jade 50 orbital

10 2026

EN

Use and maintenance



Warning! Please read the instructions before use.

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INTRODUCTORY COMMENT

Thank you for having chosen our machine. This floor cleaning machine is used for **commercial use,** for example hotels, schools, hospitals, factories, shops, offices and rental business. It is used for the industrial and civil cleaning and is able to clean any type of floor. During its advance movement, the combined action of the brush and the detergent solution removes the dirt which is aspirated through the rear suction assembly, giving a perfectly dry surface.
The machine must be used only for such purpose. It gives the best performance if it is used correctly and maintained in perfect efficiency. We therefore ask you to read this instruction booklet carefully whenever difficulties arise in the course of the machine's use.
In case of need, we ask you to contact our service department for all advice and servicing as may prove necessary.

GENERAL RULES OF SAFETY

The rules below have to be followed carefully in order to avoid injury to the operator and damage to the machine.
- Read the labels carefully on the machine. Do not cover them for any reason and replace them immediately if damaged.
- **ATTENTION**: The machine must be used exclusively by authorized staff.
- **ATTENTION**: Operators must be properly trained on the use of these machines.
- **ATTENTION**: The machine is not to be used by persons, children included, with reduced physical, sensorial or mental capabilities, or with lack of experience or knowledge.
- **ATTENTION**: Do not use the machine on areas having a higher gradient than the one stated on the machine.
- During the operation of the machine, pay attention to other people and especially to the children.
- Children must be supervised to ensure that they do not play with the appliance.
- Children cannot carry out cleaning and maintenance intended to be completed by the user.
- This floor cleaning machine is intended for commercial use, for example in hotels, schools, hospitals, factories, shops, offices and rental businesses.
- To prevent unauthorized use of the machine, switch off the power supply at the end of use and prevent accidental start-up by unauthorized personnel. For models equipped with a key, remove the key from the control panel.
- CAUTION This machine shall be stored indoors only.

TRANSFER

- Do not strike shelvings or scaffoldings where there is danger of falling objects.
- Leaving the machine in parking position, take off the key and act upon the parking brake.
- Do not use the machine as a means of transport.
- Adapt the working speed to the adhesion conditions: particularly, slow down before narrow curves have to be faced.
- When leaving the machine unattended, stop it on level surfaces, switch off the power supply and ensure that it is protected against unintended movements.

STORAGE AND DISPOSAL

- Storage temperature: between 0°C and +55°C (32°F e 131°F).
- Perfect operating temperature: between 0°C and +40°C (32°F e 104°F).
- The humidity should not exceed 95%.
- Provide for the scrapping of the material of normal wear following strictly the respective rules.

When your machine has to stop activity, provide for the appropriate waste disposal of its materials, especially oils, batteries and electronic components, and considering that the machine itself has been, where possible, constructed using recyclable materials.

CORRECT USE

- This machine is for indoor use only.
- Do not use the machine on surfaces covered with inflammable liquids or dusts (for example hydrocarbons, ashes or soot).
- In case of fire, use a powder-based fire-extinguisher. Do not use water.
- Do not use the machine in explosive atmosphere.
- The machine has to carry out simultaneously the operations of washing and drying. Different operations must be carried out in restricted areas prohibited to non-authorized personnel and the operator has to wear suitable shoes.
- Signal the areas of moist floors with suitable signs.
- Do not mix different detergents, avoiding harmful odours.
- Use only detergents or other liquids suitable for the intended use of the machine, with a pH between 4 and 10. When using detergents, wear appropriate personal protective equipment, as indicated in the safety data sheet of the products used.



- Avoid brushes operation when the machine is standing still in order to prevent floor damages.
- Before lifting the recovery tank, make sure that it is empty.

MAINTENANCE

- If the machine does not work properly, check by conducting simple maintenance procedures. Otherwise, as for technical advice from an authorized assistance centre.
- For any cleaning and/or maintenance operation take off the power supply from the machine.
- Where parts are required, ask for ORIGINAL spare parts from the distributor and/or from an authorized dealer.
- Use only ORIGINAL brushes.
- Do not take off the protections which require the use of tools for their removal.
- Do not wash the machine with direct water, jets or with high water pressure nor with corrosive material.
- Every 200 working hours have a machine check by an authorized service department.
- Before using the machine, check that all panels and coverings are in their position as indicated in this use and maintenance catalogue.
- Restore all electrical connections after any maintenance operation.

GENERAL RULES OF THE BATTERIES



- At any intervention on the batteries, use suitable acid-proof gloves and glasses.
- Do not smoke near the batteries and do not approach them with free flames.
- Check that a fire-extinguisher is available on site.
- Be very careful in case of leakages or liquid outlets because corrosive.
- Do not place any metallic tools onto the batteries. Risk of short circuit!
- It is compulsory to hand over exhaust batteries, classified as dangerous waste, to an authorized institution according to the current laws.

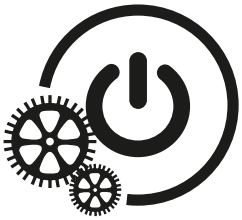
TECHNICAL DESCRIPTION	U/M	
Cleaning width	mm in	500 19,7
Squeegee width	mm in	770 30.3
Working capacity, up to	m^2/h sqft/h	2250 24219
Dimensions pad	mm in	500x350 19,7x13,8
rpm base motor	(rpm)	2200
Pressure on the base	kg lbs.	50 110
Base motor	W A	750 31
Traction motor	W A	400 16.7
Suction motor	W A	400 16.7
Suction vacuum	mbar water lift	120 48
Type of drive		automatic
Movement speed (max)	km/h mph	3,2 - 4,5 2-2.8
Maximum gradient	%	10
Solution tank	l gal	53 14
Reserve solution tank	l gal	5 1.3
Recovery tank	l gal	56 15
Machine length	mm in	1244 49
Machine height	mm in	1098 43,2
Machine width (without squeegee)	mm in	548 21,6
Weight of the machine (empty and without batteries)	kg lbs.	119 262
Gross weight of the machine (in conformity with EN 60335-2-72 art. 5.z102)	kg lbs.	316 696
Capacity of the batteries	Ah_5	180
Tension	V	24
Weight of the batteries	kg lbs.	144 318
Compartment of the batteries	mm in	390x405x374 15x16x15
Acoustic pressure level (in conformity with EN 60704-1) Lpa	dB (A)	<70
Class		III
Protection level	IP	X3

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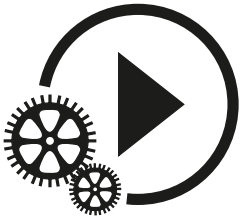
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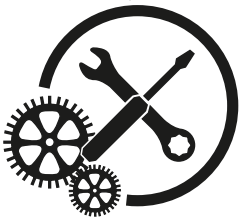
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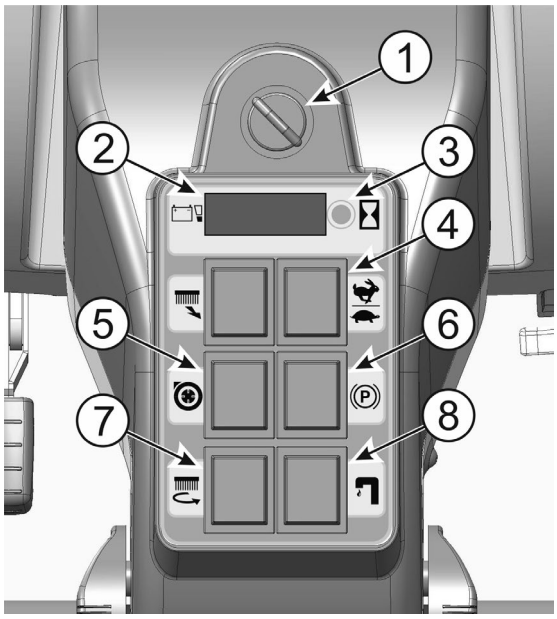
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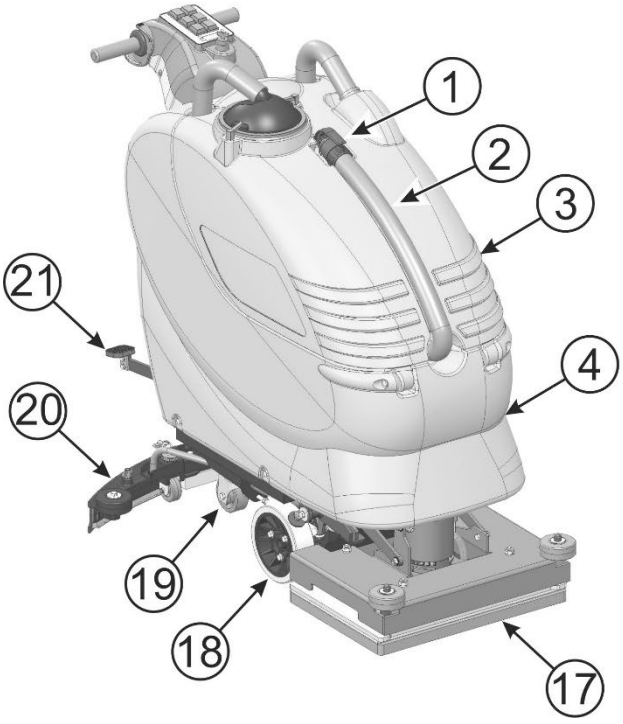
LEGEND INSTRUMENT BOARD AND CONTROLS

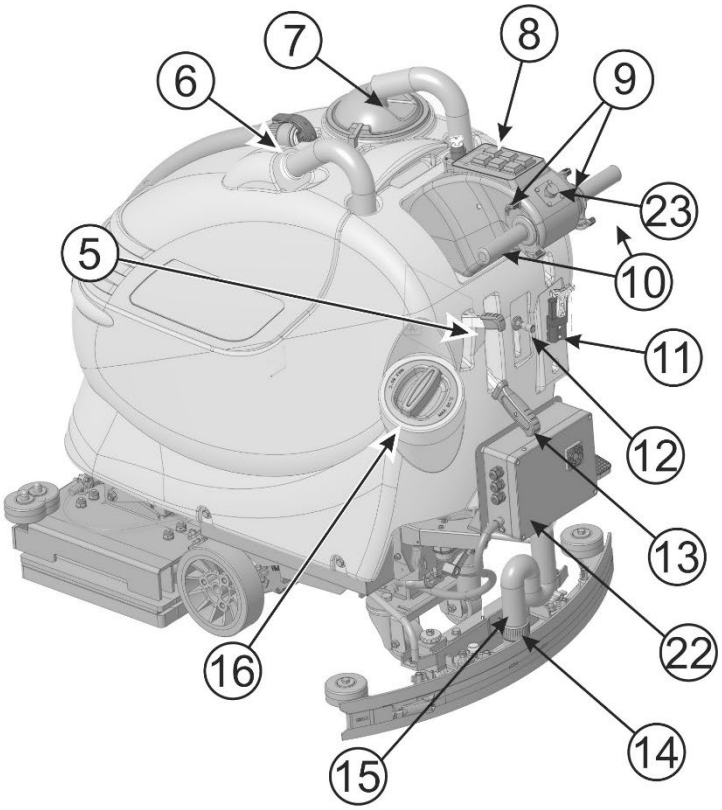
1. SWITCH WITH KEY
2. DISPLAY CHARGE LEVEL BATTERIES/HOUR METER
3. PUSH BUTTON VISUALIZATION HOUR METER (DISPLAY)
4. SWITCH SPEED SELECTION
5. SWITCH SUCTION MOTOR
6. SIGNAL LAMP BRAKE ON
7. SWITCH BASE MOTOR
8. SWITCH SOLENOID VALVE



