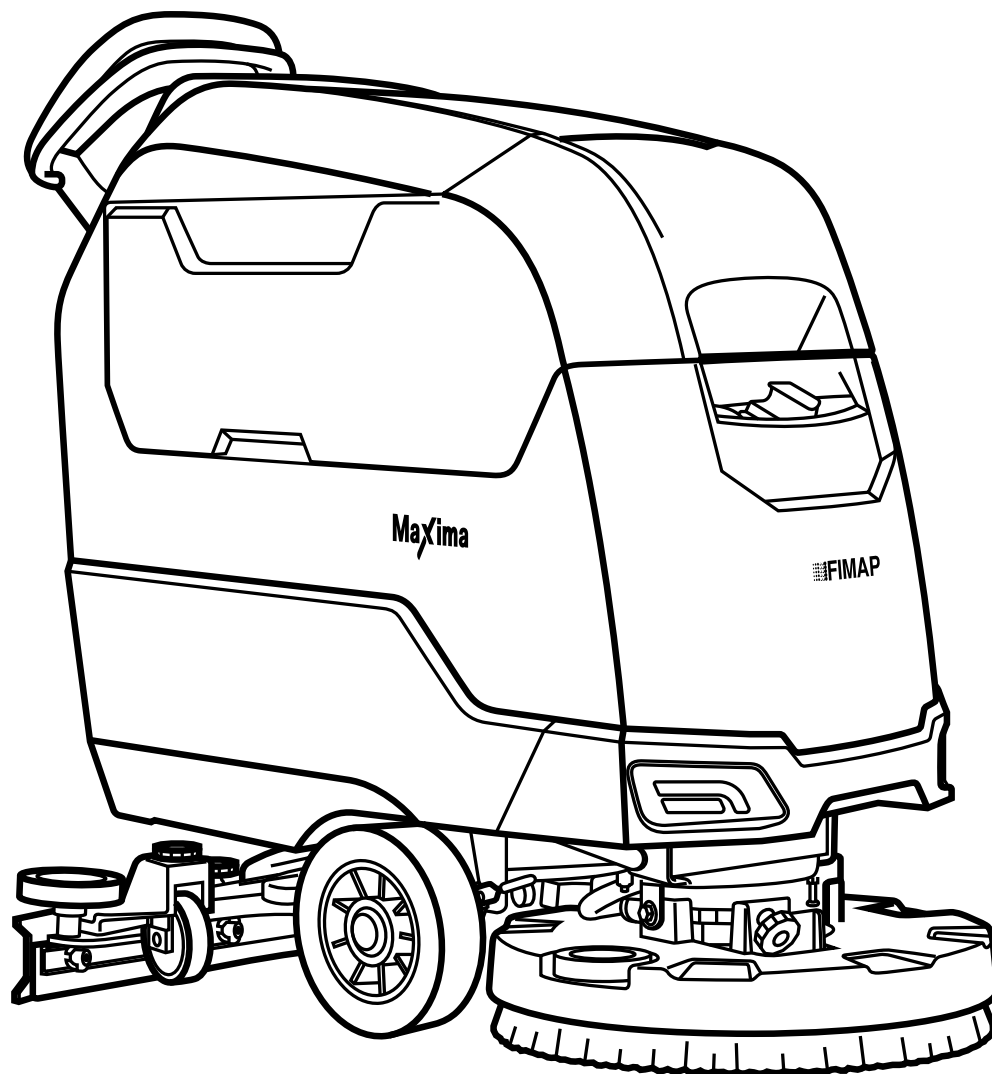


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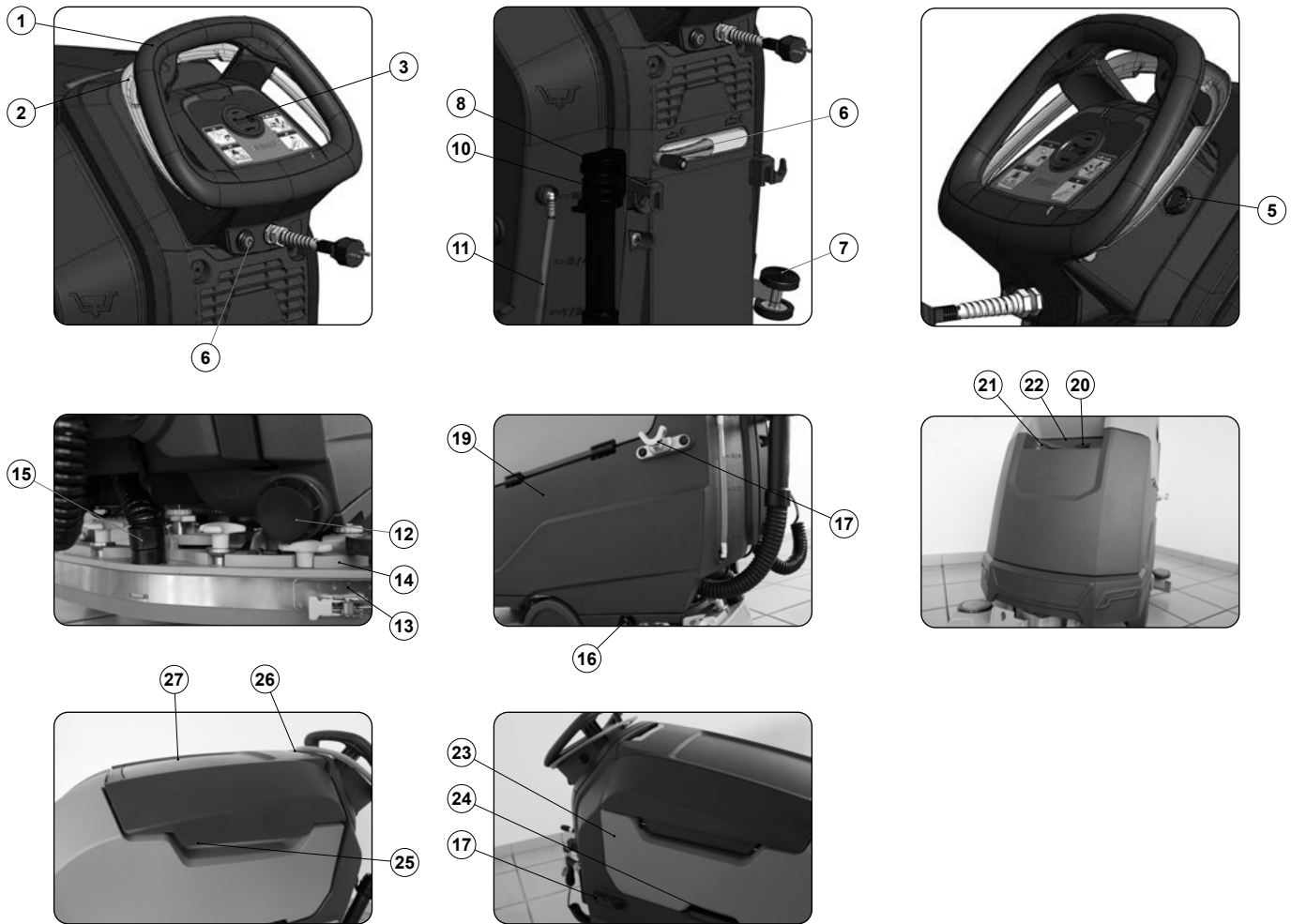
PROFESSIONAL SCRUBBING MACHINES

USE AND MAINTENANCE MANUAL

 **FIMAP**[®]



ORIGINAL INSTRUCTIONS DOC. 10077476 - Ver. AA - 01-2018



MAIN MACHINE COMPONENTS

The main machine components are the following:

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Control handlebars. 2. Dead man's lever. 3. Control display. 4. Main key switch. 5. Emergency button. 6. Main switch. 7. Squeegee body control lever. 8. Brush head control pedal. 9. Support hook for recovery tank drainage tube. 10. Power supply cable support hook. 11. Recovery tank drainage tube. 12. Solution tank level indicator. 13. Solution tank drainage cap. 14. Squeegee body. | <ol style="list-style-type: none"> 15. Squeegee body support. 16. Vacuum tube. 17. Water flow adjustment tap. 18. Brush support. 19. Brush head body. 20. Solution tank. 21. Solution tank filler cap/measuring inlet. 22. Solution tank filler tube cap. 23. Cover cap for FFF "FIMAP FAST FILL" quick coupling kit (optional). 24. Recovery tank. 25. Recovery tank lifting handle. 26. Recovery tank cover lifting handle. 27. Control handle for accessory compartment door. 28. Accessory compartment door. 29. Detergent solution filter. |
|---|--|

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GENERAL SAFETY REGULATIONS

The following symbols are used to indicate any potentially hazardous situations. Always read this information carefully and take the necessary precautions to protect any people and/or objects that may be present.

Operator cooperation is paramount for accident prevention. No accident prevention programme can be effective without the full cooperation of the person directly responsible for operating the machine. The majority of occupational accidents that happen either in the workplace or whilst moving are caused by failure to respect the most basic safety rules. An attentive, careful operator is most effective guarantee against accidents and is fundamental in order to implement any prevention programme.



DANGER: Indicates an imminent danger that could cause serious injury or death.



WARNING: Indicates a probable dangerous situation that could cause serious injury or death.



CAUTION: Indicates a probable dangerous situation that could cause minor injuries.



ATTENTION: Indicates a probable dangerous situation that could damage objects.

