MANUAL USE AND MAINTENANCE

SIMPLA 45-50-61-65

ED. 08-2007 EN

Doc. 10008226

The contained descriptions in the present publication are not binding. The company therefore reserves itself the right to bring in whatever moment possible organs changes, details or supplies of accessories, that it holds convenient for an improvement, or for any demand of constructive or commercial character.
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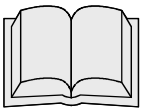
Symbols used in the manual

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

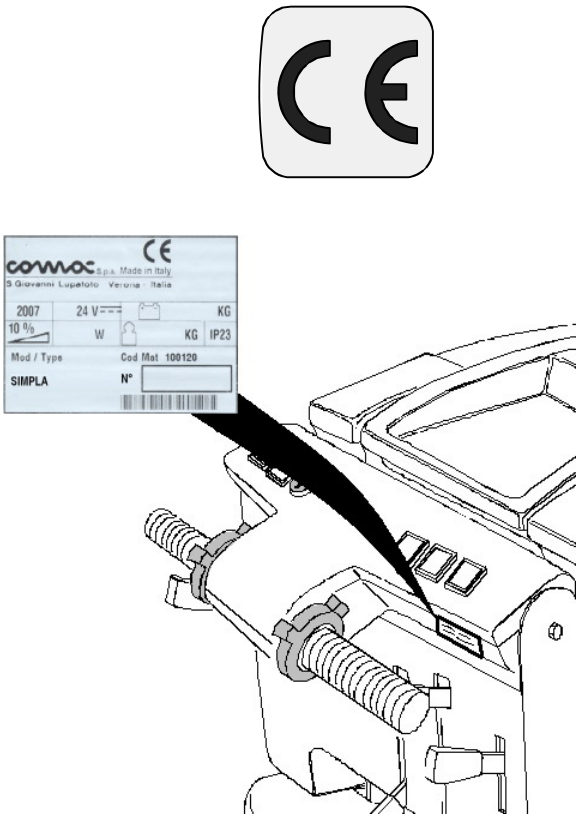
SUMMARY

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 have been received and moreover to find out that the machine has not suffered damage during transportation. If damage has occurred, get the shipping agent to verify immediately the amount and nature of the damage suffered and at the same time informs our claim department. It is only by prompt action of this type that compensation for damage may be successfully claimed.

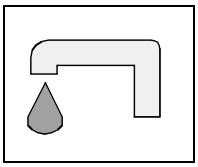
Introductory comment

This is a floor cleaning machine which, using the mechanic abrasive action of a rotary brush and the chemical action of a solution water-detergent, is able to clean any type of floor, picking up during its advance movement, the removed dirt and the detergent solution which has not been absorbed from the floor.
The machine must be used only for such purpose. We would impress upon you that any machine will function efficiently and operate successfully, only if used correctly and maintained in fully efficient working order. We therefore suggest you to read this instruction booklet carefully and re-read it whenever difficulties arise in the course of machine use. Our Service Department is at your disposal for all such advice and servicing as may prove necessary.

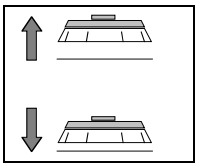


TECHNICAL DATA	U/M	45	45t	50	50t	61	61t	65t
Cleaning width	mm	455	455	510	510	610	610	650
Squeegee width	mm	660	660	755	755	945	945	945
Working capacity, up to	sqm/h	1580	1580	1785	1785	2135	2135	2275
Brush diameter	mm	1x455	1x455	1x510	1x510	1x610	1x610	2x340
Brush speed	rpm	250	250	250	250	220	220	225
Brush pressure	kg	25	25	25	25	30	30	30
Brush motor (power)	W	560	560	560	560	560	560	560
Traction motor (power)	W	-	150	-	150	-	150	150
Drive		semi-aut.	autom.	semi-aut.	autom.	semi-aut.	autom.	autom.
Movement speed	km/h	-	0÷3.5	-	0÷3.5	-	0÷3.5	0÷3.5
Max. gradient		2%	10%	2%	10%	2%	10%	10%
Suction motor (power)	W	350	350	350	350	350	350	350
Suction vacuum	mbar	110	110	110	110	110	110	110
Solution tank	l	50	50	50	50	50	50	50
Recovery tank	l	55	55	55	55	55	55	55
Machine length	mm	1300	1300	1300	1300	1400	1400	1315
Machine height	mm	1010	1010	1010	1010	1010	1010	1010
Machine width (without squeegee)	mm	500	500	560	560	630	630	700
Voltage	V	24	24	24	24	24	24	24
Batteries	Ah/5h	140	140	140	140	140	140	140
Battery compartment	mm	350x380 H310						
Batteries weight	kg	88	88	88	88	88	88	88
Machine weight (empty and without batteries)	kg	86	93	86	93	100	107	105
Acoustic radiation pressure level (in conformity with	dB (A)	70	70	70	70	70	70	70
Vibration level	m/sqs	1.60	1.60	1.60	1.60	1.60	1.60	1.60

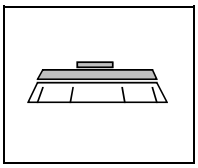
SYMBOLOGY USED ON THE MACHINE



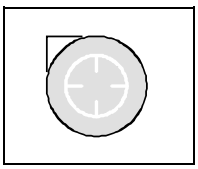
Symbol denoting cock
Indicates the cock lever
Indicates the solenoid valve switch



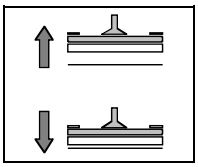
Symbol denoting up-down brush base
Indicates the lever of the brush base lifting



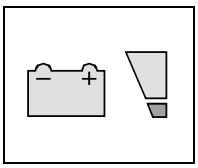
Symbol denoting brush
Indicates the brush motor switch



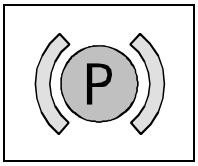
Symbol denoting suction motor
Indicates the suction motor switch



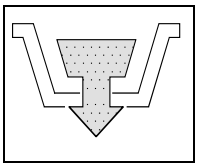
Symbol denoting up - down of the squeegee
Indicates the squeegee lever



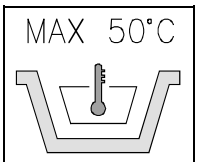
Symbol denoting charge level of the batteries



Symbol denoting brake
It is used on top of the emergency and parking brake lever
It is used to indicate the signal lamp of the hand brake on

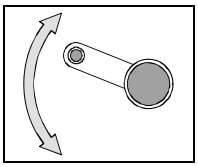


Indicates the exhaust pipe of the recovery tank



Indication of the maximum temperature of the solution detergent
Placed near the charging hole of the solution tank

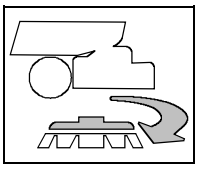
SYMBOLOGY USED ON THE MACHINE



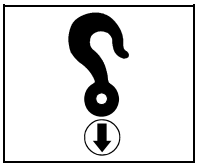
Indicates the regulation lever for the handle bar height

0/1

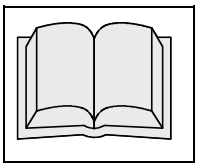
Indicates the general switch



Symbol denoting brush release
Indicates the push button of the brush release



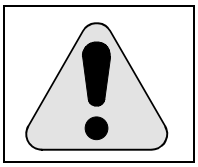
Symbol denoting the coupling
Indicates the anchor points and the load direction



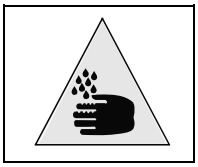
Symbol denoting the open book
Indicates that, the operator has to read the manual before the use of the machine

This symbol [the crossed-out wheeled bin/PICTURE] means that the product should be brought to the return and/or separate collection systems available to end-users, when the product has reached the end of its lifetime. This symbol applies only to the countries within the EEA (*).
(*) EEA = European Economie Area, which comprises the EU Member States plus Norway, Iceland and Liechtenstein.

