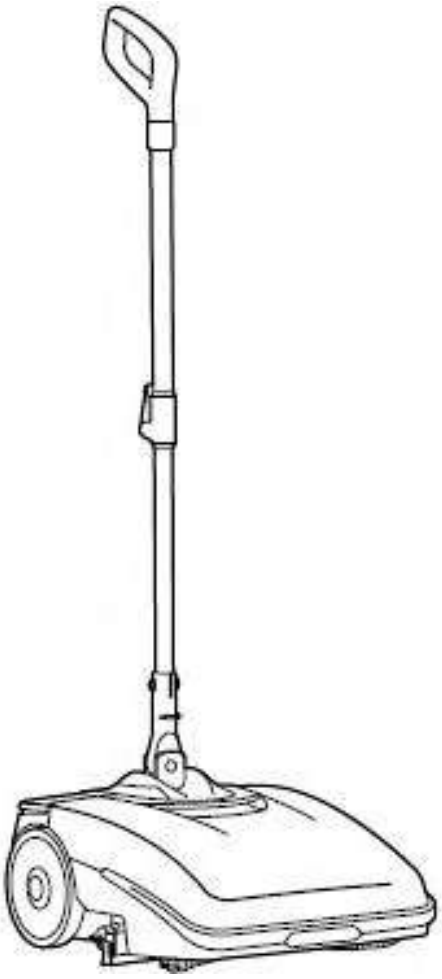
FIMAP®

WORKSHOP HANDBOOK

Fimop



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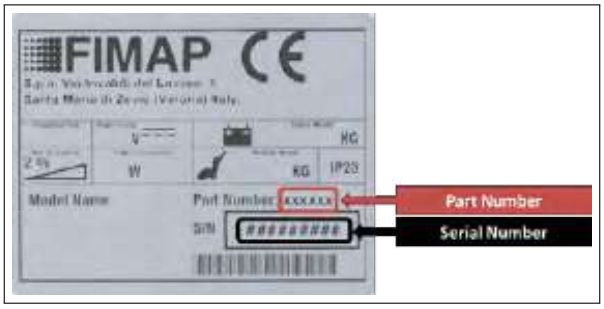
Part I

Product Introduction

Chapter 1

Serial Number and Technical Support

1.1 The Serial Tag



1.2 Serial Tag location

To have access to the Serial Tag it is sufficient to **remove the battery**.
The Serial Number is an extremely important information which has to be provided each time a Technical Support is required or is necessary to buy spare parts or accessories. The serial number is the only way to identify the machine by model, production date type equipments in general.

Chapter 2

Main Technical Features

Technical Data

TECHNICAL DESCRIPTION	**U/M**	**Fimop**
Working width	mm	340
Working capacity, up to	$\frac{m^2}{h}$	680
Steering Diameter	mm	500
Maximum Ramp Gradient	%	2
Total Power	W	150
Machine Length	mm	430
Machine length *(Handlebar in maintenance position)*	mm	915
Machine Height *(Handlebar in resting position)*	mm	1295
Machine Height *(Handlebar in maintenance position)*	mm	215
Machine Width	mm	395
Sound pressure level (ISO 11201)	LpA dB (A)	≤ 70
Hand vibration level (ISO 5349)	$\frac{m}{s^2}$	≤ 2.5

Weights and Pressures[1]

TECHNICAL DESCRIPTION	**U/M**	**Fimop**
Machine Weight *(Machine + Brush + Squeegee)*	kg	9
Gross Weight of the machine in work conditions *(Machine + Battery+ Water + Brush + Squeegee)*	kg	11.4

[1] Weight and Pressures depends on how much water there is in the tanks.

Part II

Anomalies Resolution Guide

Chapter 3

Troubleshooting Guide

3.1 Basic Guide

3.1.1 Electrical system: what to do if...

The machine doesn't switch on		
1. The main switch is not pushed	⇒	*Push the main switch.*
2. The battery doesn't work properly	⇒	*Refer to the proper section* (see section 3.1.1 at page 8).
3. You hear a click but the buttons LEDs do not light up	⇒	*Refer to the Advanced Guide* (see section 3.2.2 at page 12).

The battery doesn't work properly		
1. The battery is not properly connected	⇒	*Insert the battery until the end position clicks.*
2. The battery is discharged	⇒	*Perform a complete charge cycle* (see section 5.3.5 at page 27).
3. The battery charger doesn't work	⇒	*Check the proper section* (see section 3.1.1 at page 9).
4. The battery doesn't work	⇒	*Refer to the Advanced Guide* (see section 3.2.4 at page 14).

The battery charger doesn't work		
1. The battery charger is not connected to the power supply	⇒	*Connect the charger to a supplied electric socket.*
2. The battery charger has the Red LED blinking	⇒	*Unplug the charger from the wall socket and from the battery, and reconnect them.* *If the problem persists, replace the battery charger.*
3. The battery charger plugged in and turned on does not activate the Green LED (power supply)	⇒	*Ensure the mains plug is properly inserted into the charger.* *If the problem persists, replace the battery charger.*
4. The battery charger plugged in and turned on with battery inserted does not activate the Red LED (charging)	⇒	*Ensure that the charger plug is fully inserted into battery.* *The battery might be already loaded.* *Replace charger.*

The machine has a very limited working autonomy		
1. The battery has been working for several cycles	⇒	*Replace the battery.*
2. The battery doesn't work properly	⇒	*Refer to the proper section* *(see section 3.1.1 at page 8)***.**

3.1.2 Mechanical scrubbing system: what to do if...

The machine doesn't clean well		
1. The machine is switched off	⇒	*Switch on the machine.*
2. The machine doesn't switch on	⇒	*Refer to the proper section* (see section 3.1.1 at page 8).
3. The handlebar rod is in the park position	⇒	*Tilt the handlebar rod.*
4. With tilted handlebar the machine is not active	⇒	*Refer to the Advanced Guide* (see section 3.2.3 at page 13).
5. The brush motor doesn't work	⇒	*Refer to the Advanced Guide* (see section 3.2.5 at page 14).
6. The brush is worn out	⇒	*Replace the brush* (see section 4.2 at page 19).
7. The detergent doesn't fit the type of dirt	⇒	*Replace the detergent with a proper one.*
8. The solution flow rate is not correct or not enough	⇒	*Refer to the proper section* (see section 3.1.3 at page 10).

