



ST 726/732 OWNERS MANUAL



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SUMMARY

MACHINE SPECIFICATIONS..... 2

SYMBOLS USED ON THE MACHINE 3

SYMBOLS USED IN THE MANUAL..... 5

MACHINE PREPARATION..... 6

 1. HANDLING OF THE PACKED MACHINE..... 6

 2. HOW TO UNPACK THE MACHINE..... 6

 3. INSTALLING THE BATTERIES 7

 4. CONNECTING THE BATTERY CHARGER..... 7

 5. RECHARGING THE BATTERIES..... 8

 6. CONNECTING THE BATTERY CONNECTOR..... 8

 7. BATTERY INDICATOR..... 8

 8. SQUEEGEE ASSEMBLY..... 9

 9. ADJUSTMENT SQUEEGEE HEIGHT 9

 10. ADJUSTMENT SQUEEGEE PITCH..... 9

 11. BRUSH ASSEMBLY..... 10

 12. RECOVERY TANK..... 11

 13. SOLUTION FILTER..... 11

 14. FILLING THE SOLUTION TANK 11

RULES OF SAFETY12

USING THE MACHINE.....13

 SET UP 13

 MOVEMENT 14

 BRAKE..... 14

 RECOVERY TANK IS TOO FULL..... 15

ON COMPLETION OF WORK16

DAILY MAINTENANCE17

 CLEANING RECOVERY TANK 17

 CLEANING SUCTION FILTER 18

 CLEANING SOLUTION FILTER..... 18

 CLEANING THE SQUEEGEE..... 18

 REPLACING THE REAR SQUEEGEE BLADE 18

 REPLACING THE FRONT SQUEEGEE BLADE..... 19

 BRUSH REMOVAL 19

WEEKLY MAINTENANCE20

 CLEANING THE SQUEEGEE HOSE 20

 BRAKE ADJUSTMENT 20

 REPLACING THE SPLASH GUARD 20

TROUBLE SHOOTING GUIDE21

 INSUFFICIENT WATER ONTO THE BRUSHES 21

 THE MACHINE DOES NOT CLEAN WELL..... 21

 THE SQUEEGEE DOES NOT DRY WELL 21

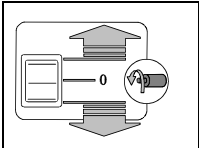
 EXCESSIVE FOAM IN THE RECOVERY TANK..... 21

TECHNICAL DATA	UNIT	ST726	ST732
Cleaning width	Inches	26"	32"
Squeegee width	Inches	33"	40"
Working capacity, up to	Sq. ft/h	26,000	32,000
Brushes diameter (No. 2)	Inches	2 x 13"	2 x 16"
Brushes rpm	Rpm	160	160
Max. brushes pressure	Lbs.	100	120
Power brushes motor	Watt	750	1000
Power traction motor	Watt	450	450
Movement speed	M/hr	0 – 3.2	0 – 3.2
Max gradient	%	10%	10%
Power suction motor	W	350	350
Capacity solution tank	Gallon	21	21
Capacity recovery tank	Gallon	23	23
Machine length	Inches	59"	61.5"
Machine height	Inches	44.5"	44.5
Machine width	Inches	28"	34"
Batteries	V/Ah	4 x 6v 240AH	4 x 6v 240AH
Batteries weight	Lbs	284	284
Machine weight (empty and without batteries)	Lbs	188	196
Acoustic radiation pressure level (in conformity with IEC 704/1)	dB (A)	<70	<70

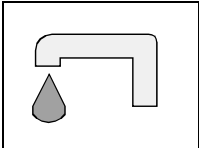
SYMBOLS USED ON THE MACHINE



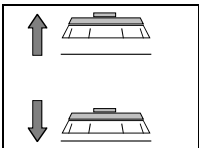
Indicates the main key switch



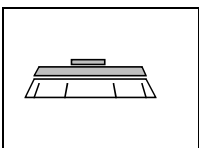
Indicates the motor switch



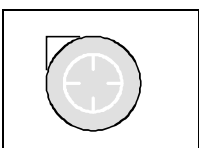
Indicates the solution valve
Indicates the solution lever
Indicates the solenoid valve switch



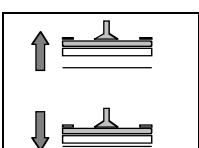
Indicates the lever of the brushes base lifting



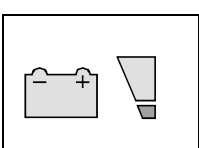
Symbol denoting the brush
Indicates the brush motor switch



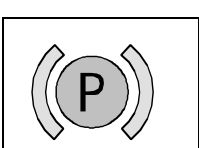
Symbol denoting suction motor
Indicates the suction motor switch



Indicates the squeegee up-down lever

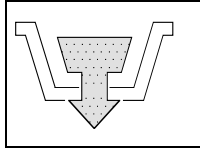


Symbol denoting charge level of the batteries

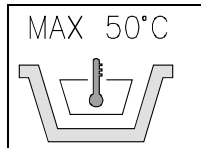


Symbol denoting brake

SYMBOLS USED ON THE MACHINE



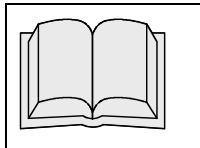
Indicates the recovery tank drain hose



Indication of the maximum temperature of the solution detergent



Indicates the anchor points and the load direction



Symbol denoting the open book
Indicates that, the operator has to read the manual before the use of the machine

SYMBOLS USED IN THIS MANUAL



Warning symbol
Read the instructions carefully in the sections preceded by this symbol.



Indicates danger of gas inhalations and emission of corrosive liquids



Indicates fire danger

MACHINE PREPARATION

1. HANDLING OF THE PACKED MACHINE

The machine is packaged on a pallet for the handling with fork trucks. Do not place more than two skids on top of each other. The total weight is 160 kg for ST 726, 180 kg for ST 732.

