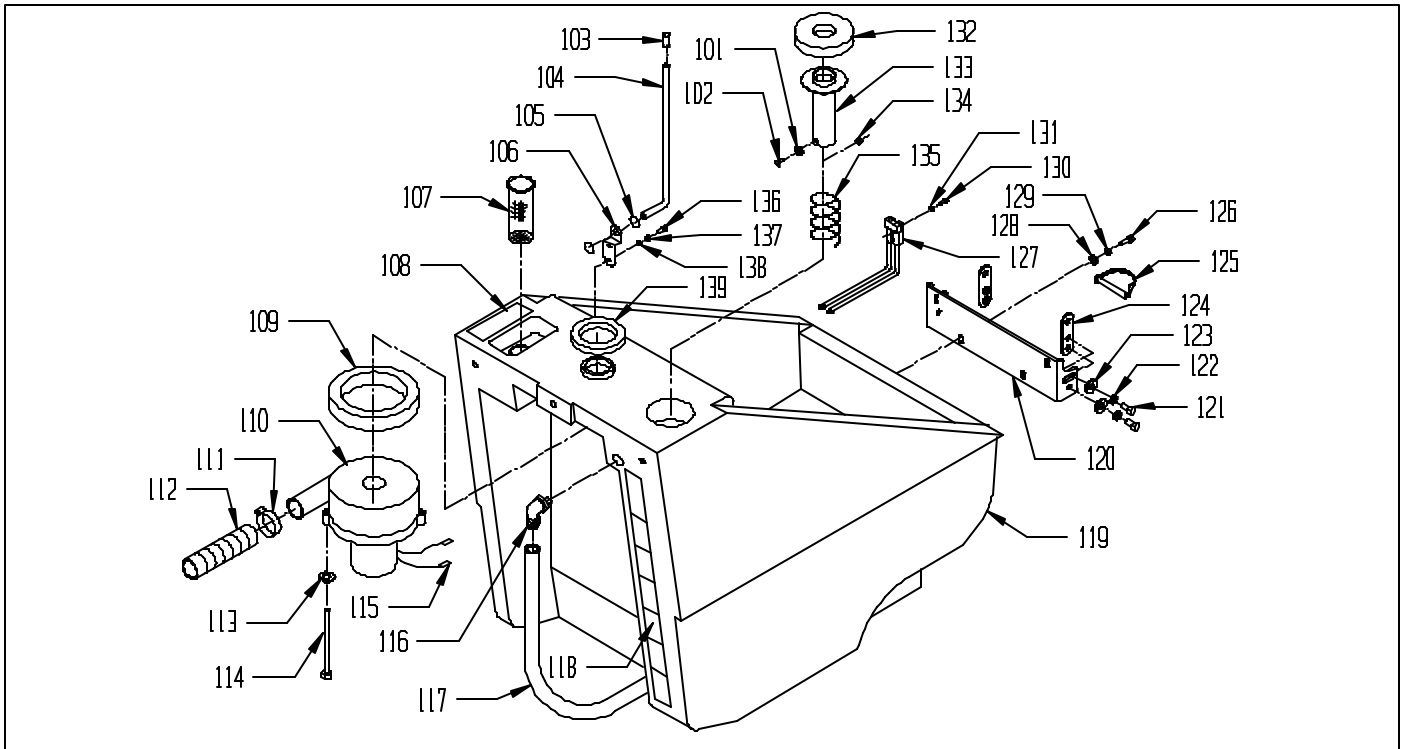
**4 X 6 VOLT**



**2 X 12 VOLT**



# SOLUTION TANK

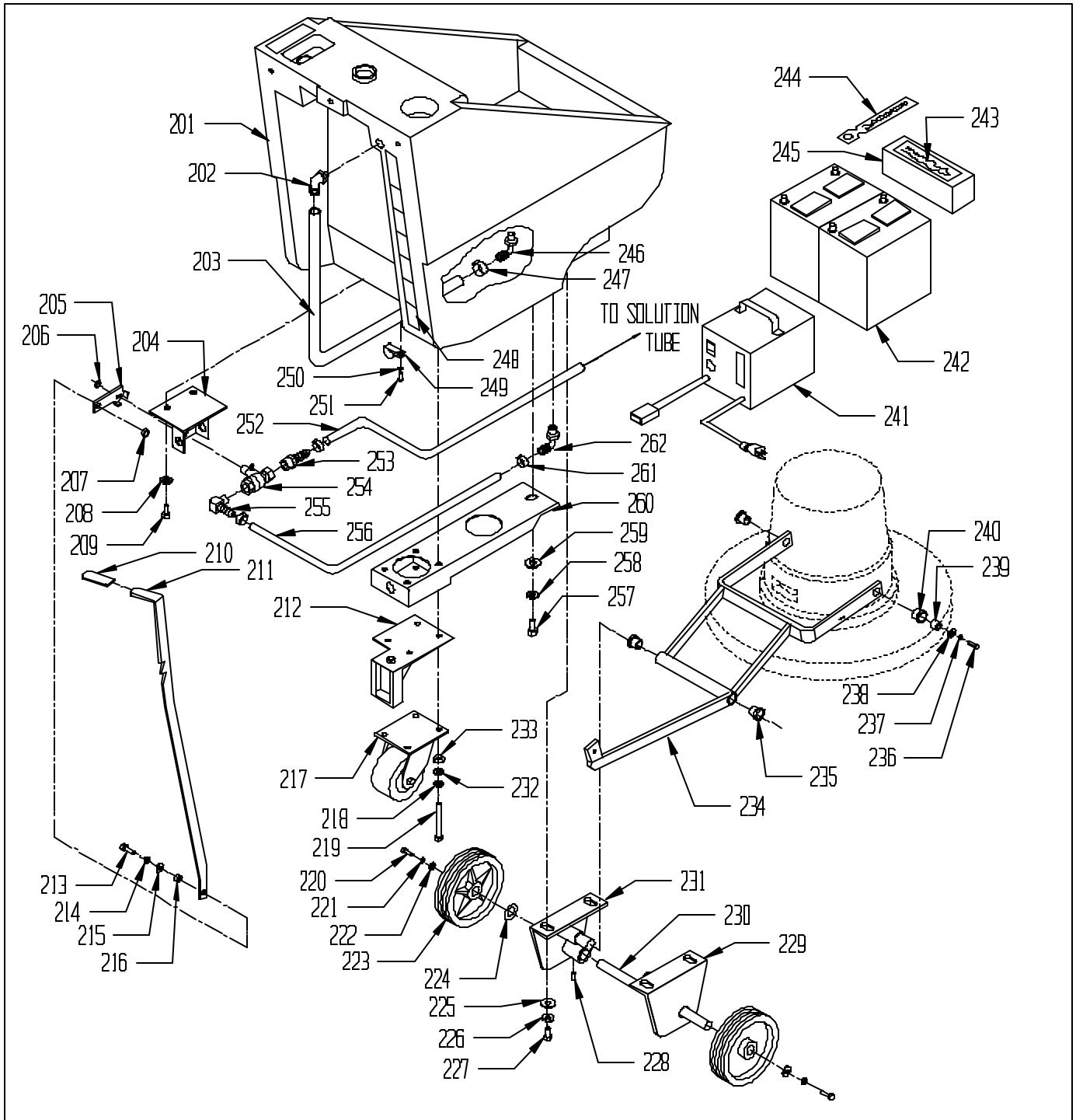


| ITEM | PART NO.   | DESCRIPTION  | QTY |
|------|------------|--|-----|
| 101  | 91-2-032-0 | #10 SPLIT LOCK WASHER  | 1   |
| 102  | 91-2-038-0 | 10-24 X 3/8 ROUND HEAD PHILLIPS MACHINE SCREW                | 1   |
| 103  | 50-9-253-1 | SOLUTION FEED TUBE CAP                                       | 1   |
| 104  | 23-9-163-6 | HOOD ROD   | 1   |
| 105  | 23-9-256-1 | CIRCLE COTTER PIN - #CC-7                                    | 2   |
| 106  | 23-9-164-6 | ROD BRACKET  | 1   |
| 107  | 27-9-189-9 | SOLUTION TANK, FILTER  | 1   |
|      | 27-9-189-1 | BAG, TANK SCREEN   | 1   |
|      | 27-9-176-1 | RING   | 1   |
| 108  | 23-9-217-1 | CLEAN WATER TANK DECAL                                       | 1   |
| 109  | 46-9-010-1 | VACUUM MOTOR / FLOAT GASKET                                  | 1   |
| 110  | 23-9-557-1 | VACUUM MOTOR 24 VOLT, 3 STAGE                                | 1   |
|      | 23-9-257-1 | REPLACEMENT CARBON BRUSH                                     | 2   |
| 111  | 44-9-544-1 | HOSE CLAMP 1 9/16" - 2 1/2" DIAMETER                         | 1   |
| 112  | 23-9-565-1 | VACUUM MOTOR EXHAUST HOSE                                    | 1   |
| 113  | 91-2-088-0 | 1/4 SPLIT LOCK WASHER  | 3   |
| 114  | 91-2-136-0 | 1/4-20 X 4 HEX BOLT  | 3   |
| 115  | 54-9-017-1 | 1/4 MALE SPADE TERMINAL FULLY INSULATED                      | 2   |
| 116  | 23-9-177-1 | 90 DEGREE HOSE BARB  | 1   |
| 117  | 23-9-599-7 | VINYL HOSE 3/4" I.D. X 33" LONG                              | 1   |
| 118  | 23-9-185-1 | SOLUTION LABEL   | 1   |
| 119  | 23-9-101-1 | SOLUTION TANK  | 1   |
| 120  | 23-9-594-3 | LOWER HINGE BRACKET  | 1   |
|      | 23-9-168-9 | LOWER HINGE ASSEMBLY (INCL. ITEMS 120-124)                   | 1   |
| 121  | 91-2-121-0 | 1/4-20 X 5/8 HEX BOLT  | 4   |
| 122  | 91-2-088-0 | 1/4 SPLIT LOCK WASHER  | 4   |
| 123  | 91-2-093-0 | 9/32 I.D. X 5/8 O.D. X .051/.080 THICK SAE FLAT WASHER (1/4) | 4   |
| 124  | 23-9-593-3 | ADJUSTMENT PLATE - HINGE BRACKET                             | 2   |
| 125  | 23-9-165-1 | 3/8 X 1 5/8 CLEVIS PIN - STEEL, ZINC PLATE (W/RETAINER)      | 2   |
| 126  | 91-2-125-0 | 1/4-20 X 3/4 HEX BOLT WITH NYLON PATCH                       | 4   |
| 127  | 23-9-209-1 | CHARGER PLUG, RED, 24V, WITH CON. PINS                       | 1   |
| 128  | 91-2-093-0 | 9/32 I.D. X 5/8 O.D. X .051/.080 THICK SAE FLAT WASHER (1/4) | 4   |
| 129  | 91-2-088-0 | 1/4 SPLIT LOCK WASHER  | 4   |
| 130  | 91-2-008-0 | 6/32 X 3/4 ROUND HEAD PHILLIPS MACHINE SCREW                 | 2   |
| 131  | 91-2-013-0 | #6 EXTERNAL STAR LOCK WASHER                                 | 2   |
| 132  | 23-9-159-1 | GASKET TUBE ADAPTER  | 1   |
| 133  | 23-9-157-3 | TUBE ADAPTER   | 1   |
| 134  | 91-2-036-0 | 10-24 HEX NUT WITH STAR LOCK WASHER                          | 1   |
| 135  | 23-9-158-1 | SPRING, TUBE ADAPTOR   | 1   |
| 136  | 91-2-117-0 | 1/4-20 X 1/2 HEX BOLT  | 2   |
| 137  | 91-2-088-0 | 1/4 SPLIT LOCK WASHER  | 2   |
| 138  | 91-2-093-0 | 9/32 I.D. X 5/8 O.D. X .051/.080 THICK SAE FLAT WASHER (1/4) | 2   |
| 139  | 02-9-434-1 | TOP MOTOR SEAL - NEOPRENE                                    | 1   |