3.1.3 Solution delivery system: what to do if...

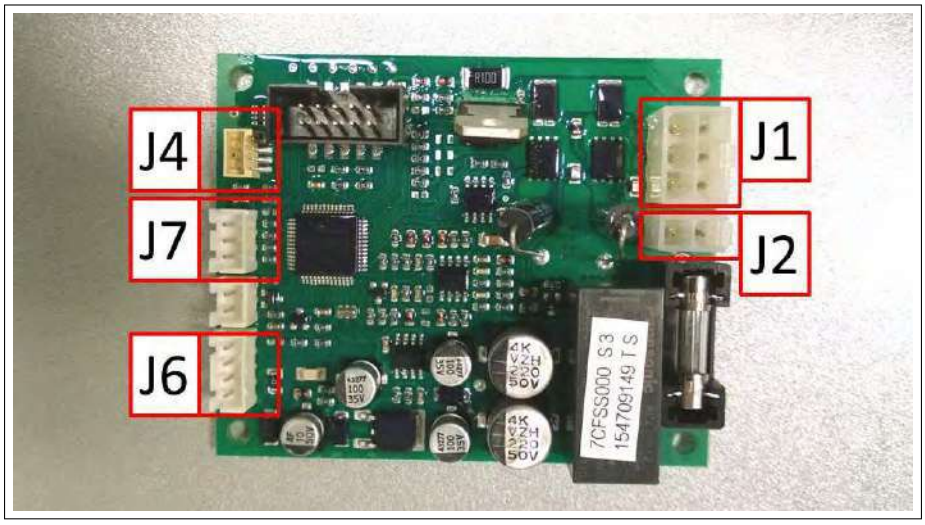
The delivered solution is not correct or not enough		
1. The machine is switched off	⇒	*Switch on the machine.*
2. The machine doesn't switch on	⇒	*Refer to the proper section* (see section 3.1.1 at page 8).
3. The solution tank is empty	⇒	*Fill up the solution tank.*
4. The solution filter is missing or not properly positioned	⇒	*Restore the solution filter in the correct position* (see section 4.5 at page 22).
5. The solution filter is stuck	⇒	*Clean the solution filter* (see section 4.5 at page 22).
6. The water switch is not pushed	⇒	*Push the water switch.*
7. The water pump doesn't work	⇒	*Check the water pump connections and, if necessary, replace it* (see section 4.5 at page 22).

3.1.4 Drying system: what to do if...

The machine doesn't dry well			
1.	The machine is switched off	⇒	*Switch on the machine.*
2.	The machine doesn't switch on	⇒	*Refer to the proper section* *(see section 3.1.1 at page 8)**.*
3.	The vacuum motor doesn't work	⇒	*Refer to the Advanced Guide* *(see section 3.2.6 at page 15)**.*
4.	The recovery tank is full	⇒	*Empty the recovery tank following the proper procedure.*
5.	The squeegee is lifted up from the floor	⇒	*Lower down the squeegee.*
6.	The squeegee rubber blades are worn out or broken	⇒	*Rotate or replace the squeegee rubber blades* *(see section 7.3.1 at page 33)**.*
7.	The squeegee vacuum chamber or the adapter is stuck or dirty	⇒	*Clean the squeegee.*
8.	The vacuum hose is stuck or broken	⇒	*Clean or replace the vacuum hose.*
9.	The vacuum hose is not properly fitted in	⇒	*Connect the vacuum hose properly.*
10.	The air/water vacuum hoses body is stuck or broken	⇒	*Clean or replace the vacuum hoses body.*
11.	The recovery tank lid or suction line cover are not present or are not properly positioned	⇒	*Correctly position the parts.*
12.	The recovery tank does not guarantee the tightness of the aspiration	⇒	*Replace the tank.*

3.2 Advanced Guide

3.2.1 Control Card Overview



3.2.2 The buttons LEDs don't light up

1.	Check the battery voltage		V ≥ 23	YES	⇒	*Point 2*
				NO	⇒	*Recharge/ Replace the battery*
2.	Check the voltage on the connector **J2**		V ≥ 23	YES	⇒	*Point 3*
				NO	⇒	*Replace the cables*
3.	Check the voltage **J6-Red / J2-Black**		V ≥ 23	YES	⇒	*Point 4*
				NO	⇒	*Replace the control card*

4.	Check the voltage **Power button-Red / J2-Black**		V ≥ 23	YES ⇒ *Point 5* NO ⇒ *Replace the cables*
5.	Push the main switch and check the voltage **Power button-White / J2-Black**		V ≥ 23	YES ⇒ *Point 6* NO ⇒ *Replace the switch*
6.	Push the main switch and check the voltage **Water button-Yellow / J2-Black**		V ≥ 23	YES ⇒ *Point 7* NO ⇒ *Replace the cables*
7.	Push the water switch and check the voltage **Water button-Gray / J2-Black**		V ≥ 23	YES ⇒ *Replace the LEDs* NO ⇒ *Replace the switch*

3.2.3 The buttons LEDs light up but the machine doesn't start

1.	With vertical handle push the main switch and check the voltage on the connectors of the park microswitch		V ≥ 0	YES ⇒ *Point 2* NO ⇒ *Replace the microswitch*
2.	Tilt the handle and check the voltage on the connectors		V ≥ 23	YES ⇒ *Replace the control card* NO ⇒ *Replace the microswitch or its supports*

3.2.4 The battery doesn't work

1.	Check the battery voltage		V $\geq$ 23	YES	$\Rightarrow$	*Battery OK*
				NO	$\Rightarrow$	*Perform a complete charge cycle. Then Point2.*
2.	Check the battery voltage		V $\geq$ 23	YES	$\Rightarrow$	*Battery OK*
				NO	$\Rightarrow$	*Replace the battery*

3.2.5 The brush Motor doesn't work

All the other devices of the machine are functioning properly

1.	Check the voltage on the connector (with running machine)		V $\geq$ 23	YES	$\Rightarrow$	*Replace the motor*
				NO	$\Rightarrow$	*Point 2*
2.	Check the voltage on the connector **J1 Blue & Brown** (with running machine)		V $\geq$ 23	YES	$\Rightarrow$	*Replace the cables*
				NO	$\Rightarrow$	*Replace the control card*

3.2.6 The suction Motor doesn't work

All the other devices of the machine are functioning properly

1.	Check the voltage on the connectors (with running machine)		V $\geq$ 23	YES $\Rightarrow$ *Replace the motor* NO $\Rightarrow$ *Point 2*
2.	Check the voltage on the connector **J1 Pink & Red** (with running machine)		V $\geq$ 23	YES $\Rightarrow$ *Replace the cables* NO $\Rightarrow$ *Replace the control card*

3.2.7 The Pump doesn't work

All the other devices of the machine are functioning properly

1.	Check the voltage in **AC** on the Pump's connectors, Don't disconnect the connectors from the pump (with running machine)		V $\geq$ 13	YES $\Rightarrow$ *Replace the pump* NO $\Rightarrow$ *Point 2*
2.	Check the voltage in **AC** on the connector **J1 Green & Yellow** (with running machine)		V $\geq$ 13	YES $\Rightarrow$ *Replace the cables* NO $\Rightarrow$ *Replace the control card*

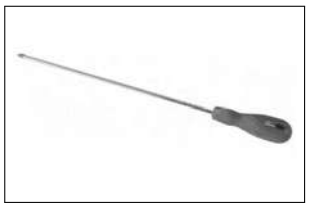
Chapter 4

Disassembling Procedures

Warning: Before to perform any operation described below verify that the machine tanks are completely empty, the machine has to be turned off. Remove the battery from the machine. At last, verify that the machine is in a totally safe condition.

Special Tools

- Screwdriver PH1x200 Crosshead.
- Tubular Box Wrench 19.

