



Electronic Service Manuals

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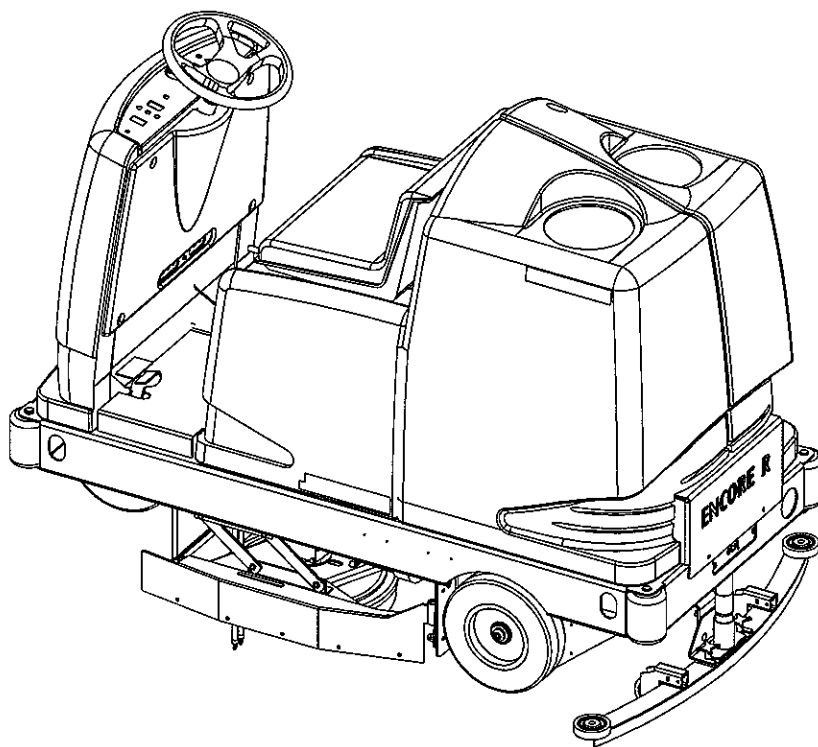
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Serving the Cleaning Industry Since 1922

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American-Lincoln®

Operator's
Manual &
Parts List



ENCORE R
SCRUBBER

Beginning with Serial No. 178575

READ THIS BOOK!

This book has important information for the use and safe operation of this machine. Failure to read this book prior to operating or attempting any service or maintenance procedure to your machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If you or your operator (s) cannot read English, have this manual fully explained before attempting to operate this machine.

Si Ud. O sus operadores no pueden leer el Inglés, se hacen explicar este manual completamente antes de tratar el manejo o servicio de esta máquina.

All directions given in this book are as seen from the operator's position at the rear of the machine.

ISO 9001



FILE 'A2287



TABLE OF CONTENTS

Chapter 1 (INSTRUCTIONS)	
Specifications	1-4
Safety Precautions	1-6
Machine Preparation	1-8
Machine Controls	
Solution Control Knob	1-9
Battery Condition Meter	1-9
Horn Button	1-9
Light Switch (Option)	1-9
Squeegee Blade Switch	1-10
High Recovery Light	1-10
Low Solution Light	1-10
Key Switch	1-10
Scrub Brush Switch	1-11
ESP Option	1-11
Hour Meter	1-11
Pre Sweep Option	1-12
Brake	1-12
Accelerator & Directional Control Pedal	1-13
Operating Instructions	
Seat Adjustment	1-14
Pre-Start Checklist	1-14
Fill Solution Tank	1-14
To Start Machine	1-14
Post Start Checklist	1-14
To Transport Machine	1-14
To Begin The Cleaning Operation	1-15
To Stop The Cleaning Operation	1-15
Post Operation Checklist	1-16
To Drain Recovery Tank	1-16
Helpful Hints For Cleaning	
Service Chart	1-18
Service Instructions	
Scrub Deck-Splash Skirt/Side Squeegee Adjustment	1-20
Replacing Scrub Brushes	1-20
Replacing Pads On A Pad Driver	1-20
Maintenance For The Rear Squeegee	1-20
Squeegee Wheel Adjustment	1-21
Squeegee Blade Replacement	1-21
Squeegee Angle Adjustment	1-21
Parking Brake Adjustment	1-22
Setting The Reverse Delay Adjustment	1-22
Foot Pedal Neutral Adjustment	1-22
Steering Adjustment-Pivot Adjustment	1-22
Steering Adjustment-Sprocket Adjustment	1-23
Solution Feed Hoses	1-23

TABLE OF CONTENTS

Sweeper Option-Drive Belt Adjustments	1-24
Battery Removal	1-24
Battery Charging Instructions	1-24
Trouble Shooting	1-26
Ordering Parts	1-29
Hardware Abbreviations	1-30
Hardware Legend	1-31
Machine Connection & Harness Routing	1-37
Connection Drawing	1-39
Electrical Schematic	1-40

Chapter 2 (PARTS/ASSEMBLIES)

Table of Contents	2-1
Frame Assembly	2-2
Front Wheel Drive	2-3
Rear Assembly	2-4
Steering	2-5
Brake	2-6
Console	2-8
Scrub Deck Actuator	2-10
Scrub Deck Assembly	2-12
Brushes & Pad Drivers	2-16
Squeegee Lift	2-18
Side Squeegee	2-20
Rear Squeegee (34" & 38")	2-24
Seat Assembly	2-26
Vacuum Assembly	2-28
Forward/Reverse Pedal	2-30
Recovery Tank	2-32
Solution Tank	2-33
Solution Control	2-34
Instrument Panel	2-36
Decals	2-40

Chapter 3 (OPTIONS)

Table of Contents	3-1
Back-Up Alarm	3-2
Light Package	3-3
Dual Vacuum System	3-4
Overhead Guard	3-5
Strobe Light With Overhead Guard	3-6
Strobe Light Without Overhead Guard	3-8
Arm Rest Option	3-10
Seat Switch Kit	3-11
Main Broom Sweeper Option	3-12
Broom Drive Sweeper	3-14
Frame & Flaps Option	3-16
ESP Recovery Option	3-18
Hopper Sweeper Option	3-20
Dust Control Option	3-22

TABLE OF CONTENTS

Spray Wand Option	3-24
Squeegee Wand Option	3-26
Fire Extinguisher	3-27
Battery Options	3-28
Spare Parts Kits 34", 38", & CE Kit	3-31
Connection Drawing Sweeper Option	3-32
Index	3-34
Warranty	3-37

SPECIFICATIONS

SPECIFICATION FOR THE ENCORE R 34" AND 38"

POWER SUPPLY

Encore R (34")

36 volt (3-12 volt batteries) 228 AH

Encore R (38")

36 volt (6-6 volt batteries) 340 AH or 370 AH

CHARGER

Encore R (34" & 38")

36 Volt output, 115V/60Hz or 230V/50Hz Input

MOTORS, VACUUM

1 HP. (.74 kw), 3 stage, tangential discharge

MOTORS, BRUSH

1.5 hp (1.11kw)

MOTOR, DRIVE

1.5 hp (1.11kw)

WHEELS

(1) Front 12.0" (31.75 cm) (2) rear 12.0" (31.75 cm)

BRUSH SIZE

Encore R (34")

2-17" (43.18 cm) DIA.

Encore R (38")

2-19" (48.26 cm) DIA.

CLEANING PATH

Encore R (34")

34"(86.36 cm)

Encore R (38")

38" (96.52 cm)

BRUSH SPEED

300 RPM

SOLUTION TANK

45 gallon (171 liter)

RECOVERY TANK

45 gallon (171 liter)

SPEED, TRANSPORT

5 MPH

SPEED, SCRUBBING

3.5 MPH

TURN RADIUS

56" (142.24 cm)

U-TURN AISLE WIDTH

80" (203.2 cm)

CLEANING RATE

Encore R (34")

37000 sq. ft/hr (3426 sq. m/hr)

Encore R (38")

42000 sq. ft/hr (3901 sq. m/hr)

GRADE CLEANING

3°

GRADE TRANSPORT

6°

LENGTH

71.5" (181.61 cm)

WIDTH

Encore R (34")	Machine	33.5" (85 cm)
	Brush Housings	38.0" (96.52 cm)
	Squeegee	42.0" (106.68cm)

Encore R (38")	Machine	33.5" (85 cm)
	Brush Housings	41.0" (104.14 cm)
	Squeegee	42.0" (106.68 cm)

HEIGHT

51" (129.54 cm)

HEIGHT W/OHG

80" (203.2 cm)

WEIGHT

Encore R (34")	1800 lb. (817.25 kg)
----------------	----------------------

Encore R (38")	1820 lb. (826.33 kg)
----------------	----------------------

WARRANTY

Machine	2 year
Polydur® tanks	8 years
Batteries	18 months, prorated

WARNINGS

THE FOLLOWING STATEMENTS ARE USED THROUGHOUT THIS MANUAL AS INDICATED IN THEIR DESCRIPTIONS

DANGER

To warn of immediate hazards which will result in severe personal injury or death.

WARNING

To warn of hazard or unsafe practices which could result in severe personal injury.

CAUTION

To warn of hazards or unsafe practices which could result in minor personal injury.

ATTENTION

To warn of unsafe practices which could result in extensive equipment damage.

NOTE

To give important information or to warn of unsafe practices which could result in equipment damage.

Read this manual carefully. The following information signals potentially dangerous conditions to the operator or equipment. Know when these conditions can exist then, take necessary steps to train machine operating personnel.

For the safe operation of this machine, read and understand all WARNINGS, CAUTIONS AND NOTES.

Water solutions or cleaning materials used with this type of machine can leave wet areas on the floor surface. These areas can cause a dangerous condition for the operator or other persons. Always put CAUTION signs near the area you are cleaning.

DO NOT put gasoline, combustible or flammable material in the solution or recovery tanks.

DO NOT operate the machine near flammable materials and vapors, it can ignite and cause an explosion. Do not use with or near flammable materials such as: gasoline, grain dust, solvents and thinners. Only use a cleaning concentrate recommended by the chemical manufacturer.

Improper use of heavy machinery can cause personal injury. Operate only when lids, doors, and access panels are securely closed.

Use care when reversing machine in confined area.

Unplug the battery first to prevent possible injury when servicing a machine.

When working with the machine on its side, empty tanks, remove batteries, clear area of people and obstructions, and use additional people and proper procedures when lighting the machine.

Always empty the solution tank and recovery tank before doing maintenance.

You must have training in the operation of this machine before using it. READ THE OPERATORS MANUAL.
Do not operate this machine unless it is completely assembled.

Do not use this machine as a step or furniture.

Be careful when operating the machine on a ramp or incline. Do not operate machine on incline greater than 6° or longer than 100'. Always move slowly on a ramp. Do not turn this machine on a ramp. Do not stop and leave this machine on a ramp.

Always stop the machine on a level surface, put the power switch in the "O" position. Engage the parking brake.

To prevent injury, and damage to the machine, do not lift the machine or move it to an edge of a stair or loading dock.

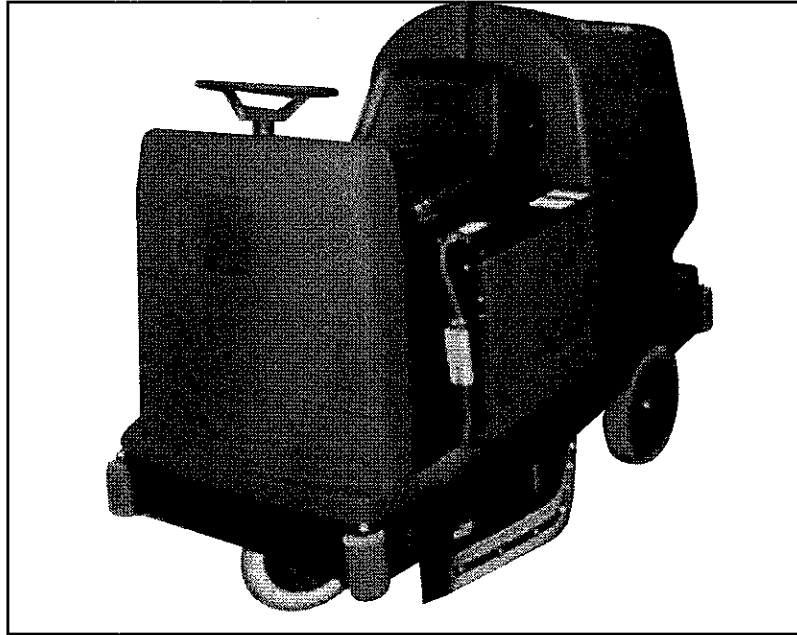
SAFETY PRECAUTIONS

Lead acid batteries generate gases, which can cause an explosion. Keep sparks and flames away from batteries. NO SMOKING. Charge batteries only in area with good ventilation.