## WHEEL AND VALVE ASSEMBLY

| ITEM | PART NO.   | DESCRIPTION  | QTY |
|------|------------|--|-----|
| 201  | 23-9-101-1 | SOLUTION TANK  | 1   |
| 202  | 23-9-177-1 | 90 DEGREE HOSE BARB  | 1   |
| 203  | 23-9-599-7 | VINYL HOSE 3/4" I.D. X 33" LONG                                  | 1   |
| 204  | 23-9-531-3 | SOLUTION VALVE BRACKET   | 1   |
| 205  | 23-9-547-1 | VALVE LEVER (SHORT)  | 1   |
| 206  | 91-2-153-1 | 5/16-24 HEX NUT  | 1   |
| 207  | 91-2-089-0 | 1/4-20 THIN HEX NUT WITH NY-LOK INSERT                           | 1   |
| 208  | 91-2-152-0 | 5/16 SPLIT LOCK WASHER   | 2   |
| 209  | 91-2-164-0 | 5/16-18 X 3/4 HEX BOLT   | 2   |
| 210  | 23-9-118-1 | VALVE LEVER GRIP   | 1   |
| 211  | 26-9-028-3 | SOLUTION VALVE LEVER   | 1   |
| 212  | 23-9-574-3 | SQUEEGEE MOUNT BRACKET   | 1   |
| 213  | 91-2-125-0 | 1/4-20 X 3/4 HEX BOLT WITH NYLON PATCH                           | 1   |
| 214  | 91-2-088-0 | 1/4 SPLIT LOCK WASHER  | 1   |
| 215  | 91-2-093-0 | 9/32 I.D. X 5/8 O.D. X .051/.080 THICK SAE FLAT WASHER (1/4)     | 1   |
| 216  | 27-9-128-6 | BUSHING SPACER   | 1   |
| 217  | 26-9-258-1 | 4" SOFT GREY CASTER COMPLETE                                     | 1   |
|      | 44-9-049-1 | REPLACEMENT SOFT CASTER WHEEL ONLY                               | 1   |
|      | 44-9-050-1 | RED WHEEL 4" CASTER COMPLETE                                     | 1   |
|      | 44-9-039-1 | REPLACEMENT RED CASTER WHEEL ONLY                                | 1   |
| 218  | 91-2-210-0 | 3/8 SPLIT LOCK WASHER  | 4   |
| 219  | 91-2-235-0 | 3/8-16 X 3 HEX BOLT  | 4   |
| 220  | 91-2-226-0 | 3/8-16 X 1 HEX BOLT  | 2   |
| 221  | 91-2-210-0 | 3/8 SPLIT LOCK WASHER  | 2   |
| 222  | 91-2-140-0 | 13/32 I.D. X 13/16 O.D. X .051/.080 THICK WROUGHT WASHER (3/8)   | 2   |
| 223  | 23-9-193-1 | WHEEL, 8" W/GROOVES  | 2   |
| 224  | 52-9-341-1 | 3/4 I.D. X 1 1/4 O.D. X .071/.082 THICK FLAT WASHER (14 GAGE)    | 1   |
| 225  | 91-2-245-0 | 17/32 I.D. X 1 1/16 O.D. X .074/.121 THICK SAE FLAT WASHER (1/2) | 4   |
| 226  | 91-2-242-0 | 1/2 SPLIT LOCK WASHER  | 4   |
| 227  | 91-2-250-0 | 1/2-13 X 7/8 HEX BOLT  | 4   |
| 228  | 91-2-085-0 | 1/4-20 X 5/16 SET SCREW - KNURL POINT                            | 2   |
| 229  | 23-9-569-3 | RIGHT AXLE SUPPORT BRACKET                                       | 1   |
| 230  | 23-9-141-6 | AXLE   | 1   |
| 231  | 23-9-570-3 | LEFT AXLE SUPPORT BRACKET  | 1   |
| 232  | 91-2-198-0 | 7/16 I.D. X 1 O.D. X .075/.080 THICK SAE FLAT WASHER (3/8)       | 4   |
| 233  | 52-9-354-1 | 13/32 I.D. X 1 O.D. X .12 THICK FLAT WASHER (11 GAGE)            | 4   |
| 234  | 23-9-568-9 | LIFT FORK ASSEMBLY (INCL, ITEMS 234, 235, 240)                   | 1   |
|      | 23-9-568-3 | LIFT FORK  | 1   |
| 235  | 27-9-137-1 | FLANGE BEARING FF-838-3  | 2   |
| 236  | 91-2-254-0 | 1/2-13 X 1 1/4 HEX BOLT  | 2   |
| 237  | 91-2-242-0 | 1/2 SPLIT LOCK WASHER  | 2   |
| 238  | 91-2-245-0 | 17/32 I.D. X 1 1/16 O.D. X .074/.121 THICK SAE FLAT WASHER (1/2) | 2   |
| 239  | 27-9-075-6 | BUSHING SPACER   | 2   |
| 240  | 27-9-076-1 | FLANGE BEARING, FF-71  | 2   |
| 241  | 23-9-199-1 | 24 VOLT BATTERY CHARGER 50 HZ 240 VOLT AC                        | 1   |
|      | 23-9-201-1 | 24 VOLT BATTERY CHARGER 120 VOLT AC - GELL BATTERY               | 1   |
|      | 23-9-251-1 | BATTERY CHARGER 24 VOLT DC , 100 VOLT AC EXPORT ONLY             | 1   |
|      | 23-9-294-1 | 24 VOLT BATTERY CHARGER 240 VOLT AC - GEL BATTERY                | 1   |
|      | 23-9-295-1 | 24 VOLT 120/250, 50/60 HZ BATTERY CHARGER JOHNTEC                | 1   |
|      | 23-9-607-1 | CHARGER - 24 VOLT BATTERY, 10A, 120 VOLT                         | 1   |
|      | 23-9-608-1 | CHARGER - 24 VOLT BATTERY, 25A, 120 VOLT                         | 1   |
| 242  | 23-9-210-1 | BATTERY (12 VOLT, 100 A.H.)                                      | 4   |
|      | 23-9-211-1 | BATTERY (12 VOLT, 130 A.H.)                                      | 2   |
|      | 33-9-036-1 | BATTERY 6 VOLT, 220 A.H.)  | 4   |
|      | 23-9-273-1 | BATTERY 12 VOLT GELL CELL)                                       | 2   |
|      | 23-9-281-1 | BATTERY (12 VOLT, 100 A.H.) DRY)                                 | 4   |
|      | 23-9-282-1 | BATTERY (12 VOLT, 130 A.H.) DRY)                                 | 2   |
| 243  | 23-9-246-1 | BATTERY BLOCK LABEL  | 2   |
| 244  | 23-9-276-1 | WARNING TAG - BATTERY TERMINAL                                   | 1   |
| 245  | 23-9-219-1 | BATTERY BLOCK  | 2   |
| 246  | 23-9-177-1 | 90 DEGREE HOSE BARB  | 1   |
| 247  | 23-9-214-1 | HOSE CLAMP, 11/16" TO 1 1/4" DIAMETER                            | 1   |
| 248  | 23-9-185-1 | SOLUTION LABEL   | 1   |
| 249  | 23-9-576-1 | CLAMP, TUBE  | 1   |

