

NOBLES®

SpeedScrub

2701 & 3301

MODELS: SS2701, TS2701, SS3301 & TS3301

Operator & Parts Manual

Starting Serial Numbers:

SS2701 - SS2714771CP

TS2701 - TS2715071FP

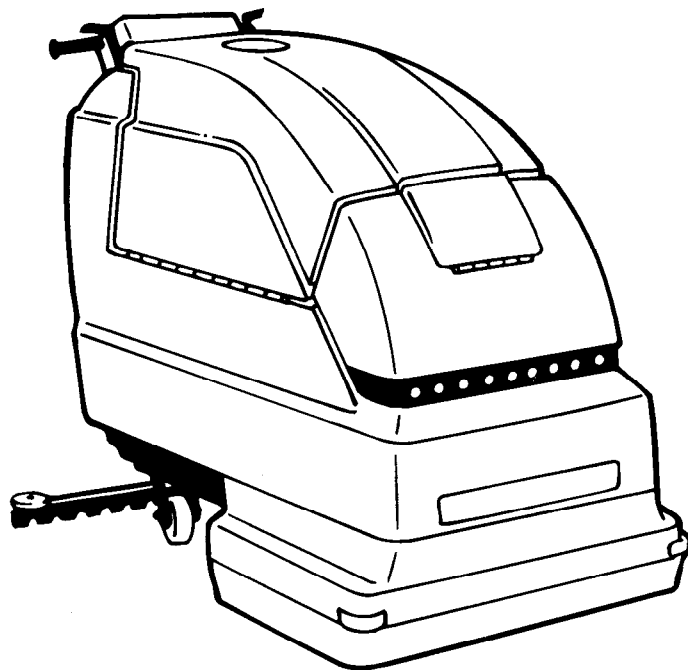
SS3301 - SS3314786CP

TS3301 - TS3315070FP

Record Serial No. Here:



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This manual is furnished with each new SpeedScrub Model. It provides necessary operation and maintenance instructions and parts list. Read this manual completely and understand the machine before operating or servicing it.

This machine will provide excellent service. However, the best results will be obtained at minimum costs if:

The machine is operated with reasonable care.

The machine is maintained regularly - per the maintenance instructions provided.

The machine is maintained with manufacturer supplied or equivalent parts.

MACHINE DATE

Please fill out at time of installation for future reference.

Model No. _____

Install. Date - _____

Serial No. _____

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SAFETY PRECAUTIONS

This machine is suited to scrub floors in an indoor environment and is not constructed for any other use. Use only recommended pads and cleaning solutions.

All operators must read, understand and practice the following safety precautions:

The following symbol  is used throughout this manual as indicated in their description.

 **WARNING:** To warn of hazards or unsafe practices which could result in severe personal injury or death.

 **CAUTION:** To identify actions which must be followed for safe operation of equipment.

1. DO NOT OPERATE, MAINTAIN OR SERVICE MACHINE:


- Unless trained and authorized.
- Unless operator manual is read and understood.
- If it is not in proper operating condition.


2. WHEN OPERATING MACHINE:


- Remove loose objects on floor. Loose objects may become dangerous projectiles if struck by revolving pads/brushes
- Keep hands and feet away from revolving pads/brushes.
- Keep machine moving to prevent damage to finish or floor.
- Do not run machine where flammable liquids or gases are present.
- Do not run on ramps or inclines unless adequate personnel are present for assistance.


3. BEFORE LEAVING OR SERVICING MACHINE:

- Make sure machine is turned "OFF" or pull out the "MAIN" circuit breaker button.
- Disconnect batteries.

 **WARNING:** Hazardous Voltage. Shock or electrocution can result. Always disconnect batteries before servicing machine.

 **WARNING:** Batteries emit hydrogen gases, explosion or fire can result. Keep sparks and open flame away.

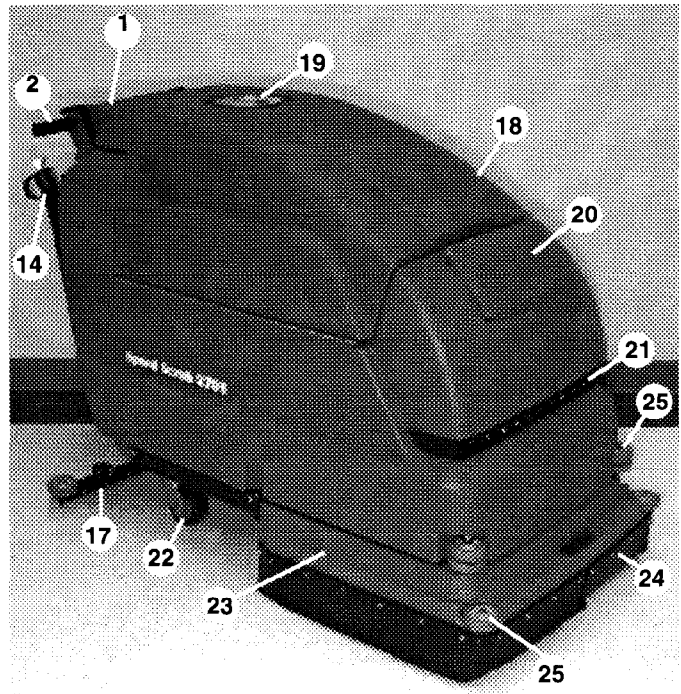
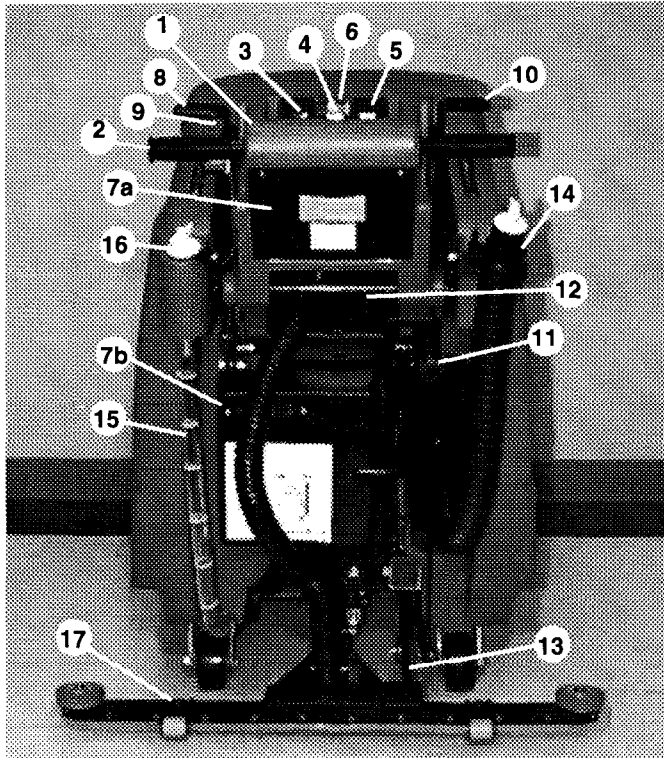
 **WARNING:** Charge in a well ventilated area and keep hood propped open when charging batteries, explosion or fire can result.

 **WARNING:** Battery acid can cause burns. Wear protective gloves and shield eyes when servicing batteries.

 **WARNING:** Do not store outdoors and avoid getting wet.

 **WARNING:** The use of supplies other than those recommended by manufacturer may cause damage.

MACHINE COMPONENTS



- 1. Control Console
- 2. Control Grips
- 3. Main/Drive ON/OFF Switch
- 4. Vacuum ON/OFF Switch
- 5. Brush ON/OFF Switch
- 6. Battery Meter
- 7a. Circuit Breaker (TS2701 and TS3301 only).
- 7b. Circuit Breakers (SS2701 and SS3301 only).
- 8. Squeegee Lift Lever
- 9. Squeegee Lever Release
- 10. Solution Flow Lever
- 11. Solution Flow Adjustment Knob
- 12. Adjustable Control Console Levers
- 13. Brush Lift Foot Lever
- 14. Recovery Tank Drain Hose
- 15. Solution Tank Drain Hose with Gallon Markers

- 16. Rear Fill Port
- 17. Squeegee Assembly
- 18. Recovery Tank
- 19. Recovery Tank Lid
- 20. Solution Fill Door
- 21. Safety Lights
- 22. Rear Casters
- 23. Skirt Housing
- 24. Scrub Head Skirt
- 25. Wall Rollers

MACHINE INSTALLATION

UNCRATE MACHINE

Carefully check carton for signs of damage. Report damages at once to carrier. Check carton contents to ensure all accessories are included. Squeegee is packaged with machine. Batteries, battery charger and pad driver(s) are packaged separately.

Battery installation must be accomplished *after* removing machine from shipping crate.

To uncrate your machine, remove straps and raise brush head. To raise brush head, step down firmly on the bottom brush lift foot pedal until pedal locks into the raised position. Carefully lift or make a ramp using crate boards to remove machine from pallet.

CAUTION: Do not roll machine off pallet, damage may occur.

ATTACH SQUEEGEE ASSEMBLY

1. Pull back on squeegee lift lever to raise squeegee mount bracket.
2. Loosen two thumb knobs on squeegee and slide squeegee into slots at rear of squeegee mount bracket. Be certain that squeegee roller wheels are toward the rear. (Figure 1)



FIG. 1

3. Tighten thumb knobs securely.

INSTALL BATTERIES

WARNING: Batteries emit hydrogen gases, explosion or fire can result. Keep sparks and open flame away.

WARNING: Battery acid can cause burns. Wear protective gloves and shield eyes when servicing batteries.

Recommended Battery Specifications:

Four 6 volt, deep cycle, 305 amp hour batteries. Nobles Part Number #130870. Maximum battery dimensions are 7" (178mm) W x 12-1/8" (308mm) L x 14(356mm) H.

1. Turn all switches to the "OFF" position and pull out the "MAIN" circuit breaker button. SS2701 & 3301 model shown. (Figure 2)

NOTE: The TS2701 & TS3301 "MAIN" circuit breaker is located at rear of control console.

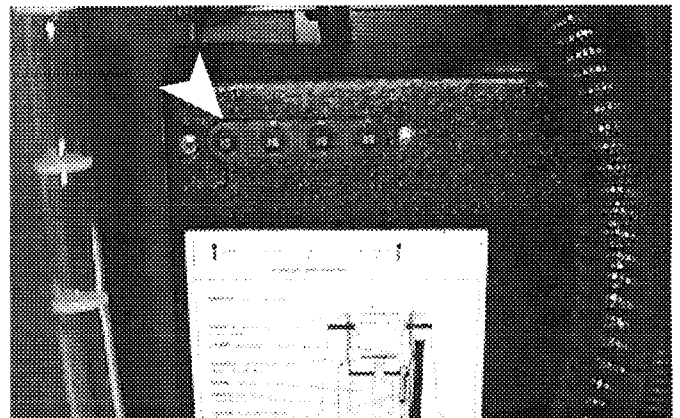


FIG. 2

WARNING: To prevent motors from accidental starting, be certain to pull out the "MAIN" circuit breaker button before installing batteries.

2. Carefully hinge open recovery tank to access battery compartment. Remove loose battery cables from compartment. (Figure 3)

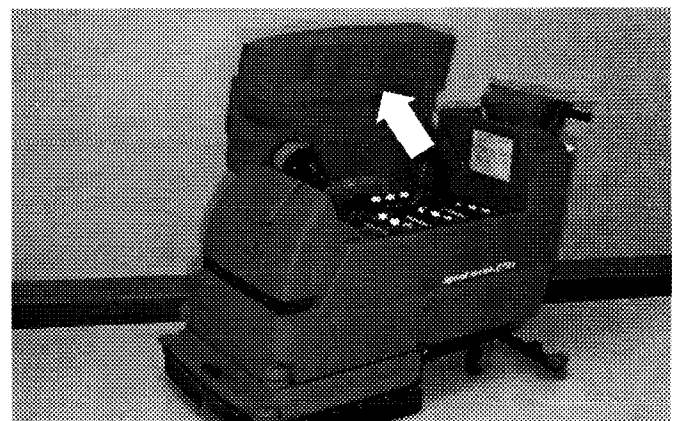


FIG. 3

OPERATION

- Carefully install batteries into compartment and arrange battery posts as shown. (Figure 4)

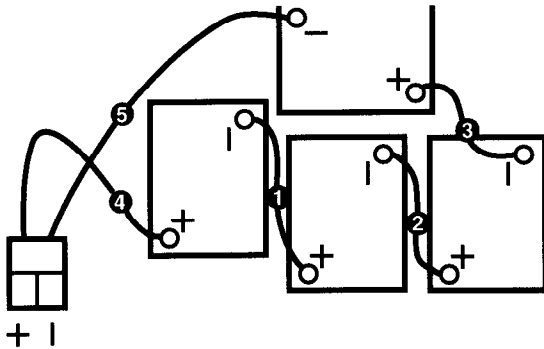


FIG. 4

⚠ WARNING: Do not drop batteries into compartment! Battery and machine housing damage may result. This damage is not covered by warranty.

- Connect cables to battery posts in numerical order as labeled (RED TO POSITIVE & BLACK TO NEGATIVE). (Figure 4)
- Double check cable connections before closing up battery compartment.
- Reset the "MAIN" circuit breaker button.
- Turn the "MAIN" switch on and check battery meter charge level to ensure batteries are fully charged. If batteries need charging, see *BATTERY CHARGING*.

MACHINE SETUP

PRE-OPERATION CHECKS

- Sweep and dust mop the floor to remove particles and other debris.
- Check battery meter charge level to ensure batteries are fully charged. (See *BATTERY CHARGING*)
- Check that pads or brushes are installed.
- Check that squeegee is installed.

INSTALL BRUSH OR PAD DRIVERS

- Turn MAIN switch to the "OFF" position and pull out the "MAIN" circuit breaker button.

⚠ WARNING: To prevent accidental starting, pull out the "MAIN" circuit breaker button before installing pad driver(s). Circuit breaker button is located at rear of control housing.

- Raise brush head, step down firmly on the bottom brush lift foot pedal. (Figure 5)

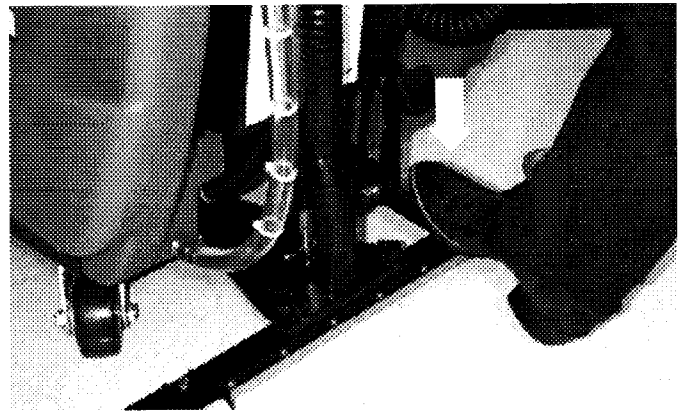


FIG. 5

- Unfasten black latch at front of machine and hinge open skirt housing to access motor hub. (Figure 6)

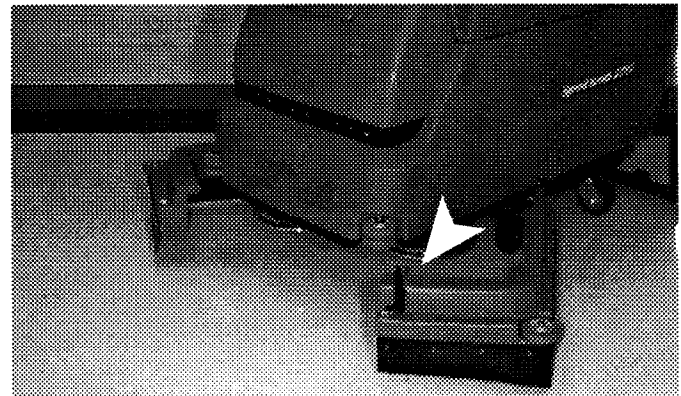


FIG. 6

- Select recommended pad or brush that best meets your cleaning needs.

IMPORTANT: Consult your authorized distributor to assist you in choosing the correct pad or brush for your specific cleaning need.

