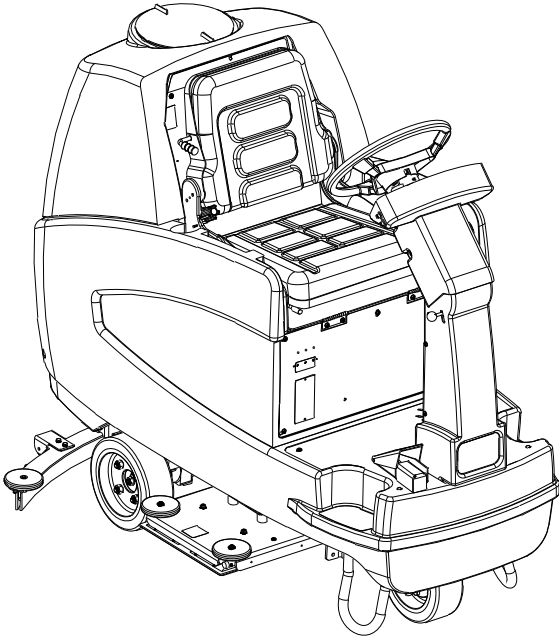


Instructions for Use-Original Instructions Parts List



Manual Steering Models
SCRUBTEC R 571
SCRUBTEC R 571 C
SCRUBTEC R 586
SCRUBTEC *BOOST*® R

Models: 00318F, 00319F, 00343F, 00344F

U.S. Patent No. 6,105,192; No. RE39,581;
No. 6,557,207; No. 7,185,397; and Patents Pending

English Instructions For Use2-28
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 **CAUTION:** Read the Operator's Manual before using the appliance.

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 Nilfisk ALTO 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 operator(s) cannot read this manual, have it explained fully before attempting to operate this machine.

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

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OPERATOR SAFETY INSTRUCTIONS


 **DANGER:** Failure to read and observe all **DANGER** statements could result in severe bodily injury or death. Read and observe all **DANGER** statements found in your Owner's Manual and on your machine.


 **WARNING:** Failure to read and observe all **WARNING** statements could result in injury to you or to other personnel; property damage could occur as well. Read and observe all **WARNING** statements found in your Owner's Manual and on your machine.


 **CAUTION:** Failure to read and observe all **CAUTION** statements could result in damage to the machine or to other property. Read and observe all **CAUTION**


 **DANGER:** Failure to read the Operator's Manual prior to operating or attempting any service or maintenance procedure to your Nilfisk ALTO 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 your operator(s) cannot read English, have this manual explained fully before attempting to operate this machine.


 **DANGER:** Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine unless it is completely assembled. Inspect the machine carefully before operation. Operate only when lids, doors and access panels are securely closed.


 **DANGER:** Machines can cause an explosion when operated near flammable materials and vapors. Do not use this machine with or near fuels, grain dust, solvents, thinners, or other flammable materials. This machine is not suitable for picking up hazardous dust or flammable materials. Use only commercially available floor cleaning waxes intended for machine operation. **DO NOT** put gasoline, combustible or flammable materials in the solution or recovery tank.


 **DANGER:** Lead acid batteries generate gases which can cause an explosion. Keep sparks and flames away from batteries. Do not smoke around the machine. Charge the batteries only in an area with good ventilation.


 **DANGER:** Working with batteries can be dangerous! 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 the batteries.


 **DANGER:** Using the charger with a damaged power cord could result in an electrocution. Do not use the charger if the power cord is damaged.










 **WARNING:** Do not turn the machine on a ramp. Do not use on surfaces having a gradient exceeding that marked on the appliance.

 **WARNING:** Machines can topple over and cause injury or damage if guided over the edges of stairs or loading docks. Stop and leave this machine only on a level surface. When you stop the machine, put all switches into their "OFF" position. Turn the key switch "OFF" and remove the key.

 **WARNING:** Skidding may occur when traveling at high speeds and attempting sharp turns, especially on wet surfaces.

 **WARNING:** Do not move machine with forklift. Damage could occur to machine.

 **WARNING:** Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Maintenance and repairs must be performed by authorized Nilfisk ALTO personnel only.

-  **WARNING:** Any alterations or modifications of this machine could result in damage to the machine or injury to the operator or other bystanders. Alterations or modifications not authorized by the manufacturer voids any and all warranties and liabilities.
-  **WARNING:** Electrical components of this machine can “short-out” if exposed to water or moisture. Keep the electrical components of the machine dry. Wipe the machine down after each use. This appliance is for dry use only and is not to be used or stored outdoors in wet conditions. For storage, keep the machine in a building.
-  **WARNING:** Operating a machine without observing all labels and instructional information could result in injury or damage. Read all machine labels before attempting to operate. Make sure all of the labels and instructional information are attached or fastened to the machine. Do not cover them for any reason. If labels or decals are missing or become damaged, get replacement labels and decals from your Nilfisk ALTO distributor immediately.
-  **WARNING:** Wet floor surfaces can be slippery. 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 around/near the area you are cleaning.
-  **WARNING:** Improper discharge of waste water may damage the environment and be illegal. The United States Environmental Protection Agency has established certain regulations regarding discharge of waste water. City, state and national regulations regarding this discharge may also be in effect in your area. Understand and follow the regulations in your area. Be aware of the environment hazards of chemicals that you dispose.
-  **WARNING:** Only use the brushes provided with the appliance or those specified in the Operator’s Manual. The use of other brushes may impair safety.
-  **CAUTION:** Use of this machine to move other objects or to climb on could result in injury or damage. Do not use this machine as a step or furniture.
-  **CAUTION:** Your machine warranty will be voided if anything other than genuine Nilfisk ALTO parts are used on your machine. Always use Nilfisk ALTO parts for replacement.
-  **CAUTION:** This machine contains lead acid batteries. The batteries must be disposed of in an environmentally acceptable manner.

WARNING: GENERAL SAFETY RULES

The rules below have to be followed carefully in order to avoid injury to the operator and damage to the machine:

- During the operation of this machine, pay attention to other people around you, especially children.
- Use care when reversing machine in confined areas.
- Do not mix different kinds of detergents. Avoid harmful odors.
- Do not place any liquid containers on to the machine.
- The recommended operating temperature should be between 32° F and 104° F.
- The humidity for operating this machine should be between 30 and 95%.
- Do not use acid solutions that could damage the machine.
- In order to prevent floor damage, do not leave brushes running when machine is standing still.
- In case of fire, use a powder extinguisher. Do not use water.
- Do not strike shelving or scaffoldings, where there is danger of falling objects.
- Adapt the utilization speed to the adhesion conditions.
- Do not exceed the declared hill climbing capacity, otherwise the machine could become unstable.
- For any maintenance operation take off the power supply from the machine.
- Do not disassemble any parts which require the use of a tool to be removed.
- Do not wash the machine with direct water jets or with high water pressure nor with corrosive material.
- After every 200 working hours have machine checked by an authorized service person.

Introduction

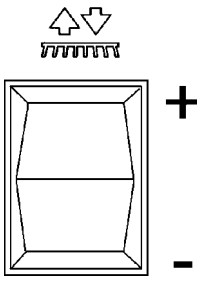
Introduction & Machine Specifications

This is a floor cleaning machine which, using the mechanic abrasive action of brushes or pads and the chemical action of a water-detergent solution, is able to clean any type of floor. During its forward movement, it picks up the removed dirt and the detergent solution which has not been absorbed by the floor.

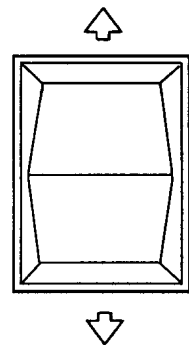
Model	SCRUBTEC R 571	SCRUBTEC R 586	SCRUBTEC R 571 C	SCRUBTEC BOOST® R
Part Number	00318F	00319F	00343F	00344F
Cleaning Swath	28" (71.1 cm)	34" (86.4 cm)	28" (71.1 cm)	32" (81.3 cm)
Power Supply	36 volt system using (6) 6 volt 250, 330, or 370 AH deep cycle batteries			
Battery Charger	On-Board fully automatic smart charger, 115V 60 Hz or 230V 50 Hz			
Brush Motors	(1) 2 hp (1.5 kW) driving two right angle gearboxes	(1) 2.5 hp (1.9 kW) driving two right angle gearboxes	(2) .75 hp (.56 kW)	(1) .75 hp (.56 kW)
Brush Size / Speed	(2) 14" (36 cm) 300 RPM	(2) 17" (43 cm) 300 RPM	(2) 6 x 28" (15.2 x 71.1 cm) 300 RPM	(1) 14 x 32" (35.6 x 81.3 cm) 2250 RPM
Brush Pressure	12 -225 lbs. (57-102 kg)		90-130 lbs. (41-59 kg)	115-155 lbs. (52-70 kg)
Traverse Speed (max)	4.1 mph (6.6 kph)			
Traverse	1.5 hp (1.1 kW) transaxle powering of two 10" (25.4 cm) diameter rear wheels			
Max. Cleaning Grade	6 degree			
Vacuum Motor	1 hp (.75 kW) 3 stage tangential discharge			
Noise Level	70 dBA			
Solution Tank	30 gallon (113 liter)			
Recovery Tank	30 gallon (113 liter)			
Length	65" (165 cm)			
Width	33" (84 cm)	35.5" (90 cm)	30" (130 cm)	33" (84 cm)
Height	56" (142cm)			
Machine Weight w/330 AH batteries & full of solution	1478 lbs. (670 kg)	1498 lbs. (679 kg)	1498 lbs. (679 kg)	1488 lbs. (675 kg)
Warranty	8 years Polydur™ tanks, 3 years parts, 1 year labor, 18 months pro-rated batteries			

Symbols Used On Scrubtec R

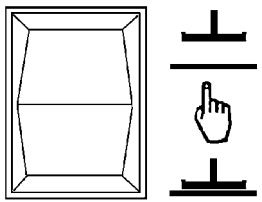
Brush Up/Down



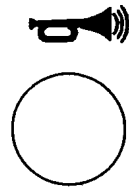
Forward / Reverse



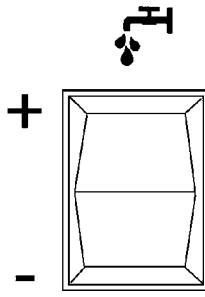
Squeegee Up/Down



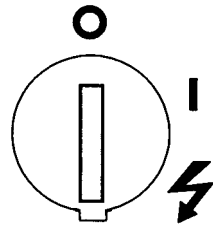
Horn



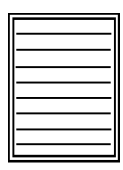
Solution Flow Switch



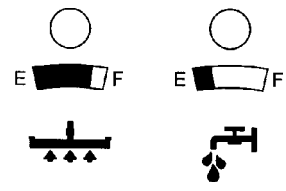
On/Off Switch



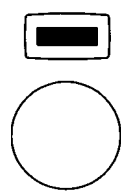
Battery Meter



Recovery / Solution LED



LCD Display Button

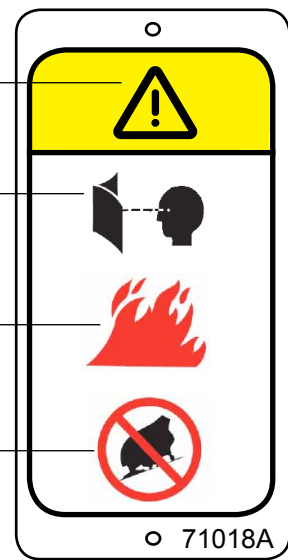
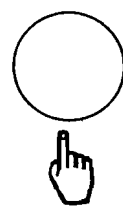


WARNING
READ OPERATOR'S MANUAL BEFORE OPERATING THIS MACHINE

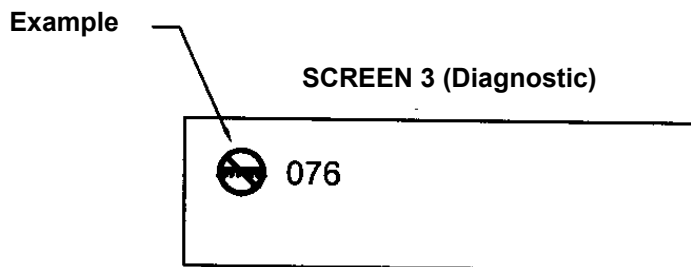
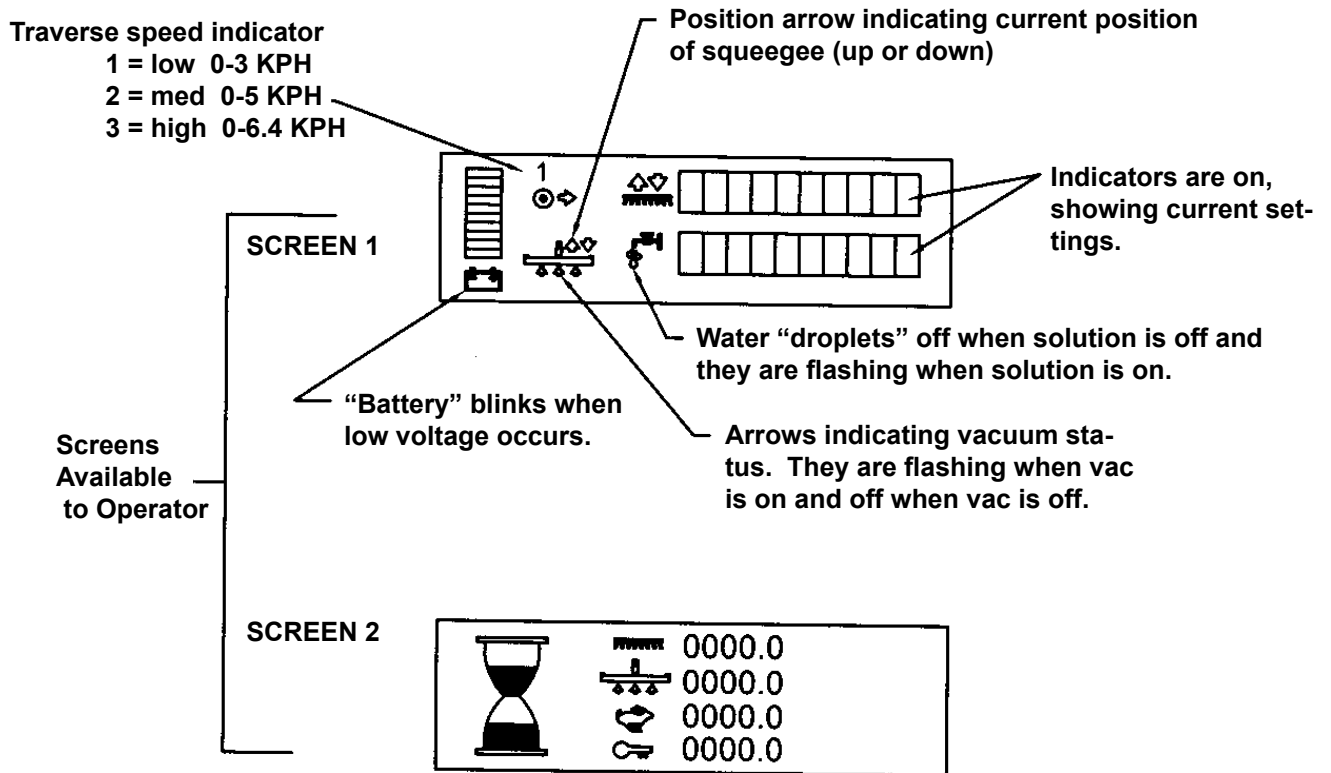
RISK OF FIRE
 • Use only commercially available floor cleaners and waxes intended for machine operation.
 • Do not use flammable materials.

RISK OF INJURY OR DAMAGE TO MACHINE
 • Do not turn, stop or leave machine on a ramp or dock.

One Touch Button



Display Screens For Scrubtec R



The Diagnostic only. It will not show unless a fault with the machine occurs. When the fault happens the icon and error code will be displayed.

Machine Control Panel

On/Off Key Switch (See figure 1, Item D)

The key switch turns "ON" the power to the control panel. "O" is the "OFF" and "I" is the "ON".

Brush Up/Down Switch (See figure 1, Item A)

To lower brush head, push the brush switch in the down (+) position. To lower the brush head to maximum brush pressure, continue to hold the switch in the down (+) position until the travel stops. The brush motors will start and solution will flow (provided the solution is turned "ON") when the machine begins to traverse. To raise the brush head, push the brush switch in the up (-) position until the brush head travel stops or desired position is reached.

Squeegee Up/Down Switch (See figure 1, Item B)

The squeegee switch is used to raise and lower the squeegee and to turn on and off the vacuum motor. The vacuum motor is turned on when the switch is placed in the middle or lower position. **NOTE: When the squeegee switch is placed in the lower position, the vacuum motor will turn on.**

To raise the squeegee, place the switch in either the middle or up position. The middle position is used for one touch control. The vacuum motor will stop, after a short delay, when the switch is placed in the up position.

Hour Meter (See figure 1, Item E)

The hour meter is located on the front display. You must toggle screens using LCD display button. The hour meter indicates the number of hours the machine has operated. It displays brush motor, vacuum motor, traverse motor and total key on times.

Battery Meter (See figure 1, Item F)

The battery meter indicates the relative charge on the battery pack. The battery meter is located on screen 1 on the front display. See page 7.

Solution Flow Control (See figure 1, Item C)

The solution flow switch regulates the flow of chemical solution to the floor. To increase the flow, toggle (+). To decrease the flow, toggle (-). To shut off the solution, toggle - until no indicators are visible on display. **NOTE: DO NOT run dry!**
NOTE: No solution will flow when the machine does not traverse.

Circuit Breakers

The circuit breaker reset buttons are located on the back side of the front cover below front display. The breakers are as follows:

Item A - Main (5 amp)

Item B - Key Switch (5 amp)

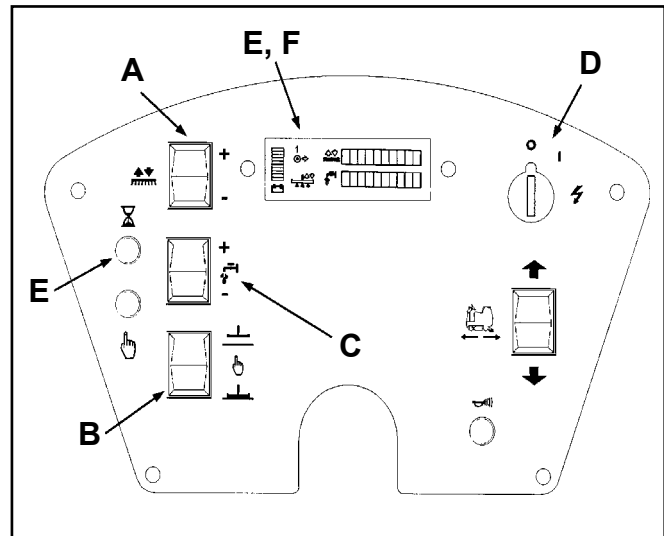


Figure 1

Machine Controls and Features

Recovery Tank Float

The Scrubtec R is equipped with a float that shuts the vacuum off when the recovery tank is full. The squeegee will no longer pick up water. If this should happen, raise the squeegee and empty the recovery tank.

The Traverse

The Scrubtec R is equipped with an electronically controlled traverse system with variable speeds in forward and reverse.

1. To traverse the machine, the power to the machine must be turned on with the key switch and the operator must be properly seated.
2. The traverse speed can be adjusted by varying the pressure on the foot pedal.

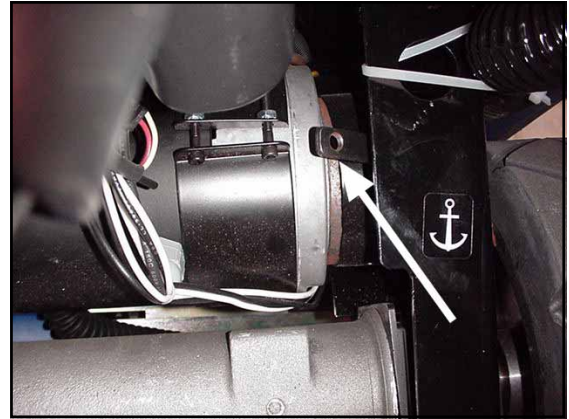


Figure 2

NOTE: During reverse motion, the squeegee raises and the solution flow stops automatically. Reverse also reduces maximum traverse speed.

Brakes

The machine is equipped with an electronic braking system. The electronic braking is activated automatically. NOTE: During training, you should allow machine to come to a full stop until you become familiar with stopping distances required.

Parking Brake

The parking brake is activated automatically when the machine comes to a stop. It disengages automatically when you begin to traverse.

The transaxle is equipped with a manual brake release. NOTE: Machine will not function when manual brake release is engaged. See figure 2.

Reverse Alarm

The reverse alarm will sound intermittently and automatically when the machine is in reverse.

How To Prepare the Machine For Operation

How To Handle the Packed Machine

The machine is packed in a specific package provided on a pallet so that it can be moved with a forklift.

WARNING: The packages cannot be placed on top of each other.

How to Unpack the Machine

1. Remove the outer package.
2. The machine is fixed on the pallet with banding straps and wooden blocks to prevent movement during shipment. Remove the bands and blocks.
3. Remove tie down brackets.
4. Lower the ramp. The machine can be lowered off the pallet if the operator is thoroughly familiar with its operation. Avoid violent blows to the base unit.
5. Keep the pallet for future transport necessities.

How to Install the Batteries

WARNING: The batteries are heavy. Lifting batteries without help could result in an injury. Get help to lift the batteries.

WARNING: Working with batteries can be dangerous. Always wear eye protection and protective clothing when working near batteries. **NO SMOKING!**

WARNING: Hydrogen gas is formed during the charging operation and is explosive. Only charge batteries in a well ventilated area with the seat base lifted.

The batteries are fitted in the battery compartment under the seat and recovery tank (figure 4). The machine uses six - 6 volt batteries. They must be handled by using appropriate lifting equipment suitable for the weight and for the coupler system. For maintenance and daily recharge of the batteries, it is necessary to follow all instructions given by the manufacturer.

For Battery Installation follow these steps (See figure 4):

1. Make sure that the key switch is in the "OFF" position.
 2. Lift and rotate the base support of the seat forward.
 3. Lean the seat on it's restraint cable.
 4. Lift the front of the recovery tank and rotate it towards the rear until it rests on it's restraint cable.
 5. Put the batteries into position and connect the battery cables as shown in figure 3.
 6. Rotate the recovery tank and then carefully rotate it forward to the normal operating position.
 7. Lower the base support of the seat.
- NOTE:** Charge the batteries before using.

BATTERY CONNECTIONS

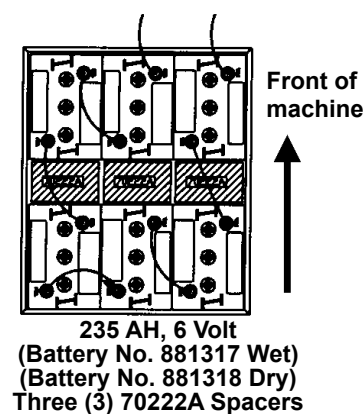
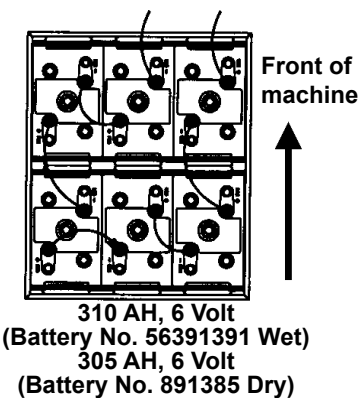
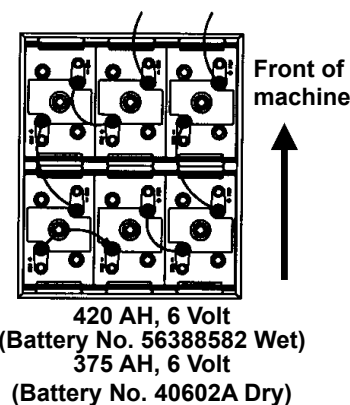


Figure 3

How To Prepare the Machine For Operation

Battery Maintenance

The electrical power to operate the machine comes from the storage batteries. Storage batteries need preventative maintenance.

⚠ WARNING: Working with batteries can be dangerous. Always wear eye protection and protective clothing when working near batteries. NO SMOKING!

To maintain the batteries in good condition, follow these instructions:

1. Keep the electrolyte at the correct level. The correct level is between 1/4" (1/2 cm) below the bottom of the tube in each cell and above the tops of the plates. Check the level of the electrolyte each time you charge the batteries (see figure 4).

NOTE: Check the level of electrolyte prior to charging the batteries. Be sure the plates in each cell are covered with electrolyte before charging. Do not top off the cells prior to charging the battery. Electrolyte expands during charging. As a result, the electrolyte could overflow from the cells. Always top off the cells with distilled water after charging.

⚠ CAUTION: Irreversible damage will occur to the batteries if electrolyte does not cover the plates. Keep the electrolyte at the correct level.

⚠ CAUTION: Machine damage and discharge across the tops of the batteries can occur if the batteries are over filled. Do not fill the batteries up to the bottom of the tube in each cell. Wipe any acid from the machine or the tops of the batteries. Never add acid to a battery after installation.

⚠ CAUTION: Batteries must be refilled with distilled water only. Do not use tap water as it may contain contaminants that will damage batteries.

2. Keep the tops of the batteries clean and dry. Keep the terminals and connectors clean. To clean the top of the batteries, use a damp cloth with a weak solution of ammonia or bicarbonate of soda solution. To clean the terminals and connectors, use a terminal and connector cleaning tool. Do not allow ammonia or bicarbonate of soda to get into the batteries.
3. Keep the batteries charged.

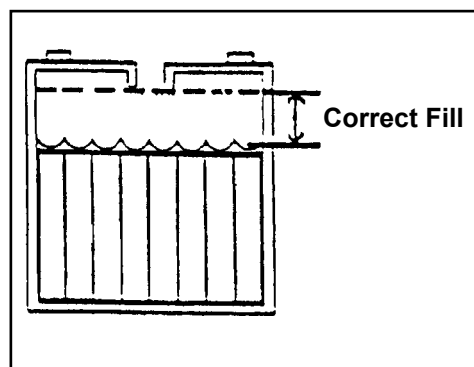


Figure 4

How To Prepare the Machine For Operation

How to Charge the Batteries

⚠ WARNING: Charging the batteries in an area without adequate ventilation could result in an explosion. To prevent an explosion, charge the batteries only in an area with good ventilation.

⚠ WARNING: Lead acid batteries generate gases which could explode. Keep sparks and flames away from batteries. **NO SMOKING!**

⚠ CAUTION: See Charger Owner's Manual. All onboard battery chargers are programmed for a specific type battery. The charger may need reprogramming to properly charge replacement batteries different than the originally equipped Nilfisk ALTO battery.

NOTE: Only replace batteries with the identical Nilfisk ALTO battery pack as originally equipped. The correct Nilfisk ALTO battery part number can be found on the Nilfisk ALTO battery label affixed to the top of each battery.