Always wear eye protection and protective clothing when working near batteries. Remove all jewelry. Do not put tools or other metal objects across the battery terminals, or the tops of batteries.

Maintenance and repairs must be done by authorized personnel only. Tighten all fasteners. Keep adjustments according to the specifications given in the operator's manual for the machine. Keep the electrical parts of the machine dry. For storage, keep the machine in a building.

Make sure that all labels, decals, warnings, cautions and instructions are fastened to the machine. Get new labels and decals from American-Lincoln.



C1836

FIGURE 1

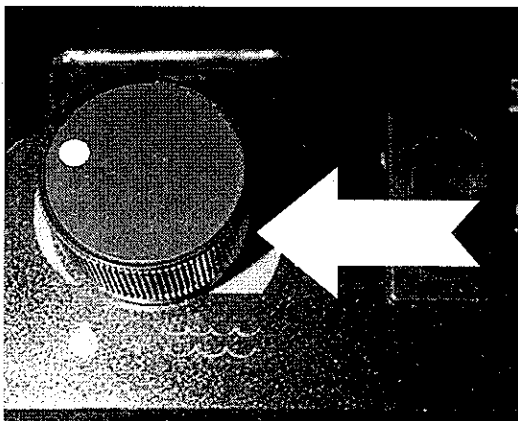
Your ENCORE R battery machine has been shipped complete, but do not attempt to operate without reading the following instructions:

1. Uncrate machine
2. Install scrub brushes, as outlined in the Maintenance section of this manual.
3. Install batteries as follows
 - A. Turn the key to the "O" position
 - B. Lift the hinged seat and cover, then engage safety arm.
 - C. Use a battery lifting device with a 150 LB. (68KG) capacity to place the batteries in the battery compartment.
 - D. Install Battery wires, as shown on page 1-23
 - E. Plug the polarized connector from the battery on into the 36 Volt plug provided.
 - F. Lower seat and cover assembly.



WARNING

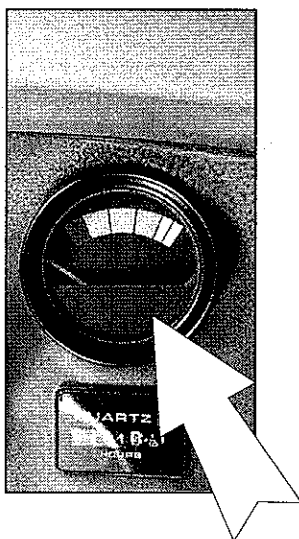
Hydrogen gas is formed during the charging operation and is explosive. Only charge batteries in a well ventilated area with the lid open. Avoid any smoking, open flame, or electrical sparks. Pulling out the charger plug, with the timer on, will cause an arc and must be avoided.



C1879 FIGURE 2

SOLUTION CONTROL KNOB - (See Figure 2)

The solution control knob is located to the left-hand side of the steering wheel. Turning the knob clockwise will increase the flow of solution and water. The farther the solution control knob is turned the heavier the flow of water and solution will be. Turning the knob counter clockwise will decrease the flow of the solution and water. To turn the water and solution off, turn the knob all the way counter-clockwise.



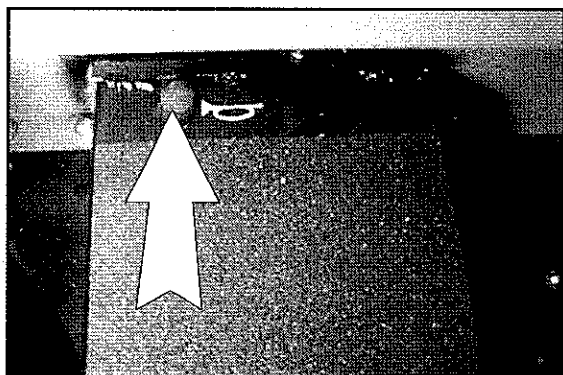
C1839 FIGURE 3

BATTERY CONDITION METER - (See Figure 3)

The meter shows the condition of the battery, while the machine is running, under load. When battery voltage falls below 31.5 volts for longer than 60 seconds, the low voltage light will come on. Also the Brush/Water solenoids will be locked out regardless of the previous conditions or commands. This is a permanent lockout until power is turned off to module. The low voltage lock out can be reset almost immediately by turning off all power to the module for 3-5 seconds. Upon reapplying power, the lockout will be off and will have to go through the 60 second delay before again locking-out the Brush/Water solenoid. In a permanent low-battery-voltage-condition, the machine can be functional only for one-minute periods, and then only by repeating the Ignition - "O" reset routine.

NOTE

Continual discharge of the battery below the "Red Zone" will shorten battery life.



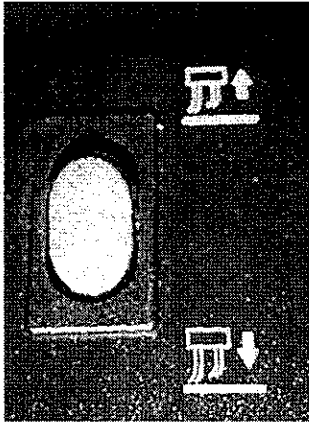
C1840 FIGURE 4

HORN BUTTON - (See Figure 4)

The horn button is located on the floor of the ENCORE R operator's compartment to the left of the pedals.

Light Switch (OPTION)

The light switch will activate any of the light options. The switch is active at all times.

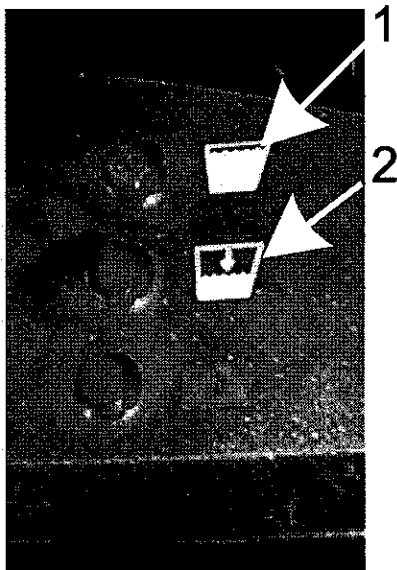


C1880

FIGURE 5

SQUEEGEE BLADE SWITCH (See Figure 5)

The squeegee blade switch is located on the console to the left of the steering wheel. Pressing the squeegee switch in the forward position turns the vacuum-motor off and the squeegee blades are up. When the switch is in the middle, the vacuum motor is on and the squeegee blade is down. Pressing the squeegee switch in the downward position, will raise the blade and keep the vacuum on.



C1878

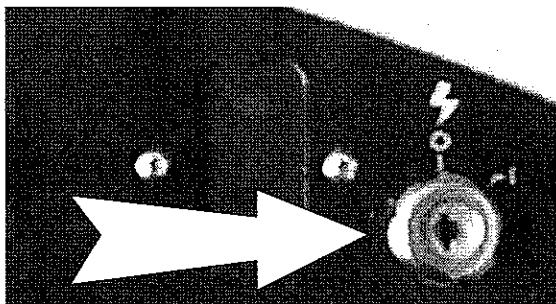
FIGURE 6

HIGH RECOVERY LIGHT - (See Figure 6)

The High Recovery Warning Light is located on the console. The recovery warning light will illuminate and stay on approximately five minutes before the recovery tank is full, giving ample time to complete the scrubbing cycle before the mechanical float shuts off the vacuum to the recovery tank.

LOW SOLUTION LIGHT - (See Figure 6)

The Low Solution Warning Light is located on the console. The Solution Warning Light will illuminate when the solution tank is empty, marking the end of the scrubbing cycle.

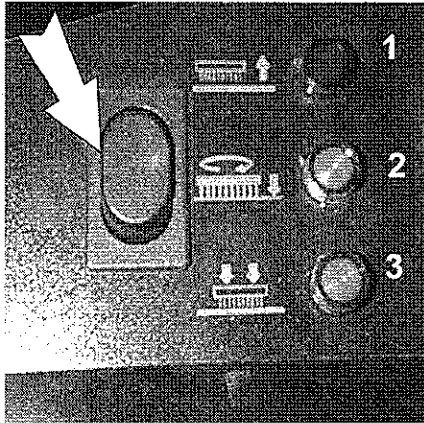


C1843

FIGURE 7

KEY SWITCH - (See Figure 7)

The Key Switch turned to the right, the "I" position, will activate all machine systems. The optional lights can be activated in the "O" position.



C1837

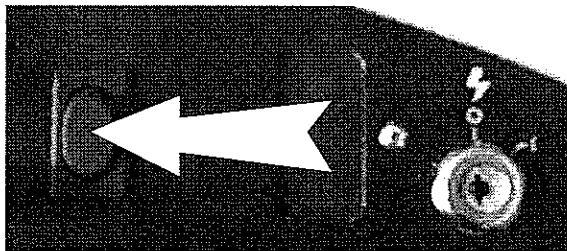
FIGURE 8

SCRUB BRUSH SWITCH - (See Figure 8)

The Scrub Brush Switch is located to the far left of the steering wheel on the control panel. The Scrub Brush indicator lights are located to the left of the Scrub Brush switch.

With brushes up & the key switch is turned on the red indicator will automatically be on. This indicates that the scrub brushes are in the up position. Press and hold the scrub brush switch down until the yellow indicator light illuminates. This indicates that the scrub brushes are in the normal scrub position. Press and hold the scrub brush switch down until the green indicator light illuminates. This indicates that the scrub brushes are in the heavy scrub position. The lights will flash between the three positions.

To raise the scrub brushes press and hold forward the Scrub Brush Switch until the red indicator light is illuminated.



C1845

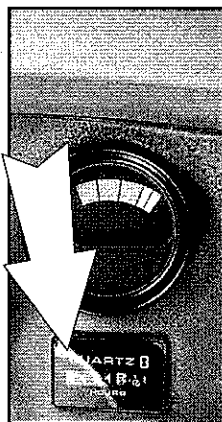
FIGURE 9

ESP OPTION - (See Figure 9)

The ESP Option transfers water from the recovery tank through a filter and into the solution tank. When the switch is in the "on" position the pump should operate when the High Recovery light is illuminated. Clean the filter in the recovery tank whenever the tank is emptied.

NOTE

Do not place clean water in the recovery tank when using the ESP option, the solution tank could become overfilled during operation.



C1847

FIGURE 10

HOURLY METER - (See Figure 10)

The hour meter is activated when the key switch is in the "on" position. The meter indicates the time, in Hours that the machine has been operated. This is useful for determining service intervals.



FIGURE 11

PRE SWEEP OPTION (See Figure 11)

Operation

The sweeper is designed to turn the broom on as it is lowered. To lower the broom release hand lever on right side. To remove the hopper, grasp each end of the hopper and lift it up and out of the frame.

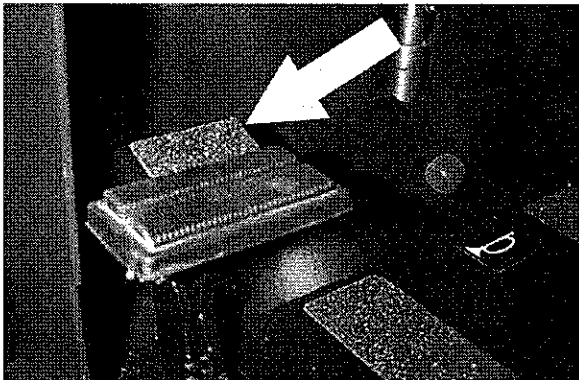
Adjustment

The main broom on this sweeper is free floating and has no adjustment for wear. If your broom pattern is wide on one side, place the broom in the down position, turn the key off and loosen the mounting bolt on the left end of the broom, then retighten.

