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**DATE OF THE LAST UPDATE: 01/12/2012**

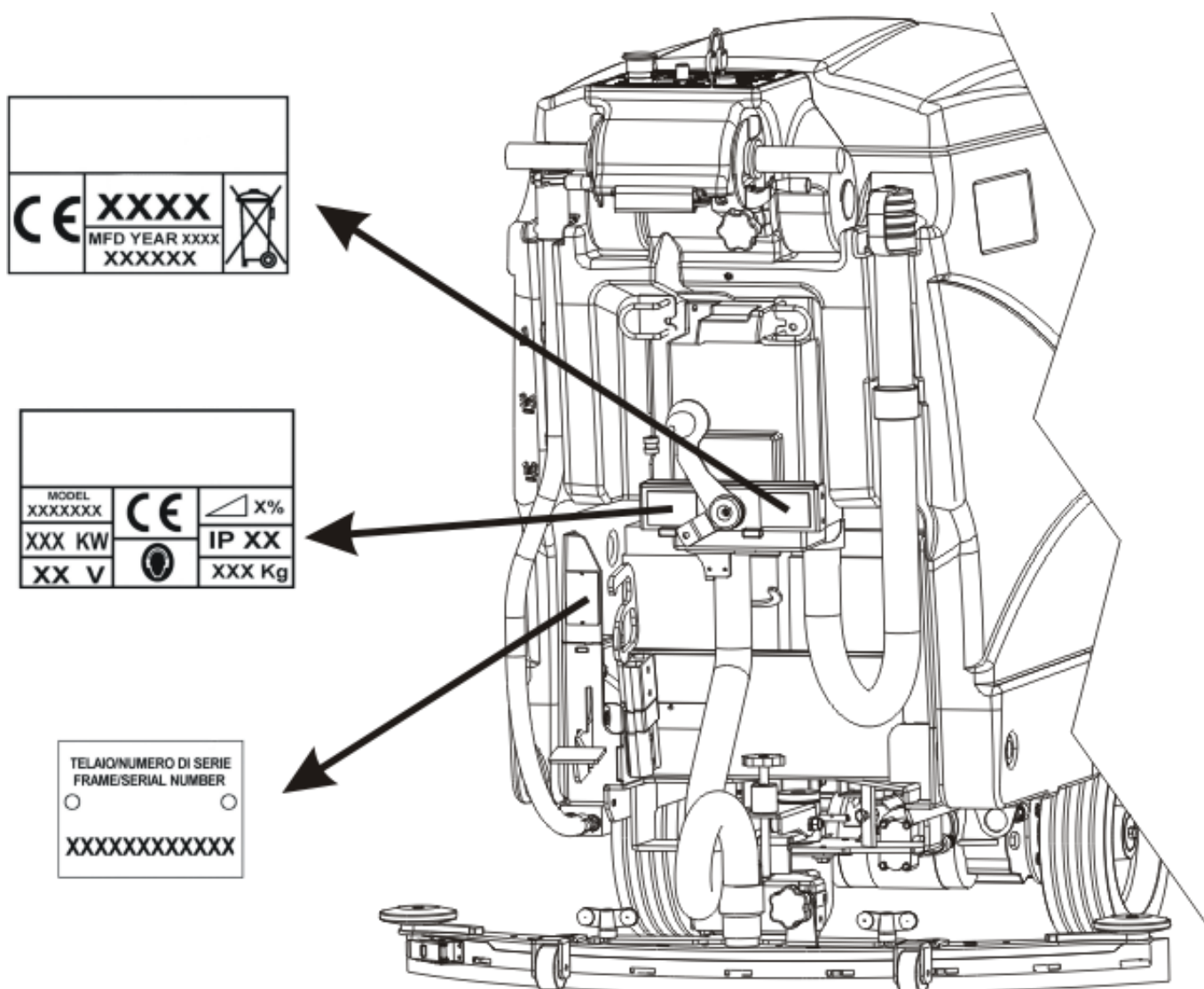
# INTRODUCTION

*Our company, a leading industrial cleaning machine manufacturer, is delighted to welcome you to the ranks of our scrubber owners and it trusts that you will get the greatest satisfaction from the use of the machine. We are certain that while using the machine you will have the opportunity to see the quality, solidity and possibilities for use by yourselves. Our scrubber is ideal for private, industrial or public uses. Described in this manual are various installation, checking and maintenance operations necessary for keeping your scrubber in tip top condition. These are normal maintenance measures that any operator will be able to carry out with implements that he or she should normally have in the company. In the case of particularly demanding work, please call in specialised help.*

OUR COMPANY AIMS AT THE CONSTANT IMPROVEMENT OF ITS PRODUCTS AND RESERVES THE RIGHT TO MAKE MODIFICATIONS AND IMPROVEMENTS WHEN IT CONSIDERS IT ADVISABLE WITHOUT BEING OBLIGED TO UPGRADE PREVIOUSLY SOLD MACHINES WITH SAID IMPROVEMENTS AND MODIFICATIONS

## MACHINE IDENTIFICATION

The machine and manufacturer are identified through three plates on the left of the driver's seat.



REFER TO THESE DETAILS WHEN ORDERING SPARE PARTS OR MAKING ANY OTHER ENQUIRY TO THE MANUFACTURER.

Our scrubbers conform with the EEC directives and show the CE mark.

## ATTENTION!

BEFORE USING THE MACHINE OR CARRYING OUT ANY OPERATION ON IT, ALL THE PROCEDURES AND WARNINGS DESCRIBED IN THIS MANUAL MUST BE READ AND UNDERSTOOD.