LEGEND MACHINE

1. PLUG EXHAUST HOSE RECOVERY TANK
2. EXHAUST HOSE RECOVERY TANK
3. RECOVERY TANK
4. SOLUTION TANK
5. LEVER PARKING / EMERGENCY BRAKE
6. INLET OPENING SQUEEGEE HOSE
7. SUCTION COVER
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22. OZONE SYSTEM BOX (OPTIONAL)
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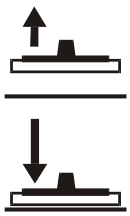
SYMBOLOGY ON THE MACHINE



Symbol denoting the solution valve.
Indicates the solution valve lever.



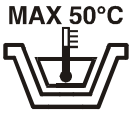
Symbol denoting the suction motor.
Indicates the switch of the suction motor.



Symbol denoting up – down of the squeegee.
Indicates the squeegee lever.



Symbol denoting the charge level of the batteries.



Indication of the maximum temperature of the solution detergent.
It is placed near the charging hole of the solution tank.



Symbol denoting the crossed bin. Indicates that at the end of its activity, the machine has to be disposed conforming to the laws in force.



Instrument adjustment symbol



Indicates the switch of the base motor.



Symbol denoting the brake lever of the emergency and parking brake.



Symbol denoting the selection switch of the driving speed.



Symbol denoting the hour meter.



Symbol denoting the brake.
Indicates the signal lamp of the brake on.



Ozone symbol.
Indicates the ozone switch (optional)



Manual adjustment symbol

SYMBOLOGY ON THE MANUAL



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



Symbol denoting the open book.
For the good functioning of the on-board battery charger (optional), read the manual of the constructor.



Warning symbol.
Read carefully the sections marked with this symbol, for the security of both the operator and the machine.



Symbol that indicates the obligations of disconnecting the system from the batteries by disconnecting the connector before operating on the machine.



Symbol indicating the part of the manual related to the unboxing, preparation and start of the machine.



Symbol that indicates the obligation of wearing safety glasses.



Symbol that indicates the obligation of wearing safety gloves.



Symbol that precedes an important information about the proper use of the machine.



Symbol that indicates operations that have to be carried out only by qualified personnel.



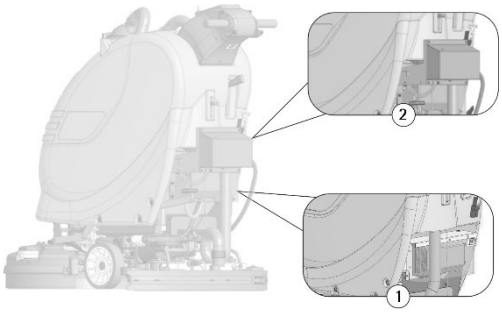
Icon indicating the part of the manual related to the machine use.

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Icon indication the part of the manual related to the maintenance of the machine.

OPTIONAL EQUIPMENT

OPTIONAL ACCESSORIES
On-board battery charger (1);
Ozone System (2).



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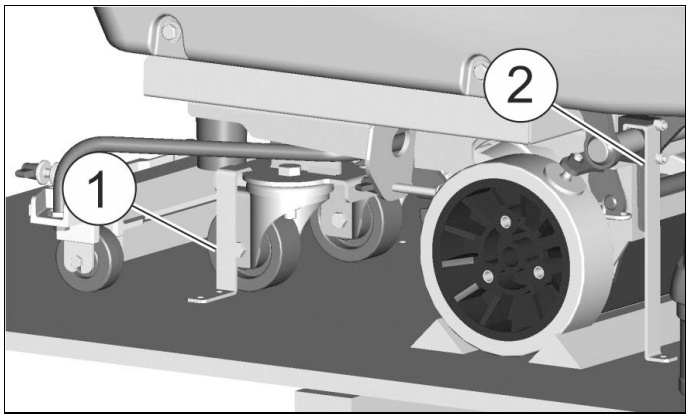
BEFORE USE

HANDLING OF THE PACKED MACHINE
The machine is supplied with suitable packing foreseen for fork lift truck handling.

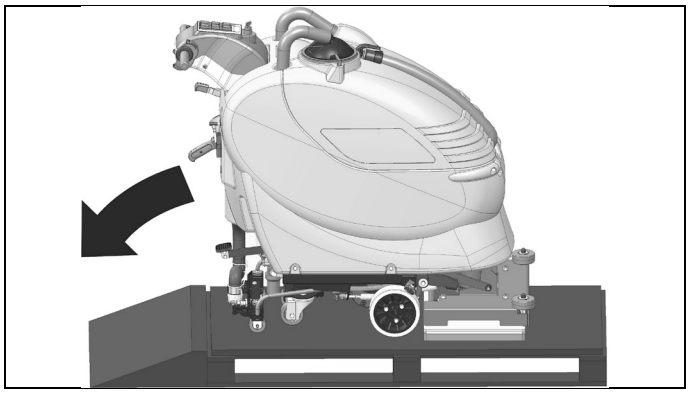
The total weight is 148kg (326 lbs.).
The packing dimensions are:
Base: 138 cm x 67 cm (54"x26")
Height: 119 cm (47")

Do not place more than 2 packings on top of each other.

UNPACKING OF THE MACHINE
1. Remove the external packing.
2. Unscrew the brackets (1+2) that secure the machine to the pallet.



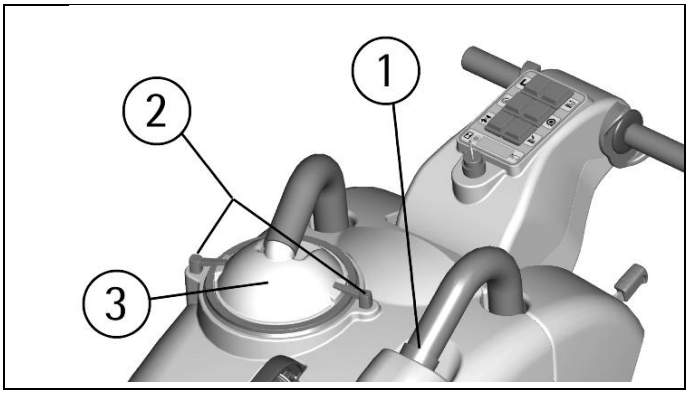
3. Provide for an inclined base.
4. Move the machine backwards, as indicated in the figure, avoiding heavy contacts to mechanical parts.



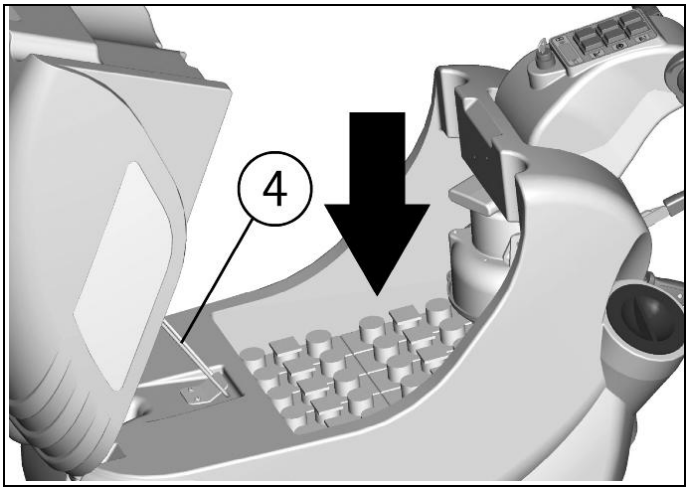
5. Keep the pallet and the brackets for eventual transport.

BATTERY INSTALLATION
The machine is equipped either with batteries in serial connection or elements of DIN-type assembled together and connected in series, placed in its appropriate compartment under the recovery tank and must be handled using suitable lifting equipment (due to weight, considering the type of batteries chosen, and coupling system).
The batteries must be in accordance with CEI 21-5 Norms.

For batteries installation proceed as follows:
1. Take off the squeegee hose (1).
2. Take off the suction cover (2) after turning the blocking levers (3).

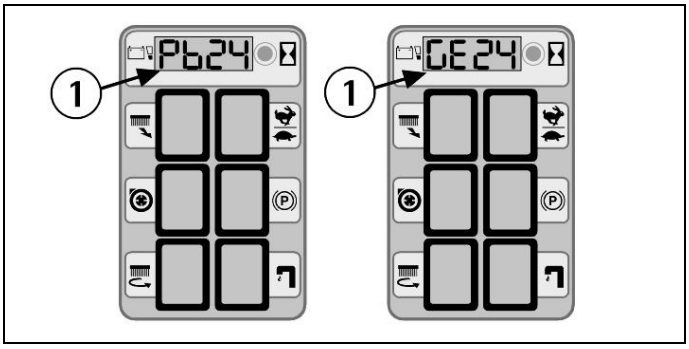


3. Lift the recovery tank by rotating it and fix it with the suitable bar (4).
4. Place the batteries in its compartment.



5. Connect the terminals, respecting the polarities, avoiding contact with other parts that could create short circuit.
6. Reassemble all parts.

The machine and its battery check card foresee the use of traditional lead batteries.
CHECK SETTING OF THE CHECK CARD ON THE DISPLAY (1).
In case of GEL batteries installation, it is necessary to set the battery check card. Please contact the authorized technical assistance.



Strictly follow manufacturer/distributor indications for the maintenance and recharge of the batteries. All installation and maintenance operations must be executed by specialized staff, using suitable protection accessories.