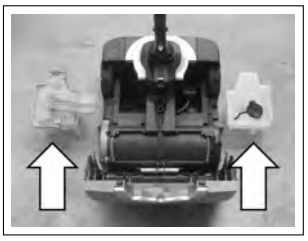


4.0.7-1

4.0.7-2

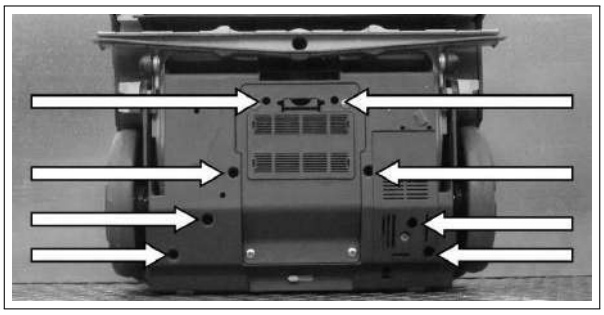
4.1 Electrical Installation

- Put the machine in safe conditions.
- Open the front Carter and remove both tanks (see fig. 4.1.0-3).
- Turn the handlebar forward in horizontal position and put the machine vertically (see fig. 4.1.0-4).
- Using the screwdriver PH1x200 remove the screws that secure the rear cover to the frame and remove the rear cover, paying attention to the rear wheels (see fig. 4.1.0-5).
- Disconnect the connectors from the **Main Card**, remove the screws and remove the card (see fig. 4.1.0-6).
- Unscrew the screws holding the On / Off button at the rear cover and remove it paying attention to the spring.
- Disconnect the cables from the **main switch** and release it from the seat acting on the side mounting tabs (see fig. 4.1.0-7).
- Do the same with the **water switch**.
- Loosen the screws holding the cover plate of the park microswitch, and remove the plate.
- Disconnect the cables of the **park microswitch** and remove it from the seat (see fig. 4.1.0-8).
- Remove the hoses cover by unscrewing the fixing screws.
- Disconnect the connectors of the **LED light**, free the wiring and remove the light from the LED seat (see fig. 4.1.0-9).



4.1.0-3

4.1.0-4



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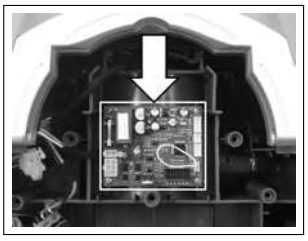

4.1.0-6

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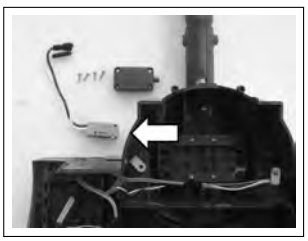

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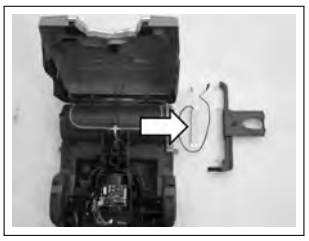
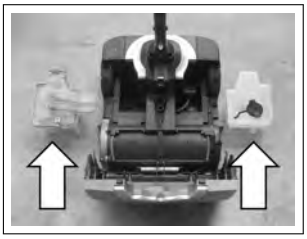


4.1.0-9

4.2 Mechanical Friction System

- Put the machine in safe conditions.
- Open the front Carter and remove both tanks (see fig. 4.2.0-10).
- Remove the tunnel cover and remove the brush (see fig. 4.2.0-11).
- Remove the **Right Bearing** from the tunnel cover by loosening the screw and separate the right bearing and the **bushing** (see fig. 4.2.0-12).
- Turn the handlebar forward in horizontal position and put the machine vertically (see fig. 4.2.0-13).



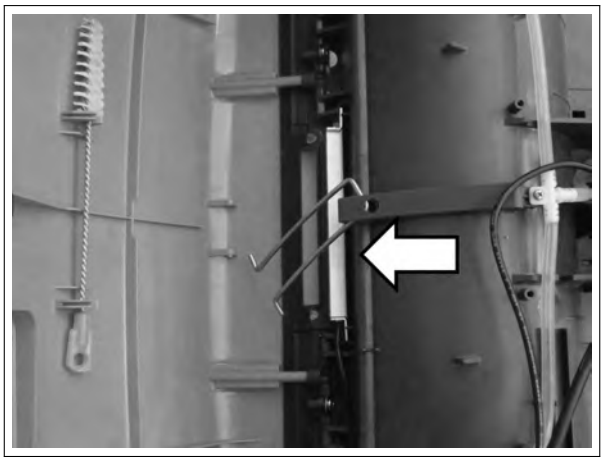
4.2.0-10

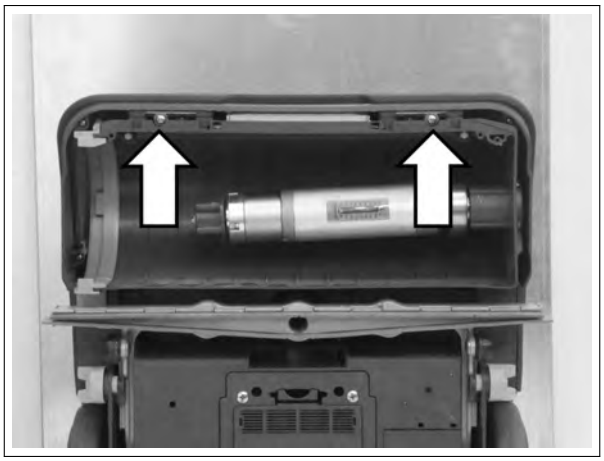
4.2.0-11

4.2.0-12

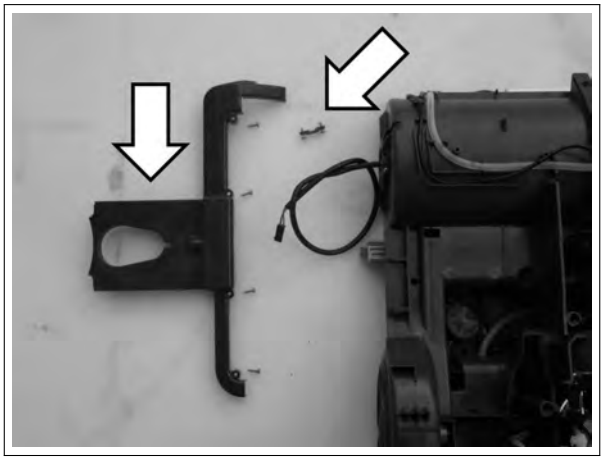
4.2.0-13

- Remove the **front carter** by releasing the retaining rod and unscrew the screws, paying attention to the washers.

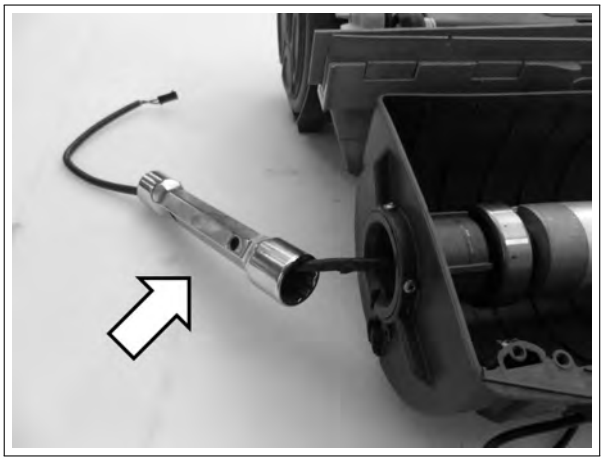




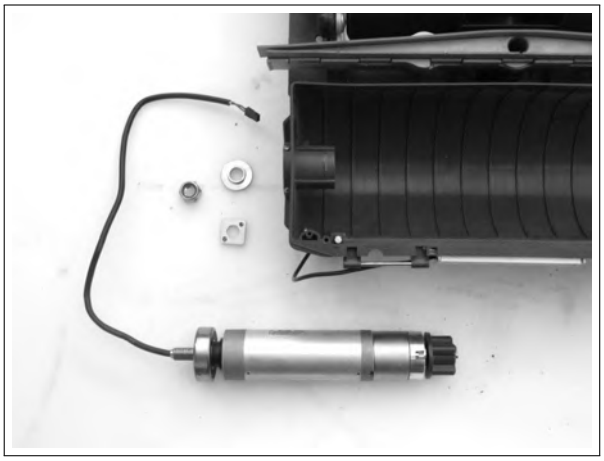
- Remove the hoses cover by unscrewing the fixing screws.
- Disconnect the brush motor connector, and free the wiring from the fixing clevis.