The overall dimensions are:

ST 726

A: 48.5"

B: 28.5"

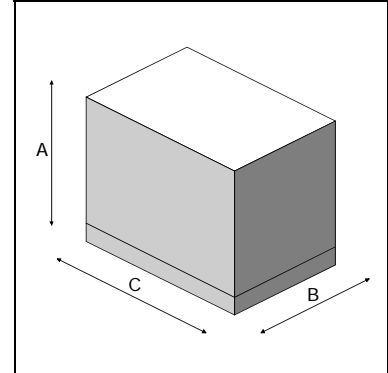
C: 58.5"

ST 732

48"

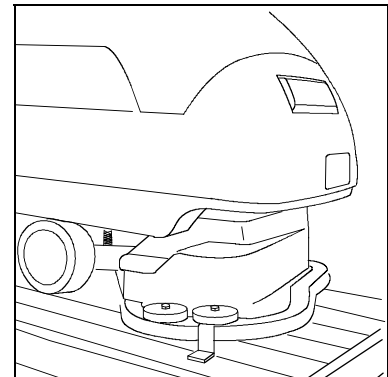
38"

67"

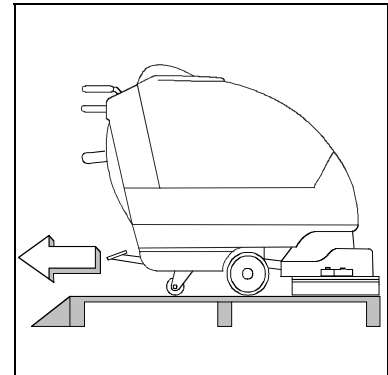


2. HOW TO UNPACK THE MACHINE

1. Remove the box from the skid
2. The machine is held in place with wooden blocks which block the wheels.
3. Remove the wooden blocks



4. Using a ramp, take the machine off of the skid by pushing it in reverse. Avoid bumping the brush head.
5. Keep the pallet for future transport if necessary.



MACHINE PREPARATION

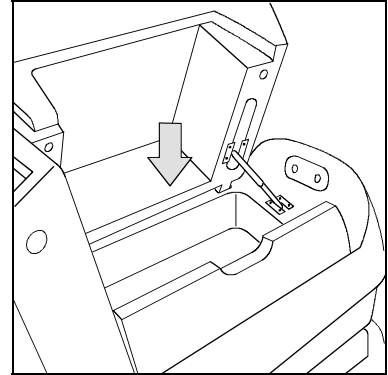
3. BATTERY INSTALLATION

The batteries must be fitted in the compartment under the recovery tank and must be handled by using appropriate lifting equipment suitable both for the weight and for the lifting system.



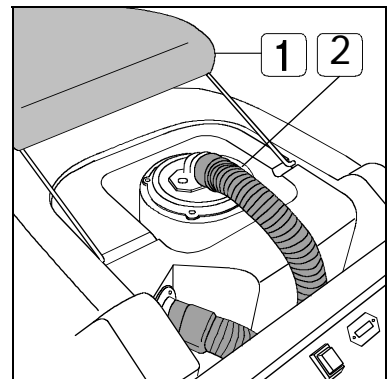
ATTENTION! When recharging the batteries be sure to follow the manufacturer's specifications.

Only trained staff may carry out the installation and maintenance procedures. Please ensure all proper safety equipment is used while installing or maintaining the batteries.

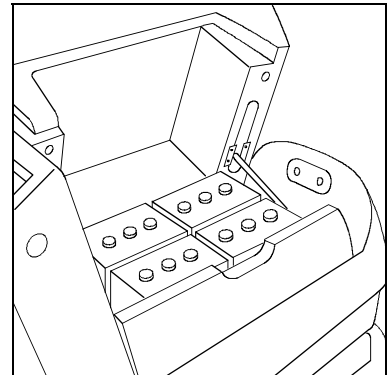


For the battery installation it is necessary to:

1. Lift the cover of the recovery tank (1)
2. Take off the suction cover (2) rotating it counter-clockwise
3. Lift the recovery tank from the side.



4. Make sure that the drainage hole placed on the bottom of the battery tray is not covered.
5. Place the batteries inside the compartment
6. If the batteries are already charged, the machine connector can be assembled to the battery connector. Otherwise proceed with the charging process as indicated below
7. Reassemble the machine

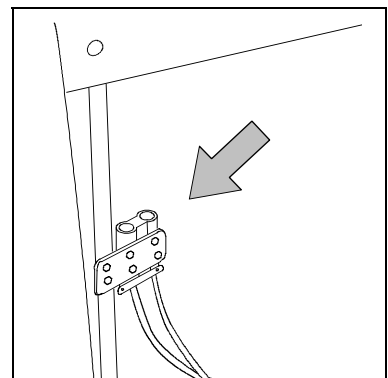


4. CONNECTING THE BATTERY CHARGER

The connector for the battery charger is delivered with the machine and can be found in the bag where this instruction booklet is found. It must be assembled on the battery charger cables following the battery chargers instructions



ATTENTION! This operation has to be carried out by trained staff. A wrong or incomplete cable connection to the connector can cause serious damage to persons, the electrical system of the machine, and the batteries.

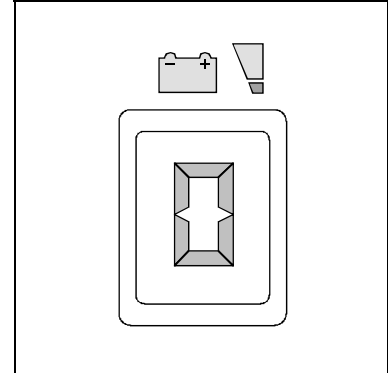


MACHINE PREPARATION

5. RECHARGING THE BATTERIES

In order to prevent damage to the batteries, avoid over discharging them. When the battery indicator flashes "0" the batteries should be connected to the charger immediately.

NOTE: Never leave the batteries completely discharged, even if the machine is not being used. When recharging the batteries, lift the tank. Every 20 charges check the level of the battery acid (**Wet led acid only**) and, if necessary, top up with distilled water.