If the replacement battery is a different Nilfisk ALTO battery, please contact Nilfisk ALTO Technical Service, 1-800-356-7274, for instructions.

If the replacement battery is not a Nilfisk ALTO battery, please contact the charger manufacturer for instructions.

To charge the batteries, follow this procedure:

1. Make sure the key switch is in the "OFF" position.
2. Raise the seat base support.
3. Connect the battery charger AC cord to a properly grounded wall receptacle matching plug configuration (50/60 Hz).
4. Observe indicator light to ensure the charging process has started (see figure 5, A - Red, B - Yellow, C - Green). For color indications see figure 6.

Recharging the Batteries

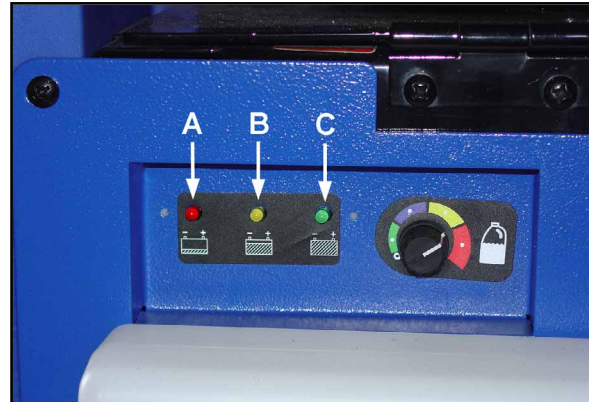
The Scrubtec R comes with an on board charger.

1. Plug into any wall socket and charging is automatic.
2. Observe indicator light to ensure the charging process has started (see figure 5, A - Red, B - Yellow, C - Green). For color indications see figure 6.

NOTE: Make sure you plug into a circuit that is not loaded by other equipment. Wall breakers may be tripped and no charge will occur.

⚠ WARNING: Never charge a GEL battery with an unsuitable battery charger. Carefully follow the instructions given by the manufacturer of the batteries and battery charger.

NOTE: To prevent permanent damage to the batteries, avoid their complete discharge. Never leave the batteries completely discharged, even if the machine is not being used. When recharging the batteries, keep the base support of the seat lifted. After every 20 recharging operations, check the level of the electrolyte and if necessary top off with distilled water.



(Shown with Optional Chemical Mixing System)

Figure 5

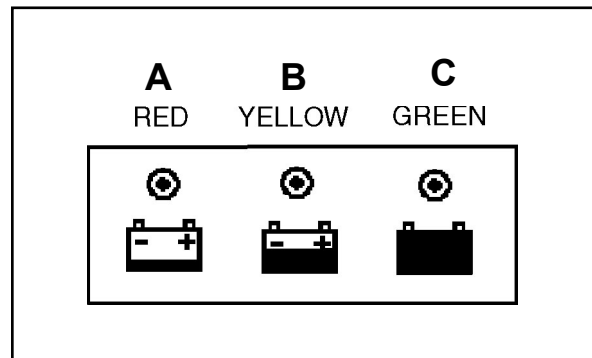


Figure 6

How To Prepare the Machine For Operation

Level Indicators for the Charge of the Batteries

The battery meter (see figure 7) on the control panel has a digital read out with 10 fixed positions (A) and also a blinking indicator (B). The bars that appear on the display show the approximate charge level with icon (blinking) discharged battery.

NOTE: A few seconds after the voltage reads 32V it will start blinking. The brush motors will then automatically switch off.

How To Install the Squeegee

To install the squeegee onto the machine, follow this procedure:

1. The squeegee assembly has a break away feature that is also used for mounting the squeegee. Loosen the knobs on the squeegee (figure 8). Slide the stud into the slotted hole in the support frame on the machine.
2. Attach the vacuum hose cuff to the squeegee hose fitting (see figure 9).
3. Tighten knobs. **NOTE: Do not overtighten or break away feature is lost and damage may occur.**

NOTE: To prevent damage to the squeegee or machine, the squeegee was designed to break away from the machine. If the squeegee is impacted and it breaks away from the machine, simply reinstall it by following step 1-3.

How to Adjust the Squeegee

During operation, the rear squeegee blade should have a constant 3/16" minimum flare along the entire squeegee blade (see figure 10).

1. The squeegee body can be tilted to adjust the squeegee blade flare in the middle to match the flare on the ends. To adjust the tilt, loosen the adjusting bolt located on the left and right side of the squeegee (see figure 9).
2. Press down on the squeegee until both sets of guide wheels contact floor.
3. After making adjustments, retighten the screw(s).

NOTE: It is important that the right and left wheels are contacting the floor in order for the squeegee to work.

NOTE: As the rear squeegee blade wears, it can be rotated and/or flipped to obtain four good edges before having to change blades.

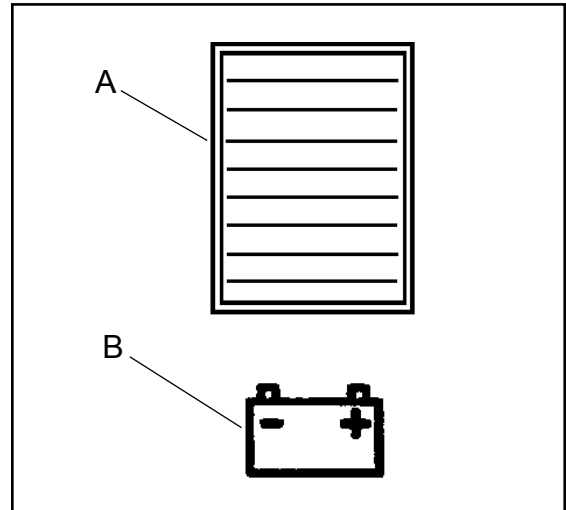


Figure 7

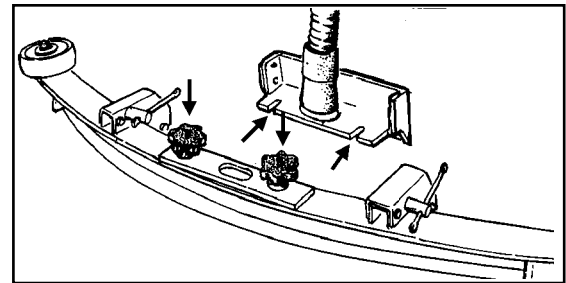


Figure 8

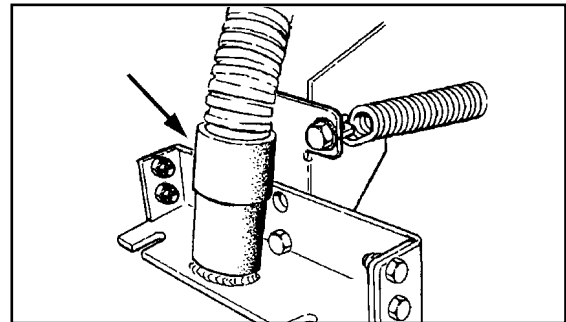


Figure 9

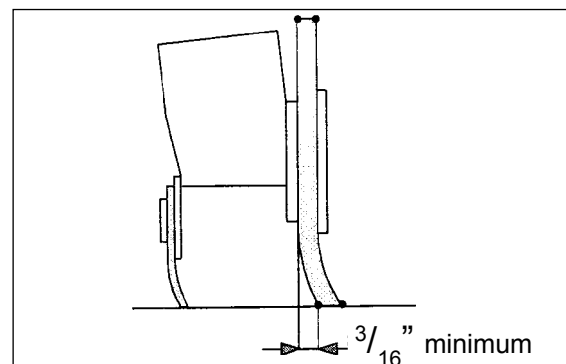


Figure 10

How To Prepare the Machine For Operation

How To Change or Rotate Brushes on Cylindrical Brush Head

To install or rotate brushes on the cylindrical brush head:

1. Raise the brush deck and turn the key switch "OFF".
2. Raise the brush skirt and pull out to remove. See figure 11.
3. Remove thumb screw from brush door. See figure 12.
4. Lower door approximately 12 mm and slide door and hub assembly from brush. See figure 13.
5. Slide brush off hub at opposite end. See figure 14.
6. Rotate brush or replace.
7. Slide brush on drive hub and insert door and hub assembly into brush core.
8. Raise door and install thumb screw.
9. Place side skirt on retainer pins and lower in place.
10. Brushes should be rotated after every 20 hours of use.



Figure 11



Figure 12



Figure 13



Figure 14

How To Prepare the Machine For Operation

How To Install The Brush Or Pad on the BOOST machine

To install the brush or pad on the BOOST machine, follow this procedure:

1. Turn the key switch "ON".
2. Put the brush switch in the "UP" position.
3. Turn the key switch "OFF".
4. Go to the side of the machine.
5. Press on a brush or pad under the flex plates. See figure 15.

NOTE: When using a black pad, position pad on head. Lower head and operate momentarily to affix pad to pad driver (if you have difficulty, position pad on floor and lower head then operate.)

How To Remove The Brush Or Pad on the BOOST machine

To remove the brush or pad from the machine, follow this procedure:

1. Turn the key switch "ON".
2. Put the brush switch in the "UP" position.
3. Turn the key switch "OFF".
4. Go to the side of the machine.
5. Pull downward on the brush or pad until it releases from the flex plates. See figure 16.

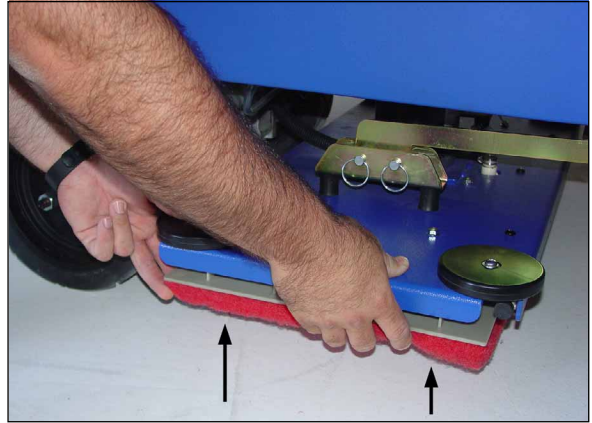


Figure 15

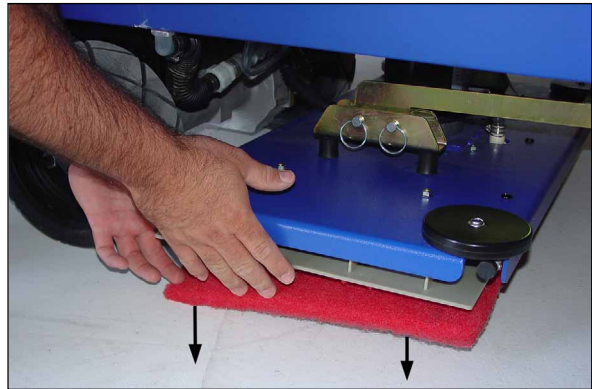


Figure 16

How To Operate The Machine

How to Return One Touch to Factory Default Settings

To restore the factory settings, follow the procedures below:

1. Press and hold the green one touch button (figure 17) until you hear a *double beep* from the machine. **NOTE: The time required for this will be approximately 15 seconds.**
2. The settings should be returned to 2 bars of solution and 1 bar of brush pressure. **NOTE: The squeegee vac switch must be in the middle position for default settings to work.**

How to Move the Machine Without Power (see figure 18)

1. Engage manual override on brake (see page 9, "Parking Brake").
2. Remove foot plate and 4 screws and locate steering motor.
3. Using the knob on steering motor, turn shaft on motor in direction you wish to turn machine.
4. Slowly push machine to desired location. **NOTE: If you attempt to push machine too fast it will limit top speed. If this happens, stop and restart.**
5. After moving machine, disengage manual brake override. **NOTE: Machine will not function if override is engaged.**

Seat Adjustment (Standard)

The standard seat is not adjustable forward or backward.

Seat Adjustment (Deluxe)

The optional deluxe seat is adjustable in three ways:

1. The seat can be adjusted to the forward/backward position by using the lever on the lower right side of the seat. Moving the lever will allow the seat to slide into the preferred position. See figure 19.
2. To adjust the angle of the back support portion of the seat, turn the lever located in the middle right position of the seat. Turning this clockwise will make the seat more vertical. Turning the knob counterclockwise will tilt the seat back. See figure 20 A.
3. To adjust the suspension of the seat for operator comfort, use the lever on the side of the back support section of the seat. This has three positions. The upper position is for light weight operators. The middle position is for medium weight operators. The bottom position is for heavy weight operators. See figure 20, B. **NOTE: The lever must be pressed firmly to change positions.**

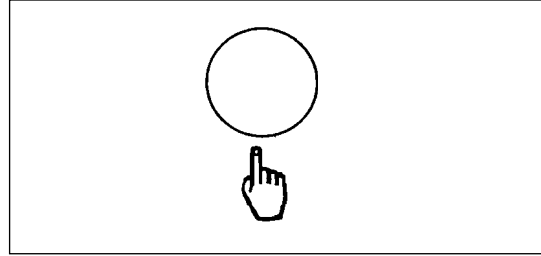


Figure 17

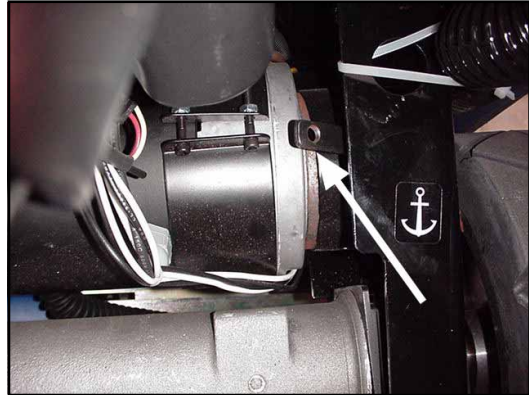


Figure 18

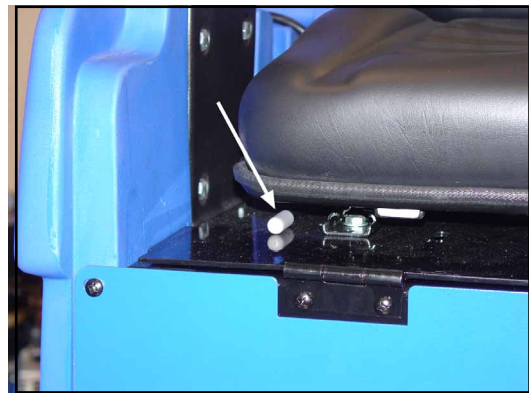


Figure 19

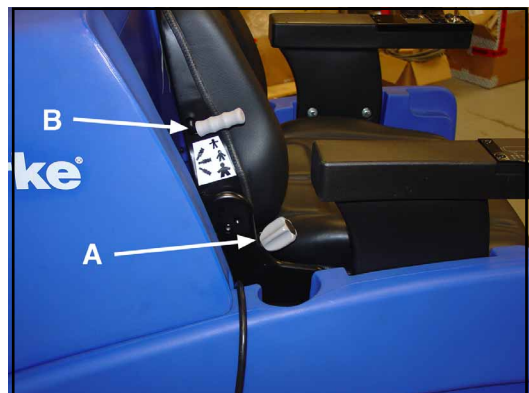


Figure 20

How To Operate the Machine

How to Read the Battery Meter (see figure 21, A)

The battery meter is an indicator on the LCD display. This indicator is on the LCD display on the front of the machine. It has 10 bars with 10 bars visible indicating a full charge. As you run the machine the bars will begin to lower. The "Battery Icon" (B) will begin to flash to indicate you are reaching the end of charge.

NOTE: If you continue to run the brushes they will shut down to protect the batteries from over discharging.

NOTE: Run times will vary depending on machine variables, battery size, brush pressure and floor type, etc.

How to Change Displays Screens on the LCD Module

The LCD display has three screens. Two of them can be accessed at any time the key is on. The first screen shows the machine status and the second screen shows the four hour meters (figure 21).

The two screens that can be viewed by the operator can be accessed via the display button (figure 22) on the control panel to the left of the key switch. Pressing this button toggles the display between the available screens.

The third screen is for diagnostics only. This screen displays any errors that might occur or if the system diagnostics finds something wrong. When the diagnostic screen comes up, refer to the trouble shooting guide for suitable action to resolve the error code.

How to Read the Solution Empty Indicator (see figure 23, A)

The solution empty indicator is located on the front of the machine below the LCD display. When the solution reaches nearly empty, the indicator will begin to flash, warning the operator of the need to refill.

NOTE: Solution run times will vary depending on solution flow setting.

How to Read the Recovery Full Indicator (see figure 23, B)

The recovery full indicator is located on the front of the machine below the LCD display. When the recover tank is near full the indicator will begin to flash, warning the operator of the need to empty the recovery tank. The vacuum motors will shut down a few moments later.

NOTE: Recovery times will vary depending on

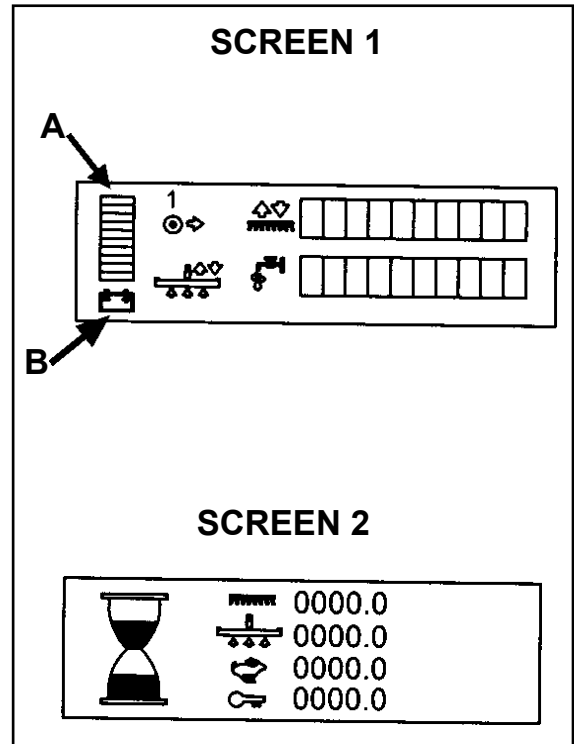


Figure 21

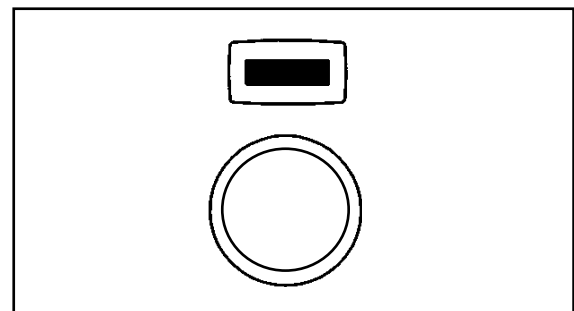


Figure 22

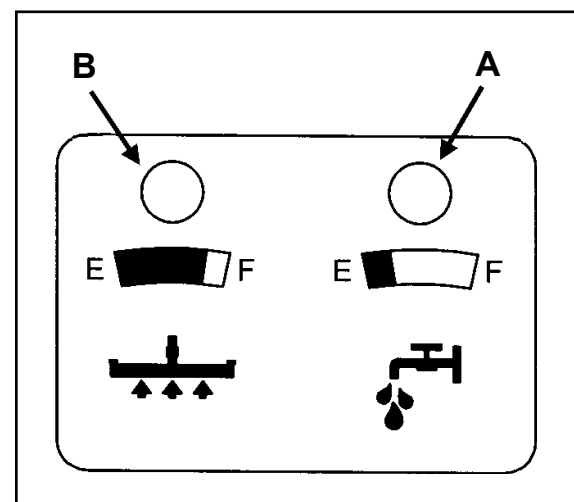


Figure 23

How To Operate the Machine

How to Operate the Squeegee and the Vacuum Motor

The squeegee wipes the floor while the vacuum motor removes the dirty solution from the floor. To operate the squeegee, follow this procedure:

1. To lower the squeegee and start the vacuum motor, press the squeegee up/down switch to the down position (figure 24). **NOTE: The vacuum motor will start immediately when the down position of the switch is pressed, and the squeegee will lower.**
2. To raise the squeegee, press the squeegee up/down switch to the up position (figure 24). The squeegee will then raise and the vacuum motor will shut off after short delay **NOTE: The center position of the squeegee up/down switch is for use with one touch control.**

NOTE: The squeegee will rise automatically when traversing in reverse during scrubbing operations.

How to Operate the Solution Flow

The solution is used to loosen and remove dirt from the floor. The amount of solution applied can be adjusted to five different levels to accommodate many different floor conditions. These different levels are shown on the LCD display on the front of the machine. To adjust the amount of solution applied, use the Solution Flow Switch (figure 25). **NOTE: There are five different settings on the display. See figure 26, A.**

To increase solution flow:

1. Press the “+” side of the switch (figure 25).
2. Press and hold the “+” switch to achieve the desired level of solution flow.

To decrease solution flow:

1. Press the “-” side of the switch (figure 25).
2. Press and hold the “-” side of the switch to achieve the desired level of solution flow.

How to Operate the Brush Pressure

The brushes are used to supply agitation for the solution, which improves the cleaning process. The amount of brush pressure applied can be adjusted to five different levels to accommodate many different floor conditions. These different levels are shown on the LCD display on the front of the machine (figure 26, B). To adjust the amount of brush pressure, use the brush up/down switch (figure 27).

To increase brush pressure:

1. Press the “+” side of the switch (figure 27).
2. Press and hold the “+” switch to achieve maximum level of pressure.

To decrease brush pressure:

1. Press the “-” side of the switch (figure 27).
2. Press and hold the “-” side of the switch to achieve minimum or no brush pressure.

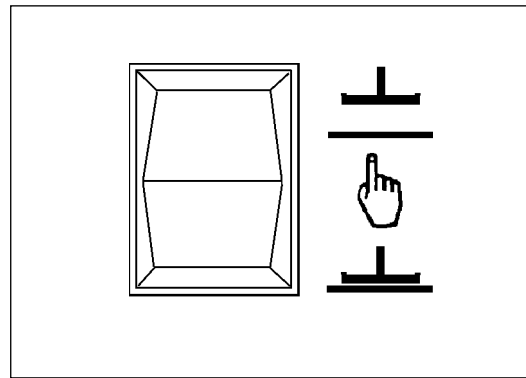


Figure 24

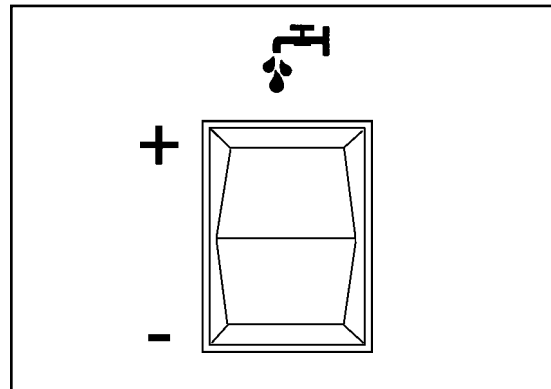


Figure 25

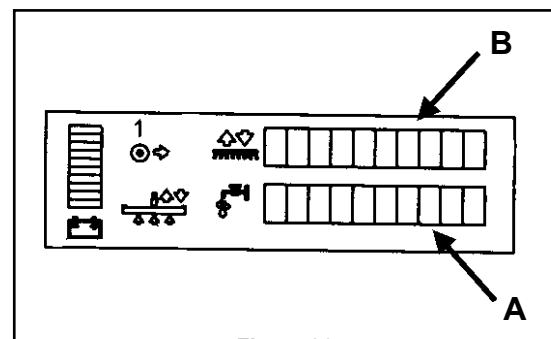


Figure 26

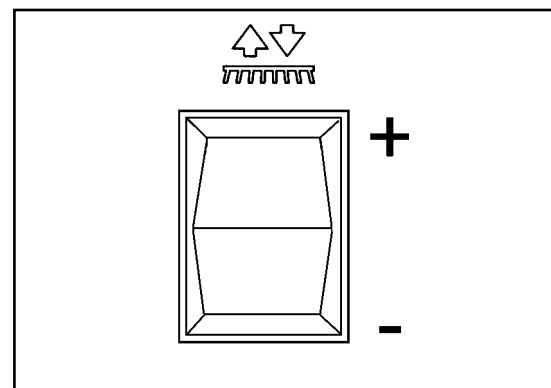


Figure 27

How To Operate the Machine

How to Operate the Forward / Reverse Switch

(see figure 28).

1. To go forward, push the up arrow side of the switch.
2. To go in reverse, push the down arrow side of the switch.

How to Fill the Solution Tank

The solution tank fill port is located at the left side of the machine (see figure 29). To fill the solution tank, follow this procedure:

1. Turn the key switch to the "OFF" position.
2. Remove lid.
3. Add a cleaning chemical to the solution tank. For the correct amount of chemical, follow the directions shown on the container. **NOTE: Excess foam in the recovery tank could damage the vacuum motor, so use only the minimum amount of detergent necessary.**

WARNING: Always use low foam detergent. To avoid the production of foam, before starting to clean, put a minimum quantity of antifoam liquid into the recovery tank. **NEVER USE PURE ACID.**

4. Fill the solution tank with clean water (see figure 29).
5. After filling the solution tank, replace the solution tank lid.

WARNING: 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.

WARNING: Machines can ignite flammable materials and vapors. Do not use with or near flammables such as gasoline, grain dust, solvents and thinners. Only use a cleaning concentration recommended by the chemical manufacturer.

WARNING: Nilfisk ALTO recommends a maximum water temperature of 120°F (49°C).

Operating the Machine

NOTE: Before scrubbing with the machine, become familiar with the operations and handling of the machine. Run the machine at the lowest traverse speed. Use the machine in an area that has no furniture or objects until you can do the following:

1. Traverse the machine in a straight direction, forward and backward.
2. Stop the machine safely.
3. Turn the machine both left and right and return to a straight direction.
4. Turn a 180° turn where one rear wheel just pivots.

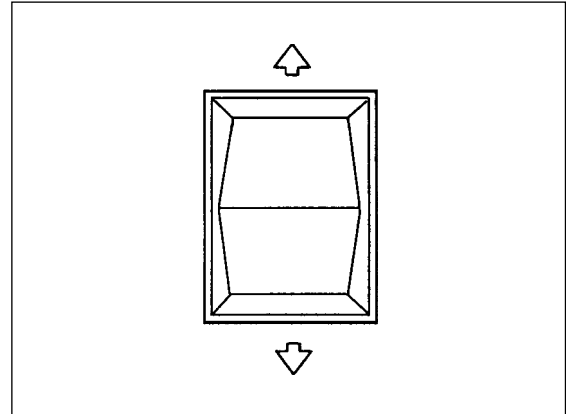


Figure 28



Figure 29

How To Operate the Machine (cont.)

To traverse the machine follow this procedure:

1. Sit on the driver seat. **NOTE: The machine will not traverse if the operator is not properly seated.**
2. Turn the key switch to the "ON" position.
3. Raise the brush to the highest position (if necessary).
4. Raise the squeegee (if necessary).
5. Gently press the foot pedal and the machine will begin to move.
6. To stop, release pressure on the foot pedal.
7. To travel in reverse, select reverse with the forward/reverse switch.
8. To stop, release pressure on the foot pedal.
9. When you stop the machine, turn the key switch "OFF" and remove the key.