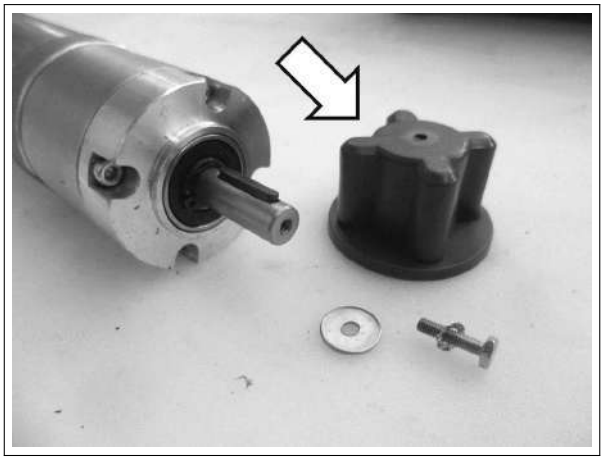
- Insert the motor cable into the Tubular Box Wrench 19.



- Holding the motor with one hand, unscrew the screw and remove the **motor**, paying attention to the square washer.



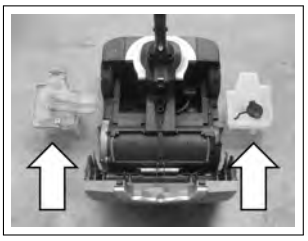
- Remove the **brush coupling Flange** from the motor by unscrewing the fixing screw.



- Pull the **left bearing** from the motor by using an extractor.

4.3 Drying System

- Put the machine in safe conditions.
- Open the front Carter and remove the solution tank and the **recovery tank** (see fig. 4.3.0-14).
- Remove the hoses cover carter by unscrewing the fixing screws (see fig. 4.3.0-15).
- Remove the **suction hoses body** by loosening the screws. Together with the body will extract also the **suction hose** (see fig. 4.3.0-16).
- Place the machine vertically and release the squeegee by rotating and pulling the side knobs (see fig. 4.3.0-17).
- Free the **squeegee body** from the squeegee holder by releasing the fixing knobs (see fig. 4.3.0-18) (see fig. 4.3.0-19).
- Remove the wheels to remove **squeegee support** (see fig. 4.3.0-20) (see section 4.4 at page 21).
- Open the output air filter compartment and extract the filters (see fig. 4.3.0-21).
- Unscrew the screws fixing the suction motor carter and remove it together with the air duct.
- Pull out the **suction motor**, disconnect the connectors and remove the rubber cap.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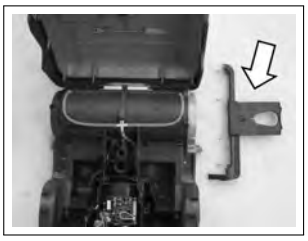
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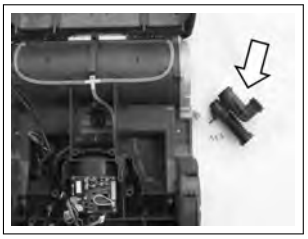
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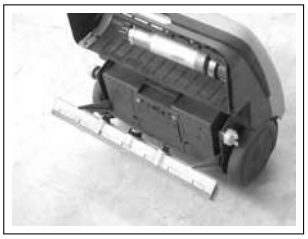
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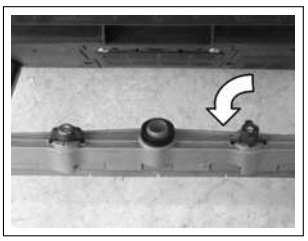
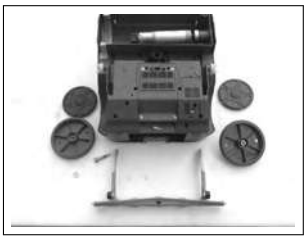

4.3.0-18


4.3.0-19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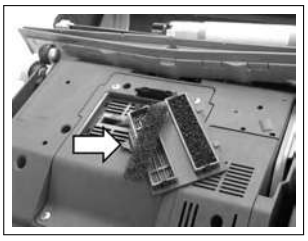
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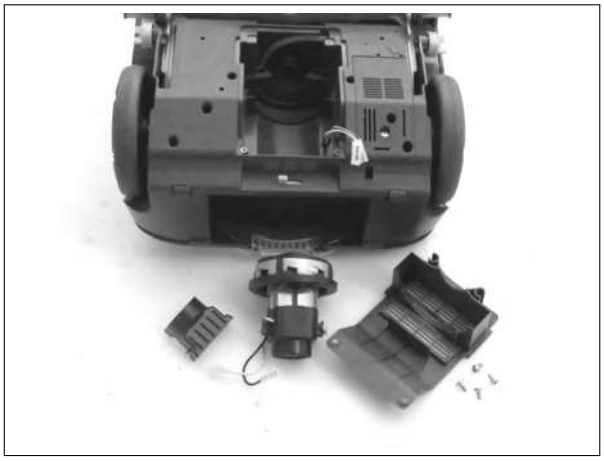
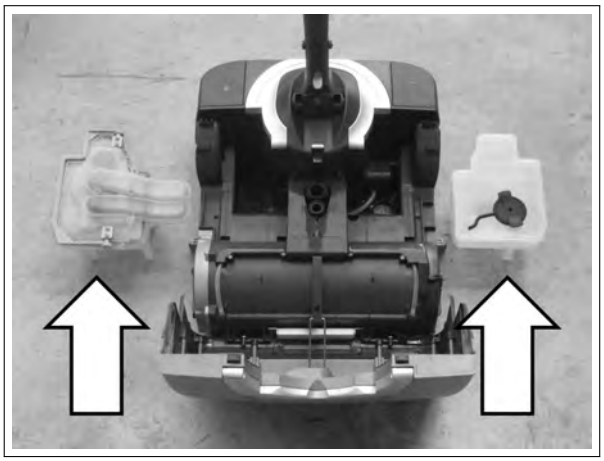


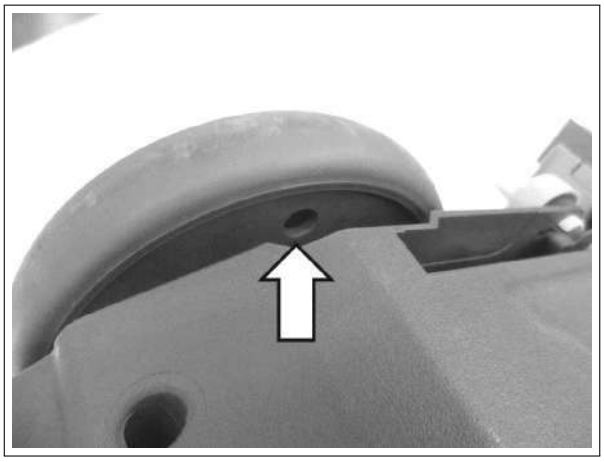
4.4 Frame and Traction System

- Put the machine in safe conditions.
- Open the front Carter and remove both tanks.

