

MANUAL USE AND MAINTENANCE

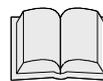


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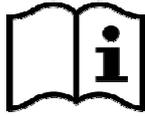


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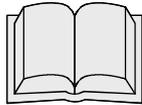
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The company reserves itself the right to bring changes of technical character and/or of endowment. The images are meant of pure reference and not binding in terms of design and endowment.

Symbols used in the manual



Symbol of the book open with letter i
It points out that this document is a manual of instructions.



Symbol of the open book
It points out to the operator to read the manual of use before using the machine.



Symbol of warning
Read attentively the sections preceded by this symbol for the safety of the operator and the machine



CONTENTS

ON CONSIGNMENT OF THE MACHINE SERIAL NUMBER PLATE	5
INTRODUCTORY COMMENT	5
TECHNICAL DESCRIPTION	5
SYMBOLS USED ON THE MACHINE	6
GENERAL SAFETY REGULATIONS.....	9
MACHINE PREPARATION.....	10
1. HANDLING THE PACKED MACHINE	10
2. HOW TO UNPACK THE MACHINE.....	10
3. FITTING THE BATTERIES INTO THE MACHINE.....	11
4. CONNECTING THE BATTERY CONNECTOR	11
5. CONNECTING THE BATTERY CHARGER	12
6. RECHARGING THE BATTERIES.....	12
7. BATTERY CHARGE LEVEL INDICATOR	13
8. ASSEMBLING THE SQUEEGEE	13
9. SQUEEGEE INCLINATION	13
10. ADJUSTING THE SQUEEGEE SUPPORT HEIGHT.....	13
11. ADJUSTING THE HEIGHT OF THE WASHING BASE SPLASH GUARD RUBBER SUPPORT	14
12. INSTALLING THE DISK BRUSHES	14
13. RECOVERY TANK.....	15
14. DETERGENT SOLUTION	15
15. EMPTY SOLUTION TANK DEVICE	15
16. AUTOMATIC WATER/DETERGENT DOSING SYSTEM (OPTIONAL).....	15
WORK.....	16
PREPARING TO WORK.....	16
WORK.....	17
REGULATING THE AUTOMATIC WATER/DETERGENT DOSING SYSTEM (OPTIONAL)	17
BRUSH PRESSURE.....	18
OVERFLOW DEVICE	18
TRACTION	18
MANUAL OPERATION.....	19
BRAKES	19
ACOUSTIC ALARM.....	19
LIGHTS.....	20
FLASHING LIGHT	20
AT THE END OF THE WORK.....	21
DAILY MAINTENANCE	22
CLEANING THE RECOVERY TANK.....	22
CLEANING THE SQUEEGEE	22
CLEANING THE SOLUTION TANK AND FILTER.....	23
DISK BRUSH DISASSEMBLY.....	23
WEEKLY MAINTENANCE.....	24
REPLACING THE REAR SQUEEGEE RUBBER	24
REPLACING THE FRONT SQUEEGEE RUBBER.....	24
CLEANING THE SUCTION TUBE.....	24
EXTRAORDINARY MAINTENANCE.....	25
REPLACING THE BASE SPLASH GUARD	25
CLEANING THE RECOVERY TANK.....	25
TROUBLESHOOTING	26
INSUFFICIENT WATER ON THE BRUSHES	26
THE SQUEEGEE DOES NOT DRY PERFECTLY	26
THE MACHINE DOES NOT CLEAN WELL.....	26
EXCESSIVE FOAM PRODUCTION	26
THE SUCTION MOTOR DOES NOT FUNCTION	27
THE BRUSH MOTOR DOES NOT WORK.....	27
IT IS IMPOSSIBLE TO RAISE OR LOWER THE BASE OR SQUEEGEE	27



THE MACHINE DOES NOT START	27
ELECTRIC FUSES AND THERMAL CUT-OUTS	28
THE AUTOMATIC WATER/DETERGENT DOSING SYSTEM DOES NOT WORK	28
ALARMS	28
CHOOSING AND USING THE BRUSHES	29
EC DECLARATION OF CONFORMITY	30



On consignment of the machine

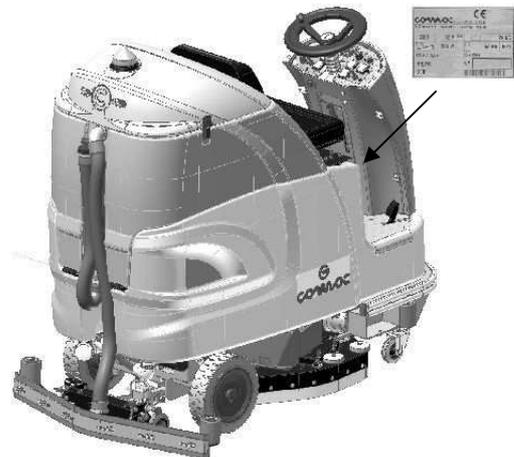
When the machine is consigned to the customer, an immediate check must be performed to ensure all the material mentioned in the shipping documents has been received, and also to check the machine has not suffered damage during transportation. If this is the case, the carrier must ascertain the extent of the damage at once, informing our customer service office. It is only by prompt action of this type that the missing material can be obtained, and compensation for damage successfully claimed.

Introductory comment

This is a floor scrubber-dryer that is able to clean a wide variety of types of flooring and types of dirt by using the mechanical action of two disk or cylindrical brushes, depending on the model, and the chemical action of a water-detergent solution. As it advances, it also collects the dirt removed and the detergent solution not absorbed by the floor.

The machine must be used only for this purpose. Even the best machines will only work well if used correctly and kept in good working order. We therefore suggest you to read this instruction booklet carefully and re-read it whenever difficulties arise while using the machine. If necessary, remember that our assistance service (organised in collaboration with our dealers) is always available for advice or direct intervention.

Serial number plate



TECHNICAL DESCRIPTION	UM	FLEXY 75	FLEXY 85
Working width	mm	765	855
Squeegee width	mm	1015	1115
Work capacity, up to	m ² /h	3825	4275
Disk brushes (2)	Ø mm	390	440
Brush rotations	rpm	160	160
Brush motor	W	900	900
Pressure on the brushes	kg	50	50
Traction motor	V	36	36
Traction motor	W	700	700
Traction wheel	Ø mm	260	260
Movement speed	km/h	0÷5	0÷5
Maximum gradient with full load	%	10	10
Suction motor	W	560	560
Suction vacuum	mbar	160	160
Rear elastic wheels	Ø mm	303x90	303x90
Solution tank	l	130	130
Recovery tank	l	138	138
Steering diameter	mm	2450	2450
Machine length	mm	1700	1700
Machine height	mm	1525	1525
Machine width (without squeegee)	mm	830	935
Battery compartment	mm	538x620xH460	
Rated battery voltage	V	36	36
Battery capacity (C5)	Ah	320	320
Battery weight	kg	345	345
Machine weight (empty and without batteries)	kg	400	400
Noise level (in compliance with IEC 704/1)	dB (A)	<70	<70
Hand vibration level	m/s ²	0.71	0.71
Body vibration level	m/s ²	0.74	0.74



SYMBOLS USED ON THE MACHINE



Symbol denoting solenoid valve open
Used to indicate the solenoid valve switch



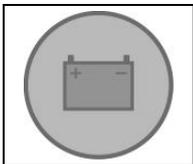
Symbol denoting solution tank empty



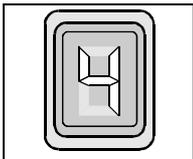
Symbol denoting base rise/fall
Used to indicate the base rise/fall manipulator



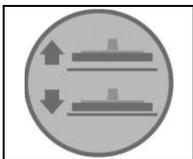
Symbol denoting suction motor
Used to indicate the suction motor switch



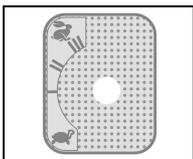
Symbol denoting battery electric charging



Symbol denoting charge level of batteries
Used to indicate the charge level (from 1 to 4) of the batteries



Symbol denoting squeegee rise/fall
Used to indicate the squeegee rise/fall manipulator



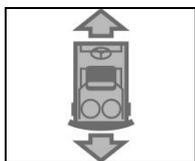
Label representing the speed selector for machine forwards or backwards movement



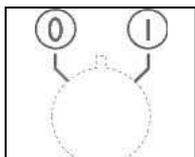
Label representing detergent regulation tap



SYMBOLS USED ON THE MACHINE



Symbol denoting forward/backward drive selector



Main switch symbol (key switch)

Used on the instrument panel, to indicate the key switch for machine operation on (I) or off (O)



Symbol denoting the manual/automatic operating mode switch

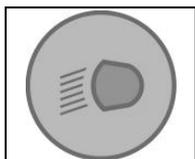


Symbol denoting the indicator light incorrect operation



Symbol denoting acoustic alarm

Used to indicate the acoustic alarm button



Symbol denoting lights

Symbol denoting the switch of the working lights



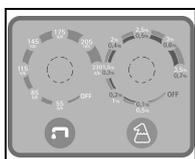
Symbol denoting pressure applied to the brushes