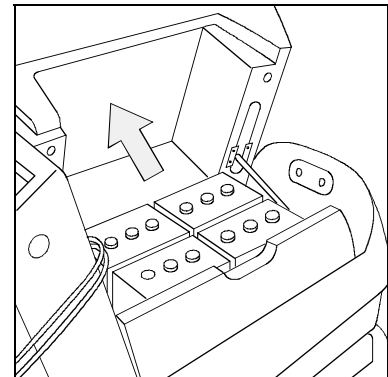
ATTENTION! For the daily charging routine of the batteries, follow all of the instructions given by the manufacturer or from their dealer. Trained staff must carry out all installation and maintenance operations using the proper safety equipment.



ATTENTION! Danger of gas exhalations and emission of corrosive liquids

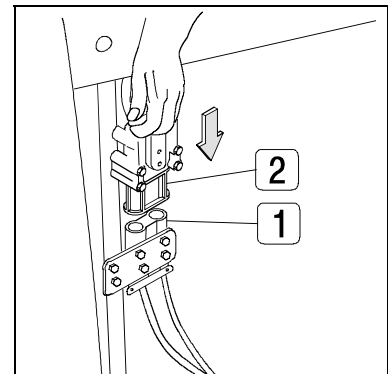


ATTENTION! Fire danger: do not approach with free flames



6. CONNECTING THE BATTERY CONNECTOR

The machine connector (2) has to be connected to the battery connector (1)



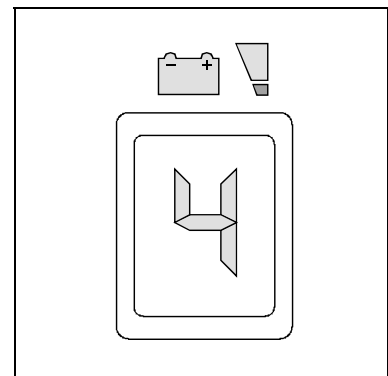
7. BATTERY INDICATOR

The battery indicator is digital with 5 positions. The numbers, which appear on the display, show the approximate charge level.

4 = maximum charge, **3** = charge 3/4, **2** = charge 2/4, **1** = charge 1/4, **0** = (blinking) discharged batteries)



ATTENTION! When the indicator flashes "0" , the brushes automatically switch off. This is to allow enough time to drive the machine to the charging area.

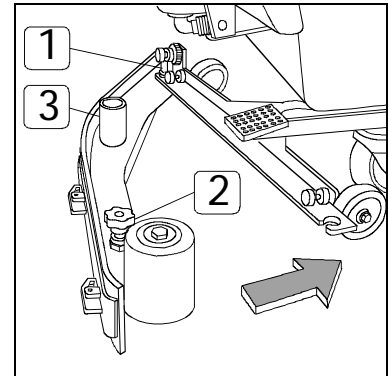


MACHINE PREPARATION

8. SQUEEGEE ASSEMBLY

The squeegee, which is packed separately from the machine, should be assembled as shown in the figure. Insert the left squeegee pin (1) in the left arm slot, then the right pin (2) into the right slot, paying attention to keep the spring and the washer over the blade of the arm itself. To simplify this operation the hand-wheel placed on top of the pin should be loosened when installing the squeegee. Tighten the hand-wheel to lock the squeegee in position.

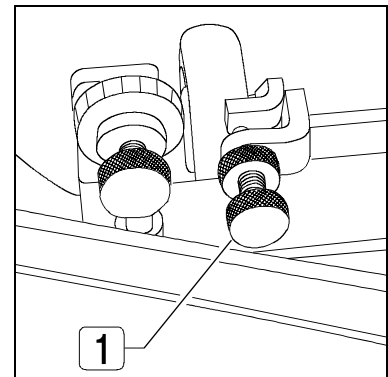
Fit the squeegee hose into its coupling (3)



9. ADJUSTMENT SQUEEGEE HEIGHT

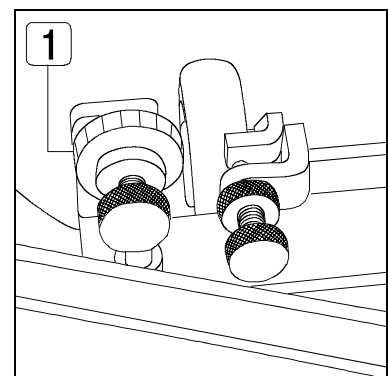
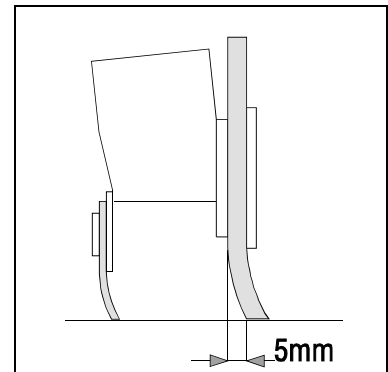
The squeegee has to be adjusted depending on the wear of the squeegee blades. To adjust this, rotate the knob (1) of each wheel clockwise to lift the squeegee and counter-clockwise to lower it.

Note: The right and left wheels must be adjusted at the same amount so that the squeegee sits parallel to the floor.



10. ADJUSTMENT SQUEEGEE PITCH

During working operation, the rear blade has to be tilted backwards approx. 5mm across the whole length of the squeegee. The squeegee pitch adjustment (1) should only be adjusted if the center of the squeegee is not touching the floor properly. To tilt the squeegee down, turn the adjustment bolt (1) counter-clockwise until the proper adjustment is reached. To tilt the squeegee up, turn the adjustment bolt (1) clockwise until the proper adjustment is reached. After the adjustment is made, remember to lock the lock nut back in place on the adjustment bolt.