# WHEEL AND VALVE ASSEMBLY

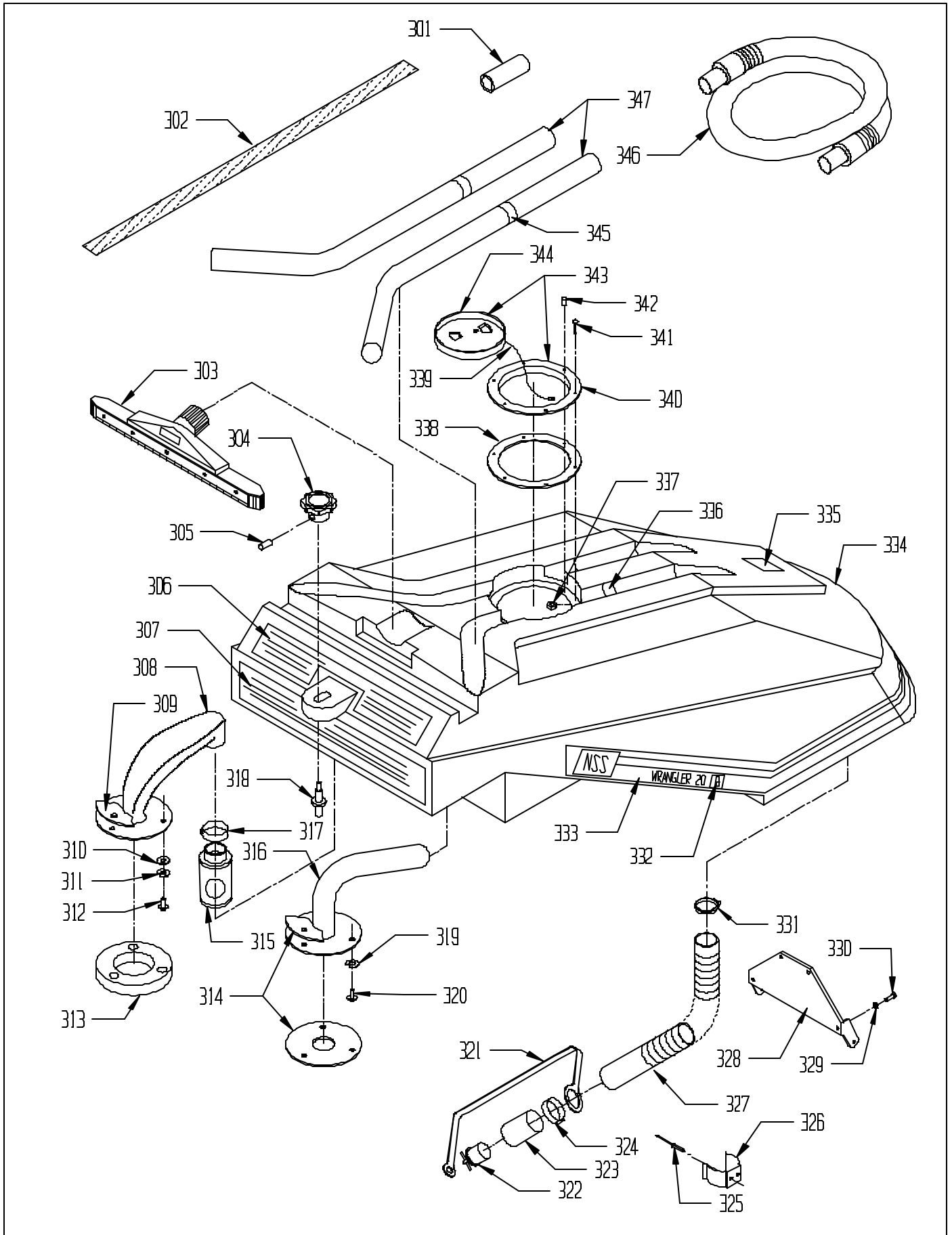


|     |            |  |   |
|-----|------------|--|---|
| 250 | 91-2-152-0 | 5/16 SPLIT LOCK WASHER   | 1 |
| 251 | 91-2-164-0 | 5/16-18 X 3/4 HEX BOLT   | 1 |
| 252 | 23-9-598-7 | VINYL HOSE 3/8" I.D. X 23" LONG                                  | 1 |
| 253 | 38-9-066-1 | HOSE BARB 3/8 BARB X 1/4 MNPT                                    | 1 |
| 254 | 13-9-153-1 | SOLUTION VALVE   | 1 |
| 255 | 27-9-179-1 | 90 DEGREE HOSE BARB - 1/4 NPT                                    | 1 |
| 256 | 23-9-597-7 | VINYL HOSE 3/8" I.D. X 14" LONG                                  | 1 |
| 257 | 91-2-250-0 | 1/2-13 X 7/8 HEX BOLT  | 1 |
| 258 | 91-2-242-0 | 1/2 SPLIT LOCK WASHER  | 1 |
| 259 | 91-2-245-0 | 17/32 I.D. X 1 1/16 O.D. X .074/.121 THICK SAE FLAT WASHER (1/2) | 1 |
| 260 | 23-9-532-3 | CASTER CHANNEL   | 1 |
| 261 | 23-9-248-1 | HOSE CLAMP, 7/32" TO 5/8" DIAMETER                               | 3 |
| 262 | 24-9-060-1 | FITTING, ELL 3/8 BARB X 1/4 MNPT                                 | 1 |

## RECOVERY TANK ASSEMBLY

| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>   | <u>QTY</u> |
|-------------|-----------------|--|------------|
| 301         | 22-9-121-1      | 5" ALUMINUM CONNECTOR  | 1          |
| 302         | 23-9-124-1      | HOSE STRAP   | 1          |
| 303         | 57-9-701-1      | TOOL - SQUEEGEE W/WHEELS, 15"                                | 1          |
| 304         | 44-9-052-1      | LOAD ADJUST KNOB   | 1          |
| 305         | 91-2-064-0      | 10-32 X 1/4 SET SCREW - CUP POINT                            | 1          |
| 306         | 23-9-178-1      | WARNING / OPERATE LABEL                                      | 1          |
| 307         | 23-9-566-1      | TANK DRAIN LABEL   | 1          |
| 308         | 23-9-545-1      | VACUUM TUBE  | 1          |
| 309         | 23-9-161-1      | INLET TUBE GASKET  | 1          |
| 310         | 23-9-160-1      | VACUUM TUBE GASKET   | 1          |
| 311         | 91-2-093-0      | 9/32 I.D. X 5/8 O.D. X .051/.080 THICK SAE FLAT WASHER (1/4) | 3          |
| 312         | 91-2-097-1      | 1/4 EXTERNAL STAR LOCK WASHER                                | 3          |
| 313         | 91-2-100-0      | 1/4-20 X 5/8 TRUSS HEAD PHILLIPS MACHINE SCREW               | 3          |
| 314         | 23-9-161-1      | INLET TUBE GASKET  | 2          |
| 315         | 23-9-154-1      | FLOAT SCREEN ASSEMBLY  | 1          |
| 316         | 23-9-156-3      | INLET TUBE   | 1          |
| 317         | 48-9-267-1      | HOSE CLAMP, 1 1/16" TO 2" DIAMETER                           | 1          |
| 318         | 23-9-162-6      | STUD, HOOD KNOB  | 1          |
| 319         | 91-2-097-1      | 1/4 EXTERNAL STAR LOCK WASHER                                | 3          |
| 320         | 91-2-100-0      | 1/4-20 X 5/8 TRUSS HEAD PHILLIPS MACHINE SCREW               | 3          |
| 321         | 27-9-188-1      | PLUG STRAP   | 1          |
| 322         | 27-9-562-1      | DRAIN PLUG   | 1          |
| 323         | 23-9-166-6      | HOSE TUBE  | 1          |
| 324         | 23-9-216-1      | TUBE HOSE CLAMP, CRIMP-ON TYPE                               | 1          |
| 325         | 23-9-175-1      | 1/8" X 5/8" DOME HEAD POP RIVET - STEEL                      | 2          |
| 326         | 23-9-213-1      | SPRING CLIP, HOSE  | 1          |
| 327         | 23-9-167-1      | DRAIN HOSE, CRUSH PROOF                                      | 1          |
| 328         | 23-9-169-3      | UPPER HINGE  | 1          |
| 329         | 91-2-088-0      | 1/4 SPLIT LOCK WASHER  | 4          |
| 330         | 91-2-121-0      | 1/4-20 X 5/8 HEX BOLT  | 4          |
| 331         | 44-9-544-1      | HOSE CLAMP, 1 9/16 - 2 1/2 DIAMETER                          | 1          |
| 332         | 23-9-186-1      | LABEL, B   | 2          |
| 333         | 23-9-181-1      | RIGHT SIDE LABEL   | 1          |
|             | 23-9-180-1      | LEFT SIDE LABEL  | 1          |
| 334         | 23-9-544-1      | RECOVERY TANK  | 1          |
| 335         | 27-9-196-1      | BATTERY COVER LABEL - NSS / HORSE                            | 1          |
| 336         | 23-9-587-7      | VELCRO HOOK, P.S. X 2"                                       | 2          |
| 337         | 91-2-036-0      | 10-24 HEX NUT WITH STAR LOCK WASHER                          | 2          |
| 338         | 26-9-089-1      | RECOVERY TANK LID GASKET                                     | 1          |
| 339         | 26-9-093-1      | LID CHAIN RECOVERY TANK                                      | 1          |
| 340         | 26-9-092-1      | LID MOUNTING RING  | 1          |
| 341         | 91-2-045-0      | 10-24 X 1 ROUND HEAD PHILLIPS MACHINE SCREW                  | 1          |
| 342         | 91-2-079-0      | 10 X 5/8 PAN HEAD PHILLIPS SHEET METAL SCREW                 | 5          |
| 343         | 26-9-088-1      | RECOVERY TANK LID ASSEMBLY (INCL. ITEMS 339, 340, 344)       | 1          |
|             | 26-9-088-9      | RECOVERY TANK LID & GASKET ASSY. (INCL. ITEMS 338-340, 344)  | 1          |
| 344         | 26-9-091-1      | CLEAR TANK LID   | 1          |
| 345         | 23-9-589-7      | VELCRO LOOP, P.S. X 6"                                       | 2          |
| 346         | 23-9-123-1      | VACUUM HOSE  | 1          |
| 347         | 57-9-033-1      | WAND - 2 PC.   | 1          |