Used to indicate the switch to increase the pressure on the brushes



Symbol denoting brake

Used for the indicator light showing the handbrake is on



Symbol denoting regulation of quantity of water and detergent (optional)

Used on the steering column, to indicate the knobs for adjusting the percentage level of detergent dissolved in the water, and the level of water distributed on the brushes



SYMBOLS USED ON THE MACHINE



Label with instructions for using standard or concentrated detergents

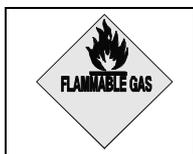
SYMBOLS USED IN THE MANUAL



Indicates how to carry out the work correctly



Indicates danger of gas exhalation and leakage of corrosive liquids



Indicates the danger of fire
Do not go near with free flames



Indicates the disposal methods
Respect the regulations



GENERAL SAFETY REGULATIONS

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

- Read the labels on the machine carefully. Do not cover them for any reason and replace them immediately if they become damaged
- The machine must be used exclusively by authorised, trained personnel
- During the working of the machine, pay attention to other people and especially to children
- The machine is not suitable for cleaning carpets.
- Do not mix different types of detergent as this may produce harmful gases
- Do not place any liquid containers on the machine
- The storage temperature must be between -25°C and +55°C; do not store outdoors in damp conditions
- Conditions of use: room temperature between 0°C and 40°C with relative humidity between 30 and 95%
- Do not use the machine in an explosive atmosphere
- Do not use the machine as a means of transport
- Do not use acid solutions, which may damage machine and/or people
- Avoid working with the brushes when the machine is standing still, so as not to damage the floor
- Do not vacuum inflammable liquids
- Do not use the device to collect dangerous powders.
- In the event of a fire, use a powder extinguisher. Do not use water
- Do not knock against shelving or scaffolding, where there is a danger of falling objects
- Adapt the speed to the adhesion conditions
- Do not use the machine on surfaces with an inclination greater than the one shown on the plate.
- When the machine is in parking mode, remove the key and insert the parking brake
- The machine is designed to carry out the washing and drying operations simultaneously. Different operations should only be carried out in areas where the passage of unauthorised persons is prohibited. Signal the presence of damp floors with suitable signs
- If the machine does not work properly, check this is not caused by failure to carry out routine maintenance. Otherwise, request the intervention of the **COMAC** technical service
- If you need to replace any components, request the ORIGINAL spare parts from a **COMAC** dealer and/or Authorised Retailer
- Use only original **COMAC** brushes indicated in the paragraph "CHOOSING AND USING THE BRUSHES"
- In the event of danger, activate the emergency lever (connector placed under the operator's seat) immediately
- Before carrying out any maintenance work, switch off the machine and disconnect the battery connector
- ATTENTION: Restore all electrical connections after any maintenance operation
- Do not remove any protection devices which require the use of tools in order to be removed
- Do not wash the machine with direct water jets or with pressurised water, nor with corrosive substances
- After every 200 hours of operation, have the machine checked by a **COMAC** assistance centre
- To prevent the formation of scale in the solution tank filter, do not fill the tank with detergent solution many hours before using the machine.
- Before using the machine, check that all the hatches and covers are positioned as shown in this Use and Maintenance Manual.
- Before you lift the recovery tank make sure it is empty
- When disposing of consumption materials, observe the laws and regulations in force.
- The machine does not cause harmful vibrations
- When your **COMAC** machine has reached the end of its long working life, dispose of the materials it contains (especially oils, batteries and electronic components) in an appropriate manner, and bearing in mind that the machine itself was constructed using 100% recyclable materials.
- The batteries must be removed from the machine before its disposal
- The batteries must be disposed of in a safe manner, fully observing the laws and regulations in force
- The machine is not suitable for use by children or people with reduced physical, mental and sensorial capacities, or people lacking experience and knowledge, unless supervised and instructed in the use of the machine by a person responsible for their safety
- Children must be supervised to ensure they do not play with the device



MACHINE PREPARATION

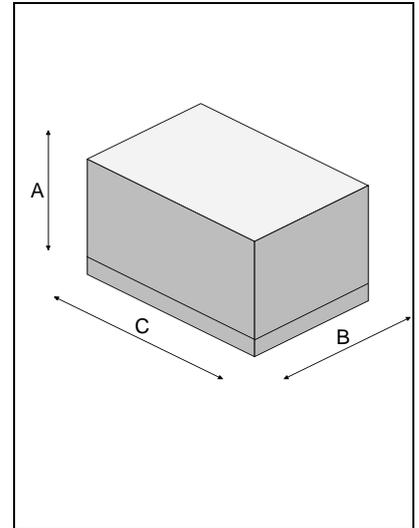
1. HANDLING THE PACKED MACHINE

The machine is contained in specific packaging with a pallet for the handling with fork trucks. The packages cannot be placed on top of each other.

The total weight is 400kg (without batteries)

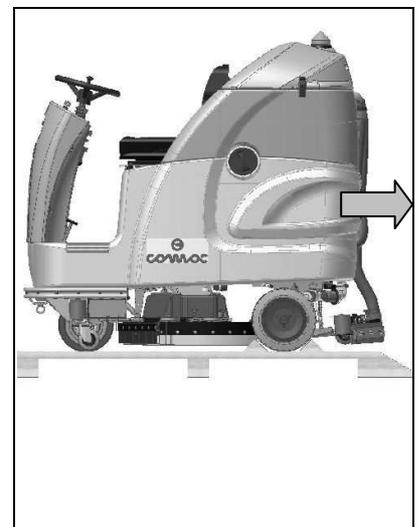
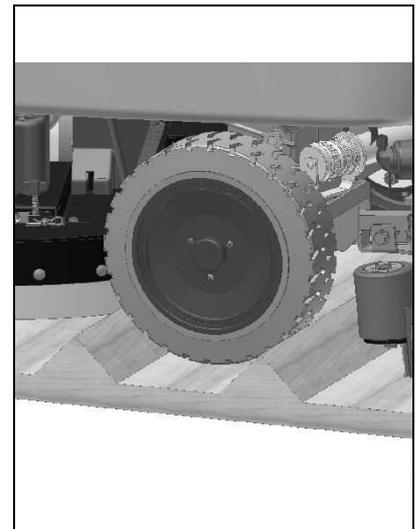
The Flexy 75 / 85 overall dimensions of the package are

- A : 1550mm
- B : 1000mm
- C : 1740mm



2. HOW TO UNPACK THE MACHINE

1. Remove the outer packaging
2. The machine is fixed to the pallet with wedges which block the wheels
3. Remove the wedges
4. Use a chute to get the machine down from the pallet, pushing it backwards.
5. Keep the pallet for any future transport needs





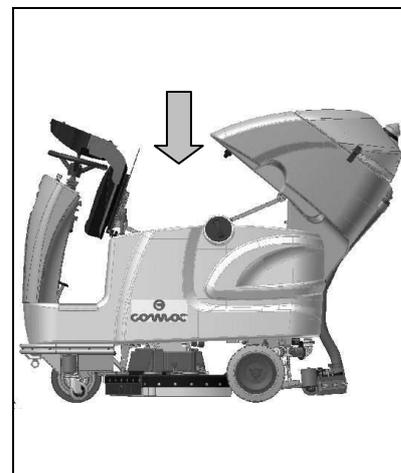
MACHINE PREPARATION

3. FITTING THE BATTERIES INTO THE MACHINE

The batteries must be housed in the special compartment beneath the recovery tank. They should be handled using lifting equipment that is suitable in terms of both weight and hook-up system. They must also satisfy the requirements of Standard CEI 21-5. The dimensions of the battery compartment are: 538 x 620 x H460mm.

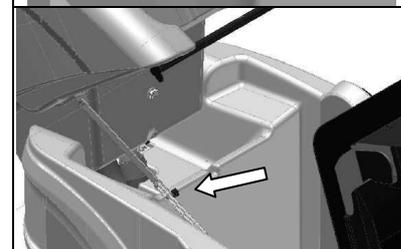
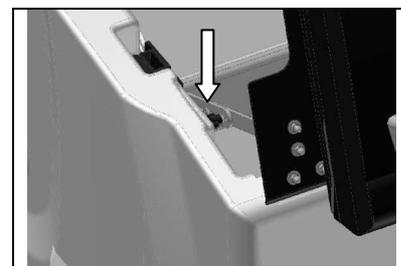


For battery maintenance and daily recharging, you must fully respect the indications provided by the manufacturer or retailer. All installation and maintenance operations must be carried out by specialised personnel.