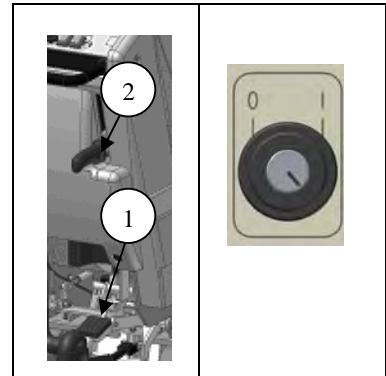
MACHINE PREPARATION

11. BRUSH ASSEMBLY

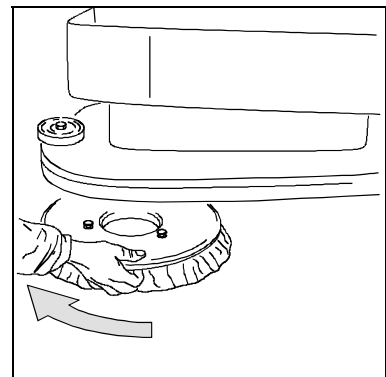
1. Lift the brushes base using the pedal (1)
2. lock the lever in position (2)
3. Turn the key into position "0".



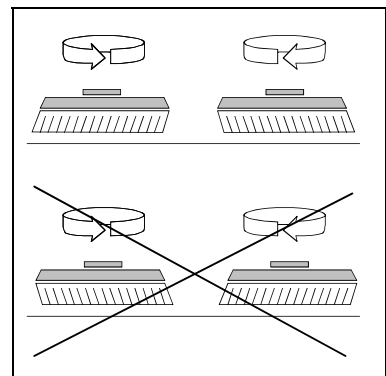
ATTENTION! Always ensure that the power is off and the battery connector is disconnected before mounting or dismantling the brushes. Failing to do so can result in bodily injury.



4. With the brush base in the up position, insert the brushes into the seat of the plate under the base until the three lugs fit into the holes of the plate. Turn the brush so that the lugs are pushed towards their retaining springs and locked in to place. The figure shows the direction to lock on the right brush. When locking on the left brush, you will need to spin it the opposite way.



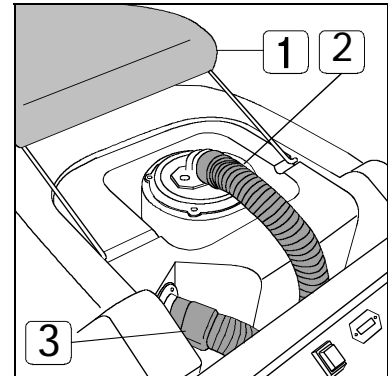
5. You should swap the position of the brushes daily. If the brush bristles have started to deform, they should be installed on the same side all of the time to avoid excess load on the brush motor.



MACHINE PREPARATION

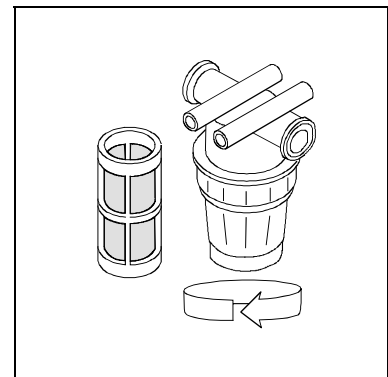
12. RECOVERY TANK

Open the cover (1) and check that, the suction connection (2) is properly connected by fitting the notches into its proper seat rotating it clockwise. Check that the squeegee hose (3) is properly placed in to the tank and that the plug of the recovery drain hose is closed.



13. SOLUTION FILTER

Check that the outer filter, placed between the valve and the solenoid valve, is assembled correctly and that it is clean. Remember to check this filter often.

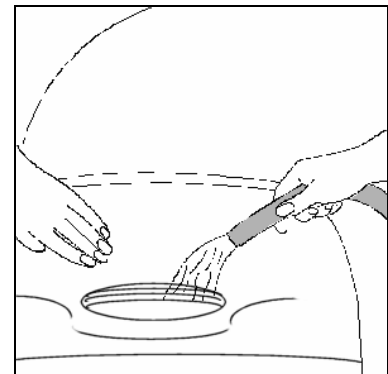


14. FILLING THE SOLUTION TANK

Fill the solution tank with clean water at a temperature not more than 50°C and add **liquid** detergent in the proper concentration following the instructions of the manufacturer. Excess foam can damage the suction motor, so use only the minimum amount of detergent necessary.



ATTENTION! Always use low foaming detergent. To avoid the production of foam, before starting to clean, put a minimum quantity of defoamer into the recovery tank. **Never use pure acid.**



RULES OF SAFETY

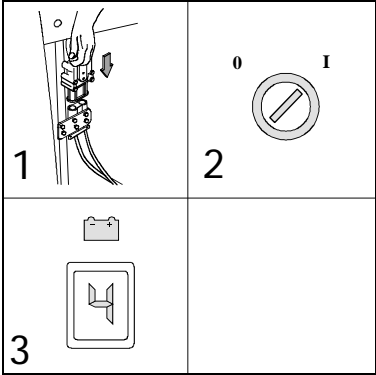
The rules below must to be followed carefully in order to avoid damage to the operator and the machine.

- Read the labels carefully on the machine. Do not cover them for any reason and replace them immediately if damaged
- The machine must be used exclusively by authorized staff that has been trained for its use
- During use of the machine, pay attention to other people in the environment around you.
- Do not mix different chemicals
- Do not place any liquid containers on the machine
- The storage temperature has to be between -25°C and +55°C
- Operating conditions: room temperature between 0°C and 40°C with respective humidity between 30 and 95%
- Do not use the machine in explosive atmosphere
- Do not use the machine as a means of transport
- Do not use acid solutions which could damage the machine and/or the persons
- Avoid working with the brushes down when the machine stands still, in order to prevent damaging the floor
- Do not vacuum flammable liquids
- This appliance is not suitable for picking up hazardous dust
- In case of fire, use a powder extinguisher. Do not use water
- Do not strike shelvings or scaffoldings, where there is danger of falling objects
- Adapt the working speed to the conditions
- Do not use the machine on areas having a higher gradient than the one stated on the number plate
- When the machine is in parking position, remove the key and engage the parking brake
- The machine has to carry out simultaneous operations of scrubbing and drying. Different operations have to be carried out in areas which are not permitted for the passage of non employed staff. Signal the areas of moist floors with suitable signs.
- If the machine does not work properly, check by conducting simple maintenance procedures. Otherwise, it is better to ask for NaceCare Solutions technical service.
- Where parts are required, ask for ORIGINAL spare parts to an agent and/or to an authorized dealer
- Use only OEM brushes
- In case of emergency, immediately engage the emergency brake
- Remove the key and/or remove the battery connector before any maintenance, cleaning or parts' replacement is done
- Do not take off the pieces which require the use of tools to be removed
- Do not wash the machine with direct water or with high water pressure nor with corrosive material
- Every 200 working hours have a machine check through a **NaceCare Solutions** service department
- Be sure the recovery tank is empty before lifting it
- In order to avoid scales on the solution tank filter, do not leave solution in the tank for extended periods.
- Before using the machine, check that all doors and coverings are in their position as indicated in this use and maintenance catalogue