Do These Procedures When You Begin Your Work Period

1. Make sure the key switch is in the "OFF" position.
2. Disconnect AC power from battery charger (follow charger instructions).
3. Make sure the filter screen (1) to the vacuum motor is clean and installed properly in the recovery tank (see figure 30).
4. Make sure the recovery tank lid is in place and has been tightened (see figure 31).
5. Close and secure the lower cleaning port cover (if so equipped) on the recovery tank.
6. Make sure that the plug in the recovery drain hose is in place and has been tightened (see figure 32).
7. Make sure that the brushes/pads are in position and installed correctly.
8. Make sure the brush housings are in position on the brush head.
9. Check the installation of the squeegee and squeegee hose.

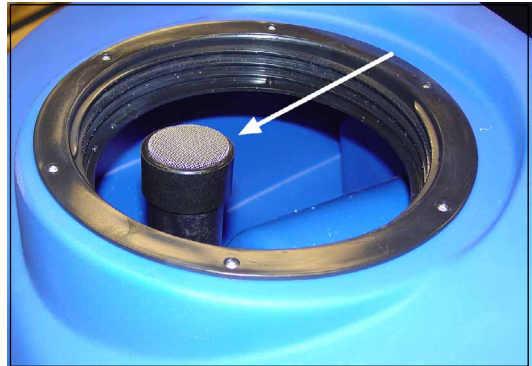


Figure 30




Figure 31



Figure 32

How To Operate the Machine

How to Clean a Floor

 **WARNING:** 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.

For one touch automatic cleaning follow this procedure:

1. Turn the key switch to the "OFF" position.
2. Put the water and a cleaning chemical in the solution tank.
3. Sit on the driver seat. **NOTE: The machine will not traverse if the operator is not properly seated.**
4. Turn the key switch "ON". **NOTE: The key switch turns on the battery and LED screen displays, which shows the machines condition.**
5. The machine has a one touch button on the control panel (see figure 33) that is preset for brush pressure and solution flow. Momentarily depress the one touch button if you wish to use these settings. **NOTE: If this is not the settings that you desire see page 16 or one touch operation.**

For manual control of cleaning process, follow these procedures:

1. Turn the key switch to the "OFF" position.
2. Put the water and a cleaning chemical in the solution tank.
3. Sit on the driver seat. **NOTE: The machine will not traverse if the operator is not properly seated.**
4. Turn the key switch "ON". **NOTE: The key switch turns on the battery and LED screen displays, which shows the machines condition.**
5. Lower the squeegee. **NOTE: The vacuum motor will turn on when the squeegee up/down switch is placed in the lower position.**
6. Lower the brush head until it reaches the full stroke down. **NOTE: The brushes will start rotating only when the machine begins to traverse.**
7. Reset the solution flow valve by using the + / - solution switch. **NOTE: The solution will flow only if the machine is moving forward.**
8. After a few feet of scrubbing, check to see that the amount of solution being applied is correct and that the squeegee is picking up water and drying the floor. Make adjustments as required.
9. Once the machine is set properly continue to scrub until the solution low indicator comes on or until you run out of solution.

NOTE: When making multiple passes across the floor, overlap the brush cleaning path approximately 2 inches (5 cm) of the area already cleaned by the brush.

NOTE: During most cleaning procedures, apply and remove the solution in one operation.

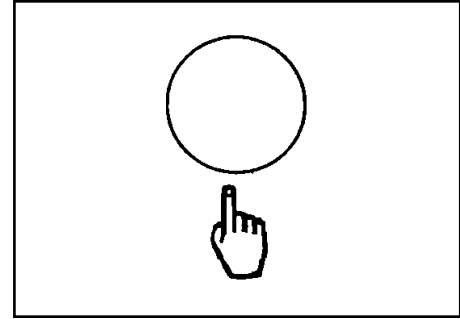


Figure 33

How To Operate the Machine

How to Clean a Very Dirty Floor

To clean a very dirty floor, follow this procedure:

1. Apply solution to the floor.
2. Do not lower the squeegee. This will keep the vacuum motor off.
3. Lower the brush or pad and scrub the floor.
4. Scrub the floor again with additional solution and lower the squeegee.
5. Pick up all the solution with the squeegee.

Do These Procedures When You End Your Work Period

Having finished the job and before any type of maintenance is done, follow these procedures:

For one touch cleaning shut down process, press and release the one touch button.

For manual shut down follow these procedures:

1. Turn the solution flow off by decreasing the flow to its minimum position.
2. Press the brush up/down switch to the up position until the brush head has reached its up most position.
3. Place the squeegee up/down switch in the up position to raise the squeegee and allow the vacuum motor to continue to run. The vacuum motor will run for another 20 seconds and then place the squeegee up/down switch to the up position. This will shut the vacuum motor off.
4. Take the machine to a water drain.
5. Turn the key switch "OFF".
6. Remove the drain hose from the holding hook.
7. Put the end of the hose over a drain or bucket.
8. Turn the valve housing to the left (see figure 34).
9. To open the valve completely, turn the housing fully to the left. Pull the housing off of the valve.
10. Empty the recovery tank. **NOTE: When hose is lowered below water level, water will flow.**



WARNING: Use gloves to protect your hands from contact with dangerous solutions when performing the steps listed above.



Figure 34

How To Operate the Machine

11. Rinse the tank. Put clean water in the tank through the opening at the top. Be careful not to allow water into the vacuum intake tube (with screen).
12. If the tank or recovery hose has an obstruction, use water pressure to flush them. Put the water hose into the recovery hose (figure 35, A). **NOTE: Do not place water hose in vacuum intake tube (see figure 35, B), damage will occur.**

The recovery hose (figure 35, A) is located to the right of the vacuum intake tube (see figure 35, B). The recovery hose is flexible, which will allow you to move it toward the opening for easy access to the water hose for flushing the line.

13. Leave the tank and drain plug removed to air dry.
14. Check the squeegee blade. Use a cloth to clean the squeegee blade. If the squeegee blade is damaged or worn, turn or replace the blade.
NOTE: To avoid damage to the squeegee, the squeegee must be lifted when the machine is not in operation.
15. Take off the brushes and clean them with a jet stream of water.
16. Use a clean cloth and wipe the surface of the machine.
17. Check the batteries and add distilled water as needed. The correct level is between $\frac{1}{4}$ " ($\frac{1}{2}$ cm) below the bottom of the tube in each cell and above the tops of the plates. See the instructions in the section of this book called "Battery Maintenance".

CAUTION: Tap water may contain contaminants that will damage batteries. Batteries must be refilled with distilled water only.

WARNING: Lead acid batteries generate gases which can cause an explosion. **NO SMOKING.** Always wear eye protection and protection Clothing when working near batteries.

18. Charge the batteries. See the instructions in the section of this book called "How to Charge the Batteries".

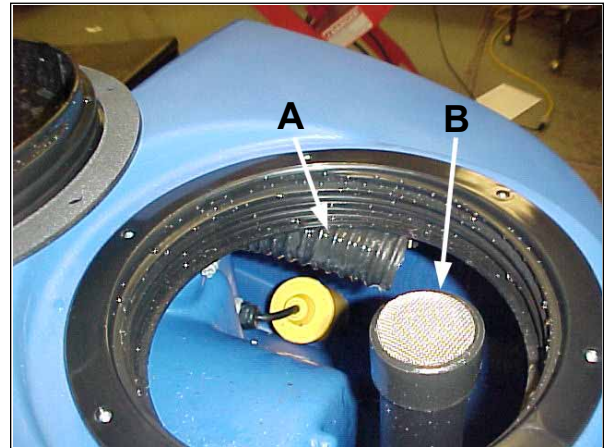


Figure 35

Maintenance

Maintenance To Be Done Every Week

⚠️ 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.

⚠️ WARNING: Always wear eye protection and protective clothing when working near batteries. **NO SMOKING!** Do not put tools or other metal objects across the battery terminals or the tops of the batteries.

⚠️ CAUTION: 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 batteries after installation.

Battery Inspection and Cleaning

1. Turn the key switch to the "OFF" position.
2. To inspect batteries, rotate seat support forward. Lift and rotate recovery tank. Be sure the recovery tank is empty before lifting.
3. Disconnect the batteries. Use a cloth and a solution of ammonia or bicarbonate of soda to wipe the top of the batteries. Clean the battery terminals. Reconnect the batteries. See the instructions in the section of this book called "Battery Maintenance".
4. When battery inspection is completed, close the recovery tank. Rotate the seat support back to the operating position.

Cleaning the Recovery Tank and Filter

1. Turn the key switch to the "OFF" position.
2. Empty the recovery tank using the flexible drain hose by unscrewing the knob and taking off the plug (see figure 36).
3. If the machine is equipped with the optional clean-out port, open the lower cleaning port cover by unscrewing the four knobs (see figure 37). **NOTE: Make sure that the tank is empty first.**
4. Rinse the tank and clean the drain plug.



Figure 36

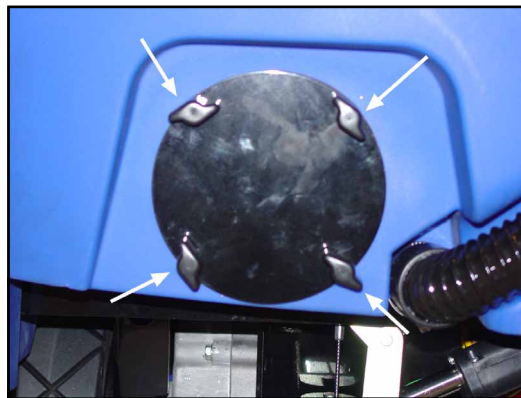


Figure 37

Maintenance

5. Clean the hose fitting in the recovery tank and spray water down the squeegee hose to clean out debris.
6. Reattach the squeegee hose.

Cleaning the Solution Tank and Filter

1. Move the machine so that the solution tank filter assembly is located directly over a floor drain.
2. Turn the key switch to the "OFF" position.
3. Clean inside the solution tank with a jet stream of water.
7. Close the solution flow valve.
8. Clean the filter inside the housing and reinstall on machine.

Manually Draining the Solution Tank

1. Remove sight gauge hose from top connector (see figure 38).
2. Rotate lower fitting to allow drain hose to rest over drain.
3. Drain solution tank (see figure 39).

Vac Assisted Solution Tank Drain

1. Remove vacuum hose from squeegee plate.
2. Turn vac on.
3. Remove and place solution hose into vac hose until washer rest against hose cuff.

NOTE: Using vac assist will help to rinse recovery tank. This will help to reduce cleanup and maintenance times.

Squeegee Maintenance

Clean the squeegee with a jet stream of water and a damp cloth. Inspect the front and rear squeegee blades for wear. Readjust or replace if necessary.

Front Squeegee Blade Replacement

To replace the front squeegee blade, follow this procedure:

1. Remove the squeegee assembly from the machine.
2. Remove clamp and front squeegee blade.
3. Install new front squeegee blade and reinstall clamp.
4. Replace squeegee on machine.



Figure 38



Figure 39

Maintenance

Rear Squeegee Blade Replacement

If the rear squeegee blade is worn and does not dry the floor well, follow this procedure:

1. Remove the squeegee assembly from the machine.
2. Remove the squeegee blade and inspect it.
3. Rotate the squeegee blade to obtain a new cleaning edge. Replace if necessary.
4. Reinstall the squeegee blade.
5. Reinstall the squeegee assembly on the machine.
6. Readjust the settings on the squeegee as required (see "How to Adjust Squeegee").

Squeegee Maintenance

The squeegee blade may be rotated for longer life. Keep sharp corner on floor for best cleaning results. See figure 40. To rotate follow this procedure:

1. Remove Clamp.
2. Remove blade and rotate to new edge.
3. Replace squeegee.
4. Replace clamp.

Cleaning the Vacuum Hoses

Make sure the squeegee is over a suitable drain.

1. Use a water hose to flush through the recovery hoses.
2. Side Squeegee - Position water hose to the squeegee side of the hose and flush thoroughly.
3. Recovery Hose - Position water hose inside recovery tank. Recovery hose is located behind threaded lip (see figure 40, A). **NOTE: Do not place hose in vacuum intake tube (see figure 41, B), damage will occur.**

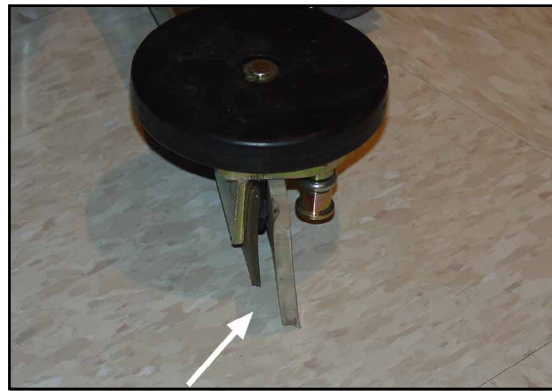


Figure 40

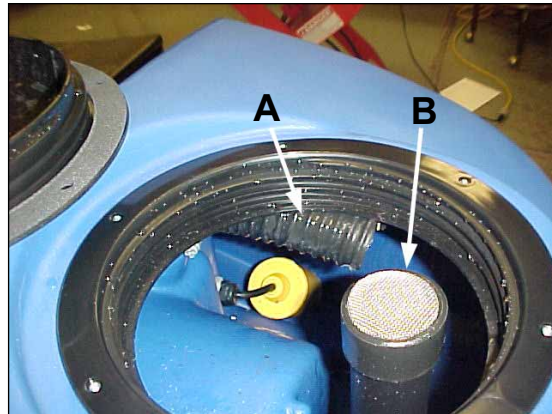


Figure 41

HOW TO CORRECT PROBLEMS IN THE MACHINE

PROBLEM	CAUSE	ACTION
Insufficient water onto the brushes	<p>The solution flow is not set</p> <p>There is no water in the solution tank.</p> <p>The solution filter is dirty.</p> <p>A circuit breaker has tripped.</p> <p>Insufficient flow.</p>	<p>Make sure the solution flow is set.</p> <p>Fill the solution tank.</p> <p>Clean the solution filter.</p> <p>Reset the circuit breaker.</p> <p>Increase flow with solution switch.</p>
The machine does not clean satisfactorily	<p>The brushes are worn.</p> <p>Need to use a different kind of brush/pad</p>	<p>Check the brushes and replace if necessary. (the brushes have to be replaced when the bristles reach approximately .59 inches (15mm height.)</p> <p>Use a different kind of brush. For cleaning operations on floors where the dirt proves to be particularly resistant, we recommend using special brushes. See Accessories page.</p>
The squeegee does not dry the floor	<p>The squeegee is dirty.</p> <p>Recovery drain hose is not closed.</p> <p>The suction hoses need to be cleaned.</p> <p>The squeegee blades are worn.</p> <p>The recovery tank is full.</p>	<p>Clean the squeegee.</p> <p>Close the drain plug.</p> <p>Clean the vacuum hoses. See "Routine Maintenance" section.</p> <p>Replace/ or rotate the squeegee blades. See "Routine Maintenance" section.</p> <p>Drain recovery tank.</p>
The vacuum motor does not function	<p>The squeegee up/down switch is not in the low or middle position.</p>	<p>Put the squeegee in the low or middle position or reprogram "one touch".</p>
The machine does not start	<p>The operator is not properly seated.</p> <p>The key is not in the "ON position".</p> <p>The charger is still connected.</p> <p>The batteries are not charged or not connected properly.</p> <p>The circuit breaker has tripped.</p>	<p>The operator must be properly seated in the driving position.</p> <p>Turn the key to the "ON" position.</p> <p>Remove the A/C cord from the wall.</p> <p>Check to make sure the batteries are connected properly and charge if necessary.</p> <p>Reset the circuit breaker.</p>
The brush motors do not work WARNING: To avoid damage to the floor, the motor starts only when the machine is traversing.	<p>The brush head unit is not down.</p> <p>The batteries are not charged or not connected properly.</p> <p>Poor electrical connection at the brush head unit.</p>	<p>Put the brush head unit down.</p> <p>Check to make sure the batteries are connected properly and charge if necessary.</p> <p>Connect the electrical connection at the brush head unit.</p>

Scrubtec R Common Error Codes

ERROR CODE	CAUSE	ACTION
1500 1501 1507	Check brake and wiring for short circuit.	Make sure manual override is not engaged.
1600	High battery voltage.	Poor or corroded connection to the battery.
3100 3101 3102 3103 3104 3105	Probable short circuit of output device.	Check the traction, brush and vac motor connections on the trio and check wiring from these connectors down to the traction, brush and vac motors.
7600	Open circuit on brush motors or brush motor wiring.	Check the brush motor connection on the trio and check the wiring from this connector down to the brush motor.
7602	Brush motor overload.	Scrub in lower pressure setting.
7603	Possible short circuit on brush motors or wiring.	Check the brush motor connection on the trio and check the wiring from this connector down to the brush motor.
7700	Open circuit on vacuum motor.	Check connector to trio and vacuum motor.
7800	Open circuit on traction motor.	Check the traction motor connection on trio and wiring down to motor.
7802	Traction motor current has exceeded current limit for the fold back time.	Excessive driving up an incline, or machine driven up against an obstacle or step.
9000	Brushes not fitted.	Place brushes or pads onto machine.
2F01	Drive system activated prior to turning key switch "ON".	Release traverse switch and reactivate.

Nilfisk ALTO

Manual Steering Models

SCRUBTEC R 571

SCRUBTEC R 571 C

SCRUBTEC R 586

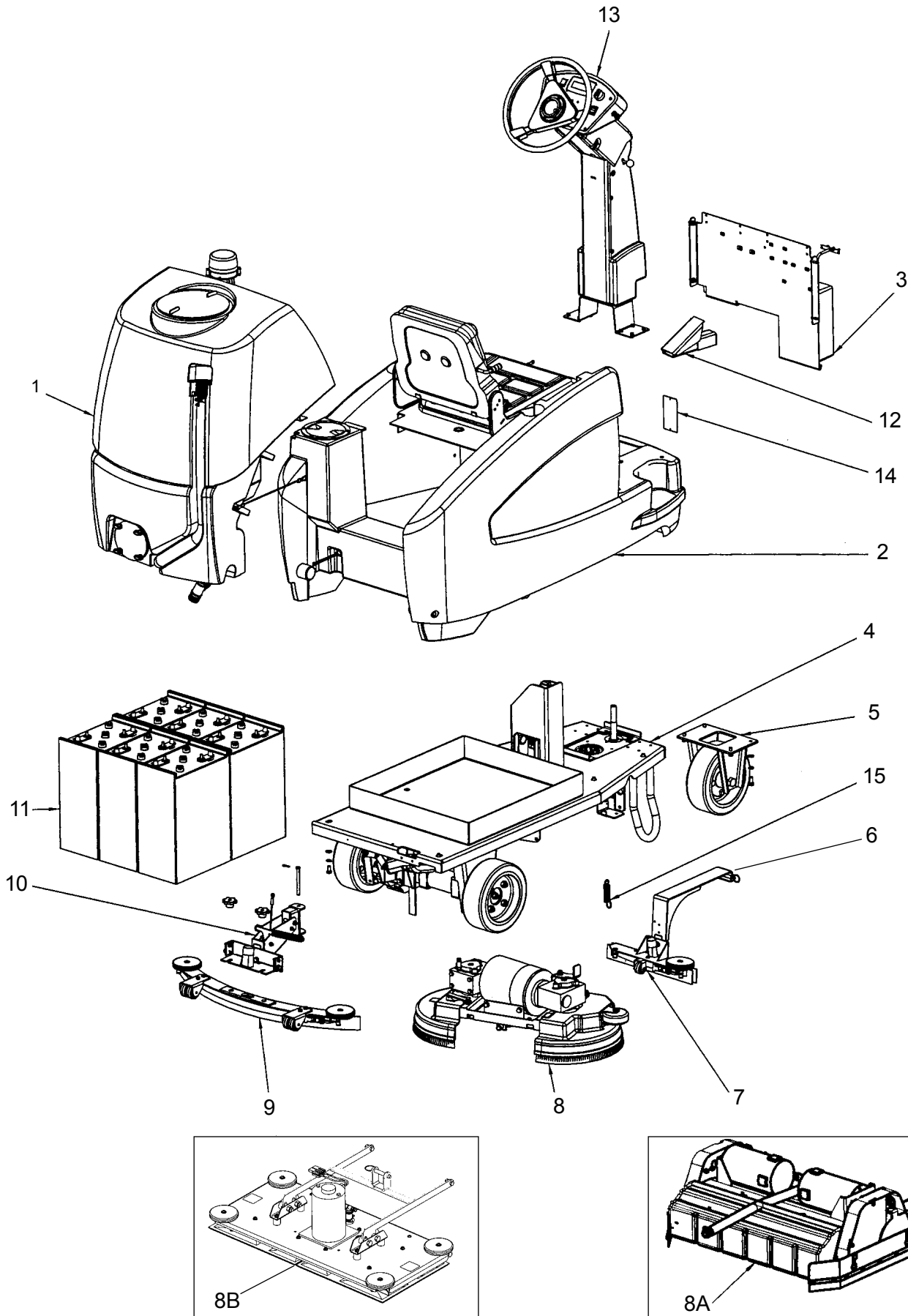
SCRUBTEC *BOOST*[®] R

Section II

Parts and Service Manual

(71274A)

FINAL ASSEMBLY



FINAL ASSEMBLY

Ref	Part No.	Description	Qty Rotary	Qty Cyl.	Qty. Boost
1	pg 42-43	Recovery Tank Assembly	1	-	-
2	pg 44-45	Solution Tank Assembly-1	1	1	1
	pg 46-47	Solution Tank Assembly-2	1	1	1
3	pg 64	Plate, Electrical (28")	1	-	-
	pg 64	Plate, Electrical (34")	1	-	-
	pg 64	Plate, Electrical (Cyl.)	-	1	-
	pg 64	Plate, Electrical (Boost)	-	-	1
4	pg 32-33	Mainframe, Main Asm. (Rotary)	1	-	-
	pg 36-67	Mainframe, Main Asm. (Boost)	-	-	1
	pg 34-35	Mainframe, Main Asm. (Cyl.)	-	1	-
5	pg 40	Wheel, Front Steering	1	1	1
6	pg 63	Front Squeegee Arm Assy	1	-	-
7	pg 62	Front Squeegee Assy	1	-	-
8	pg 50	Assembly, 28" Rotary Brush Head	1	-	-
	pg 51	Assembly, 34" Rotary Brush Head	1	-	-
8A	pg 52-53	Assembly, 28" Cyl. Brush Head	-	1	-
8B	pg 54-55	Assembly, 32" Boost Head	-	-	1
9	10129L	Assembly, Squeegee 81cm	1	-	-
	10068L	Assembly, Squeegee 99cm	1	1	1
	11041L	Assembly, Squeegee 104cm	1	1	1
10	pg 41	Arm, Rear Squeegee Lift	1	1	1
11#	NA	Battery-6V 420 AH	6	6	6
12	53767A	Pedal, Accelerator	1	1	1
13	pg 48-49	Column, Steering Asm.	1	1	1
14#	71018A	Plate, Warning	1	-	1
15	818381	Spring Extension	1	-	-
[]#	56372673	Boot, Battery Post	8	8	8
[]#	56381848	Positive Cable	1	1	1
[]#	56381846	Negative Cable	1	1	1
[]#	56381853	Cable Fuse	1	1	1
[]	41217A	Cable, Series	4	4	4
[]#	40849A	Suppressor EMI Split	2	2	3
[]#	56398090	Terminal Clamp Batt	8	8	8
[]#	56409485	Cable Assembly 1 x 15	4	4	4
[]#	56478246	Tie Cable	8	8	8

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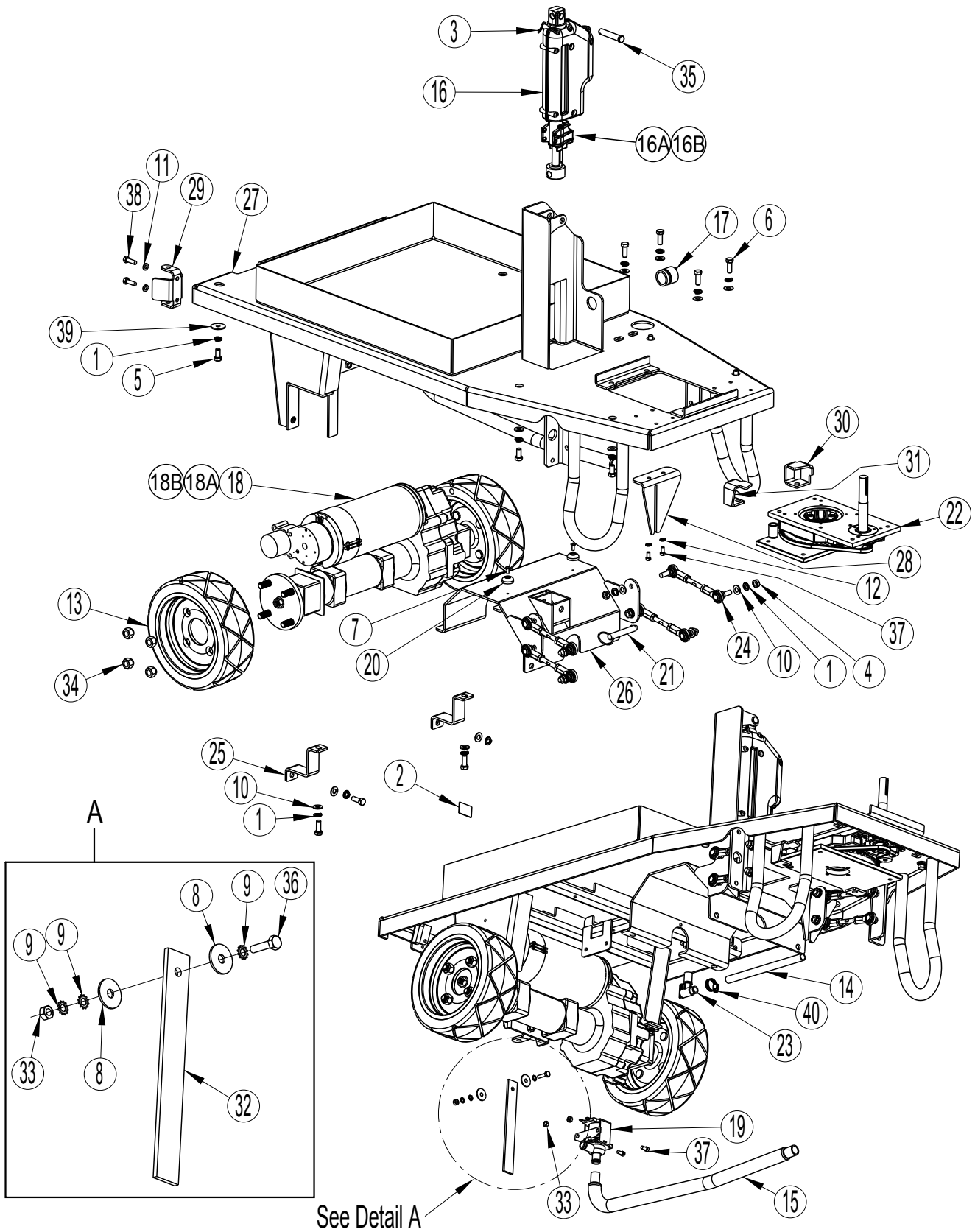
MAIN FRAME ASSY [ROTARY]