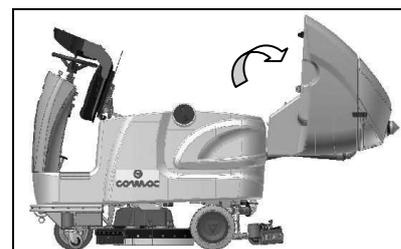


To insert the batteries you must:

1. make sure that the recovery tank is empty
2. lift the solution tank until it hooks to its safety clamp
3. lift the recovery tank until it hooks to its safety clamp
4. position the batteries

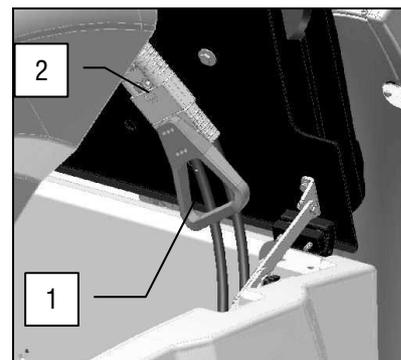


5. If necessary, you can increase tank rotation by loosening the knob and the locking nut. Turn the recovery tank until the battery case is inserted. After completing the work, reconnect the safety lock.
6. Release the safety clamps, then lower the tank and the seat



4. CONNECTING THE BATTERY CONNECTOR

The battery connector (1) is placed under the operator's seat, and must be connected to the machine connector (2).





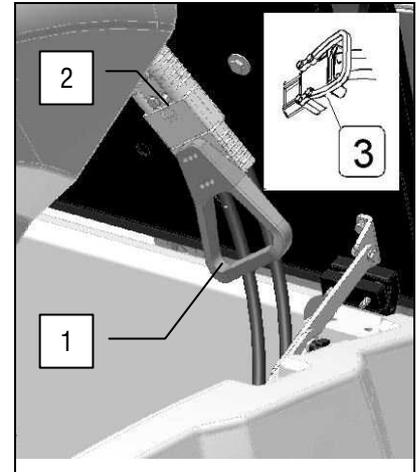
MACHINE PREPARATION

5. CONNECTING THE BATTERY CHARGER

The battery connector is placed under the operator's seat. The lower part (1), connected to the batteries, must be detached from machine connector (2) and hooked up to the battery charger connector for charging. The coupling connector (3) is consigned inside the bag containing this instruction booklet, and must be assembled on the cables of the battery charger as indicated in the instructions (see the battery charger manual).



ATTENTION! This process must be carried out by qualified personnel. The incorrect or imperfect connection of the cables to the connector can cause serious harm to people and damage to objects.



6. RECHARGING THE BATTERIES

In order not to cause permanent damage to the batteries it is essential to avoid their complete discharge: arrange the recharge within a few minutes of the switching on of the flashing "discharged batteries" signal.

NOTE: never leave the batteries completely discharged, even if the machine is not being used. After every 20 recharging operations, check the level of the electrolyte and, if necessary, top up with distilled water.



ATTENTION! While recharging, keep the seat raised and blocked with the special prop. Check the battery charger is suitable for the batteries installed, in terms of both capacity and type (lead/acid or GEL and equivalents). **Never charge a GEL battery with an unsuitable battery charger.** Carefully follow the instructions given by the manufacturer of batteries and battery charger.



Danger of exhalation of gas and leakage of corrosive liquids.



Danger of fire: do not go near with naked flames.





MACHINE PREPARATION

7. BATTERY CHARGE LEVEL INDICATOR

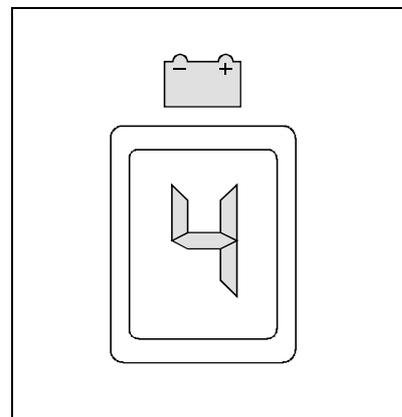
The digital battery indicator has 4 fixed positions and a flashing one. The numbers which appear on the display show the approximate charge level.

4 = maximum charge, **3** = 3/4 charge, **2** = 2/4 charge, **1** = 1/4 charge,

0 = discharged batteries (flashing)



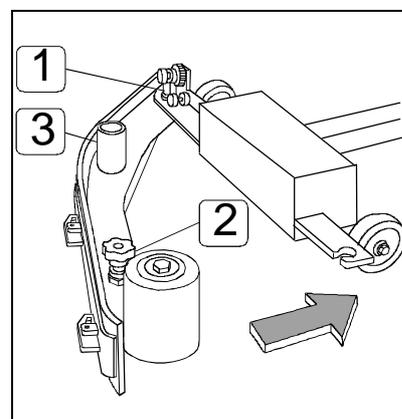
ATTENTION! A few seconds after the appearance of the flashing “0”, the brush motor will switch off automatically. With the remaining charge it is possible to complete the drying process before starting the recharge.



8. ASSEMBLING THE SQUEEGEE

For packaging reasons, the squeegee is supplied disassembled from the machine, and must be assembled as shown in the figure. First threading left pin (1) of the squeegee into the left slot on the arm and then right pin (2) into the right slot, being careful to keep the spring and the washer above the arm's flat bar. This can be simplified by first loosening the handwheel on the pin. Then retighten the handwheel to block the squeegee in place.

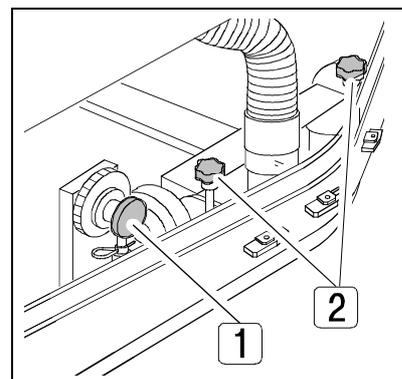
Insert the squeegee tube in the appropriate sleeve (3).



9. SQUEEGEE INCLINATION

During working operation, the rear rubber is slightly tilted backwards (by about 5mm) in a uniform way for its whole length.

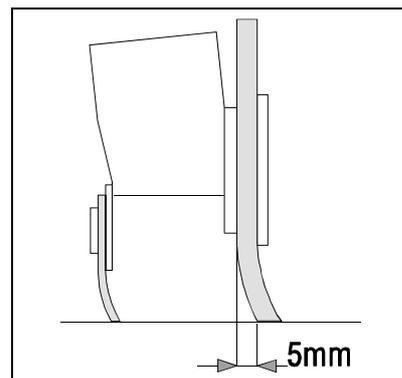
If it is necessary to increase the bend of the rubber in the central part, you must tilt the squeegee backwards, rotating the adjuster (1) anticlockwise. To increase the bend of the rubber at the sides of the squeegee, rotate the adjuster (1) clockwise.



10. ADJUSTING THE SQUEEGEE SUPPORT HEIGHT

The height of the squeegee must be adjusted on the basis of the state of wear and tear of the rubber. To do this, turn the knob (2) clockwise (tighten) to raise the squeegee, and anticlockwise (unscrew) to lower it.

Note: the right and left wheels must be adjusted to the same level, so the squeegee can work parallel to the floor.

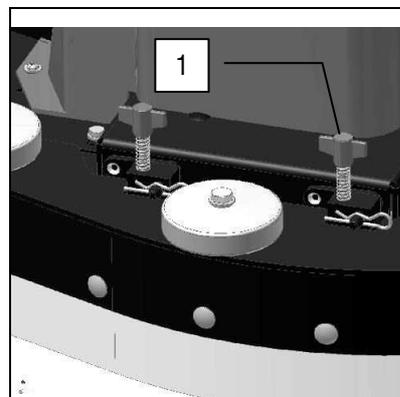




MACHINE PREPARATION

11. ADJUSTING THE HEIGHT OF THE WASHING BASE SPLASH GUARD RUBBER SUPPORT

During operation, the splash guard of the base must touch the floor lightly. Tighten or loosen adjustment knob (1) in order to vary the height of the support and consequently the height of the splash guard rubbers.