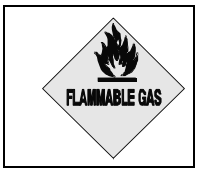
SYMBOLOGY USED IN THE MANUAL



Symbol denoting a warning
Read carefully the sections preceded by this symbol, for the safety of the operator and of the machine



Indicates danger of gas exhalations and emission of corrosive liquids



Indicates fire danger
Do not approach with free flames

GENERAL RULES OF SECURITY

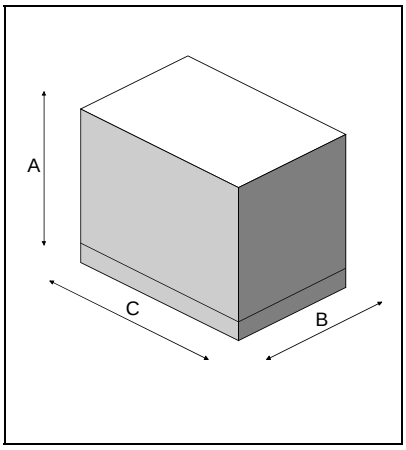
The rules below have to be followed carefully in order to avoid damages to the operator and to the machine.

- ❒ Read the labels carefully on the machine. Do not cover them for any reason and replace them immediately if damaged
- ❒ The machine must be used exclusively by authorized staff that has been instructed for its use
- ❒ During the working of the machine, pay attention to other people and especially to the children
- ❒ Do not mix different detergents, avoiding harmful odours
- ❒ Do not place any liquid containers onto the machine
- ❒ The storage temperature has to be between - 25° C and + 55° C
- ❒ Operating conditions: room temperature between 0°C and 40°C with respective humidity between 30 and 95%
- ❒ Do not use the machine in explosive atmosphere
- ❒ Do not use the machine as a means of transport
- ❒ Do not use acid solutions which could damage the machine and/or the persons
- ❒ Avoid working with the brush when the machine stands still, in order to prevent floor damages
- ❒ Do not vacuum inflammable liquids
- ❒ This appliance is not suitable for picking up hazardous dust
- ❒ In case of fire, use a powder extinguisher. Do not use water
- ❒ Do not strike shelvings or scaffoldings, where
- ❒ there is danger of falling objects
- ❒ Adapt the utilization speed to the adhesion conditions
- ❒ **ATTENTION!** Do not use the machine on areas having a higher gradient than the one stated on the number plate
- ❒ When the machine is in parking position, take off the key and insert the parking brake
- ❒ The machine has to carry out simultaneously the operations of washing and drying. Different operations have to be carried out in areas which are not permitted for the passage of non employed staff. Signal the areas of moist floors with suitable signs
- ❒ If the machine does not work properly, check by conducting simple maintenance procedures. Otherwise, it is better to ask for **COMAC** technical service
- ❒ Where parts are required, ask for ORIGINAL spare parts to an agent and/or to an authorized **COMAC** dealer
- ❒ Use only original **COMAC** brushes indicated in the paragraph “CHOICE AND USE OF BRUSHES”
- ❒ In case of danger act immediately upon the emergency brake
- ❒ For any cleaning and maintenance operation take off the power supply from the machine
- ❒ Do not take off the pieces which require the use of tools to be removed
- ❒ To restore all the connections electrical workers after whichever maintenance operation
- ❒ 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 through a **COMAC** service department
- ❒ In order to avoid scales on the solution tank filter, do not fill the detergent solution many hours before the machines’ use
- ❒ Before using the machine, check that all doors and coverings are in their position as indicated in this use and maintenance catalogue
- ❒ Be sure the recovery tank is empty before removing it
- ❒ Provide for the scrapping of the material of normal wear following strictly the respective rules

When, after years of precious work, your **COMAC** machine has to be abandoned, provide for the scrapping in appropriate centres, because of the presence of toxic-harmful materials, especially oils, batteries and electronic components, and considering that the machine itself has been constructed using materials integrally recyclable.

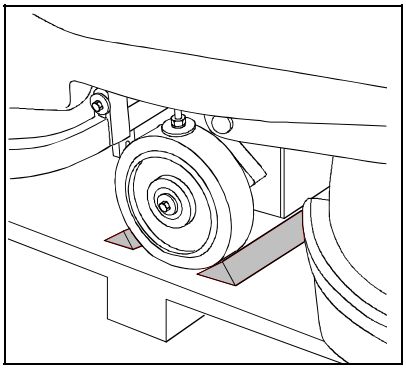
MACHINE PREPARATION

1. HANDLING OF THE PACKED MACHINE

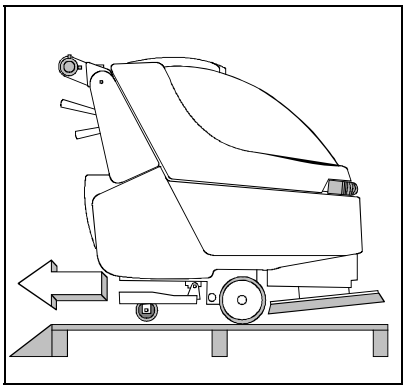


The machine is packed in a specific package provided on a pallet for the handling with fork trucks. Do not place more than two packages on top of each other.
The total weight is : 105 kg, machines without traction (Simpla 45-50)
115 kg, machines with traction (Simpla 45-50 T)
134 kg, machines without traction (Simpla 61)
144 kg, machines with traction (Simpla 61 T)
128 kg, machines with traction (Simpla 65 T)
The overall dimensions are:
A: 1150 mm **B:** 610 mm **C:** 1250 mm (Simpla 45-50)
A: 1280 mm **B:** 770 mm **C:** 1510 mm (Simpla 61-65)

2. HOW TO UNPACK THE MACHINE

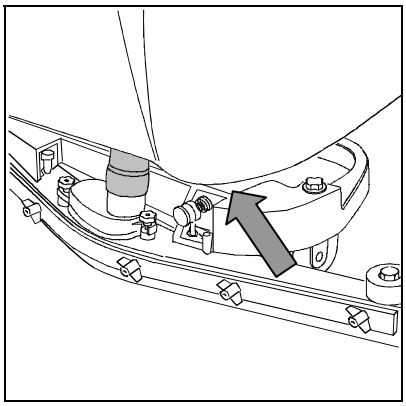


1. Take off the outer package
2. The machine is fixed on the pallet with wooden wedges which block the wheels
3. Take off these wedges



4. Using a chute, get the machine down from the pallet, pushing it in reverse motion. Avoid violent blows to the base.
5. Keep the pallet for eventual transport necessities

3. CABLE CONNECTION TRACTION MOTOR (machines with traction)

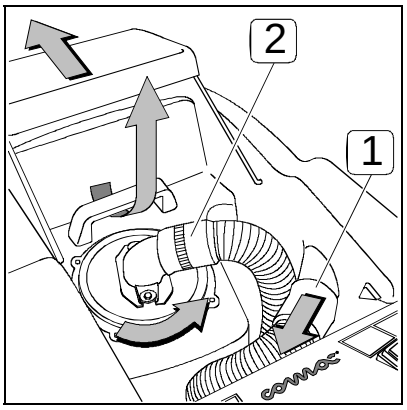


WARNING! This operation must be carried out by a technician of the Comac service dept. **COMAC**

The cable is on the rear part of the machine, under the solution tank.