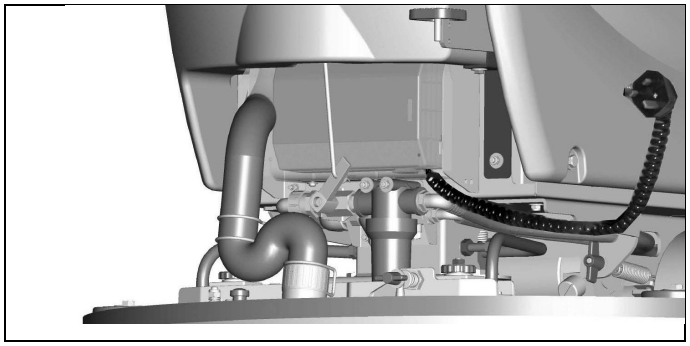
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BATTERY RECHARGER

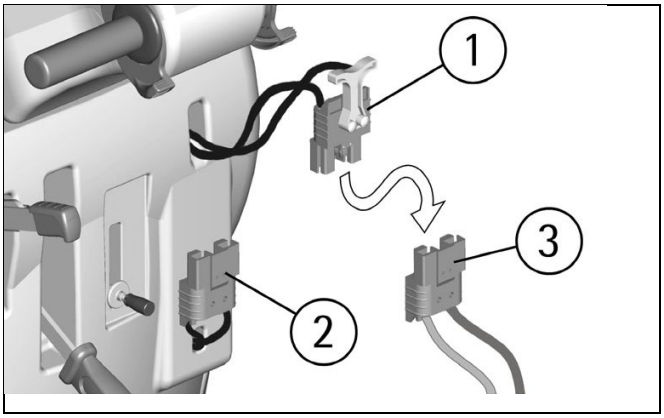
Be sure that the battery recharger is suitable for the installed batteries both for their capacities and type (lead/acid or GEL and equivalent).
In versions not equipped with on-board battery charger it is recommended to use one with current suitable for the batteries used, SELV output voltage (Safety Extra Low Voltage) of 24Vdc and complying with IEC/EN 60335-1 and IEC/EN 60335-2-29.

In the plastic bag containing the use and maintenance you will find the coupling connector for the recharger. It must be assembled onto the cables of your recharger, following the instructions given by the manufacturer.

ON-BOARD BATTERY RECHARGER (OPTIONAL)
If the machine is equipped with the on-board battery recharger (see under "OPTIONAL ACCESSORIES") please refer to the instructions of the constructor of this accessory what the recharging operations concern.
The battery recharger is connected directly to the battery poles.
During the recharging operations a device is activated which does not permit the machine's functioning.
The main cable of the battery recharger has a maximum length of two meters (6.5 ft.) and must be connected to a single-phase socket type CEE 7/7.

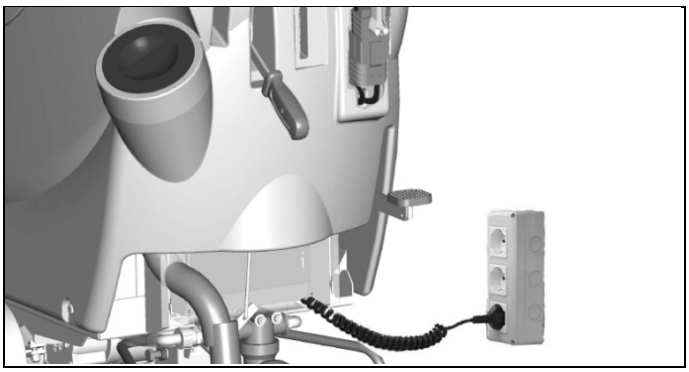


BATTERIES RECHARGING
Bring the machine on a levelled surface.
1. Plug in batteries connector (1) placed in the rear part of the machine, to the connector (3) of the battery recharger.
2. Proceed to the recharging keeping the tank lifted (see under paragraph "BATTERY INSTALLATION AND SETTING OF THE BATTERY TYPE" in "BEFORE USE").
3. Maintain the connection with the battery recharger until the indication of the end of charge is not visualized.



BATTERIES RECHARGING WITH ON-BOARD CHARGER (OPTIONAL)

Bring the machine on a leveled surface near to a single-phase socket (within 2m, 6.5 ft.) with tension 230V, frequency 50Hz (for USA 120V, 60Hz), nominal current 10A.
Switch off the machine and proceed as follows.
1. Insert the plug into the mains socket.
2. Proceed to the recharging keeping the tank lifted (see under paragraph "BATTERY INSTALLATION AND SETTING OF THE BATTERY TYPE" in "BEFORE USE").
3. Do not take off the plug from the mains socket until the indication of the end of charge is not visualized.
4. At the end of the recharging, take off the plug from the mains socket.

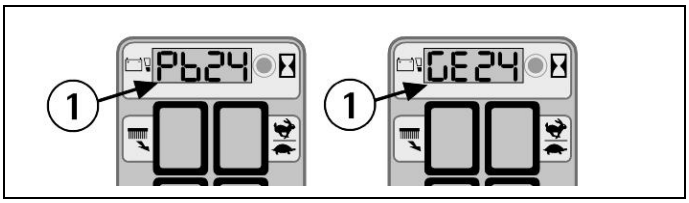


Never leave the batteries completely discharged even if the machine is not used. In case of lead/acid batteries, please check the electrolyte level every 20 recharging cycles and eventually top up with distilled water at the end of the recharge. Never leave the batteries discharged for more than two weeks.

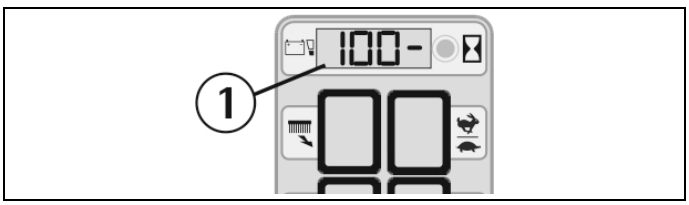
Danger of gas exhalations and emission of corrosive liquids. Fire danger: do not approach with free flames.

BATTERIES DISPOSAL
It is compulsory to hand over exhaust batteries, classified as dangerous waste, to an authorized institution according to the current laws.

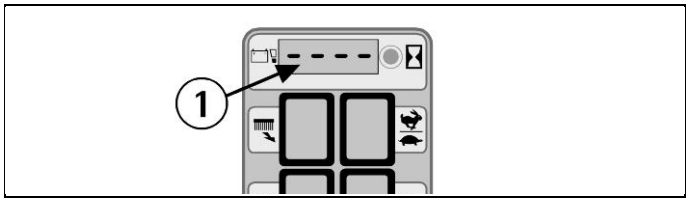
BATTERIES CHARGE LEVEL INDICATOR
WHEN THE MACHINE IS SWITCHED ON, ON THE DISPLAY APPEARS THE SETTING OF THE BATTERY CHECK CARD:
GE 24: check card set for GEL batteries.
Pb 24: check card set for lead batteries.



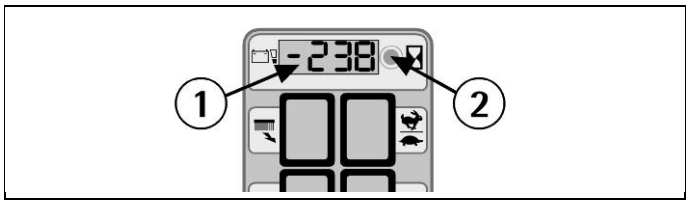
The batteries charge level indicator (1) is digital and indicates the percentage of the battery charge. 100 is the maximum charge, down to a minimum of 10, indicating every 10% decrease.
When the charge level reaches 20%, the display starts blinking indicating the end of the battery charge.



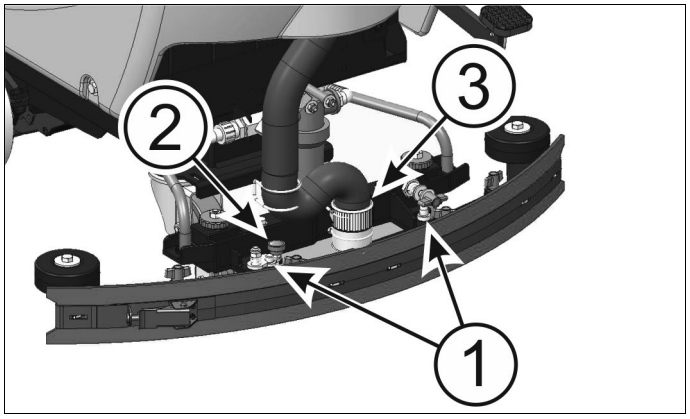
After a few seconds from the blinking of the four lines, the base motor stops automatically. With the remaining charge it is anyhow possible to finish the drying operation before proceeding to the recharge.



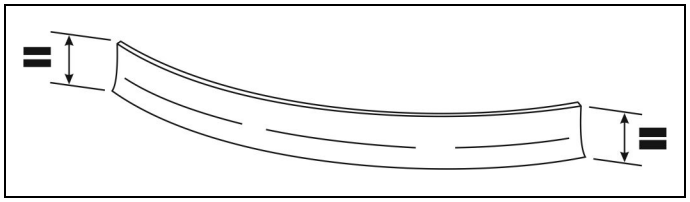
HOUR METER
The machine is equipped with an hour meter located on the same display of the battery charge level indicator (1). Keeping the button (2) pressed for more than 3 seconds, the first data indicates the working hours and after a few seconds the working minutes are shown.



SQUEEGEE ASSEMBLY
With the squeegee support slightly lifted from the floor, slide the two stud bolts (1) placed on the upper part of the squeegee, inside the slots on the support. Block the squeegee by rotating the lever (2) clockwise.
Insert the squeegee hose (3) into its coupling, respecting its position as indicated in the figure.

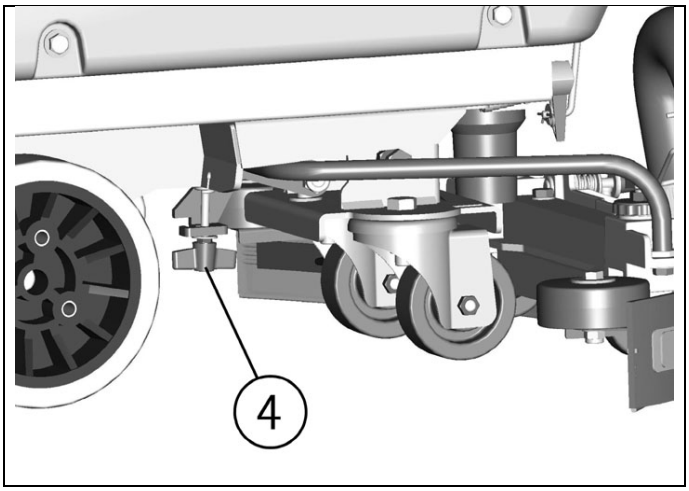


ADJUSTMENT OF THE SQUEEGEE
In order to have a perfect drying result through the squeegee, the rear rubber must have the lower bending uniformly adjusted in all its length. For the adjustment, it is necessary to put oneself in working condition and therefore the suction motor has to be switched on and the brushes have to function together with the detergent solution.