CONNECTION TO THE ELECTRICITY GRID



DANGER:

- To reduce the risk of fire, electric shocks or injury, please read and comply with all the safety instructions and warnings. This machine has been designed to be safe when it is used for cleaning in the manner specified. If damage to electrical or mechanical components is found, the machine must be repaired at the relative authorised service centre before use, in order to prevent further damage to the machine or physical injury to the user.
- Before connecting the machine to the electric socket, make sure the electrical information on the serial number plate corresponds to that of the mains supply. **The machine must only be powered with alternating current and with a voltage equal to that shown on the serial number plate.**
- The power supply cable outlet must have an earth connection in compliance with the regulatory standards.
- If the machine packaging contains the cable to connect to the mains supply, it should only be used for the above-mentioned machine.
- Before using, check for any damage on the connection cable and on the power plug. If the cable is damaged, immediately contact a technician for restoring normal functioning.
- Connect the machine only to an electrical connection installed by an electrical installer in conformity with IEC 60364-1.
- Never touch the power plug with wet hands.
- Make sure that the cable to the mains or the extension cable have not been damaged by having been walked on, crushed, pulled or the like. Protect the cable from heat and from contact with oils or sharp edges.
- Regularly check that the cable connecting to the mains is not damaged, for example with signs of ageing or cracks. If the cable is damaged it should be replaced before using the machine again.
- Protection against splashes of water and the mechanical strength need to be ensured also after any replacement of the joints of the power cable or the extension cable.



ATTENTION:

- The procedure causes a short-term reduction in voltage.
- In unfavourable grid conditions the other appliances could be damaged.
- This damage could occur if the grid impedance is less than 0.15Ω .

EXTENSION CABLES



CAUTION:

CABLE LENGTH	CABLE SECTION	
	<16A	<25A
Up to 20m	1.5mm ²	2.5mm ²
From 20m to 50m	2.5mm ²	4.0mm ²

Only use the materials expressly recommended by a service technician as cable extensions (contact an authorised retailer) or else high quality models. When using an extension, respect its minimum cross-section.

USING THE MACHINE



DANGER:

- In the event of danger, take prompt action by pressing the emergency button on the back of the machine (near the control handlebars).
- Never collect gases, explosive/inflammable liquids or powders, nor acids and solvents! These include gasoline, paint thinners and fuel oil (which, when mixed with the vacuum air, can form explosive vapours or mixtures), and also non-diluted acids and solvents, acetones, aluminium and magnesium powders. These substances may also corrode the materials used to construct the machine.
- If the machine is used in dangerous areas (e.g. petrol stations), the relative safety standards must be observed. It is forbidden to use the machine in environments with a potentially explosive atmosphere.



WARNING:

- Always use the machine in compliance with its intended use, taking into consideration local conditions and looking out for the presence of others when working, especially children.
- The machine should only be used by people trained in its use and who have shown that they know how to use the machine and have been expressly authorised to do so.
- This machine should not be used by persons (including children) with physical, sensorial or mental impairments and by persons with little experience and/or little knowledge of the machine itself.
- The machine must only be used by authorised, trained personnel.
- Do not use the machine on surfaces with a slope greater than the one indicated on the serial number plate.
- The machine is not suitable for cleaning rough or uneven floors. Do not use the machine on slopes.
- In the event of a fire, use a powder extinguisher. Do not use water.
- Adapt the speed to the adhesion conditions.
- Do not use the machine if you do not have the requisite knowledge or authorisation.
- Do not use the machine if you have not read and understood the following user manual.
- Do not use the machine under the influence of alcohol or drugs.
- Do not use the machine while using a mobile phone or other electronic devices.
- Do not use the machine if it is not working correctly.
- Do not use the machine in areas where there are inflammable vapours or liquids or combustible powders.
- Do not use the machine in areas where it is too dark to see the controls or operate the machine safely, unless the work lights or the front headlights are on.
- To prevent the unauthorised use of the machine, the power supply must be interrupted: switch off the machine using the main switch (then removing the key from the block) and disconnect the power cable from the wall socket.

**CAUTION:**

- Children must be supervised to ensure they do not play with the machine.
- During machine operation, pay attention to other people and especially to children.
- 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 only be used and stored in an enclosed or covered environment.
- The machine must not be used or stored outdoors in damp conditions or directly exposed to rain.
- The machine does not cause harmful vibrations.
- Use the machine only in the manner described in this manual.
- Do not collect inflammable or steaming refuse, like cigarettes, matches and hot embers.
- Reduce speed along dangerous bends or slopes.
- Always follow the instructions on the containers for mixing, using and disposing of chemical substances.

**ATTENTION:**

- Always take appropriate measures to protect any individuals and/or objects that may be present while using this machine.
- Be careful to avoid collisions with shelving or scaffolding, above all if there is a risk of objects falling from heights.
- Do not place any liquid containers on the machine.
- The machine must only be used under temperature conditions ranging from 0 °C to +40 °C.
- When using detergents to clean the flooring, always follow the instructions and respect the warnings indicated on the container labels.
- Always use appropriate gloves and protective equipment when handling the detergents used to clean the floor.
- Avoid working with the brushes when the machine is standing still, so as not to damage the floor.
- In the event of a fire, use a powder fire extinguisher if possible, and avoid the use of water.
- Do not allow any objects to penetrate into the machine openings. Do not use the machine if the openings are obstructed.
- Keep the machine openings free of dust, lint, hairs, or any other foreign materials that could reduce the airflow.
- Do not remove or alter any labels fixed to the machine.
- Only use the brushes and pad holders that have been supplied with the machine, or those specified in the Use and Maintenance Manual. The use of other brushes or felt pads may compromise the machine safety conditions.
- Before starting to work, check there are no leaks.
- Before starting to work, check that all the safety devices have been installed and are working correctly.

DEACTIVATION OF THE MACHINE



WARNING:

- Always protect the machine against sunlight, rain, and other atmospheric agents, both while it is stationary and while it is functioning. Store the machine in a dry, sheltered place: this machine is only designed for use under dry conditions, and must not be used or stored outdoors in humid conditions.
- Do not park the machine near combustible materials, powders, gases or liquids.
- Stop the machine on a flat surface.
- Switch off the machine using the main switch (then removing the key from the block) and remove the plug of the power cable from the wall socket.
- If the machine is left unattended, it must be protected from any accidental movements



ATTENTION:

- The machine must only be stored under temperature conditions ranging from 0 °C to +40 °C. The humidity level must be between 30% and 95%.

MAINTENANCE



DANGER:

- To avoid short-circuits when working in the vicinity of electrical components: avoid the use of non-insulated tools; do not place or allow metallic objects to fall upon the electrically powered components; remove rings, watches and/or clothing with metallic parts that might come into contact with the electrically powered components.
- Do not work underneath the raised machine without adequate fixed safety supports.



WARNING:

- Read all the relevant instructions carefully before performing any maintenance/repair operations.
- If the machine does not work properly, check this is not caused by failure to carry out routine maintenance. Otherwise, ask for the intervention of the authorised technical assistance centre.
- Restore all electrical connections after any maintenance interventions.



CAUTION:

- When carrying out maintenance switch off the machine using the main switch (then removing the key from the block) and disconnect the power cable from the wall socket.
- Avoid contact with moving parts. Do not wear loose clothing or jewellery and tie up long hair.
- Block the wheels before lifting the machine.
- Lift the machine with equipment suitable for the weight to be lifted.



ATTENTION:

- Never tamper with the machine protection devices for any reason. Always follow the supplied routine maintenance instructions scrupulously.
- If the machine needs to be pushed for maintenance purposes (batteries absent; discharged batteries; etc.), never exceed 4 km/h.

- If there are any machine operation anomalies, check they are not due to a lack of proper maintenance. Otherwise, request the intervention of authorised personnel or an authorised service centre.
- If any parts need to be replaced, always request ORIGINAL spare parts from an authorised dealer or retailer.
- To ensure machine safety and its proper functioning, always have the scheduled maintenance interventions (specified in the appropriate section of this manual) performed by authorised personnel or by an authorised service centre.
- Do not clean the machine with direct or pressurised jets of water, or with corrosive substances.
- Have the machine checked by an authorised technical assistance centre every year.
- When disposing of consumable materials, observe the laws and regulations in force. Once the machine has reached the end of its service life, the materials contained within it must be disposed of in an appropriate manner, keeping in mind that the machine itself has been built using fully recyclable materials.
- Do not wash the machine with pressurised water, or wet it in the vicinity of electrical components.
- All repairs must be carried out by qualified personnel.
- Do not physically change the design characteristics of the machine.
- Use spare parts provided by authorised service centres.
- Wear personal protective equipment as required and as suggested in the manual.

TRANSPORT



WARNING:

- Drain both tanks before transport.
- Bring both the squeegee and the brushes to a working position before securing the machine to the transport vehicle.
- Use a ramp, truck or trailer that can support the weight of the machine and the operator.
- The ramp gradient must not be such as to cause damage to the machine as it moves up onto the vehicle.

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The company reserves the right to make any technical and/or supply modifications. The images are shown as reference only and are not binding as to the actual design and/or equipment.

SYMBOLS USED IN THE MANUAL



Symbol of the open book with i:
Indicates the need to consult the instruction manual.



Symbol of the open book:
Tells the operator to read the user manual before using the device.



Covered place symbol:
The operations preceded by this symbol must always be carried out in a dry, covered area.



Information symbol:
Indicates additional information for the operator, to improve the use of the device.



Warning symbol:
Carefully read the sections preceded by this symbol meticulously following the instructions indicated for the safety of the operator and the device.



Danger symbol (corrosive substances):
The operator should always wear protective gloves to avoid the risk of serious injury to the hands caused by corrosive substances.