Item	Ref. No.	Qty	Description
1#	170883	22	Washer, Lock 3/8"
2#	766780	1	Pin Handle Lock
3#	818381	1	Spring, Idler Tension
4#	920204	8	Nut, 3/8-24 Hex Jam
5#	962244	6	Screw, 3/8-16 X .75 Hex
6#	962288	8	Bolt, 3/8-16 X 1.00 Hex Hd.
7#	962929	2	Screw, 10-32 X 3/8"
8#	980205	2	Washer, .31 I.D. X 1.06 O.D.
9#	980614	3	Washer, 1/4" Starlock, External
10#	980645	20	Washer, 3/8" S.A.E. Flat
11#	980652	2	Washer, 5/16 Lock
12#	980657	6	Washer, Lock 1/4
13#	56109703	2	Wheel-10 Inch
14#	30445A	1	Hose, Solution (Flex)
15#	30453A	1	Hose, Clear Vinyl
16#	30558A	1	Pad, Brush Carriage Stop
17#	40836A	1	Horn
18#	40837B	1	Transaxle
18A#	40275A	1	Brake
18B#	40274A	1	Motor
[]#	56380669	1	Kit, Carbon Brush
19#	48703A	1	Valve, Electric
20#	51609A	2	Bumper, Rear
21#	53386B	1	Actuator, Head Lift
21A#	40910A	1	Potentiometer & Circuit Board
21B#	40866A	1	Housing Potentiometer
22#	53493A	1	Pin, Quick Release Actuator Btm.
23#	53760A	1	Steering Asm., Manual
24#	59614A	1	Valve, Battery Drain
25#	61473A	4	Linkage, Rod
26#	61475A	2	Clamp, Transaxle
27#	61481A	1	Weldment, Mainframe
28#	61482A	1	Weldment, Head Carriage
29#	61491A	1	Bracket, Squeegee Stop
30#	61572A	1	Mount, Front Squeegee
31#	61596A	1	Stop, Brush Head
32#	61877A	1	Stop, Steering (Left)
33#	61878A	1	Stop, Steering (Right)
34#	69639A	1	Strap, Static
35#	77267A	4	Label, Tie Down
36#	81104A	3	Nut, 1/4" Nylock
37#	81221A	8	Nut, 1/2-20 Lug
38#	82501A	1	Pin Clevis
39#	85700A	1	Screw, 1/4-20 X 1 H.H.C.S.
40#	85737A	8	Screw, 1/4-20 X 1/2 H.H.C.S.
41#	85813A	2	Screw, 5/16-18 X 1.00 Hex Hd
42#	87026A	2	Washer, 1/4 Flat S.S.
43#	87054A	2	Washer Fender .375
44#	50248A	3	Clamp, Hose

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MAIN FRAME ASSY [CYLINDRICAL]



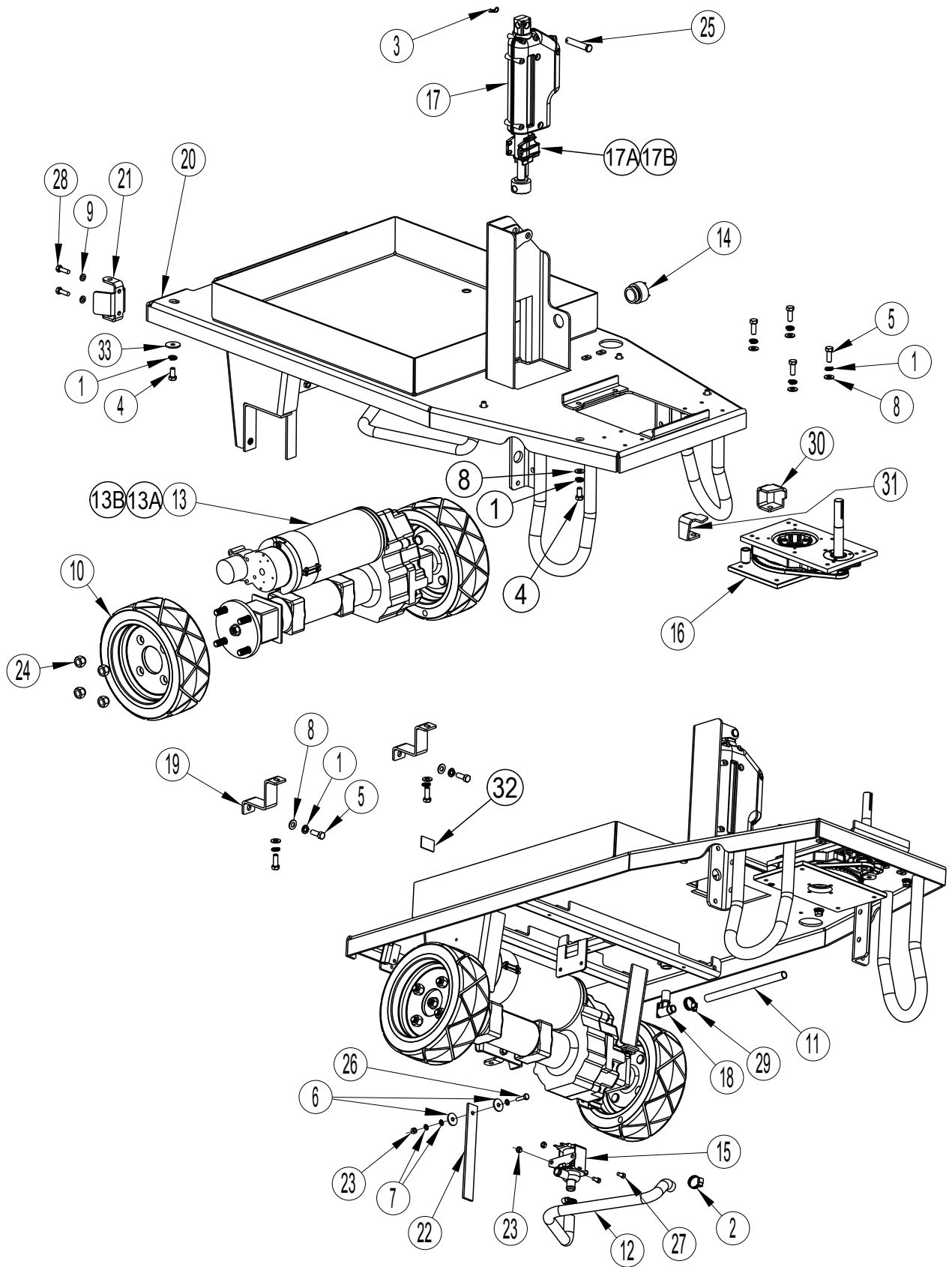
MAIN FRAME ASSY [CYLINDRICAL]

Item	Ref. No.	Qty	Description
1#	170883	22	Washer, Lock 3/8"
2#	413754	1	Grip, Sol. Tank Clamp
3#	766780	1	Pin Handle Lock
4#	920204	8	Nut, 3/8-24 Hex Jam
5#	962244	6	Screw, 3/8-16 X .75 Hex
6#	962288	8	Bolt, 3/8-16 X 1.00 Hex Hd.
7#	962929	2	Screw, 10-32 X 3/8"
8#	980205	2	Washer, .31 I.D. X 1.06 O.D.
9#	980614	3	Washer, 1/4" Starlock, External
10#	980645	20	Washer, 3/8" S.A.E. Flat
11#	980652	2	Washer, 5/16 Lock
12#	980657	2	Washer, Lock 1/4
13#	56109703	2	Wheel-10 Inch
14#	30453A	1	Hose, Clear Vinyl
15#	30649A	1	Hose, Solution
16#	40771A	1	Actuator, Head Lift
16A#	40910A	1	Potentiometer & Circuit Board
16B#	40866A	1	Housing Potentiometer
17#	40836A	1	Horn
18#	40837B	1	Transaxle
18A#	40275A	1	Brake
18B#	40274A	1	Motor
[]#	56380669	1	Kit, Carbon Brush
19#	48703A	1	Valve, Electric
20#	51609A	2	Bumper, Rear
21#	53493A	1	Pin, Quick Release Actuator Btm.
22#	53760A	1	Steering Asm., Manual
23#	59614A	1	Valve, Battery Drain
24#	61473A	4	Linkage, Rod
25#	61475A	2	Clamp, Transaxle
26#	61718A	1	Carriage, Weldment
27#	61719A	1	Frame, Main Weldment
28#	61736A	1	Bracket, Head Stop (Cyl)
29#	61836A	1	Bracket, Squeegee Stop
30#	61877A	1	Stop, Steering (Left)
31#	61878A	1	Stop, Steering (Right)
32#	69639A	1	Strap, Static
33#	81104A	3	Nut, 1/4" Nylock
34#	81221A	8	Nut, 1/2-20 Lug
35#	82501A	1	Pin Clevis
36#	85700A	1	Screw, 1/4-20 X 1 H.H.C.S.
37#	85737A	4	Screw, 1/4-20 X 1/2 H.H.C.S.
38#	85813A	2	Screw, 5/16-18 X 1.00 Hex Hd
39#	87054A	2	Washer Fender .375
40#	50248A	1	Clamp, Hose

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MAIN FRAME ASSY [BOOST]



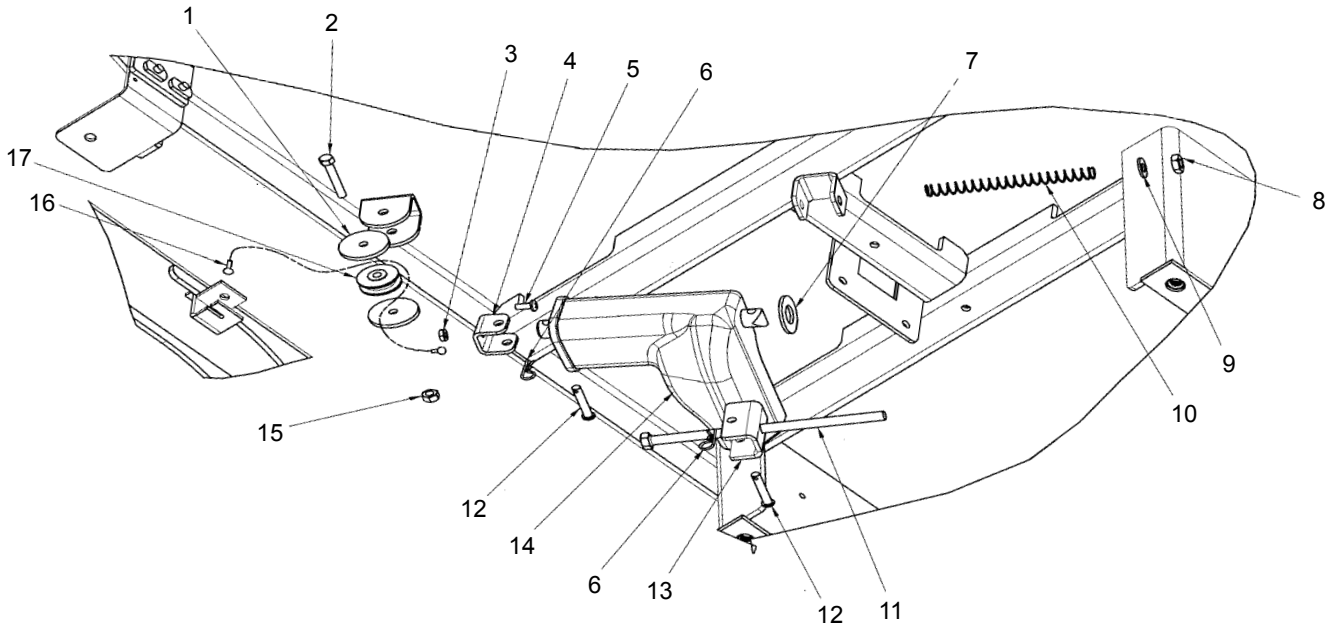
MAIN FRAME ASSY [BOOST]

Item	Ref. No.	Qty	Description
1#	170883	14	Washer, Lock 3/8"
2#	722030	2	Clamp, Hose
3#	766780	1	Pin Handle Lock
4#	962244	8	Screw, 3/8-16 X .75 Hex
5#	962288	8	Bolt, 3/8-16 X 1.00 Hex Hd.
6#	980205	2	Washer, .31 I.D. X 1.06 O.D.
7#	980614	3	Washer, 1/4" Starlock, External
8#	980645	12	Washer, 3/8" S.A.E. Flat
9#	980652	2	Washer, 5/16 Lock
10#	56109703	2	Wheel-10 Inch
11#	30453A	1	Hose, Clear Vinyl
12#	30680A	1	Hose, Solution (Flex)
13#	40837B	1	Transaxle
13A#	40275A	1	Brake
13B#	40274A	1	Motor
[]#	56380669	1	Kit, Carbon Brush (for 40274A)
14#	40836A	1	Horn Reverse Alarm
15#	48703A	1	Valve, Electric
16#	53760A	1	Steering Asm., Manual
17#	53874A	1	Actuator, Head Lift
17A#	40910A	1	Potentiometer & Circuit Board
17B#	40866A	1	Housing Potentiometer
18#	59614A	1	Valve, Battery Drain
19#	61475A	2	Clamp, Transaxle
20#	61719A	1	Frame, Main Weldment
21#	61836A	1	Bracket, Squeegee Stop
22#	69639A	1	Strap, Static
23#	81104A	3	Nut, 1/4" Nylock
24#	81221A	8	Nut, 1/2-20 Lug
25#	82501A	1	Pin Clevis
26#	85700A	1	Screw, 1/4-20 X 1 H.H.C.S.
27#	85737A	2	Screw, 1/4-20 X 1/2 H.H.C.S.
28#	85813A	2	Screw, 5/16-18 X 1.00 Hex Hd
29#	50248A	1	Clamp, Hose
30#	61877A	1	Stop L.H. Steering
31#	61878A	1	Stop R.H. Steering
32#	77267A	4	Label Tie Down
33#	87054A	2	Washer Fender .375

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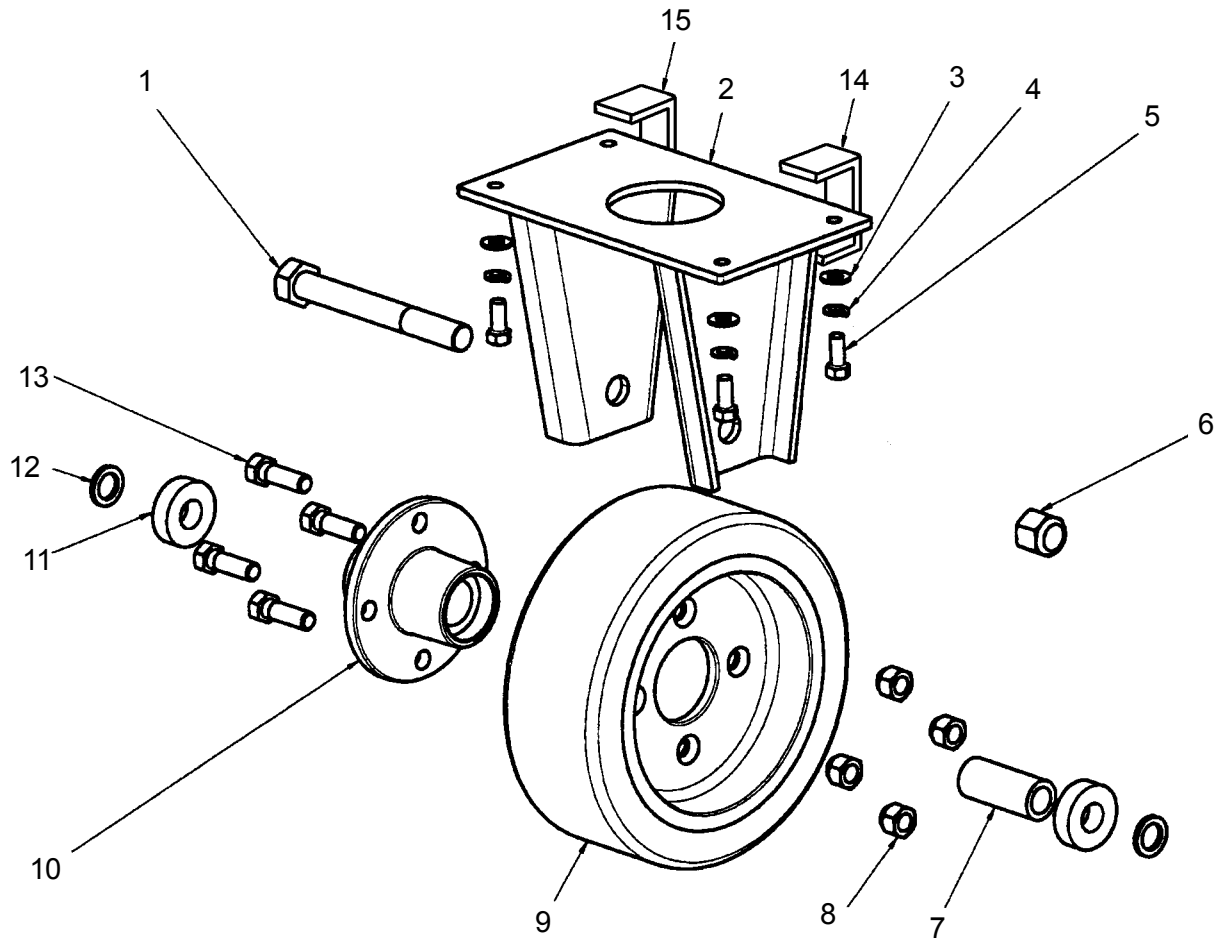
Nilfisk ALTO
SCRUBTEC R 571, 586
Optional Side Squeegee Lift Assembly Drawing 5/05



Nilfisk ALTO
SCRUBTEC R 571, 586
Optional Side Squeegee Lift Assembly Parts List 5/05

Ref	Part No.	Description	Qty
1	87624A	Washer, Nylon 1 1/2 x 1/4 x 1/8	2
2	86004A	Screw, 1/4-20 x 1.50 HHCS	1
3	920296	Nut, 10-24 Elastic Stop	1
4	61699A	Bracket, Sq. Lift Cable	1
5	962798	Screw, 10-24 x 1/2 PH	1
6	836711	Pin, Hair	2
7	80152A	Washer, Flat 5/8	1
8	920110	Nut, 5/16-18 Hex Lock	1
9	980651	Washer, 5/16 Flat	1
10	80286A	Spring, Actuator	1
11	80287A	Screw, 5/16-18 x 7 Hex Head	1
12	80273A	Pin, Clevis	2
13	61698A	Bracket, Actuator Rear Mount	1
14	40751A	Actuator, 3" Stroke	1
15	81104A	Nut, 1/4" Nylock	1
16	61695A	Cable, Squeegee Lift	1
17	57275A	Pulley, Cable	1

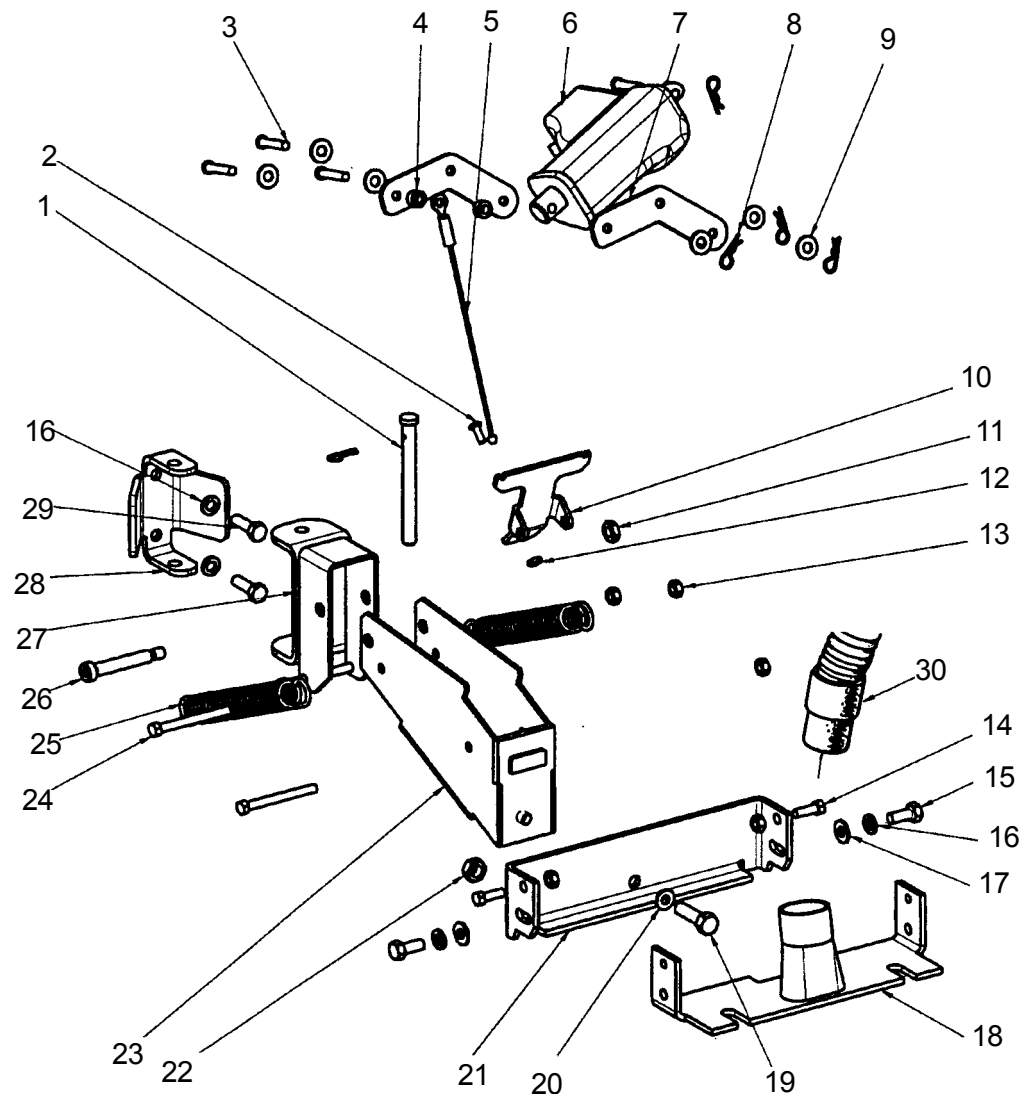
Nilfisk ALTO
SCRUBTEC R 571, 586, 571 C, BOOST® R
 Front Wheel Assembly Drawing and Parts List 1/11
 Drawing #10779A



Ref	Part No.	Description	Qty
1	80267A	Bolt, 3/4 - 16 Hex Head	1
2	61472A	Yoke Weldment, Steering	1
3	980645	Washer, 3/8 Flat	4
4	170883	Washer, Lock 3/8	4
5	85822A	Screw, 3/8 -16 x 7/8 Hex Hd.	4
6	80268A	Nut, .750 ESNA	1
7	*	Spacer, Center (included w/#10)	1
8	81221A	Nut, 1/2 -20 Lug	4
9	56109703	Wheel, Anti-Skid	1
10	61691A	Hub Assembly, Front Wheel	1
11	*	Bearing (included w/#10)	2
12	*	Outside Spacer (included w/#10)	2
13	85838A	Bolt, 1/2 -20 Hex	4
14	61877A	Stop, LH Steering	1
15	61878A	Stop, RH Steering	1

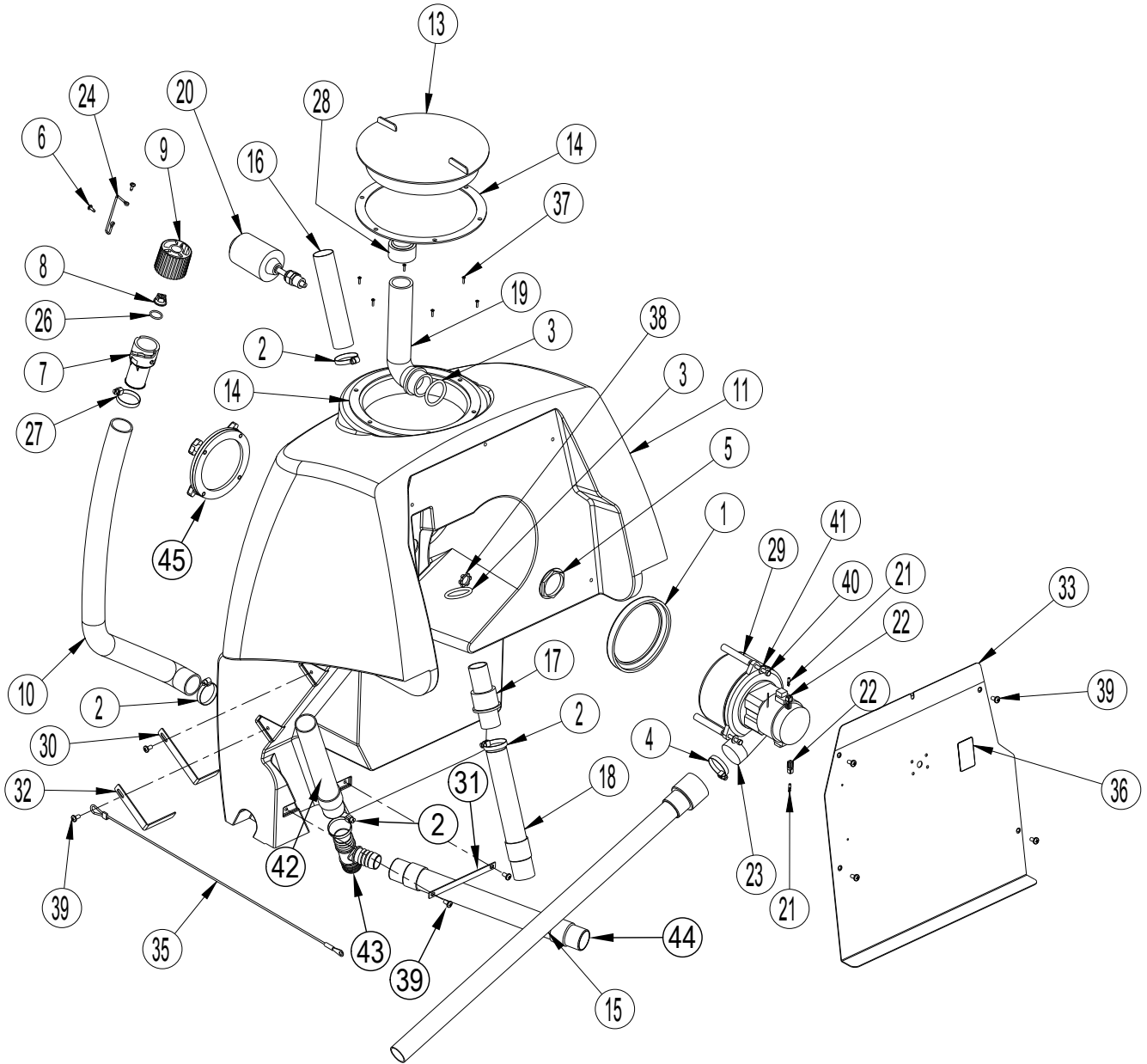
*Front Wheel Hub Assembly (61691A) includes reference #s 7, 11 and 12.