Replace the main broom when it is either worn or damaged. To replace the main broom: first remove the hopper. Then remove the idler screw, through the hole in the frame. Remove the idler bracket then pull the broom off the drive and out the hopper opening.

Adjustment Side Broom

Adjust side flaps so they clear the ground by 1/16 of an inch. As the side broom wears, adjustment is required to keep proper broom pattern on the floor. Remove the hopper and loosen the stop at lower right hand side, reposition and tighten.

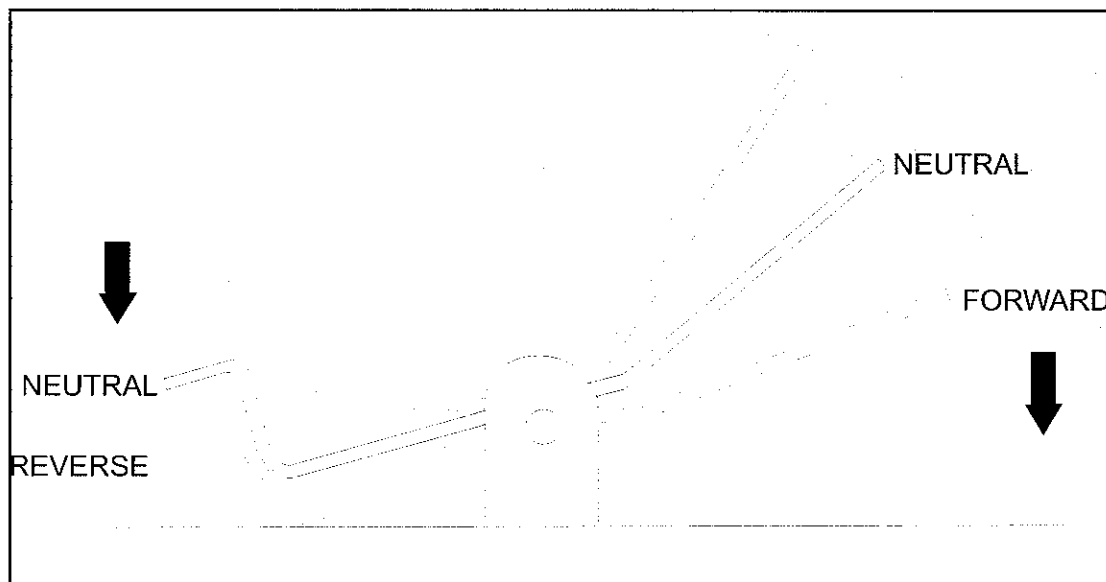


C1848

FIGURE 12

BRAKE - (See Figure 12)

Never leave operator's seat without engaging the parking brake. The parking brake is used on the rear wheels of the mechanical system and is located on the floor of the machine left of the directional control pedal. To set parking brake, press foot pedal to set lock. To unlock the parking brake, push the upper portion of the brake pedal. The foot brake is not a method for slowing machine travel or for stopping under normal conditions. This is accomplished with the accelerator and directional control pedal.



P4066

FIGURE 13

ACCELERATOR and DIRECTIONAL CONTROL PEDAL - (See Figure 13)

The Accelerator and Directional Control Pedal is located on the floor of the operator's area. This pedal controls the machine direction and travel speed. If the machine stops due to an electrical system overload in the power panel controller, place the forward/reverse pedal in neutral to reset the controller.

1. Put foot pressure on the upper portion of the pedal. The machine will move forward.
2. Increase the foot pressure on the upper portion of the pedal to increase the forward speed.
3. Put foot pressure on the lower portion of the pedal. The machine will move in reverse.
4. Increase the foot pressure on the lower portion of the pedal to increase the reverse speed.
5. To stop the machine,
 - A. Allow directional control pedal to return to neutral (center position). Pedal will automatically return to neutral when foot pedal is released. Neutral braking will engage to slow down the machine.
 - B. If neutral braking does not engage or disengages after slowing the machine to a crawl, reset the neutral brake by briefly depressing the accelerator and directional control pedal according to the direction of travel. If the machine is moving forward, briefly depress the upper portion of the pedal. If the machine is moving in reverse, briefly depress the lower portion of the pedal.



C1851

FIGURE 14

SEAT ADJUSTMENT- (See Figure 14)

This lever is located on front of the seat and allows the seat to be adjusted.

Note

Before starting, perform the pre-start checks.

PRE-START CHECKLIST

1. Check controls for proper operation.
2. Make sure all controls are in the "O" position
3. Be sure accelerator/directional control pedal is in the neutral position
4. Check all flaps for damage or wear
5. Check scrub brushes
6. Fill tank with water and detergent

TO FILL SOLUTION TANK

Remove the solution lid located on the back right side of the machine. Fill tank with 40 gallons of water and the correct mixture of American Lincoln Commercial cleaner for the job on hand, first making sure that the solution control knob is "OFF." Place the lid back on the solution tank.

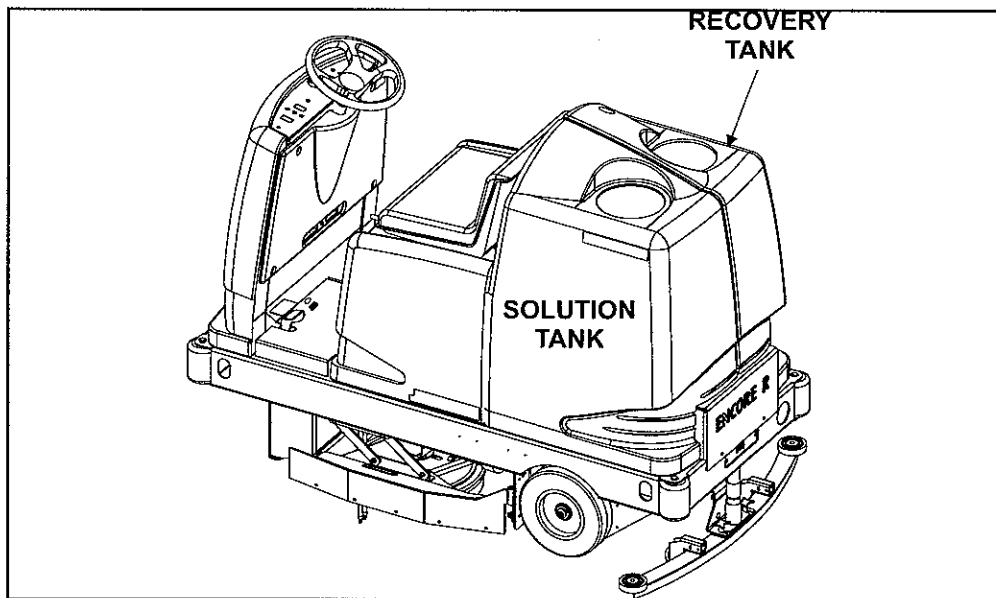
TO START MACHINE

1. Release parking brake
2. Turn key to "I" position

TO TRANSPORT MACHINE

1. Be sure the brushes and squeegee are in the "UP" or "RAISED" position with all other controls in the "O" position.
2. Release parking brake.
3. Push forward on the directional control pedal to place the machine in motion.
4. Vary your foot pressure on the directional control pedal to obtain desired travel speed.
5. To stop, allow directional control pedal to return to neutral (centered) position. (Pedal will automatically return to neutral when foot pressure is released).
6. Set parking brake.

OPERATING INSTRUCTIONS



C1832

FIGURE 15

TO BEGIN THE CLEANING OPERATION

1. Lower brushes to the desired position.
SCRUB DECK = NORMAL RANGE OR HEAVY
2. Place the squeegee switch in the lower position.
SQUEEGEE BLADE = LOWER
3. Move solution control knob to the desired setting and begin operation.

SCRUBBING THE AVERAGE FLOOR WITH LIGHT TO MEDIUM SOILAGE

In this operation, cleaning is accomplished in one pass, with simultaneous solution feed, scrubbing and dirty water pick up. The rate of solution feed and the speed of travel required will vary with floor condition. This knowledge will come with operator experience.

TO STOP THE CLEANING OPERATION

Discontinue the cleaning operation whenever a solution tank is empty or a recovery tank is full. At this time, discontinue the scrubbing cycle, put all controls in the forward position for transport and drive to the drain area.

NOTE

After stopping, perform these post operation checks.

POST-OPERATION CHECKLIST

Check Battery Condition and recharge, if necessary.

1. Check all flaps for wear, damage and adjustment.
2. Drain and clean recovery tank.
3. Clean recovery tank screen and float.
4. Check scrub brushes for wear or damage.
5. Check rear and side squeegee for wear, damage and adjustment.

TO DRAIN RECOVERY TANK

A drain hose for the recovery tank is located underneath the right side of the machine. To drain the tank, remove and lower the hose and place in a suitable floor drain. Open Recovery Tank Lid and remove Drain Plug to allow the soiled water to drain. When the draining operation is completed, Flush and Clean the recovery tank, Install Drain Plug, close Recovery Tank Lid and replace the drain hose.

IMPORTANT

Always flush the recovery tank with clean water at the end of each cleaning cycle. Never let debris accumulate, settle and harden in the tank or on associated hardware.



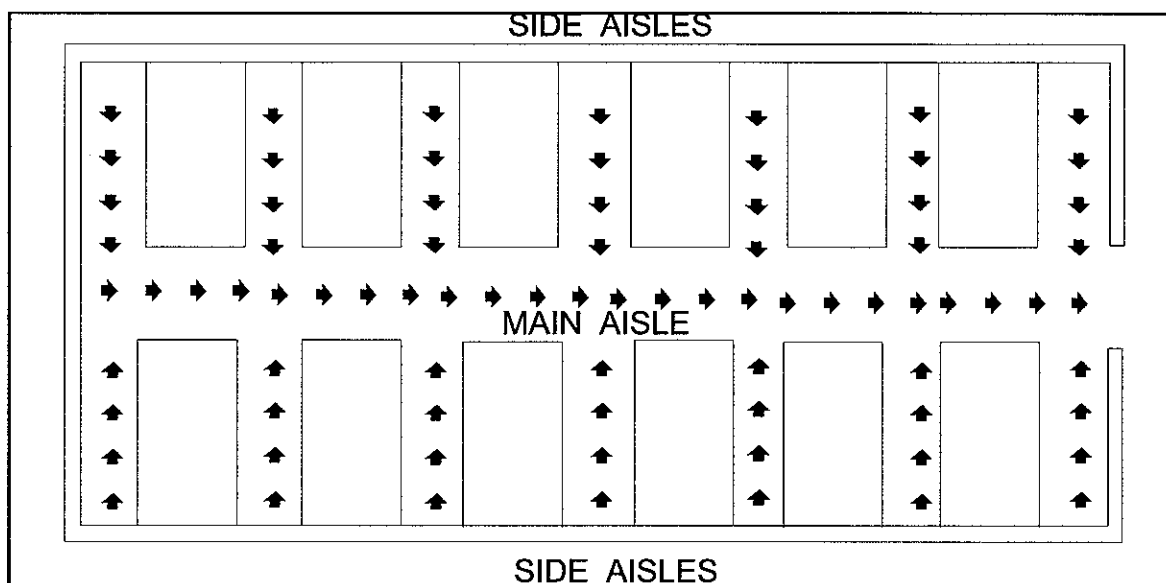
WARNING

Improper discharge of wastewater will damage the environment and is illegal. The U.S. Environmental Protection Agency has established certain regulations regarding discharge of wastewater. Also, local city and state regulations regarding wastewater discharge may be in effect in your area. Understand and follow the regulations in your area. Be aware of the environmental hazards associated with the substances you dispose of.

NOTE

Replace disc brushes when bristles are reduced to 3/4 inch length. To order replacement brushes, see scrub brush options in this manual. Replace squeegee rubbers when all usable edges have become rounded with wear, impairing the wiping action. To order replacement squeegee rubbers, see the parts list in this manual.