# RECOVERY TANK ASSEMBLY

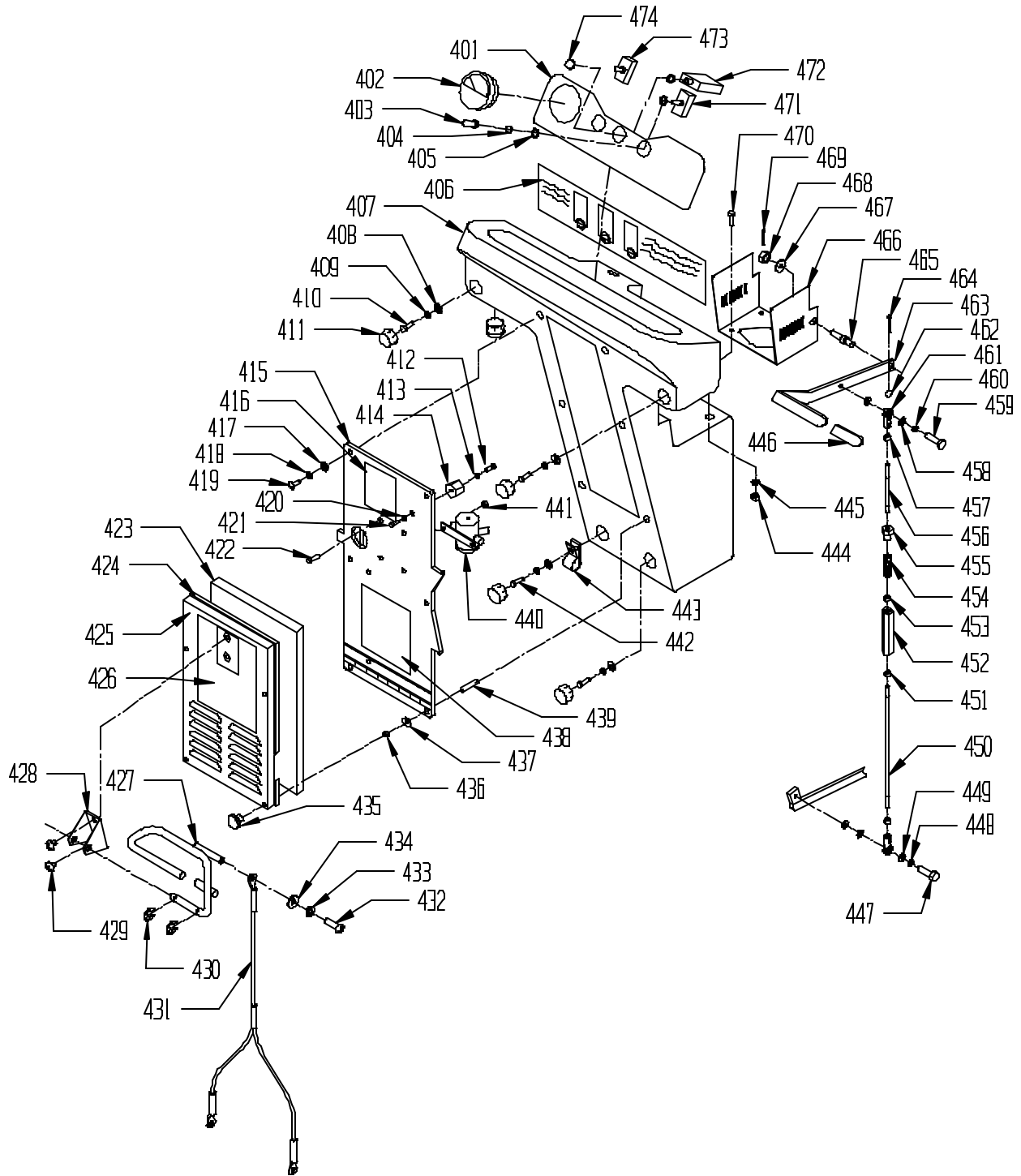


## CONTROL PANEL ASSEMBLY

| ITEM | PART NO.   | DESCRIPTION  | QTY |
|------|------------|--|-----|
| 401  | 23-9-572-1 | CONTROL LABEL  | 1   |
| 402  | 23-9-139-1 | BATTERY METER - 24 VOLT  | 1   |
| 403  | 06-9-314-1 | RUBBER SWITCH BOOT   | 2   |
| 404  | 06-9-185-1 | 1/2 SWITCH LOCK WASHER   | 2   |
| 405  | 10-9-987-1 | .516 I.D. X .813 O.D. X .027/.030 THICK FLAT WASHER              | 2   |
| 406  | 23-9-616-1 | LABEL, BATTERY LABEL   | 1   |
| 407  | 23-9-571-1 | CONTROL PANEL  | 1   |
| 408  | 91-2-139-0 | 11/32 I.D. X 11/16 O.D. X .051/.080 THICK SAE FLAT WASHER (5/16) | 4   |
| 409  | 91-2-141-0 | 5/16 EXTERNAL STAR LOCK WASHER                                   | 4   |
| 410  | 91-2-164-0 | 5/16-18 X 3/4 HEX BOLT   | 3   |
| 411  | 06-9-076-1 | PLUG BUTTON  | 5   |
| 412  | 91-2-117-0 | 1/4-20 X 1/2 HEX BOLT  | 1   |
| 413  | 91-2-097-0 | 1/4 EXTERNAL STAR LOCK WASHER                                    | 1   |
| 414  | 44-9-056-1 | INSULATED STANDOFF   | 1   |
| 415  | 23-9-539-3 | COVER PANEL  | 1   |
| 416  | 23-9-605-1 | LABEL, VAC MOTOR ACCESS  | 1   |
| 417  | 91-2-037-0 | 7/32 I.D. X 1/2 O.D. X .032/.065 THICK SAE FLAT WASHER (#10)     | 2   |
| 418  | 91-2-032-0 | #10 SPLIT LOCK WASHER  | 2   |
| 419  | 91-2-072-0 | 10-32 X 3/8 ROUND HEAD PHILLIPS MACHINE SCREW                    | 2   |
| 420  | 91-2-097-0 | 1/4 EXTERNAL STAR LOCK WASHER                                    | 1   |
| 421  | 91-2-116-0 | 1/4-20 X 3/8 HEX BOLT  | 1   |
| 422  | 91-2-116-0 | 1/4-20 X 3/8 HEX BOLT  | 2   |
| 423  | 23-9-153-1 | FILTER   | 1   |
| 424  | 04-9-355-1 | "U" SHAPED GASKET  | 1   |
| 425  | 23-9-549-3 | COVER BOX  | 1   |
| 426  | 23-9-543-1 | BRUSH LABEL  | 1   |
| 427  | 23-9-592-1 | SQUEEGEE LIFT HANDLE   | 1   |
| 428  | 13-9-079-3 | SQUEEGEE LIFT BRACKET  | 1   |
| 429  | 91-2-099-0 | 1/4-20 X 3/8 TRUSS HEAD PHILLIPS MACHINE SCREW                   | 2   |
| 430  | 13-9-094-1 | 5/16 E RING  | 2   |
| 431  | 24-9-530-1 | Y SQUEEGEE LIFT CABLE 25" / 63.5cm                               | 1   |
| 432  | 91-2-038-0 | 10-24 X 3/8 ROUND HEAD PHILLIPS MACHINE SCREW                    | 1   |
| 433  | 91-2-032-0 | #10 SPLIT LOCK WASHER  | 1   |
| 434  | 91-2-037-0 | 7/32 I.D. X 1/2 O.D. X .032/.065 THICK SAE FLAT WASHER (#10)     | 1   |
| 435  | 23-9-137-1 | KNURLED KNOB   | 4   |
| 436  | 91-2-069-0 | 10-32 HEX NUT WITH STAR LOCK WASHER                              | 4   |
| 437  | 91-2-037-0 | 7/32 I.D. X 1/2 O.D. X .032/.065 THICK SAE FLAT WASHER (#10)     | 4   |
| 438  | 23-9-617-1 | LABEL, WIRING DECAL  | 1   |
| 439  | 23-9-249-1 | 10-32 X 1 3/4 SET SCREW  | 4   |
| 440  | 23-9-135-1 | CONTACTOR 24 VOLT  | 1   |
| 441  | 91-2-091-0 | 1/4-20 HEX NUT WITH STAR LOCK WASHER                             | 2   |
| 442  | 91-2-168-0 | 5/16-18 X 1 HEX BOLT   | 1   |
| 443  | 23-9-291-1 | HOSE / WIRE TIE DOWN   | 1   |
| 444  | 91-2-091-0 | 1/4-20 HEX NUT WITH STAR LOCK WASHER                             | 4   |
| 445  | 91-2-093-0 | 9/32 I.D. X 5/8 O.D. X .051/.080 THICK SAE FLAT WASHER (1/4)     | 4   |
| 446  | 26-9-098-1 | LIFT HANDLE GRIP   | 1   |
| 447  | 91-2-230-0 | 3/8-16 X 1 1/4 HEX BOLT  | 1   |
| 448  | 91-2-210-0 | 3/8 SPLIT LOCK WASHER  | 1   |
| 449  | 91-2-198-0 | 7/16 I.D. X 1 O.D. X .075/.080 THICK SAE FLAT WASHER (3/8)       | 3   |
| 450  | 23-9-537-1 | LOCK DOWN LIFT ROD   | 1   |
| 451  | 91-2-200-0 | 3/8-16 HEX NUT   | 1   |
| 452  | 26-9-182-1 | HOUSING - SPRING, BRUSH  | 1   |
| 453  | 91-2-214-0 | 3/8-16 HEX NUT WITH NY-LOK INSERT                                | 1   |
| 454  | 26-9-184-1 | SPRING, BRUSH PRESSURE   | 1   |
| 455  | 26-9-183-1 | HOUSING - SPRING RETAINER  | 1   |
| 456  | 26-9-181-1 | SHORT LIFT ROD, BRUSH  | 1   |
| 457  | 91-2-201-0 | 3/8-24 HEX NUT   | 2   |
| 458  | 91-2-198-0 | 7/16 I.D. X 1 O.D. X .075/.080 THICK SAE FLAT WASHER (3/8)       | 2   |
| 459  | 91-2-226-0 | 3/8-16 X 1 HEX BOLT  | 1   |
| 460  | 91-2-210-0 | 3/8 SPLIT LOCK WASHER  | 1   |
| 461  | 44-9-053-1 | 3/8 ROD END  | 2   |
| 462  | 23-9-256-1 | CIRCLE COTTER PIN - #CC-7  | 1   |