Nilfisk ALTO
SCRUBTEC R 571, 586, 571 C, BOOST® R
 Squeegee Lift Assembly Drawing and Parts List 1/11
 Drawing #10787A



Ref	Part No.	Description	Qty	Ref	Part No.	Description	Qty
1	66531A	Pin, Swing Arm	1	16	980652	Washer, 5/16 Lock	4
2	962798	Screw, 10-24 x 1/2 PH	1	17	980651	Washer, 5/16 Flat	2
3	80273A	Pin, Clevis	4	18	61267A	Tube, Bracket Squeegee	1
4	30542A	Spacer	2	19	85730A	Screw, 3/8 - 16 x 1 1/4 Hex HD	1
5	61549A	Cable, Rear Squeegee	1	20	87031A	Washer, 3/8 Flat SS	1
6	53387B	Actuator, Squeegee	1	21	60678C	Bracket, Squeegee Mount	11
7	53446A	Lever, Pivot, Squeegee	2	22	81105A	Nut, 3/8 - 16 SS ESNA	1
8	836711	Pin, Hair	5	23	61551A	Arm, Rear Weldment	1
9	87026A	Washer, 1/4 Flat SS	6	24	962269	Screw, 1/4 - 20 x 2 1/2 Hex HD	2
10	61552A	Lever, Spring	1	25	53423a	Spring, Extension 5,19"	2
11	920110	Nut, 5/16-18 Hex Lock	1	26	80015A	Screw, 3/8 -16 x 2	2
12	920296	Nut, 10-24 Elastic Stop	1	27	61550A	Mount, Front Arm	1
13	81104A	Nut, 1/4 Nylock	5	28	61491A	Bracket, Squeegee Mount (Rotary)	1
14	170915	Screw, 1/4 - 20 x 3/4 Hex HD	2		61736A	Bracket, Squeegee Mount (Cylindrical)	1
15	962620	Screw, 5/16 - 24 x 3/4 Hex HD	2	29	85813A	Screw, 5/16 - 18 x 1 Hex HD	2
				30	30568A	Hose, Recovery	1

RECOVERY TANK ASSEMBLY



RECOVERY TANK ASSEMBLY

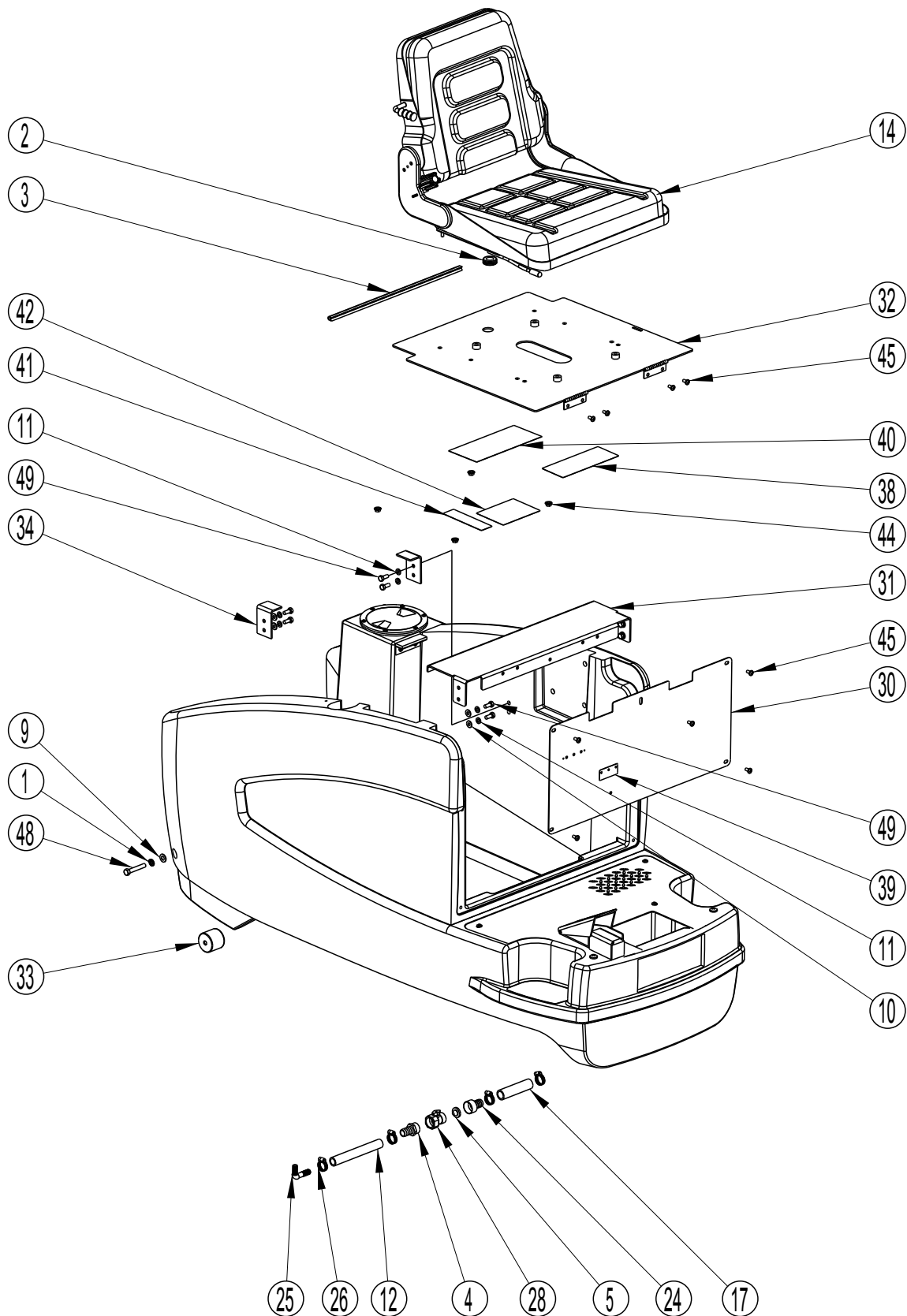
Item	Ref. No.	Qty	Description
1	643418	1	Gasket, Vac Unit
2	752020	3	Clamp, Hose
3	80382A	2	O-Ring, Retainer
4	872010	1	Clamp, Hose
5#	185USP	1	Nut, Drain Valve
6	962957	2	Screw, 10-16 X 1/2 Self Tap
7	30225a	1	Body, Drain Valve
8	30226a	1	Plug, Drain
9	30227a	1	Housing, Drain
10	30443a	1	Hose, Recovery Drain
11	30531a	1	Tank, Recovery
13	30581a	1	Lid, Recovery Tank
14	30582a	2	Gasket, Rec. Tank Lid
15	30621a	1	Hose, Vac Motor
16	30622a	1	Hose, Vac Exhaust
17	30623a	1	Adaptor Asm Vacuum
18	38731a	1	Hose, Squeegee 1 1/2 X 57.0
19	39339b	1	Tube, Stand 90 Degree
20	40002a	1	Switch, Float Electrical
21	41809a	2	Contact, Housing Connector
22	43401a	2	Housing, Connector
23	56109731	1	Motor, Vac
[]	56212223	1	Carbon Brush Set of 2 (for 56109731)
24	52206a	1	Chain, Drain Assembly
26	52560a	1	O-Ring, .103 X .799 I.D.
27	53371a	1	Clamp, Hose ("P" Trap)
28	58069a	1	Screen, Vac Filter
29	58533a	3	Spacer, Vac Motor
30	61477a	1	Retainer, Upper Hose
31	61478a	1	Retainer, Lower Hose
32	61498a	1	Retainer, Mid Hose
33	61565a	1	Panel, Rec. Vac Mtr
35	61573b	1	Cable, Seat/Rec. Tank
36	71014a	1	Label, Falling Parts
37	80056a	6	Screw, 4-40 X 1/2 P.H.
38	82100a	1	Locknut, 1/2" Conduit
39	85395a	8	Screw, 1/4-20 X 1/2" P.H.
40	85728a	3	Screw, 1/4-20 X 4" Hex Hd.
41	87026a	3	Washer, 1/4 Flat S.S.
42	30567a	1	Hose 1-1/2 Vac X 36 1 Cuff NOTE 1
43	30561a	1	Tee Rec. Hose Reducing NOTE 1
44	30568a	1	Hose 1-1/2 Squeegee X 17 2 Cf NOTE 1
45#	10816A	1	Rec Tank Cleanout Option

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NOTE 1: These items are only used on disk models.

SOLUTION TANK ASSEMBLY-1



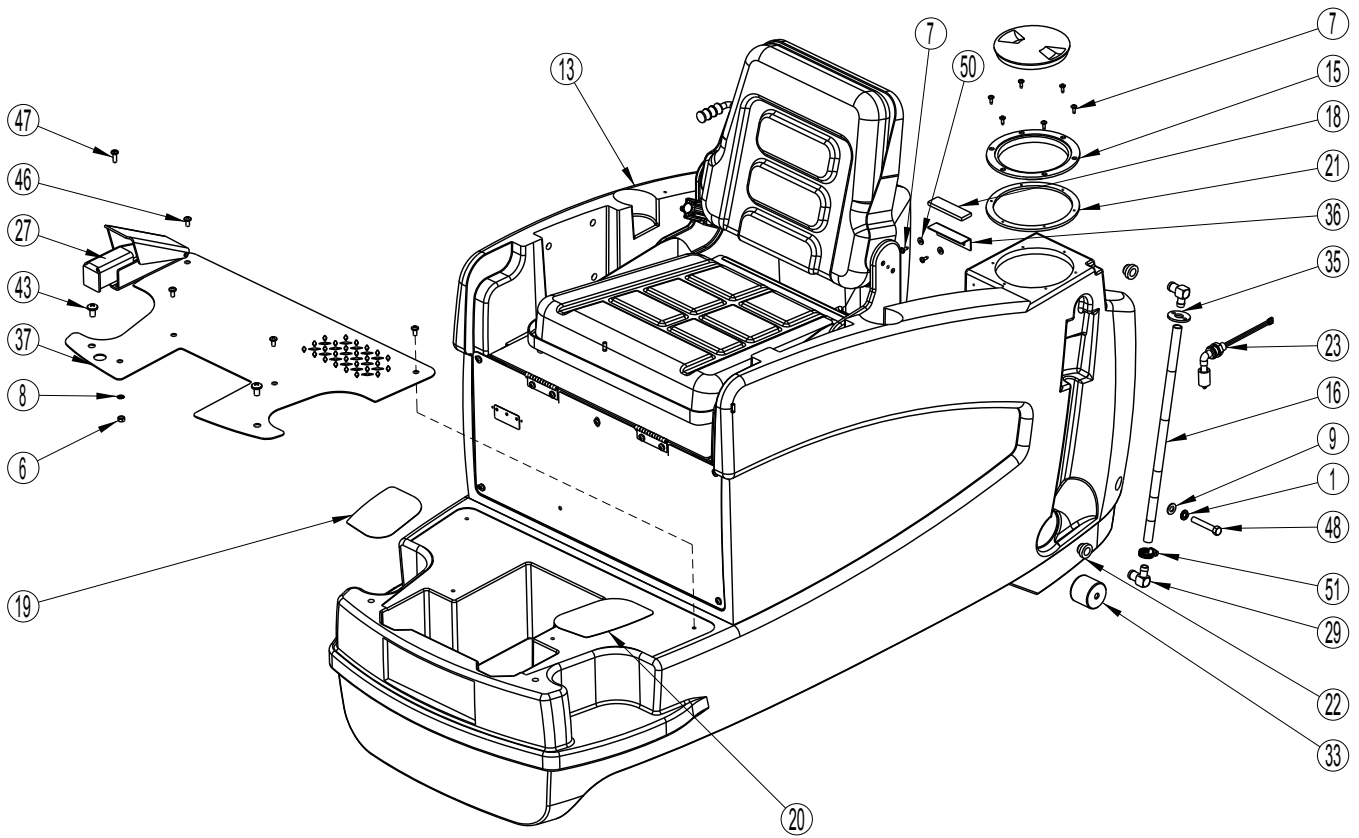
SOLUTION TANK ASSEMBLY-1

Item	Ref. No.	Qty	Description
1#	170883	2	Washer, Lock 3/8"
2#	193944	1	Grommet
3#	193951	1	Trim, Flexible 1.5 Ft.
4#	830214	1	Adapter, 3/4 Barb & Ght Male
5#	838517	1	Screen, Hose Washer
6#	920208	1	Nut, 1/4-20 Hex
7#	962957	8	Screw, 10-16 X 1/2 Self Tap
8#	980614	1	Washer, 1/4" Starlock, External
9#	980645	2	Washer, 3/8" S.A.E. Flat
10#	980651	8	Washer, 5/16 Flat
11#	980652	8	Washer, 5/16 Lock
12#	30445A	1	Hose, Solution (Flex)
13#	30530A	1	Tank, Solution
14#	30534B	1	Seat, Ergo/Adjustable
15#	30539B	1	Lid, Solution
16#	30564B	1	Hose, Solution Sight
17#	30566A	1	Hose, 5/8" Id X 7/8" Od X 4.00
18#	30578A	1	Gasket, Sol. Tank Fill
19#	30596A	1	Pad, Sol. Tank Step (Right)
20#	30597A	1	Pad, Sol. Tank Step (Left)
21#	30775A	1	Gasket, Solution Tank Lid
22#	31242A	2	Bushing
23#	40876A	1	Sensor, Water Level (Option)
24#	50358A	1	Adapter, 5/8 Barb Swivel
25#	53498A	1	Fitting, 90d Ell Pipe
26#	53571A	4	Clamp, Hose
27#	53767A	1	Pedal, Accelerator
28#	54088A	1	Valve Shutoff 3/4 Ght X 3/4 Ght
29#	30883A	2	Hosebarb, .50 X 90 Deg.
30#	61489A	1	Plate, Cover
31#	61490A	1	Mount, Seat Assembly
32#	61492B	1	Plate, Seat Assembly
33#	61561A	2	Pivot, Recovery Tank
34#	61562A	2	Stop, Seat
35#	61563A	1	Washer, Sight Tube
36#	61574A	1	Bracket, Tank Fill Gasket
37#	61843A	1	Plate, Deck
38#	70841A	1	Label, Battery Installation
39#	70883A	1	Label, Battery Charger
40#	70884A	1	Label Error Code
41#	71015A	1	Label Gases
42#	71278A	1	Label, Brake Operation
43#	80333A	2	Screw, 3/8-16 X 5/8
44#	81208A	4	Nut, 5/16-24 Hex Serrated Flange
45#	85395A	9	Screw, 1/4-20 X 1/2" P.H.
46#	85398A	4	Screw, 1/4-20 X 1/2" P.H.
47#	85518A	1	Screw, 1/4-20 X 3/4 P.H.
48#	85704A	2	Screw, 3/8-16 X 2 1/4" Hex
49#	85811A	8	Screw, 5/16-18 X 3/4 Hex Hd
50#	87036A	2	Washer, #10 Flat
51#	50248A	1	Clamp, Hose
[]	61573B	1	Cable, Seat/Rec. Tank

[] = Not Shown

= Revised or new since last update

SOLUTION TANK ASSEMBLY-2



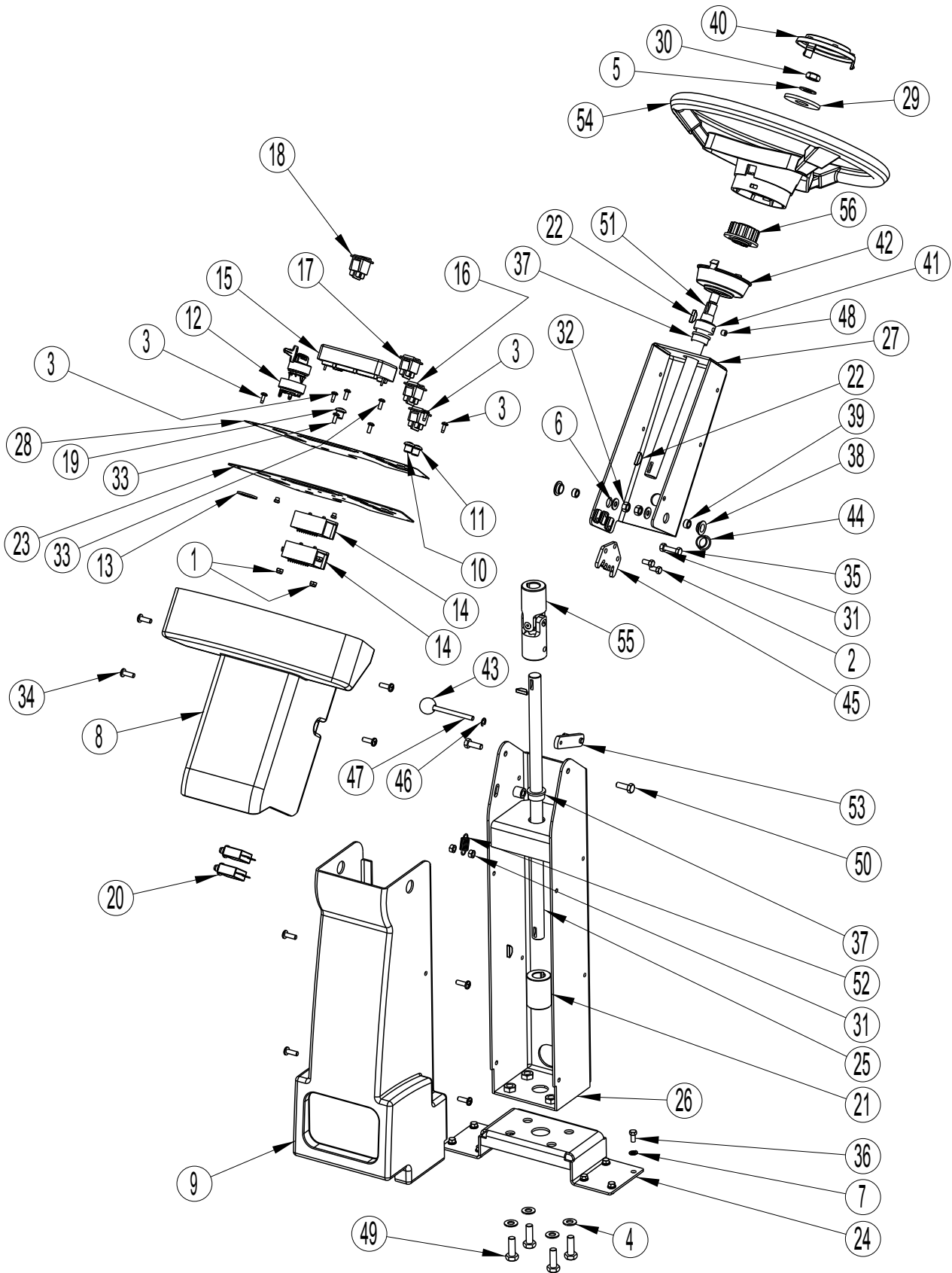
SOLUTION TANK ASSEMBLY-2

Item	Ref. No.	Qty	Description
1#	170883	2	Washer, Lock 3/8"
2#	193944	1	Grommet
3#	193951	1	Trim, Flexible 1.5 Ft.
4#	830214	1	Adapter, 3/4 Barb & Ght Male
5#	838517	1	Screen, Hose Washer
6#	920208	1	Nut, 1/4-20 Hex
7#	962957	8	Screw, 10-16 X 1/2 Self Tap
8#	980614	1	Washer, 1/4" Starlock, External
9#	980645	2	Washer, 3/8" S.A.E. Flat
10#	980651	8	Washer, 5/16 Flat
11#	980652	8	Washer, 5/16 Lock
12#	30445A	1	Hose, Solution (Flex)
13#	30530A	1	Tank, Solution
14#	30534B	1	Seat, Ergo/Adjustable
15#	30539B	1	Lid, Solution
16#	30564B	1	Hose, Solution Sight
17#	30566A	1	Hose, 5/8" Id X 7/8" Od X 4.00
18#	30578A	1	Gasket, Sol. Tank Fill
19#	30596A	1	Pad, Sol. Tank Step (Right)
20#	30597A	1	Pad, Sol. Tank Step (Left)
21#	30775A	1	Gasket, Solution Tank Lid
22#	31242A	2	Bushing
23#	40876A	1	Sensor, Water Level (Option)
24#	50358A	1	Adapter, 5/8 Barb Swivel
25#	53498A	1	Fitting, 90d Ell Pipe
26#	53571A	4	Clamp, Hose
27#	53767A	1	Pedal, Accelerator
28#	54088A	1	Valve Shutoff 3/4 Ght X 3/4 Ght
29#	30883A	2	Hosebarb, .50 X 90 Deg.
30#	61489A	1	Plate, Cover
31#	61490A	1	Mount, Seat Assembly
32#	61492B	1	Plate, Seat Assembly
33#	61561A	2	Pivot, Recovery Tank
34#	61562A	2	Stop, Seat
35#	61563A	1	Washer, Sight Tube
36#	61574A	1	Bracket, Tank Fill Gasket
37#	61843A	1	Plate, Deck
38#	70841A	1	Label, Battery Installation
39#	70883A	1	Label, Battery Charger
40#	70884A	1	Label Error Code
41#	71015A	1	Label Gases
42#	71278A	1	Label, Brake Operation
43#	80333A	2	Screw, 3/8-16 X 5/8
44#	81208A	4	Nut, 5/16-24 Hex Serrated Flange
45#	85395A	9	Screw, 1/4-20 X 1/2" P.H.
46#	85398A	4	Screw, 1/4-20 X 1/2" P.H.
47#	85518A	1	Screw, 1/4-20 X 3/4 P.H.
48#	85704A	2	Screw, 3/8-16 X 2 1/4" Hex
49#	85811A	8	Screw, 5/16-18 X 3/4 Hex Hd
50#	87036A	2	Washer, #10 Flat
51#	50248A	1	Clamp, Hose
[]	61573B	1	Cable, Seat/Rec. Tank

[] = Not Shown

= Revised or new since last update

STEERING COLUMN ASSY



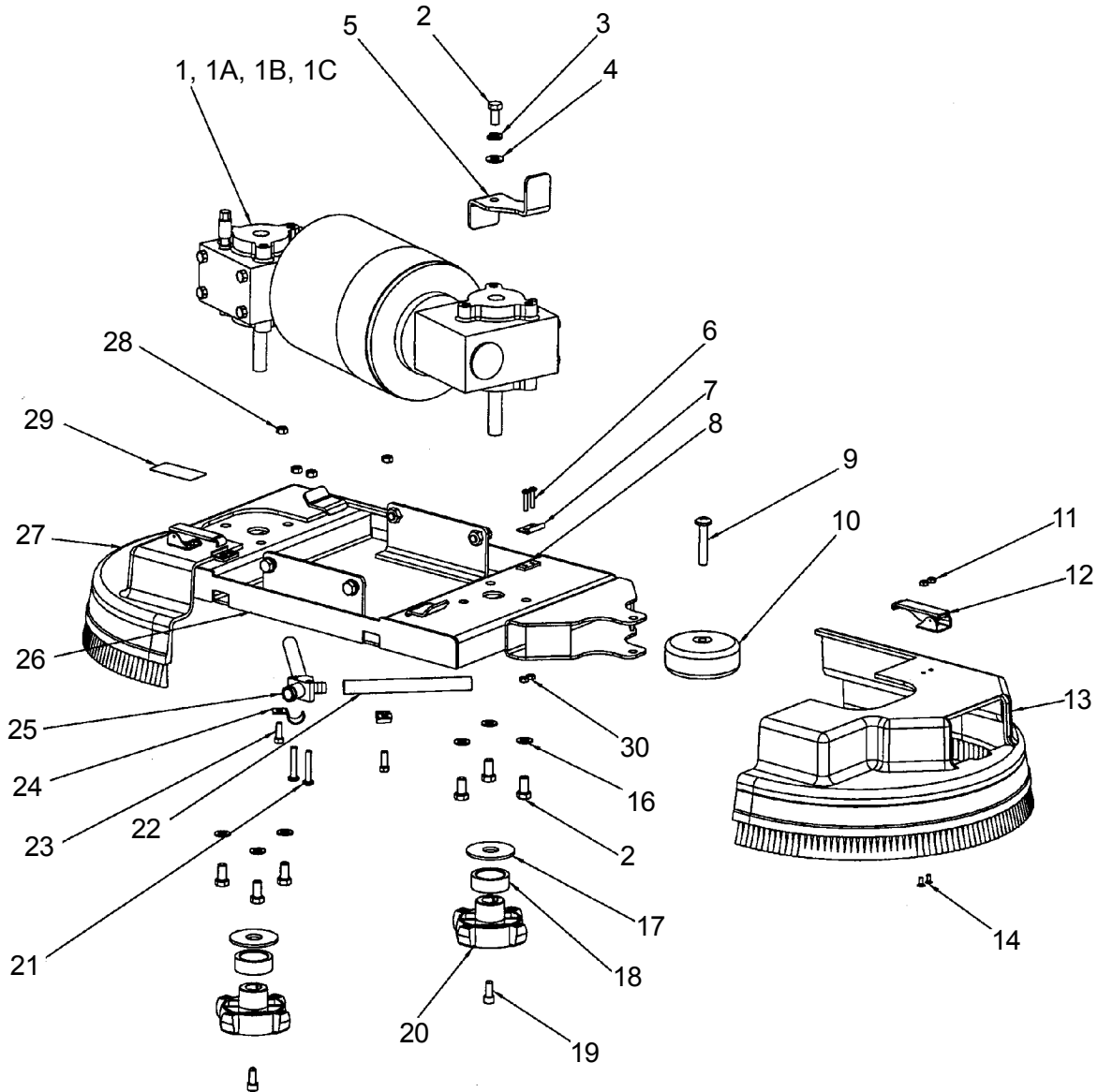
STEERING COLUMN ASSY

Item	Ref. No.	Qty	Description
1#	920722	4	Nut 10-32 ESNA
2#	962430	2	Screw, 1/4-20 X 1/2 H.H.C.S.
3#	962957	4	Screw, 10-16 X 1/2 Self Tap
4#	980645	4	Washer, 3/8" S.A.E. Flat
5#	980648	1	Washer 17/32 X 1 1/16 Plain
6#	980651	2	Washer, 5/16 Flat
7#	980657	8	Washer, Lock 1/4
8#	30733B	1	Cover, Front (Upper)
9#	30734B	1	Cover, Front (Lower)
10#	40706A	1	Switch, Momentary Push
11#	40748A	1	Switch, Push Button
12#	40786A	1	Switch, Key Hobbs Focus Wb
13#	40786S	1	Spacer, Key Switch
14#	40879A	2	Module, Solution Level (Option)
15#	40880B	1	Panel LCD Control (Trio)
16#	40885A	2	Switch, Momentary Rocker
17#	40890A	1	Switch, Maintained Rocker
18#	40940A	1	Switch, Maintained Rocker
19#	40941A	1	Horn Button
20#	41423B	2	Breaker, 5A Circuit, Cntrl./Act.
21#	53759A	1	Coupling, Sleeve (Man)
22#	55400A	4	Key 3/16 X 3/4 Dia. Hypro
23#	61835A	1	Panel, Control
24#	61837B	1	Plate, Column Adapter
25#	61838B	1	Shaft, Lower
26#	61839B	1	Column, Lower Steering
27#	61848A	1	Column Upper Steering
28#	71165A	1	Label, Control Panel
29#	80328A	1	Washer, Flat
30#	80349A	1	Nut, 1/2-13 Hex Thin Nyloc
31#	81104A	3	Nut, 1/4" Nylock
32#	81112A	2	Nut, 5/16-18 Thin ESNA
33#	84237A	4	Screw, 10-32 X .50 P.H.
34#	85518A	8	Screw, 1/4-20 X 3/4 P.H.
35#	85700A	1	Screw, 1/4-20 X 1 H.H.C.S.
36#	85737A	8	Screw, 1/4-20 X 1/2 H.H.C.S.
37#	56250414	2	Bearing, Flange
38#	56413211	2	Bearing, Flange .625 x .500 x .250
39#	56320595	2	Bushing .32 x .50 x .28
40#	56497543	1	Cap
41#	56367095	1	Collar, Shaft
42#	56497308	1	Cup
43#	56440817	1	Knob
44#	56900041	1	Plug, Cap
45#	56413658	1	Ratchet, Steering Column
46#	56003261	1	Ring, Ret Ext Type E 0.31 Dia
47#	56413664	1	Rod
48#	56002086	1	Scr, Soc Set Loc 5/16-18 X .25
49#	80088A	4	Screw M10-1.5 X 30mm CL10.9
50#	85812A	2	Screw 5/16-18 X 7/8 Hex Hd Gr5
51#	56420059	1	Shaft, Upper Steering
52#	56305072	1	Spring, Extension .075
53#	56413661	1	Steering Pawl Weldment
54#	56497306	1	Steering Wheel
55#	56454081	1	Universal Joint
56#	56497560	1	Wheel Adapter