HELPFUL HINTS FOR CLEANING



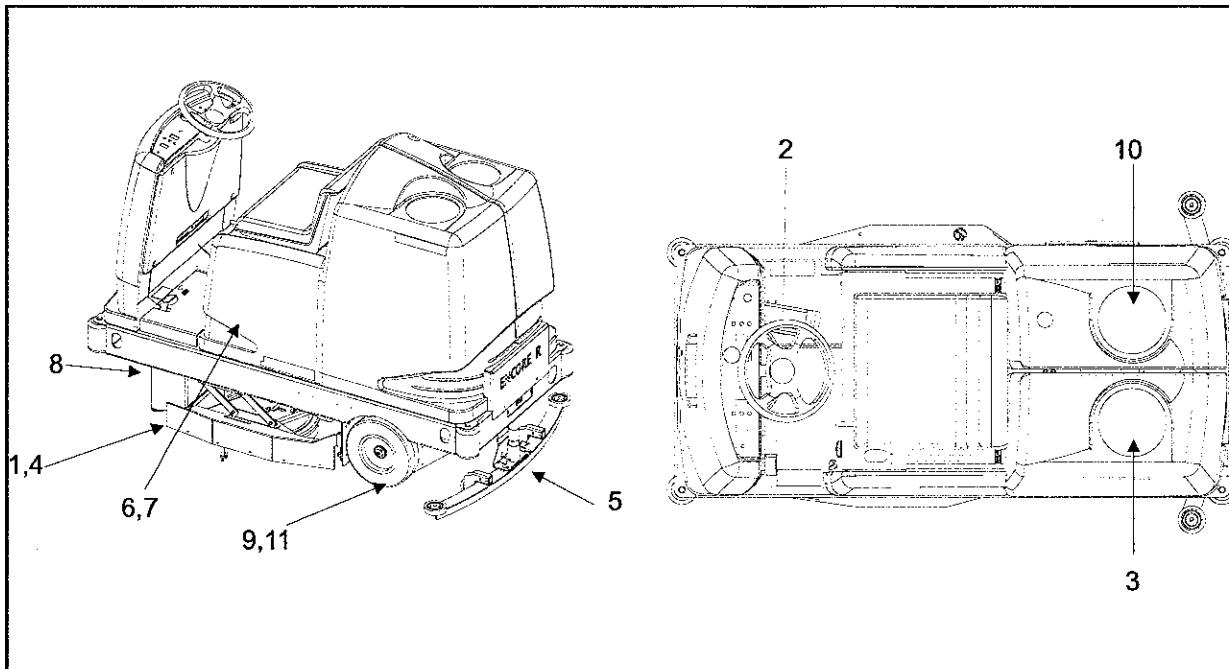
P4134

FIGURE 16



WARNING

- Do not turn the steering wheel sharply when the machine is in motion. The sweeper is very responsive to movement of the steering wheel. Do not make sudden turns.
- Scrub in straight paths. Do not bump posts. Do not scrape the sides of the machine.
- When the machine is in motion, do not push the directional/speed control pedal all the way forward. This is the same as starting in "high" and will put a strain on the motor and drive system.
- Plan your sweeping and scrubbing in advance. Try to arrange long runs with minimum stopping and starting. Sweep debris from narrow aisles out into main aisle ahead of time. Do an entire floor, or section at on time.
- Pick up oversize debris before sweeping.
- Allow a few inches of overlap of sweep and scrub paths. This will eliminate leaving dirty patches.
- Don't turn steering wheel to sharply when machine is in motion. The machine is very responsive to movement of the steering wheel; so avoid sudden turns.
- Try to follow as straight a path as possible. Avoid bumping into posts or scraping the sides of the machine.
- When placing the machine in motion, avoid slamming the directional control pedal all the way forward suddenly. This is equivalent to starting out in "HIGH" and puts needless strain on the drive system. Periodically, turn the sweeping broom end for end to prevent the bristles from "settling" in one direction.



C1833

FIGURE 17

EVERY 8 HOURS or DAILY operation check and clean/adjust if necessary - (See Figure 17):

1. All flaps for wear or damage
2. Parking brake
3. Clean recovery tank
4. Scrub brushes for wear or damage
5. Rear squeegee for wear or damage
6. Charge and check batteries

50 HOUR MAINTENANCE CHECKLIST:

7. Check battery electrolyte level
8. Lubricate front wheel bearing and pivot

100 HOUR MAINTENANCE CHECKLIST:

9. Lubricate drive chain, use motorcycle chain lube
10. Clean solution tank
11. Inspect chain sprockets and alignment

For service assistance, consult your local American-Lincoln Distributor, For best performance, replace worn parts with genuine American-Lincoln parts.

Refer all Maintenance and Service Requirements to Qualified Maintenance Personnel.

Do not attempt to service this machine until you have read and understood all Safety Warnings associated with the equipment you are working on.

SERVICE CHART



WARNING

Maintenance and repairs must be done by authorized personnel only.



WARNING

Electrical repairs must be done by authorized personnel only. Consult your American-Lincoln Authorized Service Person to do service procedures. Use only genuine American-Lincoln parts.



WARNING

Always park on a level surface, turn key off, and engage parking brake before working on the machine to keep it from creeping or rolling.



IMPORTANT

If towing or pushing is required, disconnect motor lead located on the terminal block on the bottom of the machine.



WARNING

Maintenance and repairs must be done by authorized personnel only. Always empty the solution tank and the recovery tank before doing any maintenance. Keep all fasteners tight. Keep adjustments according to the specifications as shown in the Service Manual for this machine.



WARNING

Always wear eye protection and protective clothing when working near batteries. Do not put tools or other metal objects across the tops of the batteries.



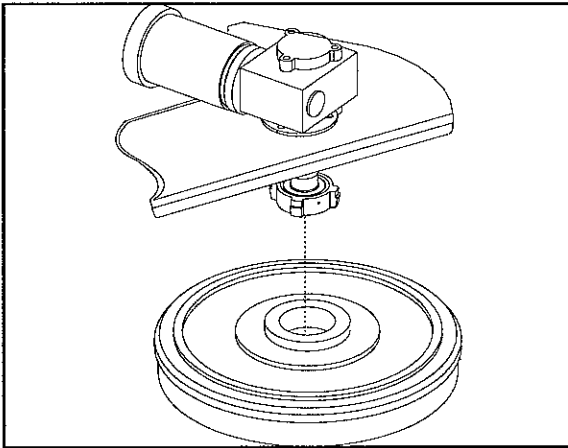
WARNING

To prevent damage to the machine, and discharge across the tops of the batteries, do not fill the batteries above the bottom of the tube in each cell. Wipe any acid from the machine or the tops of the batteries. Do not add acid to a battery after installation.



WARNING

Always wear eye protection and protective clothing when working near batteries. NO SMOKING.



C1834

FIGURE 18

REPLACING THE SCRUB BRUSHES

(See Figure 18)

Replace Scrub Brushes when the bristles become worn to $\frac{3}{4}$ ".

1. Lower scrub brushes.
2. Swing open side squeegees
3. Lift scrub brushes
4. The scrub brush is held in place by a ring. Pull the brush straight down to remove it.
5. Push a new brush onto the scrub brush driver until it clicks in place.
6. Lower Scrub Deck to the NORMAL position and check the brush for proper floor contact.
7. Replace side squeegees.

REPLACING PADS ON A PAD DRIVER

Install a new pad when the old pad is worn or dirty. The pad driver assembly is removed and installed the same way a standard scrub brush is. (See REPLACING THE SCRUB BRUSHES)

To change pad follow this procedure.

1. The pad driver is held in place by a ring. Pull the pad driver straight down to remove it.
3. Remove the pad holder using the spring wire retainer.
4. Replace the worn pad



C1877

FIGURE 19

MAINTENANCE FOR THE REAR SQUEEGEE

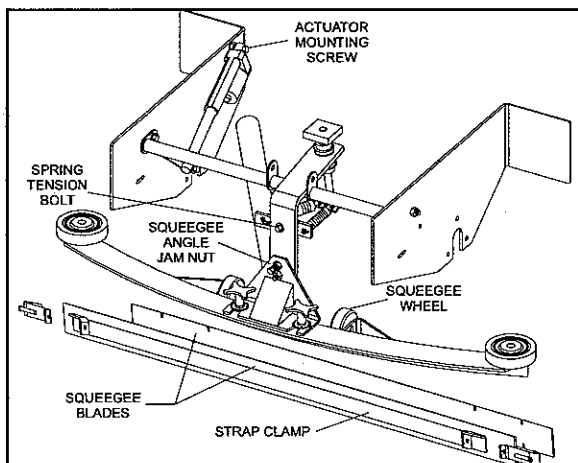
(See Figures 19 & 20)

To remove the squeegee, follow this procedure:

1. Remove the squeegee assembly by loosening the two knobs that attach the squeegee to the machine. Pull the squeegee assembly off.
2. Inspect the squeegee blade.
3. If the blade is worn, turn the blade so that a new edge is in the wiping position.
4. Reinstall squeegee assembly on the machine.

Note

Toothed lock washers must be on top of support plate



C1852

FIGURE 20

SQUEEGEE WHEEL ADJUSTMENT -

Adjust if squeegee leaves water on floor. The wheels must be $\frac{3}{16}$ " (.476 cm) above the floor.

1. Set the parking brake.
2. Turn the key switch to the "I" position.
3. Put the Squeegee Blade Switch in the "LOWER" position.
4. Turn the key switch to the "O" position. This will turn off the vacuum fans.
5. Loosen the wheel brackets by turning the adjustment handles.
6. Adjust the wheels to $\frac{3}{16}$ " (.476 cm) above the floor.
7. Tighten the wheel brackets with the adjustment handles.

SQUEEGEE BLADE REPLACEMENT

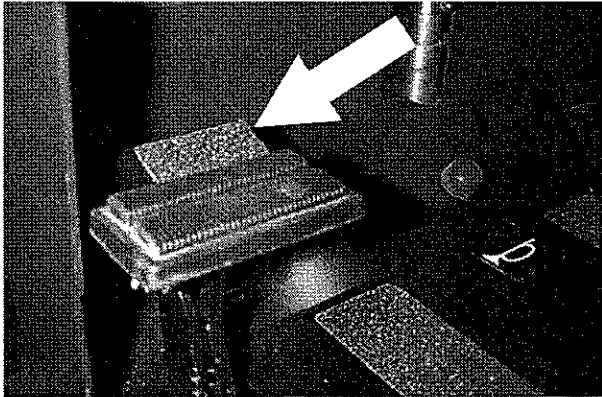
Replace if front or rear blades are worn or damaged.

1. Set the parking brake.
2. Turn the key to the "I" position.
3. Put the Squeegee Blade Switch in the "LOWER" position.
4. Turn the key switch to the "O" position.
5. Remove the rear squeegee assembly.
6. Loosen the strap clamp.
7. Remove the old blades.
8. Push the new blades in until they are against the top of the squeegee. Retighten clamp.

SQUEEGEE ANGLE ADJUSTMENT

If the rear squeegee blade is not bent evenly along its full length as it is working the squeegee angle needs to be adjusted.

1. Park the machine on a smooth level surface.
2. Lower the squeegee and turn the key off.
3. Loosen the jam nut located above the squeegee tool.
4. Adjust the screw to correct the angle of the squeegee tool.
5. Tighten the jam nut. Tighten the screw and nut below the jam nut if required.



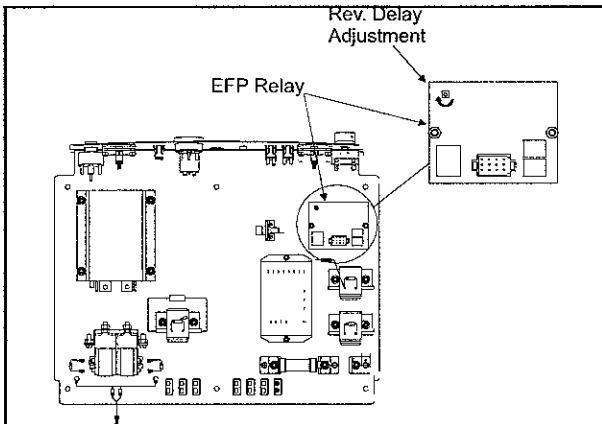
C1848

FIGURE 21

SETTING THE PARKING BRAKE (See Figure 21)

Set the brakes using the following steps;

1. Park the machine on a smooth level surface.
2. Press down on the brake pedal.
3. With your toes, press down on the upper part of the brake pedal. (This will set the parking brake)
4. To release press down on the brake pedal again (This will release the parking brake).