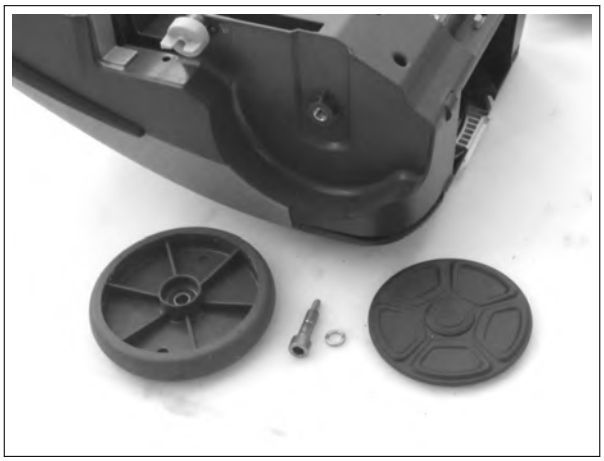


- Unscrew the screw and remove the **handle rod**.

- Remove the wheel cover hub by pressing with a screwdriver through the holes from the inner side of the wheel.

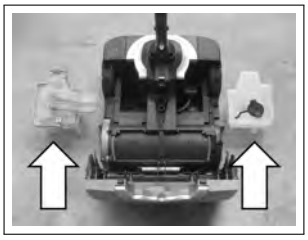


- Unscrew the wheel shaft and remove the **wheel**.
- Proceed in the same way for the other wheel.

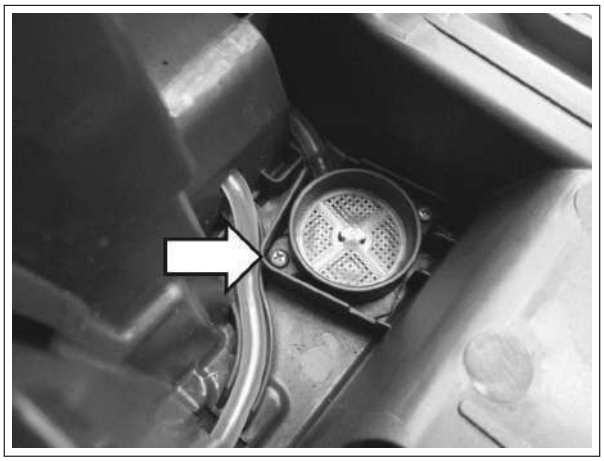


4.5 Solution Delivery System

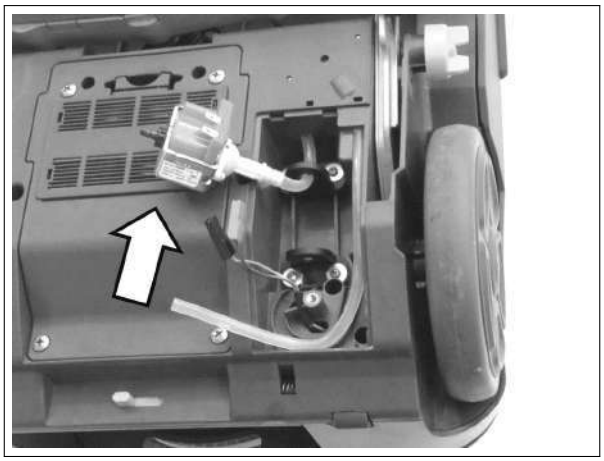
- Put the machine in safe conditions.
- Open the front Carter and remove the **solution tank** and the recovery tank (see fig. 4.5.0-22).
- Unscrew the screws and remove the bowl and the **clean water Filter**.



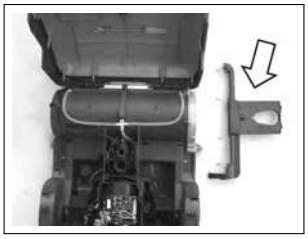
4.5.0-22



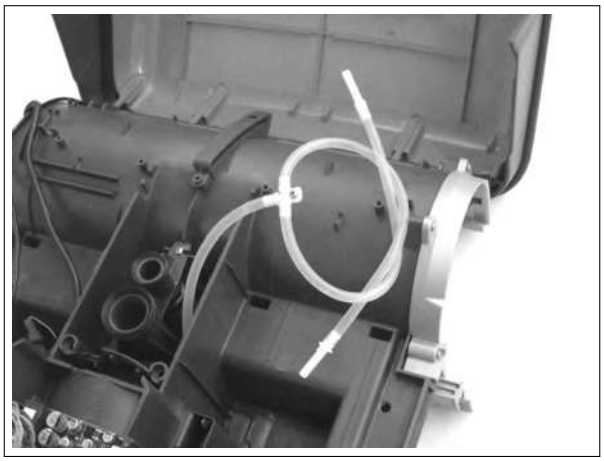
- Place the machine vertically and remove the pump's protective carter by unscrewing the screws.



- Disconnect the cables and hoses and remove the **pump** from the rubber slots.
- Reposition the machine horizontally and remove the Hoses cover by unscrewing the fixing screws (see fig. 4.5.0-23).
- Free the hoses from the distributor and the housing and remove the **hoses** together with the nozzles.