= Revised or new since last update

**Nilfisk ALTO
SCRUBTEC R 571**

571 Rotary Brush Head Assembly Drawing and Parts List 1/11
Drawing #10697A

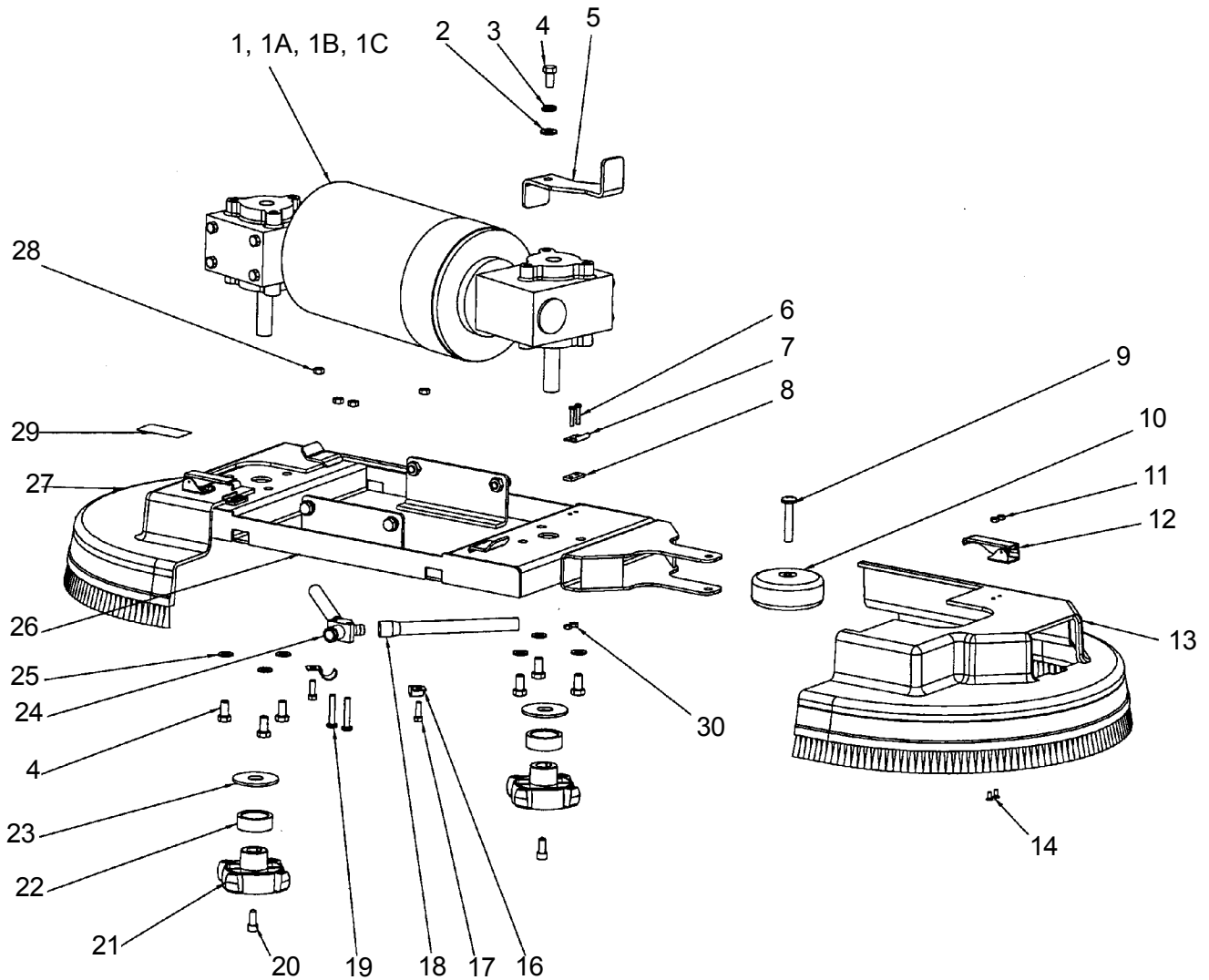


Ref	Part No.	Description	Qty	Ref	Part No.	Description	Qty
1	40904B	Motor, Dual Gear Box	1	17	59856A	Washer, Rubber	2
1A	915102	Key	2	18	61658A	Collar, Brush Driver	2
1B	56407500	Brush Assy Kit	1	19	962714	Screw, Gimbal Mount	2
1C	41048A	Gearbox Assembly	2	20	34400B	Gimbal, Motor	2
2	962244	Bolt, 3/8 - 16 x 3/4 Hex	12	21	962989	Screw, 1/4 - 20 x 1 1/2 PH	2
3	170883	Washer, Lock 3/8	2	22	34705A	Hose, Solution	2
4	980645	Washer, 3/8 Flat	2	23	170915	Screw, 1/4 - 20 x 3/4 Hex HD	2
5	61722A	Plate, Auto Side Squeegee	1	24	782002	Clamp, Manifold	2
	61497A	Plate, Manual Side Squeegee	1	25	38014A	Splitter, Solution	1
6	85613A	Screw, 8 - 32 x 7/8 PH SS	4	26	61546B	Frame, 28" Brush Motor	1
7	55451A	Keeper, Latch	2	27	30536A	Housing, 28" Brush Left Main	1
8	61570A	Spacer, Keeper	2	28	81104A	Nut, 1/4 Nylock	4
9	962803	Screw, 5/16-18 x 1 1/2 FH	1	29	71017A	Label, Moving Parts	1
10	53838A	Wheel, Guide 4"	1	30	81109A	Nut, 8-32 ESNA SS	4
11	920108	Nut, 8 - 32 ESNA SS	4	[]	30536A	Housing, 28" Left Brush	1
12	55721A	Latch, Brush Housing	2	[]	30535A	Housing, 28" Right Brush	1
13	30535A	Housing, 28" Brush Right Main	1				
14	962030	Screw, 8 - 32 x 3/8" FHCS	4				
16	980638	Washer, 3/8 Lock	10				

[] = Not Shown

**Nilfisk ALTO
SCRUBTEC R 586**

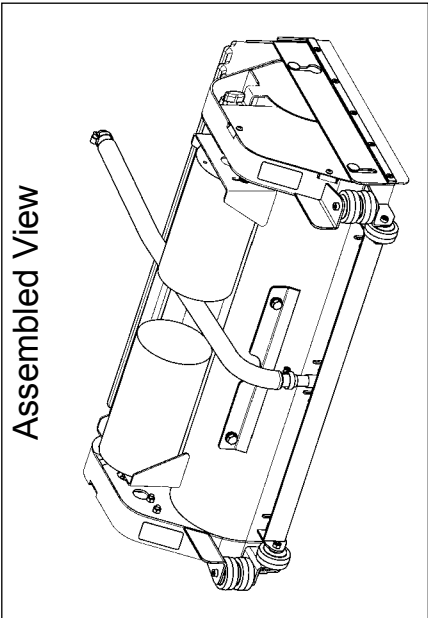
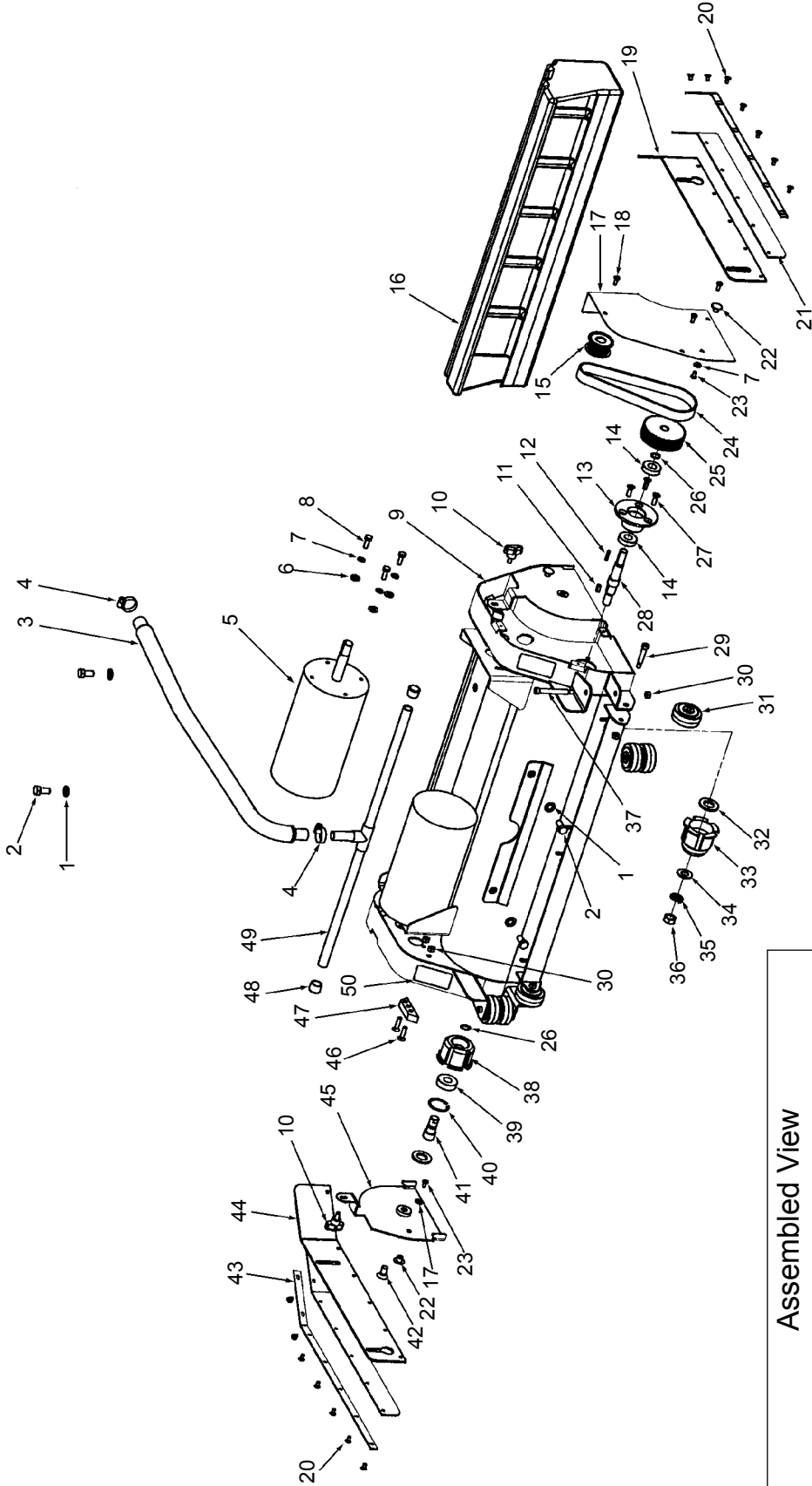
586 Rotary Head Assembly Drawing and Parts List 1/11
Drawing #10698A



Ref	Part No.	Description	Qty	Ref	Part No.	Description	Qty
1	40905B	Motor, Dual Gear Box	1	17	170915	Screw, 1/4 - 20 x 3/4 Hex HD	2
1A	915102	Key	2	18	30210A	Tubing, Vinyl	1
1B	56407500	Brush Assy Kit	1	19	962989	Screw, 1/4 - 20 x 1 1/2 PH	2
1C	41048A	Gearbox Assembly	2	20	962714	Screw, Gimbal Mount	2
2	980645	Washer, 3/8 Flat	2	21	34400B	Gimbal, Motor	2
3	170883	Washer, 3/8 Lock	2	22	61658A	Collar, Brush Driver	2
4	962244	Bolt, 3/8 - 16 x 3/4 Hex	11	23	59856A	Washer, Rubber	2
5	61723A	Plate, Auto Side Squeegee	1	24	38014A	Splitter, Solution	1
	61497A	Plate, Manual Side Squeegee	1	25	980638	Washer, 3/8 Lock	10
6	85613A	Screw, 8 - 32 x 7/8 PH SS	4	26	61547B	Frame, 34" Brush Motor	1
7	55451A	Keeper, Latch	2	27	30538A	Housing, 34" Brush Left Main	1
8	61570A	Spacer, Keeper	2	28	81104A	Nut, 1/4 Nylock	4
9	962803	Screw, 5/16-18 x 1 1/2 FH	1	29	71017A	Label, Moving Parts	1
10	53838A	Wheel, Guide 4"	1	30	81109A	Nut, 8-32 ESNA SS	4
11	920108	Nut, 8 - 32	4	[]	30538A	Housing, 34" Left Brush	1
12	55721A	Latch, Brush Housing	2	[]	30537A	Housing, 34" Right Brush	1
13	30537A	Housing, 34" Brush Right Main	1				
14	962030	Screw, 8 - 32 x 3/8" FHCS	4				
16	782002	Clamp, Manifold	2				

[] = Not Shown

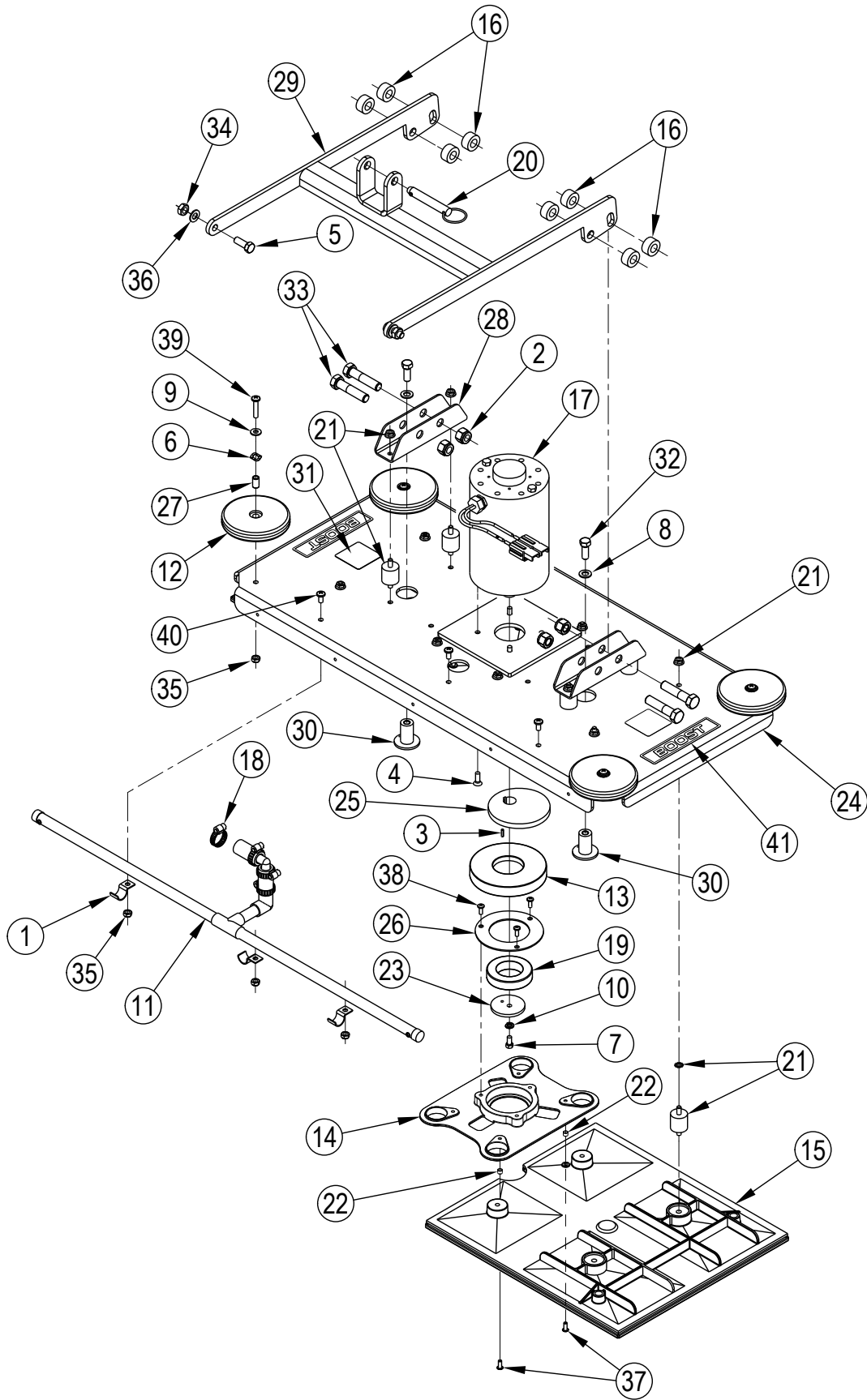
Nilfisk ALTO
 SCRUBTEC R 571 C
 571 Cylindrical Head Assembly Drawing 5/05
 Drawing #10962A



Nilfisk ALTO
SCRUBTEC R 571 C
571 Cylindrical Head Assembly Parts List 1/11
Drawing #10962A

Ref	Part No.	Description	Qty
1	980638	Washer, 3/8 Lock	4
2	962244	Bolt, 3/8-16 x .75 Hex	4
3	30649A	Hose, Solution	1
4	50248A	Clamp, Hose	2
5	40772A	Motor, Brush	2
6	980646	Washer, 1/4" Flat	6
7	980657	Washer, Lock 1/4	9
8	85806A	Screw, 1.4-20 x 3/4 Hex	6
9	61738A	Mainframe, Weldment	1
10	52477A	Knob, 1.4-20 Clamp	2
11	80248A	Key, 3/16 Sq x .50 Lg	2
12	80247A	Key, 1/8 Sq x .75 Lg	2
13	61308A	Bearing Carrier	2
14	51226A	Bearing, Sealed	4
15	61318A	Pulley, Motor	2
16	30618A	Tray, 28" Cyl. Debris	1
17	61743A	Cover, Cyl Head Belt	2
18	84237A	Screw, 10-32 x .50 P.H.	6
19	61752A	Plate, Skirt L.H.	1
20	80240A	Screw, 10-32 x 3/8 F.H.	14
21	30312A	Skirt, Side	2
22	61336A	Spacer, Binding	4
23	962094	Screw, 10-32 x 3/8 R.H.	3
24	53661A	Belt, Drive	2
25	61319A	Pulley, Brush Drive	2
26	467308	Ring, Retainer	4
27	962098	Screw, 1/4-20 x 3/4 F.H.	6
28	61309A	Shaft, Drive	2
29	80270A	Screw, 1/4-20 Shoulder	2
30	81104A	Nut, 1/4" Nylock	8
31	30049B	Wheel, Squeegee 2"	6
32	80257A	Washer, Neoprene	4
33	61293A	Hub, Driver	2
34	980648	Washer, 17/32 x 1 1/16 Plain	2
35	980626	Washer, 1/2 Lock	2
36	170857	Nut, 1/2-13 Hex	2
37	60254A	Bolt, 5/16 x 2.25 Shoulder	2
38	61299A	Hub, Driven	2
39	51225A	Bearing, Sealed	2
40	167312	Ring, Retainer Internal	2
41	61310A	Shaft, Driven	2
42	962973	Screw, 3/8-16 x 3/4 Flat Hd.	2
43	61335A	Retainer, Skirt	2
44	61751A	Plate, Skirt R.H.	1
45	61742A	Door, Brush	1
46	962285	Screw, 1/4-20 x 1.00 F.H.	4
47	61322A	Plate, Brush Door	2
48	53182A	Cap, Plug	2
49	30648A	Tube, Solution Assembly	1
50	71017A	Label, Moving Parts	1

32 INCH BOOST HEAD ASSY



32 INCH BOOST HEAD ASSY

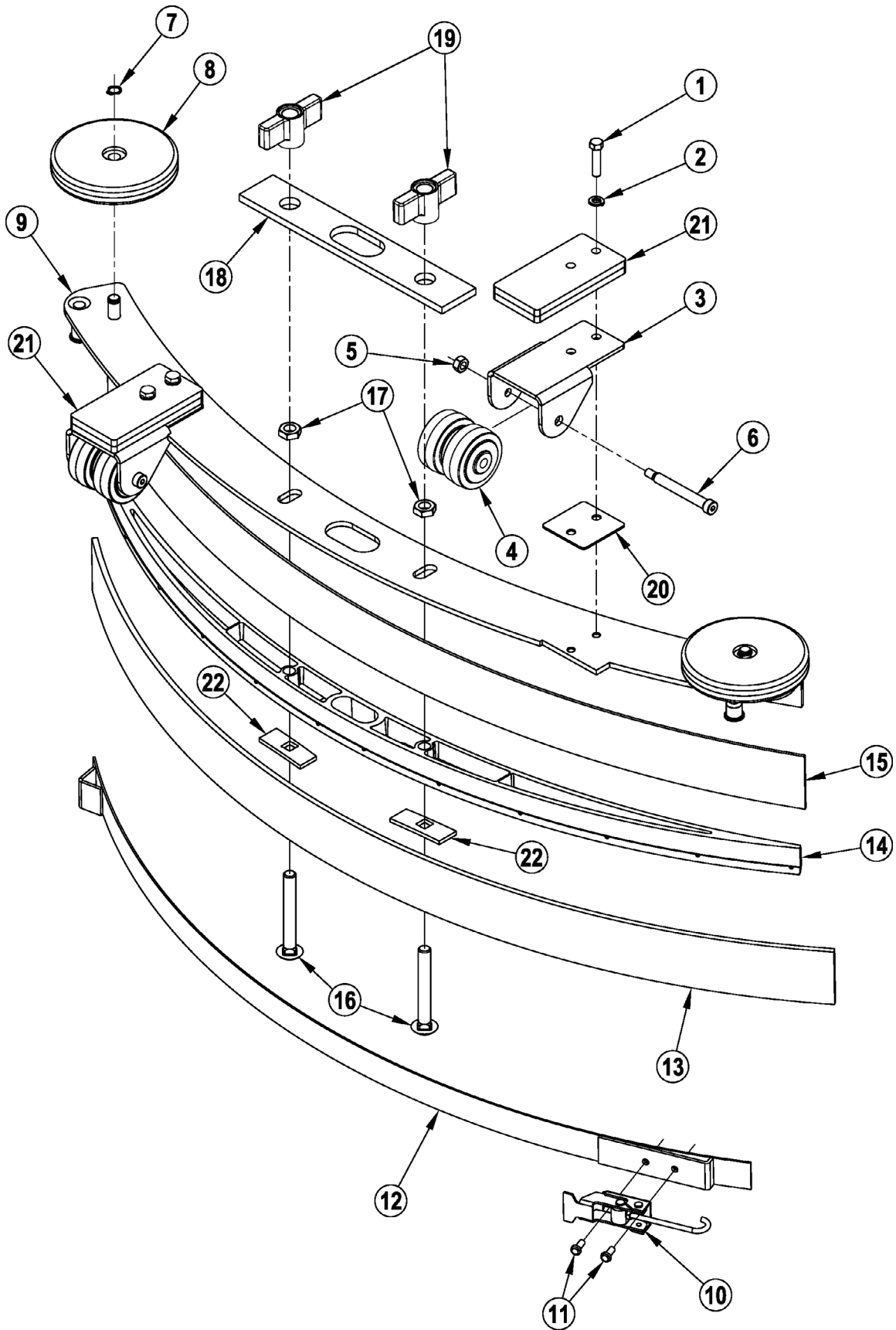
Item	Ref. No.	Qty	Description
1	782002	3	Clamp, Manifold
2	920365	4	Nut 1/2-13 Nylock
3	925589	1	Pin, Roll
4	56001881	4	Scr, Flt Soc 1/4-20 X .75 NOTE 1, TSBCL2010-12
5	962288	2	Bolt, 3/8-16 X 1.00 Hex Hd.
6	980022	4	Washer, Wave
7	85737a	1	Screw, 1/4-20 X 1/2 H.H.C.S.
8	980638	2	Washer, 3/8 Lock
9	980646	4	Washer, 1/4" Flat
10	980657	1	Washer, Lock 1/4
11	11002a	1	Tube Assembly, Drip 32"
12	30048a	4	Guide, Wheel
13#		1	Shield Boost Bearing NOTE 1, TSBCL2010-12, NOTE 2
14#	56381491	1	Plate, Driver
15	56380211	2	Kit-Flex Plate 32" NOTE 1, TSBCL2010-12
16	30735a	8	Spacer, Lift Arm
17	56380247	1	Motor-24vdc
18	50248a	1	Clamp, Hose
19	50736a	1	Bearing
20	53493a	1	Pin, Quick Release Actuator Btm.
21	56380235	1	Isolator Kit, Boost 28",32" NOTE 1, TSBCL2010-12
22	56380173	4	Bushing-Flex Plate NOTE 1, TSBCL2010-12
23	61724a	1	Retainer, Eccentric
24	56381721	1	Plate Weldt Boost 32
25#		1	Eccentric NOTE 2
26	61775a	1	Retainer, Bearing
27	61782a	4	Sleeve, Guide Wheel
28	61816b	2	Bracket, Lift
29	61818a	1	Arm, Lift Weldment
30	56381532	2	Stud Stabilizer_Short
31	71192a	2	Label No Step
32	80103a	2	Bolt, 3/8-24 X 1.0 Hex
33	80330a	4	Screw, 1/2-13 X 2 1/4 Gr. 5
34	81105a	2	Nut, 3/8-16 S.S. Esna
35	81217a	5	Nut, 1/4-20 Hex Esna
36	87618a	2	Washer, Flat .39 I.D. X .75 X .062
37	56003825	4	Scr-Button Soc Ss 10-32 NOTE 1, TSBCL2010-12
38	84237a	3	Screw, 10-32 X .50 P.H.
39	85301a	4	Screw, 1/4-20 X 1 1/4 C.R.P.H.
40	85395a	3	Screw, 1/4-20 X 1/2" P.H.
41	56381702	2	Decal-Boost Embossed

= Revised or new since last update

NOTE 1: Customers ordering parts for machines built before April 2010 need to order 32" Flex Plate Kit 56380211 to replace any or all of these items for repair.