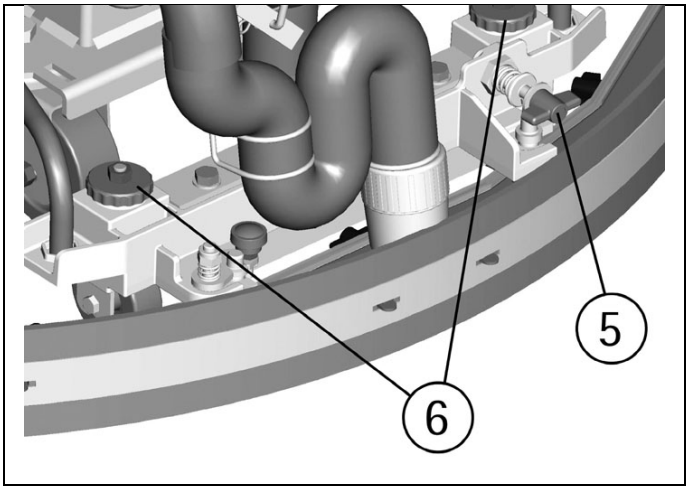
<u>The lower part of the rubber is too much bent</u>
Take off the pressure rotating the wing nut (4) counterclockwise.

<u>The lower part of the rubber is not much bent</u>
Increase the pressure rotating the wing nut (4) clockwise.



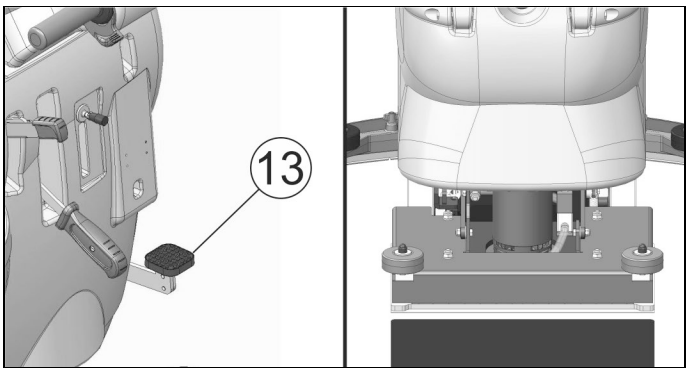
<u>The bending is not uniform</u>
Adjust the squeegee inclination rotating counterclockwise the wing nut (5) to increase the bending in the central part, or clockwise to increase the bending on the extremities.

<u>Height adjustment</u>
Once that the pressure and inclination of the squeegee has been adjusted, it is necessary to fix this optimum condition making touch slightly the wheels onto the floor. Rotate counterclockwise the registers (6) to lower the wheels or clockwise to raise them. Both wheels must be adjusted in the same measure.
A label placed near the two registers (6) indicates rotation sense to increase or reduce the height.



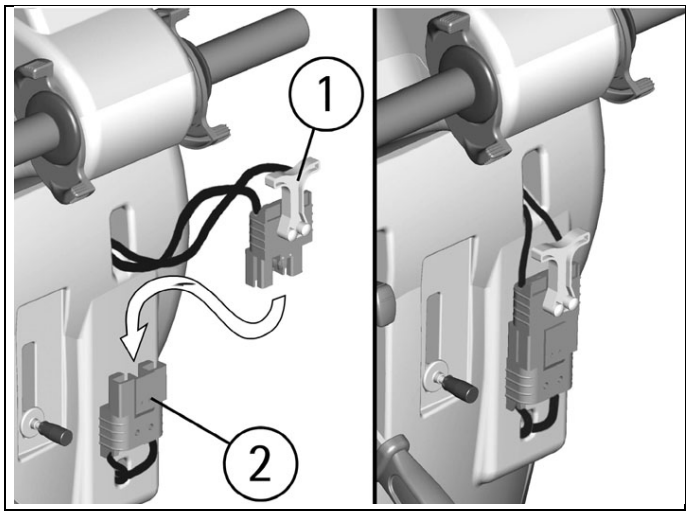
PAD ASSEMBLY

To assemble the pad proceed as follows:
Move the pedal (13) to lift the base.
Position the pad under the base and then lower it always through the lever (13).



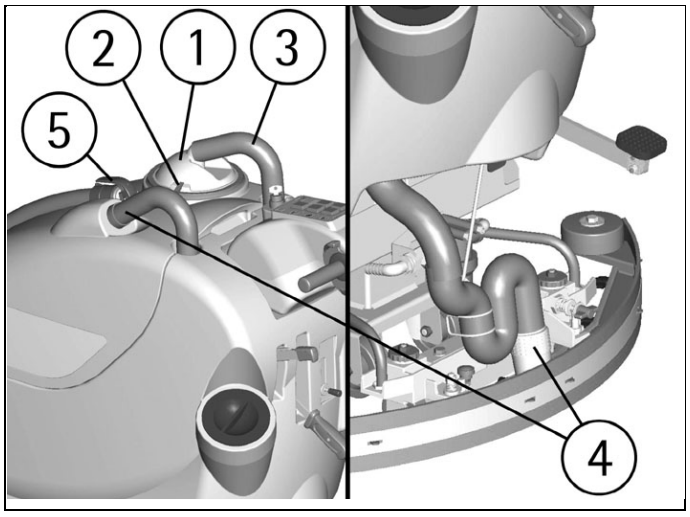
FLOOR CLEANING

CONNECTION OF THE BATTERIES TO THE MACHINE
Plug in the batteries connector (1) to the machine connector (2), placed in the rear part of the machine.

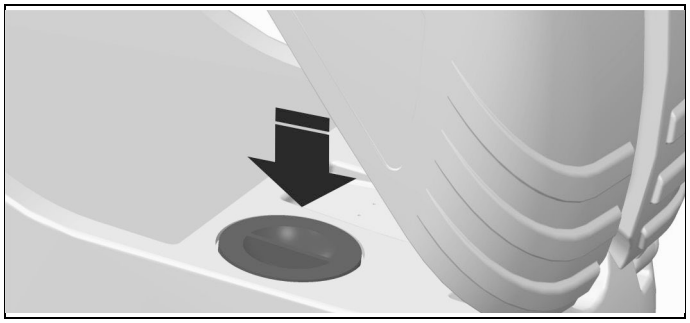


RECOVERY TANK

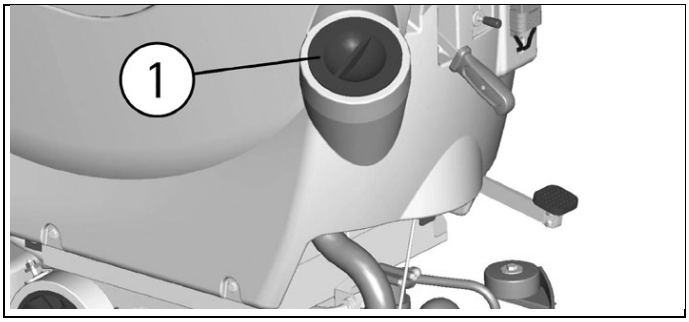
Check that the cover of the suction filter (1) is correctly secured, after rotating the levers (2) and that the suction motor hose is correctly connected.
Verify also that the squeegee hose (4) is correctly inserted into the seats and that the exhaust hose plug (5) placed in the front part of the machine, is closed.



DETERGENT SOLUTION TANK
The solution tank is provided with an inspection opening. This permits to clean the exit point of the detergent solution.
Be sure that the cap is well tightened after the cleaning.



The capacity of the detergent solution tank is indicated in the technical data.
Open the screw plug (1) placed in the rear left part of the machine and fill the detergent solution tank with clean water at a maximum temperature of 50°C (122°F). Add the liquid detergent in the percentage and conditions foreseen by the manufacturer. To avoid excessive foam presence, which could cause problems to the suction motor, use the minimum percentage of detergent. Screw down the plug to close the tank. Always use low-foam detergent. To safely avoid the production of foam, before starting work introduce a minimum quantity of anti-foaming liquid into the recovery tank. Do not use pure acids and use only professional products suitable for cleaning with scrubbing machines.

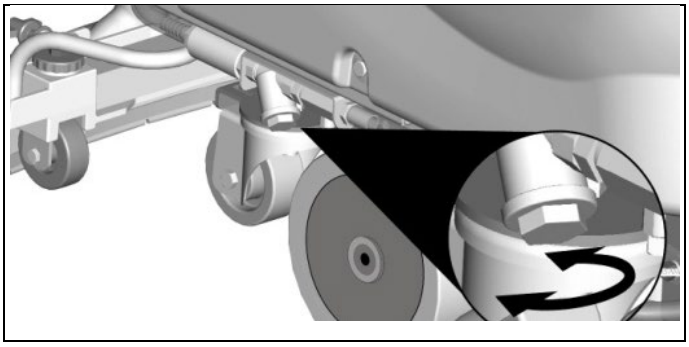


Use always low foam detergent. To avoid foam presence, before starting working operation, introduce into the recovery tank a minimum quantity of anti-foam product.
Never use pure acid.

3S SYSTEM “SOLUTION SAVING SYSTEM” (OPTIONAL)
The system is composed by a hydraulic circuit parallel to the traditional one which can be enabled or disabled directly from the instrument board through a 3-position switch with the following functions:
(1) = Position solution valve with traditional functioning with variable water flow that differs by the opening of the solution valve.
(2) = Position STOP with functioning without flow (drying only).
(3) = Position 3S with functioning with optimal fixed flow.



The hydraulic circuit of the 3S system is independent and it is provided with a proper filter which has to be cleaned regularly.
For the cleaning it is necessary to unscrew the plug as shown in the figure and clean the inside filter with a water jet.