Danger symbol (battery acid leakage):
Indicates the danger of leaking acid or acid fumes from the batteries while they are being recharged.



Danger symbol (moving carriages):
Indicates that the packed product should be handled with suitable carriages that conform to legal requirements.



Mandatory room ventilation symbol:
Informs the operator that the room must be ventilated while the batteries are being recharged.



Symbol indicating the compulsory use of protective gloves:
Indicates that the operator should always wear protective gloves, to avoid the risk of serious injury to his hands from sharp objects.



Symbol indicating a treading ban:
Informs the operator that it is forbidden to tread on machine components, as this could lead to serious injury.



Recycling symbol:
Tells the operator to carry out the operations in compliance with environmental regulations in force in the place where the appliance is being used.



Disposal symbol:
Carefully read the sections marked with this symbol for disposing of the appliance.



Symbol of the squeegee body vacuum tube position:
Used to indicate the correct position of the squeegee body vacuum tube. The tube must be positioned behind the squeegee body lifting chain.

PURPOSE AND CONTENT OF THE MANUAL

The aim of this manual is to provide customers with all the information needed to use the machine in the safest, most appropriate and most autonomous way. This includes information concerning technical aspects, safety, operation, downtime, maintenance, spare parts and scrapping. The operators and qualified technicians must carefully read the instructions in this manual before carrying out any operations on the machine. If in doubt about the correct interpretation of instructions, contact your nearest Customer Service Centre to obtain the necessary clarifications.

TARGET GROUP

This manual is written both for operators and for qualified machine maintenance technicians. Operators must not perform operations that should be carried out by qualified technicians. The manufacturer is not liable for damages resulting from failure to comply with this veto.

STORING THE USE AND MAINTENANCE MANUAL

The Use and Maintenance Manual must be stored in its special pouch close to the machine, protected from liquids and anything else that could compromise its legibility.

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

Any floor scrubbing machine can only work properly and effectively if used correctly and kept in full working order by performing the maintenance operations described in the attached documentation. We therefore suggest you read this instruction booklet carefully and read it again 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.

IDENTIFICATION DATA


For technical assistance or to request replacement parts, always give the model, the version and the serial number (written on the relevant plate).


TECHNICAL DESCRIPTION

The **MAXIMA2017** is a floor scrubbing machine that can work on various types of floor and dirt thanks to the mechanical action of a brush and the chemical action of a water-detergent solution. As it advances, it collects the dirt removed, along with the detergent solution not absorbed by the flooring itself. **The machine must only be used for this purpose.**

INTENDED USE

This scrubbing machine was designed and built for the cleaning (scrubbing and drying) of smooth, compact flooring in the commercial, residential and industrial sectors by a qualified operator in proven safety conditions. The scrubbing machine is not suitable for cleaning rugs or carpet floors. It is only suitable for use in closed (or at least covered) places.

 **ATTENTION:** the machine is not suitable for use in the rain, or under water jets.

 **IT IS FORBIDDEN** to use the machine for picking up dangerous dusts or inflammable liquids in places with an explosive atmosphere. In addition, it is not suitable as a means of transport for people or objects.

SAFETY

Operator cooperation is paramount for accident prevention. No accident prevention programme can be effective without the full cooperation of the person directly responsible for machine operation. The majority of occupational accidents that happen either in the workplace or whilst moving are caused by failure to respect the most basic safety rules. An attentive, careful operator is most effective guarantee against accidents and is fundamental in order to implement any prevention programme.

CONVENTIONS

All references to forwards and backwards, front and rear, right and left indicated in this manual should be understood as referring to the operator in the driving position, with his/her hands on the control handlebars.

SERIAL NUMBER PLATE

The serial number plate is located above the electric system panel, inside the machine. It shows the general machine characteristics, in particular the serial number. The serial number is a very important piece of information and should always be provided together with any request for assistance or to purchase spare parts.



TECHNICAL DATA

TECHNICAL DATA	Unit of measurement symbol	MAXIMA 2017 BASE 50 E 230V	MAXIMA 2017 BASE 60 E 230V	MAXIMA 2017 BASE 50 E 110V	MAXIMA 2017 BASE 60 E 110V
Rated machine power	W	825	1200	825	1200
Working capacity up to	m ² /h	1275	1513	1275	1513
Working width	mm	510	605	510	605
Squeegee width	mm	712	785	712	785
Brush head brush diameter (number - diameter)	mm	1 - 510	2 - 310	1 - 510	2 - 310
Number of brush head brush rotations	rpm	140			
Brush head motor (voltage / nominal power)	V - W	230 - 375	230 - 375	110 - 375	110 - 375
Maximum weight exerted on the brush head	kg	21	27	21	27
Maximum possible gradient	%	2			
Maximum ambient temperature for machine operation	°C	+40			
Minimum ambient temperature for using the machine's scrubbing functions	°C	+5			
Vacuum motor (voltage - nominal power rating)	V - W	230 - 450		110 - 450	
Vacuum on vacuum head	mbar	123			
Maximum solution tank capacity	l	53			
Maximum recovery tank capacity	l	55			
Machine dimensions (length - width - height)	Mm	1299 - 558 - 1097	1268 - 641 - 1097	1299 - 558 - 1097	1268 - 641 - 1097
Machine weight during transport ⁽¹⁾	Kg	100	110	100	110
Machine weight during work operations ⁽²⁾	Kg	154	164	154	164
Sound pressure level (ISO 11201) - L _{PA}	dB (A)	66,8	66,8	66,8	66,8
Uncertainty K _{PA}	dB (A)	1,5	1,5	1,5	1,5
Hand vibration level (ISO 5349)	m/s ²	<2,5	<2,5	<2,5	<2,5
Vibration measurement uncertainty		-	-	-	-

Remarks:

- (1) Machine weight: refers to the overall weight of the machine, with the batteries, with both tanks empty.
- (2) Machine weight during work operations: refers to the overall weight of the machine, with the solution tank full, with the recovery tank empty.

SYMBOLS USED ON THE MACHINE



Symbol of maximum temperature for filling the solution tank:
Located on the front of the solution tank, to indicate the maximum temperature of the water for filling the solution tank safely.



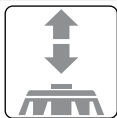
Filter body position symbol:
Located on the right-hand side of the machine to indicate the position of the detergent solution filter.



Position symbol for the solution tank drainage cap:
Applied to the back of the machine to identify the solution tank drainage cap.



Position symbol for the recovery tank drainage tube:
Applied to the back of the machine to identify the recovery tank drainage tube.



Position symbol for the brush head control pedal:
Located on the rear part of the machine, to identify the brush head control pedal.



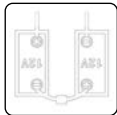
Symbol for extra brush head pressure activation:
Located on the rear part of the machine, to identify the correct position of the brush head control pedal in order to activate the extra pressure function.



Squeegee body working position symbol:
Located on the rear part of the machine, to indicate the squeegee control lever rotation direction for bringing the squeegee to its working position.



Symbol for squeegee body idle:
Located on the rear part of the machine, to indicate the squeegee control lever rotation direction for bringing the squeegee to its idle position.

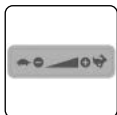


Battery connection symbol:
Located on the front of the solution tank, to indicate how to connect the 12V batteries in order to obtain a total voltage of 24V.

LABELS USED ON THE MACHINE



Label for detergent solution tap control:
Located on the right-hand side of the machine, to identify the control knob of the detergent solution tap.



Label for brush head tilt adjustment:
Located on the front of the machine, to identify the knob for adjusting the brush head body tilt.



Maintenance safety warning label:
Used on the machine to warn the operator that before maintenance work the power cable must be disconnected from the mains socket.



Solution tank filter daily care warning label:
Applied to the machine to remind the operator to clean the solution tank after each use.



Label reminding to close tap at the end of the work:
Used on the machine to remind the operator to close detergent solution supply when work is finished.



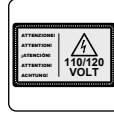
Machine use warning label:
Located on the rear of the machine, to warn the operator which substances cannot be removed with the machine.



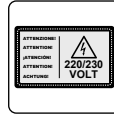
Moving brush hazard label:
Used on the machine to warn the operator not to place his/her hands near the moving brush.



Mains socket warning label:
Used on the machine to warn the operator that the mains socket, where the machine's power cable is connected, should be duly grounded.



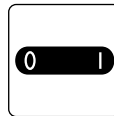
Label warning of the danger of electrocution (versions 110-120 volt):
Used on the machine to warn the operator that there is a danger of electrocution with a voltage from 110-120 volt.



Label warning of the danger of electrocution (versions 220-230 volt):
Used on the machine to warn the operator that there is a danger of electrocution with a voltage from 220-230 volt.



Label warning about the risk of crushed hands:
Indicates danger to hands due to crushing between two surfaces.



Main key switch symbol:
Located near the control panel, to indicate the main key switch.

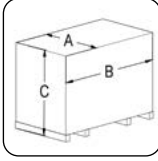


Main switch symbol:
Located near the control panel, to indicate the machine's main key switch.

MACHINE PREPARATION

HANDLING THE PACKAGED MACHINE

The machine is contained in specific packaging, and since the packaging elements (plastic bags, staples, etc.) are a potential source of danger, they should not be left within the reach of children, disabled persons, etc. The machine's overall weight including packaging is 000Kg. The overall dimensions of the package are: A=765mm B=1460mm C=1270mm.



ATTENTION: it is recommended that all the packaging components be kept for any future machine transportation.