# CONTROL PANEL ASSEMBLY

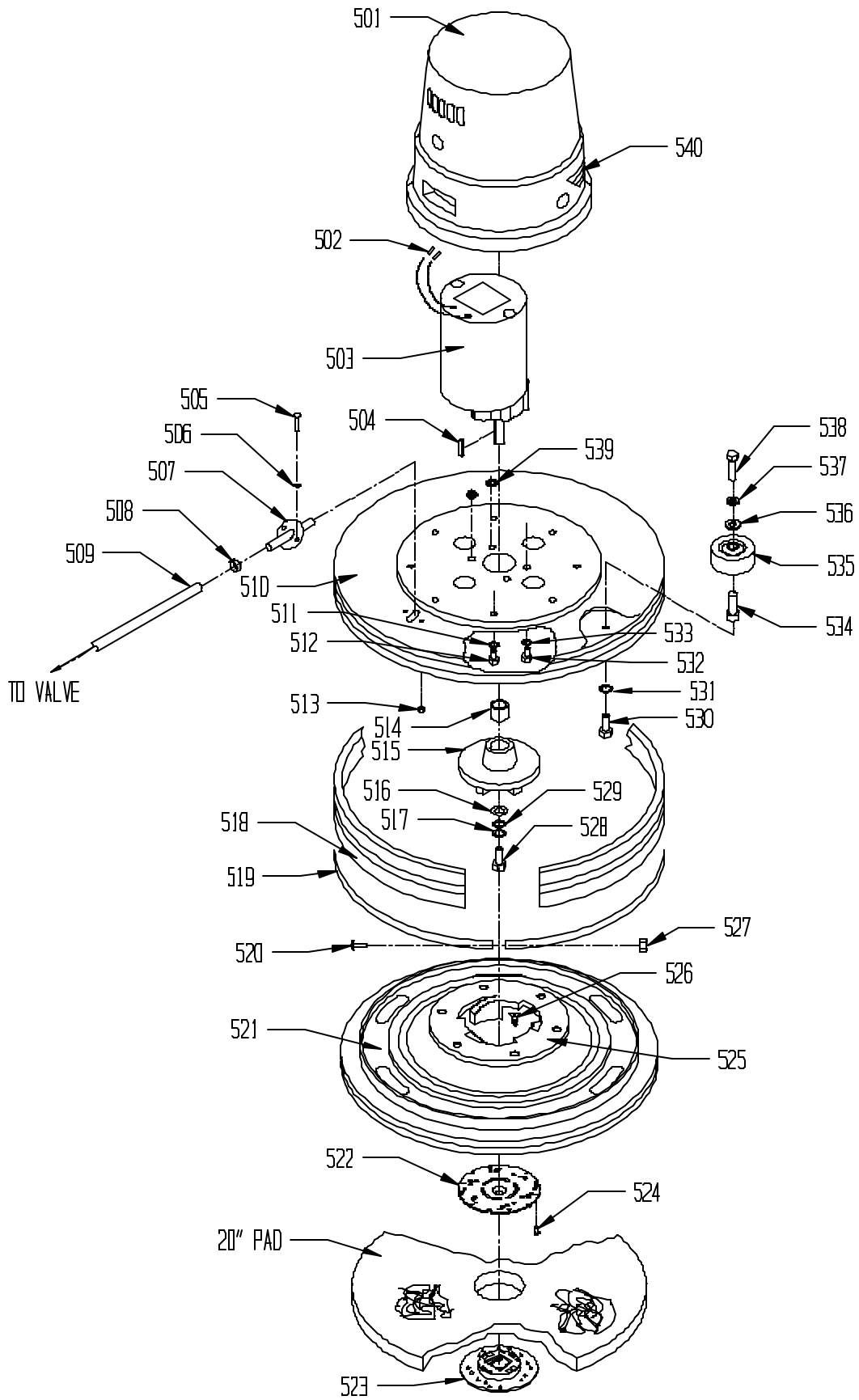


|     |            |  |   |
|-----|------------|--|---|
| 463 | 26-9-137-3 | BRUSH LIFT HANDLE  | 1 |
| 464 | 23-9-195-1 | 3/16 X 1 CLEVIS PIN  | 1 |
| 465 | 24-9-066-1 | PIVOT STUD   | 1 |
| 466 | 23-9-556-3 | BRACKET, MOUNT LIFT ARM  | 1 |
| 467 | 91-2-245-0 | 17/32 I.D. X 1 1/16 O.D. X .074/.121 THICK SAE FLAT WASHER (1/2) | 1 |
| 468 | 23-9-271-1 | 1/2-13 HEX SLOTTED NUT   | 1 |
| 469 | 52-9-652-1 | 1/8 X 1 HUMPED COTTER PIN  | 1 |
| 470 | 91-2-125-0 | 1/4-20 X 3/4 HEX BOLT WITH NYLON PATCH                           | 4 |
| 471 | 27-9-204-1 | SWITCH, TOGGLE VAC   | 1 |
| 472 | 23-9-136-1 | CIRCUIT BREAKER, 24 VOLT   | 1 |
| 473 | 44-9-110-1 | TOGGLE SWITCH MOTOR  | 1 |
| 474 | 48-9-247-1 | CIRCUIT BREAKER BUTTON SEAL                                      | 1 |