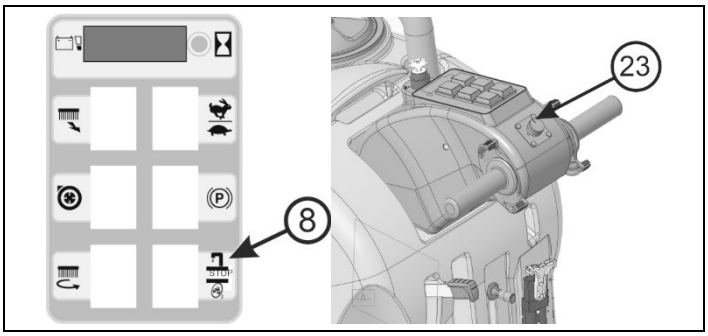


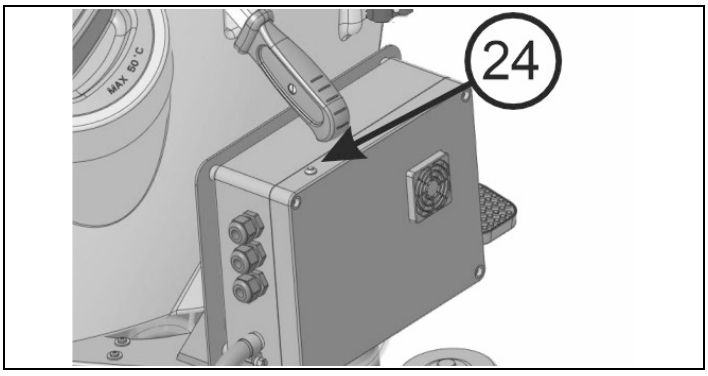
OPERATION OF THE OZONE SYSTEM (optional)

The machine can produce water with an ozone concentration high enough to provide disinfection of the treated surfaces. For this to occur, it is essential that the ozonated water reaches an ORP level above 650 mV.

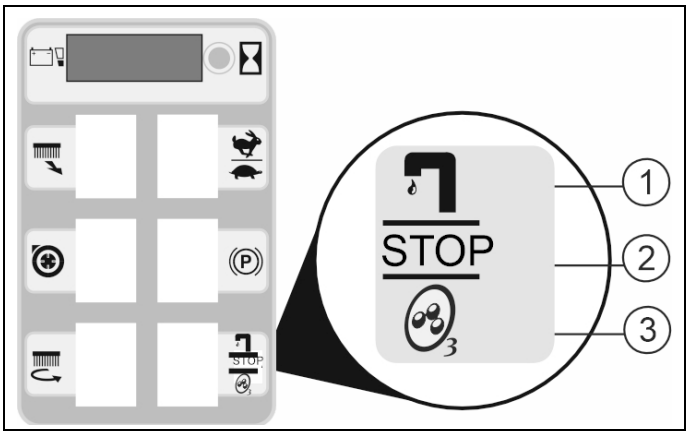
To make the best use of the ozone system, proceed as follows:

1. Ensure that the inside of the solution tank is clean; if necessary, rinse it by performing at least a couple of filling and emptying cycles.
2. Fill the solution tank with tap water (**do not add any detergent**).
3. Switch on the ozone generation system by selecting Ozone mode with the dedicated selector (8), then set the relevant controls for machine operation. When the system starts, the green LED on the ozone unit remains off (24).
4. Set the desired water flow rate by operating the selector located on the machine control panel. (23). Ensure that the amount of water in the solution tank is sufficient to complete the job, also in relation to the selected water flow rate, in order to prevent damage to the water pump.
5. Enable the brush control (see "STARTING OF THE MACHINE")
6. Enable the drive control by operating the levers located on the handlebar. When the solenoid valve is activated, the water pump starts and ensures the desired flow within the system.
7. The system carries out a polarity reversal period of 30 seconds at each start-up and every 2 cumulative hours of operation. This phase allows the self-cleaning of the generator in order to ensure its correct operation over time. The polarity reversal time is taken into account only when there is water flow within the system.
8. Once the polarity inversion has occurred, the green LED (24) lights up, indicating that the system is generating ozone. The system allows continuous operation for two hours. At the end of the two-hour period, the system performs self-cleaning again fully automatically.





The system consists of a hydraulic circuit parallel to the conventional one, which can be enabled or disabled directly from the control panel via a three-position selector, operated as shown in the figure according to the selected mode:
(1) = Solution valve position with traditional operation for adjusting the flow rate from the solution valve.
(2) = STOP position with no flow (drying only).
(3) = Ozone position with operation of the ozone system.



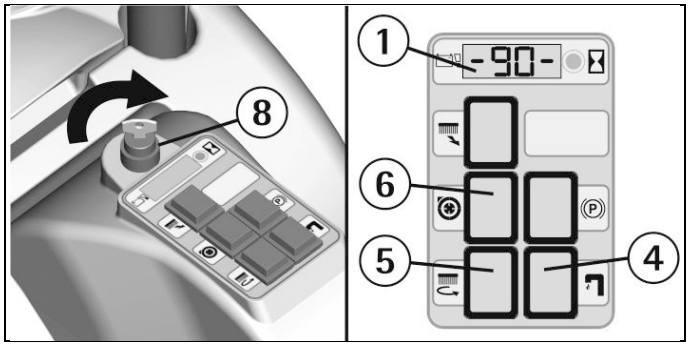
Ozone is a very penetrating gas and it can be irritating.

The ozonated water is strongly oxidizing, therefore in order to protect from oxidization (rust) the metal parts of the machine, it is better to rinse with water all the lower parts of the machine at least once a week.

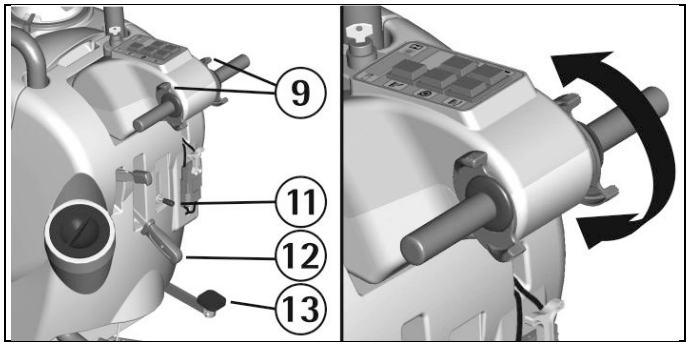
At the end of the work, it is not necessary to empty the solution tank.

STARTING OF THE MACHINE

1. Turn the key (8) clockwise.
2. Check the battery type and the charge level on the display (1).
3. Press the base motor switch (5).
4. Press the suction motor switch (6).
5. Press the solenoid valve switch (4). For operation of the 3S system and the ozone system, refer to the dedicated section (optional).



6. Acting upon the base lifting pedal (13) lower the base.
7. Acting upon the solution valve lever (11) open and adjust the solution detergent flow.
   The water starts to flow automatically acting upon the levers drive control (9). On the instrument board the indicator of the solenoid valve switch (4) will turn on. Releasing these levers, the flow will stop.
8. Acting upon the squeegee lifting lever (12) lower the squeegee.
9. Acting upon the levers drive control (9) the machine starts to move, the base starts to vibrate and the squeegee starts to dry.
10. During the first stretches check that the squeegee adjustment guarantees a perfect drying action and that the detergent solution flow is appropriate. It has to be sufficient to wet the floor uniformly. Always consider that the correct quantity of solution detergent depends on type of floor, dirtiness and machine speed.



FORWARD MOVEMENT

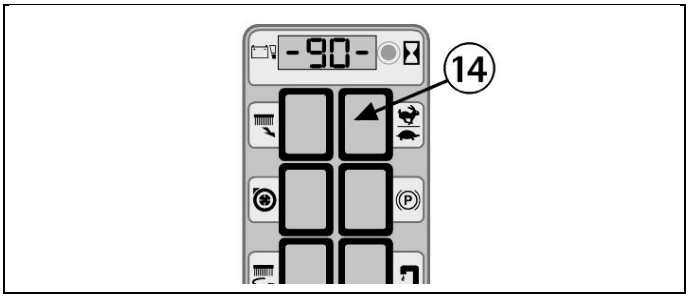
The traction of the machine is given through an electronically controlled motor.
To move the machine, switch on the key and then rotate the levers drive control placed on the handle bar, in forward you obtain the forward drive, in reverse the backwards movement is obtained. The control acts in a progressive way, therefore it is possible to graduate the speed depending on each requirement rotating the lever whatever it is necessary. During reverse motion the speed is reduced.



Moving the machine backwards, make sure that the squeegee is lifted.

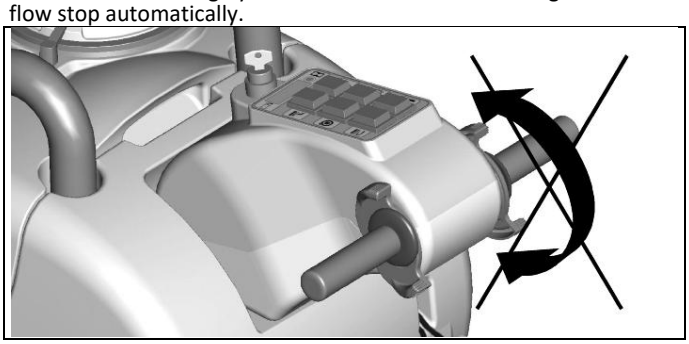
SPEED ADJUSTMENT

Two values of the maximum drive working speed in forward movement can be chosen.
Set the wanted speed through the speed selection switch (14).



WORKING BRAKE

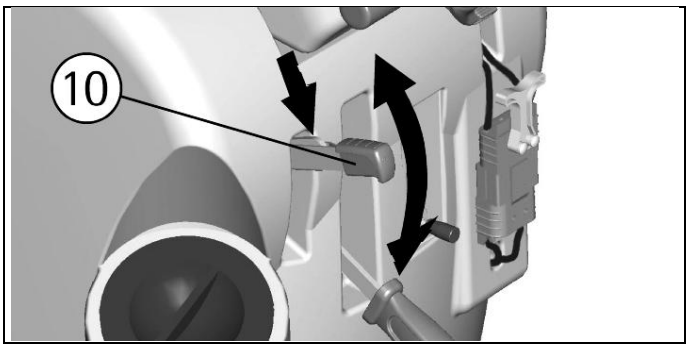
To stop the machine during normal working situation, it is sufficient to release the levers drive control, as the machine is equipped with an electronic braking system. The base and the detergent solution flow stop automatically.