ATTENTION: move the packaged product with handling equipment that complies with legal requirements regarding size and mass of the packaging.

HOW TO UNPACK THE MACHINE

The machine is shipped in specific packaging. To remove it, proceed as follows:

1. Place the lower part of the outer packaging in contact with the floor.

NOTE: use the pictograms printed on the box as a reference.

2. Remove the outer package.

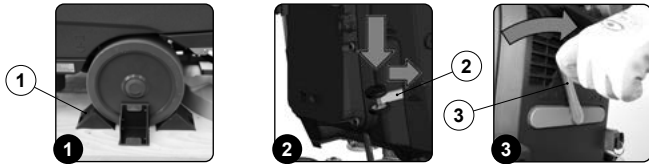
CAUTION: these operations must be carried out using protective gloves to avoid any possible contact with the edges or tips of metal objects.

3. The machine is fixed to the pallet by means of chocks (1) that block the wheels and brush head (Fig.1), remove these chocks.

4. Raise the brush head body and fully depress the "BRUSH HEAD CONTROL" pedal (2) at the rear of the machine (Fig.2).

NB: to lock the brush head in the raised position, depress the pedal (2) fully and then move it towards the right-hand side of the machine (Fig.2).

5. Raise the squeegee body and turn the squeegee control lever (3) in the direction of the arrow (Fig.3). The lever is located on the back of the machine.



6. Use a ramp to bring the machine down from the pallet.

CAUTION: do not fit the brush and the rear squeegee body before unloading the machine, and avoid any violent jolts to the brush head and squeegee support.

NB: the ramp gradient must not be such as to cause damage to the machine as it comes down.

HOW TO MOVE THE MACHINE

To transport the machine safely, proceed as follows:

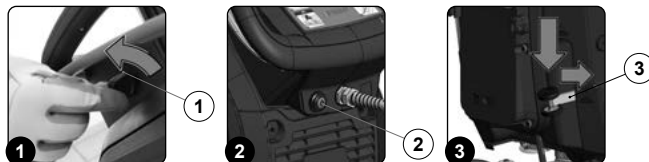
DANGER: before starting any task, make sure the current regulations concerning the safe transport of dangerous substances are scrupulously observed.

1. Make sure that the solution tank and the recovery tank are empty. If not, empty them (see the sections "EMPTYING THE SOLUTION TANK" and "EMPTYING THE RECOVERY TANK").
2. Check that the main key switch on the control panel is set to "0". If necessary turn the key (1) to the left (Fig.1).
3. Check that the main button switch on the control panel is set to "0". If necessary press the button (2) (Fig.2).

NB: if the LED in the button switch (2) is on it means that the switch is set to "I" (Fig.2). If the LED in the button switch (2) is off it means that the switch is set to "0".

4. Raise the brush head body and fully depress the "BRUSH HEAD CONTROL" pedal (3) at the rear of the machine (Fig.2).

NB: to lock the brush head in the raised position, press the pedal (2) all the way down and then move it towards the right-hand side of the machine (Fig.3).



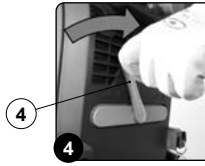
5. Raise the squeegee body and turn the squeegee control lever (4) in the direction of the arrow (Fig.4). The lever is located on the back of the machine.

6. Use a ramp to move the machine up onto the transport vehicle.

CAUTION: during this operation, check there are no people or objects near the machine.

N.B.: the ramp gradient must not be such as to cause damage to the machine as it goes up.

WARNING: secure the device according to the directives in force in the country of use, so that it cannot slide or tip over.



MACHINE SAFETY MEASURES

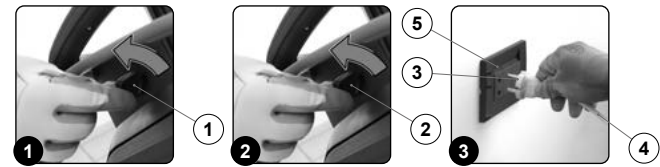
To ensure that work is carried out in the best safety conditions, proceed as follows:

1. Switch off the machine by positioning the main switch (1) to "0" (Fig.1).

NB: if the LED in the button switch (1) is on it means that the switch is set to "I" (Fig.1). If the LED in the button switch (1) is off it means that the switch is set to "0".

2. Switch off the machine setting the main key switch to "0", turn the key (2) to the left (Fig.2).

3. Disconnect the plug (3) of the power cable (4) from the mains supply socket (5) (Fig.3).



4. Wind up the power cable and put it in the tear-resistant hook (6) in the rear of the machine (Fig.4).

CAUTION: We recommend handling the power cable with dry hands to avoid serious injury.

CAUTION: To prevent damaging the power cable, disconnect the plug from the mains socket by directly pulling the plug and not the cable.

5. Make sure the recovery tank is empty. If it isn't, empty it using the tube (7) on the rear left-hand side of the machine (Fig.5) (see "EMPTYING THE RECOVERY TANK").

ATTENTION: the tanks should be emptied in the place used for draining dirty water.

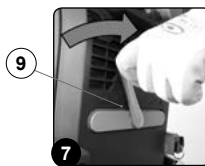
ATTENTION: the place designated for this operation must comply with current environmental protection regulations.

6. Raise the brush head body and push all the way down the "BRUSH HEAD CONTROL" pedal (8) at the rear of the machine (Fig.6).

NB: to lock the brush head in the raised position, depress the pedal (8) fully and then move it towards the right-hand side of the machine (Fig.6).



7. Raise the squeegee body and turn the squeegee control lever (9) in the direction of the arrow (Fig.7), the lever is located on the back of the machine.



ASSEMBLING THE BRUSH (50BT VERSIONS)

For packaging reasons, the brush is supplied disassembled from the machine. To assemble it on the brush head body, proceed as follows:

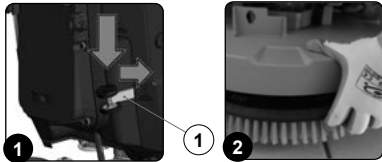
1. Make sure the machine has been secured (see "SECURING THE MACHINE").

CAUTION: users are advised to always wear protective gloves, to avoid the risk of serious injury to hands.

2. Raise the brush head body and fully depress the "BRUSH HEAD CONTROL" pedal (1) at the rear of the machine (Fig.1).

NB: to lock the brush head in the raised position, depress the pedal (1) fully and then move it towards the right-hand side of the machine (Fig.6).

3. With the brush head up, insert the brush in the plate housing underneath the brush head, turning it until the three buttons engage with the notches on the plate itself (Fig.2).
4. Turn until the pin is pushed towards the coupling spring and is locked into place.



ASSEMBLING THE BRUSH (60BT VERSIONS)

For packaging reasons, the brushes are supplied disassembled from the machine. To assemble them on the brush head body, proceed as follows:

1. Make sure the machine has been secured (see "SECURING THE MACHINE").

CAUTION: users are advised to always wear protective gloves, to avoid the risk of serious injury to hands.

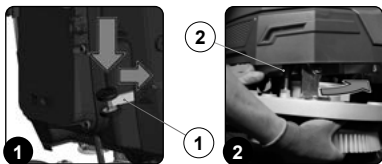
2. Raise the brush head body and fully depress the "BRUSH HEAD CONTROL" pedal (1) at the rear of the machine (Fig.1).

NB: to lock the brush head in the raised position, depress the pedal (1) fully and then move it towards the right-hand side of the machine (Fig.6).

3. With the brush head in the raised position, press the brush-holder plate retainer (2) and simultaneously rotate the brush in the direction shown in the image (Fig.2).

ATTENTION: Fig.2 shows the rotation direction of the left-hand brush, rotate in the opposite direction for the right-hand brush.

4. When brush rotation is prevented, turn until the button on the brush is engaged in the coupling spring on the brush-holder plate.
5. Repeat the operations completed for the right-hand front brush as well.



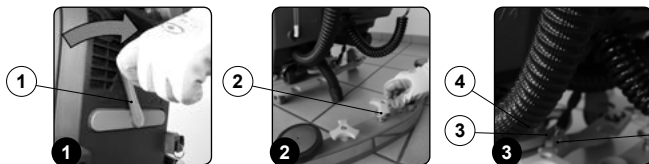
ASSEMBLING THE SQUEEGEE BODY

For packaging reasons, the squeegee body comes disassembled from the machine. To assemble it on the squeegee support, proceed as follows:

1. Make sure the machine is in a safe condition (see "MACHINE SAFETY MEASURES").
2. Raise the squeegee body and turn the squeegee control lever (1) in the direction of the arrow (Fig.1). The lever is located on the back of the machine.

CAUTION: these operations must be carried out using protective gloves to avoid any possible contact with the edges or tips of metal objects.

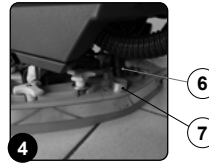
3. Unscrew the knobs (2) in the squeegee body pre-assembly (Fig.2).
4. First of all, insert the left-hand pin (3) on the squeegee body in the left slit (4) in the squeegee support (Fig.3), so that the bushing (5) adheres to the walls of the slit.
5. Repeat the same operation for the right-hand pin.



6. Insert the vacuum tube (6) in the sleeve (7) in the squeegee body (Fig.4).

NB: the tube must be positioned behind the squeegee lifting chain.

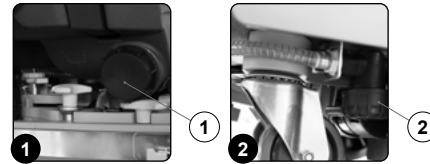
NB: The squeegee has already been adjusted, but refer to "ADJUSTING THE SQUEEGEE BODY RUBBER BLADES" if you need any information.