RIGOROUS COMPLIANCE WITH THE REGULATIONS AND INSTRUCTIONS CONTAINED IN IT, TOGETHER WITH THE OPERATOR'S ATTENTION AND PRUDENCE WILL BE THE BEST GUARANTEE AGAINST ACCIDENTS THAT COULD OCCUR AT WORK.

OUR SCRUBBERS ARE DESIGNED TO PROVIDE MAXIMUM SAFETY IF USED ACCORDING TO THE INSTRUCTIONS.

OPERATORS WHO DO NOT KNOW THE REGULATIONS AND PROCEDURES CONTAINED IN THIS MANUAL MUST BE PREVENTED FROM USING THE MACHINE.

THE USER'S MANUAL IS AN INTEGRAL PART OF THE SCRUBBER AND MUST ACCOMPANY IT UNTIL THE SCRUBBER IS DEMOLISHED.

PURSUANT TO DIRECTIVE 89/392 CE, PRESIDENTIAL DECREE 459 DATED 24/07/1996 AND LATER MODIFICATIONS NOTICE IS GIVEN THAT:

OPERATOR IS INTENDED TO MEAN THE PERSON(S) ASSIGNED TO INSTALL, OPERATE, ADJUST, CARRY OUT ORDINARY SERVICING, CLEAN, REPAIR AND TRANSPORT THE MACHINE.

OUR COMPANY WILL NOT BE HELD LIABLE FOR ANY PROBLEMS, BREAKAGE, ACCIDENTS OR OTHER OCCURRENCES DUE TO THE IGNORANCE OR THE NON-APPLICATION OF THE PROCEDURES CONTAINED IN THIS MANUAL OR TO THE IMPROPER USE OF THE MACHINE.

FURTHERMORE, OUR COMPANY SHALL NOT BE HELD LIABLE FOR THE CARRYING OUT OF MODIFICATIONS AND/OR THE INSTALLATION OF PARTS OR ACCESSORIES THEY HAVE NOT BEEN AUTHORISED BEFOREHAND.

## GENERAL WARNINGS AND ADVICE DANGER SIGNS - ATTENTION



THIS SYMBOL HIGHLIGHTS ALL THE OPERATIONS THAT REPRESENT A POTENTIALLY HAZARDOUS SITUATION FOR THE OPERATOR  
IT IS THEREFORE NECESSARY TO ADHERE CLOSELY TO THE CONDITIONS SHOWN BY THIS SYMBOL.



GLOVES MUST BE WORN



SAFETY GLASSES OR GOGGLES MUST BE WORN



BE CAREFUL NOT CRUSH YOUR HANDS BETWEEN PARTS IN MOTION



ATTENTION: DO NOT GET IN TOUCH WITH WATER  
THE DEVICES MARKED WITH THIS LABEL ARE NOT TO GET WET. (USUALLY THEY ARE ELECTRICAL COMPONENTS)



AN ANTI-VAPOUR MASK HAS TO BE WORN WHEN USING CORROSIVE DETERGENTS.



## EMERGENCY SITUATIONS

**ONLY EXTINGUISH FIRES WITH POWDER FIRE EXTINGUISHERS**



## CLEANING AND MAINTENANCE

The machine must be cleaned by persons who have received proper instruction for the purpose, who know how to cut off the sources of energy and who know the characteristics of the machine so as not to find themselves in a hazardous situation. Clean the machine coverings, the panels and commands with cloths soaked in water or a detergent solution.

Solvents such as petrol, alcohol, etc. must not be used.

Call in specialised personnel to clean the electrical components. Said personnel should use products that are not corrosive and are anyway suitable for electrical circuits.

Specialised personnel with thorough knowledge of the machine and its components must be called in to carry out maintenance operations.

Any maintenance and cleaning operation must be carried out with the machine off, with all the mechanisms still, after the hot sections have cooled down and with the battery disconnected.

When using compressed air guns for cleaning, protect the eyes and hair.

## STORING THE MACHINE

If the machine is not used for a long period, it is essential to:

- recharge the batteries before storing the machine as empty batteries may get damaged.
- empty and wash the tanks as described in the relative section.
- clean the clean water filter.
- should the machine be equipped with the ECO SYSTEM, clean the water circuit and allow for water-flowing before storing the machine.
- clean the machine inside and outside
- keep brushes and squeegee raised
- lock the machine in place with the parking brake
- remove the key
- remove the battery lead connections
- keep the machine in a protected place
- keep the machine within a temperature range of 5°C / 40 °C
- keep the machine within a humidity range of 30°C / 80 °C





## **PRECAUTIONS FOR THE SAFETY OF OPERATORS AND TECHNICIANS**

- The machine must not be used by non-authorised personnel who have not been trained to use it properly or by people who are under the influence of substances that could alter their nervous reflexes (alcohol, psycho pharmaceuticals, drugs etc.)
- Do not use the machine in inflammable areas or where there is the danger of explosions
- Do not collect material that is alight or anything else that could cause a fire.
- Do not remove protections or guards when the machine is in operation.
- Do not use the machine to clean objects.
- Do not start to perform maintenance operations with parts in movement
- Protect eyes and ears when using compressed air or water guns for cleaning the machine.
- To raise the machine make use of devices that are adequate to bare the weight of the machine itself.
- Do not cause flames or sparks around the machine.
- Disconnect the battery cables before working on the electrical circuit.
- Avoid contact with battery acid
- Move carefully over uneven or crumbling paving and on slopes.
- Slow down on slopes and slippy surfaces
- Make sure the machine is not exposed to rain and weather conditions, whether in motion or still.
- Temperature of usage of the machine has to be kept within + 5 °C / + 40 °C.
- Humidity has to be kept within 30% / 80 %.