EMERGENCY BRAKE

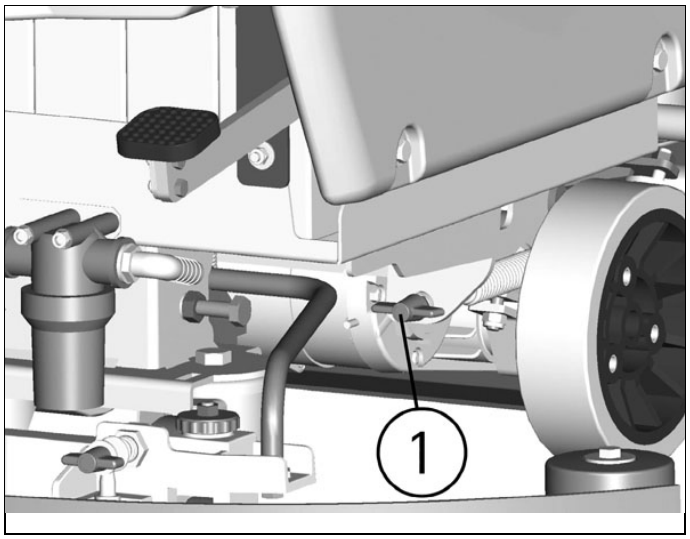
In case of an emergency, an immediate stop can be obtained acting upon the lever of the emergency and parking brake (10) by pushing it downwards.

This control blocks the machine immediately. The emergency brake functions also as a parking brake. To start again to work, release the lever by unblocking the parking button on the lever itself and act again upon the levers drive control.



ADJUSTMENT OF THE BASE PRESSURE

Through the register (1) it is possible to adjust the base pressure on the cleaned surface.
By turning the wing nut clockwise the pressure increases, rotating the wing nut counterclockwise, the pressure decreases.
This device allows a more efficient cleaning action also on very difficult and dirty surfaces.

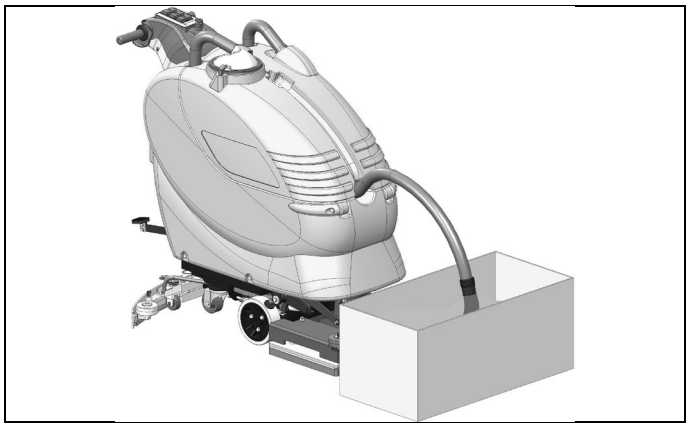


In order not to overload the base motor, it is convenient to reduce the base pressure going from smooth floors to rough ones (ex. concrete).

OVERFLOW DEVICE

In order to avoid serious damages to the suction motor, the machine is equipped with a float that intervenes when the recovery tank is full, closing the suction hose and stopping the suction.
When this happens, it is necessary to empty the recovery tank.

1. Hold the exhaust hose placed in the front part of the machine.
2. Take off the exhaust plug acting upon its lever and empty the recovery tank into appropriate containers, according to the standard norms.



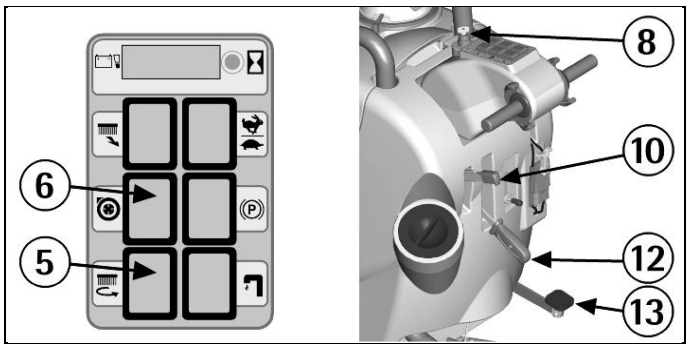
SIGNAL DETERGENT SOLUTION RESERVE (H2O ON THE DISPLAY)
When the indication H2O on the display appears, this means that the detergent is getting low corresponding to 10% of the maximum capacity of the solution tank.



EN

STOP OF THE MACHINE AFTER CLEANING OPERATION

Before executing any type of maintenance:
1. Turn the base motor switch off (5).
2. Turn the suction motor switch off (6).
3. Lift the base acting upon the pedal (13).
4. Lift the squeegee acting upon the lever (12).
5. Bring the machine to an appropriate place for tanks draining.
6. Turn the key (8) counterclockwise.
7. Insert the parking brake (10).

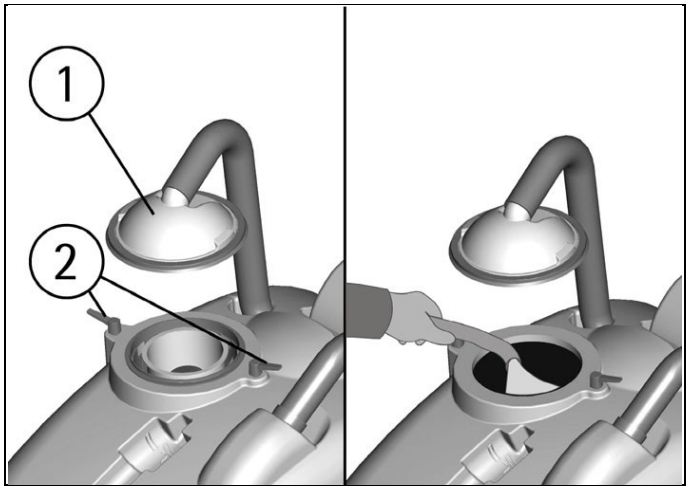


DAILY MAINTENANCE

RECOVERY TANK CLEANING

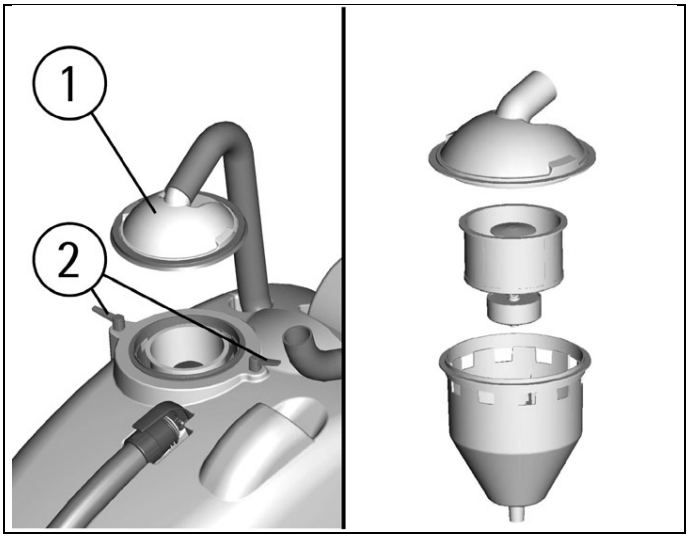


1. Hold the exhaust hose placed in the front part of the machine.
2. Take off the exhaust plug acting upon its lever and empty the recovery tank into appropriate containers.
3. Take off suction cover (1) after rotating the blocking levers (2).
4. Take off the filter and filter protection.
5. Rinse the tank with water jet.



SUCTION FILTER CLEANING

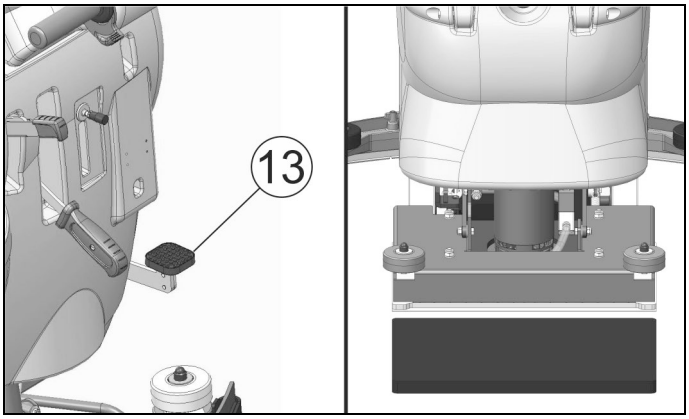
1. Take off suction cover (1) after rotating the blocking levers (2).
2. Take off the filter and filter protection.
3. Clean all parts with a water jet especially inside surfaces and filter bottom.
4. Carry out cleaning operations carefully.
5. Reassemble all parts.



PAD DISASSEMBLY



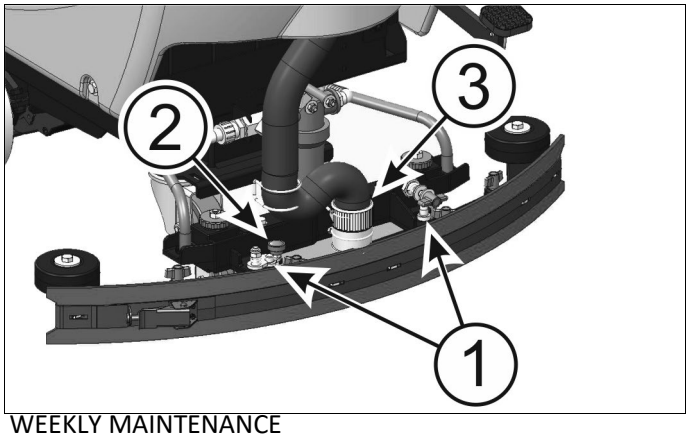
To disassemble the pad proceed as follows:
Moving the pedal (13) lift the base to take off the pad.



SQUEEGEE CLEANING



Keeping the squeegee clean guarantees always the best drying action.
For its cleaning it is necessary to:
1. Take off the squeegee hose (3) from the coupling.
2. Disassemble the squeegee from the support rotating the lever (2) counterclockwise sliding the stud bolts (1) in their slots.
3. Clean with care the internal part of the squeegee inlet eliminating eventual dirt residuals.
4. Clean with care the squeegee rubbers.
5. Reassemble all parts.
6.



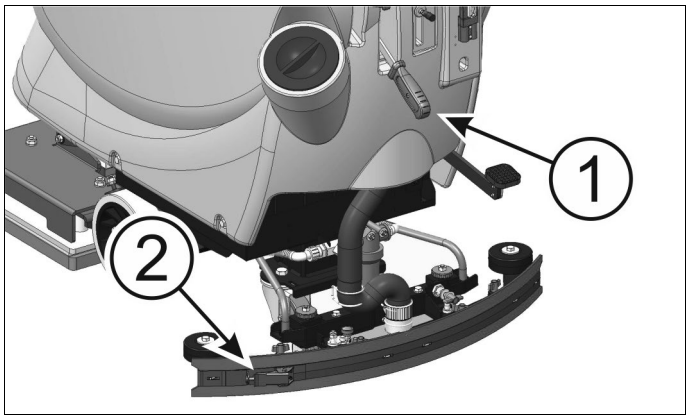
WEEKLY MAINTENANCE

REAR SQUEEGEE RUBBER CHECK

Check the squeegee rubber wear and eventually turn or replace it.
For the replacement it is necessary to:

1. Lift the squeegee acting upon the lever (1).
2. Release the hook (2) of the rubber holder blade and take the rubber off.
3. Turn the rubber to a new side or replace it.