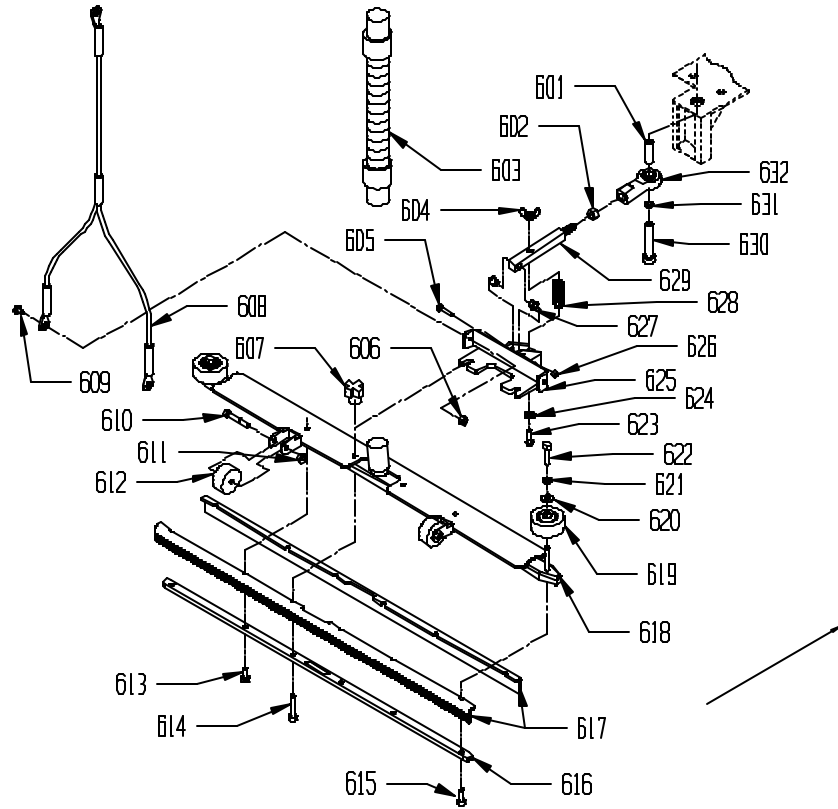
## **BRUSH HEAD ASSEMBLY**

| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>   | <u>QTY</u> |
|-------------|-----------------|--|------------|
| 501         | 23-9-303-1      | MOTOR HOUSING (IMPERIAL)   | 1          |
| 502         | 54-9-017-1      | 1/4 MALE SPADE TERMINAL FULLY INSULATED                          | 2          |
| 503         | 23-9-300-1      | GEAR MOTOR (IMPERIAL) 3/4 HP 24 VOLT DC                          | 1          |
| 504         | 27-9-268-1      | 1/4" SQUARE X 1" LONG KEY - STEEL                                | 1          |
| 505         | 91-2-024-0      | 8-32 X 1/2 ROUND HEAD PHILLIPS MACHINE SCREW                     | 2          |
| 506         | 91-2-018-0      | #8 INTERNAL STAR LOCK WASHER                                     | 2          |
| 507         | 23-9-113-6      | WATER FEED TUBE  | 1          |
| 508         | 23-9-248-1      | HOSE CLAMP, 7/32" TO 5/8" DIAMETER                               | 1          |
| 509         | 23-9-598-7      | VINYL HOSE, 3/8 I.D. X 23" LONG                                  | 1          |
| 510         | 23-9-304-3      | SKIRT (IMPERIAL)   | 1          |
| 511         | 91-2-152-0      | 5/16 SPLIT LOCK WASHER   | 8          |
| 512         | 91-2-164-0      | 5/16-18 X 3/4 HEX BOLT   | 8          |
| 513         | 91-2-019-0      | 8-32 HEX NUT WITH STAR LOCK WASHER                               | 2          |
| 514         | 23-9-306-1      | SPACER FOR IMPERIAL MOTOR  | 1          |
| 515         | 23-9-305-2      | CLUTCH CASTING   | 1          |
| 516         | 52-9-354-1      | 13/32 I.D. X 1 O.D. X .12 THICK FLAT WASHER (11 GAGE)            | 1          |
| 517         | 91-2-152-0      | 5/16 SPLIT LOCK WASHER   | 1          |
| 518         | 23-9-112-1      | BUMPER GUARD   | 1          |
| 519         | 23-9-170-2      | SKIRT BAND   | 1          |
| 520         | 91-2-045-0      | 10-24 X 1 ROUND HEAD PHILLIPS MACHINE SCREW                      | 1          |
| 521         | 26-9-260-1      | PAD DRIVER   | 1          |
| 522         | 52-9-769-1      | PAD HOLDER BASE (YELLOW)   | 1          |
| 523         | 44-9-548-1      | LOCK RING DEEP (YELLOW)  | 1          |
|             | 59-9-072-1      | SPRING CLIP PAD HOLDER SET (WHITE)                               | 1          |
| 524         | 91-2-079-0      | 10 X 5/8 PAN HEAD PHILLIPS SHEET METAL SCREW                     | 3          |
| 525         | 28-9-010-1      | CLUTCH PLATE, PLASTIC, 5" DIAMETER, 6 HOLES                      | 1          |
|             | 28-9-097-1      | 6 HOLE PLASTIC CLUTCH PLATE - BROWN, TRUFIT                      | 1          |
| 526         | —————           | 10 X 1 FLAT HEAD SCREW   | 6          |
| 527         | 91-2-035-0      | 10-24 HEX NUT WITH NY-LOK INSERT                                 | 1          |
| 528         | 91-2-164-0      | 5/16-18 X 3/4 HEX BOLT   | 1          |
| 529         | 91-2-152-0      | 5/16 SPLIT LOCK WASHER   | 1          |
| 530         | 91-2-156-0      | 5/16-18 X 1/2 HEX BOLT   | 1          |
| 531         | 91-2-141-0      | 5/16 EXTERNAL STAR LOCK WASHER                                   | 1          |
| 532         | 91-2-222-0      | 3/8-16 X 3/4 HEX BOLT  | 4          |
| 533         | 91-2-210-0      | 3/8 SPLIT LOCK WASHER  | 4          |
| 534         | 23-9-227-6      | BUMPER WHEEL AXLE  | 1          |
| 535         | 27-9-028-1      | 3" BUMPER WHEEL  | 1          |
| 536         | 91-2-139-0      | 11/32 I.D. X 11/16 O.D. X .051/.080 THICK SAE FLAT WASHER (5/16) | 1          |
| 537         | 91-2-141-0      | 5/16 EXTERNAL STAR LOCK WASHER                                   | 1          |
| 538         | 91-2-156-0      | 5/16-18 X 1/2 HEX BOLT   | 1          |
| 539         | 23-9-309-1      | 3/8 I.D. X 1 O.D. X .031 THICK FLAT WASHER (SHIM)                | 2          |
| 540         | 23-9-184-1      | MOTOR STRIPE LABEL   | 1          |