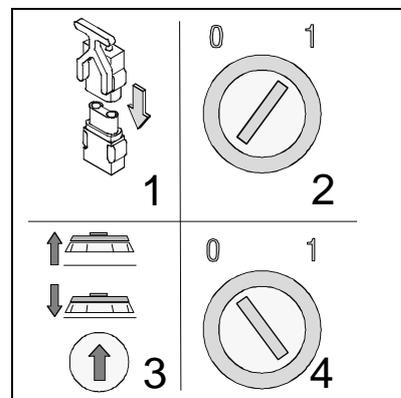


12. INSTALLING THE DISK BRUSHES

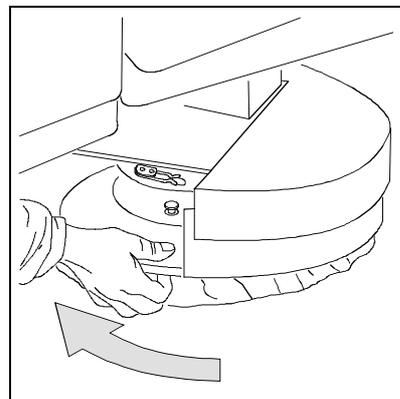
1. Connect the battery connector
2. Turn the key to position "1"
3. Move the lever to lift the base
4. Turn the key to position "0" and remove it from the electrical board



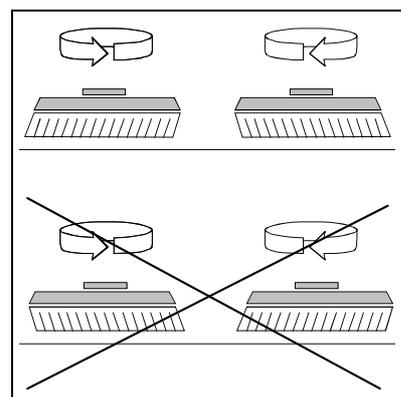
ATTENTION! During this operation, check there are no people or objects near the brush.



5. With the base up, insert the brushes in the plate housing beneath the base, turning them until the three pins enter the niches in the plate itself; turn until the pin is pushed towards the coupling spring and is locked into place. The picture shows the rotation direction to hook up the right-hand brush; for the left-hand one, rotate in the opposite direction.



6. You are advised to invert the right and left-hand brushes every day. If the brushes are not new however, and have deformed bristles, it is better to reassemble them in the same position (the right-hand one on the right, and the left-hand one on the left), to prevent the different inclination of the bristles producing an overload on the brush motor as well as excessive vibrations.

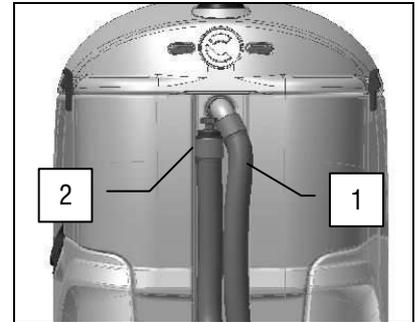




MACHINE PREPARATION

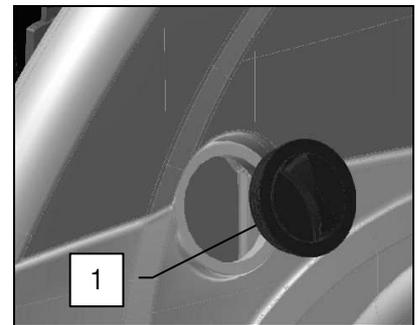
13. RECOVERY TANK

Check that the squeegee tube (1) and drainage tube are correctly positioned.
Check that the plug (2) knob on the drainage tube is screwed



14. DETERGENT SOLUTION

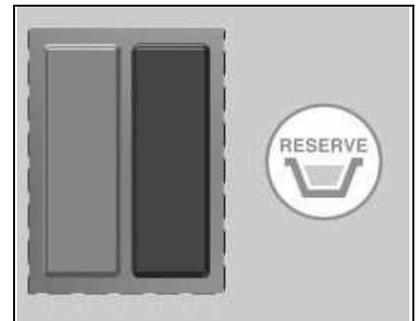
Unscrew the tank plug (1) and fill with clean water at a temperature of not more than 50°C. Add the liquid detergent in the concentration and manner specified by the manufacturer. The formation of excess foam could damage the suction motor, so use only the minimum amount of detergent necessary.



ATTENTION! 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.** Replace into position the solution tank cover after filling.

15. EMPTY SOLUTION TANK DEVICE

When the solution tank is empty, the red indicator light on the instrument panel switches on, and it is therefore necessary to refill the tank with detergent solution before starting work.

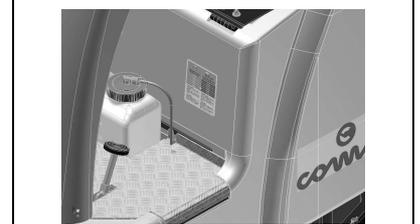


16. AUTOMATIC WATER/DETERGENT DOSING SYSTEM (OPTIONAL)

The machine is equipped with an automatic dosing system for dosing the water/detergent solution.

Thanks to the two levers on the machine steering column, this device allows you to regulate the quantities of water and detergent used. Fill the tank that is partly enclosed in the footrest (1) with liquid detergent, as indicated by the manufacturer. Check the screw cap is well closed, to avoid any liquid leaking out while the machine is being used.

To regulate the water/detergent mixture, see the chapter "Regulating the detergent"



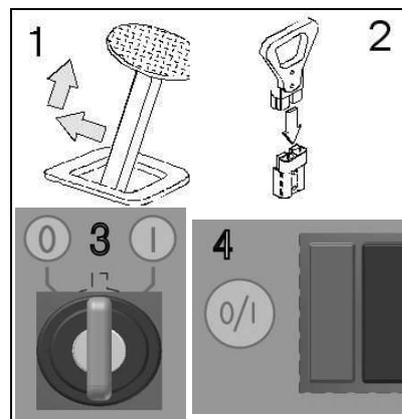
ATTENTION: always use low foam detergent. To avoid the production of foam, before starting to clean, put a minimum quantity of antifoam liquid into the recovery tank. Do not use pure acids.



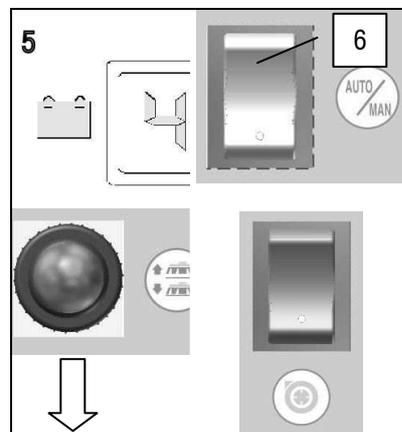
WORK

PREPARING TO WORK

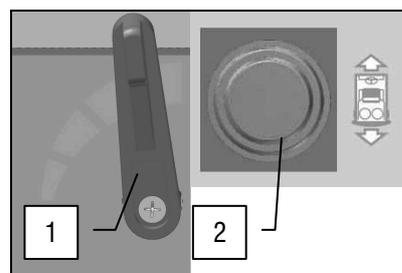
1. Carry out the operations to prepare the machine
2. Sit on the driver's seat
3. Check the parking brake is released (1)
4. Connect the connector to the batteries (2)
5. Turn the key of the main switch (3) a quarter of a turn clockwise. The main green indicator light (4) on the instrument panel will immediately turn on and the display will show the battery charge level (5)



6. Place the switch on automatic mode (6)
7. Push the brush manipulator downwards to lower the base
8. Press the suction motor switch



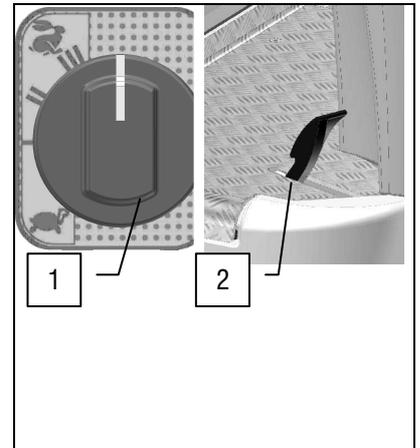
9. Turn the tap lever up (1) and adjust to the right quantity of solution
10. If the machine is equipped with the automatic water/detergent dosing system (optional), the tap lever must always be in the fully open position
11. Position the selector on (2) forwards





WORK

12. Select the advance speed by turning the knob (1). The selector has three positions, indicated by the symbols: turtle = slow speed, middle position = normal speed, hare = fast speed
13. After pressing the accelerator pedal (2), the machine starts moving and the squeegee drops down. During the first metres, check there is sufficient solution and that the squeegee dries perfectly. The machine will now start to work efficiently until the detergent solution runs out.



REGULATING THE AUTOMATIC WATER/DETERGENT DOSING SYSTEM (OPTIONAL)

The machine is supplied with the switches (on the instrument panel) already integrated. Two rubber caps are also supplied.

Once the regulation has been made, you can remove the knobs and cover the holes with the rubber caps.

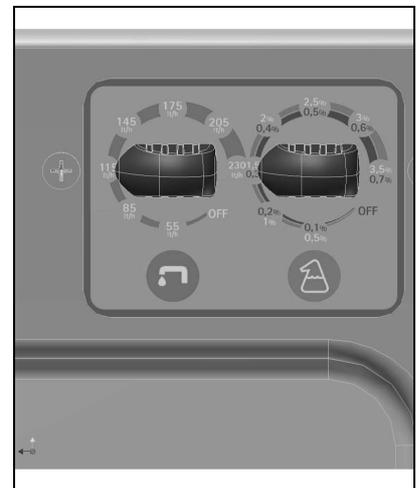
The left-hand knob allows you to regulate the water flow, while the right-hand one regulates the quantity of detergent.