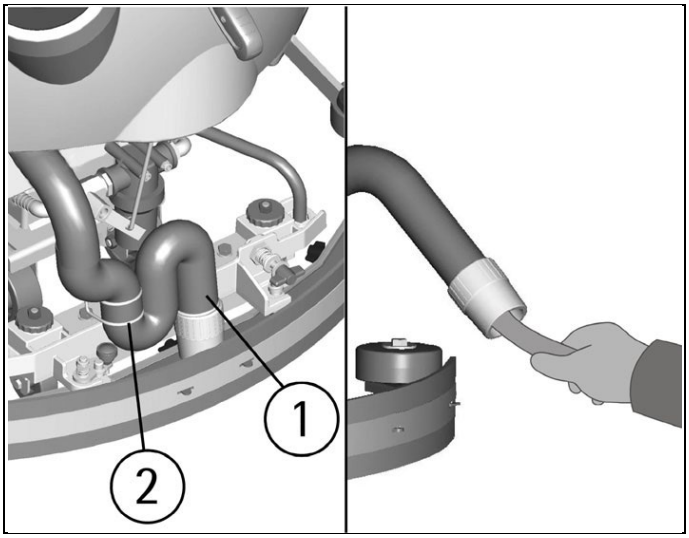
To reassemble the squeegee repeat reverse the operations above mentioned, inserting the rubber on the guides and blocking it with the rubber holder blade.



SQUEEGEE HOSE CLEANING

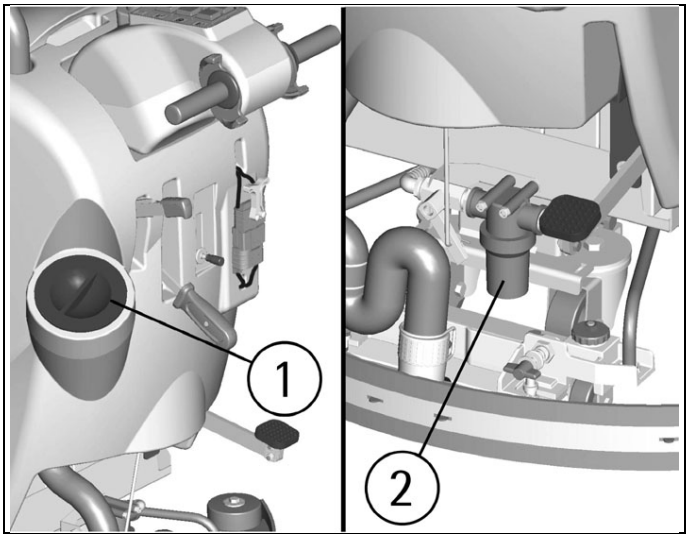
Weekly or in case of insufficient suction, it is necessary to check that the squeegee hose is not obstructed. Eventually, to clean it, proceed as follows:

1. Take off the hose from the squeegee coupling (1) and release the guide spring of the squeegee hose (2).
2. Wash the inside of the hose with a water jet, from the squeegee hose side.
3. To reassemble the hose repeat reverse the operations above-mentioned.



CLEANING OF SOLUTION TANK AND FILTER

1. Bring the machine to an appropriate place for tanks draining.
2. Unscrew the solution tank cap (1).
3. Unscrew the exhaust plug (2).
4. Rinse with a water jet the solution tank.
5. Rinse the solution tank filter placed inside the exhaust plug (2).
6. Reassemble all parts.

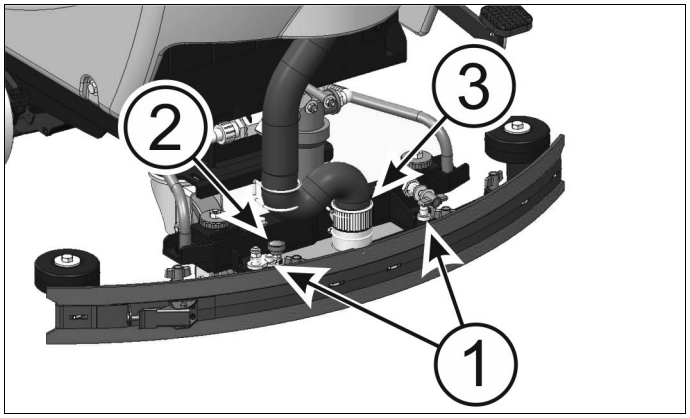


TWO-MONTHLY MAINTENANCE

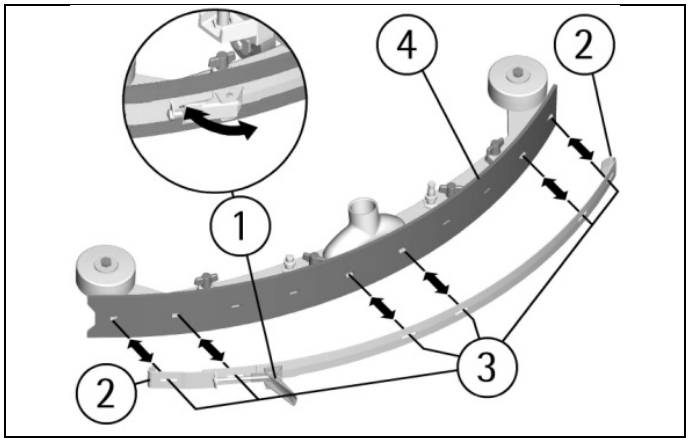
FRONT SQUEEGEE RUBBER CHECK

Check the wear of the squeegee rubber and eventually replace it.
For the replacement it is necessary to:

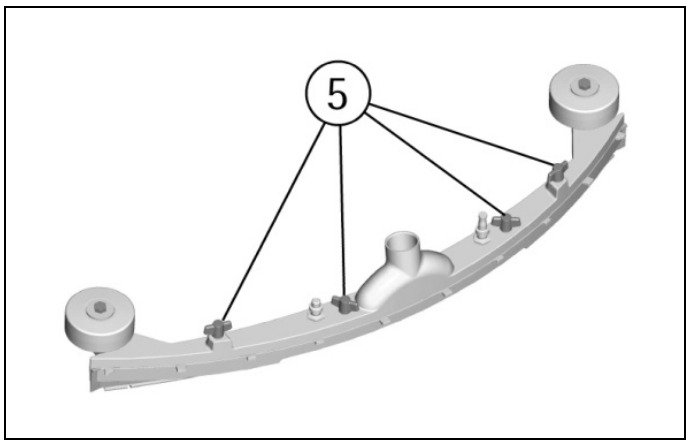
1. Take off the squeegee hose (3) from its coupling.
2. Disassemble the squeegee from the support rotating the lever (2) counterclockwise and sliding the stud bolts (1) in their slots.



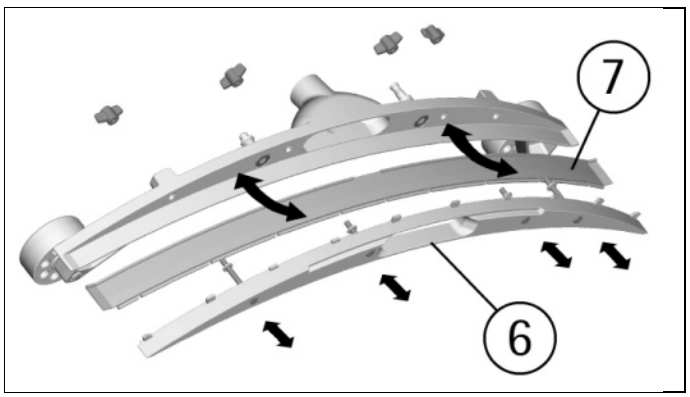
3. Uncouple the hook (1) of the rubber holder blade, release the extremities (2) from the squeegee body and take off the rubber (4).



4. Unscrew the wing nuts (5) in the upper part of the squeegee.



5. Slip off the lower part (6) of the squeegee body, so to take off the front rubber (7).



6. Replace the front rubber.

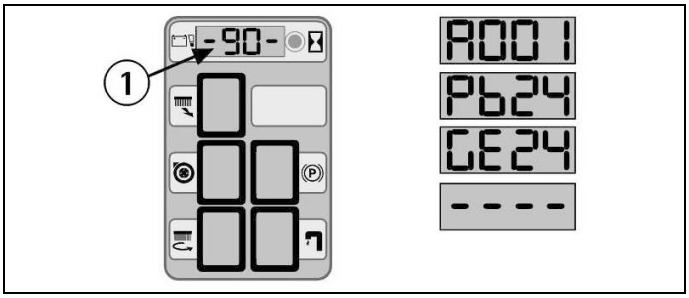
To reassemble the squeegee repeat reverse the operations above-mentioned.

TROUBLESHOOTING GUIDE

The checking of all the other foreseen machine operations is left to the authorized technical assistance.

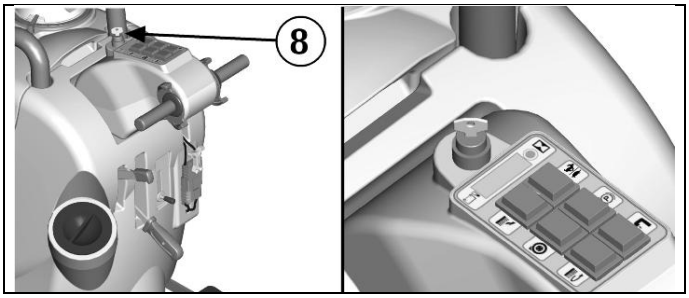
SIGNALS ON THE DISPLAY

A001: Indication of the version of the electronic check card (the last number indicates the revision of the check card).
Pb24: Indication battery check card set for lead batteries.
GE24: Indication battery check card set for gel batteries.
---- (blinking): signal indicating the discharged batteries.