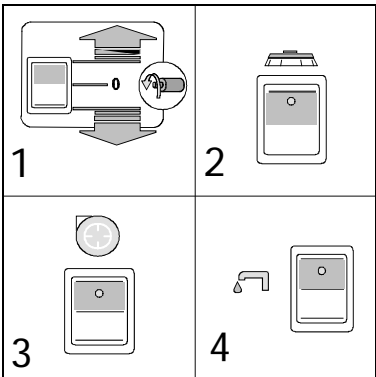
USING THE MACHINE

SET UP

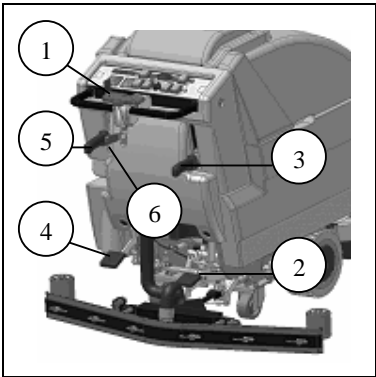
1. Connect the machine connector to the battery connector(1)
2. Turn the key switch (2) into position I (clockwise). Immediately, the battery indicator comes on (3)



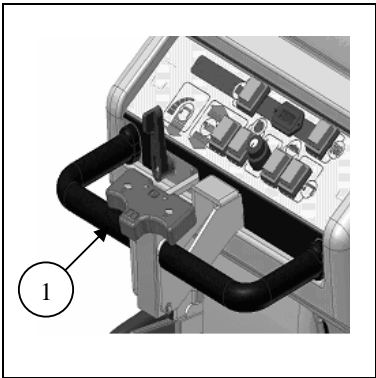
3. Press the traction motor switch forward (1)
4. Press the brushes motor switch forward(2)
5. Press the suction motor switch forward(3)
6. Press the solenoid valve switch forward(4)



7. Adjust the quantity of the detergent by lever (1). Please keep in mind that, the correct solution quantity depends always on the type of floor, the dirt and the speed.
8. Lower the brush base using the pedal (2) and releasing the lever (3)
9. Lower the squeegee using the pedal (4) and unhook the lever (5)
10. Check that the parking brake (5) is released



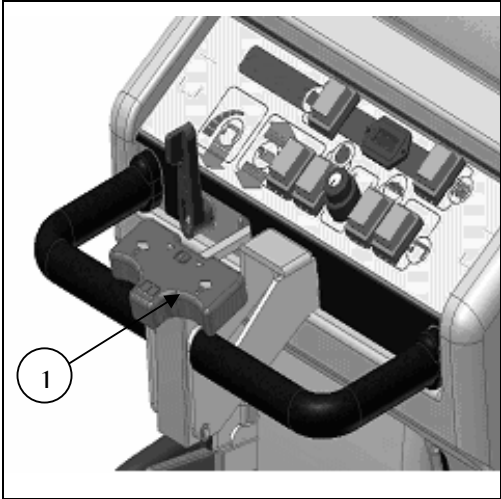
10. Push the traction control lever (1) forward, so that the machine starts to move forward and the brushes start to turn. Check that the quantity of solution is sufficient and the squeegee dries the floor. The machine is working now until the cleaning solution is used up.



USING THE MACHINE

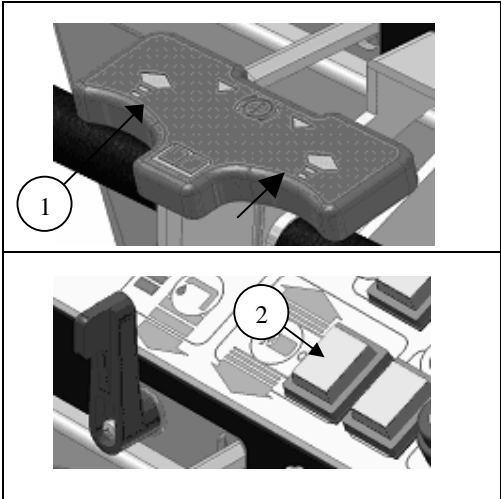
MOVEMENT

Forwards: The traction of the machine is obtained through a flat belt tensioning system. The movement speed is proportional to the force applied to the lever.



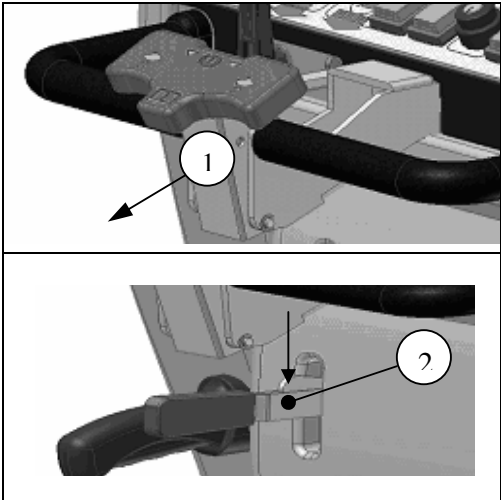
Reverse movement: To reverse the machine, you must press and hold the reverse switch (2) and push the drive lever (1) forward. The reverse switch must be held down for this process.

ATTENTION! When reversing, make sure that the squeegee is lifted.



BRAKE

The machine is equipped with two braking systems. A working brake controlled through the drive lever (1) and an emergency and parking brake controlled through the lever (2). In order to reduce the speed let the control lever (1) free. If an emergency stop is required, pull the speed control lever (1) back and push the emergency brake (2) downwards. These steps will lock the traction of the machine.