The scale of detergent for each of the seven positions shows two values, expressed as percentages.

The inner scale refers to the use of concentrated detergents, while the outer scale refers to standard detergents.

To use standard detergents, just fill the tank with detergent. To use concentrated detergents, you must pour 1lt of concentrated detergent into the empty can, then fill it to the top with water.

In both cases, the water/detergent quantities must be decided on the basis of how dirty the floor is.



ATTENTION: the CDS automatic dosing system is designed to work with any liquid detergent. For this reason, the percentage of detergent in the solution is subject to a maximum error of 5% compared with the nominal value selected.



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

5 lt.	H ₂ O 4 lt. + 1lt.
Detergente standard Standard detergent	Detergente concentrato Concentrated detergent
0,5%	0,1%
1%	0,2%
1,5%	0,3%
2%	0,4%
2,5%	0,5%
3%	0,6%
3,5%	0,7%

MODALITA' D'USO:
Inserire la tanica o versare direttamente il detergente nella tanica da 5 litri in dotazione.
Selezionare, tramite il selettore sul cruscotto, la % diluizione detergente desiderata tra i valori indicati nella tabella.

MODALITA' D'USO:
Versare 1 litro di detergente concentrato e riempire completamente di acqua la tanica da 5 litri in dotazione.
Selezionare, tramite il selettore sul cruscotto, la % diluizione detergente desiderata tra i valori indicati nella tabella.

INSTRUCTIONS:
Insert the can or pour directly the detergent into the 5 liter can.
Select with the knob on the instrument panel the dilution % you need among the values indicated in the table.

INSTRUCTIONS:
Pour 5 liter concentrated detergent and fill completely the equipped 5 liter can with water.
Select with the knob on the instrument panel the dilution % you need among the values indicated in the table.

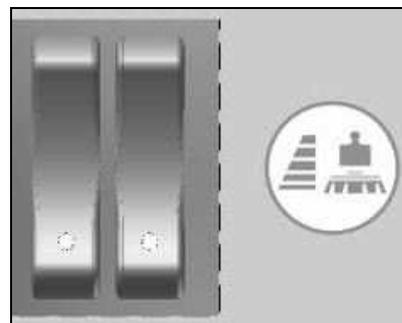


WORK

BRUSH PRESSURE

It is possible to increase the pressure on the brushes via the switch (1) on the instrument panel to the right of the steering wheel.

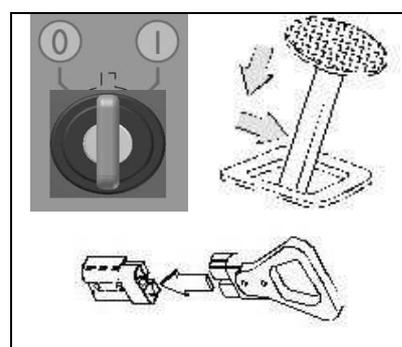
The pressure must be chosen according to the type of floor and the extent of the dirt. A pressure increase causes greater wear and tear of the brushes and higher energy consumption (for further information, read "CHOOSING AND USING THE BRUSHES")



Whenever problems arise during operation turn off the key, set the emergency brake by pushing the lever down and pulling it towards yourself until it is hooked in place, then quickly detach the emergency lever placed below the operator.

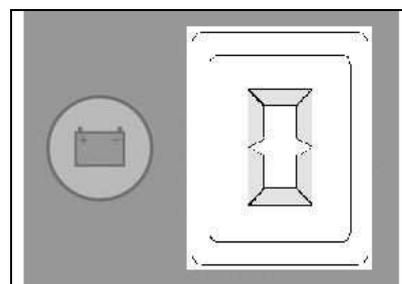
These commands block all moving machine parts. To start working again, once you have solved the problem, reconnect the connector, turn on the key and release the parking brake pedal.

The machine will not start if the operator is not properly seated.



A "flashing zero" appears on the display when the battery charge level is getting too low. The brush motor automatically turns off; batteries must be recharged as soon as possible.

A residual charge remains so you can complete the drying operation and move the machine to the recharging point



OVERFLOW DEVICE

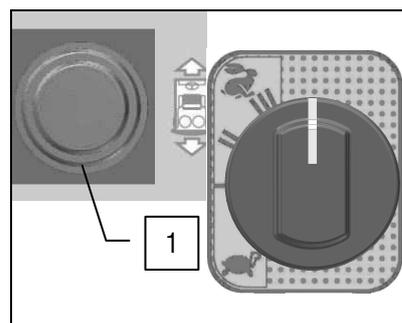
The machine is fitted with an overflow switch that intervenes when the recovery tank is full, causing the suction tube to close.

In this case you must empty the tank. To start working again turn the main key-operated switch off and on again

TRACTION

This machine is equipped with electronically commanded traction, with three speeds forwards and one backwards. To move the machine, it is necessary to turn the key and then move the manipulator (1) forwards (forward movement) or backwards (rear movement). Press the drive pedal and the machine will start to move. The movement speed can be adjusted by rotating the selector.

During reverse motion, the machine emits an acoustic signal

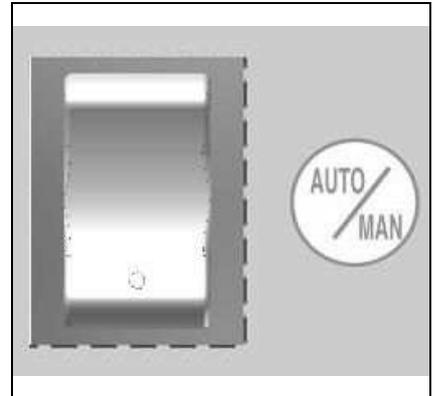




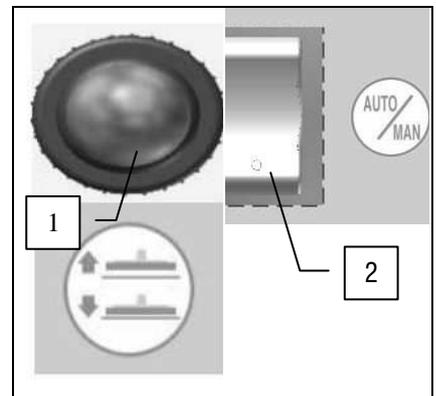
WORK

MANUAL OPERATION

This machine is pre-set to work also in manual mode. In this case however, the rise of the squeegee during the backwards movement must be individually activated via the appropriate command.

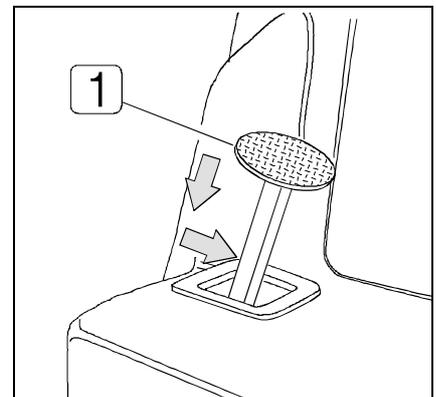


ATTENTION! During reverse movements, when working in manual operating mode, always remember to lift the squeegee using manipulator (1). Use switch (2) to activate manual operating mode when moving the machine from work site to work site.



BRAKES

The machine has an electronic braking system. To brake, in normal conditions, just remove your foot from the accelerator pedal. If the service brake does not operate properly or in case of need (parking, danger, etc.) actuate the pedal-operated mechanical brake by pushing it down and pulling it towards yourself until the lever is hooked up (1).



ACOUSTIC ALARM

The machine is fitted with an acoustic alarm, commanded from the button on the electrical commands instrument panel.

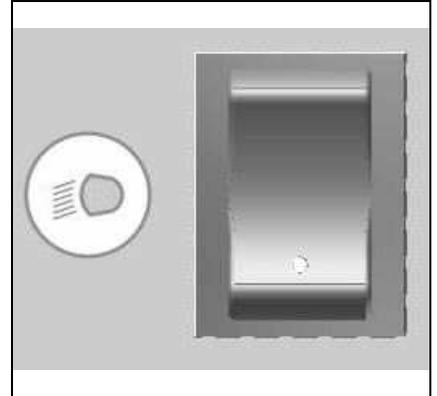




WORK

LIGHTS

The machine is fitted with front and rear work lights. To turn them on, press the switch on the electrical commands instrument panel.



FLASHING LIGHT

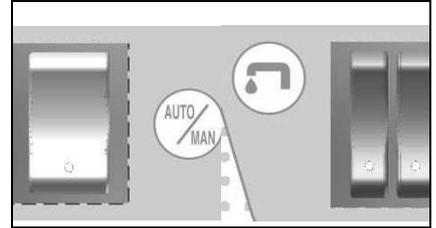
The machine has a flashing light that turns on automatically when the key in the main switch is turned on.