# BRUSH HEAD ASSEMBLY

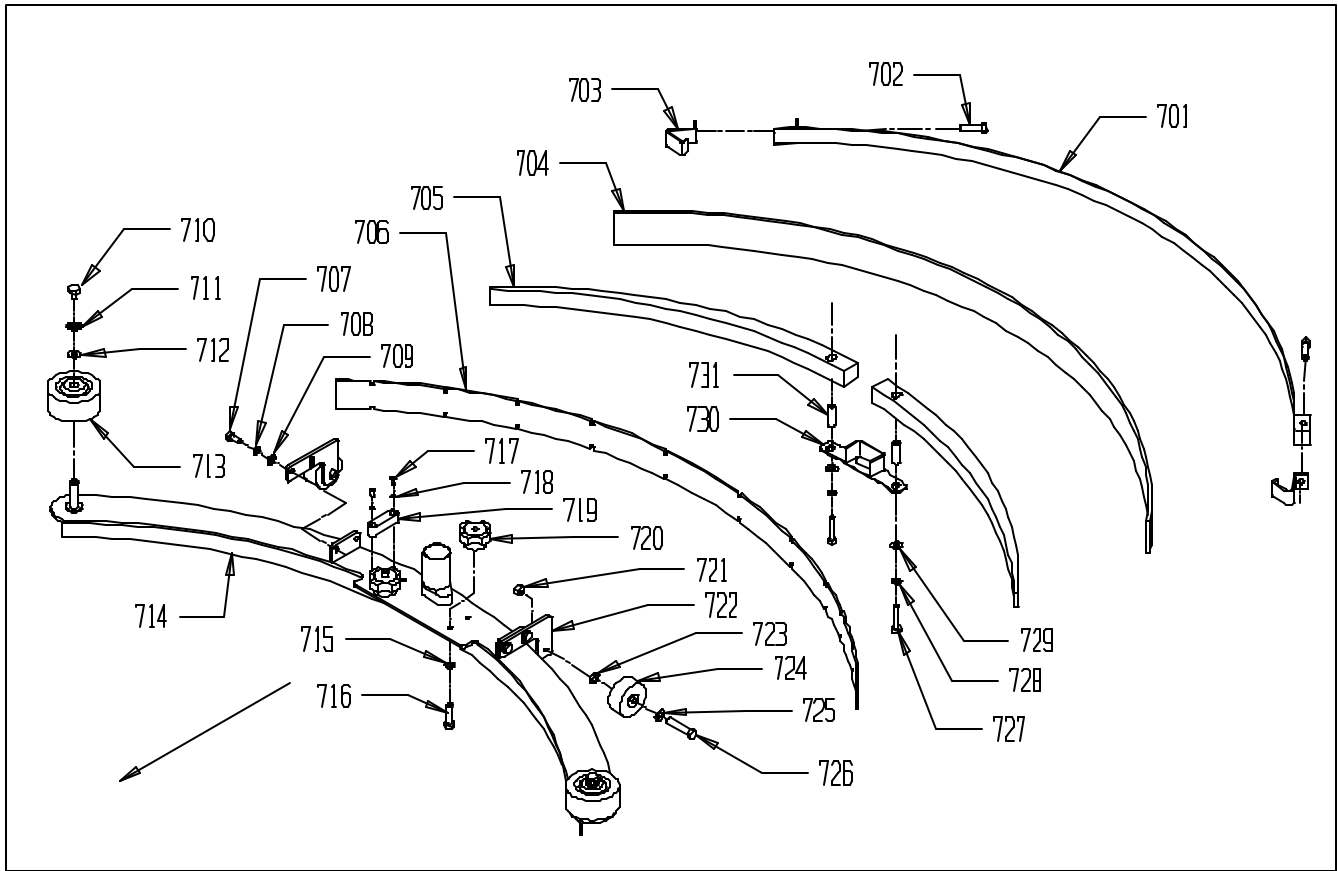


# SQUEEGEE ASSEMBLY



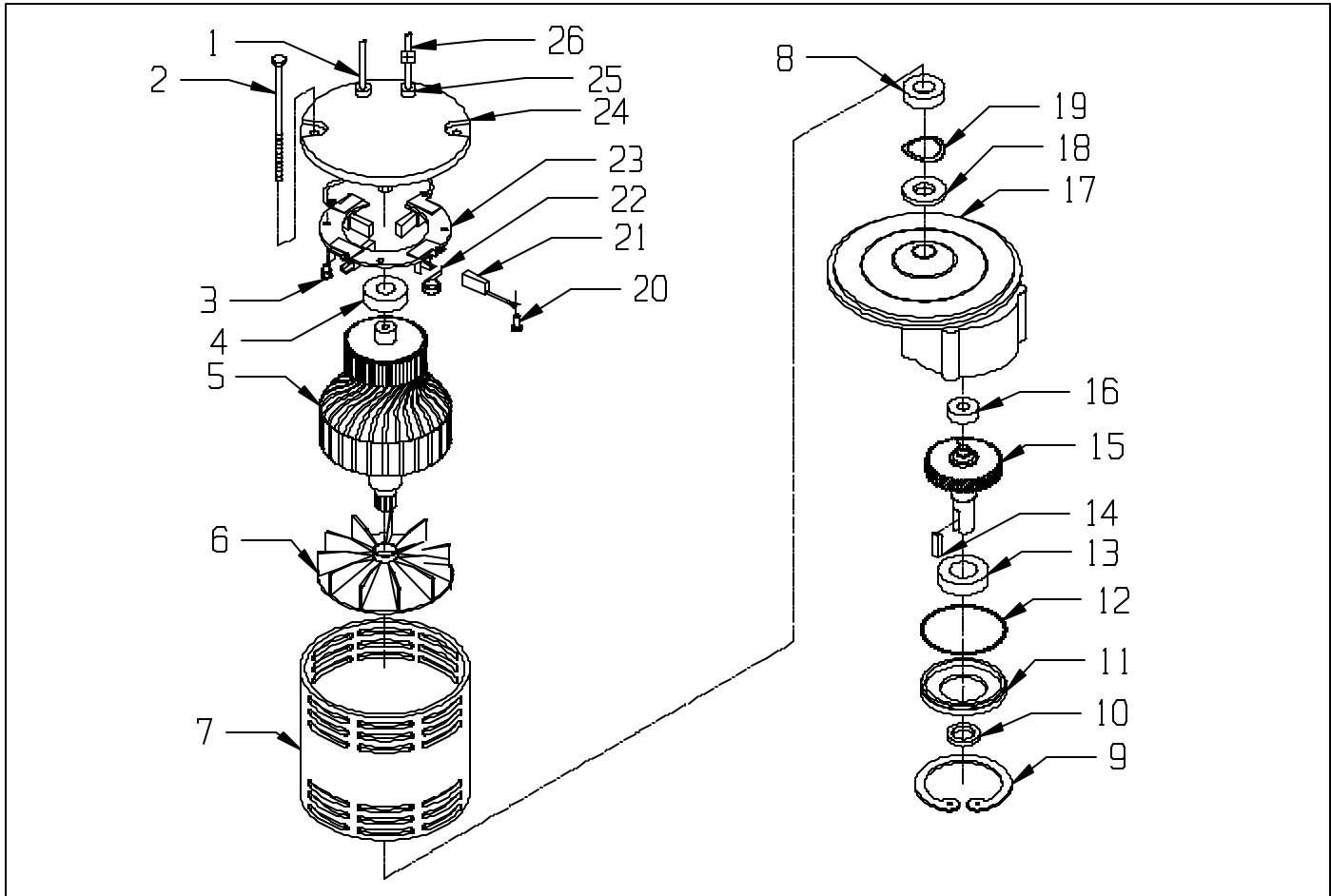
| ITEM | PART NO.   | DESCRIPTION  | QTY |
|------|------------|--|-----|
| 601  | 24-9-059-1 | SPACER, SQUEEGEE PIVOT   | 1   |
| 602  | 91-2-267-0 | 1/2-20 HEX JAM NUT   | 1   |
| 603  | 26-9-059-1 | SQUEEGEE VAC HOSE W/CUFFS  | 1   |
| 604  | 91-2-144-0 | 5/16-18 WING NUT   | 1   |
| 605  | 91-2-234-0 | 3/8-16 X 2 HEX BOLT  | 1   |
| 606  | 91-2-090-0 | 1/4-20 HEX NUT WITH NY-LOK INSERT                                | 2   |
| 607  | 27-9-100-2 | SQUEEGEE KNOB, MACHINED  | 2   |
| 608  | 24-9-530-1 | Y SQUEEGEE LIFT CABLE 25"/63.5cm                                 | 1   |
| 609  | 91-2-101-0 | 1/4-20 X 3/4 TRUSS HEAD PHILLIPS MACHINE SCREW                   | 2   |
| 610  | 91-2-176-0 | 5/16-18 X 1 3/4 HEX BOLT   | 2   |
| 611  | 91-2-145-0 | 5/16-18 HEX NUT WITH NY-LOK INSERT                               | 2   |
| 612  | 30-9-674-1 | WHEEL, BUMPER - SMALL GRAY                                       | 2   |
| 613  | 91-2-188-0 | 5/16-18 X 3/4 SOCKET HEAD CAP SCREW                              | 2   |
| 614  | 91-2-192-0 | 5/16-18 X 1 1/2 SOCKET HEAD CAP SCREW                            | 2   |
| 615  | 91-2-188-0 | 5/16-18 X 3/4 SOCKET HEAD CAP SCREW                              | 2   |
| 616  | 26-9-253-3 | INNER CHANNEL, SQUEEGEE - NARROW MOUNT                           | 1   |
| 617  | 27-9-106-1 | 32" REPLACEMENT SQUEEGEE BLADES, SET OF 2                        | 1   |
| 618  | 26-9-252-3 | NARROW MOUNT SQUEEGEE HOUSING                                    | 1   |
|      | 26-9-253-9 | NARROW MOUNT SQUEEGEE ASSEMBLY (INCL. ITEMS 610-622)             | 1   |
| 619  | 27-9-028-1 | 3" BUMPER WHEEL  | 2   |
| 620  | 91-2-139-0 | 11/32 I.D. X 11/16 O.D. X .051/.080 THICK SAE FLAT WASHER (5/16) | 2   |
| 621  | 91-2-141-0 | 5/16 EXTERNAL STAR LOCK WASHER                                   | 2   |
| 622  | 91-2-156-0 | 5/16-18 X 1/2 HEX BOLT   | 2   |
| 623  | 91-2-213-0 | 5/16-18 X 2 1/4 HEX BOLT   | 1   |
| 624  | 91-2-152-0 | 5/16 SPLIT LOCK WASHER   | 1   |
| 625  | 13-9-017-1 | SQUEEGEE BRACKET   | 1   |
| 626  | 91-2-214-0 | 3/8-16 HEX NUT WITH NY-LOK INSERT                                | 1   |
| 627  | 13-9-117-1 | BUSHING, SQUEEGEE SHAFT  | 2   |
| 628  | 36-9-558-1 | HEIGHT ADJUSTING SPRING  | 1   |
| 629  | 13-9-015-6 | SQUEEGEE PIVOT ROD   | 1   |
| 630  | 91-2-266-0 | 1/2-13 X 3 HEX BOLT WITH NYLON PATCH                             | 1   |
| 631  | 10-9-098-1 | SPACER   | 1   |
| 632  | 23-9-194-1 | BALL JOINT   | 1   |

## CURVED SQUEEGEE ASSEMBLY 24-9-249-9



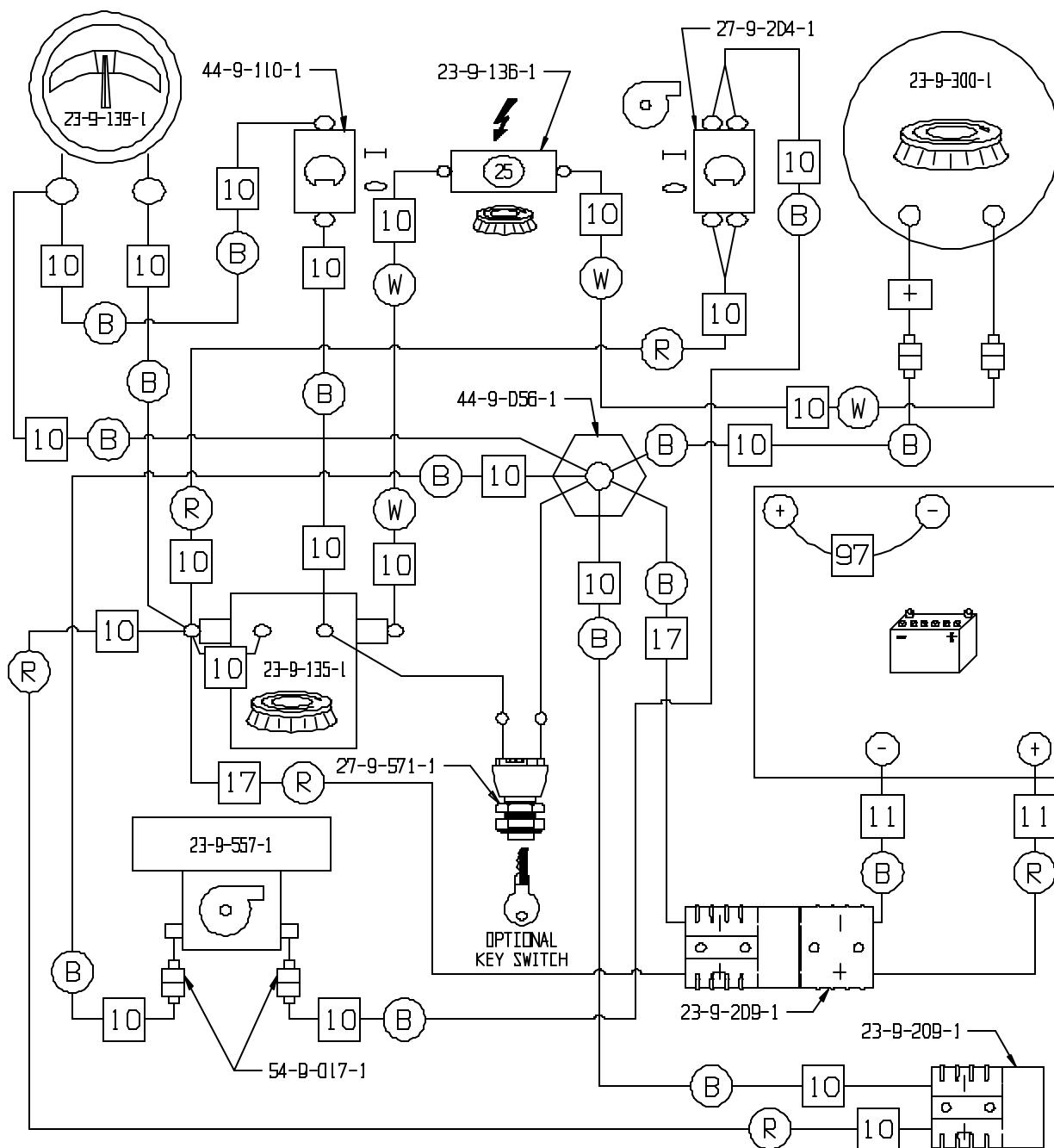
| ITEM | PART NO.   | DESCRIPTION  | QTY |
|------|------------|--|-----|
| 701  | 24-9-255-1 | REAR SECURING STRAP  | 1   |
| 702  | 91-2-172-0 | 5/16-18 X 1 1/4 FULL THREADED HEX HEAD BOLT                      | 2   |
| 703  | 24-9-256-1 | HOOKED END   | 2   |
| 704  | 24-9-253-1 | REAR BLADE   | 1   |
| 705  | 24-9-251-1 | CENTER WEDGE   | 2   |
| 706  | 24-9-252-1 | FRONT BLADE  | 1   |
| 707  | 91-2-121-0 | 1/4-20 X 5/8 HEX BOLT  | 4   |
| 708  | 91-2-088-0 | 1/4 SPLIT LOCK WASHER  | 4   |
| 709  | 91-2-093-0 | 9/32 I.D. X 5/8 O.D. X .051/.080 THICK SAE FLAT WASHER (1/4)     | 4   |
| 710  | 91-2-156-0 | 5/16-18 X 1/2 HEX BOLT   | 2   |
| 711  | 91-2-141-0 | 5/16 EXTERNAL STAR LOCK WASHER                                   | 2   |
| 712  | 91-2-139-0 | 11/32 I.D. X 11/16 O.D. X .051/.080 THICK SAE FLAT WASHER (5/16) | 2   |
| 713  | 27-9-028-1 | BUMPER WHEEL   | 2   |
| 714  | 24-9-250-3 | MAIN HOUSING   | 1   |
|      | 24-9-249-9 | CURVED SQUEEGEE ASSEMBLY   | 1   |
| 715  | 91-2-152-0 | 5/16 SPLIT LOCK WASHER   | 2   |
| 716  | 91-2-172-0 | 5/16-18 X 1 1/4 FULL THREADED HEX HEAD BOLT                      | 2   |
| 717  | 91-2-007-0 | 6-32 X 3/8 ROUND HEAD PHILLIPS MACHINE SCREW                     | 2   |
| 718  | 91-2-003-0 | #6 SPLIT LOCK WASHER   | 2   |
| 719  | 24-9-258-1 | SQUEEGEE LEVEL   | 1   |
| 720  | 27-9-100-2 | SQUEEGEE KNOB  | 2   |
| 721  | 91-2-145-0 | 5/16-18 HEX NUT WITH NY-LOK INSERT                               | 2   |
| 722  | 24-9-257-1 | DOLLY WHEEL MOUNTING BRACKET                                     | 2   |
| 723  | 91-2-139-0 | 11/32 I.D. X 11/16 O.D. X .051/.080 THICK SAE FLAT WASHER (5/16) | 2   |
| 724  | 30-9-674-1 | ROLLER WHEEL   | 2   |
| 725  | 91-2-139-0 | 11/32 I.D. X 11/16 O.D. X .051/.080 THICK SAE FLAT WASHER (5/16) | 2   |
| 726  | 91-2-176-0 | 5/16-18 X 1 3/4 HEX BOLT   | 2   |
| 727  | 91-2-128-0 | 1/4-20 X 1 1/2 HEX BOLT  | 2   |
| 728  | 91-2-088-0 | 1/4 SPLIT LOCK WASHER  | 2   |
| 729  | 91-2-093-0 | 9/32 I.D. X 5/8 O.D. X .051/.080 THICK SAE FLAT WASHER (1/4)     | 2   |
| 730  | 24-9-254-1 | CENTER HOLD DOWN   | 1   |
| 731  | 24-9-259-1 | CENTER HOLD DOWN SPACER  | 2   |