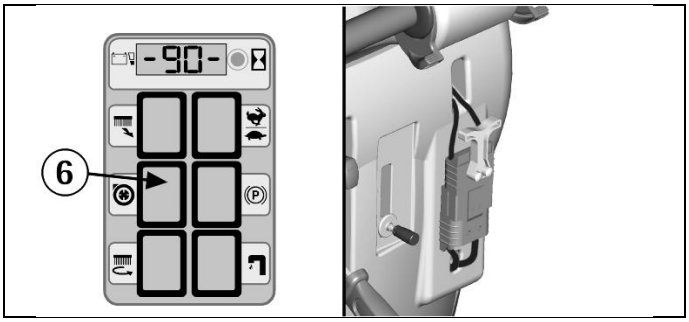


THE SUCTION MOTOR DOES NOT WORK

1. Verify that the key switch (8) is in the correct position.
2. Check the charge level of the batteries.

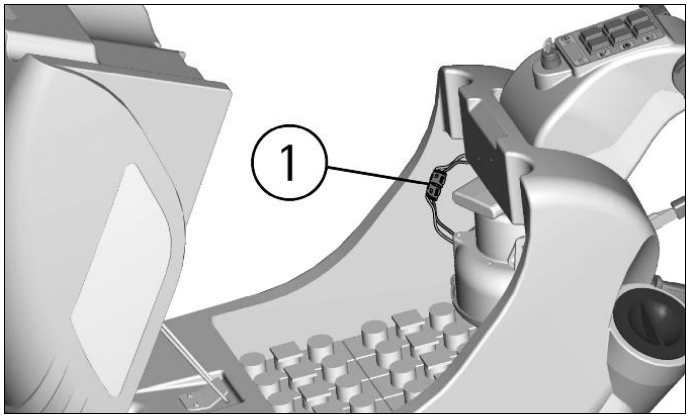


3. Check that the battery connector is correctly plugged in.
4. Verify that the switch (6) is on.



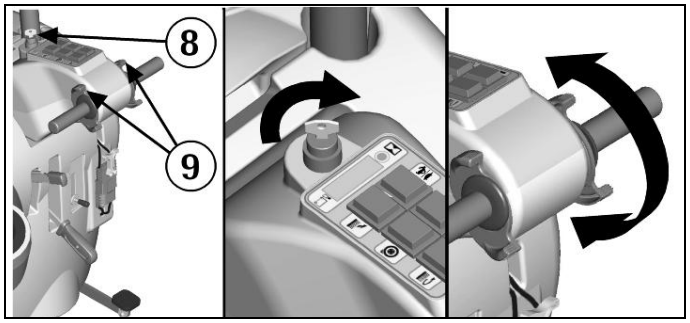
5. Check that the red connector of the suction motor (1) is correctly plugged in.

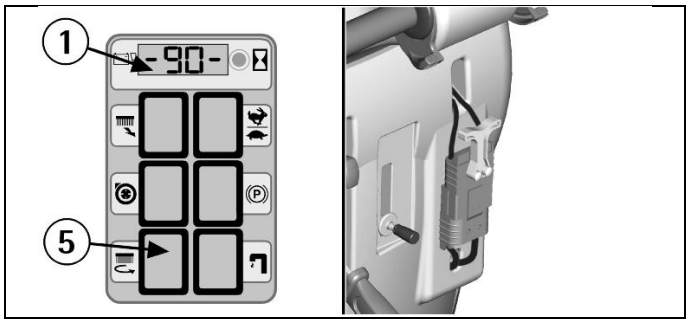
If the problem persists, please contact the authorized technical assistance.



THE BASE MOTOR DOES NOT WORK
1. Verify that the key switch (8) is in the correct position. Switch off and on again the machine.
2. Check the charge level of the batteries.
3. Check that the battery connector is correctly plugged in.
4. Verify that the switch (5) is on.
5. Act upon the levers drive control (9).

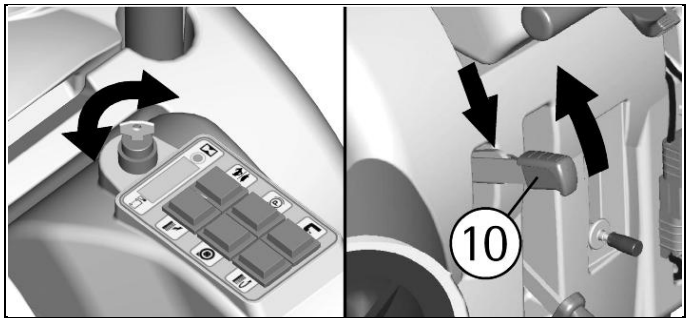
If the problem persists, please contact the authorized technical assistance.

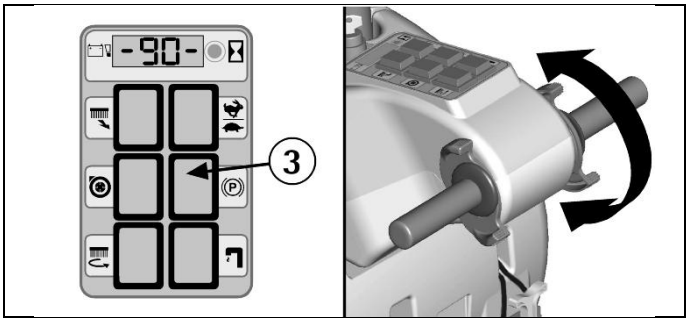




THE TRACTION MOTOR DOES NOT WORK
1. Switch off and on again the machine.
2. Release the brake (10) until the signal lamp (3) comes off.
3. Act upon the levers drive control.

If the problem persists, please contact the authorized technical assistance.

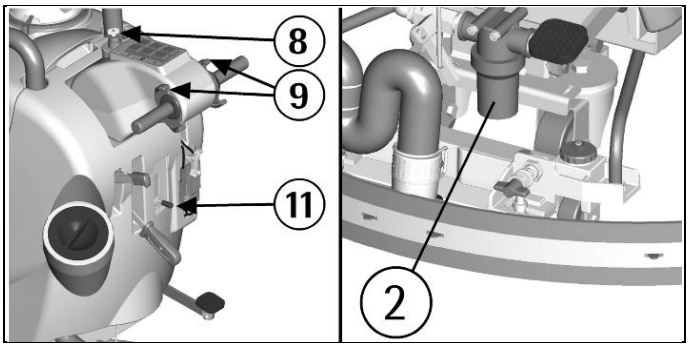




INSUFFICIENT WATER ON THE BASE
1. Check that the solution valve lever (11) is open.

2. Check the level of the liquid in the solution tank.
3. Check that the solution filter (2) is clean.
4. The machine is equipped with solenoid valve, therefore act upon the levers drive control (9).

If the problem persists, please contact the authorized technical assistance.



THE MACHINE DOES NOT CLEAN PROPERLY
1. Verify the presence of the PAD.
2. Verify that the PAD is intact.
3. To replace the pad, see under “PAD DISASSEMBLY” and “PAD ASSEMBLY”.
4. The solution detergent is insufficient: open more the solution valve.
5. Check that the liquid detergent is in the recommended percentage.
6. Increase the base pressure (see at paragraph "ADJUSTMENT OF THE BASE PRESSURE").

Contact the authorized technical assistance for advice.

THE SQUEEGEE DOES NOT DRY PERFECTLY
1. Check that the squeegee rubbers are clean.
2. Check the adjustment of the height and the inclination of the squeegee. (see section “ADJUSTMENT OF THE SQUEEGEE” in “BEFORE USE”).
3. Check that the suction hose is correctly inserted in the proper seat on the recovery tank.
4. Clean the suction filter.
5. Replace the rubbers if worn out.
6. Check that the suction motor switch is on.

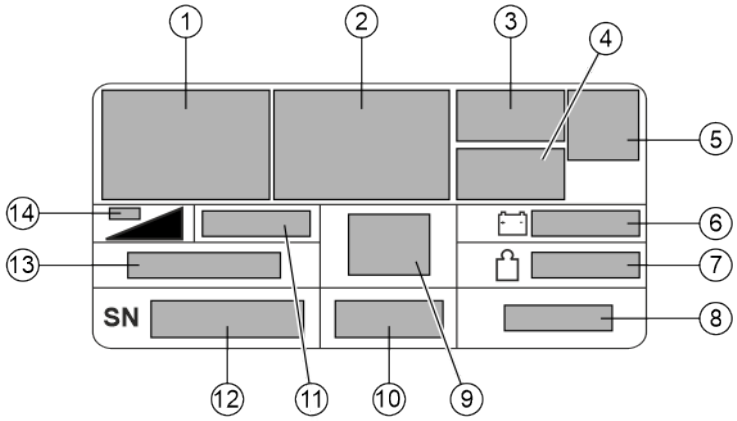
EXCESSIVE FOAM PRODUCTION
Check that low foam detergent has been used. Eventually add small quantities of anti foam liquid into the recovery tank.
Please be aware that a bigger quantity of foam is produced when the floor is not very dirty. In this case please dilute detergent solution.

PROGRAMMED MAINTENANCE

INTERVENTION	DAILY	PERIODIC
RECOVERY TANK CLEANING	•	
SUCTION FILTER CLEANING	•	
SOLUTION FILTER CLEANING		•
PAD DISASSEMBLY AND CLEANING	•	
SQUEEGEE CLEANING	•	
FRONT SQUEEGEE RUBBER REPLACEMENT		•
REAR SQUEEGEE RUBBER REPLACEMENT		•
CHECK SQUEEGEE ADJUSTMENT		•
SQUEEGEE HOSE CLEANING		•
SOLUTION TANK CLEANING		•
CHECK BATTERIES ELECTROLYTE		•
TRACTION MOTOR CHECK		•
BASE MOTOR CHECK		•
SUCTION MOTOR CHECK		•
CHECK BASE GROUP		•

EN

LEGEND SERIAL NUMBER PLATE



1	Name of the producer
2	Manufacturer's registered office
3	Country of production
4	CE labelling
5	Waste disposal regulations
6	Maximum weight for suitable batteries
7	Gross weight of the machine (IEC/EN 60335-2-72 clausola 3.114)
8	Power in force
9	Electrical safety class of the machine
10	Safety degree of the machine against water and dust
11	Battery voltage and circuit type
12	Serial number of the machine
13	Model of the machine
14	Maximum gradient allowed

How to read the Serial Number (Pos. 12)

SN	2	0	x	x	z	z	z	z

20xx = they mark **the year of manufacture** of the machine (inserted in to the Serial Number as per regulation CEI EN 60335-2-72).
zzzz = they mark the progressive number of that machine produced in its year of construction.

How to read the model of the machine (Pos. 13)

xxxx	zz

xxxx = name of the machine range
zz = number identifying the model

POSITION OF THE SERIAL NUMBER PLATE ON THE MACHINE