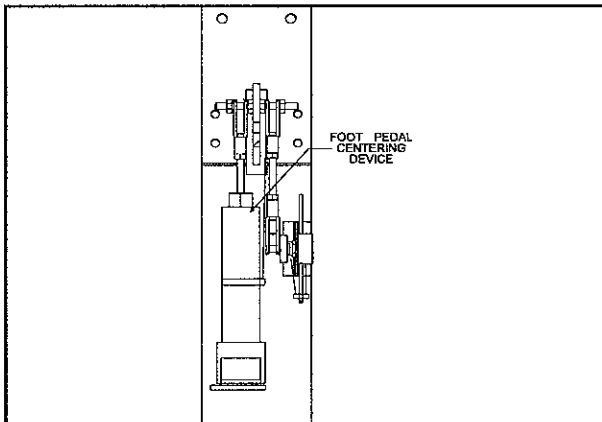
C1857

FIGURE 22

SETTING THE REVERSE DELAY ADJUSTMENT- (See Figure 22)

If the squeegee does not clear the floor before the machine moves in reverse, it may be necessary to increase the reverse delay on the E.F.P. Relay.

1. Gain access to the E.F.P. Relay by removing the two bolts from the sides of the control panel and pulling the panel off.
2. Locate the reverse delay potentiometer, which is located on the E.F.P. Relay
3. Turning the potentiometer clockwise (turn only slightly) increases the reverse delay, allowing more time for the squeegee to clear the floor.
4. Set the reverse delay so the squeegee just clears the floor before the machine starts to travel in reverse.



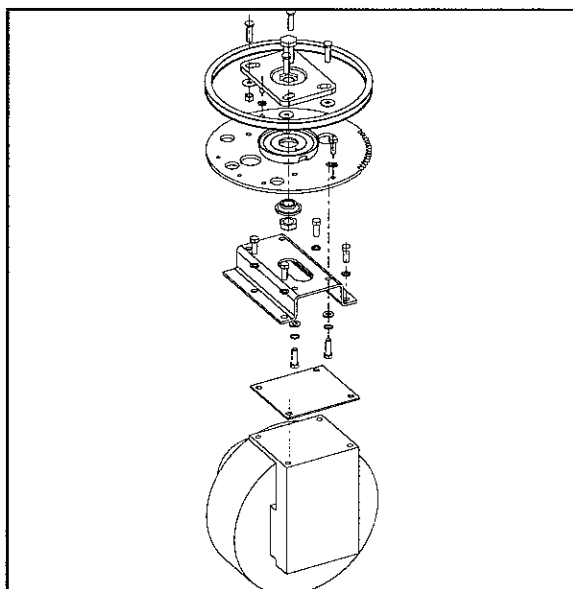
C1858

FIGURE 23

FOOT PEDAL NEUTRAL ADJUSTMENT- (See Figure 23)

Adjust if machine creeps in neutral.

1. Engage Clevis thread fully with 2 threads showing inside of clevis.
2. Adjust the centering control, clevis and threaded rod to 9 inches. However, leave locknut loose.
3. Plug potentiometer into harness.
4. With the key switch "on" and drive wheel clear of floor adjust large nut in the centering control to stop wheel rotation.
5. Lock nut into centering control.



C1859

FIGURE 24

STEERING ADJUSTMENT-(See Figure 24)

There are two adjustments available on the steering system: sprocket adjustment and pivot play.

STEERING ADJUSTMENTS - PIVOT ADJUSTMENT - (See Figure 24)

Adjust if front tire rocks during use.

1. Park the machine on a smooth level surface and set the parking brake.
2. Jack up the front of the machine until the front wheel clears the ground.
3. Use proper jacking equipment and install jack stands whenever working under a machine.
4. Remove the nut at the center of the front wheel pivot sprocket.
5. Lower the pivot assembly, keeping it level, until a shim can be removed.
6. Reinstall pivot and tighten nut completely. Be sure the pivot turns freely, otherwise reinstall shim and remove a thinner one.

STEERING ADJUSTMENTS - SPROCKET ADJUSTMENT - (See Figure 24)

Adjust if steering slips or becomes tight.

1. Park the machine on a smooth level surface and set the parking brake.
2. Jack up the front of the machine until the front wheel clears the ground.
3. Use proper jacking equipment and install jack stands whenever working under a machine.
4. Loosen the four screws that hold the front wheel assembly to the frame.
5. Adjust the front wheel left or right to get proper engagement of the steering sprocket into the chain.
6. Retighten the mounting screws.

SWEeper OPTION-DRIVE BELT ADJUSTMENTS

Motor Drive Belt

1. Loosen idler pulley
2. Move in slot in main frame
3. Retighten

Main Broom Belt

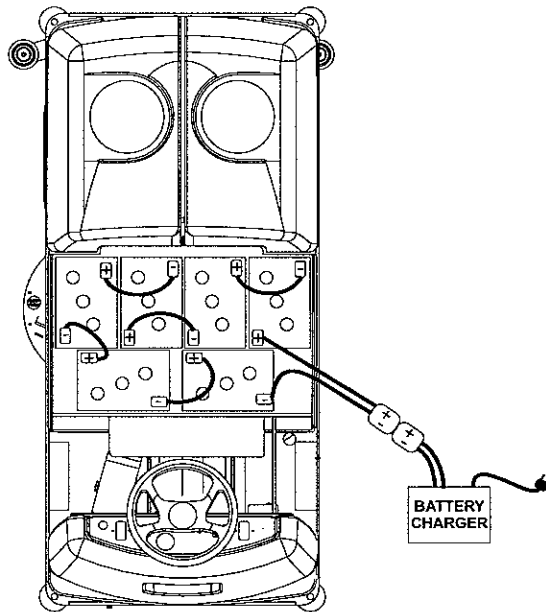
1. Loosen broom lift arm with bolt and nut.
2. Tension belt by inserting a flat blade screwdriver in the adjusting slot in support bracket and pry arm forward.
3. Tighten nut.

Side Broom Belt

1. Loosen pulley and broom with screw and nut
2. Force pulley and broom forward
3. Retighten

BATTERY REMOVAL

1. Lift seat cover, make sure the safety latch is secure in the notch.
2. Unplug the battery.
3. Use 1000 lb. (454 KG) lifting mechanism to lift and remove battery.



C1865 FIGURE 24

BATTERY CHARGING INSTRUCTION

When the batteries are disconnected (i.e. charging, replacement), the microprocessor needs to be reset by turning the key switch on and raising the brush deck. When the red light comes on steady the batteries can be charged.

1. Lift seat cover, make sure safety latch is secure in notch.
2. Insert charging plug into battery receptacle.
3. Plug power cord into proper AC source.
4. Follow the charging instructions provided on the charger.
5. Maintain electrolyte level in batteries, check after charging. Add distilled water as needed.



WARNING

Do not remove the battery from the machine if there is waste in the solution tank.

SERVICE INSTRUCTIONS



WARNING

Hydrogen gas is formed during the charging operation and is explosive! Only charge batteries in a well-ventilated area with the lid open. Avoid any open flame or electrical sparks. Pulling out the charger plug, with the charger still on, will cause an arc and must be avoided.



WARNING

Batteries are heavy. Get help to lift the batteries.



WARNING

Always remove jewelry, wear protective clothing, and face protection when working near batteries.



WARNING

Lead acid batteries generate gases, which cause explosions. Keep sparks and flames away from batteries charge the batteries only in area with good ventilation. NO SMOKING!



WARNING

To prevent an explosion, disconnect the AC plug from the receptacle before connection or disconnection the DC plug on the charger.



WARNING

The battery box can slide off a forklift and cause severe personal injury or damage to equipment. Ensure that the battery box is properly secured to the forks of the forklift during transport, drive and stop with caution!

TROUBLE SHOOTING

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Poor Scrubbing	1. Worn scrubbing brushes 2. Incorrect method of operation 3. Wrong cleaning agent or mixture 4. Poor solution distribution 5. Brushes won't turn	1. Replace brushes when scrub reaches "WORN" zone. Brushes should be replaced when bristles become worn to $\frac{3}{4}$" in length. 2. Check scrubbing procedure, brush pressure, type of cleaning agent and solution flow are important to the scrubbing process. 3. Use American Lincoln recommended cleaning material 4. Check solution strainer and clean as necessary. Check solution feed hoses for obstructions. Check valve control for proper operation. 5. Check wire connections
Water Splashes From Sides Of Scrub Deck	1. Scrub deck bumpers, poor contact with floor. 2. Squeegee blades worn or damaged. 3. Too much solution	1. Readjust blades for proper contact. 2. Replace and adjust 3. Shut off solution flow 5' to 10' before making turns
Machine Does Not Move	1. Circuit breaker #4 is tripped 2. Battery Unplugged.	1. Reset breaker. In approximately one minute 2. Plug in battery

TROUBLE SHOOTING

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Poor Water Pick up at Squeegee	1. Recovery tank full. 2. Squeegee is worn or damaged 3. Clogged suction hose or pick up tool. 4. Loose connections between suction hose & squeegee 5. Vacuum motors not running 6. Plugged filter 7. Vacuum float cage clogged 8. Vacuum float shut off 9. Air leaks in suction hose and connection. 10. Air leaks at recovery tank cover and/or manifold hose. 11. Drain hose or drain plug leakage or not closed properly	1. Empty tank 2. Examine squeegee rubber blade for cuts or worn spots. Replace if necessary. 3. Disconnect suction hose from squeegee, flush squeegee & hoses thoroughly. 4. Check all hose connections for looseness or damage 5. Reset circuit breaker or repair loose connection 6. Clean filter element in vacuum manifold 7. Clean perforated metal thoroughly 8. Excessive solution in recovery tank. Excessive foam build up, change cleaning chemical mixture. Use A-L approved material 9. Repair or replace hose and connections 10. Repair and replaced seal or hose 11. Close, repair or replace drain plug in recovery tank

TROUBLE SHOOTING

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Squeegee leaves Wet Spots	1. Lift actuator out of adjustment 2. Squeegee wheels out of adjustment 3. Incorrect spring pressure	1. Adjust 2. Adjust 3. Adjust
Squeegee Makes Excessive Noise	1. Blades worn or damaged 2. Incorrect spring pressure	1. Replace 2. Adjust
Poor Swweping (Option)	1. Broom Jammed 2. Hopper full 3. Broom does not turn 4. Hopper not installed correctly 5. Poor broom pattern 6. Flaps worn	1. Remove obstruction 2. Empty 3. Adjust or replace broom belts Reset circuit breakers adjust broom microswitches. Repair loose wire connections. 4. Reinstall 5. Adjust sweep pattern 6. Repair or replace
Machine moves Slow or Erratically	1. Battery charge low 2. Brakes dragging 3. Loose connection at foot pedal 4. Overload of drive circuit 5. Control Pot. out of adjustment	1. Charge 2. Adjust 3. Repair 4. Remove obstruction, put drive pedal in neutral. 5. Adjust

ORDERING PARTS

Parts may be ordered from American-Lincoln authorized distributors. Inspect the Alto U.S. serial plate to avoid delays in filling you orders:

MODEL NO. 	SERIAL NO.
Manufactured By  American Lincoln Technology® Bowling Green, Ohio	

1. Use the model number, catalog number, and serial number when ordering.
2. Give the part number, description, and quantity of parts needed.
3. Give shipping instructions for either freight, UPS, or parcel post.