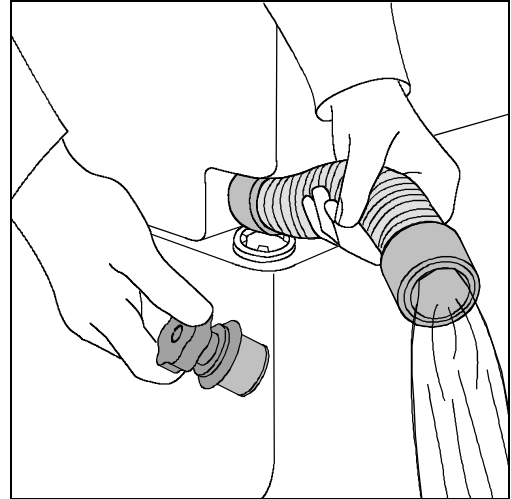
USING THE MACHINE

RECOVERY TANK IS TOO FULL

The machine is equipped with a float, which intervenes when the recovery tank is full causing the closure of the suction system. If you hear the vacuum motor suddenly change in pitch, the recovery tank is full and needs to be emptied.



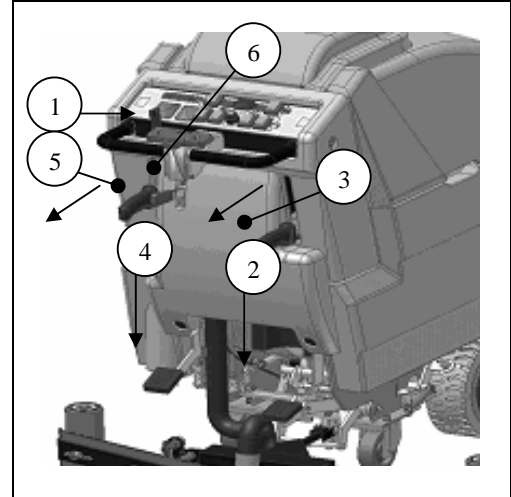
ATTENTION! This operation has to be carried out using gloves to protect the operator from contact with dangerous solutions.



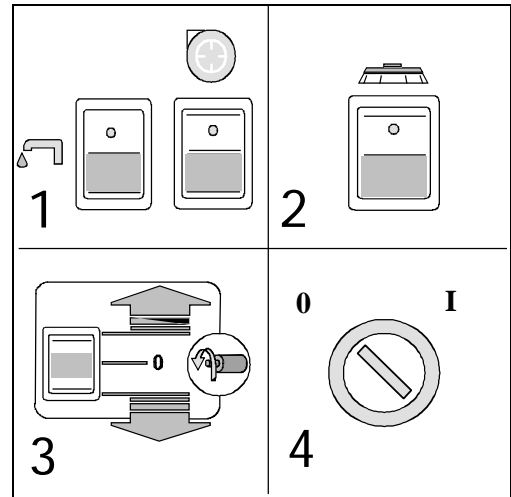
ON COMPLETION OF WORK

Having finished the job and before any type of maintenance is done:

1. Close the water valve using the lever (1)
2. Lift the brush base using the pedal (2) and lock the lever (3).
3. Lift the squeegee using the pedal (4) and lock the lever (5).
4. Activate the parking brake by pushing the lever (6) downwards.



5. Switch off the solenoid valve switch and the suction motor switch (1)
6. Switch off the brush motor switch (2)
7. Bring the machine to a suitable place for draining
8. Switch the traction switch in to the neutral position(3)
9. Turn the key (4) into position O (counterclockwise)
10. Activate the parking brake

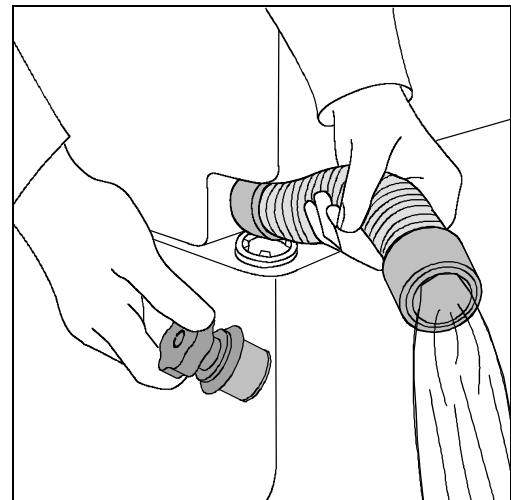


11. Release the hose placed on the rear panel
12. Unscrew the drain plug and empty the tank



ATTENTION! This operation has to be carried out using gloves to protect from contact with dangerous solutions.

13. Take off the brushes and clean them with water (for the brush disassembly please read further on "DISASSEMBLING THE BRUSHES")



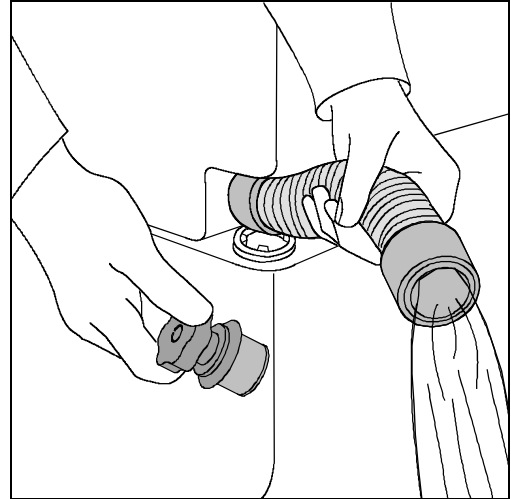
DAILY MAINTENANCE

CLEANING RECOVERY TANK

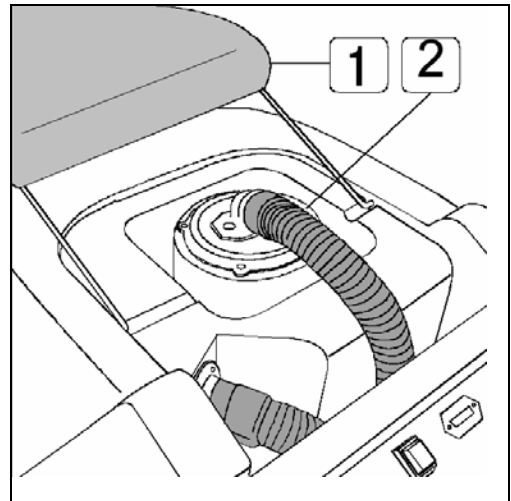
1. Release the hose placed on the rear panel
2. Unscrew the exhaust plug and empty the tank completely



ATTENTION! This operation has to be carried out using gloves to protect from contact with dangerous solutions.