4.5.0-23



Part III

Machine Description

Chapter 5

Electrical System

5.1 Structure

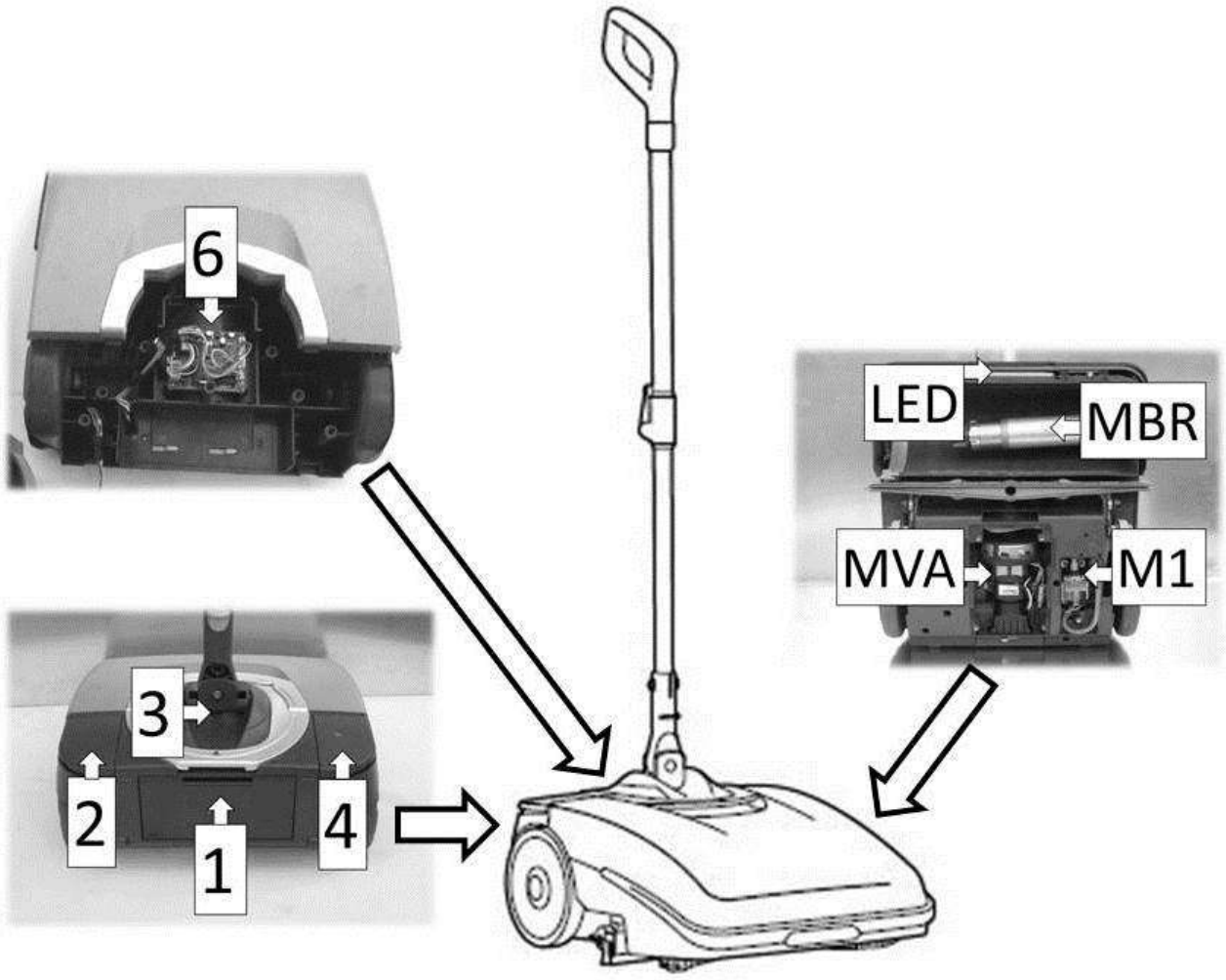
1. Control Card
2. Main Switch
3. Water Pump Switch
4. Park Microswitch
5. Batteries and battery charger
6. LED Light

5.2 Description

A control card runs all the functions of the machine, brush base, suction and water.

The control card receive as input, all the information from the switches present on the machine .
These signals are translated from the control card to run correctly the scrubber dryer and to prevent any safety problem to the operator.

5.3 Location of Electrical components

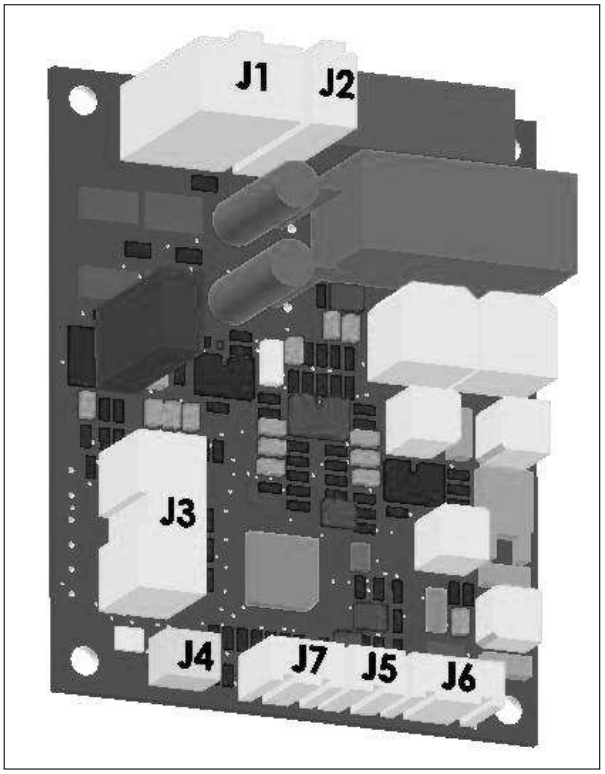


List of Components

1	Battery
2	Main Switch
3	Park Microswitch
4	Water Pump Switch
6	Control Card
M1	Water Pump
MBR	Brush Motor
MVA	Suction Motor
LED	LED Light

5.3.1 Control Card

The Main Card is the heart of the machine and, depending of the input information, decides how to use the devices of the machine during normal work. On the table here below, is possible to identify the input/output signals of the card.



Input & Output Signals	
J1	Brush motor, Suction motor and Water Pump.
J2	Card power supply.
J5	Main Switch, Park Microswitch, LED Light.
J6	Water Pump Switch.

5.3.2 Main Switch

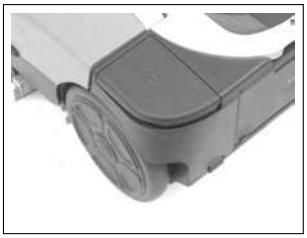
The machine is provided with a main switch positioned on the rear left corner, which can be comfortably activated by a pedal.
The activation is confirmed by lighting up an LED located under the pedal.

5.3.3 Water Pump Switch

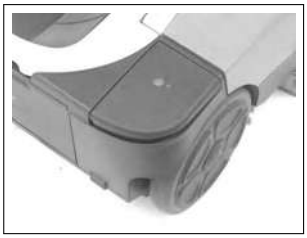
The machine is provided with a water pump switch positioned on the rear right corner, which can be comfortably activated by a pedal.
The activation is confirmed by lighting up an LED located under the pedal.

5.3.4 Park Microswitch

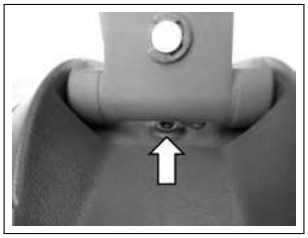
The machine is provided with a park microswitch positioned at the base of the articulated joint, which is activated by moving the handle in any position.
With handle in vertical position, all functions of the machine are inhibited.



5.3.4-24



5.3.4-25



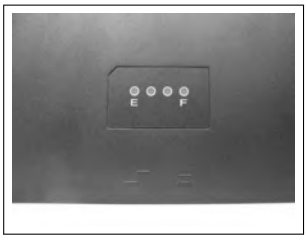
5.3.4-26

5.3.5 Batteries and battery Charger

The **battery** on this machine is equipped with a built-in control Card with LED indicator. When the remaining power decreases, the LEDs gradually go off in sequence, when the charge comes to 10% the card in the battery cuts the power (see fig. 5.3.5-28).

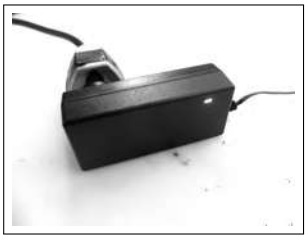
The **charger** is supplied with the machine (see fig. 5.3.5-30).
To charge the battery simply turn off the machine, remove the cap from the battery and insert the plug from the charger, properly connected to a supplied power network. Recharging starts automatically.

5.3.5-27



5.3.5-28

5.3.5-29



5.3.5-30

A correct Charging cycle follows the below series of illumination stages of the LED of the battery charger.