Parts and supplies listed in this manual can be ordered from the following address:

Alto U.S., Inc. American Lincoln Technologies	Alto U.S., Inc. Distributor
1100 Haskins Road Bowling Green, Ohio 43402 (800) 331-7692	

MACHINE CATALOG NUMBER

505-901	ENCORE R (34") SCRUBBER
505-902	ENCORE R (38") SCRUBBER

HARDWARE ABBREVIATIONS

ABBREVIATIONS - SCREWS

ADJ	= Adjusting Screw
ADJ.SP	= Adjusting Plunger Screw
BHM	= Binding Head Machine Screw
BHS	= Button Head Socket Screw
CAPT.SL	= Captivated Slotted Screw
CAPT.WG	= Captivated Wing Screw
FHM	= Flat Head Machine Screw
FIL.HM	= Filister Head Machine Screw
HHC	= Hexagon Head Cap Screw
HHM	= Hexagon Head Machine Screw
HIHD	= 1/2 High Head Screw
HSHC	= Hexagonal Socket Head Cap Screw
HSFHC	= Hexagonal Socket Flat Head Cap Screw
KNH	= Knurled Head Screw
MHHC	= Metric Hexagon Head Cap Screw
PHM	= Pan Head Machine Screw
RHD	= Round Head Drive Screw
RHM	= Round Head Machine Screw
RHW	= Round Head Wood Screw
SHC	= Shiny Crown Cap Screw
SHTB	= Shoulder Thumb Screw
SQ	= Square Head Screw
TB	= Thumb Screw
THM	= Truss Head Machine Screw
WELD	= Weld Stud
WG	= Wing Screw

ABBREVIATIONS - SETSCREWS

HS	= Hexagonal Socket Setscrew
S	= Slotted Setscrew
SH	= Square Head Setscrew
-KCP	= Knurled Cup Point Setscrew
-CP	= Cup Point Setscrew
-OP	= Oval Point Setscrew
-FDP	= Full Dog Point Setscrew
-HDP	= Half Dog Point Setscrew
-FP	= Flat Point Setscrew
-COP	= Cone Point Setscrew

HARDWARE LEGEND

Key No.	Part Number	Description
H1	2-00-05060	Screw, #6-32 x 1.250 RHM
H2	2-00-00455	Flat Washer, .375 x .156 x .047
H3	2-00-01499	Lock Washer, #6 Med. Helical Spring
H4	2-00-00624	Nut, #6-32 Hex
H5	2-00-00645	Nut, Hex Fiber Insert #6-32
H6	2-00-00049	Screw, # 10-24 x .500 RHM
H7	2-00-00056	Screw, # 10-24 x .750 RHM
H8	2-00-00039	Screw, 10-24 x 1.000 RHM
H9	2-00-00426	Flat Washer, .500 x .219 x .063
H10	2-00-00519	Lock Washer, # 10 Med HS
H11	2-00-00605	Nut, Hex MS # 10-24 x .375 x .125
H12	2-00-01246	Nut, Hex Fiber Insert #10-24
H13	2-00-00054	Screw, 1/4-20 x .500 RHM
H14	2-00-00219	Screw, 1/4-20 x .500 HHC
H15	2-00-00221	Screw, 1/4-20 x .750 HHC
H16	2-00-03051	Screw, 1/4-20 x .750 HSHC
H17	2-00-00205	Screw, 1/4-20 x 1.000 HHC
H18	2-00-00060	Screw, 1/4-20 x 1.250 RHM
H19	2-00-02587	Screw, 1/4-20 x 1.250 HHC
H20	2-00-00203	Screw, 1/4-20 x 1.500 HHC
H21	2-00-01769	Screw, 1/4-20 x 1.750 HHC
H22	2-00-02589	Screw, 1/4-20 x 2.000 HHC
H23	2-00-01980	Screw, 1/4-20 x 2.500 HHC
H24	2-00-00220	Screw, 1/4-20 x .625 HHC
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218
H26	2-00-00641	Nut, 1/4-20 Insert Fiber
H27	2-00-03702	Washer, .625 x .281 x .063
H28	2-00-04685	Screw, 1/4-20 x .750 HHC
H29	2-00-04966	Screw, 1/4-20 x 1.500 HHM
H30	2-00-04687	Lock Washer, Hel. Spring 1/4 Med.
H31	2-00-04695	Screw, # 10-32 x .630 RHM
H32	2-00-04688	Nut, 1/4-20 Hex.
H33	2-00-00224	Screw, 5/16-18 x .500 HHC
H34	2-00-00208	Screw, 5/16-18 x .750 HHC
H35	2-00-02708	Screw, 5/16-18 x 1.000 HHM
H36	2-00-00196	Carriage Bolt, 5/16-18 x 1.000
H37	2-00-00207	Screw, 5/16-18 x 1.250 HHC
H38	2-00-00225	Screw, 5/16-18 x 1.500 HHC
H39	2-00-00218	Screw, 5/16-18 x 2.000 HHC
H40	2-00-01770	Screw, 5/16-18 x 2.750 HHC
H41	2-00-02597	Screw, 5/16-18 x 3.250 HHC
H42	2-00-02655	Screw, 5/16-18 x 4.500 HHC
H43	2-00-00409	Flat Washer, .687 x .344 x .062
H44	2-00-00530	Lock Washer, 5/16 HS Med.
H45	2-00-00585	Nut, Hex. 5/16-18 x .500 x .265
H46	2-00-00644	Nut, 5/16-18, Insert Fiber
H47	2-00-00232	Screw, 3/8-16 x .750 HHC
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC
H49	2-00-00209	Screw, 3/8-16 x 1.250 HHC
H50	2-00-00234	Screw, 3/8-16 x 1.500 HHC
H51	2-00-00216	Screw, 3/8-16 x 2.000 HHC
H52	2-00-00402	Flat Washer, .750 x .390 x .094
H53	2-00-02310	Lock Washer, Helical Spring 3/8
H54	2-00-02360	Nut, 3/8-16 Hex.
H55	2-00-00643	Nut, 3/8-16 Stop
H56	2-00-00239	Screw, 1/2-13 x 1.000 HHC
H57	2-00-00240	Screw, 1/2-13 x 1.250 HHC
H58	2-00-00241	Screw, 1/2-13 x 1.750 HHC
H59	2-00-00242	Screw, 1/2-13 x 2.250 HHC
H60	2-00-02682	Screw, 1/2-13 x 2.750 HHC
H61	2-00-02616	Screw, 1/2-13 x 3.000 HHC

HARDWARE LEGEND

Key No.	Part Number	Description
H62	2-00-00405	Flat Washer, 1.063 x .531 x .094
H63	2-00-02312	Lock Washer, 1/2 HS Med.
H64	2-00-00596	Nut, Hex. 1/2-13 x .750 x .437
H65	2-00-04936	Nut, 1/2-13 Fibre Lock
H66	2-00-02689	Screw, 1/2-20 x 1.000 HHC
H67	2-00-00614	Nut, Hex 1/2-20
H68	2-00-00640	Nut, Hex Fiber Insert 1/2-20
H69	2-00-01255	Screw, 5/16-18 x .875 HHC
H70	2-00-05254	Screw, 3/4-10 x 2.250 HHC
H71	2-00-05255	Nut, 3/4-10 Nylon Lock
H72	2-00-00518	Lock Washer, Helical Spring
H73	2-00-00247	Screw, 1/2-13 x 2.500 HHC
H74	2-00-03170	Flat Washer, 1.500 x .750 x .125
H75	2-00-00618	Nut, Hex Jam 3/8-16
H76	2-00-00632	Nut, Fiber Insert 3/8-24 Steel
H77	2-00-00484	Flat Washer, .625 x .375 x .046
H78	2-00-05187	Carriage Bolt, 3/8-16 x 1.250
H79	2-00-01676	Flat Washer, 1.062 x .265 x .062'
H80	2-00-02196	Carriage Bolt, 1/4-20 x 1.000 RHM
H81	2-00-05276	Screw, 3/8-16 x 5.500
H82	2-00-00505	Lock Washer, 3/8 Int. Tooth
H83	2-00-04877	Screw, 1/4-20 x 1.000 BHS
H84	2-00-00228	Screw, 5/16-18 x 2.250 HHC
H85	2-00-00650	Nut, Cap 3/8-16 Low Crown
H86	2-00-03575	Carriage Bolt, 1/4-20 x .750
H87	2-00-00263	Set Screw, 1/4-20 x .250 HSKCP
H88	2-00-05258	Screw, #8-325 x .750 BHS
H89	2-00-01372	Nut, Fiber Insert #8-32 Steel
H90	2-00-03569	Carriage Bolt, 5/16-18 x .750
H91	2-00-05279	Screw, M6 x 1.0 x 20 mm MHHC
H92	2-00-04801	Flat Washer, .875 x .375 x .125
H93	2-00-00222	Screw, 1/4-20 x 1.250 HHM
H94	2-00-00410	Flat Washer, .875 x .375 x .060
H95	2-00-03382	Spring Washer, .875 x .500 x .015
H96	2-00-02605	Screw, 3/8-16 x 4.500 HHC
H97	2-00-04677	Screw, 1/4-20 x .750 HSC
H98	2-00-05277	Screw, 1/2-13 x .750 HSHC
H99	2-00-02810	Screw, 1/4-20 x 1.000 FHM
H100	2-00-03062	Screw, #10-24 x .625 THM
H101	2-00-04897	Screw, #10-24 x 1.250 THM
H102	2-00-04795	Screw, #10-24 x .750 BHS
H103	2-00-00089	Screw, 10-24 x 1.500 RHM
H104	2-00-03541	Screw, 1/4-20 x 1.500 FHSCH
H105	2-00-05260	Nut, Jam #8-32
H106	2-00-04886	Screw, 3/8-16 x .500 HSHC
H107	2-00-04887	Screw, Main Broom Control
H108	2-00-04888	Washer, Main Broom Control
H109	2-00-00522	Lock Washer, 3/4 Helical Spring
H110	2-00-03039	Screw, 1/4-20 x .625 HSHC
H111	2-00-03296	Screw, 3/8-16 x 4.000 HHC
H112	2-00-02603	Screw, 3/8-16 x 3.500 HHC
H113	2-00-03333	Screw, 3/8-16 x 3.750 HHC
H114	2-00-00633	Nut, Fiber 1/4-28
H115	2-00-03063	Screw, #10-24 x .750 THM
H116	2-00-01951	Carriage Bolt, 1/4-20 x 1.250
H117	2-00-05067	Flat Washer, 1.750 x .531 x .100
H118	2-00-02618	Screw, 1/2-13 x 3.500 HHC
H119	2-00-05005	Screw, M10 x 1.500 30 mm MHHC
H120	2-00-03829	Lock Washer, 3/8 Bolt
H121	2-00-00090	Screw, #8-32 x 1.500 RHM
H122	2-00-05216	Screw, 1/4-20 x 5.000 HHC

HARDWARE LEGEND

Key No.	Part Number	Description
H123	2-00-00204	Screw, 1/4-20 x 1.500 HHC
H124	2-00-02296	Lock Washer, #10 Ext. Shakeproof
H125	2-00-00418	Flat Washer, .984 x .627 x .063
H126	2-00-03466	Screw, #10-16 x .500
H127	2-00-03522	Washer, 5/16 x 1.250 x .050
H128	2-00-04681	Carriage Bolt, 5/16-18 x 1.250
H129	2-00-02311	Lock Washer, 4.38 Split
H130	2-00-03334	Screw, .44-20 x 1.000 HHC
H131	2-00-03855	Carriage Bolt, 3/8-16 x 1.000
H132	2-00-00503	Lock Washer, 1/4 Ext.
H133	2-00-00006	Screw, #10-24 x .675 FHM
H134	2-00-03032	Screw, 3/8-16 x .750 FHS
H135	2-00-05298	Flat Washer, .344 x 2.000 x .062
H136	2-00-03940	Screw, #10-24 x .500 T/C HH
H137	2-00-05299	Screw, #10-24 x 1.250 HSHC
H138	2-00-00504	Lock Washer, Int.
H139	2-00-00611	Nut, Hex Jam, 3/8-24
H140	2-00-00447	Flat Washer, 1.250 x .280 x .090
H141	2-00-00501	Lock Washer, Int.
H142	2-00-05244	Carriage Bolt, 1/2-13 x 2.000
H143	2-00-00432	Flat Washer, 1.13 x .770 x .063
H144	2-00-02303	Lock Washer, Int.
H145	2-00-04180	Setscrew, 1/4-20 x .500
H146	2-00-00420	Flat Washer, 1.000 x .516 x .063
H147	2-00-00642	Nut, Fibre Insert 5/18-18
H148	2-00-01778	Screw, 1/2-13 x 2.000 HHC
H149	2-00-01803	Washer, 1.063 x .031 x .063
H150	2-00-00211	Screw, 5/16-18 x 1.750 HHC
H151	2-00-00213	Screw, 5/16-18 x .625 HHC
H152	2-00-01562	Carriage Bolt, 5/16-18 x 2.250
H153	2-00-03266	Washer
H154	2-00-04363	Screw, M8-1.250 x .750
H155	2-00-05044	Lock Washer, M14 Split
H156	2-00-05079	Screw, M14 x 1.500 x 25 mm HHC
H157	2-00-00217	Screw, 5/16-18 x 2.000 HHC
H158	2-00-05306	Screw, M14 x 35 mm HHC
H159	2-00-00512	Lock Washer
H160	2-00-00441	Flat Washer, .438 x .200 x .036
H161	2-00-00153	Screw, #8-24 x .875 OHM
H162	2-00-03961	Screw, 5/16-24 x 1.000 HHC
H163	2-00-03570	Carriage Bolt, 3/8-16 x .750
H164	2-00-00107	Screw, 10-24 x 4.50 RD. HD.
H165	2-00-00589	Nut, Hex Jam, .25-20
H166	2-00-00066	Screw, 6-32 x .50 RHM
H167	2-00-04312	Screw, 10-24 x .625 T/C Hex HD.
H168	2-00-05261	Insert, 1/4-20
H169	2-00-02637	Screw, 1/4-20 x 2.750 HHC
H170	2-00-03061	Screw, # 10-24 x .500 THM
H171	2-00-02371	Nut, Hex Jam .50-13 STL.
H172	2-00-04986	Screw, 1/4-20 x 4.500
H173	2-00-02709	Screw, 5/16-18 x 1.500
H174	2-00-00183	Screw, 1/4-20 x .750 THM
H175	2-00-01252	Screw, 10-24 x 2.750 RDH
H176	2-00-05337	Screw, #8-32 x .750 BHS SS
H177	2-00-05324	Threaded Insert, #8-32
H178	2-00-00206	Screw, 5/16-18 x 1.000 HHC
H179	2-00-04948	Screw, 25mm - M8 x 1.250
H180	2-00-04378	Clip, Water Line
H181	2-00-05078	Screw, M6 x 1.000 x 10mm HHC
H182	2-00-00236	Screw, 5/8-16 x 2.500 HHC