## **UPDATING OF THE USERS MANUAL**

When large-scale modifications are made to the machine or new parts are installed, the updated documentation must be sent to the Dealer along with the purchased part or as an update of the manual

## **OBLIGATIONS OF THE EMPLOYER OR OWNER OF THE MACHINE**

The employer or owner of the machine is responsible for giving the User's Manual to all the personnel who are going to have to use the machine.

The employer or owner of the machine also undertakes the responsibility to update the manual with the documentation that the Manufacturer will send if modifications are made to the machine.



## **RESPONSIBILITIES OF THE OPERATOR**

- The operator is responsible for the day-to-day servicing of the machine
- The operator must care for the machine and keep it in good operating condition
- The operator must inform his or her superior or the technical department when scheduled maintenance is requested in the case of damage or breakage.
- The operator must not carry people, animals or objects on the machine.
- When moving the machine, observe the safety measures for circulation.
- The machine cannot be used for toxic-harmful materials.
- Never let people get close to the machine's sphere of action.
- Never leave the sweeper with the key and the emergency switch inserted.
- Engage the hand brake
- If the machine malfunctions, have a look at the procedures shown in the various chapters.
- Never collect pieces of string, wire or anything else that could damage the brushes by winding around them.
- Never suck up pieces of wood, plastic waste etc. as they may clog the vacuum pipe.
- Never remove or alter the plates on the machine

## DISPOSAL



### SPENT OILS

Spent oils must not be thrown away into the environment under any circumstances.

They must be given to authorised Collectors in compliance with the regulations currently in force.

Temporary storage must be inside watertight containers with sealed lid to avoid contact with the environment and with rainwater.

The filters must also be given to authorised collectors and temporarily kept like the oils.



### DEAD LEAD BATTERIES

Dead batteries must be considered harmful toxic waste, they must be given only to Collectors with specific authorisation (to be checked at the time of consignment).



### SCRAPPING OF THE MACHINE

When the machine is to be scrapped, it is necessary to dispose of the materials the machine consists of, properly.

It is compulsory to give the machine to authorised collectors who will see to the proper disposal of: batteries, oils, filters, plastics, metals, electric engines, electric cards etc. in accordance with the regulations currently in force.



### DISPOSAL OF THE RECOVERY SOLUTION TANK

Prior to be moved on specific purification plants, the recovery tank solution is to be disposed of in the appropriate sites.

## TRANSPORT- HANDLING



### TRANSPORT

The machine must be fixed to a pallet to make it easier to transport and more secure.

At the reception of the machine, check that the packaging is in good conditions –in case of damage, report to the forwarder.

**PAY PARTICULAR ATTENTION WHILE TRANSPORTING THE MACHINE AT TEMPERATURES BELOW 0°C AS TO PREVENT THE WATER INSIDE THE TANKS AND THE PIPES FROM BECOMING FROZEN.**

**DRAIN THE TANKS, REMOVE THE SCREEN OF THE CLEAN SOLUTION FILTER AND LET THE WATER FLOW AWAY COMPLETELY OUT OF THE PIPES.**



### TRANSPORT- HANDLING

When the machine is moved from one place it is used in to another you are advised to:

- not load it on the vehicle with a forklift truck in order not to damage it
- lock the machine in place with the parking brake
- fix it well to the vehicle using belts, ropes and chains.



### TRANSPORTING THE MACHINE BY MANUAL PUSHING

In case of transport by means of manual pushing –for machines featuring electronic traction only - the machine must be pushed on at walking pace. Do not tow it with fork lifts.