- (For Pad Installation)** Attach pads to pad drivers before connecting drivers to motor hub. To attach pad to pad driver, remove plastic centerlock ring from pad driver. Position pad on driver and replace centerlock ring. (Figure 7)

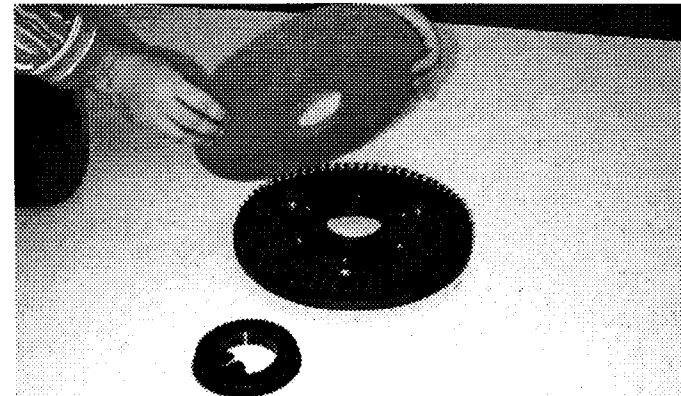


FIG. 7

- Attach brush or pad drivers to motor hubs. Align (3) mounting studs with slots in motor hub. Give the driver a quick turn toward spring clip located on the motor hub. Be certain pad driver is securely fastened and spring clip locks into one of the studs, before operating machine. (Figure 8)

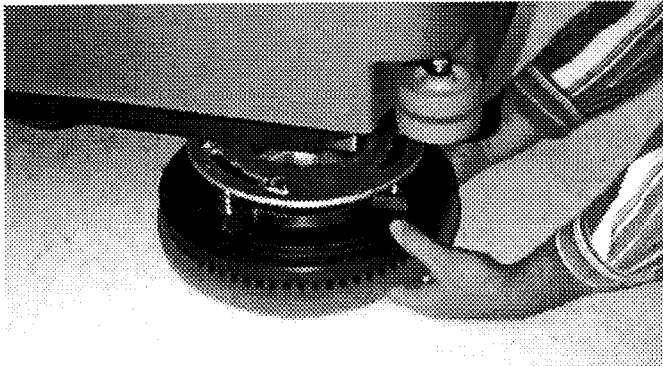


FIG. 8

NOTE: Always make sure pad driver and motor hub surfaces are always clean before installing drivers. Keeping surfaces clean will make it easier when removing pad driver.

- Close the skirt housing and refasten latch.

FILL SOLUTION TANK

- Transport machine to filling station. **NOTE:** Raise squeegee and brush when transporting.
- Shut off solution flow, pull completely back on solution flow lever to shut off. (Figure 9)

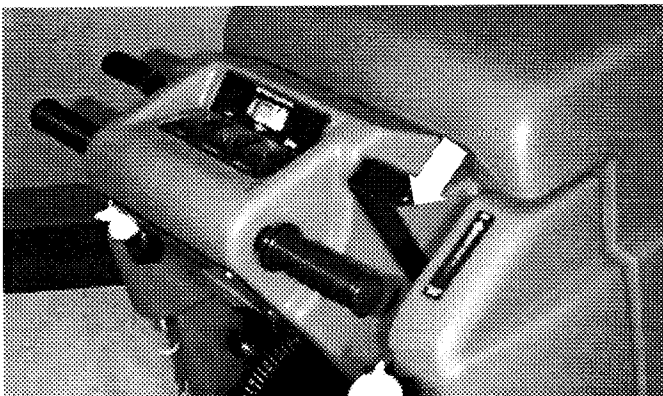


FIG. 9

- Open solution fill door at front of machine and fill solution tank with clean water (140°F/ 60°C maximum temperature), or you can fill solution tank using hose fill port at rear of machine. Twist off plug and insert hose to fill. Clear tube below the hose fill port has 5 gallon increment markers to indicate amount of water in tank. (Figure 10)

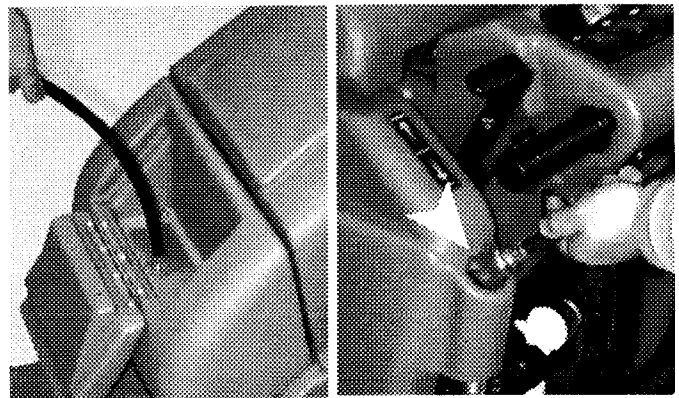


FIG. 10

NOTE: If filling with a bucket be certain that bucket is clean. This will prevent possible solution line clogs.

- Add cleaning chemical. See proper dilution ratio instructions on bottle.

⚠ CAUTION: Use only recommended cleaning chemicals, DO NOT use substitutes. Consult an authorized distributor to assist you with the recommended cleaning chemicals.

⚠ WARNING: Use only nonflammable commercial cleaning chemicals.

MACHINE OPERATION

- Read and understand **SAFETY PRECAUTIONS** on page 3 before operating machine.
- Adjust control grips to a comfortable operating height (three settings). Squeeze two levers together, located under control console, to raise and lower control grips. (Figure 11)

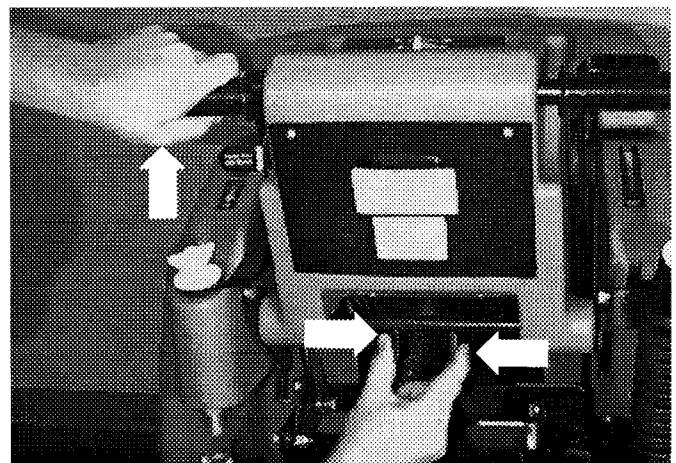


FIG. 11

OPERATION

3. Lower squeegee, depress thumb lever on the squeegee lift lever. (Figure 12)



FIG. 12

4. Lower brush head, depress top brush lift foot pedal forward to release. (Figure 13)

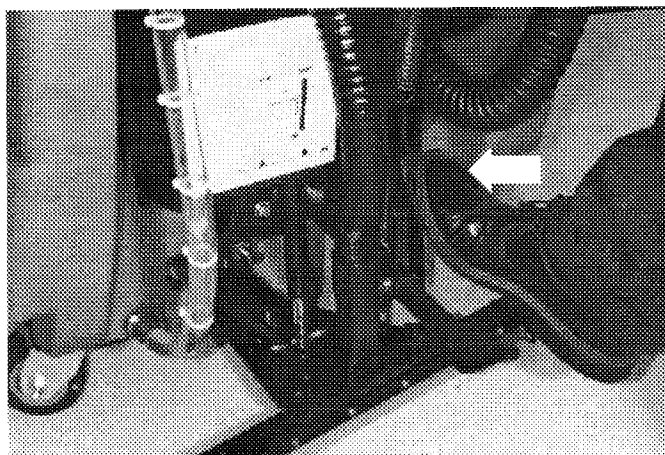


FIG. 13

5. Turn the "MAIN", "BRUSH" and "VACUUM" switches to the "ON" position.

For Models with 2-speed feature:

Push the "DRIVE" switch to Forward position.

NOTE: The brush motors will not start until the control grips are rotated. (SS2701 and SS3301 only).

⚠ WARNING: To prevent floor finish damage, DO NOT leave machine at stand still once brush begins to spin.

6. Activate solution flow, push solution flow lever slightly forward. The further the lever is pushed forward the more solution will flow. Push completely forward for maximum flow. Solution will immediately begin to flow once lever is activated. (Figure 14)



FIG. 14

NOTE: To increase or decrease the maximum solution flow, turn solution flow adjustment knob. Turn knob clockwise to increase solution flow or counterclockwise to decrease. (Figure 15)

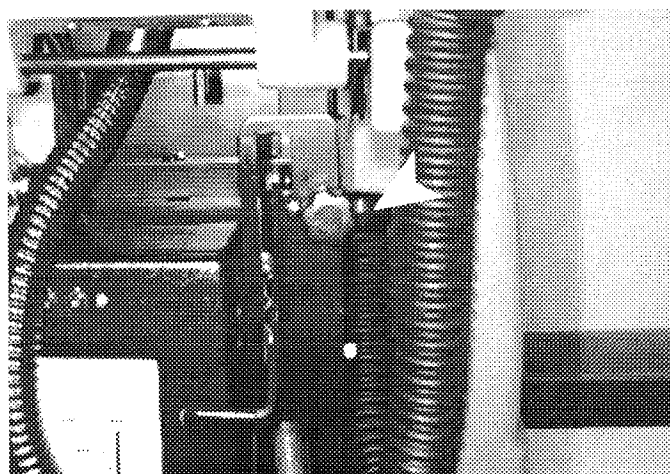


FIG. 15

7. Slowly rotate the control grips forward to begin scrubbing. The machine will continue to gain speed the further you rotate grips. To drive machine in reverse, simply rotate control grips backwards.

For the Two Speed Model:

The two speed model has only a slow and fast speed. To operate machine in the fast speed, just rotate control grips completely forward. For reverse, position drive switch from forward to reverse and rotate grips forward.

⚠ WARNING: Always start machine in the slower speed to prevent machine from leaping forward.

8. View amount of solution flow on floor and adjust solution control lever to desired solution flow.

WHILE OPERATING MACHINE

⚠ WARNING: Keep hands and feet clear of revolving pad or brush.

1. Periodically check for foam buildup in recovery tank (*look through clear lid*). If excessive foam buildup begins to develop, pour a recommended foam control solution into recovery tank.

⚠ CAUTION: Do not allow foam or water to enter the vacuum standpipe, vacuum motor damage will result. Ball float shutoff will not keep foam out of standpipe. Vacuum damage due to foam or water is not covered by warranty.

2. If more scrubbing pressure is needed for small heavily soiled areas, follow steps below:
 - a. Lower brush.
 - b. Lift the brush pressure lever to the locked position. (*Figure 16*)

NOTE: Brush *MUST* be down to allow brush pressure lever to be lifted to the locked position. Do not leave lever in the lock position when brushes are raised.

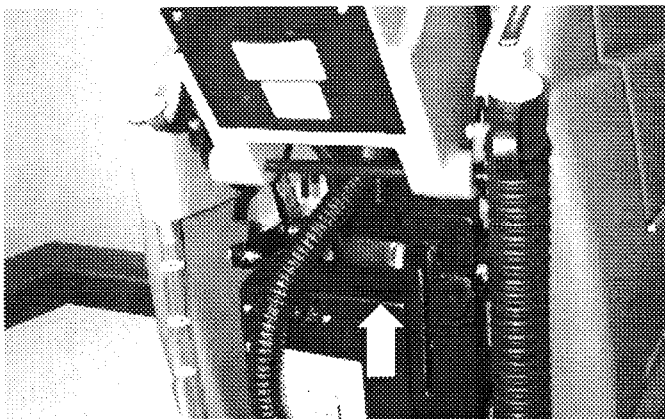


FIG. 16

3. If squeegee leaves streaks, raise and wipe blades with a cloth. Pre-sweeping and dust mopping will help also.
4. Before stopping or turning machine around, pull back on solution control lever to shut off solution flow.
5. During brief stops, you do not have to turn off the brush switch, the brush will automatically stop after control grips are released.

NOTE: For the TS2701 & TS3301 models you *must* turn off the brush switch in order to stop brush.

6. While cleaning, view clear tube gallon marker for remaining cleaning solution. Each mark on the hose indicates five gallons.
7. Periodically check battery meter discharge level. When needle drops to the red zone, recharge batteries.

⚠ WARNING: Do not continue to run machine when battery meter needle is in the red zone, battery damage will result.

8. When the solution tank runs dry, turn off brush switch, shut off solution control lever and continue to vacuum until all dirty water is consumed. Then drain recovery tank (See DRAINING TANKS).

CIRCUIT BREAKERS

The SS2701 and SS3301 models are equipped with (4) circuit breakers to protect motors from damage. If circuit breakers trip, they cannot be reset immediately. Determine reason breaker tripped, allow motor to cool and then reset. Brush motor circuit breakers will trip due to excessive overload on pad. Clean or change pad if breaker should trip. Circuit breaker buttons are located at rear of machine as shown (*Figure 17*). The TS2701 and TS3301 models are only equipped with a MAIN circuit breaker, located at rear of control console (*not shown*).

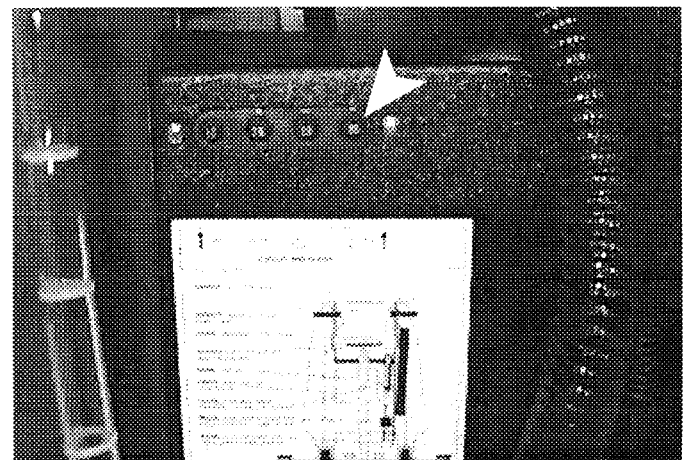


FIG. 17

⚠ WARNING: If performing any type of service, pull out the MAIN circuit breaker button. This will prevent any motor accidentally starting when servicing the machine.

⚠ WARNING: Pull out the MAIN circuit breaker button if machine is left unattended. This will completely shut down the machine and will prevent an unauthorized person from operating it.

DRAINING TANKS

⚠ ATTENTION: Raise squeegee and brush when transporting machine to floor drain. Turn off machine power when draining.

DRAINING RECOVERY TANK

Recovery tank must be emptied prior to refilling solution tank. To drain recovery tank, perform the following steps:

⚠ CAUTION: If recovery tank is not emptied between fill-ups, foam or water will enter the vacuum standpipe and damage vacuum motor. Float shut-off will not keep foam out of standpipe. Vacuum damage due to foam or water is not covered by warranty.

1. Remove drain hose from holder, position hose over floor drain and twist off drain hose plug. To completely drain recovery tank, hinge open tank sideways and flip up tank support stand to rest tank on. (Figure 18)

NOTE: If using bucket to drain machine, do not use same bucket for filling solution tank. This will prevent possible solution line clogs.

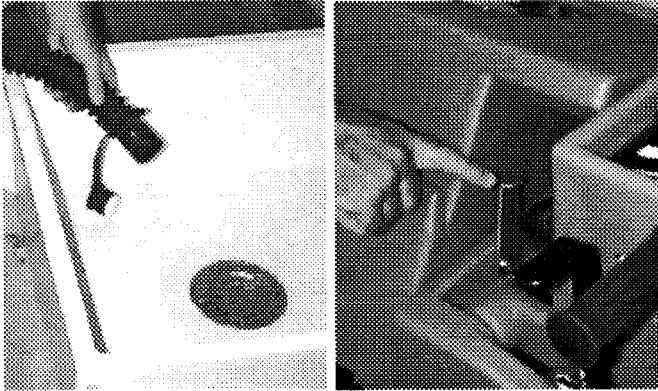


FIG. 18

2. Rinse recovery tank after each use. This will prevent foul odor buildup. Unscrew clear lid on recovery tank. Use a hose to rinse out the recovery tank. Be careful not to spray water into shut-off float.
3. Replace drain hose plug tightly when tank is empty.