NOTE 2: To replace Bearing Shield or Eccentric order 56380246 (Kit Eccentric & Shield).

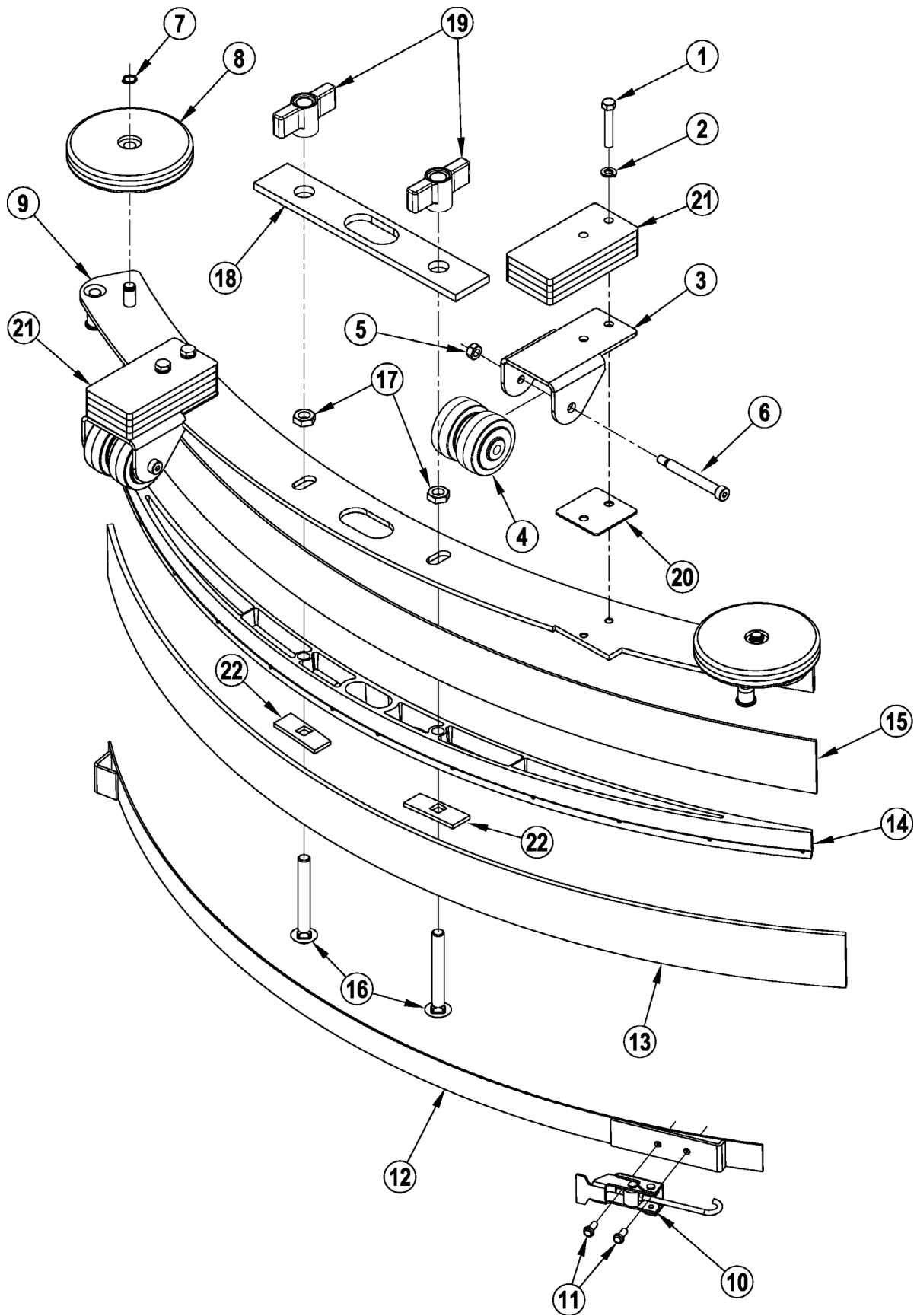
SQUEEGEE ASSEMBLY 81cm



SQUEEGEE ASSEMBLY 81cm

Item	Ref. No.	Qty	Description
1	80252A	4	Screw, ¼-20 x 1 Hex SS
2	980657	4	Washer, ¼ Lock
3	60243A	2	Bracket, Squeegee Wheel
4	30049B	4	Wheel, Squeegee
5	81104A	2	Nut, ¼-20
6	60254A	2	Bolt, Shoulder 5/16x 2¼
7	53185A	2	Ring, 3/8 ID Snap
8	30048A	2	Wheel, Guide, 4 Inch Diameter
9	60234B	1	Channel, Squeegee Weldment 32"
10	50835A	1	Latch, Squeegee Clamp
11	930086	2	Rivet, 3/16 x .450 Aluminum
12	60232A	1	Strap, Clamp, Squeegee Retainer 32"
13	30556A	1	Blade, Rear, Gum Rubber, 32"
	30556L	1	Blade, Rear, Linatex
14	30047A	1	Spacer, Squeegee 32"
15	30066A	1	Blade, Front Ribbed 32"
	30764L1	1	Blade, Front Linatex Notched 32"
16	80011A	2	Screw, 3/8-16 x 3
17	81301A	2	Nut, 3/8-16 Jam SS
18	34260B	1	Gasket
19	25201B	2	Knob
20	60358A	2	Shim, Squeegee Wheel
21	61370A	4	Weight
22	80280A	2	Nut, Squeegee Backup

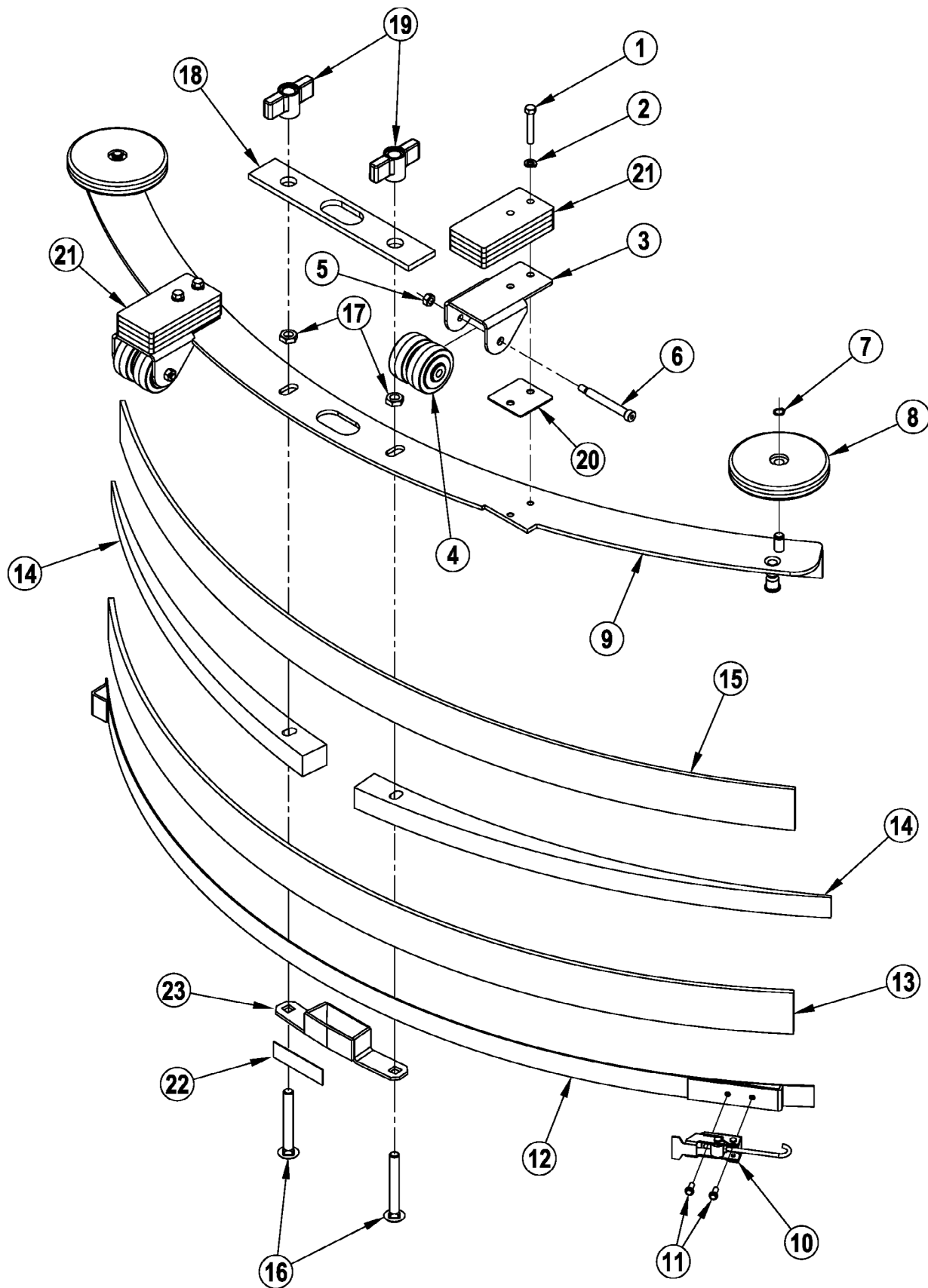
SQUEEGEE ASSEMBLY 99cm



SQUEEGEE ASSEMBLY 99cm

Item	Ref. No.	Qty	Description
1	80253A	4	Screw, 1/4-20 x 1 1/2 Hex SS
2	980657	4	Washer, 1/4 Lock
3	60243A	2	Bracket, Squeegee Wheel
4	30049B	4	Wheel, Squeegee
5	81104A	2	Nut, 1/4-20
6	60254A	2	Bolt, Shoulder 5/16x 2 1/4
7	53185A	2	Ring, 3/8 ID Snap
8	30048A	2	Wheel, Guide, 4 Inch Diameter
9	60272B	1	Channel, Squeegee Weldment 39"
10	50835A	1	Latch, Squeegee Clamp
11	930086	2	Rivet, 3/16 x .450 Aluminum
12	60252A	1	Strap, Clamp, Squeegee Retainer 39"
13	30557A	1	Blade, Rear, Gum Rubber, 39"
	30717L1	1	Blade, Rear, Linatex Notched, 39"
	30557L	1	Blade, Rear, Linatex
14	30058A	1	Spacer, Squeegee 39"
15	30091A	1	Blade, Front Ribbed 39"
16	80011A	2	Screw, 3/8-16 x 3
17	81301A	2	Nut, 3/8-16 Jam SS
18	34260B	1	Gasket
19	25201B	2	Knob
20	60358A	2	Shim, Squeegee Wheel
21	61370A	8	Weight
22	80280A	2	Nut, Squeegee Backup

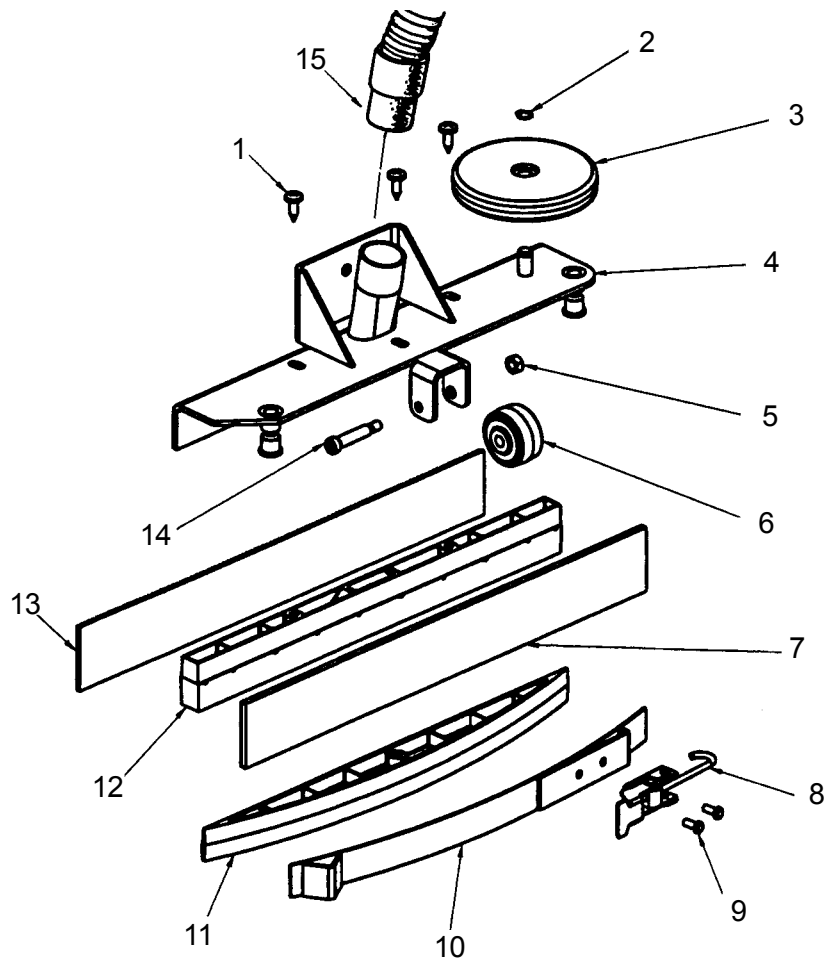
SQUEEGEE ASSEMBLY 104cm



SQUEEGEE ASSEMBLY 104cm

Item	Ref. No.	Qty	Description
1	80253A	4	Screw, ¼-20 x 1½ Hex SS
2	980657	4	Washer, ¼ Lock
3	60243A	2	Bracket, Squeegee Wheel
4	30049B	4	Wheel, Squeegee
5	81104A	2	Nut, ¼-20
6	60254A	2	Bolt, Shoulder 5/16x 2¼
7	53185A	2	Ring, 3/8 ID Snap
8	30048A	2	Wheel, Guide, 4 Inch Diameter
9	61886A	1	Channel, Squeegee Weldment 41"
10	50835A	1	Latch, Squeegee Clamp
11	930086	2	Rivet, 3/16 x .450 Aluminum
12	61885A	1	Strap, Clamp, Squeegee Retainer 41"
13	30774L	1	Blade, Outer, Linatex, BOOST 41"
14	38726A	2	Spacer, Squeegee 41"
15	30773L2	1	Blade, Inner Linatex Notched , BOOST 41"
16	80011A	2	Screw, 3/8-16 x 3
17	81301A	2	Nut, 3/8-16 Jam SS
18	34260B	1	Gasket
19	25201B	2	Knob
20	60358A	2	Shim, Squeegee Wheel
21	61370A	8	Weight
22	37016A	1	Pad, Squeegee Grip
23	62712A	1	Duct, Squeegee Inlet

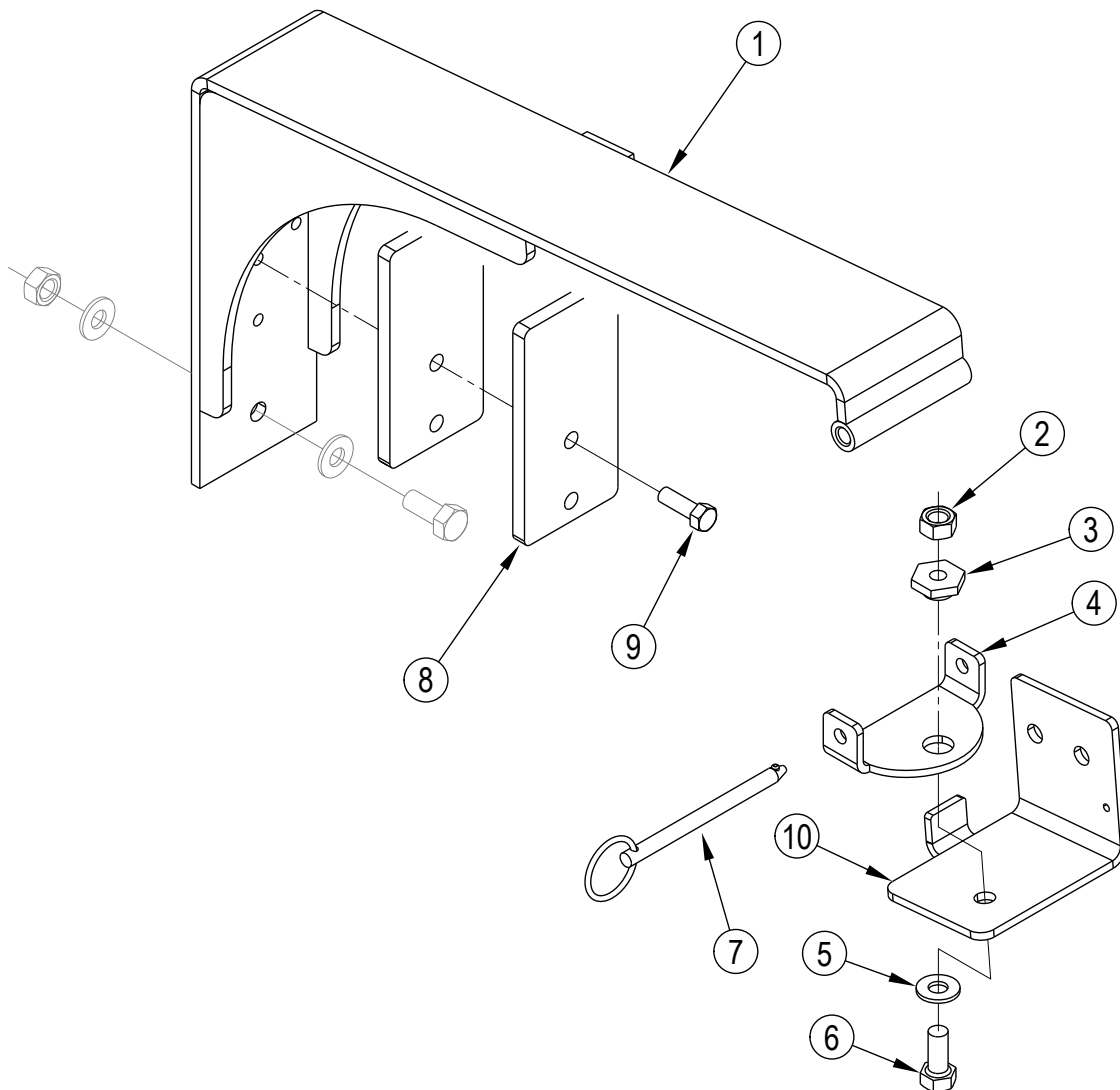
FRONT SQUEEGEE ASSY – ROTARY MACHINES ONLY



Ref	Part No.	Qty	Description
1	80275A	3	Screw, 1/4 - 14 x 3/4
2	53185A	1	Ring, Retainer
3	30048A	1	Wheel, Guide
4	61496A	1	Weldment, Fr. Squeegee Base
5	81104A	1	Nut, 1/4 Nylock
6	59932A	1	Wheel, Squeegee 1 5/8
7#	30540L	1	Blade, Outer Linatex
8	50835A	1	Latch, Squeegee Clamp
9	930086	2	Rivet, 3/16 x .450 Pan HD
10	61495A	1	Strap, Squeegee Weldment
11	53444A	1	Wedge, Secondary Squeegee
12	53443A	1	Spacer, Secondary Squeegee
13	30541A	1	Blade, Squeegee
14	80270A	1	Screw, 1/4 - 20 Shoulder
15	30569A	1	Hose, Sec. Squeegee

= Revised or new since last update

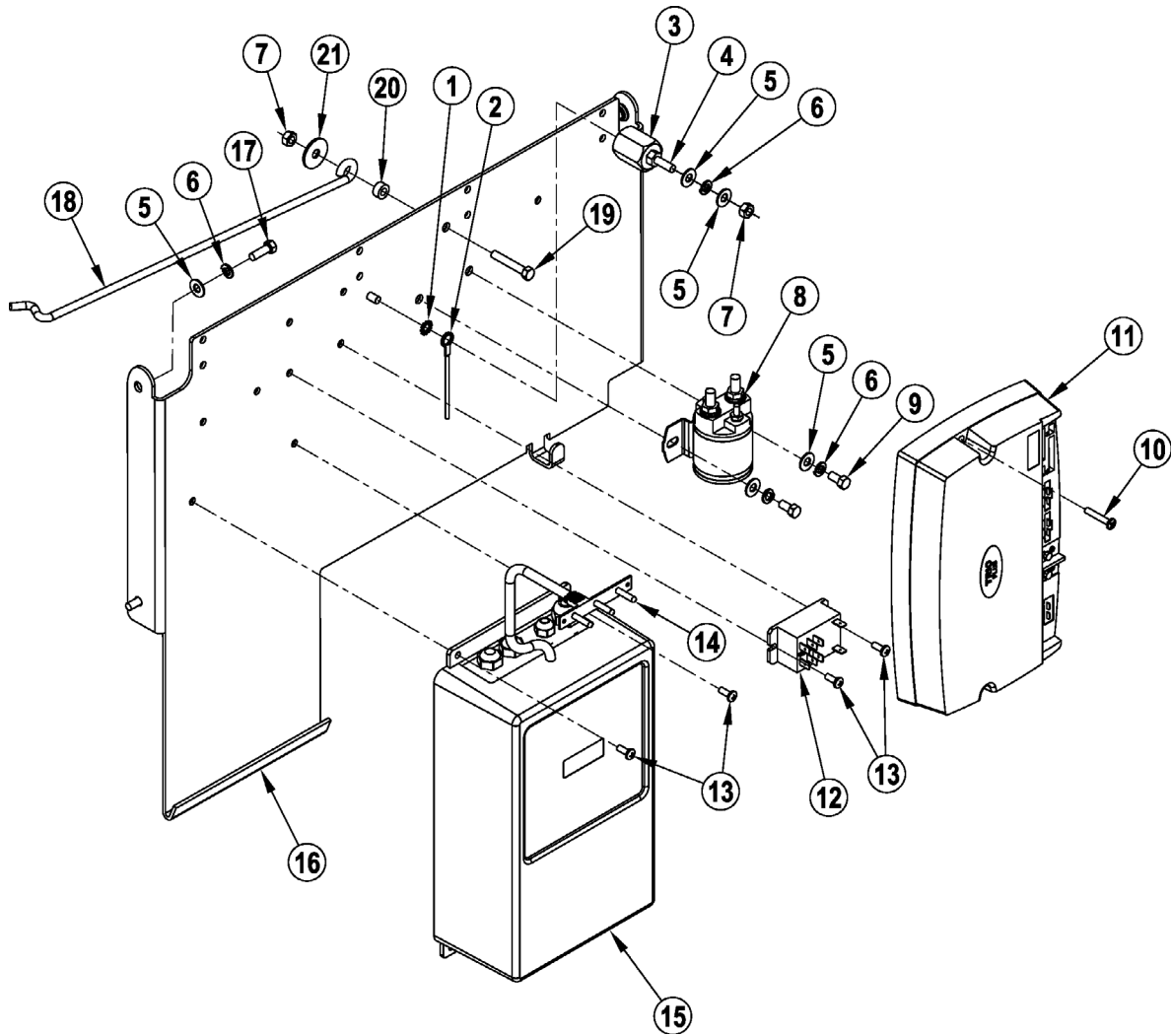
FRONT SQUEEGEE ARM ASSY – ROTARY MACHINES ONLY



Ref	Part No.	Qty	Description
1	61548A	1	Arm, Weldment Squeegee
2	81112A	2	Nut, 5/16-18 Thin ESNA
3	67867A	1	Spacer, Squeegee Swivel
4	60256A	1	Arm, Squeegee Pivot
5	980651	3	Washer, 5/16 Flat
6	85811A	2	Screw, 5/16-18 x 3/4 Hex Head
7	53491A	1	Pin, Quick Release
8	61370A	2	Weight
9	170915	2	Screw, 1/4-20 X 3/4 Hx Hd(Ss)
10#	61572A	1	Mount, Front Squeegee

= Revised or new since last update

Nilfisk ALTO
SCRUBTEC R 571, 586, 571 C, BOOST® R
Electrical Panel Assembly Drawing and Parts List 12/09
Drawing # 11091A, 10782S, 10961S, 10989S



Nilfisk ALTO
SCRUBTEC R 571, 586, 571 C, BOOST® R
 Electrical Panel Assembly Drawing and Parts List 1/11
 Drawing # 11091A, 10782S, 10961S, 10989S

Ref	Part No.	Qty	Description
1	980614	1	Washer, 1/4" Starlock Ext.
2	40932B	1	Harness, Main Power
	40965A	1	Harness, Main Power (Cyl. Only)
3	854849	1	Post, Isolation
4	83302A	1	Stud, 1/4-20
5	87026A	8	Washer, 1/4 Flat SS
6	980657	7	Washer, Lock 1/4
7	81104A	2	Nut, 1/4" Nylock
8	41801A	1	Contact, Main 36V
9	962430	2	Screw, 1/4-20 x 1/2 HHCS
10	56009334	1	Scr-Pan Phil 10-32 x 1.12
11	56381788	1	Main Controller, 28" NOTE 1
	56381787	1	Main Controller, 34" Rotary NOTE 2
	56381789	1	Main Controller, 32" BOOST NOTE 3
12	40892A	1	Relay
13	962929	4	Screw, 10-32 x 3/8"
14	40853A	1	Display, Battery Charger
15	40797A	1	Charger, 36V Battery w/display
16	61558A	1	Plate, Electrical Panel
17	962086	4	Screw, 1/4-20 x 3/4 Hex Head
18	61876B	1	Rod, Seat Prop
19	86004A	1	Screw, 1/4-20 x 1.50 H.H. C.S.
20	30542A	1	Spacer, 1/4 Id x 1/2 Od x 1/4 Lg.
21	980205	1	Washer, .31 Id x 1.06 Od
[]	71015A	1	Label, Gases and Chemical
[]	41217A	1	Cable, Battery Series
[]	40896A	1	Cable, 32" Neg. Battery
[]	40895A	1	Cable, 24" Pos. Battery
[]	40882A	1	Cable, 200 Amp Fus. Battery
[]	40934A	1	Harness, Logic

[] = Not Shown

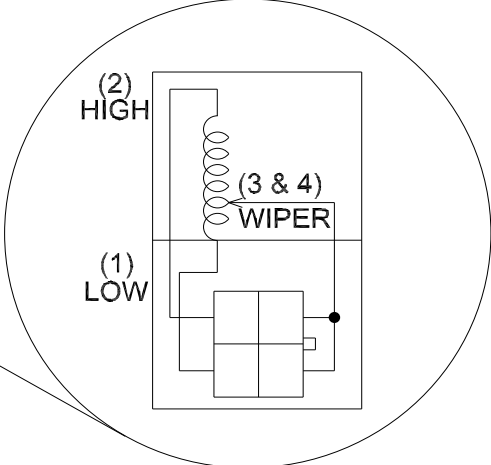
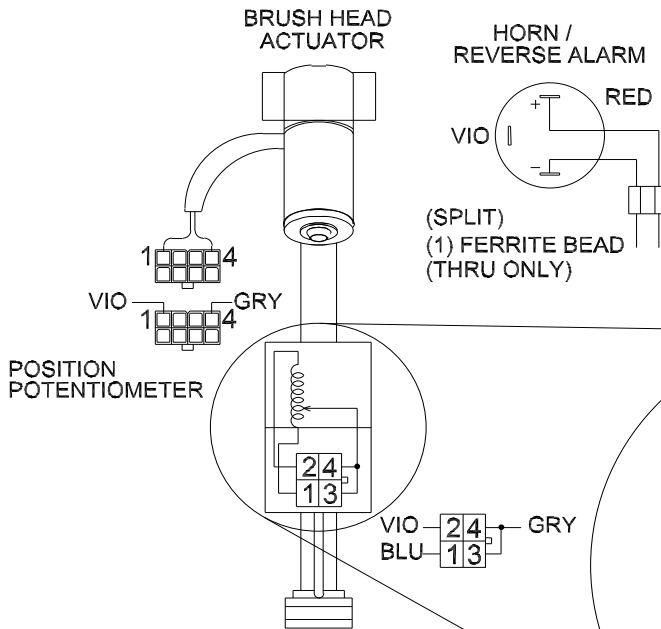
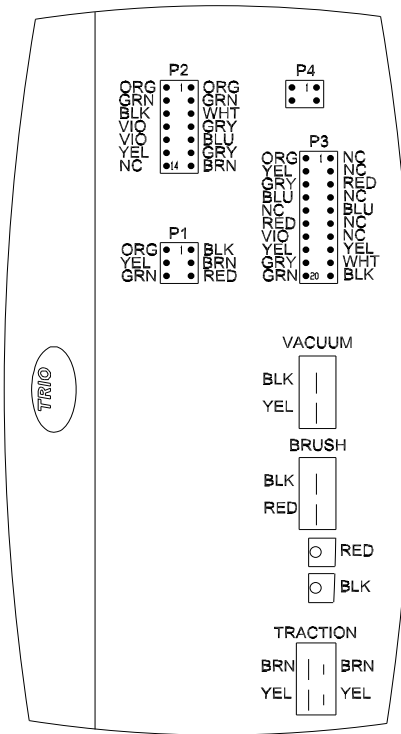
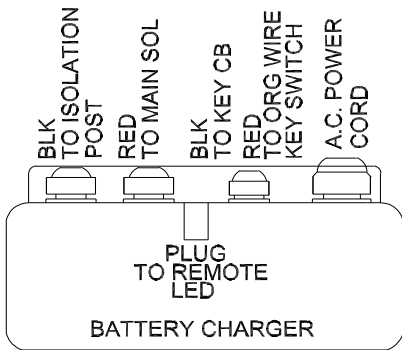
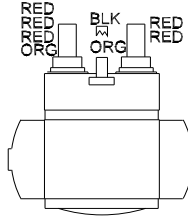
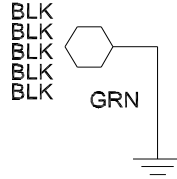
NOTE 1: Main Controller 53791A has been replaced by 56381788. When installing 56381788 in place of 53791A you will also need to order Main Controller Kit 56381791.