MACHINE PREPARATION

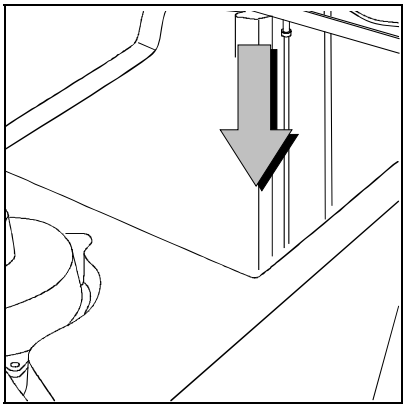
4. INSTALLATION OF THE BATTERIES INTO THE MACHINE



The batteries must be fitted in the suitable compartment under the recovery tank ad they must moreover satisfy the requirements quoted in the Specification CEI 21-5.
For the battery installation it is necessary to:

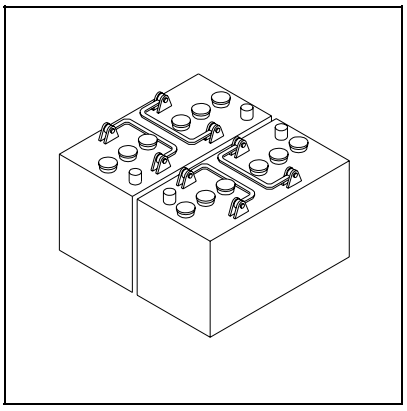
1. Open forward the cover of the recovery tank
2. Detach the squeegee hose (1) from the recovery tank
3. Take off the suction plug (2) rotating it counterclockwise
4. Take off the recovery tank and take care to insert the prop in its position
5. Place the batteries

5. BATTERY TYPE



For the energy supply use following type of batteries:
lead batteries for traction use with tubular plates and electrolyte free;
or batteries hermetically sealed for traction with gel/gas recombination technology.
DO NOT USE OTHER KIND OF BATTERIES

Every battery is compost out of DIN elements with serial connections and arranged in-groups in two boxes, every group supplies to the holdfasts a voltage of 12V. The maximum dimensions and the weight of every container are: width 172 mm, length 360 mm, height 285 mm; weight 37,5 Kg.



They have to be moved by suitable means of lifting and transport to weight and dimension. They have to be coupled using the two handles present at the top of each box.
They have to be insert in the battery room with the holdfasts in position towards the posterior part of the machine.
There must be a serial connection between them in order to achieve a voltage of 24V to the holdfast of the battery. The electric connection process has to be carried out by specialised persons which were trained by a COMAC service center

6. MAINTENANCE OF THE BATTERY

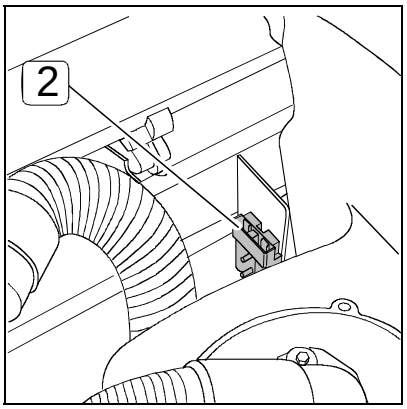
For the maintenance and the recharge follow the instructions given by the constructor of the batteries.
Pay particular attention to the choose of the battery-charger, which differs according to the type and capacity of the battery.

7. DISPOSAL MODALITY

When the battery is exhausted let carry out the disconnection by specialised and trained persons, hook them and lift them with suitable means out of the battery room.
IT IS OBLIGATORY TO HAND OVER THE EXHAUSTED BATTERIES, WHICH ARE CLASIFIED AS DANGEROUS WASTE, TO A AUTHORIZE INSTITUTION CORRISPONDING TO THE DISPOSAL LAW.

8. CONNECTION OF THE BATTERY CHARGER

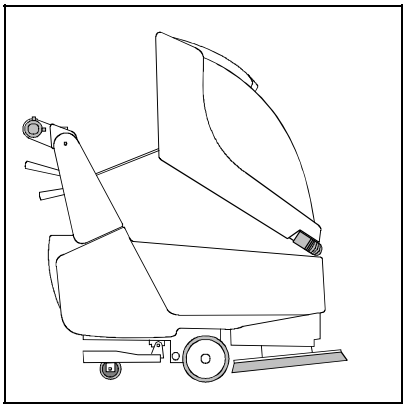
Under the recovery tank cover there is the battery connector (2) in which the connector of the battery charger has to be inserted. The coupling connector of the battery charger is delivered in the bag where this instruction booklet is found and must be assembled on the battery charger cables following the suitable instructions.



ATTENTION! This operation must be completed from qualified staff. A wrong or imperfect connection of cables to the connector can cause to serious damages to persons or things.

9. RECHARGE OF THE BATTERIES

In order not TO cause the risk of permanent damages to the batteries, one should at all costs avoid their complete discharge and effect recharging within a few minutes after that the signal lamp of discharged batteries begins to blink.



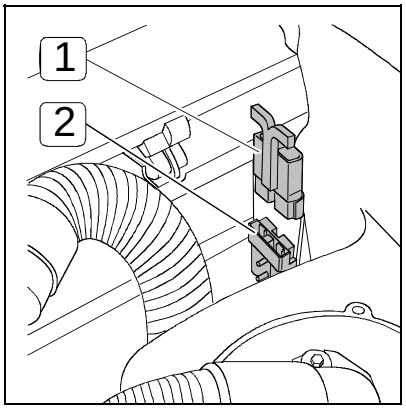
NOTE: Never leave the batteries completely discharged, even if the machine is not being used. When recharging the batteries, keep the recovery tank lifted supporting it with the prop as indicated in figure. Make sure that the battery charger is suitable for the used batteries capacity ant type.

Danger of gas exhalations and emission of corrosive liquids

Fire danger
Do not approach with free flames

10. CONNECTION OF THE BATTERY CONNECTOR

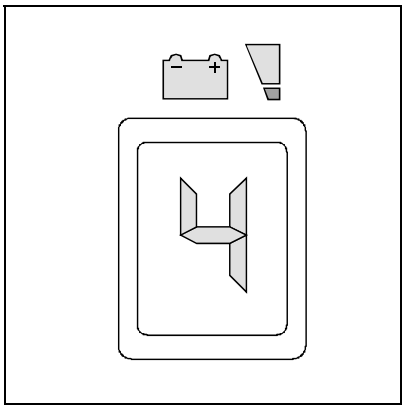
The battery connector (2) has to be connected to the connector of the machine (1)



11. BATTERIES' INDICATOR (machines with traction)

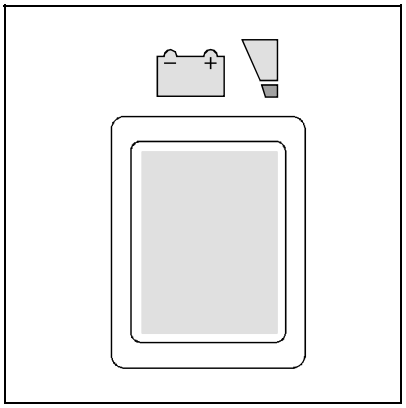
The batteries' indicator is digital with 4 fixed positions and a blinking one. The numbers, which appear on the display, show the approximate charge level.
4 = maximum charge, **3** = charge 3/4, **2** = charge 2/4, **1** = charge 1/4,
0 = (blinking) discharged batteries)

WARNING! Some seconds after that "0" blinks, the brush motor automatically switches off. Anyway, the machine can finish to dry before recharging the batteries.