FILLING THE SOLUTION TANK WITH WATER

Before filling the solution tank, carry out the following steps:

1. Take the machine to the usual place for filling the solution tank.
2. Make sure the machine is in a safe condition (see "MACHINE SAFETY MEASURES").
3. Check the solution tank drainage cap (1) (on the rear right-hand side of the machine) is tight. If it isn't, turn it clockwise (Fig.1).
4. Check the water filter cap (2) (on the rear right-hand side of the machine) is tight. If it isn't, turn it clockwise (Fig.2).

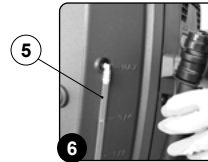


The solution tank can be filled with water in three different ways:

- Removing the cap/measuring device (3) (Fig.3) and filling the solution tank by means of a rubber tube or a bucket (Fig.4).
- Using the filler tube (4) (Fig.5), which supports the water tube on its own. In this case, remember to remove the cap/measuring device (3) to ensure the air is properly vented.
- Using the optional system for automatic clean water top-up. This system has a float for avoiding any overflow.



5. Fill with clean water, at a temperature not higher than 50°C and not lower than 10°C. The amount inside the tank can be seen by means of the level tube (5) (Fig.6) on the rear left-hand side of the machine.



DETERGENT SOLUTION

After filling the solution tank with clean water add the liquid detergent to the tank in the concentration and manner indicated on the detergent manufacturer's label. To prevent the formation of an excessive amount of foam that could damage the vacuum motor, use the minimum percentage of detergent required.

CAUTION: protective gloves should always be worn before handling detergents or acidic or alkaline solutions, to avoid serious injury to the hands.

CAUTION: always use detergents whose manufacturer's label indicates their suitability for scrubbing machines. Do not use acid or alkaline products or solvents without this indication.

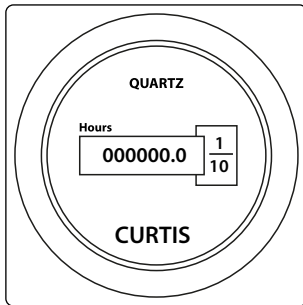
ATTENTION: acid or alkaline maintenance detergents can be used, as long as they have pH values between 4 and 10, and do not contain: oxidising agents, chlorine or bromine, formaldehyde, mineral solvents. The detergents used must be suitable for use with scrubbing machines.

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

NB: to make it easier to measure the detergent on the cap/measuring device, there are notches indicating the detergent percentage quantities that can be used. The notches range from a minimum of 0.1% to a maximum of 0.5%.

HOUR METER

The machine control panel contains the control display, which shows the total usage time. The numbers before the letter "h" identify the hours, while the numbers before the letter "m" identify the tenths of an hour (a tenth of an hour corresponds to six minutes). The flashing ":" symbol indicates that the hour meter is counting the machine functioning time.



PREPARING TO WORK

Before beginning to work, it is necessary to:

1. Make sure the recovery tank is empty. If it isn't, empty it (see "[EMPTYING THE RECOVERY TANK](#)").
2. For versions without FSS, make sure the amount of detergent solution in the solution tank is suitable for the type of work to be carried out. If it isn't, fill the solution tank (see "[FILLING THE SOLUTION TANK WITH WATER](#)" and "[DETERGENT SOLUTION](#)"). Check the level tube (1) in the rear left-hand part of the machine (Fig.1).
3. Check the rubber squeegee blades are in good working condition. If they aren't, replace them (see "[REPLACING THE SQUEEGEE BODY RUBBER BLADES](#)").
4. Check the brush is in good working condition. If it isn't, replace it (see "[REPLACING THE BRUSH HEAD BRUSH](#)").
5. Check that the main key switch on the control panel is set to "0". If necessary turn the key (2) to the left (Fig.2).
6. Check that the main button switch on the control panel is set to "0". If necessary press the button (3) (Fig.3).

i NB: if the LED in the button switch (3) is on it means that the switch is set to "I" (Fig.3). If the LED in the button switch (3) is off it means that the switch is set to "0".



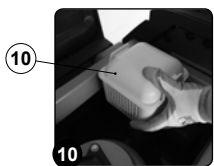
7. Check that the water tap is fully open, the water adjustment knob (4) must be turned fully in the direction shown by the arrow (Fig.4).
8. Make sure the solution tank drainage cap (5) is closed. If it isn't, close it (Fig.5).
9. Make sure the water system filter cap (6) is closed. If it isn't, close it (Fig.6).



10. Make sure the cap of the recovery tank drainage tube (7) is closed. If it isn't, close it (Fig.7).
11. Make sure the vacuum tube (8) is correctly connected to the sleeve in the squeegee body. If it isn't, connect it (Fig.8).
12. Make sure the vacuum motor filter (9) is correctly connected and is clean (Fig.9). If it isn't, clean it (see "[CLEANING THE RECOVERY TANK](#)").



13. Make sure the filter basin (10) is correctly connected and is clean (Fig.10). If it isn't, clean it (see "[CLEANING THE RECOVERY TANK](#)").
14. Make sure the recovery tank cover is properly closed. If it isn't, close it.



STARTING WORK

To start working, proceed as follows:

1. Carry out all the checks listed in the chapter "[PREPARING TO WORK](#)".
2. Connect the plug (1) of the power cable (2) to the mains supply socket (3) (Fig.1).

⚠ CAUTION: We recommend handling the power cable with dry hands to avoid serious injury.

3. Go to the driving position, behind the machine.
4. Switch on the machine by setting the main switch to "I", press the button (4) (Fig.2).

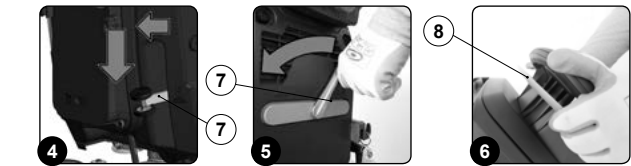
i NB: if the LED in the button switch (4) is on it means that the switch is set to "I" (Fig.2). If the LED in the button switch (4) is off it means that the switch is set to "0".

5. Set the main key switch to "I", turn the key (5) by a quarter turn to the left (Fig.3).



i NB: the steps for a complete scrubbing and drying cycle are explained below.

6. Lower the brush head body and detach the "BRUSH HEAD BODY CONTROL" pedal (6) at the back of the machine (Fig.4).
7. Lower the squeegee body and turn the squeegee control lever (7) in the direction of the arrow (Fig.5). The lever is located on the back of the machine.
8. When the dead man's lever (8) is pressed, the machine will begin to move. The lever is located underneath the control handlebars (Fig.6).



i NB: the gearmotor will only begin functioning, and the solenoid valve will only begin dispensing detergent solution, when the brush head body is in its working position.

9. During the first few metres, check that the detergent solution coming out is suitable for the task in hand. If it isn't, adjust it after reading the section "[REGULATING THE DETERGENT SOLUTION](#)".

The machine will start to work at maximum efficiency until the detergent solution is finished. During the first few metres, check that there is sufficient solution and that the squeegee is drying correctly.

i NB: if the dead man's lever is released during the scrubbing with drying operation, the brush motor and the solenoid valve will be deactivated. The vacuum motor will continue working until the squeegee control lever is rotated to bring it back to its idle position.

i NB: if the squeegee body is raised during the scrubbing and drying operation, the vacuum motor will continue working at maximum speed for a certain period of time, and then switch off. This ensures that all the liquid in the vacuum tube is eliminated.

i NB: when filling the solution tank, it is good practice to empty the recovery tank using the special drainage tube.

SCRUBBING WITH DRYING

To perform a scrubbing and drying program, proceed as follows:

1. Carry out all the checks listed in the chapter "[PREPARING TO WORK](#)".
2. Connect the plug (1) of the power cable (2) to the mains supply socket (3) (Fig.1).

⚠ CAUTION: We recommend handling the power cable with dry hands to avoid serious injury.

3. Go to the driving position, behind the machine.
4. Switch on the machine by setting the main switch to "I", press the button (4) (Fig.2).

i NB: if the LED in the button switch (4) is on it means that the switch is set to "I" (Fig.2). If the LED in the button switch (4) is off it means that the switch is set to "0".

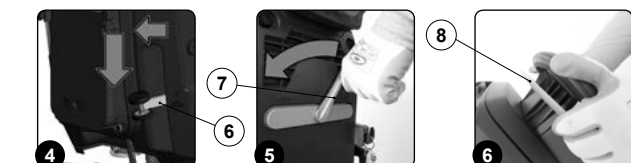
5. Set the main key switch to "I", turn the key (5) by a quarter turn to the left (Fig.3).



6. Lower the brush head body and release the "BRUSH HEAD CONTROL" pedal (6) at the back of the machine (Fig.4).
7. Lower the squeegee body and turn the squeegee control lever (7) in the direction of the arrow (Fig.5). The lever is located on the back of the machine.
8. When the dead man's lever (8) is pressed, the machine will begin to move. The lever is located underneath the control handlebars (Fig.6).

i NB: the brush head body will only begin to descend to its working position when the dead man's lever has been pressed.

i NB: the gearmotor will only begin functioning, and the solenoid valve will only begin dispensing detergent solution, when the brush head body is in its working position.



SCRUBBING WITHOUT DRYING

To perform a scrubbing only program, proceed as follows:

1. Carry out all the checks listed in the chapter "PREPARING TO WORK".
2. Connect the plug (1) of the power cable (2) to the mains supply socket (3) (Fig.1).