DRAINING SOLUTION TANK

To drain leftover cleaning solution from solution tank, follow steps below:

1. Pull clear gallon marker hose off hose barb at rear of machine and drain solution into floor drain or bucket. (Figure 19)

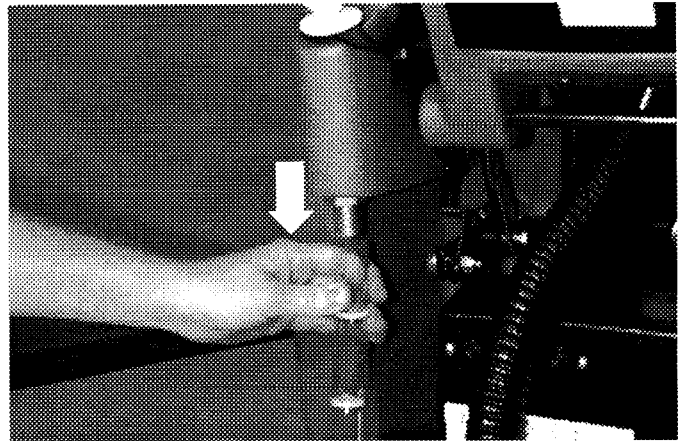


FIG. 19

2. Rinse solution tank with clean water after each use and flush out solution flow system by pushing solution flow lever forward. This will prevent clogging due to chemical buildup. Use clear hose to drain solution tank.
3. Reconnect clear hose to hose barb. Be certain hose is completely pushed onto hose barb.

BATTERY CHARGING

⚠ ATTENTION: The following charging instructions are intended for Nobles supplied chargers only. If you don't have a Nobles battery charger, use a charger with the following specifications listed below. Improper charger may cause battery damage.

CHARGER SPECIFICATIONS:

- OUTPUT VOLTAGE - 24 VOLTS
- OUTPUT CURRENT - 25 AMPS
- AUTOMATIC SHUT-OFF CIRCUIT
- FOR LEAD ACID DEEP CYCLE BATTERY CHARGING

Life expectancy of a battery is limited by the number of charges it receives. To get the most life from the batteries, recharge batteries when discharge needle is in the red zone. Never let batteries set in a discharge condition.

⚠ CAUTION: Do not continue to run machine when battery meter needle is in the red zone, battery damage will result.

⚠ DANGER EXPLOSIVE GASES: Always charge batteries in a well ventilated area. Batteries emit hydrogen gas. Explosion or fire can result. Keep sparks and open flame away.

FOR SAFETY: Shield eyes when servicing batteries and avoid contact with battery acid.

1. Transport machine to a well ventilated area when charging.
2. Turn machine power off.
3. Hinge open recovery tank to access batteries. (Figure 20)



FIG. 20

4. Check water level (A) in each battery cell. Do not charge batteries unless water is slightly covering battery plates (B). If needed, add just enough distilled water to slightly cover plates. DO NOT overfill. Batteries can overflow during charging due to expansion. Replace cell caps before charging. (Figure 21)

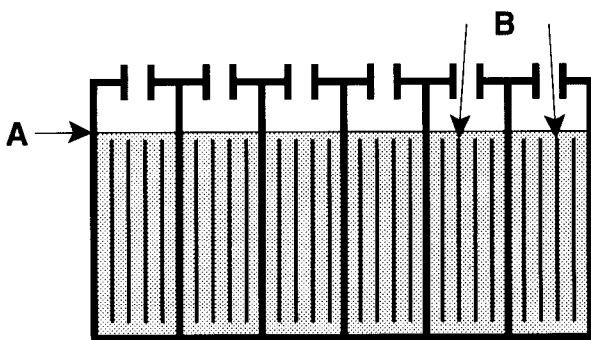


FIG. 21

5. Plug charger into charger receptacle located near battery compartment. Flip up tank support stand and rest tank on stand. (Figure 22)

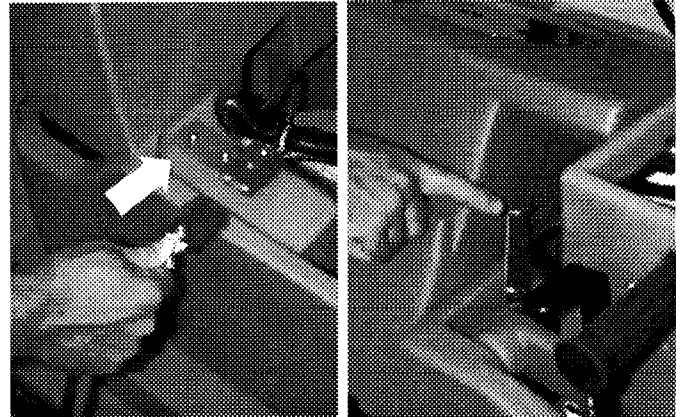


FIG. 22

6. Plug charger into grounded wall outlet **after** connecting charger to machine. (Figure 23)

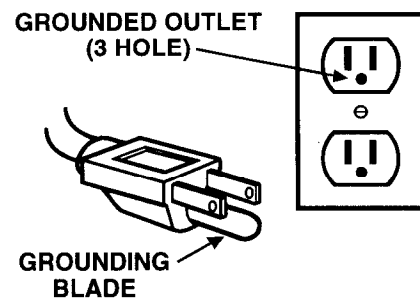


FIG. 23

7. Charger will automatically begin charging and automatically shut off when fully charged.
8. After charger has turned off, unplug charger from wall outlet first, then disconnect charger from machine.
9. Recheck battery fluid level **after** charging. If needed, add distilled water to bring level of fluid to bottom of sight tubes. Be certain to replace cell caps securely and to wipe off the top of batteries with a clean cloth.

MAINTENANCE

⚠ WARNING: Before attempting any maintenance procedures on machine; stop on level surface, turn machine off and disconnect battery charger if charging machine.

⚠ WARNING: Before attempting any type of machine repair, disconnect batteries. This will prevent any accidental motor starting. Repairs must be performed by authorized personnel.

To keep machine in good working condition, simply follow daily, weekly and monthly maintenance procedures.

DAILY MAINTENANCE

1. Remove and clean pads or brushes. Never use soiled pads when cleaning. Replace pads when they become loaded with residue.
2. Remove and clean lint from ball float shutoff screen located in recovery tank. (Figure 24)

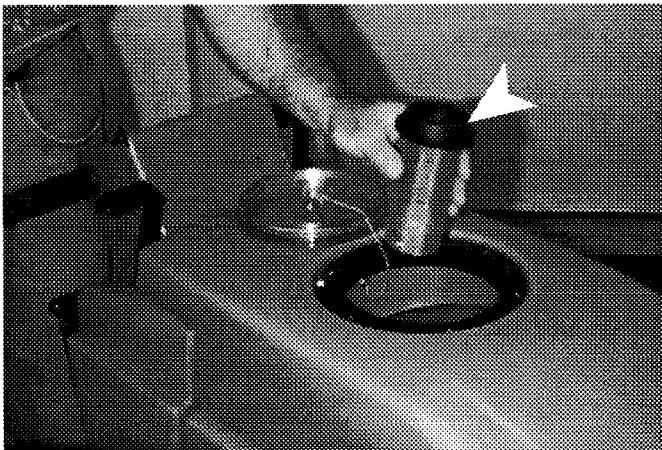


FIG. 24

3. Drain and rinse tanks thoroughly. After draining tanks, hinge recovery tank until you can see vacuum intake hole at rear of tank. Remove any clogging debris in hole if necessary.
4. Raise squeegee and wipe it down with a dry cloth. Store squeegee in the up position to prevent squeegee damage.
5. Clean machine housing with a nonabrasive, non-solvent cleaner.
6. Recharge batteries if needed.

WEEKLY MAINTENANCE

1. Flush out tanks and solution lines. Mix a solution of 1 qt. (946ml) vinegar to 3 gallons (11.3 lts.) water. Rinse with clean water afterward.
2. Check water level in battery cells. (See *BATTERY MAINTENANCE*).
3. Clean battery tops to prevent corrosion.
4. Check for loose or corroded battery cables.

MONTHLY MAINTENANCE

1. Check drive chain for excess slack and lubricate with a water resistant grease. If chain needs tightening, see *DRIVE CHAIN MAINTENANCE*.
2. Lubricate axle and caster grease fittings with a water resistant grease.
3. Lubricate all linkage pivot points with silicone spray then coat with a water resistant grease to maintain a smooth operation.
4. Check machine for water leaks and loose nuts and bolts.

EVERY 250 HOURS OF OPERATION

1. Check drive and brush motors for carbon brush wear, replace brushes if worn to a length of 1/2" or less.
2. Check vacuum motor for carbon brush wear, replace brushes when worn to a length of 3/8" or less.

BATTERY MAINTENANCE

⚠ DANGER EXPLOSIVE GASES: Batteries emit hydrogen gas. Explosion or fire can result. Keep sparks and open flame away.

⚠ CAUTION: Shield eyes when servicing batteries, avoid contact with battery acid and keep all metal objects off the top of batteries.

1. Always follow proper charging instructions. (See *BATTERY CHARGING*)
2. Each week AFTER charging, check water level in each battery cell of all batteries. Water level should reach bottom of sight tubes (A). If needed, add just enough distilled water to reach bottom of sight tubes. DO NOT overfill. (Figure 25)

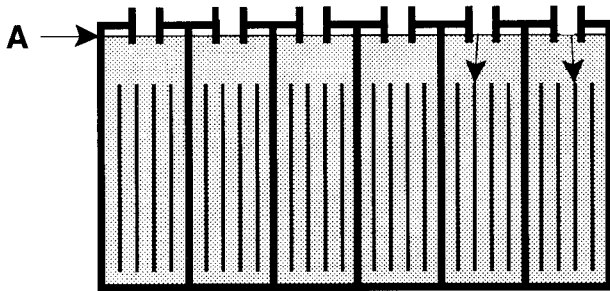


FIG. 25

3. Keep battery tops and terminals clean and dry. To clean batteries, follow steps below:
 - a. Mix a strong solution of baking soda and water.
 - b. Brush solution sparingly over battery tops, terminal and cable connectors.

NOTE: Do not allow baking soda solution to enter battery cells.

 - c. Use wire brush to clean terminal post and cable connections.
 - d. After cleaning, apply a coating of clear battery post protectorate to terminals and cable connections.
4. Check for loose or worn cables. Replace if worn.

DRIVE CHAIN MAINTENANCE

Inspect drive chain periodically for proper tension. Chain should flex between 1/4" and 1/2" from center. If chain flexes more than 1/2", chain should be tightened.

To tighten chain, follow steps below:

1. From operators right side of machine, locate and loosen 4 motor mount bolts, do not remove bolts.
2. Loosen locking nut on tension bolt. (Figure 26)

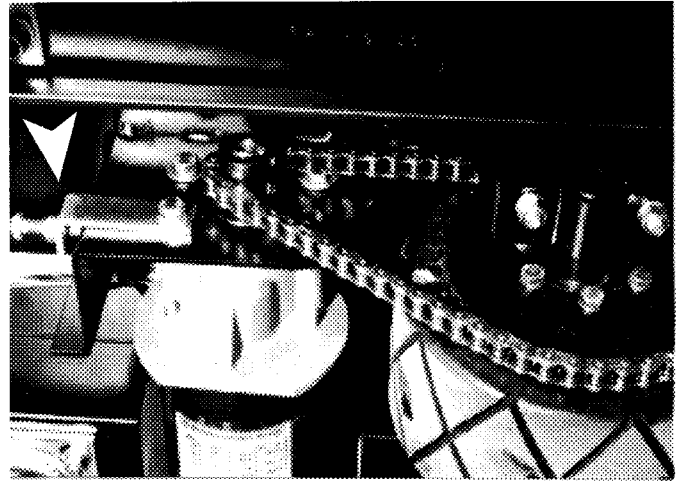


FIG. 26

3. Turn tension bolt clockwise until chain is taut.
4. Retighten locking nut and 4 motor mount screws.
5. Lubricate chain with a water resistant oil.

STORING MACHINE

1. Before storing machine be certain to flush tanks and drain machine of all water.
2. Store machine in a dry area with squeegee removed and pad driver in the raised position.
3. Remove recovery lid to promote air circulation.
4. When storing machine for short periods (over night), raise pad driver and squeegee off floor to prevent damage.

⚠ ATTENTION: If storing machine if freezing temperatures, be certain to drain machine of all water. Damage due to freezing temperatures is not covered by warranty.

TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTION
No power, nothing runs.	Batteries need charging.	See CHARGING THE BATTERIES
	Battery(s) faulty.	Replace battery(s).
	Loose battery cable.	Tighten loose cables.
	Batteries are not connected correctly.	See BATTERY INSTALLATION.
	Faulty main switch.	Contact Service Center.
	MAIN circuit breaker has tripped or has been pulled out.	Determine problem and reset breaker button.
If one or both brush motors do not run.	Either one or both brush circuit breakers have tripped, or have been pulled out.	Clean or change to a less aggressive pad. Also, release brush pressure lever if it's in the up position. Reset breaker button.
	Loose wire connection.	Contact Service Center.
	Drive roll grips are not twisted.	Drive roll grips must be twisted to activate brushes.
	Faulty brush switch or wiring.	Contact Service Center.
	Faulty brush motor.	Contact Service Center.
	Carbon brushes worn.	Contact Service Center.
	Faulty SOLENOID.	Contact Service Center.
Vacuum motor does not run.	Vacuum circuit breaker has tripped.	Determine cause and reset breaker.
	Faulty vacuum switch.	Contact Service Center.
	Faulty wiring.	Contact Service Center.
	Faulty vacuum motor.	Contact Service Center.
	Faulty SOLENOID.	Contact Service Center.
	Carbon brushes worn.	Contact Service Center.
Short run time.	Batteries not fully charged.	Charge batteries.
	Bad cell in one or more batteries.	Replace battery.
	Batteries need maintenance.	See BATTERY MAINTENANCE.
	Faulty charger.	Replace charger.
Poor squeegee pick up.	Recovery tank is full.	Empty recovery tank.
	Ball float shutoff screen inside recovery tank is clogged.	Remove screen and clean.
	Squeegee is clogged with debris.	Clean squeegee.
	Squeegee blades are worn.	Replace squeegee blades.
	Squeegee thumbscrews are loose.	Tighten thumbscrews.
	Vacuum hose connections are loose or hose has a hole.	Push vacuum hose cuffs firmly on connections. Replace hose if damaged.
	Vacuum hose is clogged with debris.	Remove clogged debris.
	Tank gasket is defective.	Replace tank gasket.
	Recovery tank water inlet is plugged.	Empty recovery tank and tilt it sideways to locate inlet hole, remove clogged debris
	Drain hose plug is loose.	Tighten drain plug.
	Clear recovery tank lid is loose.	Tighten the lid.
	Vacuum motor is loose.	Tighten down vacuum motor. Do not over tighten and damage motor.
	Battery charge is low.	Charge batteries. Do not run machine when battery meter is in the red zone.
	Faulty vacuum motor	Contact Service Center.