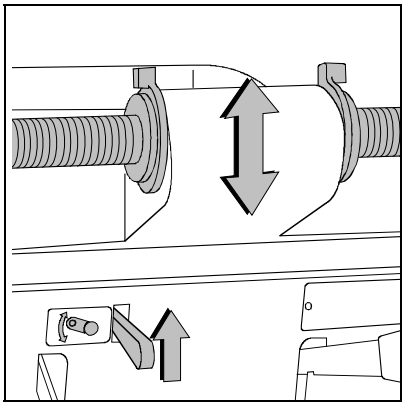
12. BATTERIES' INDICATOR (machines without traction)

The batteries' indicator is a green signal lamp, which remains always on until the batteries are charged. When the signal lamp begins to blink, it is necessary to proceed with the recharge of the batteries.



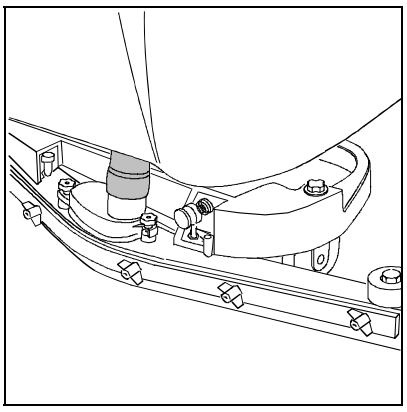
13. HEIGHT HANDLE BAR

The handle bar is adjustable in three different positions:
1. Release the lever
2. Put the handle bar at the desired height, compatibly with the clamping holes
3. Release the lever



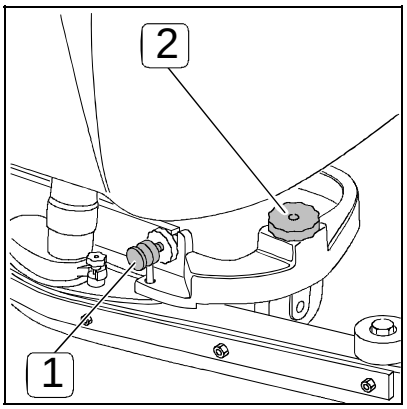
14. SQUEEGEE ASSEMBLY

The squeegee, which is packed separately from the machine, should be assembled as shown in the figure, threading the stud bolt in the coupling until the release of the lever.
Fit the squeegee hose into its coupling, paying attention that the hose has to pass on the right side from the lifting cable.



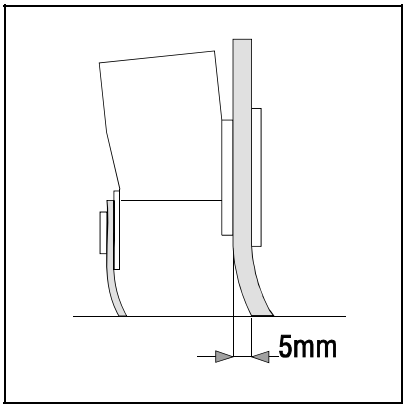
15. ADJUSTMENT SQUEEGEE HEIGHT

The squeegee has to be regulated depending on the wearing of the rubbers. To adjust this, rotate the knob (2) counterclockwise to lift the squeegee and clockwise to lower it.
Note: The right and left wheels must be adjusted at the same amount so that the squeegee works in parallel to the floor.



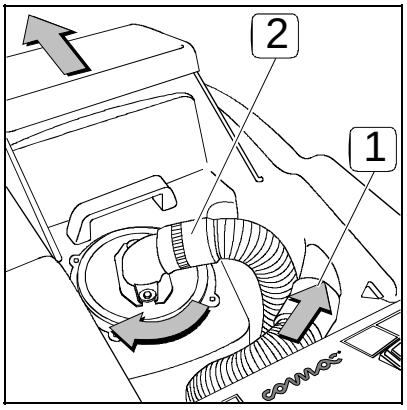
16. ADJUSTMENT SQUEEGEE INCLINATION

During working operation, the rear rubber has to work slightly tilted backwards and this equally in its whole length for about 5mm. Should it be necessary to increase the rubber bending in the central part, then tilt the squeegee body backwards and turn the adjuster (1) counterclockwise. If the rubber bending is to be noticeable at the sides of the squeegee, turn the adjuster clockwise. At the end of the adjustment, block the adjuster nut.



17. RECOVERY TANK

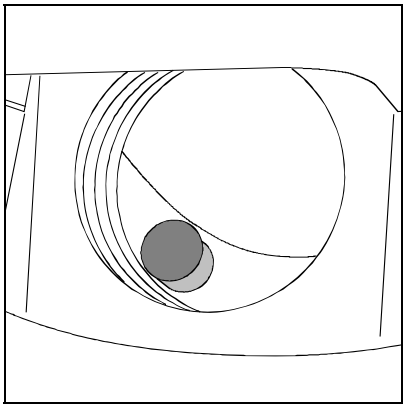
Open the cover and check that, the suction plug (2) is properly blocked by fitting the notches in its proper seat rotating it clockwise and that it is connected regularly to the hose which goes to the suction motor.
Check furthermore that, the squeegee hose (1) is properly placed in their seats and that the plug of the exhaust pipe, which is located in the front part of the machine, is closed.



MACHINE PREPARATION

18. SOLUTION TANK

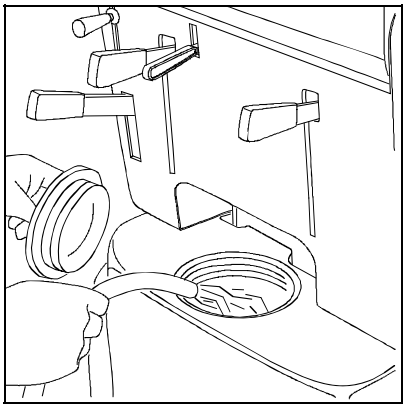
Take off the water inlet plug and check that, the solution filter, placed on the left bottom side, has been assembled properly.



19. SOLUTION WATER

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

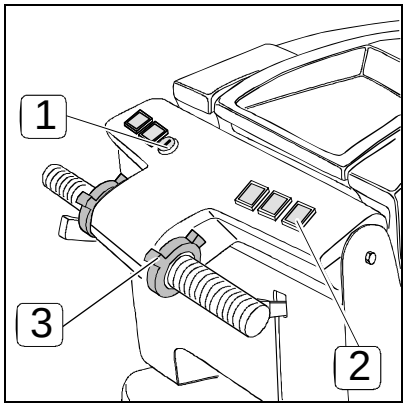
WARNING! Always use low foam detergent. To avoid the production of foam, before starting to clean, put a minimum quantity of antifoam liquid into the recovery tank. **Never use pure acid**



20. BRUSH ASSEMBLY

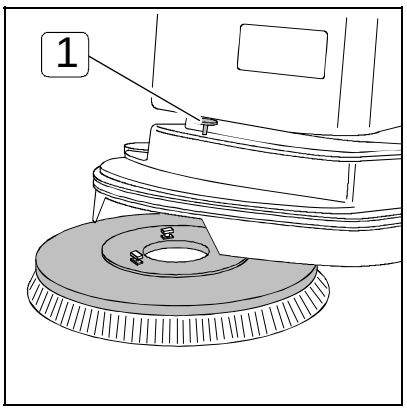
1. With the brush base in lifted position, insert the brush placing it in correspondence with the plate under the brush base.
2. Lower the brush base, turn the key (1) into position ON, press the brush switch (2), push the lever (3) on the handle bar. At this point the brush is coupled.

WARNING! During this operation make sure that, there are not any objects or persons close to the brush.



3. Adjust, through the knob (1), the height of the splash guard rubber so that it touch the floor.

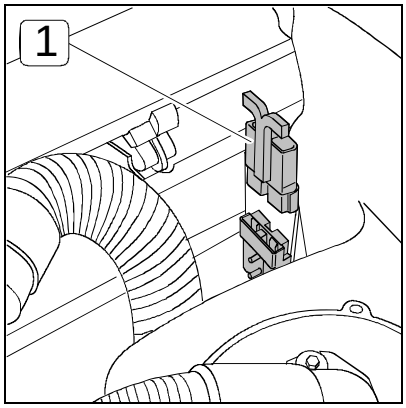
The adjustment has to be repeated regularly depending on the brush wear.