HARDWARE LEGEND

<u>Key No.</u>	<u>Part Number</u>	<u>Description</u>
H185	2-00-02588	Screw, 1/4-20 x 1.125 HHC Cad. Pl.
H186	2-00-03041	Screw, 1/4 x 1.250 HSC-SS
H187	2-00-00071	Screw, #10-24 x 1.250 RHM
H188	2-00-01987	Flat Washer, .438 x .200 x .036 sst
H189	2-00-00460	Flat Washer, .437 x .192 x .031-s
H190	2-00-00529	Lock Washer - helical sps, 8 MDM
H191	2-00-00602	Nut, MSCR - Hex, 8-32
H192	2-00-04841	Nut 3/4 - 16 Slotted Hex head
H193	2-00-03412	Lock Nut, .375 - 24, sps 21 FK
H194	2-00-03537	Screw - 1/4 - 20 x2.000
H195	2-00-04210	Clamp
H196	2-00-05350	Screw 1/4 - 28 x .63 HHC
H197	2-00-03979	Washer 1.00 x .391 x .06
H198	2-00-03808	Wahser 1.50 x .750 x .06
H199	2-00-04603	Clamp
H200	2-00-00626	Nut, Hex MS #10 - 32 x .375 x .125
H201	2-00-02011	Plastic Plug, .440 Dia (Diesel)
H202	2-00-04514	Plastic Plug, .562 Dia (LP & Gas)
H203	2-00-04794	Screw, #10 - 24 x .625 BHS
H204	2-00-04873	Clamp
H205	2-00-04721	Grommet, 1.750 x1.125 x .500 x.125
H206	2-00-00407	Washer, Flat .562 x.265
H207	2-00-02227	Key, .125 x .750 SQ
H208	2-00-00772	Cotterpin .093 x 1.000
H209	2-00-00586	Nut Hex Jam 5/16 - 18x .500 x .187
H210	2-00-00776	Cotterpin .125x1.500
H211	2-00-02728	Screw 10 - 32 x .375 BHM
H212	2-00-00566	Fitting-Grease
H213	2-00-01254	Screw - 1/2 - 13 x 1.500 HHCS
H214	2-00-00462	Flat Washer, .562 x .250 x .031
H215	2-00-02558	Grease Zerk
H216	2-00-04378	Harness Clamp
H217	2-00-00511	Internal Washer, #6
H218	2-00-05345	Screw, Hex Head Cap
H219	2-00-05359	Nut, Serrated Flange 5/16-18
H220	2-00-02617	Screw, 50-13 x 3.25 HHC
H221	2-00-03335	Screw, Hex SOC Cap, .312 -18 x .50
H222	2-00-02848	Screw, 10-32 x .50 Cad PL,STL RHM
H223	2-00-00631	Nut, .31 - 24 Fiber Insert
H224	2-00-04686	Lock Washer-helical#10Scr.Med. SS
H225	2-00-04851	Washer, Engine Mount
H226	2-00-04689	Washer, 11/16 OD x .260 ID x .050
H227	2-00-04596	Screw, Hex Head 1/4 - 20 x 3.5
H228	2-00-02606	Screw, .375 - 24 x 1.00, STL HHC
H229	2-00-01490	Screw, .25 - 20 x .875 HHC STL
H230	2-00-00466	Flat Washer, .625 x .203 x .031
H231	2-00-02933	Screw, Mach 10 - 24 x 3.50
H232	2-00-04909	Yoke, Pin Assy.
H233	2-00-02638	Screw, HHC .25-20 x 3.00
H234	2-00-00064	Screw- RHM #10-24 x .88
H235	2-00-00197	Carriage Bolt, .38-16 x 2.75
H236	2-00-02369	Nut, Hex Jam, .38-16
H237	2-00-05356	Screw, 5/16 - 18 X 1.25 Grade 8
H238	2-00-03750	Carriage Bolt, .38-16 x 1.50
H239	2-00-02814	Screw-FHM .25-20x1.75
H240	2-00-05398	Screw, HSHC 3/8-16 x .50
H241	2-00-05395	Screw, RHM .25-20 x 4.00 Zinc
H242	2-00-05370	Screw, M12 - 16 x 1.75 x 40mm HHC
H243	2-00-00591	Nut, Hex-Jam .50-20
H244	2-00-05297	Nut, Insert Fiber, .38-16 Heavy Nut
H245	2-00-05401	Shoulder Screw, 1/2-3/4

HARDWARE LEGEND

<u>Key No.</u>	<u>Part Number</u>	<u>Description</u>
H246	2-00-05122	Screw-HHC, .25-20 x 2.00
H247	2-00-04590	Washer
H248	2-00-05236	Flat Washer, 2.000 x .281 x .063
H249	2-00-00004	Screw-FHM #10-24 x 1.25
H250	2-00-04968	Screw-T/FRH #14-10 x 1.00 Type A
H251	2-00-02602	Screw, 3/8-16 x 2.750 HHC Cad. Pl
H252	2-00-00600	Nut, Hex Heavy 3/8-16
H253	2-00-05120	Nut, .75-Hex Nyloc Jam
H254	2-00-04625	Screw-HHM .375-24 x .75
H255	2-00-00227	Screw-HHC .313-18 x 2.25
H256	2-00-02354	Nut-Hex-Jam .50-20
H257	2-00-00093	Screw-RHM 6-32 x .75
H258	2-00-04062	Screw-T/FFH #6-20 x .50
H259	2-00-05343	Bolt Carriage, .38-16 x 3.50 sstl
H260	2-00-00615	Nut, Hex Fin .63 - 22
H261	2-00-05344	Screw - HHM .313 - 18 x 1.75 Stl
H262	2-00-00617	Nut, Hex, Finish .75-16
H263	2-00-02313	Lock Washer, HS .63 Scr. Med.
H264	2-00-02622	Screw, 5/16 - 18 x 1.000 HHM
H265	2-00-00506	Lock Washer, Int Tooth #8 Dia Screw
H266	2-00-05371	Screw-RHM #8-32 x 2.38
H267	2-00-00068	Screw-RHM #8-32 x .63
H268	2-00-00051	Screw-RH, .25 - 20 x .75
H269	2-00-00118	Screw - RHM #10 - 24 x .625
H270	2-00-05341	Screw-HHC .75-10 x 2.00
H271	2-00-03293	Nut-Hex-Fin .75-10
H272	2-00-04563	Screw, Shoulder #10-24
H273	2-00-03214	Screw, .31-18 x .75 Zinc PL HSHC
H274	2-00-02676	Screw, .50 - 13 x .75 HHM
H275	2-00-00237	Screw, HHC .375 - 16 x 3.00
H276	2-00-00223	Screw, HHC .25-20 x 1.25 nickel
H277	2-00-05164	Screw, HHM 5/16 - 18 x 3.50
H278	2-00-03044	Screw, .38 - 16 .75 HSHC
H279	2-00-04914	Screw, .50 - 13 x 4.50 HHC
H280	2-00-00187	Bolt Carriage, .38 - 16 x 2.50
H281	2-00-00415	Flat Washer, .9375 x .468 x .0625SS
H282	2-00-02562	Fitting
H283	2-00-03842	Roll Pin, 1/4 x 1.00
H284	2-00-04845	Screw, 3/8-16 x 1.00 FHSC
H285	2-00-05153	Screw, 1/4 x 20 1.50 HHC
H286	2-00-05383	Washer, Special
H287	2-00-00264	Set Screw, 1/4-20 x .313 HSKCP
H288	2-00-00668	Wing Nut, 5/16-18
H289	2-00-00532	Snap Ring
H290	2-00-02049	Bearing - Double Seal
H291	2-00-02243	Square Key, .188 - .187 x 1.250
H292	2-00-02293	Lockwasher, 5/8 Int.
H293	2-00-03151	Spacer, 1/2 ID 3/4 .625 Lg.
H294	2-00-03158	Spacer, 1/2 ID 3/4 .3/8 Lg.
H295	2-00-03306	Bearing
H296	2-00-03413	Flat Washer, 1.125 x .765 x .062
H297	2-00-04345	Tye - Wrap
H298	2-00-04708	Terminal
H299	2-00-05183	Terminal, 1/4 x .03 12-10
H300	2-00-00767	Cotter Pin, .063 x.500
H301	2-00-04159	Flat Washer, 1.375 x .563 x .109 SS
H302	2-00-00490	Washer, Spring, Shakeproof
H303	2-00-05103	Flat Washer, .750 x .343 x .050 SS
H304	2-00-00246	Screw, .25 - 20 x 2.25 HHC
H307	2-00-02963	Screw, RHM #10-32 1/4 PL. (Steel)
H308	2-00-05388	Sealing Washer 46/53 ESP OPT