CAUTION: We recommend handling the power cable with dry hands to avoid serious injury.

3. Go to the driving position, behind the machine.
4. Switch on the machine by setting the main switch to "I", press the button (4) (Fig.2).

NB: if the LED in the button switch (4) is on it means that the switch is set to "I" (Fig.2), if the LED in the button switch (4) is off it means that the switch is set to "0".

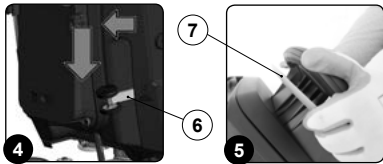
5. Set the main key switch to "I", turn the key (5) by a quarter turn to the left (Fig.3).



6. Lower the brush head body and detach the "BRUSH HEAD CONTROL" pedal (6) at the back of the machine (Fig.4).
7. When the dead man's lever (7) is pressed, the machine will begin to move. The lever is located underneath the control handlebars (Fig.5).

NB: the brush head body will only begin to descend to its working position when the dead man's lever has been pressed.

NB: the gearmotor will only begin functioning, and the solenoid valve will only begin dispensing detergent solution, when the brush head body is in its working position.



DRYING

To perform a drying program, proceed as follows:

1. Carry out all the checks listed in the chapter "PREPARING TO WORK".
2. Connect the plug (1) of the power cable (2) to the mains supply socket (3) (Fig.1).

CAUTION: We recommend handling the power cable with dry hands to avoid serious injury.

3. Go to the driving position, behind the machine.
4. Switch on the machine by setting the main switch to "I", press the button (4) (Fig.2).

NB: if the LED in the button switch (4) is on it means that the switch is set to "I" (Fig.2), if the LED in the button switch (4) is off it means that the switch is set to "0".

5. Set the main key switch to "I", turn the key (5) by a quarter turn to the left (Fig.3).



6. Lower the squeegee body and turn the squeegee control lever (6) in the direction of the arrow (Fig.4). The lever is located on the back of the machine.
7. When the dead man's lever (7) is pressed, the machine will begin to move. The lever is located underneath the control handlebars (Fig.5).

NB: the vacuum motor will only begin to work when the squeegee body is in contact with the floor.



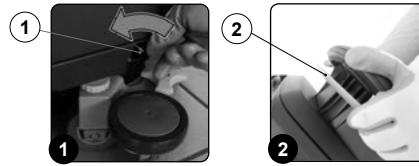
The drying without scrubbing operation should only be carried out if the machine was previously used to carry out a scrubbing without drying operation.

ADJUSTMENT OF THE DETERGENT SOLUTION FLOW

To adjust the flow of detergent solution during work, proceed as follows:

1. Make sure the detergent solution tap is fully open, rotating the knob (1) in the direction of the arrow (Fig.1). As the knob is rotated, the flow of detergent in the machine water circuit is increased.

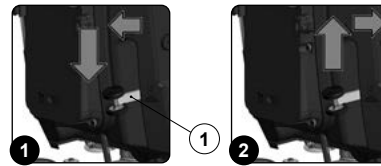
2. By pushing the dead man's lever (2) the brush motor will start operating and the solenoid valve will distribute detergent solution to the brush (Fig.2).
3. During the first few meters check that the amount of solution is sufficient to wet the floor, but not excessive to exit the splash guard.
4. If the amount of chemical that comes out is not suitable, it can be controlled via the knob (1) on the rear left-hand side of the machine (Fig.1).



EXTRA BRUSH HEAD PRESSURE

This machine can increase the pressure exerted on the brush during the work cycle. To do this:

1. Check that the brush head body is in contact with the ground; if not, detach the "BRUSH HEAD CONTROL" pedal (2) at the rear of the machine from the plate retainer (Fig.1).
2. Raise the brush head pedal and engage it in the "EXTRA PRESSURE" position (Fig.2).

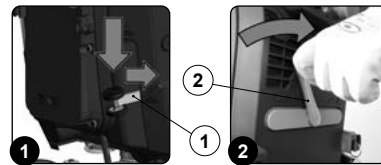


RECOVERY TANK OVERFLOW

The machine is fitted with a mechanical device (float) under the recovery tank lid. When the recovery tank is full, this device shuts off the air to the vacuum motor in order to protect it; the sound of the vacuum motor will then be deeper.

If this is the case, proceed as follows:

1. Raise the brush head body and fully depress the "BRUSH HEAD CONTROL" pedal (1) at the rear of the machine (Fig.1).
- NB:** to lock the brush head in the raised position, depress the pedal (1) fully and then move it towards the right-hand side of the machine (Fig.1).
2. Raise the squeegee body off the floor by means of the lever (2) on the back of the machine (Fig.2).
3. Bring the machine to the designated place for draining off the dirty water, and empty the recovery tank (see "EMPTYING THE RECOVERY TANK").



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. Raise the brush head body and detach the "BRUSH HEAD CONTROL" pedal (1) at the rear of the machine from the plate retainer (Fig.1).
2. Raise the squeegee body off the floor by means of the lever (2) on the back of the machine (Fig.2).
3. Take the appliance to the dedicated dirty water drainage area.
4. Switch off the machine by turning the main switch (3) to "0", making a quarter turn of the key in the direction of the arrow (Fig.3). Remove the key from the instrument panel.



5. Carry out all the procedures listed in the paragraph "RECOMMENDED PERIODIC MAINTENANCE" (in the column "AT THE END OF THE WORK").
6. Take the appliance to the designated machine storage place.

ATTENTION: park the machine in an enclosed place, on a flat surface, and at a safe distance from any objects that could either damage it or be damaged due to contact with the machine itself.

7. Make sure the machine is in a safe condition (see "MACHINE SAFETY MEASURES").

ATTENTION: if the machine is left unused for more than one whole day, remove the brush from the brush head body, and the squeegee body from the squeegee support.

8. Grip the handle (4) on the right-hand side of the recovery tank (Fig.4) and turn the tank as far as it will go, until it reaches the maintenance position.
9. Grip the prop (5) and turn it as far as it will go (Fig.5), until it reaches the work position.
10. Block the rotation of the prop (5) by pushing it towards the inside of the cover (Fig.6).



11. Grip the handle (4) on the right-hand side of the recovery tank and turn the tank as far as it will go, until it reaches the work position (Fig.7).



RECOMMENDED MAINTENANCE OPERATIONS

TYPE OF MAINTENANCE	AT THE END OF THE WORK	DAILY	WEEKLY	BEFORE A LONG PERIOD OF NON-USE	TRANSPORT
DRAINING THE RECOVERY TANK	X			X	X
CLEANING THE SQUEEGEE BODY	X	X		X	
CLEANING THE BRUSH HEAD BRUSH (VERSION 50E)		X		X	
CLEANING THE BRUSH HEAD BRUSHES (60E VERSION)		X		X	
CLEANING THE RECOVERY TANK	X		X	X	
EMPTYING THE SOLUTION TANK	X		X	X	X
CLEANING THE WATER SYSTEM FILTER		X		X	
CLEANING THE VACUUM TUBE		X		X	
CLEANING THE SOLUTION TANK			X	X	
CLEANING THE VACUUM WAND KIT	X		X	X	

DRAINING THE RECOVERY TANK

Proceed as follows to empty the recovery tank:

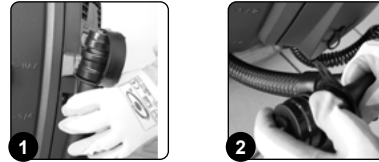
1. Take the machine to the maintenance area.
2. Make sure the machine has been secured (see the section titled "SECURING THE MACHINE").

CAUTION: users are advised to always wear protective gloves, to avoid the risk of serious injury to hands.

3. Release the recovery tank drainage tube (on the back of the machine) from the retainers (Fig.1).
4. Bend the end of the drainage tube in order to create a choke and prevent the content from coming out (Fig.2), then position the tube on the discharge surface, unscrew the cap, and gradually release the tube.

NB: the place designated for this operation must comply with current environmental protection regulations.

5. Repeat the operations in reverse order to reassemble all the parts.



CLEANING THE BRUSH HEAD BRUSH (VERSION 50E)

Careful cleaning of the brush guarantees better cleaning of the floor, as well as a longer brush head gearmotor lifespan. To clean the brush, proceed as follows:

1. Take the machine to the maintenance area.

CAUTION: these operations must be carried out using protective gloves to avoid any possible contact with the edges or tips of metal objects.

2. Turn the brush anti-clockwise until it comes out of the seat of the brush-holder plate (Fig.1).
3. Clean the brush under a stream of running water to remove any impurities from its bristles. Check the wear status of the bristles and replace the brushes if they are excessively consumed (the bristle protrusion must not be less than 10mm; this distance is indicated on the brush by the yellow band). When replacing the brush, read "REPLACING THE BRUSH HEAD BRUSH".



CLEANING THE BRUSH HEAD BRUSHES (VERSIONS 60E)

Careful cleaning of the brush guarantees better cleaning of the floor, as well as a longer brush head gearmotor lifespan. To clean the brush, proceed as follows:

1. Take the machine to the maintenance area.
2. Make sure the machine has been secured (see the section titled "SECURING THE MACHINE").

CAUTION: users are advised to always wear protective gloves, to avoid the risk of serious injury to hands.

N.B.: the place designated for this operation must comply with current environmental protection regulations.

3. Go to the front of the machine.
4. Press the brush-holder plate retainer (1) and simultaneously rotate the brush in the direction shown in the image (Fig.1).