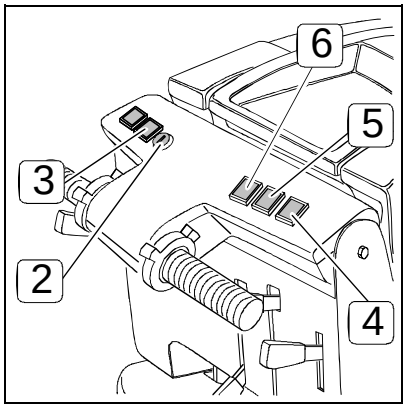
PERFORMANCE

SETTING FOR WORK

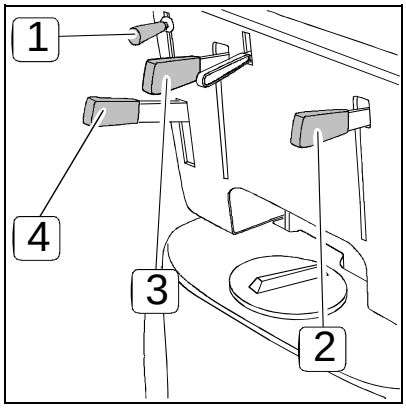
1. Connect the connector (1) to the batteries



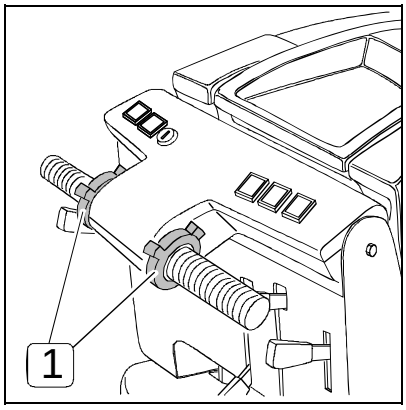
2. Turn the key of the general switch (2) into position “1” (clockwise). Immediately, the signal lamp comes on (3).
3. Press the solenoid valve switch (4)
4. Press the suction motor switch (5)
5. Press the brush switch (6)



6. Acting upon the cock lever (1) adjust the quantity of the detergent solution which has to be sufficient to wet the floor uniformly but not too much to get out of the splashguard. Please keep in mind that, the correct solution quantity depends always on the type of floor, the dirt and the speed.
7. Release the lever (2) and lower the brush base
8. Lower the squeegee acting upon the lever (3)
9. Check that the parking brake (4) is released

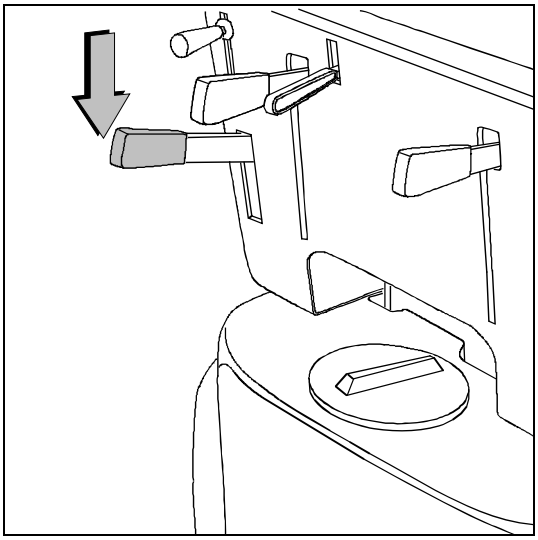


10. Pushing forward the lever (1) on the handle bar, the machine begins to move. During the first metres of operating, check that the quantity of the detergent solution is sufficient and that the squeegee dries perfectly.
    The machine will now start working efficiently until the detergent solution runs out.



PERFORMANCE

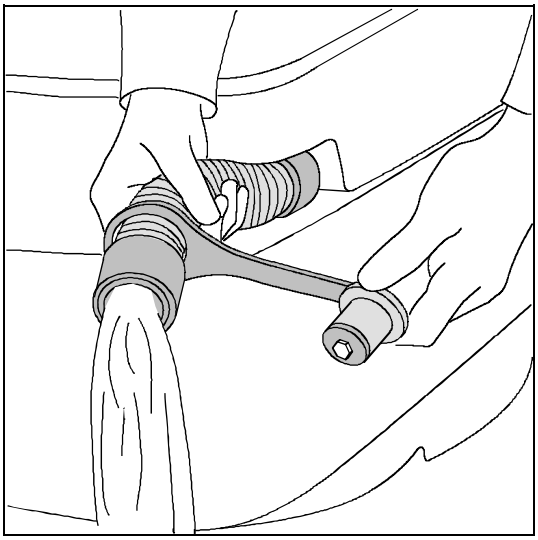
Whenever problems during operating should arise, release the lever and push immediately the emergency brake placed on the left side. This command will block the traction of the machine. To restart the machine again, once the problem has been solved, release the lever of the parking brake and push forward the lever on the handle bar.



DEVICE TOO FULL

The machine is equipped with a float, which intervenes when the recovery tank is full causing the closure of the suction hose. In this case, it is necessary to proceed with the emptying of the recovery tank taking off the plug of the exhaust pipe.

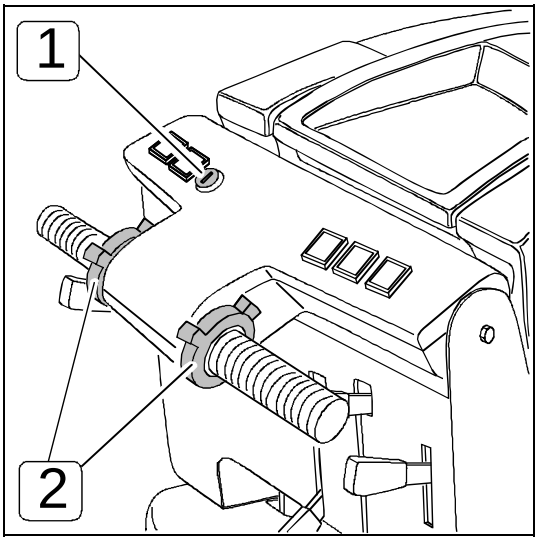
WARNING! This operation has to be carried out using gloves to protect from contact with dangerous solutions.



MOVEMENT (machines without traction)

The traction of these machines is obtained through the brush, which works slightly inclined, so that the machine is being dragged forward. To move the machine, it is necessary to act upon the key (1), wait for 3 seconds and then rotate forward (forward movement) the lever (2) on the handle bar.

WARNING! When carrying out even short backward movements, make sure that the squeegee is lifted.