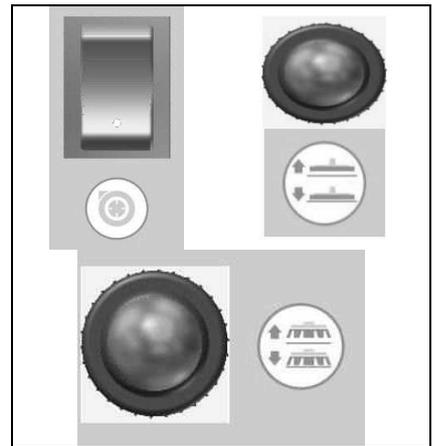
AT THE END OF THE WORK

At the end of the work, and before carrying out any type of maintenance, perform the following operations:

1. turn off the tap
2. set the "AUTO/MAN" switch on manual (yellow indicator light off)
3. switch off the solenoid valve switch



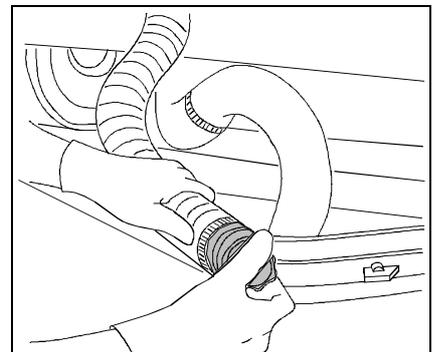
4. Switch off the suction motor switch
5. Lift the squeegee using the manipulator
6. Lift the base using the manipulator
7. Bring the machine to the place provided for draining the water
8. Turn the key a quarter of a turn counter-clockwise to turn the machine off



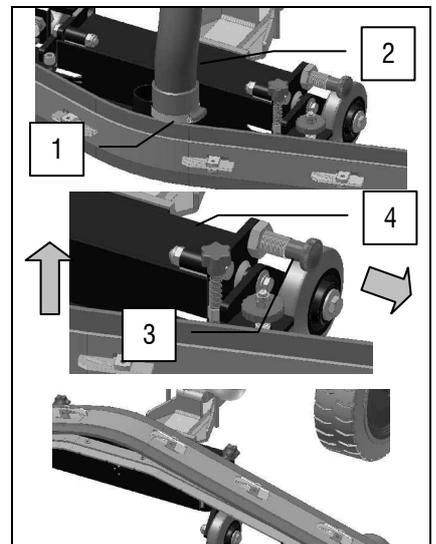
9. Disconnect the tube from its seat, unscrew the drainage cap and empty the recovery tank.



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



11. Clean the squeegee with a jet of water. The squeegee must be raised when the machine is not operating, to avoid deforming the rubber blades. To facilitate the cleaning of the rubbers, the squeegee can be rotated forwards.
12. Disconnect the metal clamp (1) and remove the suction tube (2) from the squeegee suction sleeve
13. Pull out the knob (3) and raise the support (4).
14. Rotate the squeegee forwards until it locks. The knob (3) will hook up to the support (4) so as to stop the squeegee from moving back.
15. After cleaning the rubbers, bring the squeegee back to its initial position by pulling the knob and rotating the support backwards until it is hooked.

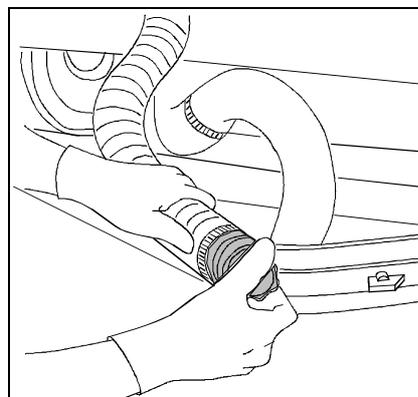




DAILY MAINTENANCE

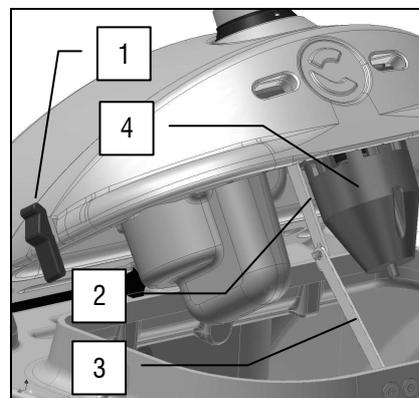
CLEANING THE RECOVERY TANK

1. Empty the tank through the hose, turning the knob a few turns and then pulling out the drain plug

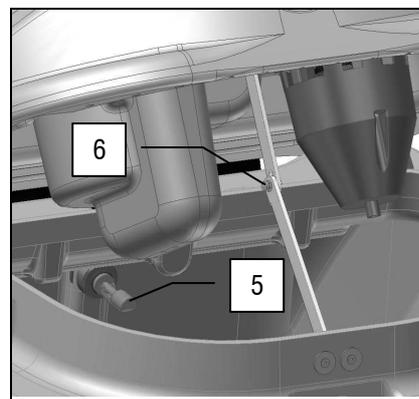


This operation must be carried out using gloves to protect against contact with dangerous solutions

2. Disconnect the hinges of the suction cap (1) from the tank
3. Raise the cap until the prop (2) is hooked to the prop (3) of the recovery tank.
4. Check the filter inside the cover (4) is clean and, if necessary, loosen the cover fixing screws and carefully rinse the filter



5. Check the electric float (5) inside the tank is clean
6. Rinse the recuperation tank and clean the drain plug
7. Reposition the cap on the drainage tube and lower the suction cap. To release the props (2 and 3), just raise the cap slightly, push the connection joint (6) forwards and lower it again until the props rotate between them
8. Reconnect the hinges to the recovery tank



CLEANING THE SQUEEGEE

Clean the squeegee with a jet of water. Check the condition of the rubbers and reverse or replace them as necessary. Careful cleaning of the entire aspiration unit ensures a longer working life for the aspiration motor.

Clean the squeegee tube and make sure it is not clogged.

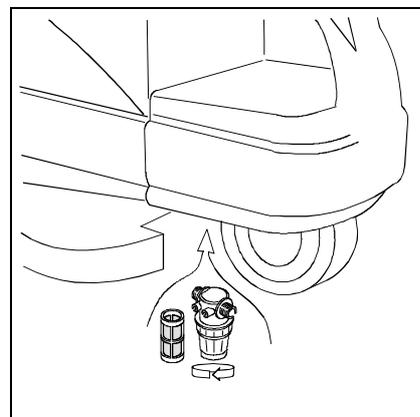


DAILY MAINTENANCE

CLEANING THE SOLUTION TANK AND FILTER

With the solution tank empty:

1. turn on the tap
2. unscrew and carefully rinse the filter
3. remove the plug from the solution tank refill opening
4. rinse the inside of the tank with a jet of water
5. remove and clean the filter cartridge
6. reassemble everything, repeating the above-mentioned operations in the reverse order

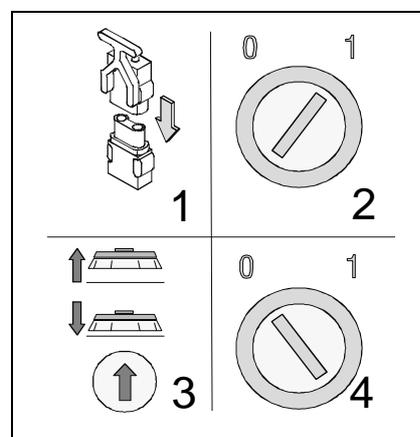


DISK BRUSH DISASSEMBLY

1. Connect the battery connector if it is not already connected
2. Turn the key to position "1"
3. Use the manipulator to lift the base (if it is not already raised)
4. Turn the key to the 0 position and remove it from the panel (carrying out the brush disassembly operation with the power supply connected may cause injuries to the hands).



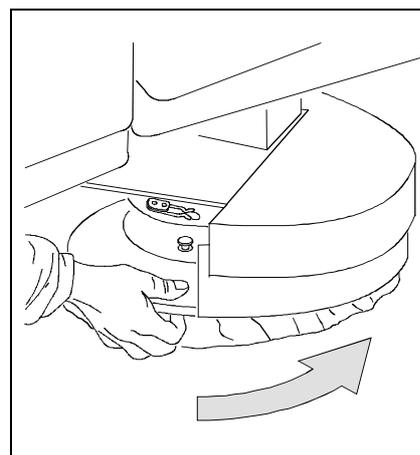
ATTENTION! This operation **must be carried out using gloves to protect against contact with dangerous materials and solutions.**



5. Rotate the brush until it exits from the seat on the brush-bearing plate as illustrated. The photo shows the direction of rotation for releasing the right brush. Rotate in the opposite direction for the left brush.