ATTENTION: Fig.1 shows the rotation direction of the left-hand brush.

5. When brush rotation is prevented, turn until the button on the brush is disengaged from the coupling spring on the brush-holder plate.
6. Repeat the same operation for the right-hand brush.
7. Clean the brush under running water to remove any impurities from its bristles. Check the bristles are not worn; in the event of excessive wear, replace the brush (the bristles should be at least 10mm long). When replacing the brush, read "REPLACING THE BRUSH HEAD BRUSH".



CLEANING THE RECOVERY TANK

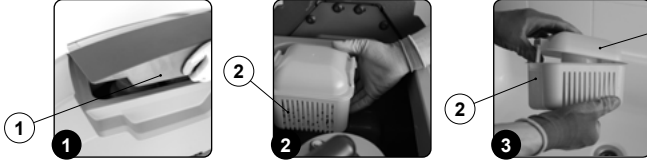
To clean the recovery tank (without the optional tank cleaning kit), proceed as follows:

1. Take the machine to the maintenance area.
2. Make sure the machine has been secured (see the section titled "SECURING THE MACHINE").

CAUTION: users are advised to always wear protective gloves, to avoid the risk of serious injury to hands.

N.B.: the place designated for this operation must comply with current environmental protection regulations.

3. Grip the handle (1) on the left-hand side of the recovery tank (Fig.1) and turn the tank cover as far as it will go, until it reaches the maintenance position.
4. Remove the dirty water basket/filter (2) from the support (Fig.2).
5. Remove the basket cover (3) from the basket/filter (2) (Fig.3).



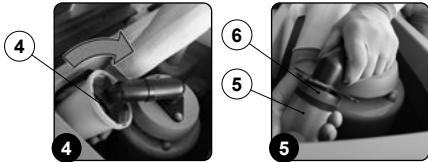
6. Clean the basket/filter (2) and the basket cover (3) under a jet of water.

NB: use a spatula or brush to eliminate any dirt that is particularly difficult to remove.

7. Use a dry cloth to dry the basket/filter (2) and the basket cover (3) and place them back inside the recovery tank.
8. Remove the filter protection cup (4), turning it in the direction of the arrow (Fig.4).
9. Remove the vacuum motor filter (5), taking care not to lose the support tie (6) inside the recovery tank (Fig.5).
10. Rinse the cup (4) and filter (5) thoroughly under running water.

NB: use a spatula to eliminate any dirt that is particularly difficult to remove.

11. Repeat the operations in reverse order to reassemble all the parts.



EMPTYING THE SOLUTION TANK

Proceed as follows to empty the solution tank:

1. Take the machine to the maintenance area.
2. Make sure the machine has been secured (see the section titled "SECURING THE MACHINE").

CAUTION: users are advised to always wear protective gloves, to avoid the risk of serious injury to hands.

1. Fully open the tap outflow, rotating the knob (1) in the direction of the arrow (Fig.1).
2. Unscrew the cap (2) of the solution tank drainage system (Fig.2); the cap is located at the rear of the machine.
3. Remove the cap/measuring device (3) (Fig.3), located on the left-hand side of the machine.
4. With the solution tank empty, rinse the inside of the solution tank with a jet of running water.

N.B.: the place designated for this operation must comply with current environmental protection regulations.



CLEANING THE WATER SYSTEM FILTER

To clean the water system filter, proceed as follows:

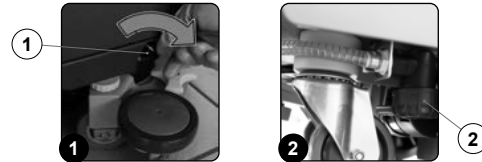
1. Take the machine to the maintenance area.
2. Make sure the machine has been secured (see the section titled "SECURING THE MACHINE").

CAUTION: users are advised to always wear protective gloves, to avoid the risk of serious injury to hands.

3. Block the tap outflow, rotating the knob (1) in the direction of the arrow (Fig.1).
4. Go to the right-hand side of the machine and loosen the detergent solution filter cap (2) (Fig.2).
5. Rinse the filter cartridge under a jet of water, and use a brush to eliminate any impurities, if necessary.

N.B.: the place designated for this operation must comply with current environmental protection regulations.

6. Once the filter cartridge is clean, repeat the operations in the reverse order to reassemble all the parts.



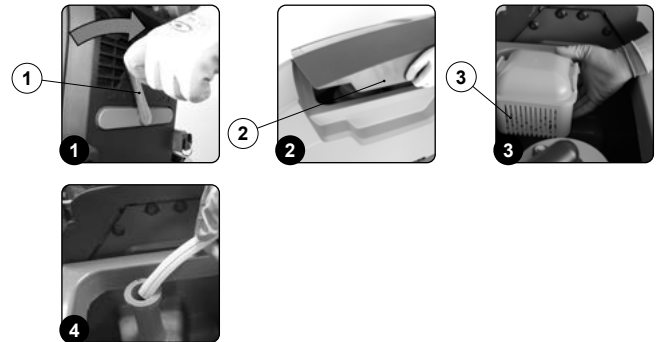
CLEANING THE VACUUM TUBE

Careful cleaning of the vacuum tube guarantees better cleaning of the floor as well as a longer vacuum motor life. Proceed as follows to clean the vacuum tube:

1. Take the machine to the maintenance area.
2. Make sure the machine has been secured (see "SECURING THE MACHINE").

ATTENTION: users are advised to always wear protective gloves, to avoid the risk of serious injury to hands.

3. Raise the squeegee body and turn the squeegee control lever (1) in the direction of the arrow (Fig.1). The lever is located on the back of the machine.
4. Grip the handle (2) on the left-hand side of the recovery tank (Fig.2) and turn the tank cover as far as it will go, until it reaches the maintenance position.
5. Remove the dirty water basket/filter (3) from the support (Fig.3).
6. Rinse the inside of the vacuum tube with a jet of running water (Fig.4).
7. Repeat the operations in reverse order to reassemble all the parts.



EXTRAORDINARY MAINTENANCE WORK

REPLACING THE BRUSH HEAD BRUSH (50BT VERSIONS)

The good condition of the brush guarantees better cleaning of the floor, as well as a longer brush head gearmotor lifespan. To replace the brush, proceed as follows:

1. Take the machine to the maintenance area.

CAUTION: these operations must be carried out using protective gloves to avoid any possible contact with the edges or tips of metal objects.

2. Turn the brush anti-clockwise until it comes out of the seat of the brush-holder plate (Fig.1).
3. Replace the worn brush with a new one. With the brush head UP, insert the brush in the plate housing underneath the brush head, turning it until the three buttons engage with the notches on the plate itself.
4. Turn until the pin is pushed towards the coupling spring and is locked into place.

REPLACING THE BRUSH HEAD BRUSH (60BT VERSIONS)

The good condition of the brush guarantees better cleaning of the floor, as well as a longer brush head gearmotor lifespan. To replace the brush, proceed as follows:

1. Take the machine to the maintenance area.
2. Make sure the machine has been secured (see the section titled "[SECURING THE MACHINE](#)").

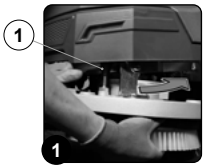
CAUTION: users are advised to always wear protective gloves, to avoid the risk of serious injury to hands.

NB: the place designated for this operation must comply with current environmental protection regulations.

3. Go to the front of the machine.
4. Replace the worn brush with a new one.
5. Press the brush-holder plate retainer (1) and simultaneously rotate the brush in the direction shown in the image (Fig.1).

ATTENTION: Fig.1 shows the rotation direction of the left-hand brush.

6. When brush rotation is prevented, turn until the button on the brush is disengaged from the coupling spring on the brush-holder plate.
7. Repeat the same operation for the right-hand brush.



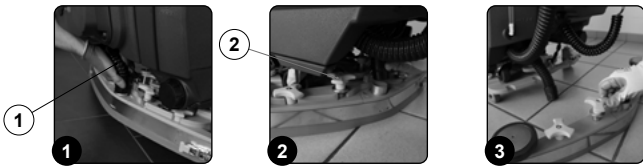
REPLACING THE SQUEEGEE BODY RUBBER BLADES

Ensuring the good condition of the squeegee body rubber blades guarantees better floor cleaning and drying results, as well as a longer service life for the vacuum motor. To replace the squeegee body rubber blades, proceed as follows:

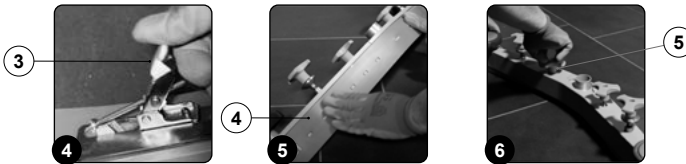
1. Take the machine to the maintenance area.
2. Make sure the machine has been secured (see the section titled "[SECURING THE MACHINE](#)").

CAUTION: these operations must be carried out using protective gloves to avoid any possible contact with the edges or tips of metal objects.

3. Extract the vacuum hose (1) from the vacuum nozzle on the squeegee body (Fig.1).
4. Completely unscrew the knobs (2) in the squeegee body's pre-assembly (Fig.2).
5. Remove the squeegee body from the slits in the squeegee connector (Fig.3).



6. Remove the rear rubber blade compression plate, and release the stopper (3) at the rear of the squeegee (Fig.4).
7. Remove the rear rubber blade (4) from the squeegee body (Fig.5).
8. Completely unscrew the knobs (5) in the squeegee body's pre-assembly (Fig.6).