NOTE 2: Main Controller 53792A has been replaced by 56381787. When installing 56381787 in place of 53792A you will also need to order Main Controller Kit 56381791.

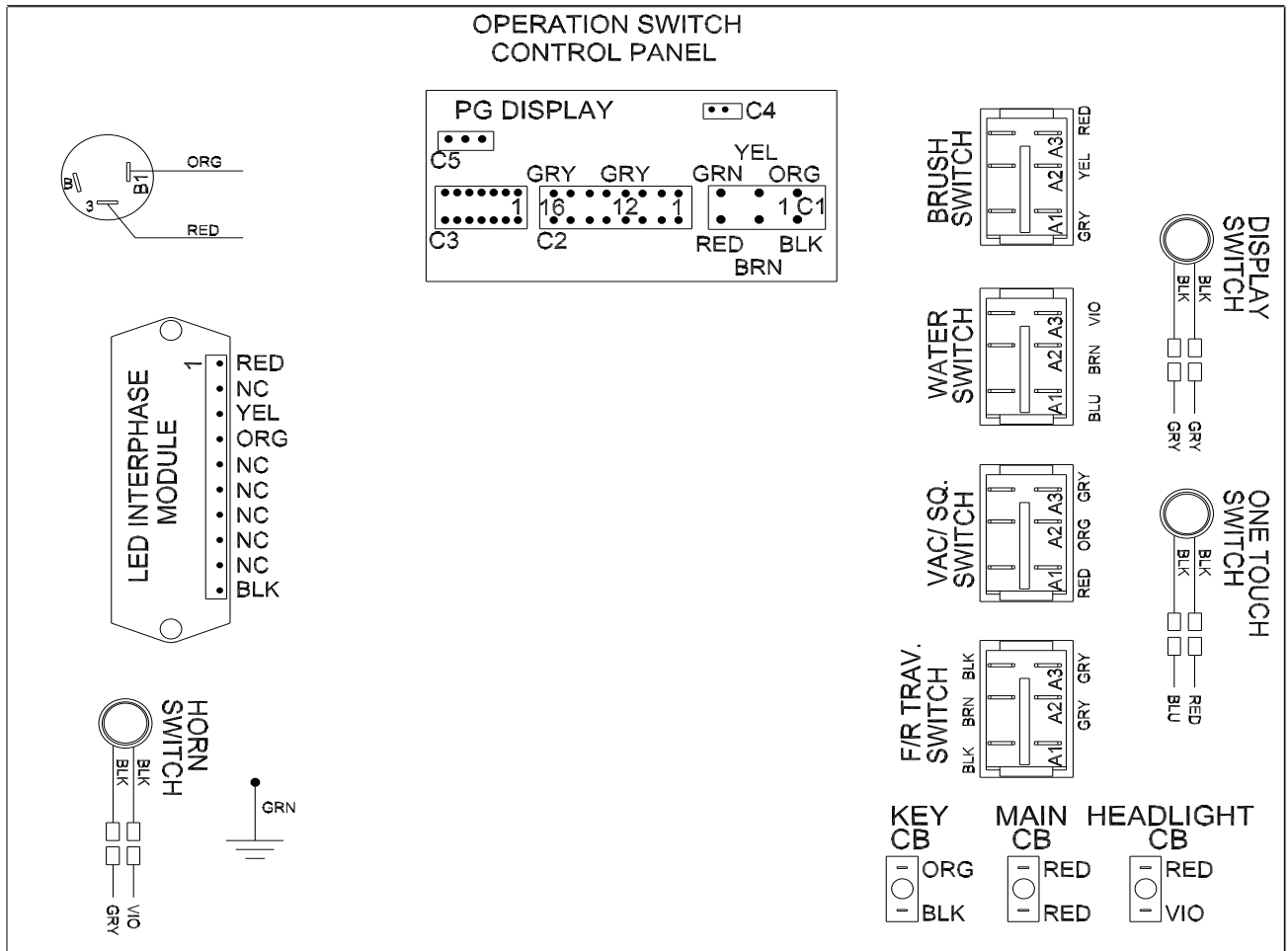
NOTE 3: Main Controller 53790B has been replaced by 56381789. When installing 56381789 in place of 53790B you will also need to order Main Controller Kit 56381791.

Nilfisk ALTO
 SCRUBTEC R 571, 586, 571 C, BOOST® R
 Electrical Connection Diagram 9/06
 (pages 66-69)

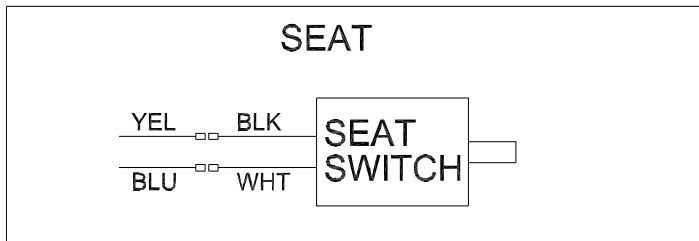
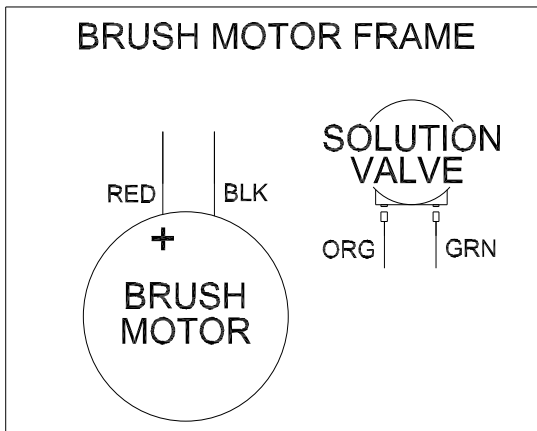
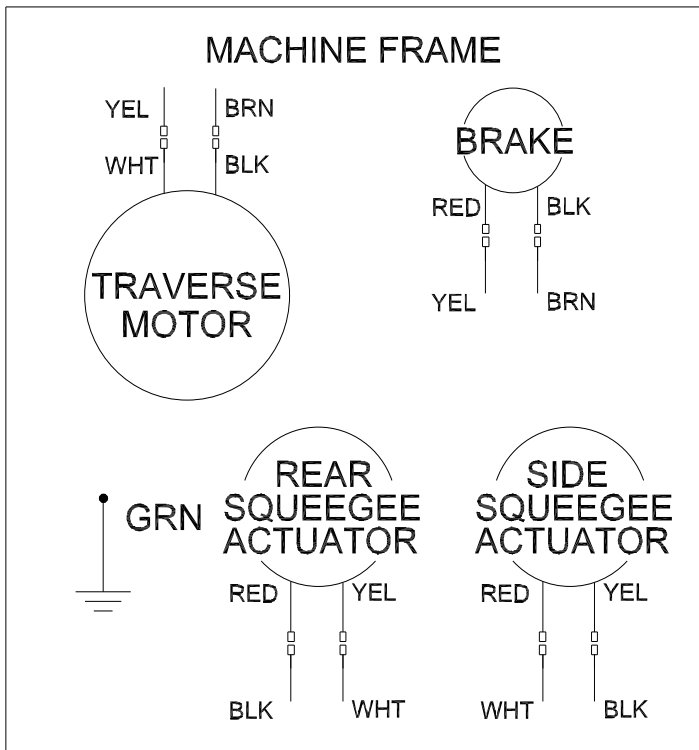
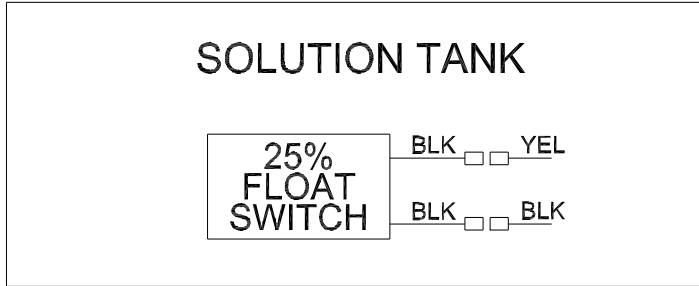
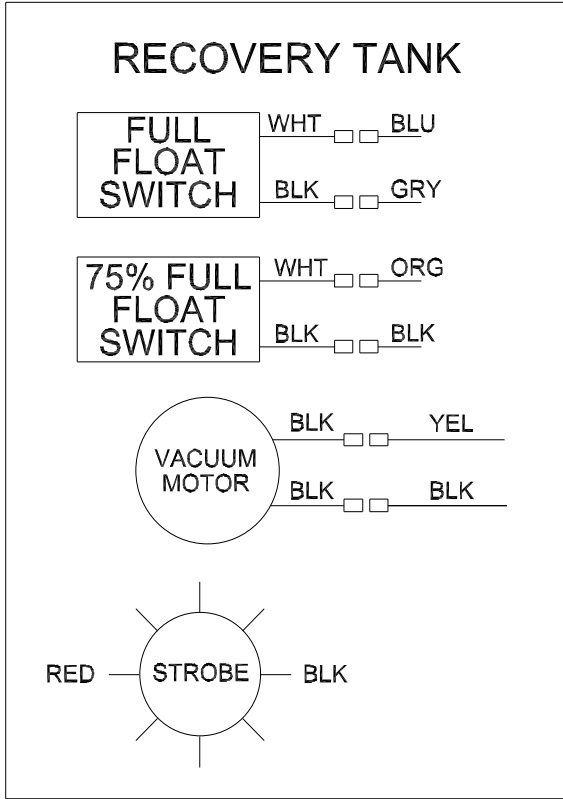
ELECTRICAL PANEL



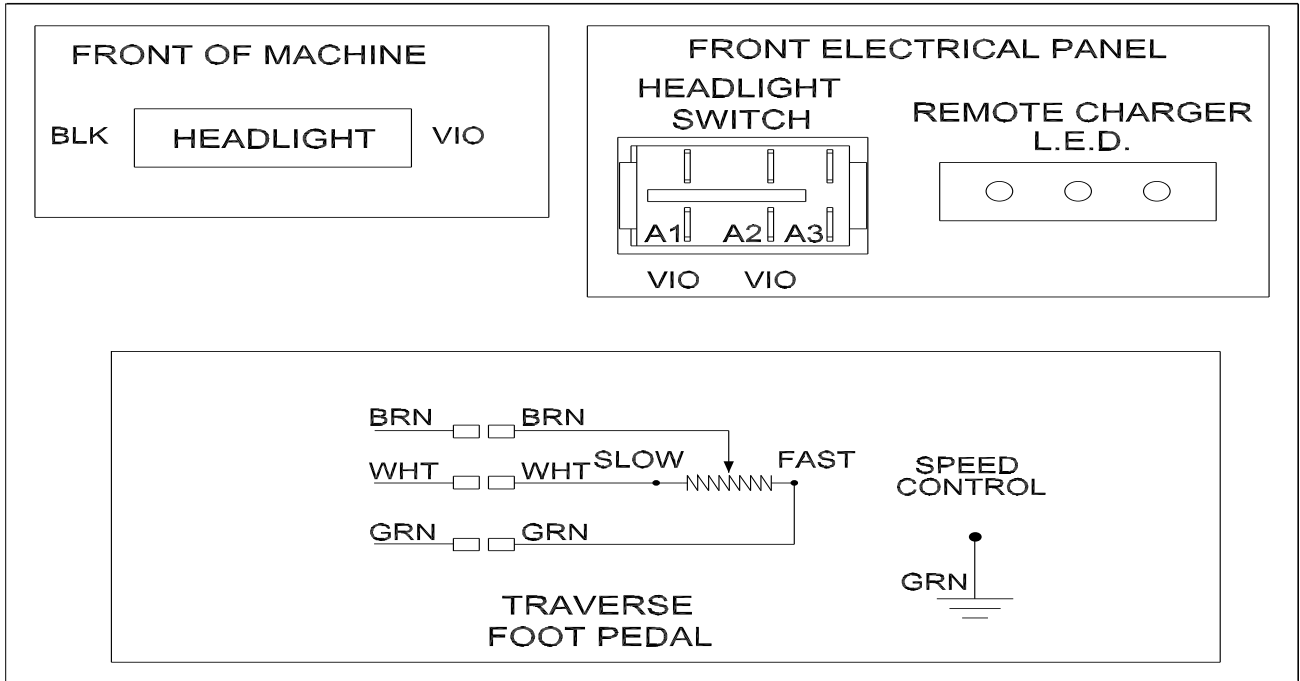
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 SCRUBTEC R 571, 586, 571 C, BOOST® R
 Electrical Connection Diagram 9/06
 (pages 66-69)



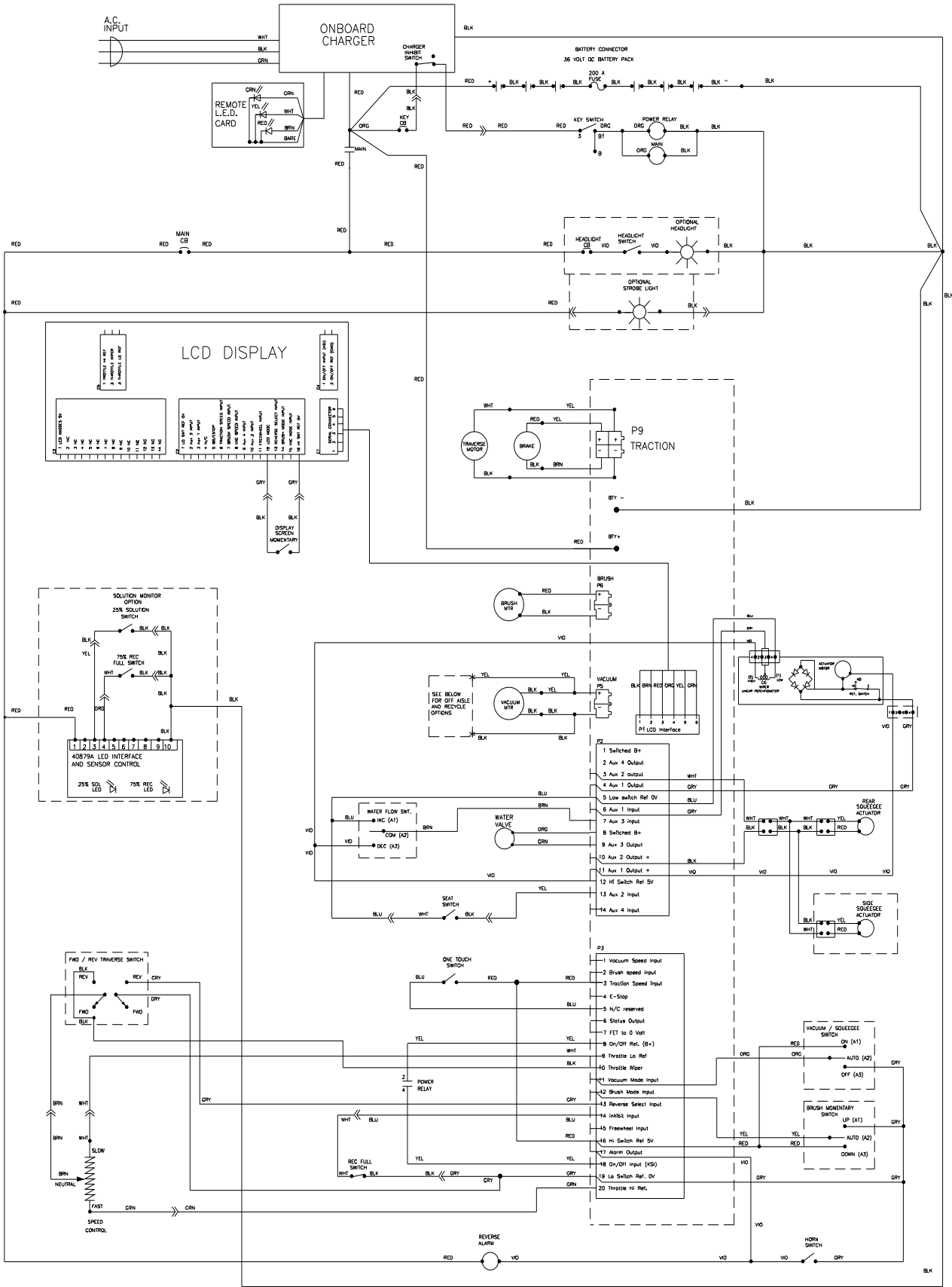
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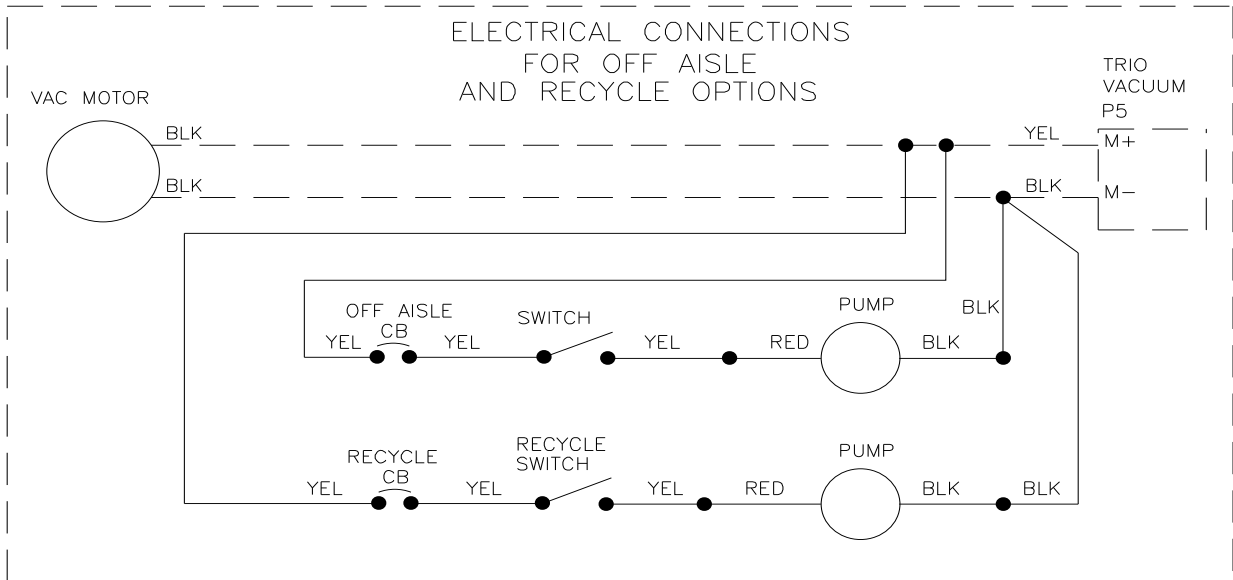
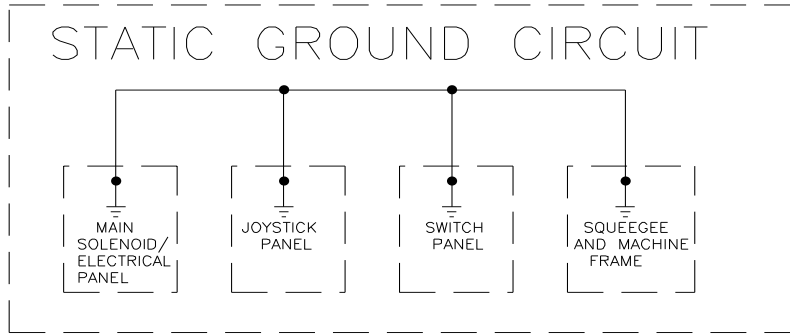
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 Electrical Connection Diagram 9/06
 (pages 66-69)



Nilfisk ALTO SCRUBTEC R 571, 586, 571 C, BOOST® R Electrical Schematic 3/08



Nilfisk ALTO
SCRUBTEC R 571, 586, 571 C, BOOST® R
Rider Electrical Options and Ground Connections 3/08



ACCESSORIES AND OPTIONS

BRUSHES AND PAD DRIVERS

PART NO.	DESCRIPTION
38036A	Pad Driver Assembly (2 req.)
10383A	Lite Grit Disc Brush (2 req.)
11431B	Clean Grit Abrasive (2 req.)
11426B	Supergrit (2 req.)
11427B	Polypropylene (2 req.)
10874A	Nylon (2 req.)

SCRUBTEC R 571 Disc Model

PART NO.	DESCRIPTION
38034A	Pad Driver Assembly (2 req.)
10384A	Lite Grit Disc Brush (2 req.)
11430B	Clean Grit Abrasive (2 req.)
11425B	Supergrit (2 req.)
11424B	Polypropylene (2 req.)
10875A	Nylon (2 req.)

SCRUBTEC R 571 C Cylindrical Model

PART NO.	DESCRIPTION
30614A	Polypropylene (2 req.)
30615A	Nylon (2 req.)
30616A	Clean Grit Abrasive (2 req.)
30617A	Supergrit (2 req.)
30619A	Lite Grit (2 req.)

SCRUBTEC R BOOST Model

PART NO.	DESCRIPTION
997004	Pads, Red 14 x 32 (5 Pack)
997003	Pads, Black 14 x 32 (5 Pack)
997005	Pads, White 14 x 32 (5 Pack)
997007	Pads, Blue 14 x 32 (5 Pack)

SQUEEGEE BLADES

SCRUBTEC R 571 Disc Model

PART NO.	DESCRIPTION
30556A	Rear Squeegee, Back Gum Rubber Blade
30556L	Rear Squeegee, Back Linatex Blade
30066A	Rear Squeegee, Front Ribbed Urethane Blade
30764L1	Rear Squeegee, Front Linatex Blade
30540A	Side Squeegee, Back Gum Rubber Blade
30540L	Side Squeegee, Back Linatex Blade
30541A	Side Squeegee, Front Ribbed Urethane Blade

SCRUBTEC R 586 Disc & 571 C Cylindrical Models

PART NO.	DESCRIPTION
30557A	Rear Squeegee, Back Gum Rubber Blade
30557L	Rear Squeegee, Back Linatex Blade
30091A	Rear Squeegee, Front Ribbed Urethane Blade
30717L1	Rear Squeegee, Front Linatex Blade
30540A	Side Squeegee, Back Gum Rubber Blade
30540L	Side Squeegee, Back Linatex Blade
30541A	Side Squeegee, Front Ribbed Urethane Blade

SCRUBTEC R BOOST Model

PART NO.	DESCRIPTION
30773L2	Rear Squeegee, Front Blade, Linatex 3/16
38727A	Rear Squeegee, Front Blade, Urethane Ribbed
30774A	Rear Squeegee, Back Blade, Gum Rubber
30774L	Rear Squeegee, Back Blade, Linatex 3/16

FIELD INSTALLED OPTION KITS

PART NO.	DESCRIPTION
#	Deleted
#	Deleted
10876A	Solution and Recovery Tank Level Indicator Lights
10877A	Caution Strobe Light (Amber)
10816A	Recovery Tank Clean Out Port
10879A	Head Light
53390A	CBMS - Clarke Battery Maintenance System
53572A	Seat Belt Kit
11079A	Chemical Mixing System
11036A	Chemical Mixing System Spare Tank

MISC.

PART NO.	DESCRIPTION
# 11045A	Literature Pack (Scrubtec)

= Revised or new since last update

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