ATTENTION! If the brushes are jammed then follow this procedure up to point 4, remove the casing, pull out the pins. Turn the brush until the slot on the brush-bearing plate is below the hole machined on the base. Insert a screwdriver into the hole and clamp the plate. Strongly rotate the brush until it is released. Reassemble everything, carrying out the above-mentioned operations in the reverse order



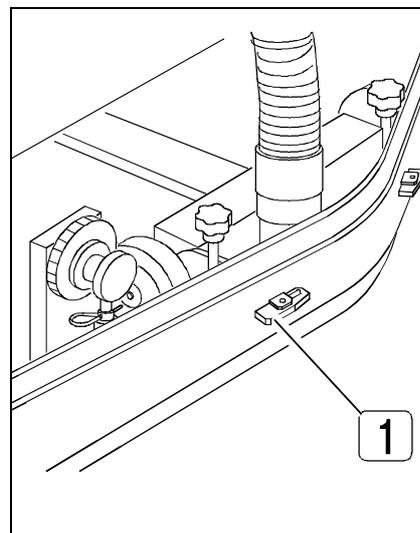


WEEKLY MAINTENANCE

REPLACING THE REAR SQUEEGEE RUBBER

If the squeegee rear rubber is worn and does not dry well, it is possible to change the drying edge, proceeding as follows:

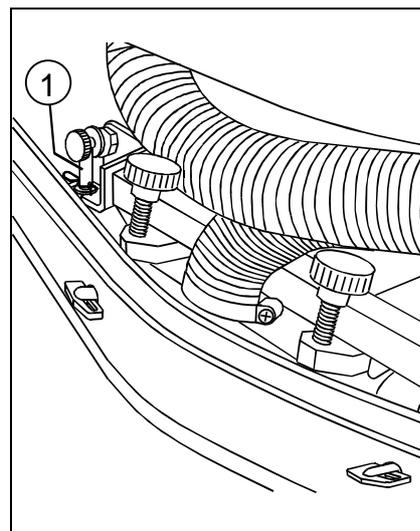
1. push and rotate the fixing plates (1)
2. remove the rubber-pressing blade and the rubber itself
3. turn the rubber upside-down and, if necessary, replace it
4. reassemble everything, carrying out the above-mentioned operations in the reverse order
5. adjust the height of the squeegee depending on the rubber (see "ADJUSTING THE HEIGHT OF THE SQUEEGEE SUPPORT")



REPLACING THE FRONT SQUEEGEE RUBBER

Suction will be poor and the machine will not dry perfectly if the front squeegee rubber is worn. Proceed as follows to replace:

1. Detach the squeegee from the machine (1)
 2. Loosen the screws that clamp the front rubber
 3. Remove the rubber-pressing blade
 4. Pull out and replace the rubber
- Reassemble everything, carrying out the above-mentioned operations in the reverse order



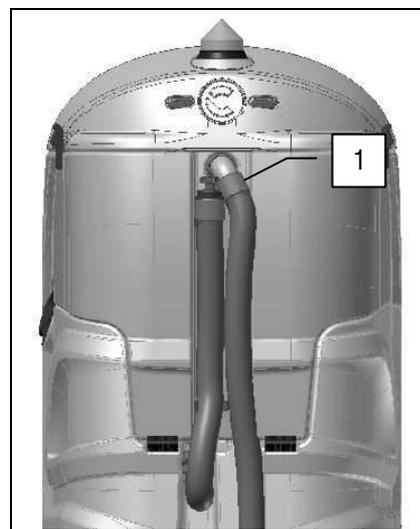
CLEANING THE SUCTION TUBE

Whenever suction seems to be unsatisfactory, check that the suction tube is not obstructed. If necessary, clean it with a water jet introduced from the side where it is connected to the tank. Proceed as follows:

1. Detach the aspiration tube from the seat (1) on the recuperation tank
2. Clean it with a water jet introduced from the side where it is connected to the tank
3. Reassemble everything, carrying out the above-mentioned operations in the reverse order



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

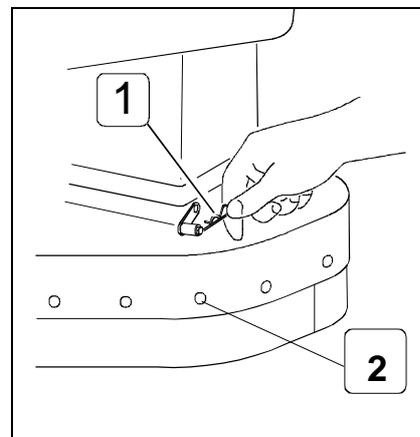




EXTRAORDINARY MAINTENANCE

REPLACING THE BASE SPLASH GUARD

1. Periodically check the state of wear of the washing base splash guard. To replace proceed as follows:
2. Lower the base until it touches the floor
3. Take off the casings by slipping off the clips (1)
4. Undo screws (2) that clamp the blades that lock the splash guard
5. Remove and replace the splash guard
6. Reassemble everything, carrying out the above-mentioned operations in the reverse order

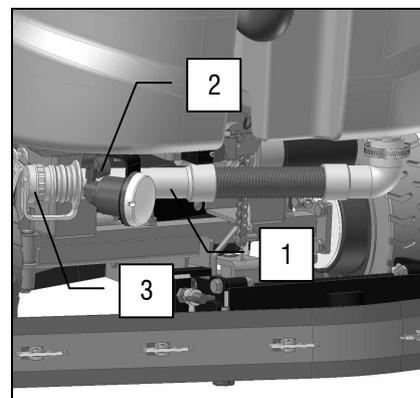


CLEANING THE RECOVERY TANK

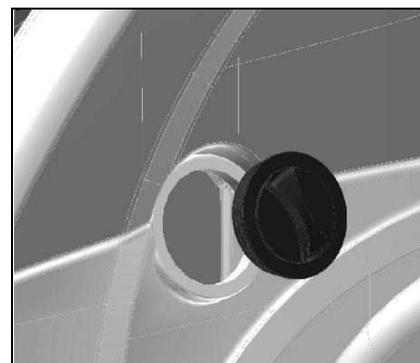
1. Empty the recovery tank via the flexible tube, unhooking the hose (1) from the support (2)
2. Open the nozzle, unscrewing the closing flange (3)



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



3. Open the tank closing cap and rinse inside
4. Clean the nozzle and tighten the flange
5. Reposition the hose on the support and reclose the tank cap



AUTOMATIC WATER/DETERGENT DOSING SYSTEM (OPTIONAL)

The automatic water/detergent dosing system does not require any special maintenance, apart from an occasional check of the detergent suction filter in the tank.

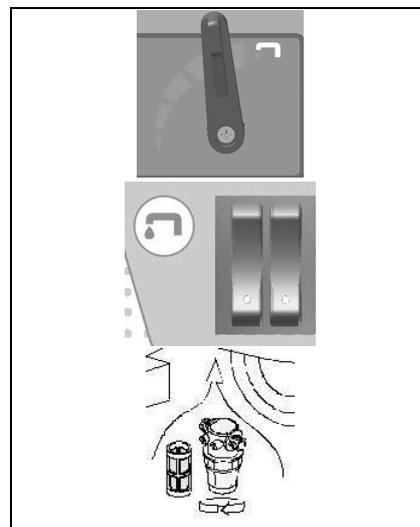
Check it, and clean it if necessary.



TROUBLESHOOTING

INSUFFICIENT WATER ON THE BRUSHES

1. Check the tap is turned on
2. Check the solenoid valve switch is on
3. Check there is water in the solution tank
4. Clean the solution filter



THE SQUEEGEE DOES NOT DRY PERFECTLY

1. Check the squeegee is clean
2. Check the regulation of the squeegee (see "MACHINE PREPARATION")
3. Clean the entire suction unit (see "WEEKLY MAINTENANCE")
4. Replace the rubbers, if worn

THE MACHINE DOES NOT CLEAN WELL

1. Check the state of wear and tear of the brushes and, if necessary, replace them. The brushes should be changed when the bristles are about 15mm long. To replace them, see "REPLACING THE BRUSHES", or "DISASSEMBLING THE BRUSHES" and "ASSEMBLING THE BRUSHES". Working with over-worn brushes may cause damage to the floor.
2. Use a different kind of brush to the one fitted as standard. For cleaning floors where the dirt is particularly resistant, we recommend the use of special brushes supplied upon request and according to needs (see "CHOOSING AND USING THE BRUSHES").

EXCESSIVE FOAM PRODUCTION

Check that a low foam detergent has been used. If necessary, add a small quantity of antifoam liquid to the recovery tank.

Remember that, when the floor is not very dirty, more foam is generated. In this case the detergent solution should be more diluted.