Phase	LED	Description
1	Red	Battery charging
2	Green	Battery charged

Attention
In case of malfunction see chapter "'Trouble-shooting for the most common anomalies"' (see section 3.1.1 at page 9).

5.3.6 LED Light

The machine is provided with a Front LED Light.
When the main switch is activated the light turns on.

5.4 Maintenance and Checks

5.4.1 Electrical System

Check *(to perform every **150h**)*
Check the functions and the proper connections of the switches, motors, water pump. Check periodically, the wiring connections status. To access to the electrical system, refer to Disassembling Chapter (see section 4.1 at page 17).

5.5 Technical Features

TECHNICAL DESCRIPTION	U/M	Fimop
Battery Rated Voltage	V	24
Battery weight	kg	1

Chapter 6

Mechanical Rubbing System

6.1 Structure

1. Brush Motor
2. Brush coupling Shaft
3. Bearings

6.2 Description:

The washing function of the machine is obtained by the interaction of the cleaning solution with the dirt present on the floor.

To facilitate and enhance this interaction, is used a system of mechanical rubbing which consists in a device which rubs on the floor.

This device in this case a cylindrical brush, has the function to mechanically remove the dirt from the ground and facilitate the reaction between the dirt and cleaning solution.

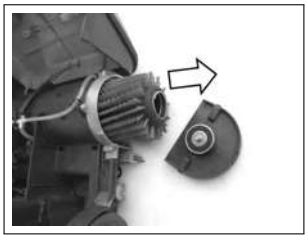
An electric brushless motor provides the rotational movement of the brush coupling shaft.

To the shaft is coupled the brush that rotates together with the shaft itself. After lowering the base to the ground, the brush touches and rubs on the floor providing the desired mechanical rubbing.

6.3 Maintenance and checks

6.3.1 Brush Deck

The brush deck must be free to lean evenly to the ground and properly carry out its function. Check that the tunnel cover engages properly in the side reinforcement to allow a good coupling between brush and joint.



6.3.1-31

6.3.2 Brush coupling Shaft

Check *(to perform every **150h**)*
As the other components, it is important that the brush coupling shaft is in good condition and clean to allow a good coupling with the brush. If necessary, replace it (see section 4.2 at page 19).

6.3.3 Bearings

Check *(to perform every **150h**)*
The bearings allow a fluid rotational movement of the motor. To prevent the brush to get stuck, is important that the bearings are in good condition and clean.
In case of excessive wear it is necessary to proceed with the replacement.

Maintenance *(to perform every **600h**)*
Bearings replacement:
Refer to Disassembling Chapter (see section 4.2 at page 18).

6.3.4 Brush Motor

Check *(to perform every **150h**)*

- Open the front Carter and remove both tanks.
- Remove the tunnel cover and remove the brush.
- Remove the hoses cover by unscrewing the fixing screws.
- Place an ammeter to the power cable of the motor brush, and activate the machine functions by moving the handlebar.

The current absorption must be less than **0,6 Amps**.
The motor should rotate evenly and smoothly and doesn't have to produce unusual noises. The motor contacts have to be clean, they have not to show signs of wear or heating in general.
The motor wires insulation has to be intact in all its parts and does not show signs of cracks. The single cable have to be flexible.

6.3.4-32

6.4 Technical Features

TECHNICAL DESCRIPTION	U/M	Fimop
Width of the active part of the brush	ϕ mm	340
Brush turns	rpm	375
Brush motor voltage	V	24
Brush motor power	W	32
Max weight on brush	kg	4,5

Chapter 7

Drying System

7.1 Structure

1. Squeegee
2. Squeegee Support
3. Suction hoses Body
4. Suction Cover and Floater
5. Recovery Tank
6. Suction Motor

7.2 Description

The machine dries the floor using an integrated Drying System.

After the washing, the solution used with the mechanical action of the brush to remove the dirt, is collected by a system which vacuum it out from the floor.

The system is basically made by a vacuum motor which produces an underpressure in the system.
This underpressure causes an air flow which flows in the whole vacuum system.

The air that flows in the squeegee (when it is lowered on the floor) allows it to collect the water on the floor and, via the vacuum system through the suction hose, is brought to the recovery tank.

In the recovery tank the water mixed with the dirt stops and the air keep flowing throughout the circuit reaching the vacuum motor and being discharged in the environment.

7.3 Maintenance and Checks

7.3.1 Squeegee

Check *(to perform every **2h**)*
To have a good performance
The **squeegee chamber** have to be clean and completely free from debris.
The **squeegee blades** have to be in a good conditions; they have to adhere perfectly to the squeegee body and have to be kept in that position by the plastic wing nuts.
The **squeegee wheels** must be in good condition and rotate free from any obstruction.

Maintenance *(to perform every **15h**)*
Replacing Squeegee Rubber

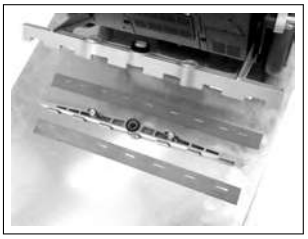
- Put the machine in safe conditions.
- Place the machine vertically.
- Unhook the fixing knobs and remove the lower squeegee body.
- Remove the front rubber and rear rubber and replace them with new ones.
- Both the rubbers can be used on both sides before having to be replaced.
- Proceed at reverse to reassemble the squeegee body correctly.

Maintenance *(to perform every **150h**)*
Replacing Squeegee Wheels

- Put the machine in safe conditions.
- Place the machine vertically.
- Completely unscrew the nuts holding the squeegee wheels
- Remove the squeegee wheels and the bushings


7.3.1-33


7.3.1-34


7.3.1-35


7.3.1-36

- Proceed at reverse to restore the parts, sprinkle the new bushings with lubricating grease before mounting.

7.3.2 Squeegee Support

Check *(to perform every **50h**)*
The squeegee support must be free to move and to pivot along the holding central axis to fit to the floor.

7.3.3 Hose and Suction hoses Body

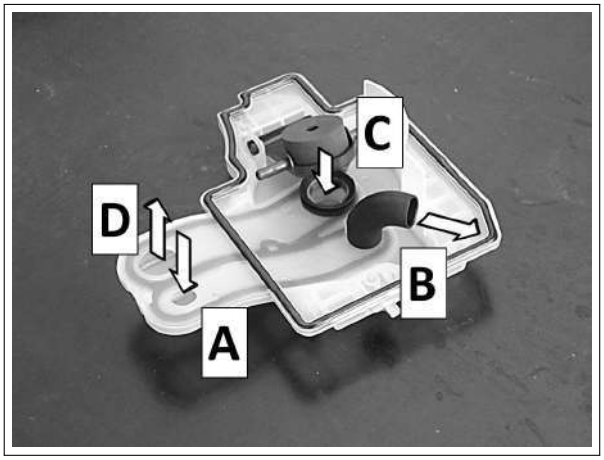
Check *(to perform every **2h**)*
The suction **hose** has to be clean and intact. It is mandatory that the hose has no crack to not decrease the underpressure.
The Suction hoses Body air/water and its top and bottom seals must be clean and undamaged.

7.3.4 Suction Cover and Floater

Check *(to perform every **2h**)*
The suction cover must be to be clean to allow full passage of water and air through its compartments conveyors. The floater has to be clean and it is important that no external debris or causes block or reduces the floater mobility. It is Mandatory that the floaters be free to move and have to block completely the air flow when it is in blocking position (UP). The couplings for the hoses must also be in good condition to prevent loss of vacuum or recovery water in working phase.