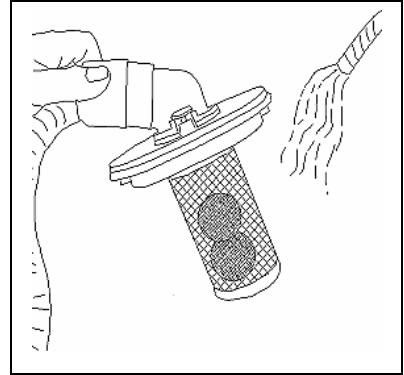
3. Lift the cover of the recovery tank (1)
4. Take off the suction plug rotating it counter-clockwise (2)
5. Take off the filter
6. Rinse the tank and float cage with clean warm water



DAILY MAINTENANCE

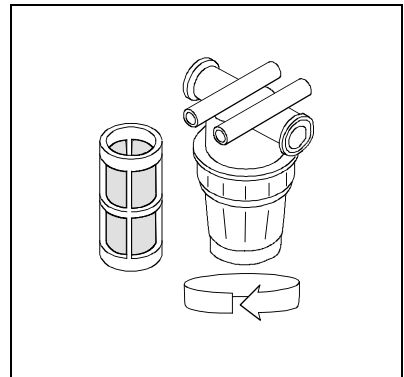
CLEANING SUCTION FILTER

1. Lift the cover
2. Take off the suction plug by rotating it counter-clockwise
3. Remove the filter
4. Clean the filter with clean warm water
5. Wash all of the components thoroughly



CLEANING SOLUTION FILTER

1. Close the water valve
2. Unscrew the filter located under the rear left side of the machine
3. Extract the cartridge from the filter and clean it with warm water
4. Reassemble the water filter

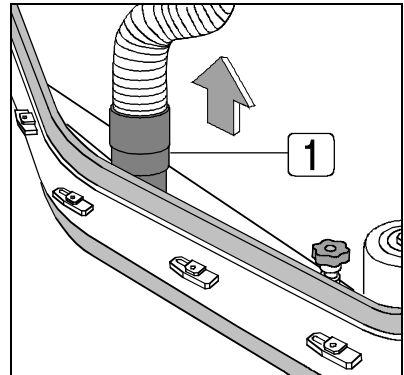


CLEANING THE SQUEEGEE

In order to have the best drying results, check that the squeegee is always clean.

To clean the squeegee, you must:

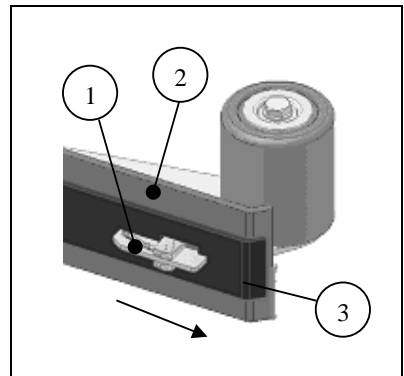
1. Take off the hose (1) from the squeegee
2. Release the squeegee
3. Clean the inside of the squeegee thoroughly
4. Clean the squeegee blades thoroughly
5. Reassemble the squeegee to the machine



REPLACING THE REAR SQUEEGEE BLADE

If the rear squeegee blade is worn and does not dry well, you must change the drying edge proceeding as follows:

1. Push and turn the support plates (1) as shown in the figure.
2. Slip off the rubber blade and the rubber itself
3. Turn the rubber (2) upside-down and if necessary, replace it
4. Reassemble the squeegee
5. Adjust the squeegee height depending on the wear of the blade (see "ADJUSTING THE SQUEEGEE")

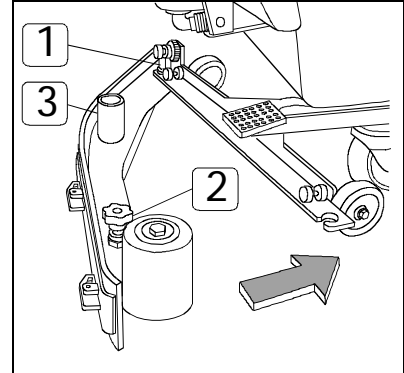


DAILY MAINTENANCE

REPLACING THE FRONT SQUEEGEE BLADE

If the front squeegee rubber is worn, a good suction is not achieved and therefore the machine does not dry well. In that case proceed as follows with the replacement:

1. Take off the squeegee loosening the register (1)
2. Unscrew the nuts, which hold the front rubber plate of the squeegee.
3. Remove the front rubber plate.
4. Slip off the rubber and replace it
5. Reassemble following these steps in reverse



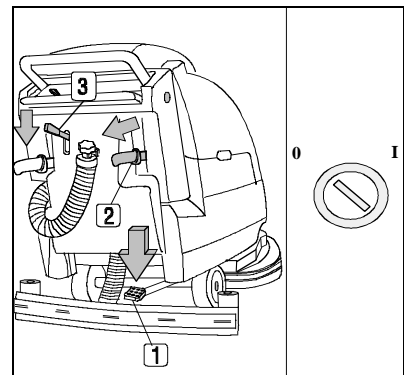
BRUSH REMOVAL

To remove the brushes, follow these steps:

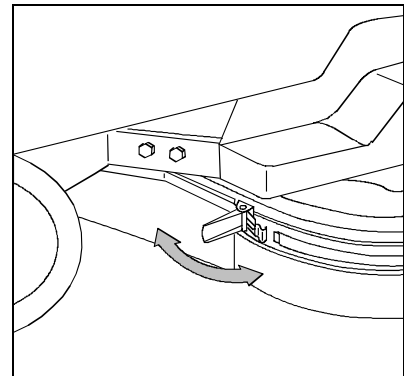
1. Lift the brush base using the pedal (1) and lock the lever (2)
2. Engage the parking brake (3)
3. Turn the key off and remove it from the switch
4. Remove the battery connector



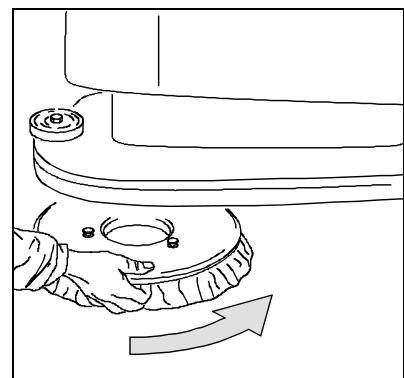
ATTENTION! Removing the brushes while the machine has power to it can cause serious bodily injury.



5. Unhook the splash skirt on the brush base



6. Rotate the brush until it comes off from the brush plate seat as shown in the figure.

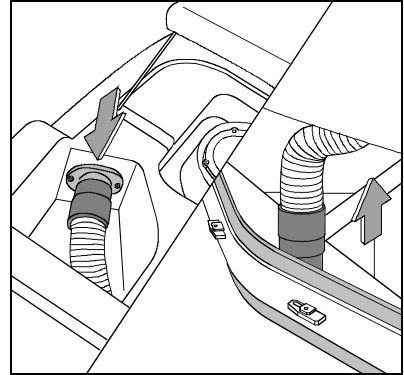


WEEKLY MAINTENANCE

CLEANING THE SQUEEGEE HOSE

Weekly or if the suction seems to be poor, check that the squeegee hose is not plugged with debris. Clean it as follows:

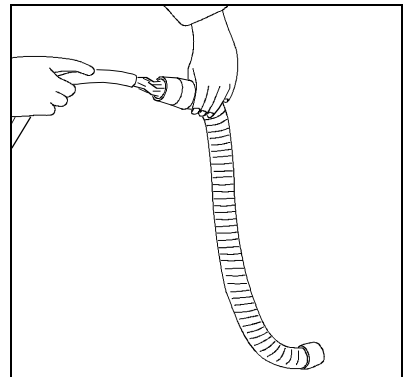
1. Take off the hose from the squeegee
2. Take off the other end from the recovery tank



3. Wash the inner part of the hose with warm water from the side where it is being connected to the tank

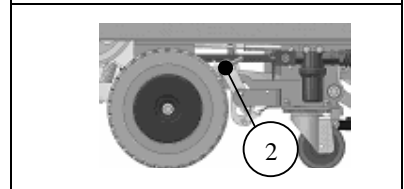
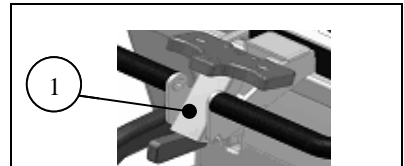


ATTENTION! Do not wash the hose, which goes from the suction motor to the suction plug.



BRAKE ADJUSTMENT

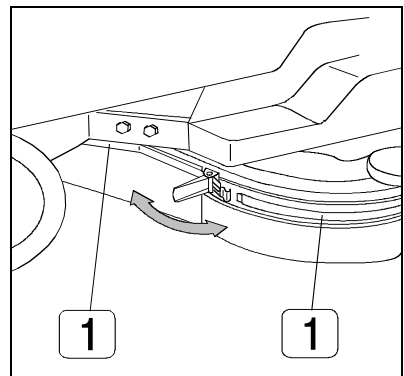
Once a week check the distance between the brake pads and the wheels. Push the drive lever (1) forward until the handle bar is touched, unscrew the nuts and adjust the brake pads at a distance of 1mm from the wheels.



REPLACING THE SPLASH GUARD

Check the condition of the splash guard. If it is necessary, to replace it, proceed as follows:

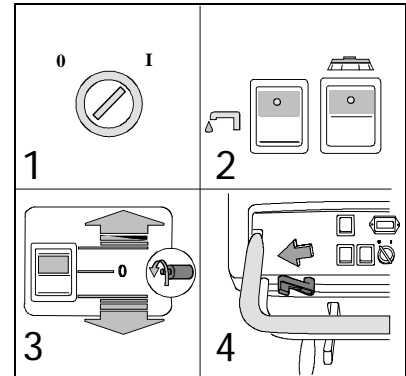
1. Unhook the two clips (1)
2. Take off the splash guard and replace it with a new one
3. Re-attach the clips



TROUBLE SHOOTING GUIDE

INSUFFICIENT WATER ONTO THE BRUSHES

1. Make sure that the key (1) is on position I
2. Make sure that the switches for the solenoid, and the brushes are on (2)
3. Make sure that the traction motor switch is in the forward position (3)
4. Make sure that the solution valve (4) is open
5. Make sure that there is water in the solution tank
6. Make sure that the filter is not plugged



THE MACHINE DOES NOT CLEAN WELL

1. Check the condition of the brushes and replace them if necessary. (the brushes have to be replaced when the length of the bristles is less than 15mm)
2. Check that the detergent used is in the right concentration and suitable for the cleaning application

THE SQUEEGEE DOES NOT DRY WELL

1. Check that the suction motor switch is on
2. Check and adjust the squeegee height and its inclination
3. Check the squeegee blades, clean them or replace them if they are worn
4. Check that the recovery tank is empty
5. Check that the squeegee hose is correctly fitted on the recovery tank
6. Check that the suction hose is correctly fitted on the suction motor and on the filter opening
7. Check that the suction filter is clean
8. Check that the plug on the drain hose is tight

EXCESSIVE FOAM IN THE RECOVERY TANK

Check that a low foam detergent has been used. If required, add a small quantity of antifoam liquid into the recovery tank.
Remember that, when the floor is not very dirty, more foam is generated. In this case dilute the detergent by adding more water to the solution tank.