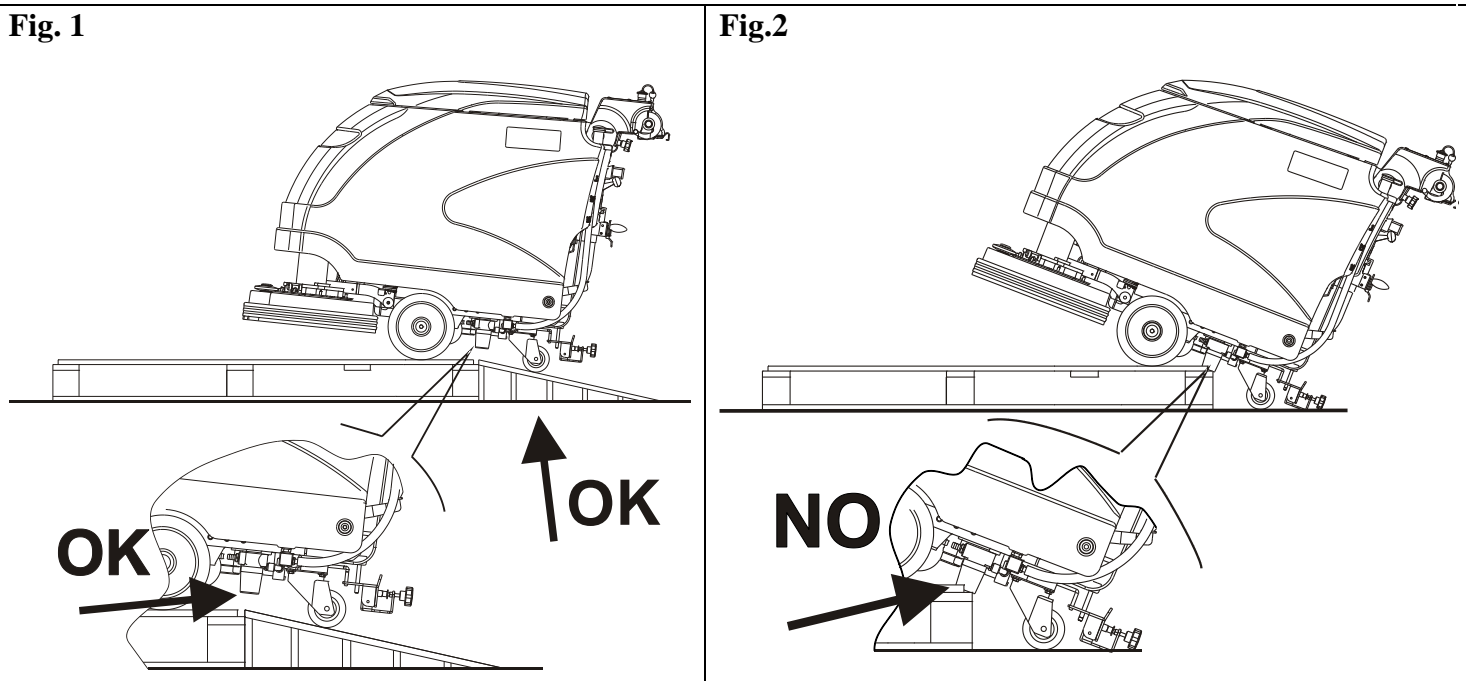


## UNPACKING

Make sure that all the parts indicated in the following list are present before unpacking the machine:

- Squeegee;
- battery box;
- n° 1 battery jumper L = 26 cm, fitted with terminals and terminal covers;
- n° 2 battery jumpers L= 18 cm, fitted with terminals and terminal covers;
- battery cable L = 48 cm, fitted with connector, terminals and terminal covers;
- reducer for 6V battery box;
- on board battery charger;
- four 6 Volt “dry-charged” batteries (optional).

NOTICE: brushes, discs and disc pad holders must be purchased separately.



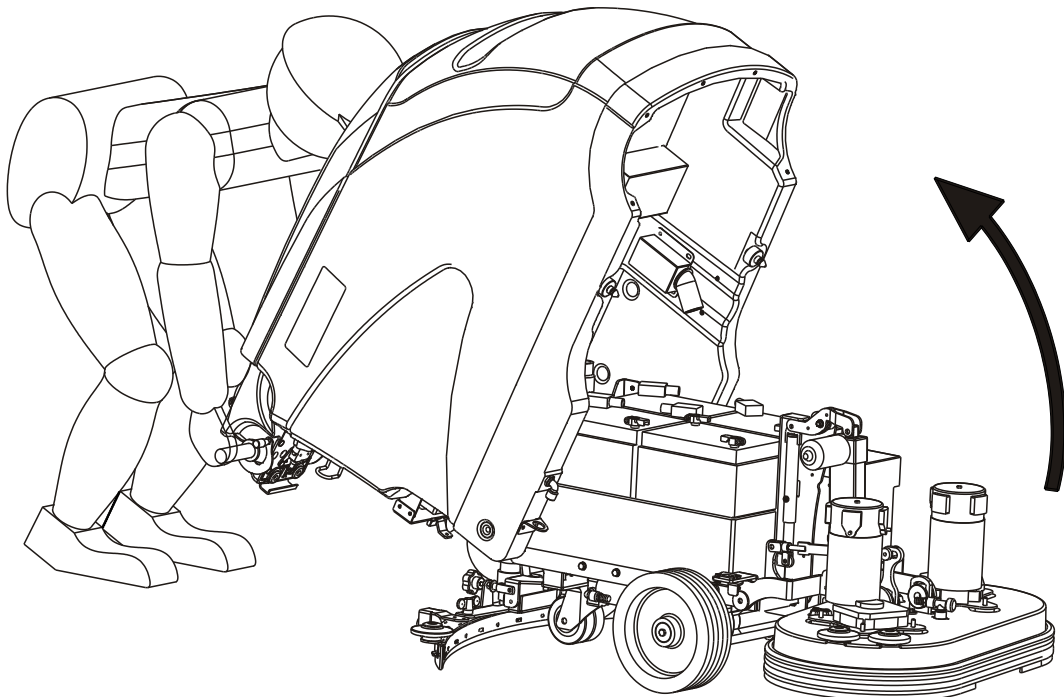
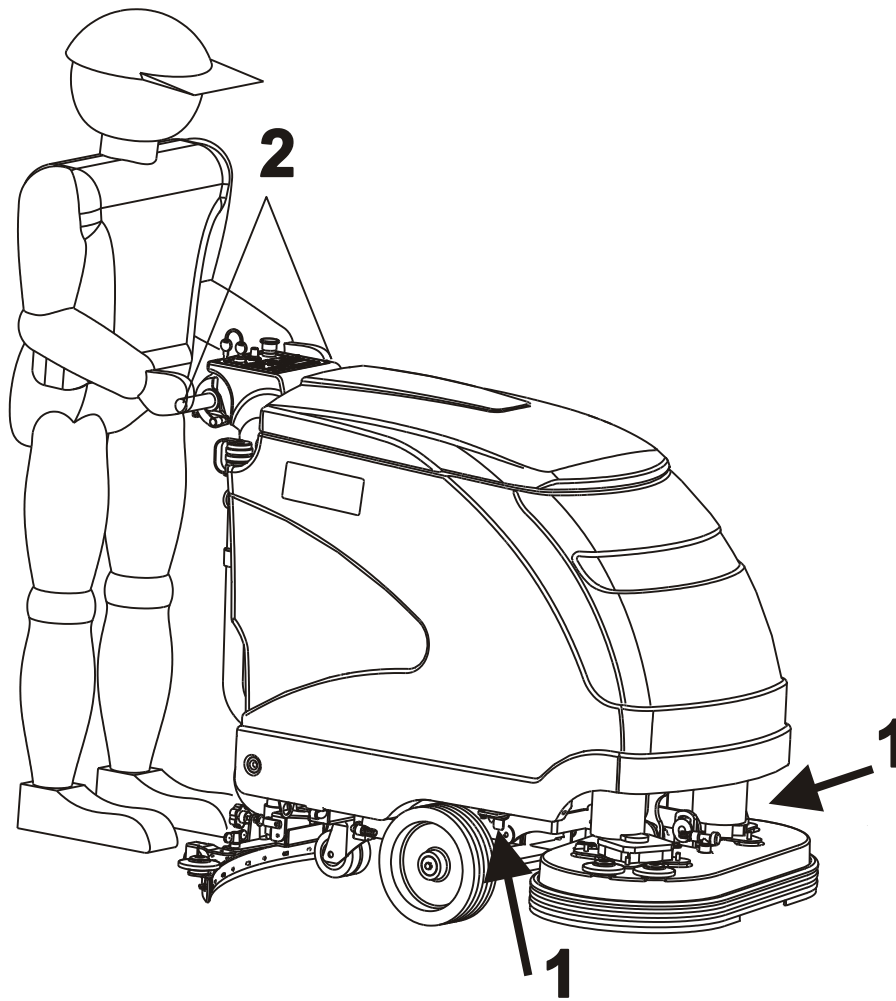
Follow the instructions below to unpack the machine:

- connect the inclined ramp to the front part of the pallet, see figure 1;
- remove the fasteners fixing the front wheels and eventual other devices;
- make use of the inclined ramp (see fig. 1); do not try to unload the machine without the ramp as not to damage the clean water filter (see fig.2).

**CAUTION: DO NOT USE A FORKLIFT TO REMOVE THE MACHINE FROM THE PALLET AS IT MAY CAUSE DAMAGE TO THE MACHINE.**

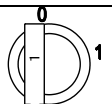
**CAUTION: MOUNT THE BATTERIES ONLY AFTER REMOVING THE MACHINE FROM THE PALLET.**

## LIFTING THE TANK



Follow the instructions below to lift the tank:

- Bring the machine into a stop position in a flat surface area, put on the brake and turn the key into position 0:
- Unblock the tank by means of the two levers pos. 1 placed on both sides;



**REACH THE DRIVER'S POSITION AND LIFT THE TANK BY THE GRIPS (POS. 2) PAYING ATTENTION TO HANDLE IT WITH CARE WHILE LAYING IT ON THE GROUND.**



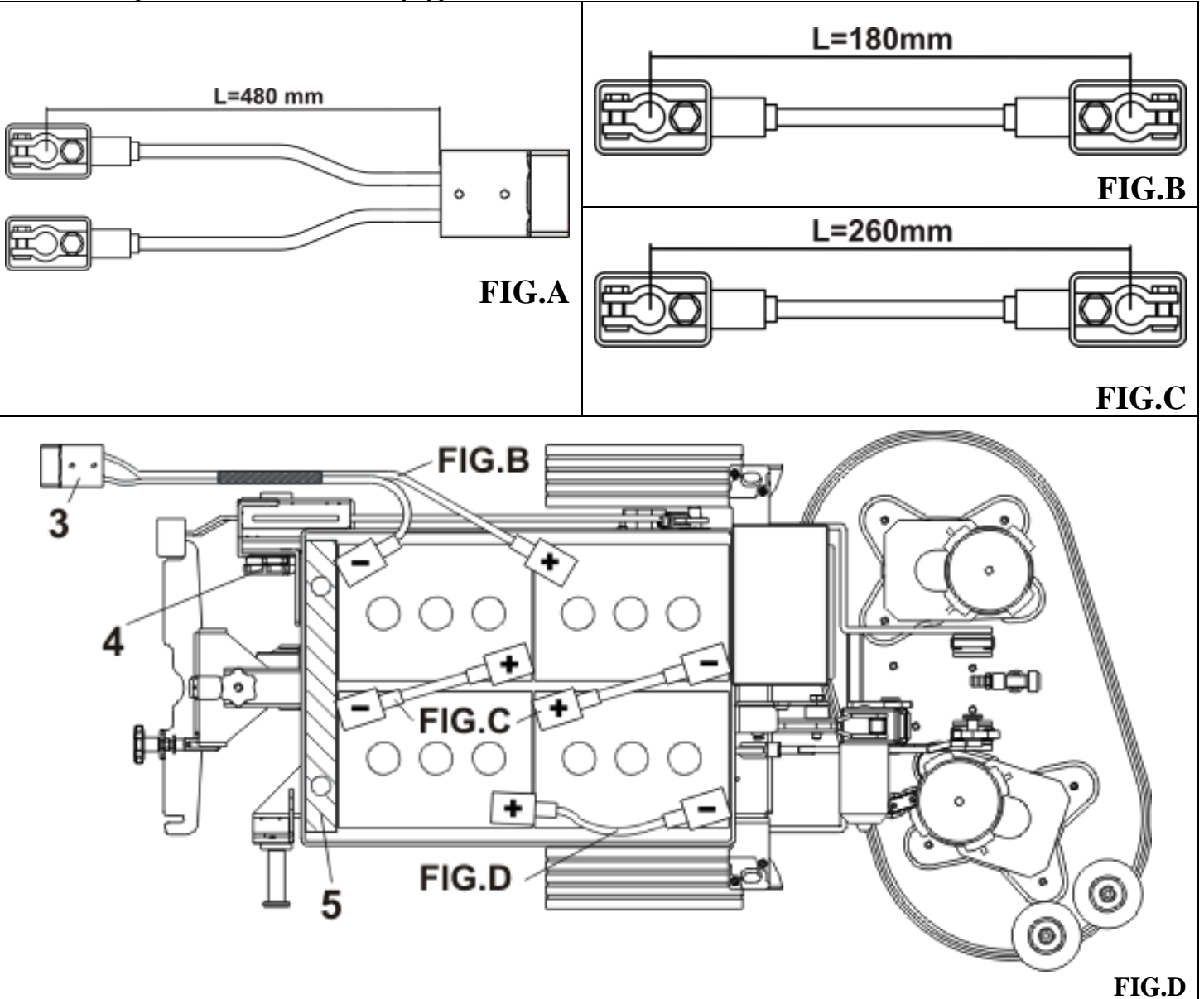
## INSTALLING BATTERIES

**CAUTION: USE PROTECTIVE GLOVES AND GOGGLES WHEN HANDLING BATTERIES, AVOIDING ANY CONTACT WITH THE ACID INSIDE THE BATTERIES.**

**CAUTION: THE BATTERY CHARGER AND THE CONTROL BOARD ARE SET ACCORDING TO THE TYPE OF BATTERIES SHOWN IN THE SHEET ATTACHED TO THE USER'S MANUAL.**

**IF YOU WANT TO MOUNT BATTERIES WITH A DIFFERENT AMPERAGE OR OF A DIFFERENT TYPE (I.E. LEAD-ACID, AGM OR GEL) THE SETTING SHOULD BE DONE ON THE BATTERY CHARGER AS WELL AS ON THE CONTROL BOARD ON THE MACHINE. CONTACT A RESELLER OR A TECHNICIAN BEFORE MOUNTING THESE TYPES OF BATTERIES.**

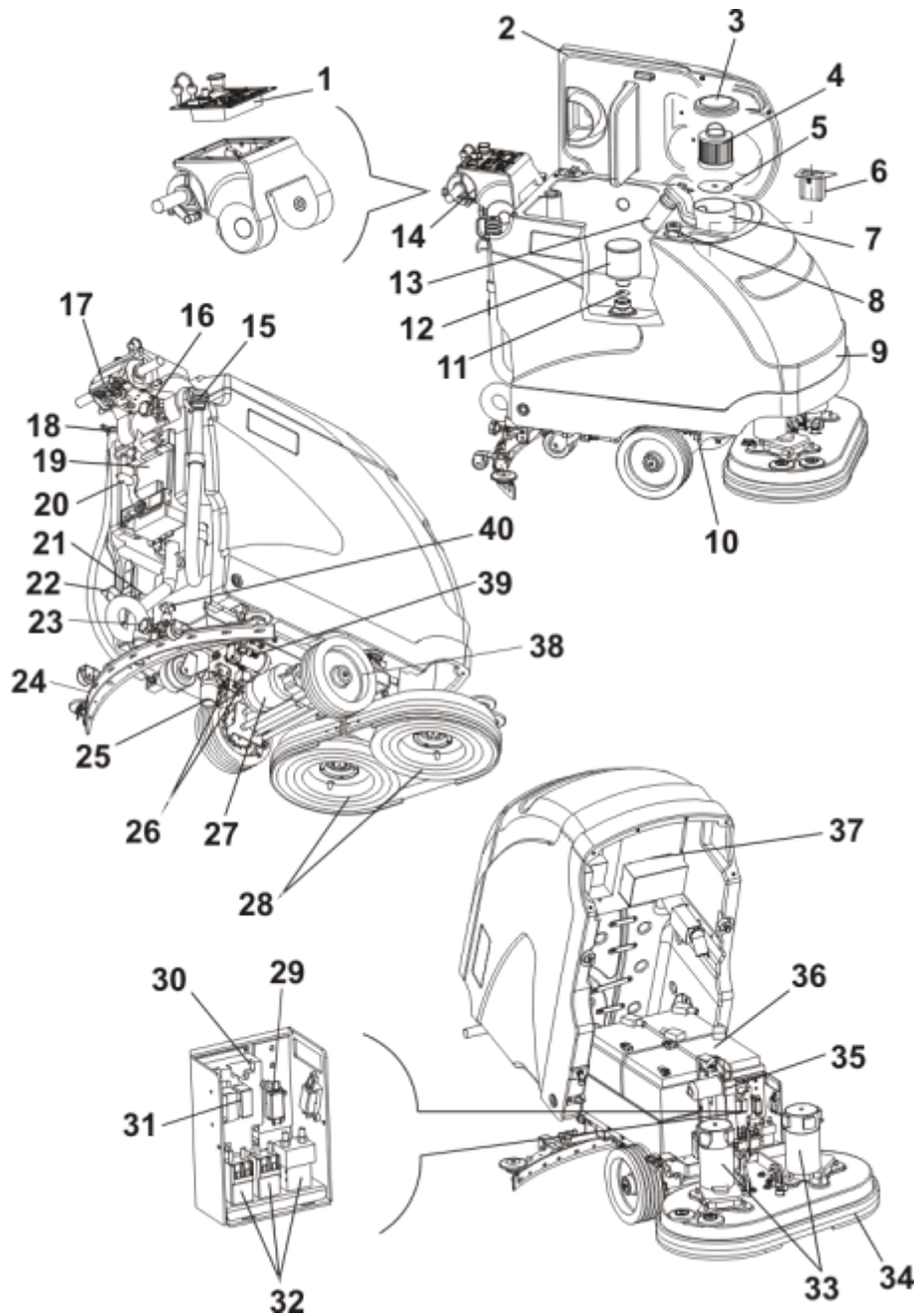
Refer to the specification sheet for battery types and sizes suitable for the machine.