Maintenance *(to perform every **2h**)*

- Put the machine in safe conditions.
- Remove the suction cover.
- With a water jet, clean the floater and its rotation fulcrum.
- With a **water** jet, clean the dirty water conveyor compartment, both from the inlet hole **(A)** and from the output one **(B)**.
- Successively with compressed **Air**, clean the air conveyor compartment of the suction motor **(C+D)**.



7.3.5 Recovery Tank

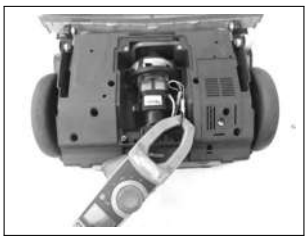
Check *(to perform every **50h**)*
The recovery tank has to be clean and has not to have cracks or, in general, any kind of damage. The seat of the cover must be clean and flat so as to allow the perfect adhesion of the cover.

7.3.6 Vacuum Motor

Check *(to perform every **150h**)*

- Open the front Carter and remove both tanks.
- Remove the suction motor cover, place an ammeter to the power cable of the suction motor, and activate the machine functions by moving the handlebar.

The current absorption must be less than **4,5 Amps**.
The motor should rotate evenly and smoothly and doesn't have to produce unusual noises. The motor contacts have to be clean, they have not to show signs of wear or heating in general.
The motor wires insulation has to be intact in all its parts and does not show signs of cracks. The single cable have to be flexible.



7.3.6-37

7.4 Technical Features

TECHNICAL DESCRIPTION	U/M	Fimop
Squeegee width	mm	390
Recovery Tank	Lt	1
Vacuum Motor Stages	Nr	1
Vacuum Motor Power	W	100
Vacuum Motor Voltage	V	24
Vacuum Motor Depression	mBar	45.1

Chapter 8

Machine Frame and Traction System

8.1 Structure

1. Wheels
2. Frame

8.2 Description

The frame It is a single structure in plastic on which rest the tanks.

The machine traction is ensured by the mechanical friction system.

The wheels are directly fixed to the frame.

8.3 Maintenance and Checks

8.3.1 Wheels

Check *(to perform every **50h**)*
The wheel must be free to rotate smoothly without friction. The wheel surface, must always be in good condition.
Maintenance *(to perform every **150h**)*
Periodically check the wheel status. If necessary, proceed to replace the part (see section 4.4 at page 21).

8.4 Technical Features

TECHNICAL DESCRIPTION	U/M	Fimop
Wheels *(num/diam/width)*	Nr/ϕmm/mm	2/150/25
Wheel material		TPV
Wheel hardness	Sh	85

Chapter 9

Cleaning Solution Supply System

9.1 Structure

1. Solution Tank
2. Solution Filter
3. Hoses
4. Water Pump
5. Distributor and Nozzles

9.2 Description:

The Cleaning Solution Supply System is made by a tank commonly called solution tank or clean water tank.

In this tank the clean water is mixed with the detergent to create the cleaning solution that the machine will use to clean.

The solution is then canalized to the filter which, in addition to allowing the valve opening of the solution tank, stops debris that could stuck the hoses system and compromise the proper functioning of the system.

Once passed through the filter the solution arrives to a pump which stops the flow when the brush stand is in the rest condition and which releases it in working condition, and then conclude the path through the distributor.

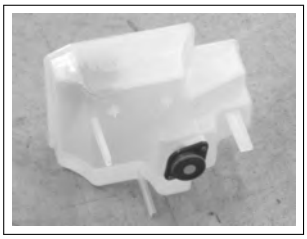
At this point the solution is dispensed from the nozzles in front of the brush ready to be used.

9.3 Maintenance and Checks

9.3.1 Solution Tank

Check *(to perform every **50h**)*
The solution tank has to be clean and intact. It has not to have cracks or any other kind of damage. Verify, when the tank is completely filled up, that there are not leakage. If necessary replace the Solution Tank.


9.3.1-38


9.3.1-39

9.3.2 Hoses

Check *(to perform every **50h**)*
Every single hose has to be intact and has not to be worn out. It is extremely important that the hoses kept the original flexibility and they haven't suffered any chemical reaction with the detergent used with the machine. If necessary proceed with the replacement of the damaged hoses.

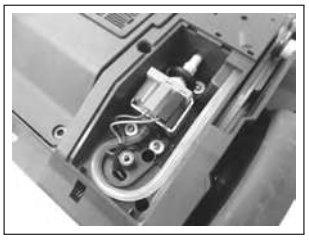
9.3.3 Clean Water Filter

Check *(to perform every **2h**)*
The filter is of great importance, since due to its knob it allows the opening of the solution tank's valve.
It has to be cleaned regularly and it is also important to check that it is intact and has no anomaly.


9.3.3-40

9.3.4 Water Pump

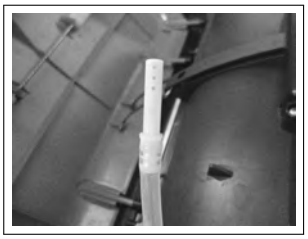
Check *(to perform every **50h**)*
The water pump has to block completely the solution flow when the brush deck is not working. Viceversa it has to grant the flow rate when the brush deck is working.


9.3.4-41

9.3.5 Distributor and Nozzles

Check *(to perform every **50h**)*
The distributor and the nozzles have to be intact and has to grant the proper solution flow.


9.3.5-42


9.3.5-43

9.4 Technical Features

TECHNICAL DESCRIPTION	U/M	Fimop
Solution Tank	Lt	1.2
Clean Water Filter		Plastic

Chapter 10

Consumable & Recommended Spare Parts

10.1 Consumable Spare Parts

10.1.1 Mechanical Rubbing System

PN	Description	Width/ϕ (mm)	ϕ Bristle (mm)	Bristle type
440904	MAIN BROOM	340 / 110	0.3	PPL
440905	MAIN BROOM	340 / 110	0.2	PPL

10.1.2 Drying System

PN	Description	Dimensions
224800	SQUEEGEE RUBBER KIT	403 x 27 x 2 mm
421101	SQUEEGEE WHEEL	D=24 L=12.7

10.1.3 Machine Frame and Traction System

PN	Description
441000	WHEEL D=150 L=25

10.2 Recommended Spare Parts

The following table refers to the Recommended Spare Parts, and reports the amount suggested by the number of purchased machines.

Machines		**Parts**
1	⇒	1
10	⇒	2
25	⇒	3
50	⇒	4

10.2.1 Electrical System

PN	Description
439802	CONTROL CARD CFSS000
439524	SWITCH (General / Water)
441658	PARK MICROSWITCH

10.2.2 Mechanical Rubbing System

PN	Description
224760	MOTOR 24V 32W 375RPM

10.2.3 Drying System

PN	Description
224628	VACUUM MOTOR 24V 100W 1ST
439391	VACUUM HOSE D22/32x80
421227	GASKET V-RING VA=28
440025	GASKET V-RING VA0018 H=5,5 NBR

10.2.4 Cleaning Solution Supply System

PN	Description
440028	PUMP ULKA 24V
439888	CLEAN WATER FILTER

Index

Fimap S.p.A.
Workshop Handbook Fimop

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