HARDWARE LEGEND

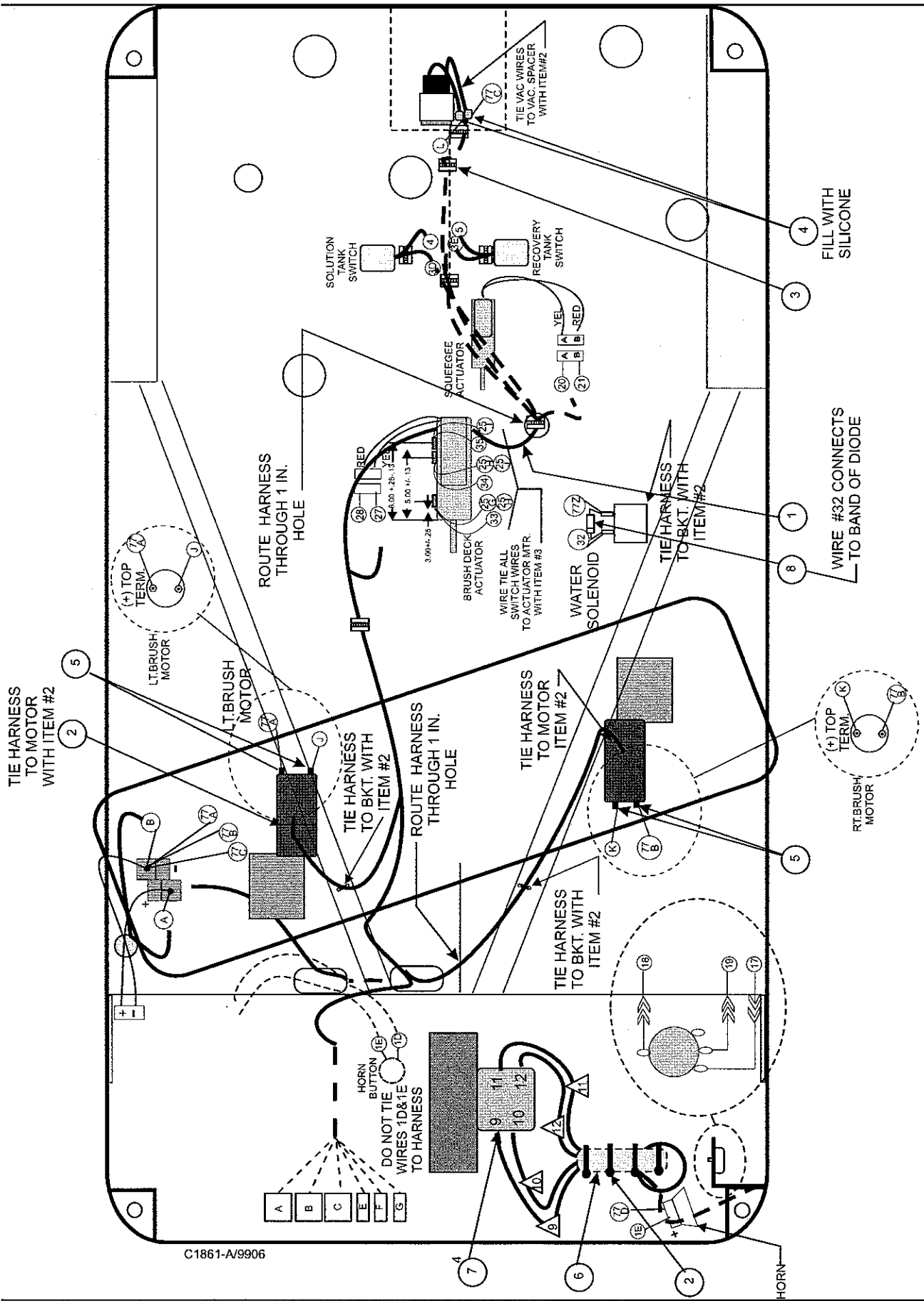
<u>Key No.</u>	<u>Part Number</u>	<u>Description</u>
H309	2-00-01081	Screw - T/C RH #8-32x.50type 2
H311	2-00-05024	Washer Flat, 2 x 1.06
H312	2-00-05227	Screw, HHC M14 x 1.50 x 45mmgr10
H313	2-00-04652	Screw, HHC .438 - 20 x 1.50
H314	2-00-03836	Bolt Carriage, .31 - 18 x 1.75
H315	2-00-00593	Nut, .38-16 Hex heavy Jam
H316	2-00-00044	Screw, RHM #8-32 x .50
H317	2-00-00252	Screw, .313-18 x 4.00 HHC
H318	2-00-04750	Screw, BTN HD SKT
H319	2-00-02352	Nut, Hex Hvy, .50-13 stl-zn.
H320	2-00-05424	Screw, Shoulder 1/2-1/2
H321	2-00-04699	Screw, HHC, .375-16 x 2.75
H322	2-00-03993	Screw, HHM 3/4-16 x 3.000
H323	2-00-00244	Screw, HHC .25-20 x 1.000
H324	2-00-05329	Screw, HHC M10 x 1.50 x 40MM SS
H325	2-00-00092	Screw, Ph. RHM #8-32 x 1.75 Zn.
H326	2-00-00235	Screw HHC .375-16 x 1.75
H327	2-00-05444	#10-24 BHCS 1.00 Black Oxide
H328	2-00-03994	Carriage Bolt, .31-18 x 1.50
H329	2-00-00036	Screw, RHM #10-24 x .25** NLS
H330	2-00-00397	Flatwasher .875 x .516 x .031 ss
H331	2-00-02779	Fhms #10-32 x .312
H332	2-00-05433	M16 x 1.50 Hex Nut (Metric) Gr 10.9
H333	2-00-00451	Flatwasher .750 x .312 x .065 ss-zn
H334	2-00-05450	Shoulder Screw, 5/16-18 x 3/8
H335	2-00-03404	Clamp - Witteck - C24P
H336	2-00-04620	O-Ring

CONNECTION & HARNESS ROUTING

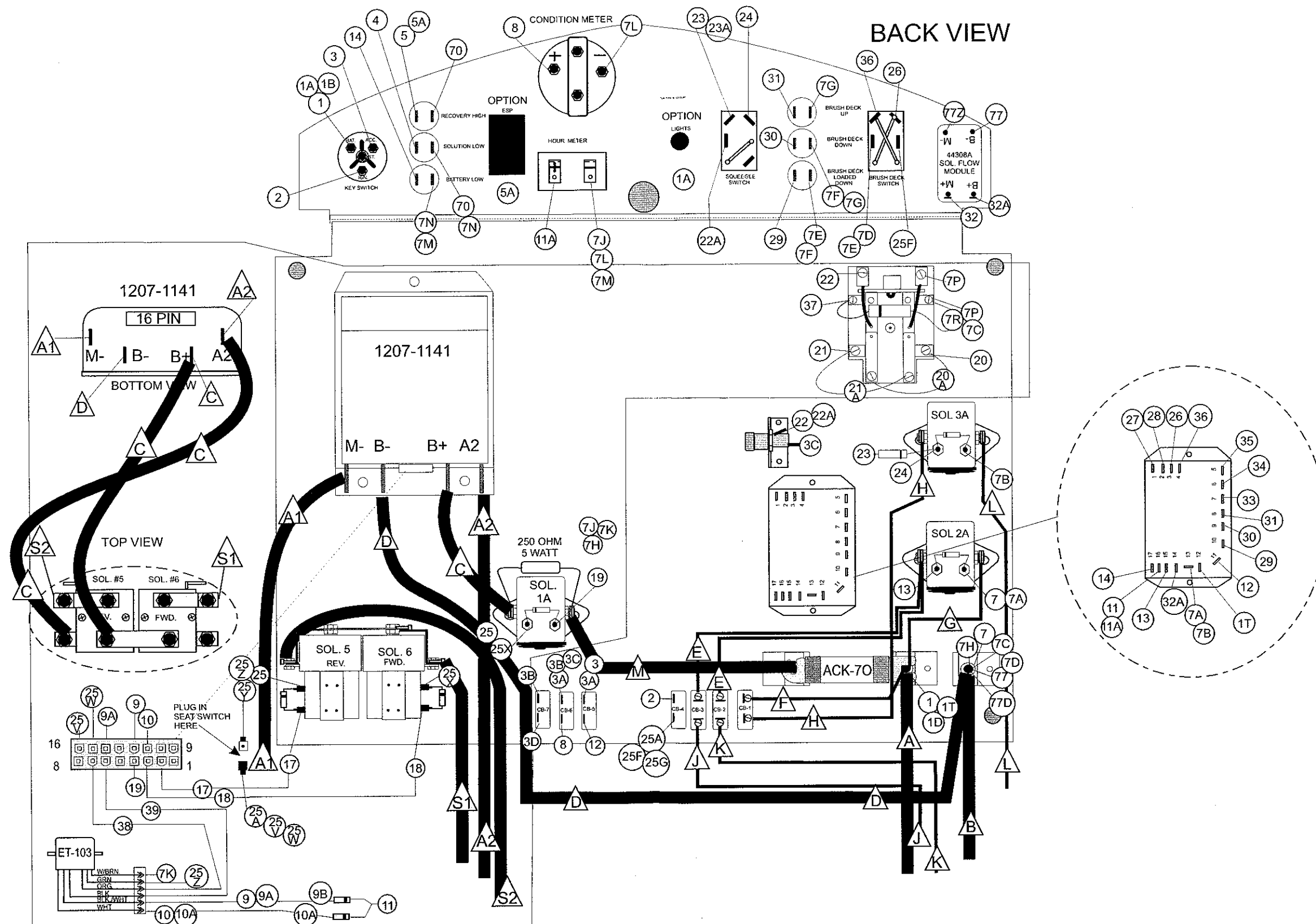
<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	0795-127-1	Harness - Mach.	1
2	2-00-04345	Tye-Rap	12
3	7-13-07096	Clamp	5
4	2-00-04588	Wire Nut	2
5	2-00-04203	Boots - Black	4
6	7-72-03031	Sleeve	1
7	2-00-05416	Boots - Black	4
8	7-90-07424	Wire #1E	1
9	7-90-07410	Wire A1	1
10	7-90-07411	Wire A2	1
11	7-90-07408	Wire S1	1
12	7-90-07409	Wire S2	1

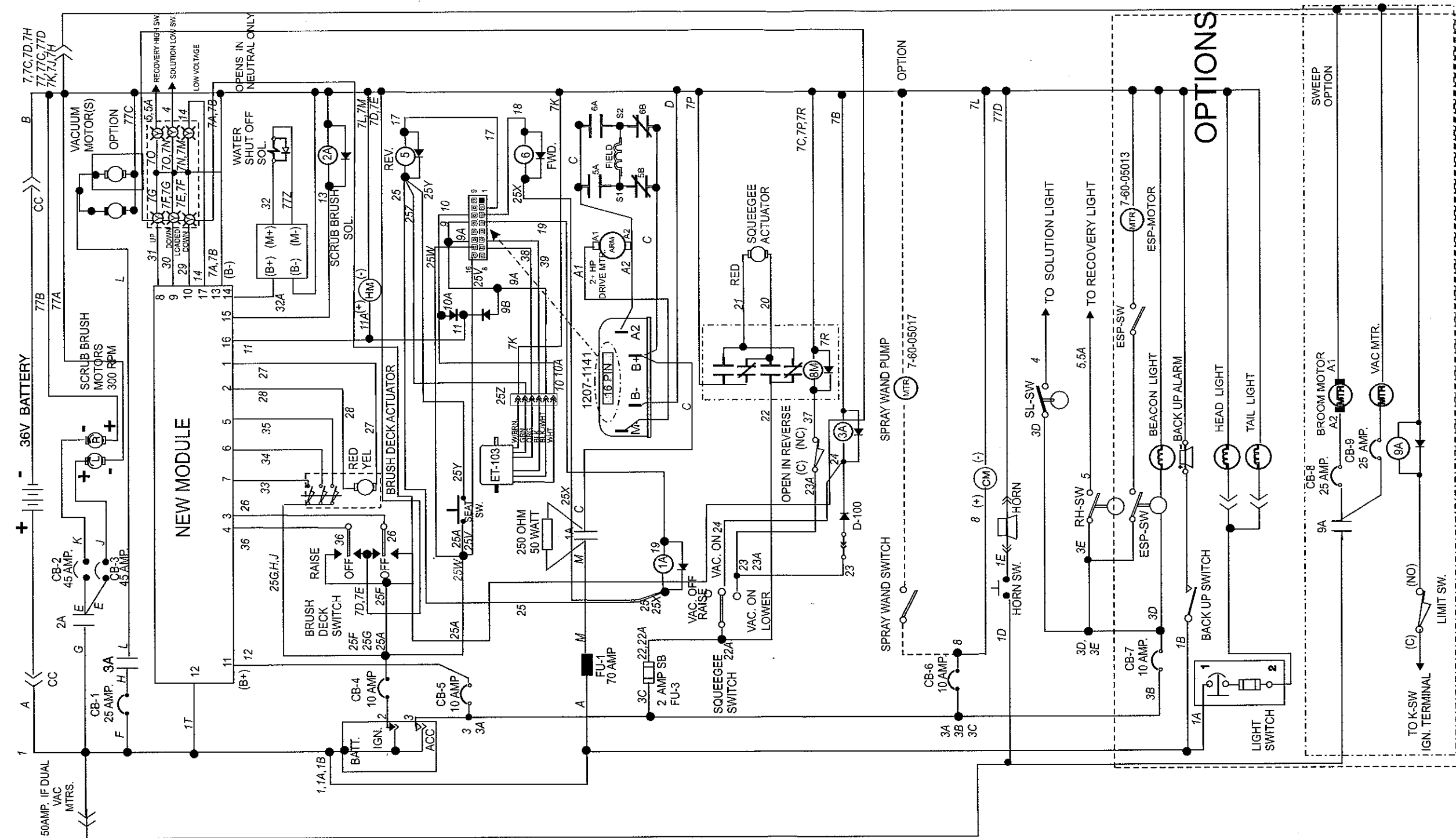
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CONNECTION & HARNESS ROUTING



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