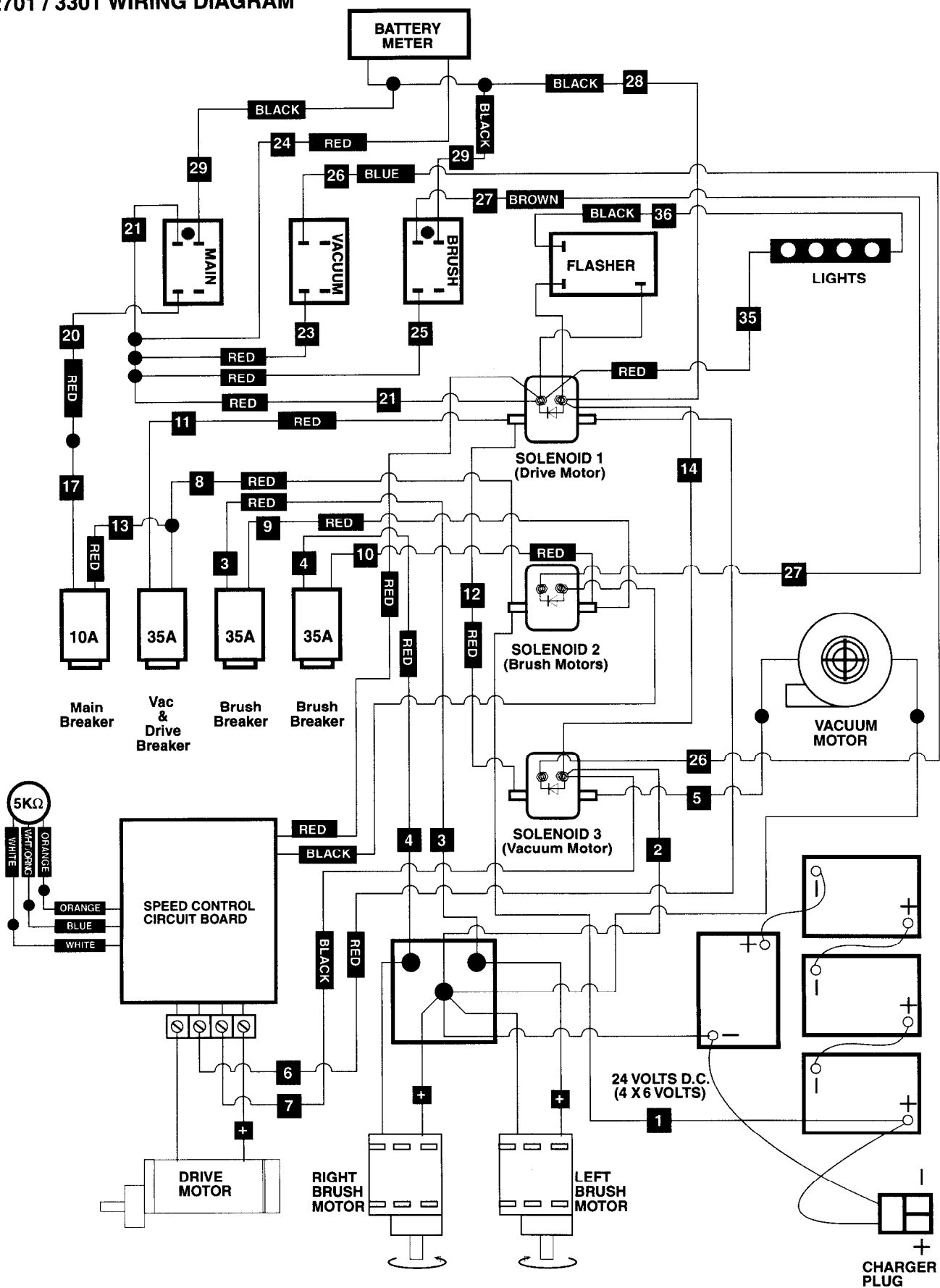
Trouble shooting cont. on page 15

PROBLEM	CAUSE	SOLUTION
Drive motor does not run.	MAIN circuit breaker has tripped or is pulled.	Determine cause and reset breaker.
	Faulty MAIN switch.	Contact Service Center.
	Faulty speed control circuit board or connection.	Contact Service Center.
	Faulty solenoid.	Contact Service Center.
	Faulty wiring.	Contact Service Center.
	Faulty drive motor.	Contact Service Center.
	Worn carbon brushes	Contact Service Center.
Drive Motor runs but not correctly.	Faulty potentiometer or speed control board.	Contact Service Center.
	Faulty roll throttle switch. (TS 2701/3301)	Contact Service Center.
	Faulty wiring to roll throttle switch. (TS 2701/3301)	Contact Service Center.
	Faulty resistor.	Contact Service Center.
Little or no solution flow.	Solution flow lever is not activated.	Push solution flow lever forward.
	Solution line or filter is clogged.	Remove hose and blow compressed air through it. To prevent clogs flush solution tank with clean water after use.
	Solution valve is clogged.	Remove valve and clean. Do not scratch or damage inside of valve.
	Solution flow adjustment knob needs adjusting.	Adjust solution flow knob to increase solution flow.
Safety lights do not work.	Flasher is burned out.	Contact Service Center.

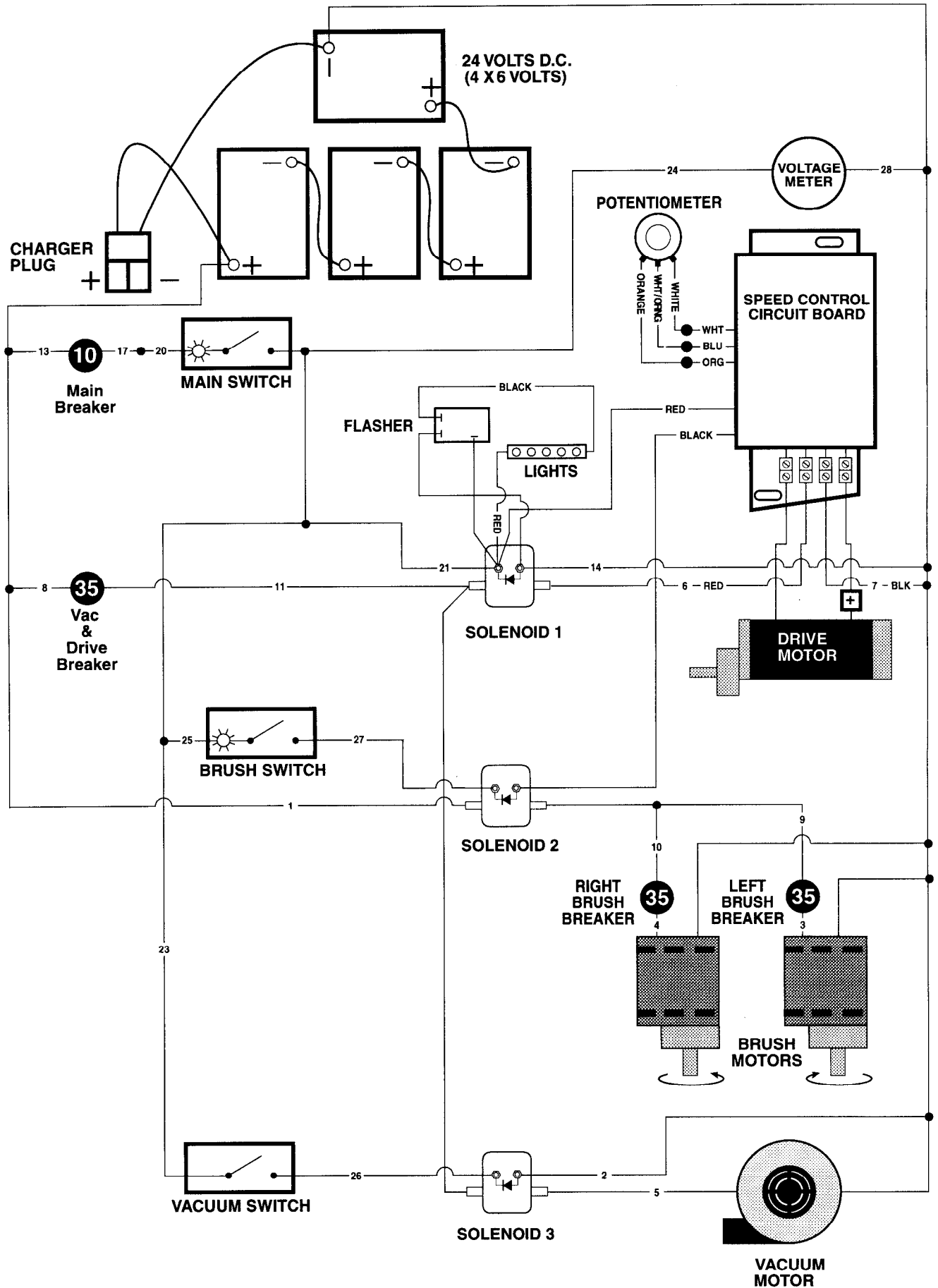
SPECIFICATIONS

MODEL NO.	SS2701	TS2701	SS3301	TS3301
LENGTH	59"/150cm	59"/150cm	59"/150cm	59"/150cm
WIDTH	29"/74cm	29"/74cm	35"/89cm	35"/89cm
HEIGHT	41"/104cm	41"/104cm	41"/104cm	41"/104cm
WEIGHT - W/ BATTERIES	760 lbs./352kg	760 lbs./352kg	765 lbs./355kg	765 lbs./355kg
SOL. TANK CAPACITY	27 Gal./102L	27 Gal./102L	27 Gal./102L	27 Gal./102L
REC. TANK CAPACITY	27 Gal./102L	27 Gal./102L	27 Gal./102L	27 Gal./102L
SPEED CONTROL	VARIABLE FWD/REV	TWO SPEED FWD/REV	VARIABLE FWD/REV	TWO SPEED FWD/REV
CLEANING SPEED (MAX)	30,000 sq. ft./2787 sq. m./hr.	20,000 sq. ft./1858 sq. m./hr.	35,000 sq. ft./3251 sq. m./hr.	25,000 sq. ft./2322 sq. m./hr.
CLEANING PATH	27"/68cm	27"/68cm	33"/83cm	33"/83cm
SQUEEGEE WIDTH	34" or 40"	34"	40"	40"
PAD DIAMETER	2 - 14"/35.5cm	2 - 14"/35.5cm	2 - 17"/43cm	2 - 17"/43cm
BRUSH MOTOR	2 - .75 h.p., 220rpm, 24v, 20A, 550W	2 - .75 h.p., 220rpm, 24v, 20A, 550W	2 - .75 h.p., 220rpm, 24v, 20A, 550W	2 - .75 h.p., 220rpm, 24v, 20A, 550W
DRIVE MOTOR	.5 h.p., 0-1800 rpm, 24v, 10A	.5 h.p., 0-1560 rpm, 24v, 5A	.5 h.p., 0-1800 rpm, 24v, 10A	.5 h.p., 0-1560 rpm, 24v, 5A
VACUUM MOTOR	.75 h.p., 3-stage 5.7", 550W, 21A, 24V	.75 h.p., 3-stage 5.7", 550W, 21A, 24V	.75 h.p., 3-stage 5.7", 550W, 21A, 24V	.75 h.p., 3-stage 5.7", 550W, 21A, 24V
WATER LIFT	68"/172 cm	68"/172 cm	68"/172 cm	68"/172 cm
BATTERIES	4 - 305A/hr, 6V deep cycle	4 - 305A/hr, 6V deep cycle	4 - 305A/hr, 6V deep cycle	4 - 305A/hr, 6V deep cycle
RUN TIME on full charge	4.76 hr.	4.76 hr.	4.76 hr.	4.76
DECIBEL RATING AT OPERATOR'S EAR, INDOORS ON TILE.	70dB(A)	70dB(A)	70dB(A)	70dB(A)