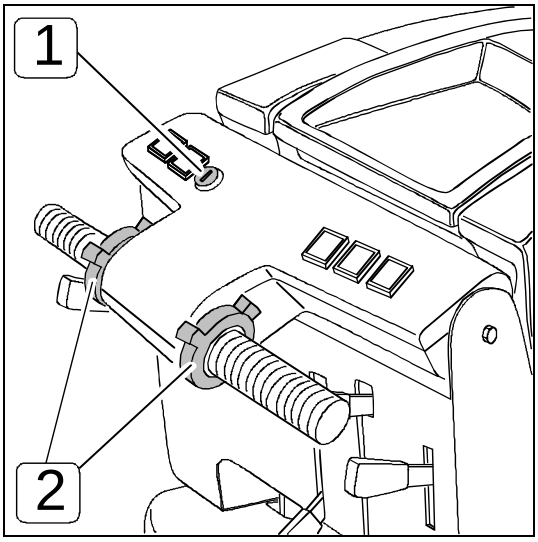


PERFORMANCE

MOVEMENT (machines with traction)

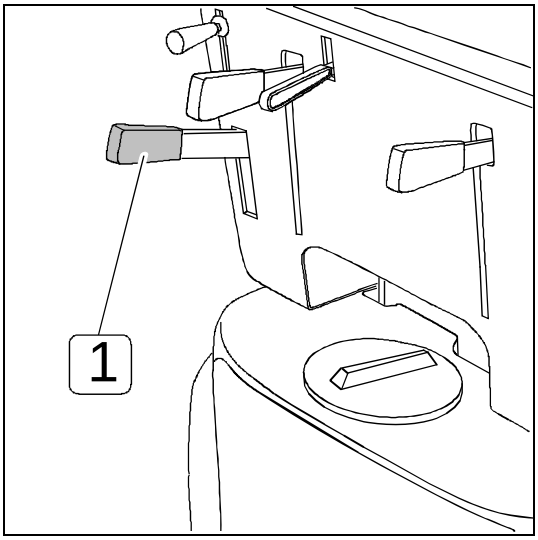
These machines are equipped with electronically commanded traction, with two speeds forwards and one backwards.
To move the machine, it is necessary to act upon the key (1), wait for three seconds and then rotate forward (forward movement) or backward (rear movement) the lever (2) on the handle bar. Pushing forward the lever a few millimetres, the first speed is available, pushing the lever forward completely, the second speed is obtained.
In reverse motion, the speed movement is reduced.

WARNING! When carrying out even short backward movements, make sure that the squeegee is lifted.



BRAKE (machines without traction)

The machine is equipped with a braking system controlled through the left lever (1), which is used as a parking and emergency brake.



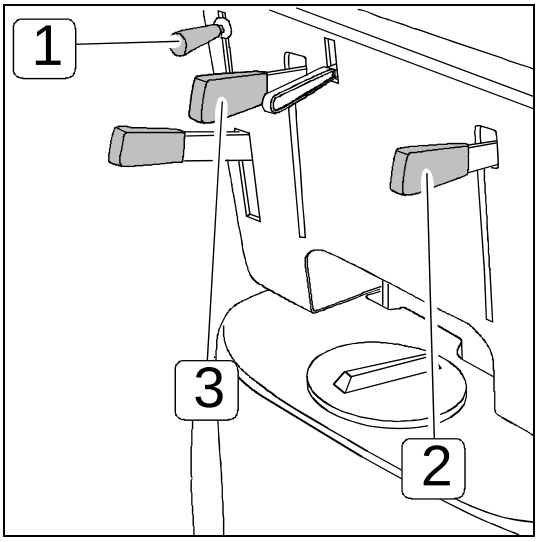
BRAKE (machines with traction)

The machine is equipped with an electronical brake system. To brake in normal working conditions, it is enough to release the lever on the handle bar.
In case of need (stop, danger, etc. …), act upon the mechanical brake pushing downwards the lever (1).

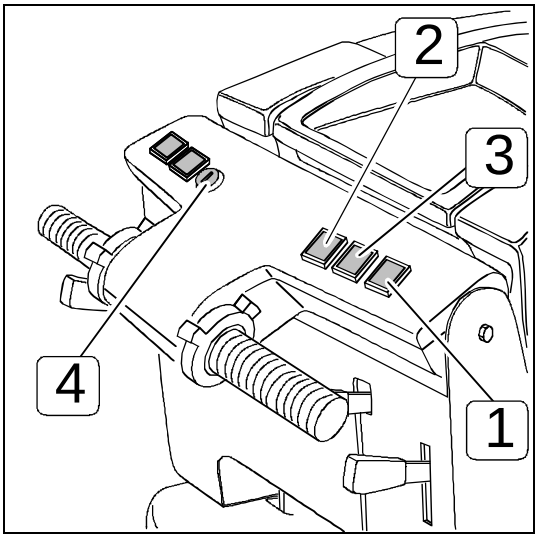
ON COMPLETION OF THE WORK

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

1. Close the cock through the lever (1)
2. Raise the brush base through the lever (2)
3. Raise the squeegee through the lever (3)



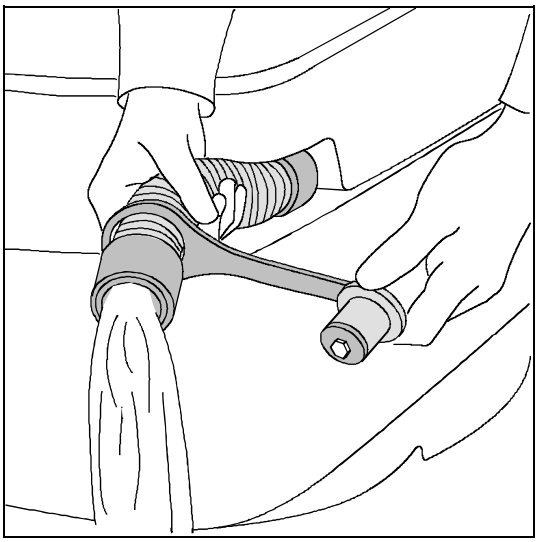
4. Switch off the solenoid valve switch (1)
5. Switch off the brush switch (2)
6. Switch off the suction motor switch (3)
7. Bring the machine up to the place provided for the water outlet
8. Turn the key (4) into position “0” (counterclockwise)
9. Insert the parking brake



10. Extract the hose placed on the front part of the recovery tank
11. Unscrew the exhaust plug and empty the tank

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

12. Take off the brush and clean it with a water jet (for the brush disassembly please read further on under “DISASSEMBLY OF THE BRUSH”)