TROUBLESHOOTING

THE SUCTION MOTOR DOES NOT FUNCTION

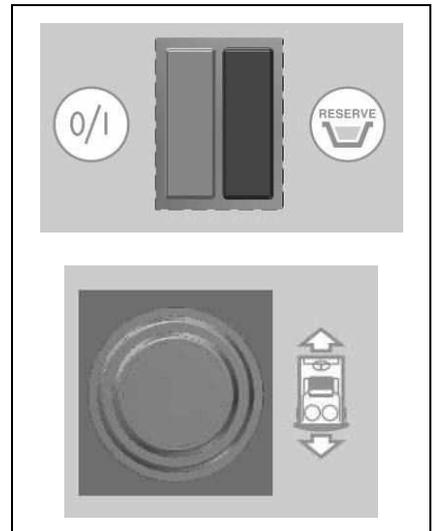
1. Check whether the motor indicator light is lit up
2. Check whether the recovery tank is full and, if necessary, empty it
3. Check the float switch is working well (see also "CLEANING THE RECOVERY TANK" in the chapter "DAILY MAINTENANCE")



THE BRUSH MOTOR DOES NOT WORK

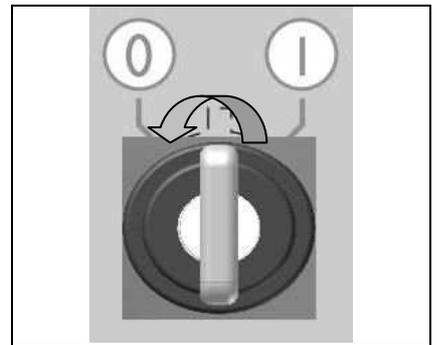
ATTENTION To avoid damaging the floor, the motor only starts up when the machine is moved forwards

1. Check the base is down
2. The operator must be properly seated in the driving position
3. Check the power supply indicator light is lit up and the forwards manipulator is inserted on forwards or backwards
4. Check no thermal protection device has intervened.
Check the electrical connector of the washing unit is correctly connected, as well as the safety connector.



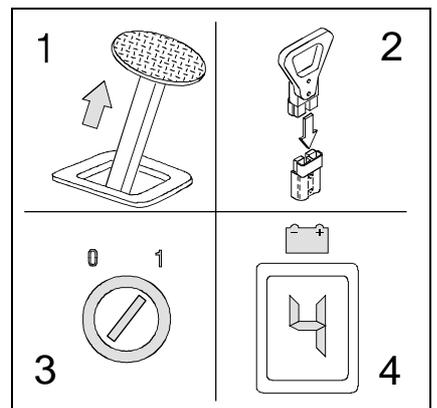
IT IS IMPOSSIBLE TO RAISE OR LOWER THE BASE OR SQUEEGEE

1. The machine is fitted with electrical protection devices that control the base and squeegee ascent/descent motor reducers. In the event of overloading, the fuses interrupt the power supply. After checking and removing the reason for the problem, to reset them just switch the machine off then on again. If the problem persists, contact the COMAC technical assistance centre.



THE MACHINE DOES NOT START

1. The operator must be properly seated in the driving position
2. Check the parking brake pedal (1) is released
3. Check that connector (2) is connected to the batteries
4. Check the key switch (3) is on
5. Check that batteries (4) are charged



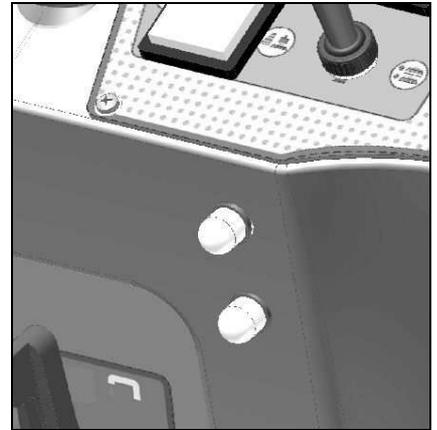


TROUBLESHOOTING

ELECTRIC FUSES AND THERMAL CUT-OUTS

The machine is fitted with the following electrical protection systems:

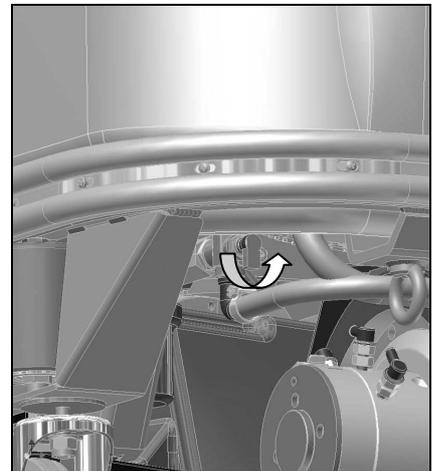
1. power fuses arranged in the electrical box, to protect against short-circuiting
2. thermal trip units arranged on the outside, on the column, to protect:
 - the 50A base motor
 - the 25A suction motor



THE AUTOMATIC WATER/DETERGENT DOSING SYSTEM DOES NOT WORK

The automatic water/detergent dosing system has been designed with criteria of extreme sturdiness and reliability, but there is a special by-pass system that allows you to use the machine even if the system is out-of-use.

To by-pass the automatic water/detergent dosing system, you must rotate the tap lever on the front right of the machine upwards; in this way you can go on working even with the system out-of-use. Remember, however, to put not only water in the solution tank, but the right quantities of both water and detergent. With the dosing system out-of-use, the water flow is regulated via the tap on the steering column. Contact an Authorised Retailer to have the system repaired.



ALARMS

The machine is fitted with a flashing indicator light for diagnosing system anomalies and checking the traction motor. Each sequence (number of consecutive flashes) indicates a particular type of fault. When flashing begins (with an accompanying working fault), you should contact the technical assistance centre, specifying the number of flashes.





CHOOSING AND USING THE BRUSHES

POLYPROPYLENE BRUSH (PPL)

Used on all types of floors. Good resistance to wear and tear, and hot water (no greater than 60°C.). The Polypropylene brush is non-hygroscopic and therefore retains its characteristics even when working in wet conditions.

NYLON BRUSH

Used on all types of floors. Excellent resistance to wear and tear, and hot water (even over 60°C). The nylon is hygroscopic and so tends to lose its characteristics over time when working in wet conditions.

ABRASIVE BRUSH

The bristles of this type of brush are charged with highly aggressive abrasives. It is used to clean very dirty floors. To avoid floor damage, work only with the pressure strictly necessary.

STEEL BRUSH

The bristles are in steel wire. It is used to descale floors that are abrasion-resistant, very irregular or with wide joints.

THICKNESS OF THE BRISTLES

Thicker bristles are more rigid and are therefore used on smooth floors or floors with small joints.

On uneven floors or those with deep joints, it is advisable to use softer bristles which can enter the gaps more easily.

Remember that when the bristles are worn and therefore too short, they will become rigid and are no longer able to penetrate and clean deep down. In this case, like with over-large bristles, the brush tends to jump.

PAD HOLDER

The pad holder is recommended for cleaning shiny surfaces.

There are two types of pad holder:

1. the traditional pad holder is fitted with a series of anchor points that allow the abrasive floor pad to be held and dragged while working
2. the CENTER LOCK type pad holder not only has anchor points, but also a snap-type central locking system in plastic that allows the abrasive floor pad to be perfectly centred and held without any risk of it becoming detached. This type of dragging device is recommended above all for machines with more than one brush, where the centring of the abrasive discs is difficult.

TABLE FOR CHOOSING THE BRUSHES

Machine	N° Brush	Code	Type of bristles	Ø Bristles	Ø Brush.	Length	Notes
FLEXY 75	2	405570	PPL	0.3	390		
		405571	PPL	0.6	390		
		405572	PPL	0.9	390		
		405573	ABRASIVE		390		
		405574	STEEL		390		
		405524	PAD HOLDER		380		
		405526	PAD HOLDER		380		CENTER LOCK
FLEXY 85	2	405562	PPL	0.3	440		
		405563	PPL	0.6	440		
		405564	PPL	0.9	440		
		405565	ABRASIVE		440		
		405566	STEEL	0.3	440		
		421819	PAD HOLDER		430		CENTER LOCK



EC DECLARATION OF CONFORMITY

The undersigned company:
COMAC S.p.A.
Via Ca' Nova Zampieri no. 5
37057 San Giovanni Lupatoto (VR), Italy
Declares under its sole responsibility that the

FLOOR SCRUBBER-DRYER mod. FLEXY 75 / FLEXY 85

complies with the requirements of the following Directives:

- 98/37/EEC: Machinery Directive
- 2004/108/EC: Electromagnetic Compatibility Directive and subsequent modifications.

It also complies with the following standards:

- EN 60335-1: Household and similar electrical appliances - Safety. Part 1: Generic standards
- EN 60335-2-72: Household and similar electrical appliances. Part 2: Generic standards for automatic machines for floor treatment for commercial and industrial use
- EN 12100-1: Machine safety - Fundamental concepts, fundamental principles of design - Part 1: Basic terminology and methodology
- EN 12100-2: Machine safety - Fundamental concepts, fundamental principles of design - Part 2: Technical principles
- EN 61000-6-3: Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Standard emission for residential, commercial and light-industrial environments
- EN 61000-6-1: Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments
- EN 50366: Household and similar electrical appliances - Electromagnetic fields Methods for evaluation and measurement

San Giovanni Lupatoto (VR), 05/02/2007

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