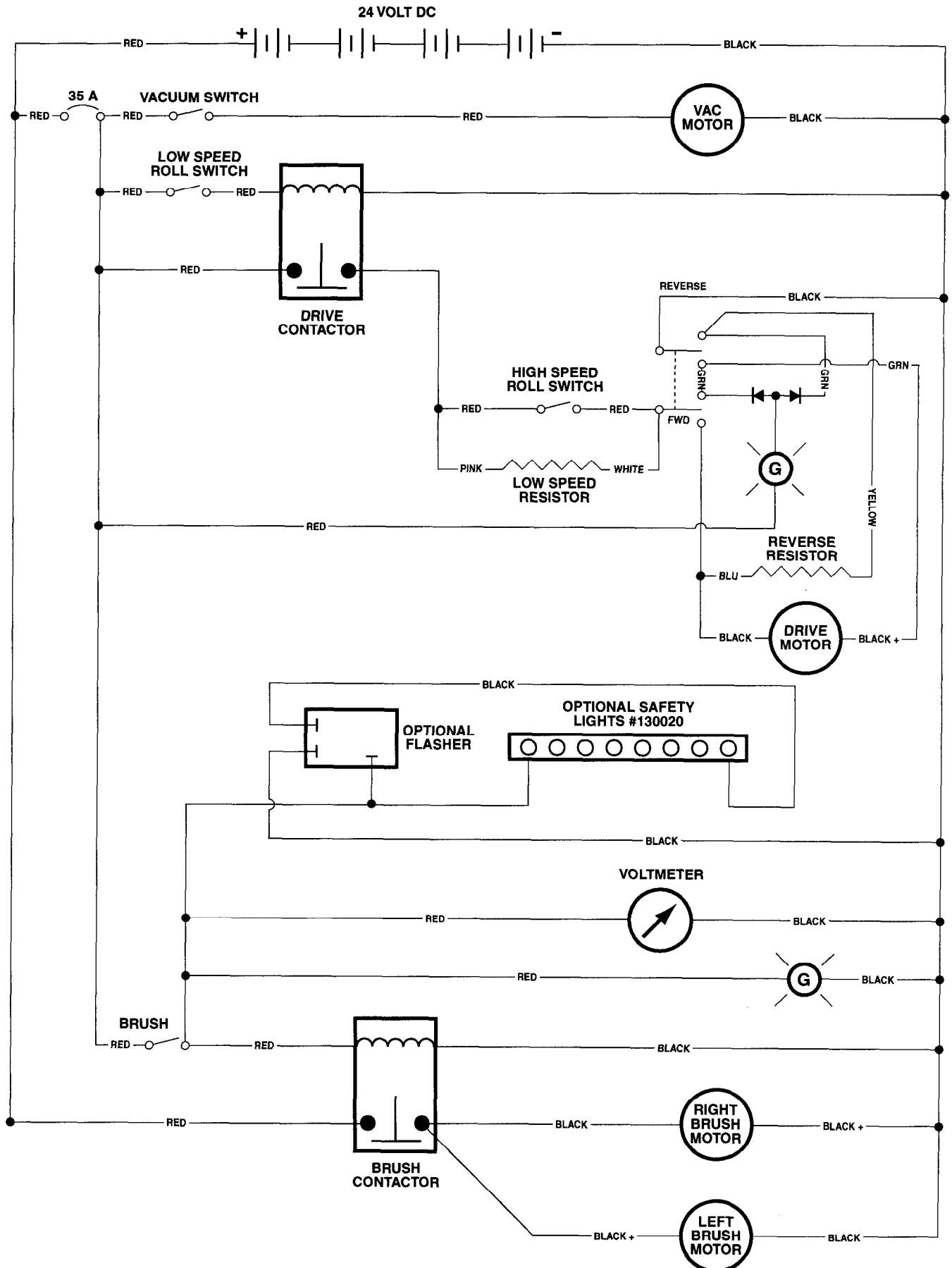
SS2701 / 3301 WIRING DIAGRAM



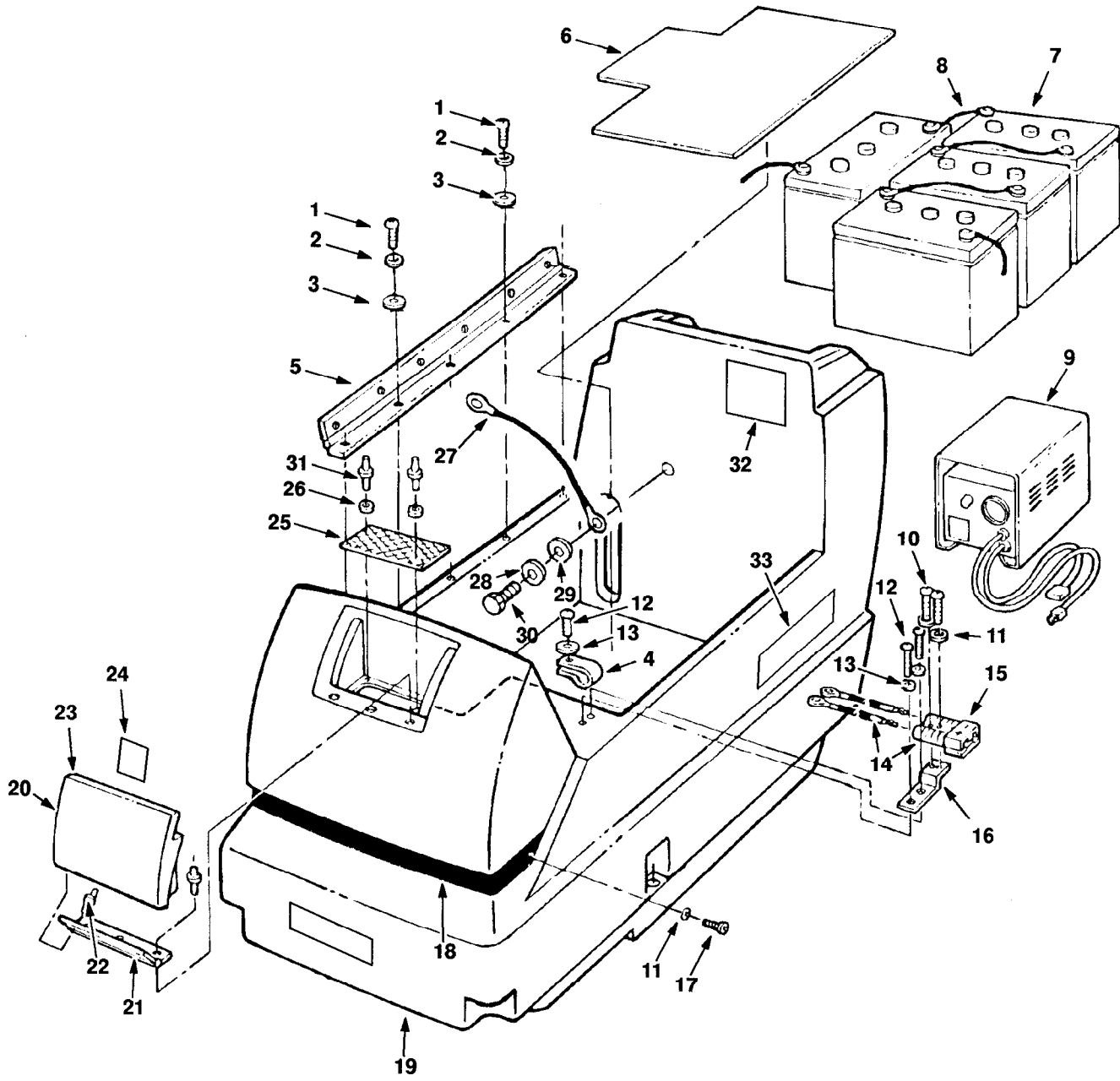
SS2701/3301 LADDER DIAGRAM



TS2701/3301 LADDER DIAGRAM



CHASSIS ASSEMBLY



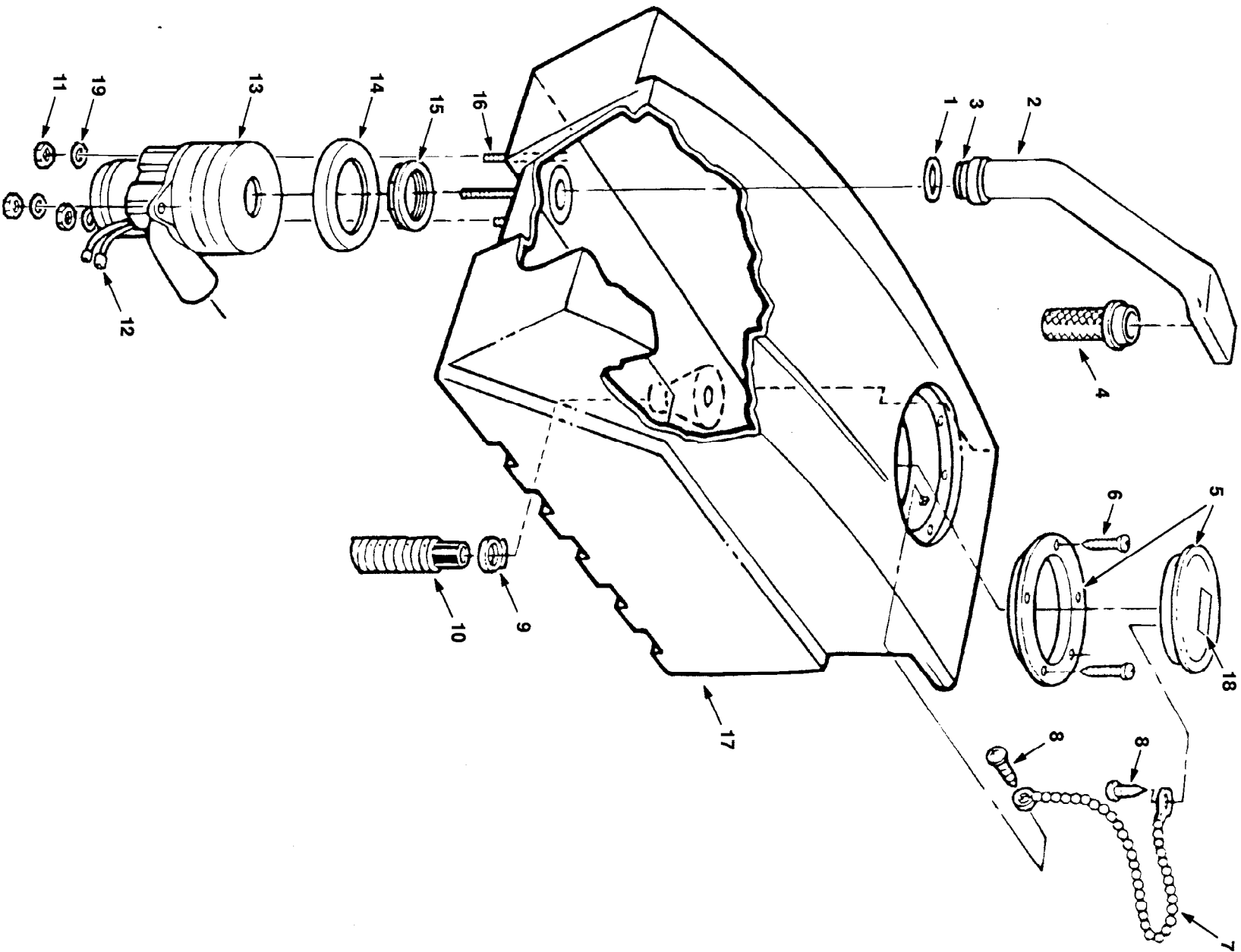
CHASSIS ASSEMBLY

REF	PART #	DESCRIPTION	QTY
1.	578187000	SCREW	11
2.	140052	WASHER, EXT LOCK 1/4"	11
3.	140000	WASHER, FLAT 1/4	11
4.	140300	CLAMP	1
5.	230938	HINGE, REC. TANK	1
6.	100707	PLATE, BATTERY	1
7.	130870	BATTERY, 6V 305A	4
8.	130367	CABLE, BATTERY 15"	3
9.	130871	CHARGER, BATT 120V	1
	600603	CHARGER, BATT 230V/50Hz	1
10.	140831	SCREW, 6/32 X 5/8	2
11.	140019	WASHER, EXT. LOCK	4
12.	578141000	SCREW, 10-24X7/16	3
13.	140018	WASHER, INT LCK	3
14.	700999	VASM, CHARG PLUG WIRE	1
	700179	▲WIRE ASM., #10X18" (RED)	1
	700180	▲WIRE ASM., #10X24" (BLACK)	1
15.	27833	▲CONNECTOR	1
16.	230665	BRACKET, CHARGER PLUG	1
17.	578141000	SCREW	2
18.	600730	DECAL, RECESS BLACK (TS2701/TS3301)	1
	230937.BK	SHIELD, LIGHT (SS2701/SS3301)	1
	130020	LIGHT, SAFETY (SS2701/SS3301)	1
	26578	GASKET, 1/2"X3 ft (SS2701/SS3301)	3 ft.
19.	101273	TANK, SOLUTION REPL.	1
20.	701196	VASM., COVER SOL. TANK	1
21.	230626	▲HINGE, COVER	1
22.	140706	▲RIVET, POP 1/8	5
23.	100482	▲COVER, SOL. TANK	1
24.	630420	DECAL, WARNING	1
25.	230693	SCREEN, FILL	1
26.	140032	WASHER, FLAT #6	2
27.	140960	CABLE, RECOV TANK	1
28.	140015	WASHER, LOCK	2
29.	140027	WASHER, FLAT	2
30.	200031488	SCREW, M08X20MM	2
31.	140826	RIVET, POP	2
32.	120567	DECAL, BATTERY	1
33.	120321	DECAL, SS2701	2
	120320	DECAL, SS3301	2

V=ASSEMBLY

▲=INCLUDED IN ASSEMBLY

RECOVERY TANK ASSEMBLY



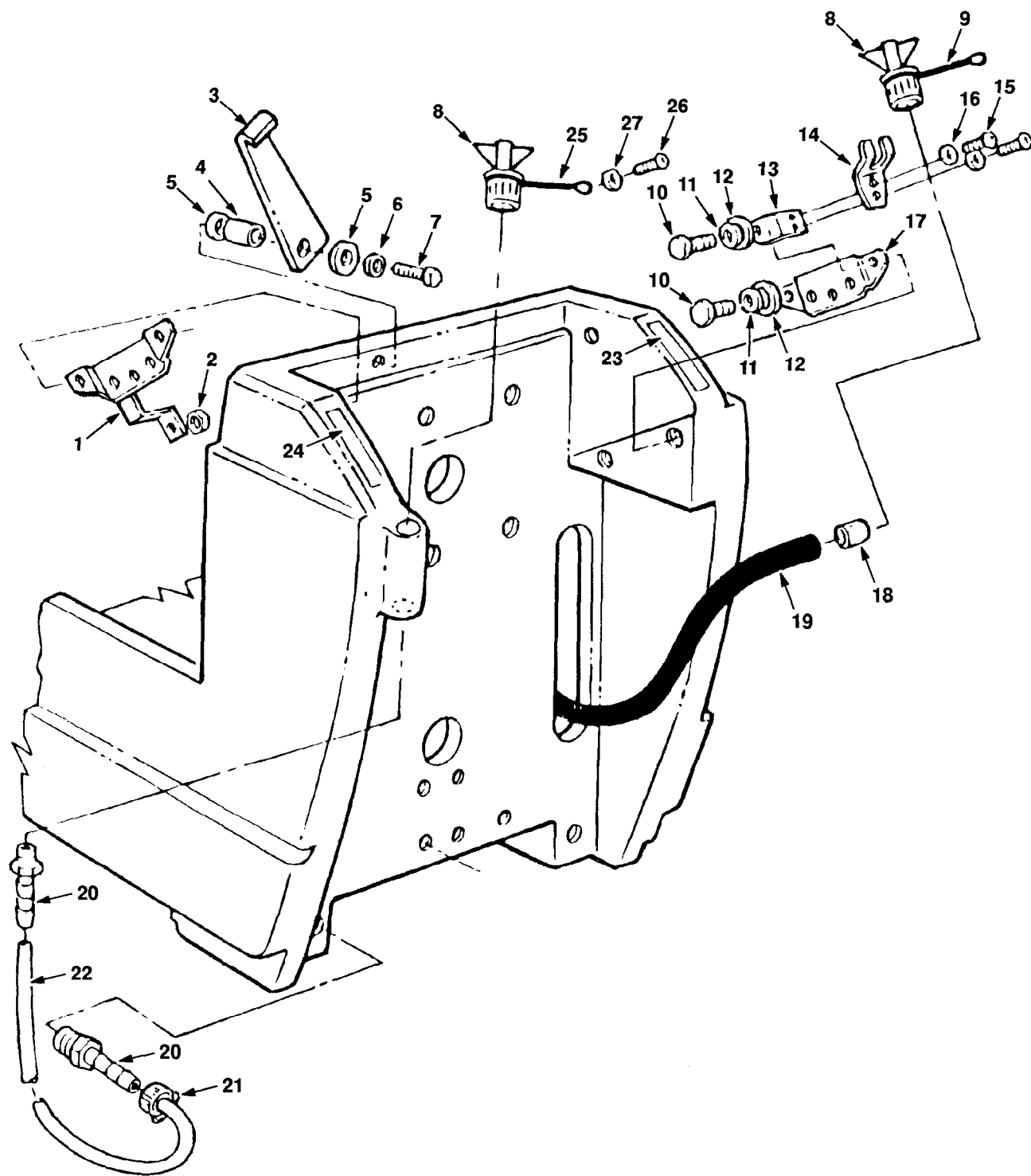
RECOVERY TANK ASSEMBLY

REF	PART #	DESCRIPTION	QTY
1.	101714	GASKET, VAC TUBE	1
2.	100162	▽ASM., VACUUM TUBE	1
	100759	▲VACUUM TUBE	1
3.	230187	▲NIPPLE, TUBE	1
4.	180613	FLOAT, SHUT-OFF	1
5.	100102	▽ LID, ASSY.	1
	100105	▲ LID, CENTER	1
	100109	▲ LID, OUTER RING	1
6.	140826	SCREW, #6 X 3/4"	6
7.	230513	ASM., CHAIN	1
8.	3701.6	SCREW,#6X3/8	2
9.	140308	CLAMP, HOSE	1
10.	630068	HOSE, DRAIN	1
11.	140284	NUT, LOCK	3
12.	130149	TERMINAL, MALE	2
13.	130477	▽ MOTOR, VACUUM 24V	1
	190163	▲ CARBON BRUSH	1
14.	0174..10	SEAT, MOTOR	1
15.	210240	NUT, FLANGED METAL	1
16.	140353	STUD, THREADED	3
17.	101275	TANK, RECOVERY	1
18.	630420	DECAL, WARNING (CE)	1
19.	140000	WASHER, FLAT	3

▽=ASSEMBLY

▲=INCLUDED IN ASSEMBLY

REAR PANEL ASSEMBLY

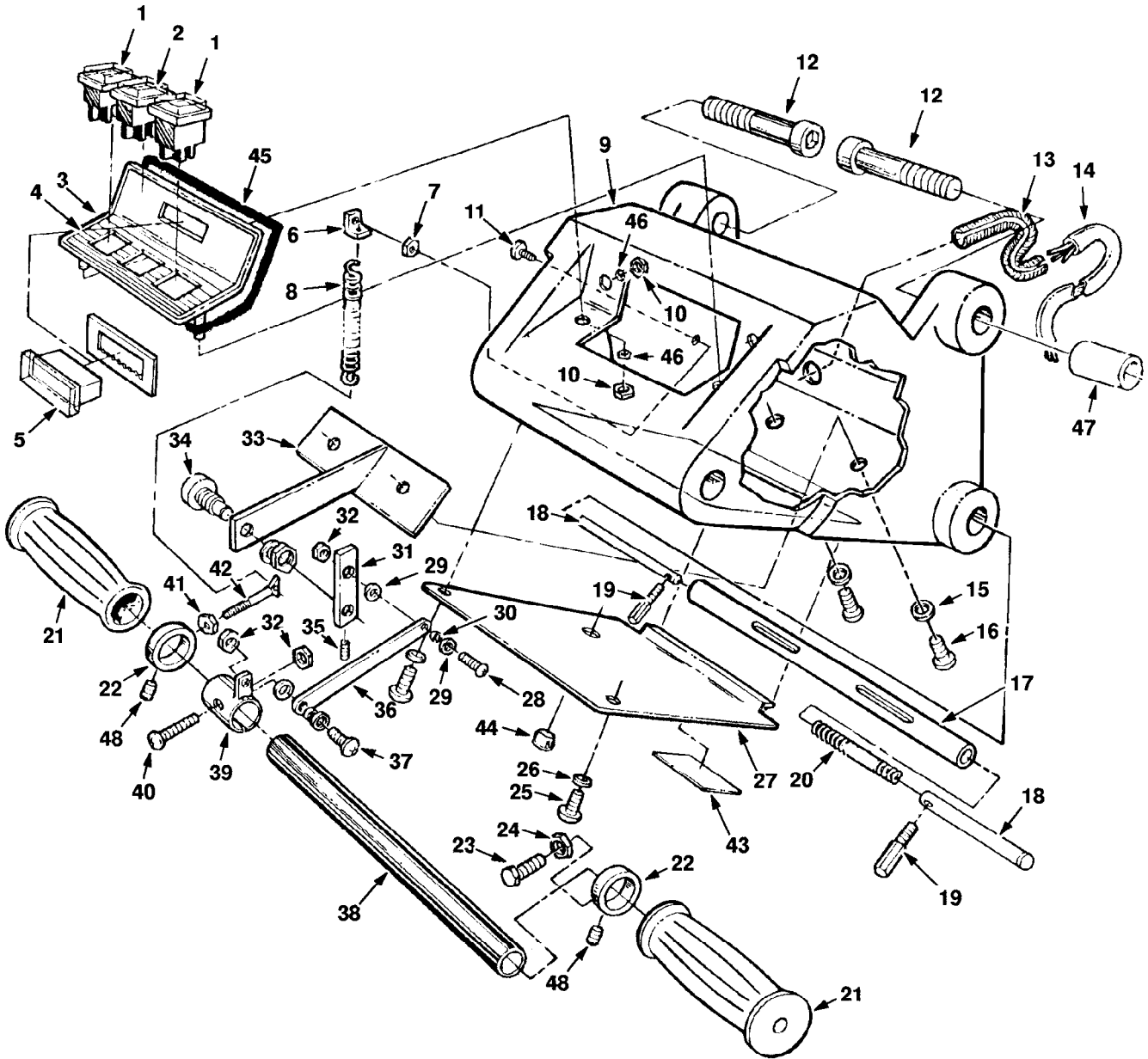


REAR PANEL ASSEMBLY

REF	PART #	DESCRIPTION	QTY
1.	230297	PLATE, LOCK	1
2.	140515	NUT, LOCK 3/8-16	1
3.	230925	SUPPORT, TANK	1
4.	140116	BUSHING	1
5.	140027	WASHER, FLAT 5/16"	2
6.	140015	WASHER, LOCK 5/16	1
7.	140275	SCREW	1
8.	621324	PLUG, EXPANSION	2
9.	600476	STRAP, DRAIN HOSE	2
10.	140295	SCREW	4
11.	140015	WASHER, LOCK 5/16	4
12.	140027	WASHER, FLAT 5/16"	4
13.	230296	BRACKET, HANGER	1
14.	230696.BK	HANGER, HOSE	1
15.	140810	SCREW, 6-32X3/8	2
16.	140019	WASHER, LOCK #6	2
17.	230661	PLATE, LOCK	1
18.	630394	SLEEVE, DRAIN HOSE	1
19.	630068	HOSE, DRAIN 38.1ID	1
20.	150529	HOSE BARB	2
21.	140310	CLAMP, HOSE	1
22.	600796	ASM., HOSE	1
23.	600649	DECAL, SOL. CONTROL	1
24.	600650	DECAL, SQG. UP-DOWN	1
25.	600476	STRAP, DRAIN HOSE	1
26.	140350	SCREW	1
27.	140012	WASHER	1