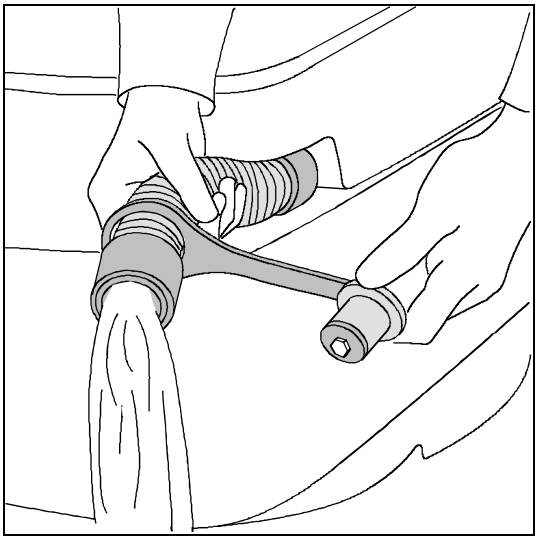


DAILY MAINTENANCE

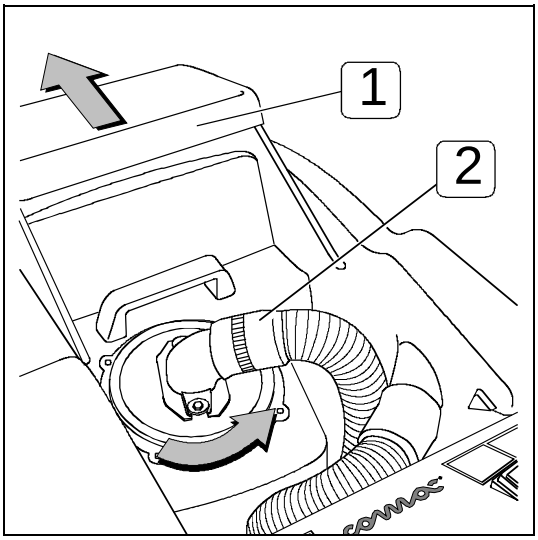
CLEANING RECOVERY TANK

1. Extract the hose placed on the front part of the recovery tank
2. Unscrew the exhaust plug and empty the tank

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

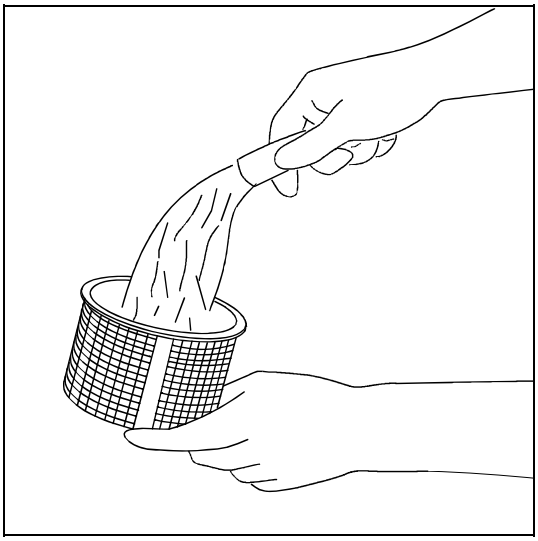


3. Lift the cover of the recovery tank (1)
4. Take off the suction plug (2) rotating it counterclockwise
5. Take off the filter and its protection
6. Rinse everything with a water jet



CLEANING OF THE SUCTION FILTER

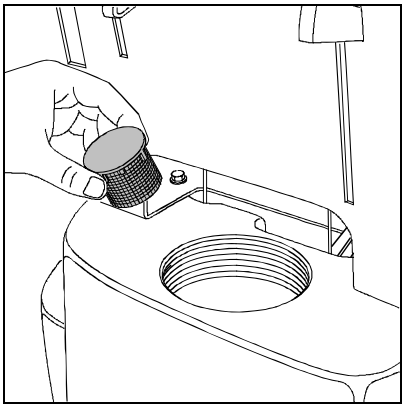
1. Lift the cover
2. Take off the suction plug by rotating it counterclockwise
3. Take off the filter
4. With a water jet clean the walls and the bottom of the filter
5. Wash thoroughly all components
6. Reassemble everything



DAILY MAINTENANCE

CLEANING SOLUTION FILTER

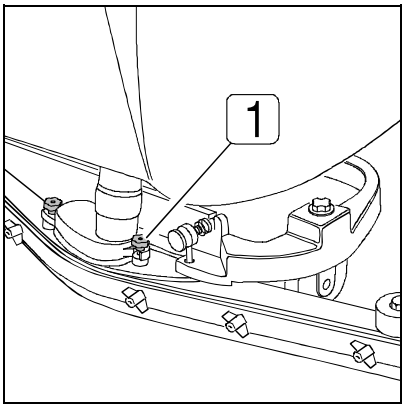
1. Unscrew the plug on the solution tank
2. Take off the filter pulling the cap upwards and clean it thoroughly
3. Reassemble everything pushing the cap up to the snap on the filter body



CLEANING OF THE SQUEEGEE

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

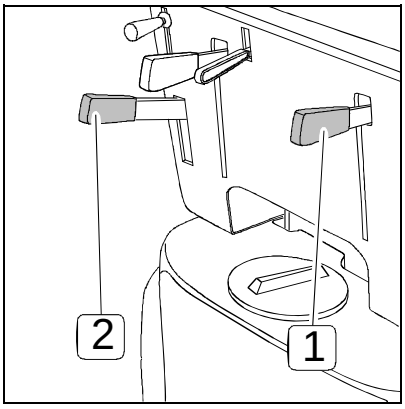
1. Take off the hose from the squeegee
2. Loosen the knobs (1) as indicated
3. Take off the opening and clean it
4. Clean the inside of the squeegee thoroughly
5. Clean the squeegee rubbers thoroughly
6. Reassemble everything once more



DISASSEMBLY OF THE BRUSH

This machine is equipped with an automatic brush release system, to avoid troublesome operating procedures. Go ahead as follows:

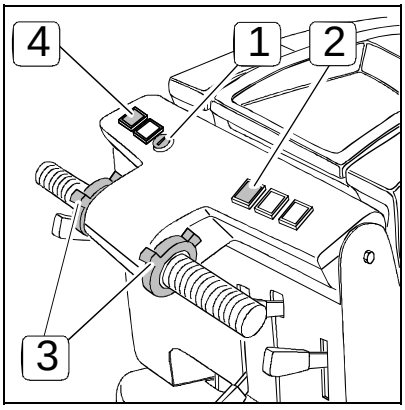
1. Lift the brush base acting upon the lever (1)
2. Brake the machine acting upon the lever (2)



3. Turn the key (1) into position “1”, press the brush switch (2); keeping the release button (4) pressed, push for an instant the lever on the handle bar (3) ad then release it.

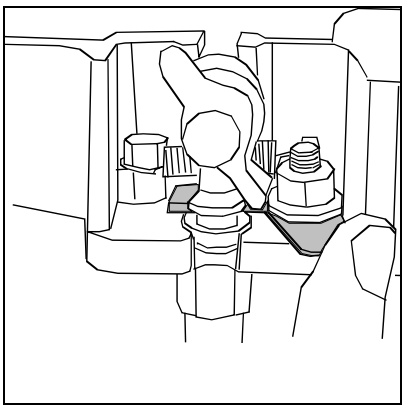
The brush will move for a few instants and will fall at once under the cover.

WARNING! During this operation make sure that, there are not any objects or persons close to the brush.



DAILY MAINTENANCE

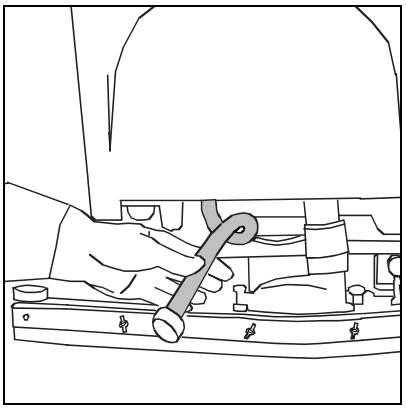
REPLACEMENT OF THE SQUEEGEE RUBBERS



Check the squeegee rubbers wear and if necessary, change them.
To replace them:

1. Take off the squeegee hose from its coupling
2. Push the rocker arm of uncoupling and parade the stud bolt skilful
3. Remove the squeegee from its support
4. Loosen the nuts which block the rubber blades and take them off
5. Replace the rubbers
6. To reassemble the squeegee repeat the above-mentioned operations inversely

CLEANING OF THE BATTERY COMPARTMENT



To empty the battery compartment from possible liquids, use the suitable hose placed under the solution tank and accessible from the rear part of the machine.