9. Remove the front rubber blade (7) from the inside of the squeegee (Fig.7).
10. Repeat the operations in reverse order to reassemble all the parts.

NB: Before using the machine, remember to adjust the squeegee body (see "[ADJUSTING THE SQUEEGEE BODY RUBBER BLADES](#)").

NB: you are advised to replace both squeegee body blades in order to ensure good results when drying the floor.



ADJUSTMENT INTERVENTIONS

ADJUSTING THE SQUEEGEE BODY RUBBER BLADES

Careful adjustment of the squeegee body rubber blades guarantees better cleaning of the floor. To adjust the squeegee body blades, proceed as follows:

1. Make sure the machine is in a safe condition (see "[MACHINE SAFETY MEASURES](#)").

ATTENTION: these operations must be carried out using protective gloves to avoid any possible contact with the edges or tips of metal objects.

2. Stand at the back of the machine.

Adjusting the height of the squeegee body:

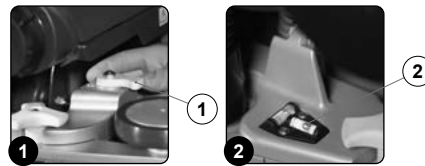
3. Adjust the height of the rubber blade in relation to the floor by loosening or tightening the knobs (1) (Fig.1).

NB: Figure 1 indicates the rotation direction for decreasing the distance between the squeegee support and the floor. This distance can be increased by turning it in the opposite direction.

NB: by decreasing the distance between the squeegee support and the floor, the rubber blades present in the squeegee body move closer to the floor.

NB: the right-hand and left-hand knobs must be rotated the same number of times, so that the squeegee is parallel to the floor when it is working.

NB: make sure the adjustment is correct by looking at the instrument (2) on the squeegee body (Fig.2).

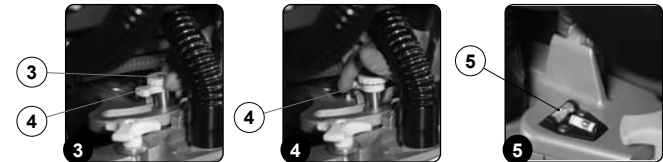


Adjusting the tilt of the squeegee body:

4. Loosen the retainer knob (3) of the squeegee tilt adjustment knob (4) (Fig.3).
5. To adjust the tilt of the squeegee body rubber blades in relation to the floor, tighten or loosen the knob (5) (Fig.4) until the blades are bent outwards by about 30° in relation to the floor, in an even manner along their entire length.

NB: make sure the adjustment is correct by looking at the instrument (6) on the squeegee body (Fig.5).

6. Once the adjustment has been completed, tighten the retainer knob (3).

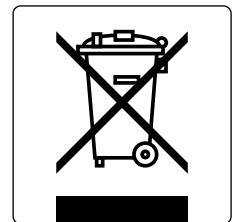


DISPOSAL

To dispose of the machine, take it to a demolition centre or an authorised collection centre. Before scrapping the machine, it is necessary to remove and separate out the following materials, then send them to the appropriate collection centres in accordance with the environmental hygiene regulations currently in force:

- Brushes
- Felt
- Electric and electronic parts*
- Batteries
- Plastic parts (tanks and handlebars)
- Metal parts (levers and frame)

(* In particular, contact your distributor when scrapping electric and electronic parts.



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 50°C). The polypropylene is non-hygroscopic and therefore retains its characteristics even 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.

BRISTLE THICKNESS

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 CENTRE 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 pad holder is recommended above all for machines with more than one brush, where the centring of the abrasive discs is difficult.

MACHINE	CODE	QTY	BRISTLE	NOTES
MAXIMA2017 BASE 50E	404654	1	PPL 0.3	BLUE BRUSH
	405631	1	PPL 0.6	WHITE BRUSH
	404653	1	PPL 0.9	BLACK BRUSH
	405632	1	ABRASIVE	BRUSH
	405527	1		PAD HOLDER WITH CENTRE LOCK
MAXIMA2017 BASE 60E	442823	2	PPL 0.3	BLUE BRUSH
	442824	2	PPL 0.6	WHITE BRUSH
	442825	2	PPL 0.9	BLACK BRUSH
	442826	2	ABRASIVE	BRUSH
	442828	2		PAD HOLDER WITH CENTRE LOCK

EC DECLARATION OF CONFORMITY



The undersigned manufacturer:
FIMAP spa
 Via Invalidi del Lavoro, 1
 37059 Santa Maria di Zevio (VR)
 declares under its sole responsibility that the products

FLOOR SCRUBBING MACHINES
mod. Maxima2017 BASE 50E - Maxima2017 BASE 60E

they comply with the requirements of the following Directives:

- 2006/42/EC: Machinery Directive.
- 2014/35/EC: Low Voltage Directive.
- 2014/30/EC: Electromagnetic compatibility directive.

The person authorized to compile the technical file:

Mr. Giancarlo Ruffo
 Via Invalidi del Lavoro, 1
 37059 Santa Maria di Zevio (VR) - ITALY

Santa Maria di Zevio (VR), 01/01/2018

Fimap S.p.A.
 The Legal Representative
 Giancarlo Ruffo

TROUBLESHOOTING

This chapter lists the most common problems linked with the use of the machine. If you are unable to resolve the problems with the information given here, please contact your nearest assistance centre.

PROBLEM	POSSIBLE CAUSE	SOLUTION
THE MACHINE DOES NOT START	The main switch is set to "0".	Make sure the main switch is on "I". If it isn't, turn the key clockwise.
	Check that, when switched on, there are no alarm messages on the control display.	Stop the machine immediately and contact the technician of the specialised service centre, or press the SOS button if the HFM kit is installed.
	Make sure the batteries are correctly connected to each other and that the battery connector is connected to the electrical system connector.	Connect the batteries correctly inside the machine (see INSERTING THE BATTERIES IN THE MACHINE).
	Check the charge level of the batteries.	If the battery charge level is critical, perform a complete recharge cycle (see paragraph CHARGING THE BATTERIES).
THE BATTERIES ARE NOT CHARGED CORRECTLY (VERSIONS WITH BUILT-IN BATTERY CHARGER)	The plug on the battery charger cable is not correctly inserted in the socket on the battery charger itself.	Reconnect the battery charger power cable.
	The plug on the battery charger power cable is not correctly inserted in the electrical outlet.	Check that the battery charger power supply cable plug is connected to the mains socket.
	The characteristics of the mains power supply do not correspond to those required by the battery charger.	Check that the characteristics in the battery charger plate are the same as those of the mains supply.
	The LEDs of the battery charger blink repeatedly.	Referring to the battery charger use and maintenance manual, check the meaning of the flashing signals that the battery charger emits during the battery recharge stage.
THE MACHINE HAS A VERY LOW WORKING AUTONOMY	Check the battery charge level (check the symbol on the control display).	If the battery charge level is critical, perform a complete recharge cycle (see "RECHARGING THE BATTERIES").
THE MACHINE DOES NOT MOVE	The machine does not start.	Read the section "THE MACHINE DOES NOT START" .
	There is a drive pedal fault.	Contact your nearest service centre.
NOT ENOUGH DETERGENT SOLUTION ON THE BRUSH	The quantity of detergent solution in the water system is not sufficient for the work to be carried out.	Check that the amount of detergent solution present in the machine water system is sufficient for the work to be carried out.
	Detergent solution filter obstructed.	Check the detergent solution filter isn't obstructed. If it is, clean it (see "CLEANING THE WATER SYSTEM FILTER").
THE MACHINE DOES NOT CLEAN CORRECTLY	The machine does not start.	Read the section "THE MACHINE DOES NOT START" .
	Not enough detergent solution comes out.	Read the section "NOT ENOUGH DETERGENT SOLUTION ON THE BRUSH" .
	The brushes have not been inserted correctly in the machine.	Check that the disc brushes have been correctly inserted in the machine (see "ASSEMBLING THE BRUSH").
	The type of brush used is not suitable for the dirt to be removed.	Make sure the brushes fitted on the machine are suitable for the work to be carried out (see "CHOOSING AND USING THE BRUSHES").
	The brush bristles are excessively worn.	Check the condition of the brush, and replace it if necessary (see "REPLACING THE BRUSH HEAD BRUSH").
THE SQUEEGEE DOES NOT DRY PERFECTLY	The vacuum unit is obstructed.	Make sure the squeegee is free of obstructions (see "CLEANING THE SQUEEGEE BODY").
		Make sure the vacuum tube is free of obstructions (see "CLEANING THE VACUUM TUBE").
		Make sure the vacuum cap filter is free of obstructions (see "CLEANING THE RECOVERY TANK").
		Make sure the vacuum motor filter is free of obstructions (see "CLEANING THE RECOVERY TANK").
	The cap on the recovery tank drainage tube is not properly positioned.	Check that the cap on the recovery tank drainage tube is positioned properly.
The recovery tank lid is not positioned correctly.	Check that the recovery tank lid is properly positioned on the machine.	
EXCESSIVE FOAM PRODUCTION	The detergent being used is not suitable.	Check that a low foam detergent has been used. If necessary, add a small quantity of anti foam liquid to the recovery tank.
	The floor is not very dirty.	Dilute the detergent more.
THE MACHINE DOES NOT VACUUM CORRECTLY	The recovery tank is full.	Empty the recovery tank (see "EMPTYING THE RECOVERY TANK").
	The vacuum device is obstructed	Read the section "THE SQUEEGEE DOES NOT DRY PERFECTLY" .



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