PARTS LIST

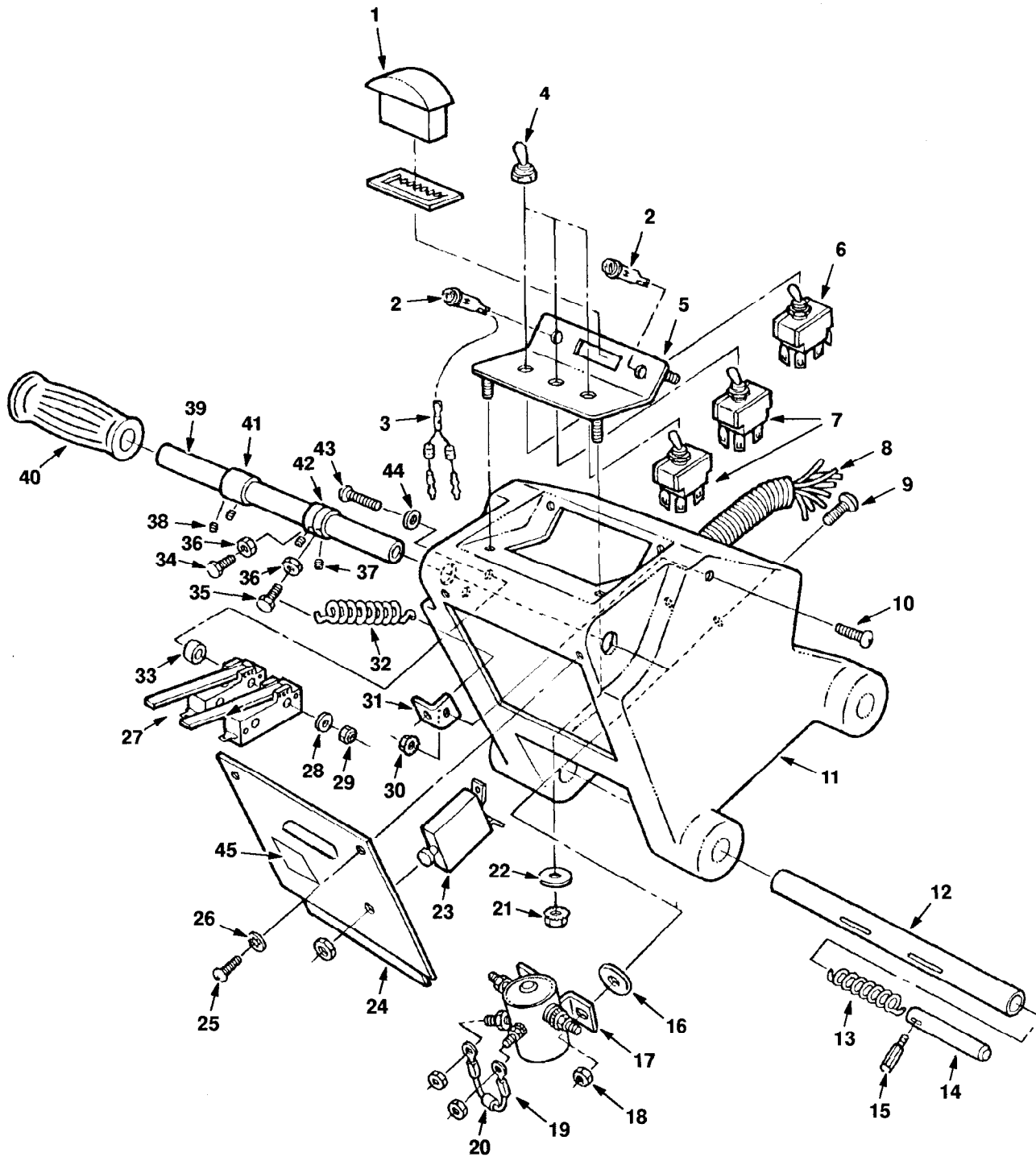
CONTROL CONSOLE ASSEMBLY (SS2701 & SS3301)



CONTROL CONSOLE ASSEMBLY (SS2701 & SS3301)

REF	PART #	DESCRIPTION	QTY
1.	130816	SWITCH, ROCKER	2
2.	130764	SWITCH, ROCKER	1
3.	230698.BK	PANEL, CONSOLE BLACK	1
4.	600648	DECAL, DASH	1
5.	130015	METER, BATTERY 24V	1
6.	230564	BRACKET, SPRING	1
7.	140519	NUT, KEP 10-24	1
8.	140409	SPRING, ROLL THRTTL	1
9.	100454	HOUSING, CONTROL	1
10.	140519	NUT, KEP 10-24	4
11.	140900	SCREW,10-24X3/4	1
12.	140351	SCREW	2
13.	130008	WRAP 1.25'	1.25ft.
14.	700996	ASM., HARNESS	1
15.	140052	WASHER, LOCK 1/4"	2
16.	140885	SCREW, 1/4-20X1/2	2
17.	230613	TUBE, HANDLE ADJT.	1
18.	230648	PIN, HANDLE ADJT.	2
19.	230649	LEVER, HANDLE ADJT.	2
20.	140415	SPRING, LOCK PIN	1
21.	200823	GRIP, HANDLE BLACK	2
22.	230652	COLLAR, HANDLE	2
23.	140554	SCREW, 1/4-20 X 3/4	1
24.	140510	NUT, 1/4-20	1
25.	140887	SCREW,10-24X3/8	2
26.	140018	WASHER, INT LCK #10	2
27.	230668.BK	COVER, CNTRL PANEL	1
28.	140900	SCREW,10-24X3/4	1
29.	140012	WASHER, FLAT 3/16"	4
30.	140138	BUSHING	2
31.	230688	ARM, LEVER SPEED POT.	1
32.	140519	NUT, KEP 10-24	3
33.	230690	BRACKET, SPEED POT	1
34.	190802	KIT, POTENTIOMETER	1
35.	140948	SCREW,10-24X1/4	1
36.	230689	LINK, SPEED POT	1
37.	140900	SCREW, 10-24X3/4	1
38.	230671	HANDLE, TUBE	1
39.	230687	BRACKET, TUBE	1
40.	140899	SCREW,10-24X1-1/4	1
41.	140510	NUT,1/4-20	1
42.	230491	PIN, SPRING RETURN	1
43.	120619	DECAL, WARNING	1
44.	069764626	PLUG	1
45.	100057	GASKET	1
46.	140000	WASHER	4
47.	140155	BUSHING	2
48.	140859	SCREW, SET	2

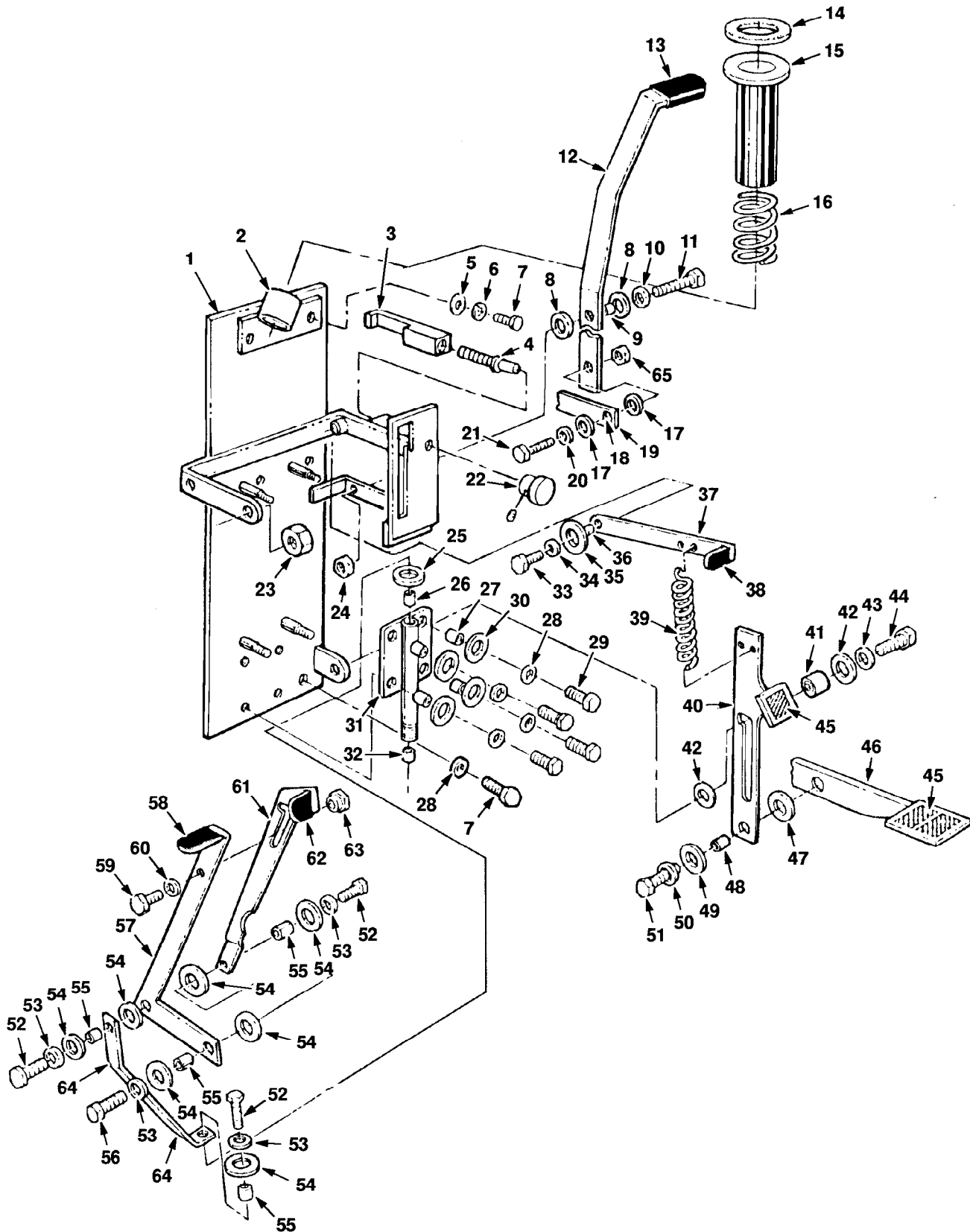
CONTROL CONSOLE ASSEMBLY (TS2701 & TS3301)



CONTROL CONSOLE ASSEMBLY (TS2701 & TS3301)

REF	PART #	DESCRIPTION	QTY
1.	130015	METER, BATTERY 24V	1
2.	130738	LIGHT, INDICATOR GRN	2
3.	700657	ASM, RECTIFIER	1
4.	130990	BOOT, RUBBER SWITCH	3
5.	230514.BK	PANEL, CONSOLE	1
	100057	GASKET, CONSOLE	1
	120590	DECAL, DASH	1
6.	130684	SWITCH, TOGGLE 3-WAY	1
7.	130726	SWITCH, TOGGLE	2
8.	701090	ASM., HARNESS	1
9.	140881	SCREW, 1/4 - 20 X 1	2
10.	140900	SCREW, 10 - 24 X 3/4	1
11.	100327	HSG, CONTROL	1
12.	230613	TUBE, HANDLE ADJT.	1
13.	140415	SPRING, LOCK PIN	1
14.	230648	PIN, HANDLE ADJT.	2
15.	230649	LEVER, HANDLE ADJT.	2
16.	240199	GROMMET, RUBBER	2
17.	130218	SOLENOID, 24 VOLT	1
18.	140501	NUT, LOCK 1/4	2
19.	130125	TERMINAL, RING	2
20.	130423	RECTIFIER, 400V/6.0A	1
21.	140519	NUT, KEP 10-24	4
22.	140000	WASHER, FLAT 1/4"	4
23.	130756	BREAKER, SWITCH 35A	1
24.	230668.BK	COVER, CONTROL PANEL	1
25.	140887	SCREW, 10 - 24 X 3/8	2
26.	140018	WASHER, INT LOCK #10	2
27.	28657	SWITCH	2
28.	140032	WASHER, FLAT #6	2
29.	28675	NUT, LOCK 6-32	2
30.	140519	NUT, 10 - 24	1
31.	230564	BRACKET, SPRING	1
32.	140409	SPRING, ROLL THRTTL	1
33.	140150	SPACER	2
34.	140554	SCREW, 1/4-20X3/4	1
35.	140208	SCREW, 1/4-20X1	1
36.	140510	NUT, 1/4-20	2
37.	140859	SCREW, 1/4-20X1/4	2
38.	140860	SCREW, 1/4-20X3/8	2
39.	230671	HANDLE, TUBE	1
40.	200823	GRIP, HANDLE	2
41.	230884	COLLAR, SWITCH	1
42.	230652	COLLAR, HANDLE	2
43.	140757	SCREW, 6-32X2-1/4	2
44.	140032	WASHER, FLAT #6	2
45.	120619	DECAL, WARNING	1