Follow the instructions below to mount the batteries on the machine:

- park the machine on a flat surface, put on the brake and remove the key;
- Lift the tank following the instructions as indicated in the previous section of the present manual;
- Place the batteries in the battery box. Make sure the poles are clean and apply a thin layer of petroleum jelly.  
**BE VERY CAREFUL NOT TO TURN OVER THE BATTERIES AS IT COULD CAUSE ACID TO LEAK AND DAMAGE THE MACHINE.**
- Insert the battery box reducer pos.5 as shown in fig. D.
- Connect the two jumpers 1=180mm (fig. B), the jumper 1=260 mm (fig. C) and the battery cable (fig. A) as shown in figure D; make sure to tighten the screws on the terminal clamps and place the terminal covers.
- Connect the mobile connector (position 3 – fig. D) with the fixed connector (position 4 – fig. D) into the machine.

# E 71 – E 81 – M 710 – M 810



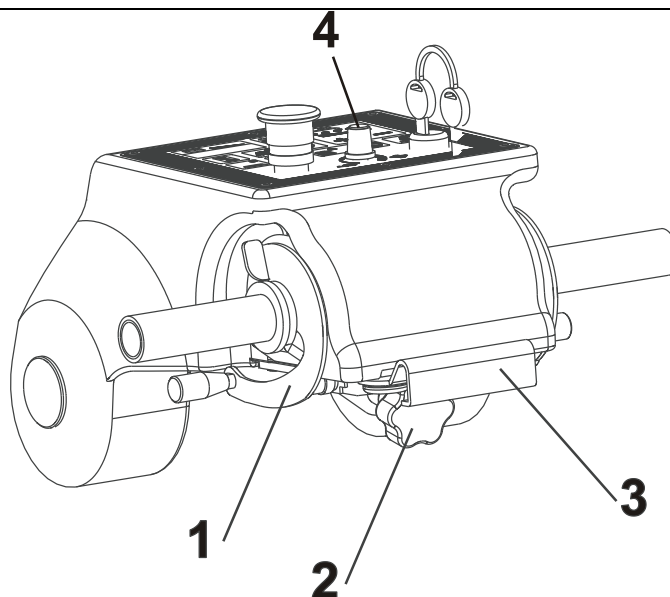
- |   |   |
|---|---|
| 1. Control board  | 21. Battery mobile connector                |
| 2. Tank lid   | 22. Brake pedal                             |
| 3. Suction filter lid                                   | 23. Squeegee adjustment hand-wheel          |
| 4. Suction filter                                       | 24. Squeegee                                |
| 5. Safety suction filter                                | 25. Detergent solution filter               |
| 6. Clean water tank filling filter                      | 26. Solenoid valves                         |
| 7. Filter support                                       | 27. Drive gear motor                        |
| 8. Drum of the clean water filter                       | 28. Brushes                                 |
| 9. Tank   | 29. Fuse holder                             |
| 10. Unlock tank levers                                  | 30. Drive board                             |
| 11. Safety filter ECO-SYSTEM (ECO version)              | 31. Fuse holder                             |
| 12. Filter ECO-SYSTEM (ECO version)                     | 32. Contactors                              |
| 13. Suction lock float with filter                      | 33. Brush gear motor                        |
| 14. Control panel                                       | 34. Splash guard                            |
| 15. Recovery tank outlet drain                          | 35. Up/down brush plate actuator            |
| 16. Squeegee slope adjustment hand-wheel                | 36. Batteries                               |
| 17. Anti-crushing device                                | 37. Suction motor box                       |
| 18. Level indicator pipe and solution tank outlet drain | 38. Wheels                                  |
| 19. Battery charger                                     | 39. Water pump                              |
| 20. Squeegee lever                                      | 40. Squeegee pressure adjustment hand-wheel |



## PRIMARY FUNCTIONS AND CONTROLS

### CONTROL PANEL

**VERSIONS: E71 V2 TRAC – E71 V3 ECO – E81 V2 TRAC– E81 V3 ECO  
M710 V2 TRAC – M710 V3 ECO – M810 V2 TRAC – M810 V3 ECO**



#### DRIVE OR REVERSE DRIVE CONTROL

Rotate the mechanism forward to drive the machine.

Rotate the mechanism backwards for reverse drive.

- 1** ----- The speed of the machine will either increase or decrease progressively when rotating the control progressively forward or backwards, it will go from speed level 0 (machine in halt position) to the maximum speed set with the potentiometer (position 4) located on the instrument panel.

#### INSTRUMENT PANEL INCLINATION ADJUSTMENT HAND-WHEEL

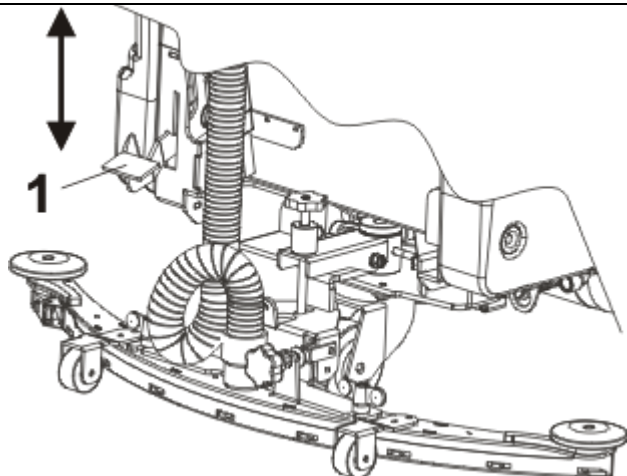
- 2** ----- Enables the instrument panel to be positioned in three different inclinations.