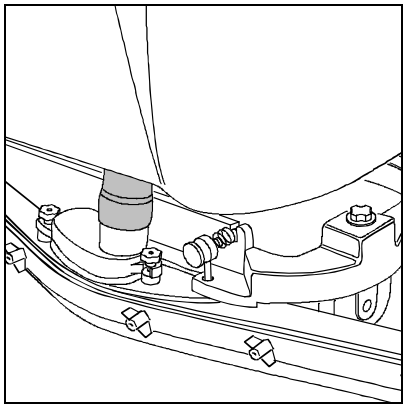
ATTENTION! This operation has to be carried out using gloves to protect from contact with dangerous solutions. **Danger of emission of corrosive liquids. Fire danger: do not approach with free flames.**

WEEKLY MAINTENANCE

CLEANING OF THE SQUEEGEE HOSE

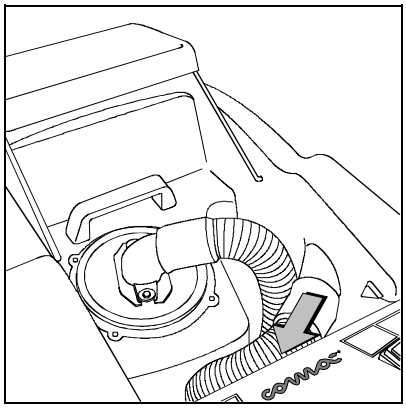
Weekly or whenever suction seems to be unsatisfactory check that the squeegee hose is not obstructed. Eventually, clean it proceeding as follows:

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



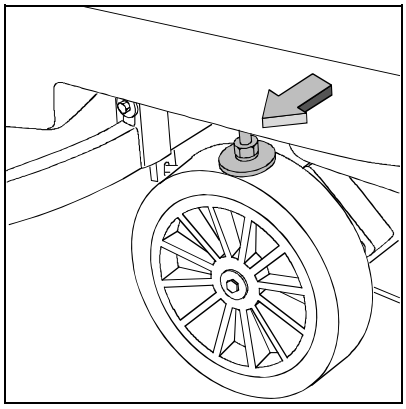
3. Wash the inner part of the hose with a water jet introduced from the side where it is being connected to the tank
4. To reassemble the hose repeat the above-mentioned operations inversely

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



CHECK BRAKE

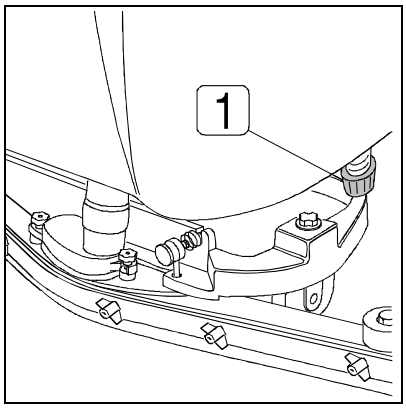
Once a week check the distance between the brake pads and the wheels. Eventually, adjust them through the nuts bringing them back to a distance of 3mm in resting conditions.



CLEANING SOLUTION TANK

1. Unscrew the plug on the solution tank
2. Rinse with a water jet
3. Unscrew the exhaust plug (1) and empty the tank

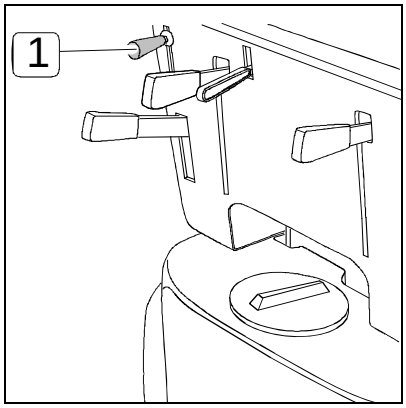
WARNING! This operation has to be carried out using gloves to protect from contact with dangerous solutions.



TROUBLE SHOOTING GUIDE

INSUFFICIENT WATER ONTO THE BRUSH

1. Make sure that the cock (1) is open
2. That there is water in the solution tank
3. Make sure that the solenoid valve switch is on



THE MACHINE DOES NOT CLEAN SATISFACTORILY

1. Check the condition of the brush and replace it, if necessary (the brush has to be replaced when the bristles reach around 15mm)
2. Use a different kind of brush to the one fitted as standard. For cleaning operations on floors where the dirt proves to be particularly resistant, we recommend using special brushes that may be supplied optionally according to needs (see under “CHOICE AND USE OF BRUSHES”).

THE SQUEEGEE DOES NOT DRY PERFECTLY

1. Check that the squeegee rubbers are clean
2. Adjust the inclination of the squeegee (see under “SQUEEGEE” in “MACHINE PREPARATION”)
3. Check that the suction hose is correctly fitted in its housing on the recovery tank
4. Take off the entire suction assembly and clean it
5. Replace the rubbers, if worn
6. Check that the suction motor switch is on
7. Check the adjustment of the wheels

EXCESSIVE FOAM PRODUCTION

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

CHOICE AND USE OF BRUSHES

POLYPROPYLENE BRUSH (PPL)

It is used on all types of floors which are hot water resistant (not more than 60°C). The Polypropylene brush is nonhygroscopic and therefore conserves its characteristics even if working in the wet conditions.

NYLON BRUSH

It is used on all types of floors with excellent wear and hot water resistance (more than 60°C). The nylon is hygroscopic and so, over time, looses its characteristics working on the wet.

ABRASIVE BRUSH

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

STEEL BRUSH

The bristles are made of steel wires; it is used to descale floors which are anyhow resistant to the abrasion, very uneven or with wide joints.

THICKNESS OF THE BRISTLES

The thicker the bristles are, the more rigid they will be. These ones are therefore used on smooth floors or with small joints.

On uneven floors with deep joints it is recommended that, softer bristles, which enter more easily in depth, are used.

Please bear in mind that, when the bristles are worn out and get too short, they will get rigid and cannot penetrate anymore. As well as for thick bristles, the brush will begin to jump.

PAD HOLDER

The pad holder is recommended to clean glossy areas.

There are two types of pad holders:

1. The traditional pad holder is equipped with anchor points, which allow the abrasive pad to be held and dragged during the work process.
2. The pad holder is of the CENTER LOCK type, apart from the anchor points, is equipped with a central blocking release system made in plastic. This allows a perfect match with the abrasive pad and to hold it without the risk of falling down. This type of pad holder is recommended especially for machines with more brushes, where the centering of the pads is difficult.

LIST FOR THE CHOICE OF THE BRUSHES

Machine	Q.ty	Code	Bristles type	Thick ∅	Brush ∅	Notes
Simpla 45	1	404643 404644 404645 404646 405523	PPL PPL PPL ABRASIVE Pad holder Center Lock	0.8 0.6 0.4 1 -	455 455 455 455 445	Pad blocking
Simpla 50	1	404653 404654 405631 405632 405527	PPL PPL PPL ABRASIVE Pad holder Center Lock	0.9 0.3 0.6 1 -	510 510 510 510 495	Pad blocking
Simpla 61	1	405642 405643	PPL PPL	0.6 0.9	610 610	
Simpla 65	2	422189 422971 422972 422981 422973	PPL PPL PPL ABRASIVE Disco Center Lock	0.3 0.6 0.9 1 -	340 340 340 340 330	Pad blocking

CE STATEMENT OF COMPLIANCE

The undersigned company:
COMAC S.p.A.
Via Ca' Nova Zampieri n.5
37057 San Giovanni Lupatoto (VR)
states under its own exclusive responsibility that the product

FLOOR SCRUBBING MACHINE model Simpla 40-50-61-65

complies with the provisions of Directives:

- 98/37/EEC: Machine directive.
- 89/336/EEC: Electromagnetic compatibility directive and following modifications 91/263/EEC, 92/31/EEC and 93/68/EEC.

It also complies with the following standards:

- EN 60335-1: Safety of electric home appliances and the like – Safety. Part 1: General regulations.
- EN 60335-2-72: Safety of electric home appliances and the like. Part 2: Special regulations for automatic machines for processing industrial and community-use floors.
- EN 12100-1: Machine safety – Basic concepts, general design principles – Part 1: Base terminology and methodology.
- EN 12100-2: Machine safety – Basic concepts, general design principles – Part 2: Technical principles.
- EN 61000-6-3: Electromagnetic compatibility (EMC) - Part 6-3: General standards – Emission for residential, commercial and light industrial environments.
- EN 61000-6-1: Electromagnetic compatibility (EMC) - Part 6-1: General standards – Immunity for residential, commercial and light industrial environments.
- EN 50366: Appliances for home use and the like – Electromagnetic fields – Evaluation and measurement methods.

San Giovanni Lupatoto, 05/02/2007

COMAC S.p.A.
Legal Representative

Giancarlo Ruffo