## BRUSH GEAR MOTOR



| ITEM | PART NO.   | DESCRIPTION  | QTY. |
|------|------------|--|------|
|      | 23-9-300-1 | COMPLETE MOTOR ASSEMBLY                              | 1    |
| 1    | 33-9-122-1 | NEGATIVE LEAD  | 1    |
| 2    | 33-9-120-1 | THRU BOLT 1/4-20 X 7 3/4                             | 2    |
| 3    | —————      | 10-24 X 1/2 SELF TAP ROUND HEAD SLOTTED SCREW        | 2    |
| 4    | 50-9-204-1 | TOP END BEARING                                      | 1    |
| 5    | 23-9-325-1 | ARMATURE ASSEMBLY, INCLUDES VENT FAN AND BEARINGS    | 1    |
| 6    | 33-9-119-1 | ARMATURE VENT FAN                                    | 1    |
| 7    | 33-9-104-1 | STATOR FRAME ASSEMBLY WITH MAGNETS                   | 1    |
| 8    | 33-9-105-1 | BOTTOM END BEARING                                   | 1    |
| 9    | 33-9-117-1 | SNAP RING  | 1    |
| 10   | 33-9-116-1 | OIL SEAL, SMALL                                      | 1    |
| 11   | 33-9-115-1 | END CAP  | 1    |
| 12   | 33-9-114-1 | "O" RING   | 1    |
| 13   | 33-9-113-1 | BOTTOM BEARING, LARGE                                | 1    |
| 14   | 27-9-268-1 | MOTOR KEY, 1/4 X 1/4 X 1                             | 1    |
| 15   | 33-9-112-1 | GEAR SHAFT   | 1    |
| 16   | 33-9-111-1 | TOP BEARING, SMALL                                   | 1    |
| 17   | 33-9-110-1 | GEAR BOX - HOUSING ONLY                              | 1    |
|      | 33-9-118-1 | GEAR BOX ASSEMBLY, (INCLUDES ITEMS 9-18)             | 1    |
| 18   | 33-9-109-1 | OIL SEAL, LARGE                                      | 1    |
| 19   | 27-9-759-1 | HELICAL WASHER                                       | 1    |
| 20   | —————      | 10-32 X 1/2 PAN HEAD SLOTTED SCREW, BRASS            | 4    |
| 21   | 33-9-108-1 | CARBON BRUSH   | 4    |
| 22   | 27-9-757-1 | CARBON BRUSH SPRING                                  | 4    |
| 23   | 33-9-102-1 | BRUSH BOARD ASSEMBLY, INCL. CARBON BRUSHES & SPRINGS | 1    |
| 24   | 33-9-100-1 | TOP END BRACKET ONLY                                 | 1    |
|      | 33-9-101-1 | TOP END BRACKET WITH BRUSH BOARD ASSEMBLY            | 1    |
| 25   | 33-9-107-1 | STRAIN RELIEF  | 2    |
| 26   | 33-9-121-1 | POSITIVE LEAD  | 1    |

# WIRING DIAGRAM



| ITEM | PART NO.   | DESCRIPTION   | QTY |
|------|------------|---|-----|
| 10   | 23-9-335-1 | WIRE HARNESS 1 PC                                     | 1   |
| 11   | 23-9-614-1 | WIRE ASSEMBLY ANDERSON TO POSITIVE / NEGATIVE BATTERY | 1   |
| 17   | 23-9-615-1 | WIRE ASSEMBLY ANDERSON TO SOLENOID / STANDOFF         | 1   |
| 97   | 23-9-198-1 | BATTERY JUMPER 3/8 RING                               | 5   |
| —    | 44-9-114-1 | BATTERY JUMPER CABLE, CLAMP TYPE                      | 5   |
| —    | 23-9-135-1 | CONTACTOR, 24 VOLT                                    | 1   |
| —    | 23-9-136-1 | CIRCUIT BREAKER, 24 VOLT                              | 1   |
| —    | 23-9-139-1 | BATTERY METER 24 VOLT                                 | 1   |
| —    | 23-9-300-1 | GEAR MOTOR (IMPERIAL) 3/4 HP 24 VOLT DC               | 1   |
| —    | 23-9-557-1 | VACUUM MOTOR  | 1   |
| —    | 27-9-204-1 | TOGGLE SWITCH - VAC                                   | 1   |
| —    | 27-9-571-9 | KEY SWITCH KIT (OPTIONAL)                             | -   |
| —    | 44-9-110-1 | TOGGLE SWITCH - MOTOR                                 | 1   |
| —    | 44-9-056-1 | INSULATED STANDOFF                                    | 1   |

## **TROUBLE SHOOTING**

| <b>PROBLEM</b>                           | <b>CAUSE</b>   | <b>SOLUTION</b>  |
|--|--|--|
| No Solution Flow                         | The solution valve is closed.<br>Obstruction in the solution hose.<br>Solution valve or linkage damaged.<br>Solution tank is empty.  | Open the solution valve.<br>Remove the obstruction.<br>Repair/replace the valve linkage.<br>Fill the tank.   |
| Solution Flow Does Not Stop              | The solution valve is open<br>Solution valve or linkage damage.<br>Solution valve is dirty.<br>Damaged seat and washer in valve.<br>The valve stem is dirty.   | Close the solution valve.<br>Repair/replace the valve linkage.<br>Clean the solution valve.<br>Replace valve.<br>Clean and lubricate valve stem.   |
| Will Not Pick Up Any Water From Floor    | Squeegee is up.<br>Vac motor switch is "off".<br>Recovery tank is full.<br>Vacuum shut-off float is stuck.<br>Obstruction/damage in the squeegee, squeegee hose or standpipe.<br>Leaking cover gasket.<br>Vac motor is not running | Lower squeegee.<br>Turn vac motor switch "on".<br>Empty tank.<br>Open float valve/remove obstruction.<br>Remove obstruction/repair damage.<br><br>Remove old gasket/replace.<br>Have an authorized serviceman Repair.                                |
| Will Not Pick Up All Water From Floor    | Squeegee blade is worn/damaged.<br>Obstruction/damage in the squeegee, squeegee hose or standpipe.<br>Squeegee pressure needs adjustment.<br>Vacuum motor worn out.  | Reverse/replace squeegee blade.<br>Remove obstruction/repair damage.<br><br>Adjust pressure.<br>Repair/replace vac motor.  |
| Batteries Do Not Seem To Run Long Enough | Tops of batteries are dirty/wet<br>Battery terminals are dirty/damaged.<br><br>Electrolyte level is too low.<br>Batteries are not fully charged.<br>Charger is damaged.<br>Battery is defective.                                   | Clean/dry charge batteries.<br>Clean terminals and connectors, replace damaged cables. Charge.<br>Add distilled water and charge.<br>Charge batteries for 8 hours.<br>Have an authorized serviceman repair.<br>Check cell voltage while discharging. |
| Cleaning Is Not Even                     | Brush/pads are worn.<br>Damage to brush assembly, casters, or solution valve.<br>Motor is not running.   | Replace.<br>Have authorized serviceman repair.<br><br>Repair wiring, replace switch, replace carbon brushes. Reset circuit breaker button.   |
| Machine Does Not Run                     | The machine loses power.   | Reset circuit breaker. Check battery Connections.  |

NOTE: If problems remain after taking the above steps, contact your local authorized service station for further evaluation and repair.



### **NSS ® Enterprises, Inc.**

3115 Frenchmens Road, Toledo, Ohio 43607  
 PHONE (419) 531-2121 FAX (419) 531-3761  
**NSS® Enterprises, Inc. European Distribution Centre**  
 Unit II, Pinfold Trading Estate \* 55 Nottingham Road  
 STAPLEFORD, NOTTINGHAM NG9 8AD ENGLAND U.K.  
 PHONE: (44) 0115 939 1568 \* FAX: (44) 0115 949 0615