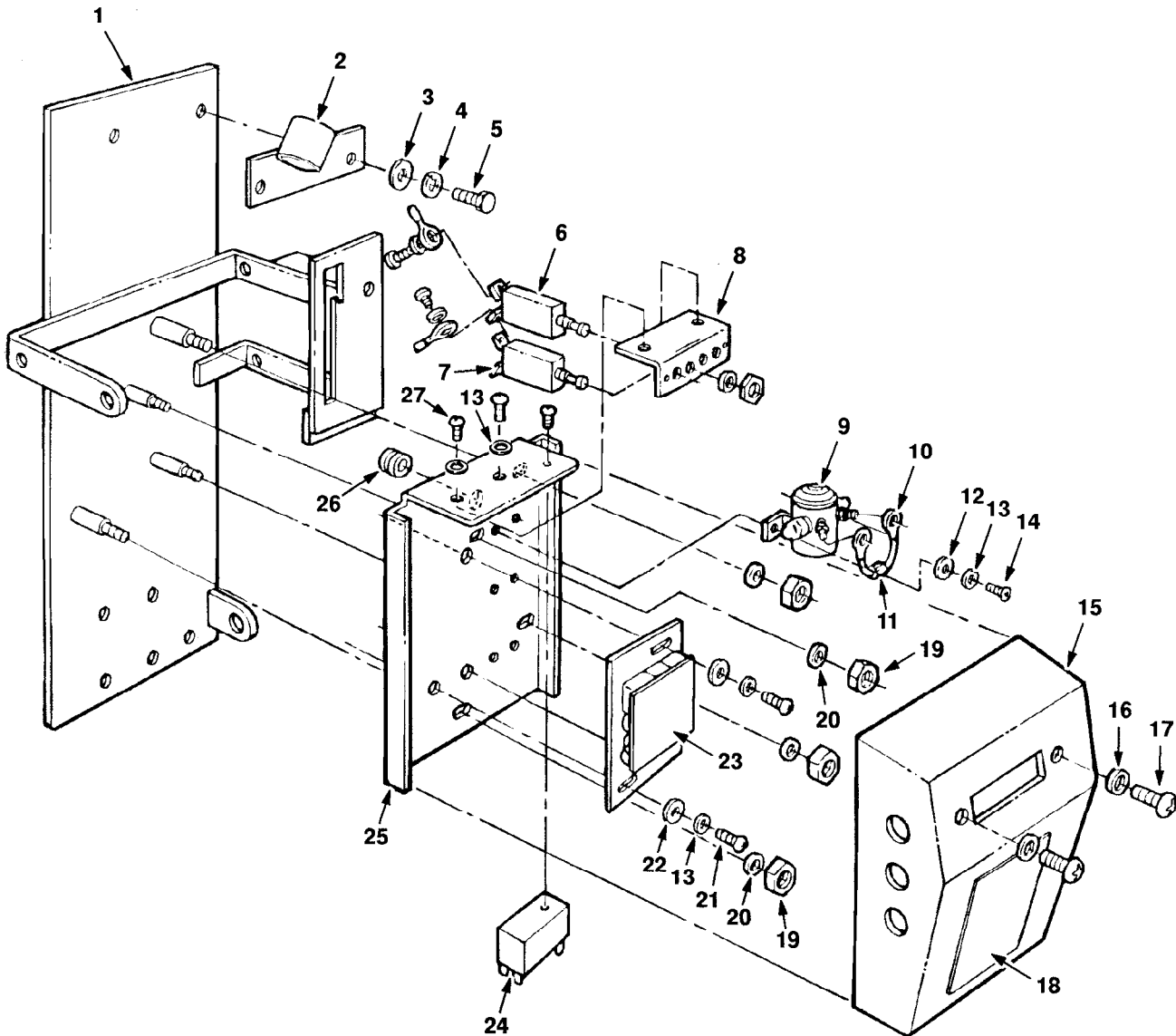
LEVER ASSEMBLY



LEVER ASSEMBLY

REF	PART #	DESCRIPTION	QTY
1.	230933.BK	PANEL, REAR	1
2.	230939	BRACKET, TUBE	1
3.	230944	BLOCK, VALVE STOP	1
4.	230945	STUD, VALVE ADJ STOP	1
5.	140027	WASHER, FLAT 5/16"	2
6.	140015	WASHER, LOCK 5/16	4
7.	200031488	SCREW, 5/16-18X3/4	5
8.	140028	WASHER, FLAT 3/8"	2
9.	140136	BUSHING	1
10.	140017	WASHER, LOCK 3/8"	1
11.	140202	SCREW, 3/8-16X1	1
12.	230680.BK	HANDLE, VALVE LEVER	1
13.	200816	GRIP, HANDLE	1
14.	100151	GASKET, TUBE	1
15.	230664	ADAPTER, TUBE	1
16.	140424	SPRING, TUBE ADAPTER	1
17.	140000	WASHER, FLAT 1/4"	2
18.	140134	BUSHING	1
19.	230656	LEVER, VALVE	1
20.	140016	WASHER, LOCK 1/4"	1
21.	140208	SCREW, 1/4-20X1	1
22.	240208	KNOB, HEIGHT ADJT.	1
23.	140515	NUT, 3/8-16	1
24.	140525	NUT, HEX 3/8-16	1
25.	140028	WASHER, FLAT 3/8"	1
26.	140103	BEARING, FLANGE	1
27.	140133	BUSHING	4
28.	140015	WASHER, LOCK 5/16	5
29.	578237000	SCREW, 5/16-18X3/4	4
30.	140027	WASHER, FLAT 5/16"	4
31.	230750	BRACKET, SQG. MOUNT	1
32.	140103	BEARING, FLANGE	1
33.	2949.7	SCREW, CAP 3/8-16X7/8	1
34.	140017	WASHER, LOCK 3/8"	1
35.	140028	WASHER, FLAT 3/8"	1
36.	140144	BUSHING	1
37.	230654	HANDLE, BRUSH	1
38.	200816	GRIP, HANDLE	1
39.	140423	SPRING	2
40.	230775	PEDAL, BRUSH LIFT	1
41.	140145	BUSHING (OUTER)	1
	140136	BUSHING (INNER)	1
42.	140028	WASHER, FLAT 3/8"	2
43.	140017	WASHER, LOCK 3/8"	1
44.	140202	SCREW, 3/8-16X1	1
45.	102560	SURFACING, NON SLIP	3
46.	230936	PEDAL, BRUSH LIFT	1
47.	140045	WASHER, FLAT	1
48.	140139	BUSHING	1
49.	140045	WASHER, FLAT 3/8"	1
50.	140024	WASHER, LOCK 1/2"	1
51.	140237	SCREW, 1/2-13X1	1
52.	140201	SCREW, 3/8-16X3/4	3
53.	140017	WASHER, LOCK 3/8"	4
54.	140028	WASHER, FLAT 3/8"	7
55.	140136	BUSHING	4
56.	140231	SCREW, 3/8X1-1/2	1
57.	230658.BK	HANDLE, SQUEEGEE	1
58.	200816	GRIP, HANDLE	1
59.	140259	SCREW, 1/4-20X5/8	1
60.	140016	WASHER, LOCK 1/4"	1
61.	230659	LATCH, SQUEEGEE LIFT	1
62.	200817	GRIP, HANDLE	1
63.	230631	SPACER	1
64.	230660	LINK, HANDLE	1
65.	140510	NUT, 1/4-20	1

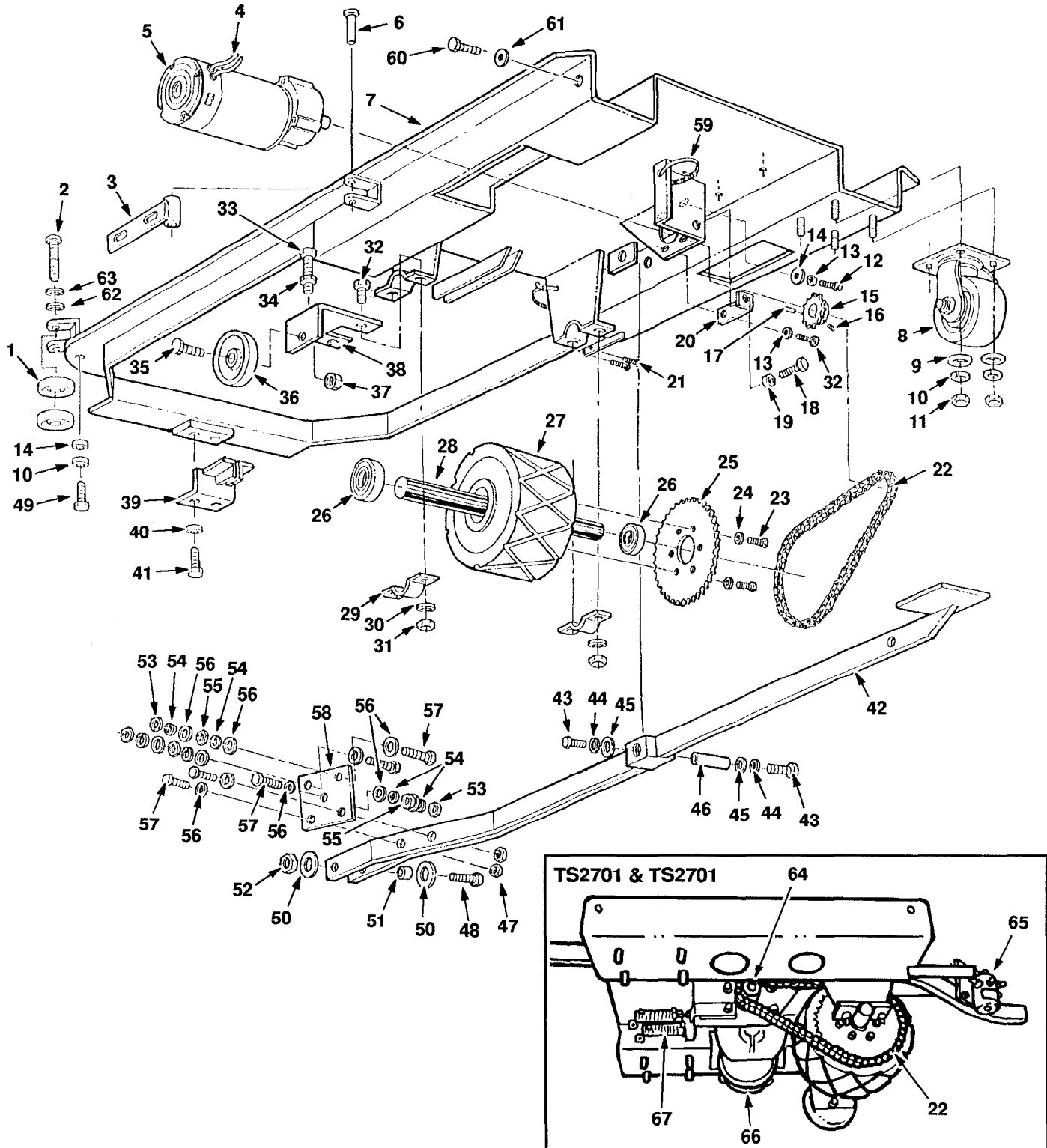
ELECTRICAL PANEL ASSEMBLY



ELECTRICAL PANEL ASSEMBLY

REF	PART #	DESCRIPTION	QTY
1.	230933.BK	PANEL, REAR	1
2.	230939	BRACKET, TUBE	1
3.	140027	WASHER, FLAT 5/16"	2
4.	140015	WASHER, LOCK 5/16	2
5.	200031488	SCREW	2
6.	130756	BREAKER, CIRCUIT 35A	3
7.	130755	BREAKER, CIRCUIT 10A	1
8.	230553	BRACKET, CIRCUIT BREAKER	1
9.	130218	SOLENOID 24 VOLT	3
10.	130125	TERMINAL	6
11.	130423	RECTIFIER	3
12.	140012	WASHER, FLAT 3/16	6
13.	140031	WASHER, EXT. LOCK #10	10
14.	140887	SCREW	6
15.	100234	COVER, ELECTRICAL PANEL	1
16.	140018	WASHER, LOCK #10	2
17.	140892	SCREW, 10-24X1/2	2
18.	600651	DECAL, CIRCUIT BREAKER	1
19.	069762303	NUT, KEP	4
20.	140000	WASHER, FLAT 1/4"	4
21.	140887	SCREW, 10-24X3/8	2
22.	140012	WASHER, FLAT	2
23.	701118	ASM, SPEED CNTRL BOARD	1
24.	130021	FLASHER, 24VDC	1
25.	230552	PANEL, ELECTRICAL	1
26.	240195	GROMMET, RUBBER	1
27.	140887	SCREW, 10-24X3/8	2

DRIVE WHEEL ASSEMBLY



DRIVE WHEEL ASSEMBLY

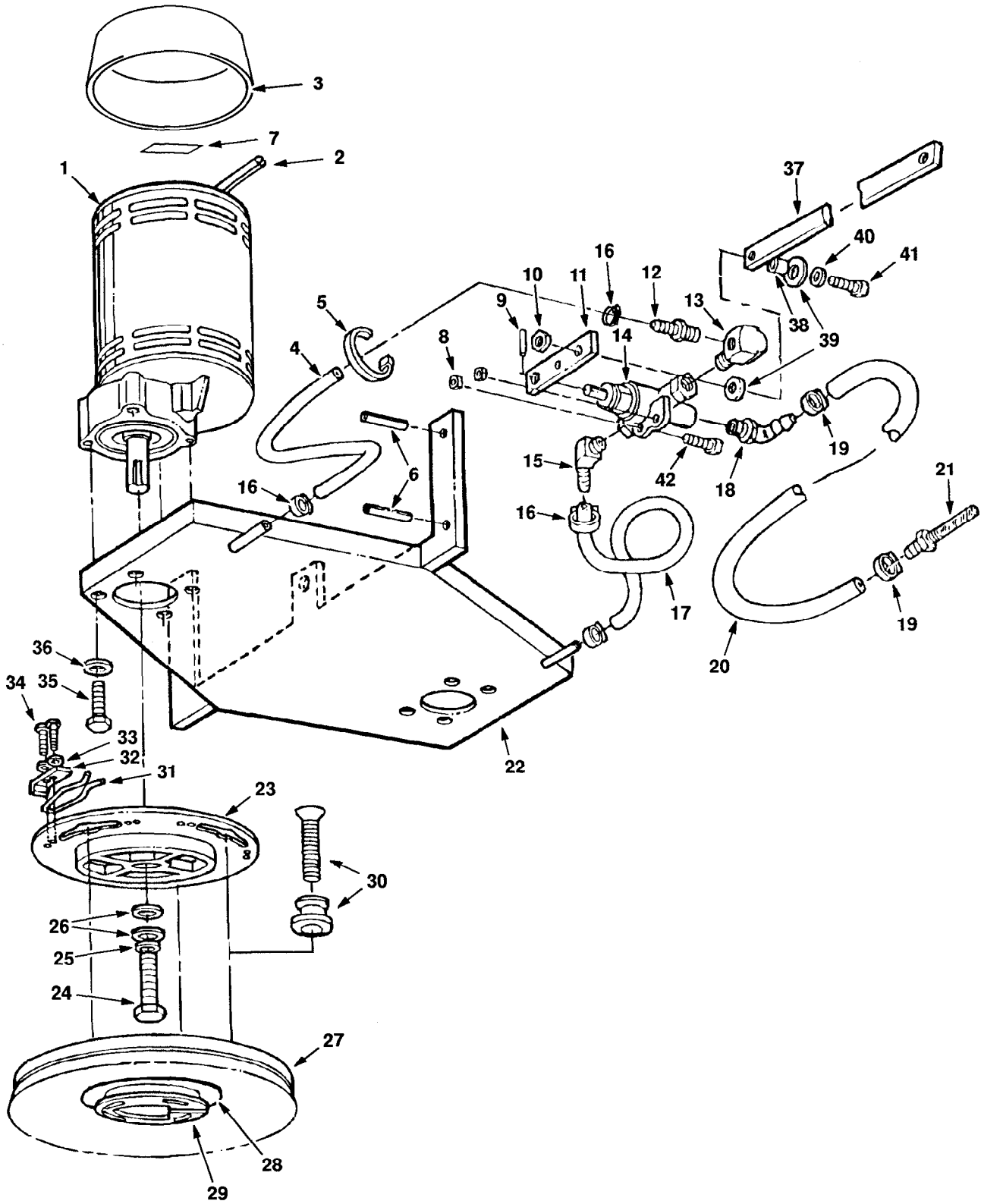
REF	PART #	DESCRIPTION	QTY
1.	630450	WHEEL	4
2.	600349	SCREW	2
3.	230942	BRACKET, SKIRT MOUNT	2
4.	130116	TERMINAL	2
5.	130464	▽ MOTOR, DRIVE 1/2HP 24V (SS2701/SS3301)	1
	130507	▲CAP, CARBON BRUSH	4
	130508	▲CARBON BRUSH	4

REF	PART #	DESCRIPTION	QTY
6.	230943	PIN, SKIRT	2
7.	230932.BK	CHASSIS	1
8.	103002	CASTER, 4" SWIVEL	2
9.	140025	WASHER, FLAT	8
10.	140333	WASHER, LOCK	10
11.	140285	NUT, HEX	8
12.	140202	SCREW, 3/8-16X1	3
13.	140017	WASHER, LOCK 3/8"	3
14.	140028	WASHER, FLAT 3/8"	3
15.	240071	SPROCKET, MOTOR (SS2701/SS3301)	1
16.	140859	SCREW, SET	2
17.	140632	KEY, 1/4 X 1"	1
18.	140231	SCREW, 3/8-16X1-1/2	1
19.	140525	NUT, 3/8-16	1
20.	230655	BRACKET, TENSION	1
21.	140895	SCREW, 10-24 x 3/4	2
22.	600777	▽ KIT, CHAIN	1
	240072	▲ CHAIN	2.54ft.
	240021	▲ LINK, CONNECTING	1
	240073	▲ LINK, HALF	1
23.	140223	SCREW, 5/16-18 x 3/4	6
24.	140015	WASHER, LOCK 5/16	6
25.	240070	SPROCKET, DRIVE WHEEL	1
26.	140124	BEARING, WHEEL	2
27.	103058	WHEEL, DRIVE 8"	1
28.	230205	SHAFT, DRIVE WHEEL	1
29.	140311.BK	CLAMP, WHEEL AXLE	2
30.	140017	WASHER, LOCK 3/8	4
31.	140525	NUT, HEX 3/8-16	4
32.	140323	SCREW, 3/8-16 X 1-1/4	5
33.	140233	SCREW, 3/8-16X1-3/4	1
34.	140525	NUT, 3/8-16	1
35.	140233	SCREW, 3/8-16X1-3/4	1
36.	103007	WHEEL, TIP	1
37.	140525	NUT, 3/8-16	1
38.	230796	BRACKET, TIP WHEEL	1
39.	230941	BRACKET	1
40.	140015	WASHER, LOCK 5/16	2
41.	140275	SCREW	2
42.	230936	LIFT ARM	1
43.	140272	SCREW	2
44.	140016	WASHER, LOCK 1/4"	2
45.	140003	WASHER, FLAT 1/4"	2
46.	230940	PIN, LIFT ARM PIVOT	1
47.	140524	NUT, KEP 1/4-20	2
48.	600666	SCREW	1
49.	140276	SCREW	2
50.	140045	WASHER, FLAT	2
51.	140137	BUSHING	1
52.	140509	NUT, 1/2-13	1
53.	140510	NUT, 1/4-20	3
54.	140016	WASHER, LOCK 1/4"	6
55.	140510	NUT, 1/4-20	6
56.	140000	WASHER, FLAT 1/4"	11
57.	140208	SCREW, 1/4-20 X 1	5
58.	230554	BOARD, CONNECTION	1
59.	130040	WIRE TIE, NYLON	2
60.	140352	SCREW	4
61.	140024	WASHER, LOCK 1/2	4
62.	140011	WASHER, FLAT	2
63.	140015	WASHER, LOCK	2
64.	240087	SPROCKET, MOTOR (TS)	1
65.	130218	SOLENOID, 24V (TS)	1
	130423	RECTIFIER, 400V, 6.0A	1
	130125	TERMINAL, #10 RING	2
66.	130466	▽ MOTOR, DRIVE 24V (TS)	1
	130507	▲ CAP, CARBON BRUSH (TS)	4
	130508	▲ CARBON BRUSH (TS)	4
67.	130713	RESISTOR, 100W .9 OHM (TS)	2
	140900	SCREW, 10-24X3/4 (TS)	2
	140011	WASHER, FLAT 3/16 (TS)	4
	140519	NUT, 10-24	4

▽=ASSEMBLY

▲=INCLUDED IN ASSEMBLY

BRUSH DRIVE ASSEMBLY



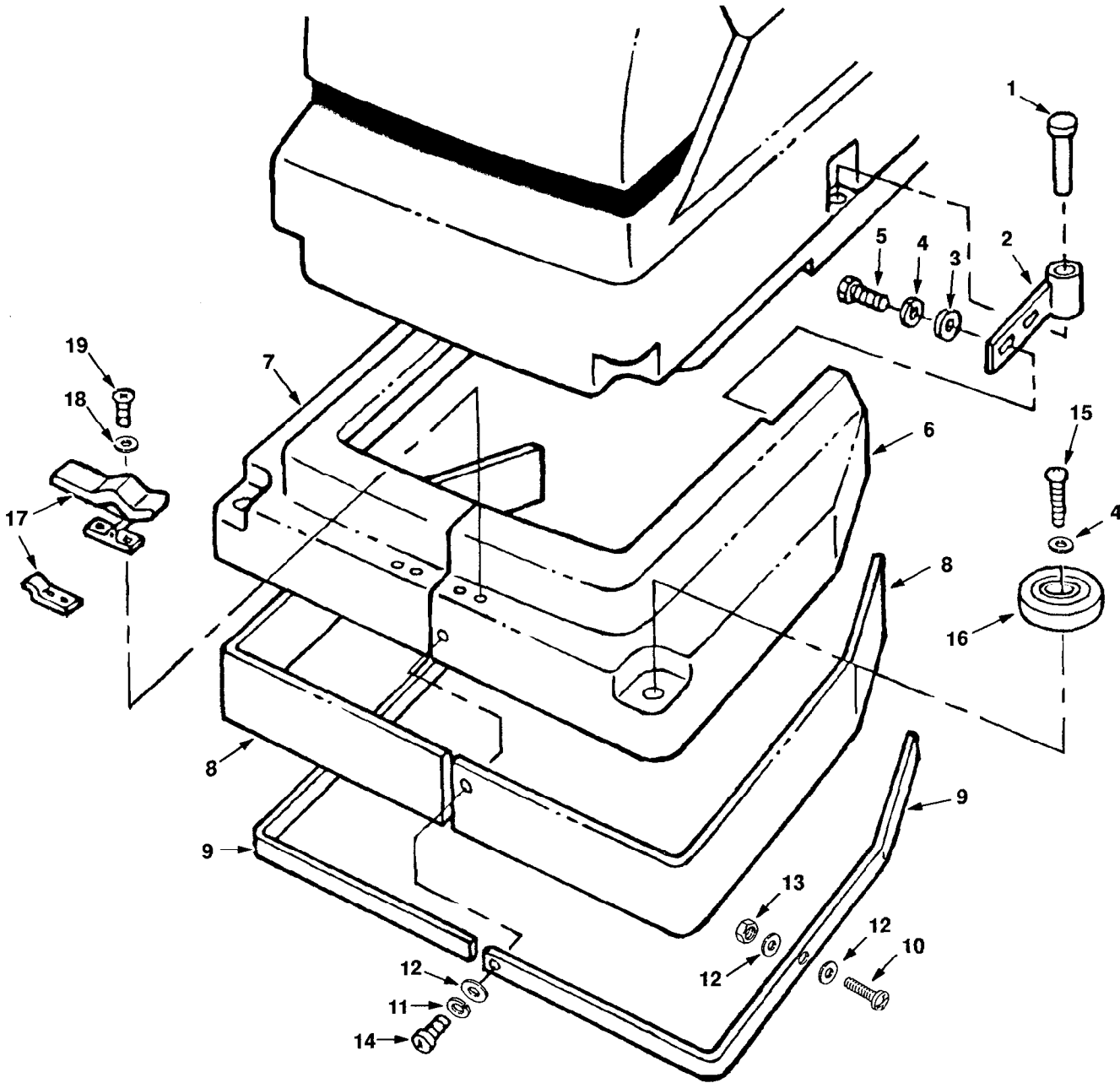
BRUSH DRIVE ASSEMBLY

REF	PART #	DESCRIPTION	QTY
1.	130491	▽MOTOR,24V	2
	140632	▲KEY, MOTOR	2
2.	130163	TERMINAL, RING	2
3.	100764	COVER, MOTOR	2
4.	160625	HOSE, 3/8	1.21 ft.
5.	130041	WIRE TIE, NYLON	1
6.	140618	PIN, ROLL, 1/4X1-1/2	4
7.	100058	TAPE, MOTOR COVER	1
8.	140552	NUT, NYLON LOCK 10-24	2
9.	140616	PIN, ROLL 3/32 X 5/8	1
10.	140510	NUT, 1/4-20	1
11.	230657	ARM, VALVE	1
12.	150516	HOSE BARB, 1/4M X 3/8H	1
13.	150406	ELBOW, 1/4" X 90°	1
14.	210259	VALVE, SOLUTION	1
15.	28303	HOSE BARB	1
16.	140310	CLAMP, HOSE	4
17.	160625	HOSE, 3/8	54 ft.
18.	150410	HOSE BARB, 90°	1
19.	140310	CLAMP, HOSE	2
20.	600350	TUBING, VINYL	1.13 ft.
21.	180640	FILTER, SOLUTION TANK	1
22.	230674	BRACKET, MOTOR (2701)	1
	230691	BRACKET, MOTOR (3301)	1
23.	230672	PLATE, DRIVE	2
24.	140219	SCREW, 5/16-18X1	2
25.	140015	WASHER, LOCK 5/16	2
26.	25732	WASHER, FLAT	4
27.	240232	▽DRIVER, PAD (2701) PK/2	1
	240233	▽DRIVER, PAD (3301) PK/2	1
28.	100106	▲PLATE, PAD DRIVER	2
29.	100107	▲RING, PAD RETAINER	2
30.	240238	▲LUGS W/SCREWS (SET/3)	2
31.	140417	CLIP, SPRING	2
32.	230651	CLAMP, BRUSH PLATE	2
33.	140018	WASHER, INT LOCK #10	4
34.	140887	SCREW, 10-24X3/8	4
35.	140202	SCREW, 3/8-16X1	8
36.	140017	WASHER, LOCK 3/8"	8
37.	230656	LEVER, VALVE	1
38.	140134	BUSHING	1
39.	140000	WASHER, FLAT 1/4	2
40.	140016	WASHER, LOCK 1/4	1
41.	140208	SCREW, 1/4-20X1	1
42.	140895	SCREW	2

▽=ASSEMBLY

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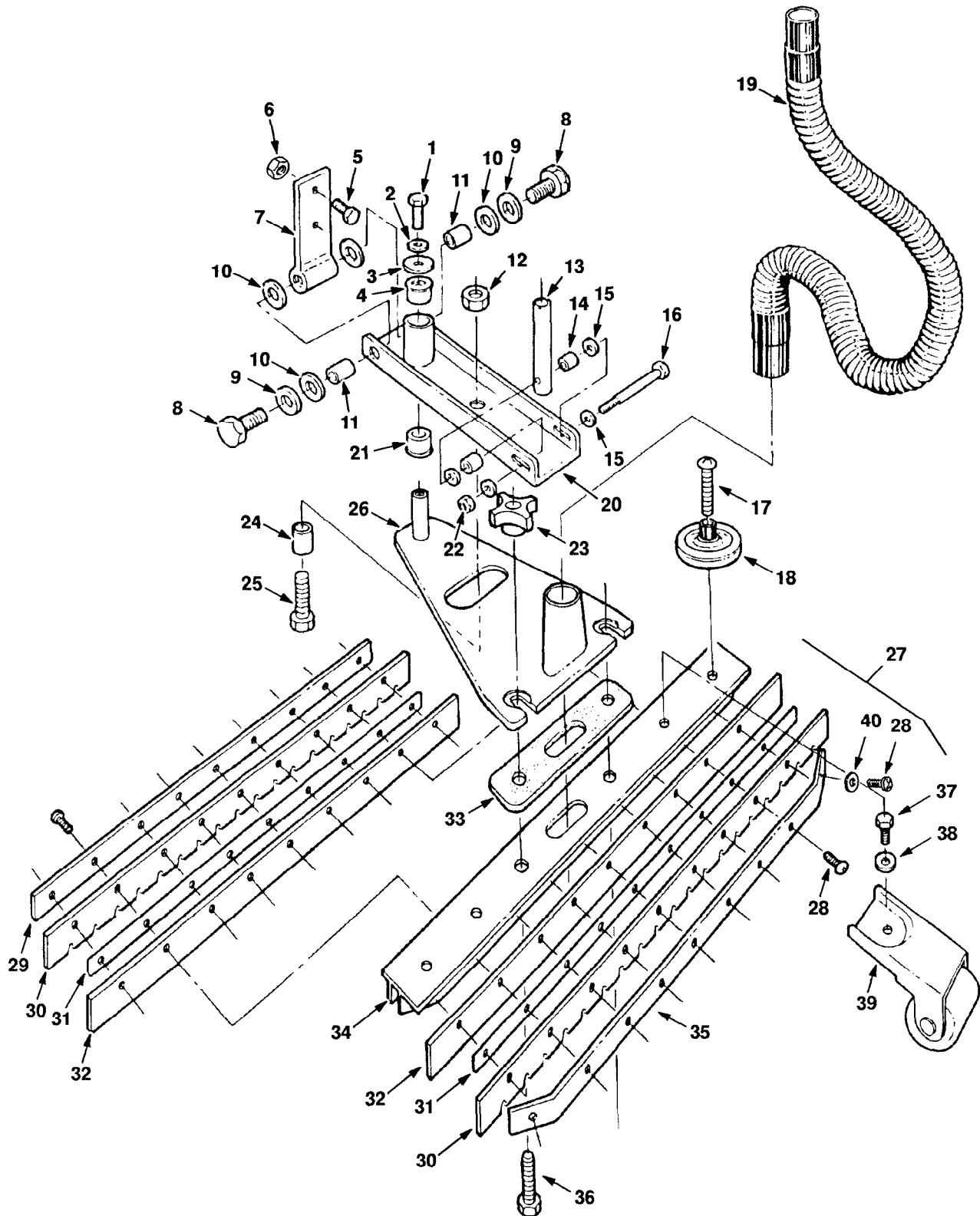
SKIRT ASSEMBLY



SKIRT ASSEMBLY

REF	PART #	DESCRIPTION	QTY
1	230943	PIN, SKIRT	2
2	230942	BRACKET, SKIRT	2
3	140027	WASHER, FLAT 5/16	4
4	140015	WASHER, LOCK 5/16	4
5	578237000	SCREW, M8X18	4
6	101071	HOUSING, SKIRT LH (2701)	1
	101073	HOUSING, SKIRT LH (3301)	1
7	101072	HOUSING, SKIRT RH (2701)	1
	101074	HOUSING, SKIRT RH (3301)	1
8	240277	GUARD, SPLASH (2701)	2
	240276	GUARD, SPLASH (3301)	2
9	230935.BK	STRAP, (2701)	2
	230934.BK	STRAP, (3301)	2
10	140293	SCREW, M5X.8X30MM	6/12
11	140018	WASHER, INT LOCK #10	16/12
12	140011	WASHER, FLAT 3/16	28/36
13	140283	NUT, M5X.8	6/12
14	578144000	SCREW, M5X16	16/12
15	069767190	SCREW, M08X40MM	2
16	630450	WHEEL, RUBBER	2
17	140932	LATCH	1
18	140023	WASHER, INT LOCK #8	4
19	200070340	SCREW, M04X08MM	4

SQUEEGEE ASSEMBLY



SQUEEGEE ASSEMBLY

REF	PART #	DESCRIPTION	QTY
1.	140259	SCREW, 1/4-20X5/8	1
2.	140016	WASHER, LOCK 1/4"	1
3.	140003	WASHER, FENDER 1/4X1	1
4.	140103	BEARING, FLANGE	1
5.	140223	SCREW, 5/16-18X3/4	2
6.	140546	NUT, LOCK 5/16-18	2
7.	230442	BRACKET, SQUEEGEE	1
8.	140237	SCREW, 1/2-13X1	2
9.	140024	WASHER, LOCK 1/2"	2
10.	140045	WASHER, FLAT	4
11.	140139	BUSHING	2
12.	140509	NUT, 1/2-13	1
13.	230441	SHAFT, LIFT	1
14.	28971	BEARING, SLEEVE	2
15.	140000	WASHER, FLAT 1/4"	4
16.	140209	SCREW, 1/4-20X2-1/2	1
17.	140799	SCREW, 5/16-18X1-1/2	2
18.	630450	WHEEL, W/ BUSHINGS	2
19.	160613	HOSE, 1.5 W/CUFFS	1
20.	230440.BK	BRACKET, SQG. PIVOT	1
21.	140103	BEARING, FLANGE 5/8"	1
22.	140501	NUT, LOCK 1/4"	1
23.	27257	KNOB	2
24.	140911	BUSHING	1
25.	140204	SCREW, 1/2-13X1-1/2	1
26.	230443.BK	PLATE, SQG. MOUNT	1
27.	701008	▽ ASM., SQUEEGEE (2701)	1
27.	701009	▽ ASM., SQUEEGEE (3301)	1
28.	140198	▲ SCREW, 10-24X1/2	24/28
29.	230686.BK	▲ PLATE, FRONT (3301)	1
30.	230670.BK	▲ PLATE, FRONT (2701)	1
30.	240293	▲ BLADE, NOTCHED (3301)	2
30.	240295	▲ BLADE, NOTCHED (2701)	2
31.	230768	▲ SPACER, SQG. (3301)	2
31.	230767	▲ SPACER, SQG. (2701)	2
32.	240292	▲ BLADE, WIPER (3301)	2
32.	240294	▲ BLADE, WIPER (2701)	2
33.	100150	▲ GASKET, SQUEEGEE	1
34.	230692.BK	▲ CHANNEL, (3301)	1
34.	230682.BK	▲ CHANNEL, SQG. (2701)	1
35.	230685.BK	▲ PLATE, BLADE (3301)	1
35.	230669.BK	▲ PLATE, BLADE (2701)	1
36.	140221	▲ SCREW, 5/16-18X1-1/4	2
37.	140226	▲ SCREW, 5/16-18X5/8	2
38.	140015	▲ WASHER, LOCK 5/16	2
39.	700844	▲ ASM., SQG. ROLLER	2

▽=ASSEMBLY

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