#### ANTI-CRUSHING DEVICE

- 3** ----- This is a safety device that halts the machine in reserve drive and makes it go forward for a brief period in case the operator is trapped between the machine and an obstacle behind him.

### BRAKE PEDAL

**VERSIONS: E71 V2 TRAC – E71 V3 ECO – E81 V2 TRAC– E81 V3 ECO  
M710 V2 TRAC – M710 V3 ECO – M810 V2 TRAC – M810 V3 ECO**



The machine is fitted with a parking and emergency brake that operates on both front wheels.

To lock the machine push the brake pedal (position 1) down and hook it into the preset housing. The machine will then be locked.

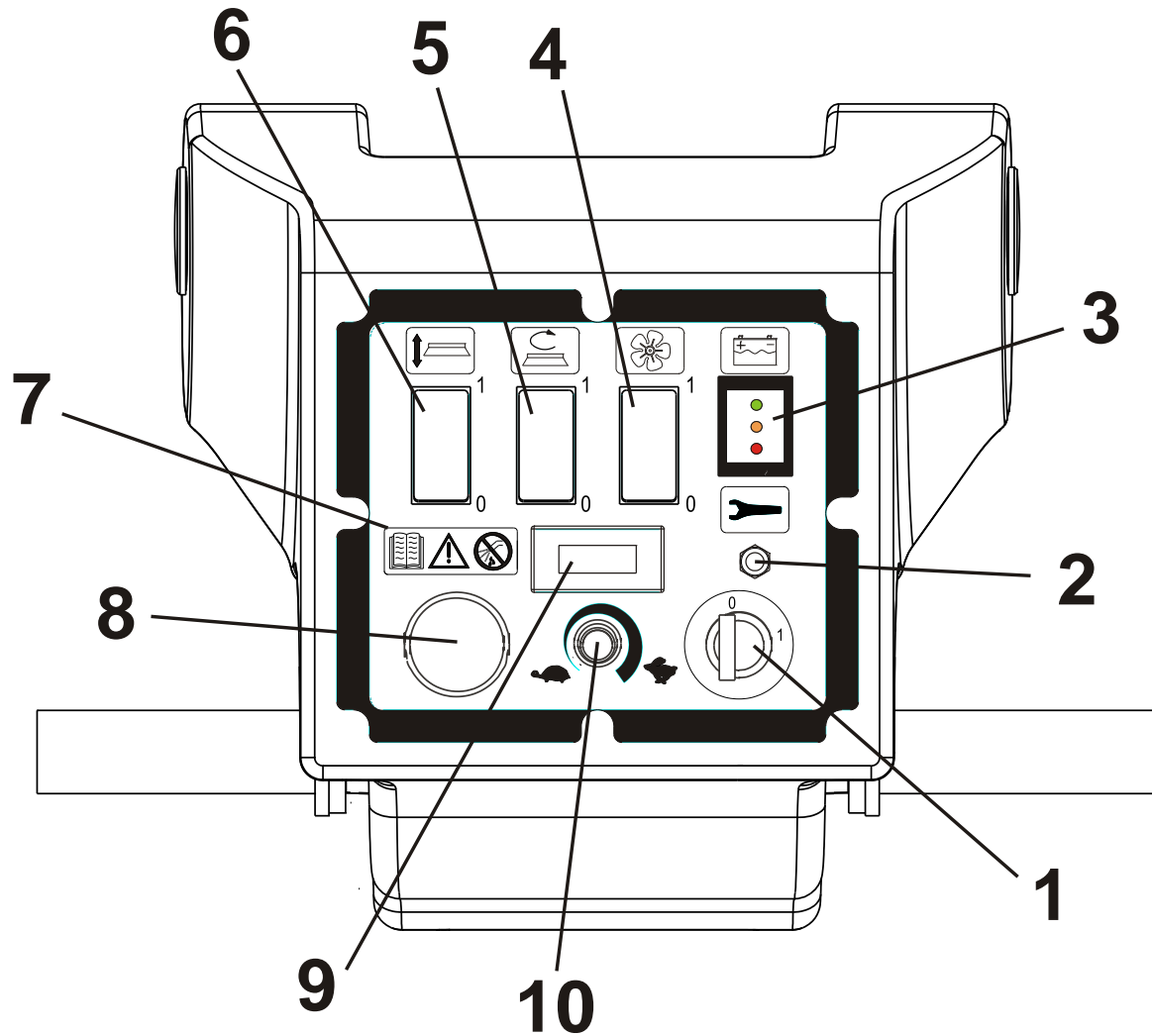
Use the brake pedal (position 1) to unlock the machine, unhook it from the housing and release it slowly.

The machine will then be unlocked.

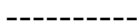


# CONTROL PANEL

## VERSIONS: E71 M – E81 M – M710 M – M810 M



1



### KEY-OPERATED SWITCH

Turn it clockwise (position 1) to turn on the machine..

2



### RED LIGHT: DRIVE ALARM

Indicates any faults in the drive board of the drive motor.

The number of flashes indicates the type of fault (consult the troubleshooting table).

3



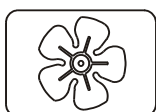
### BATTERY CHARGING INDICATOR

Indicates the charging level of the battery.

The green light indicates that the machine can work. When the orange light comes on be prepared to recharge the battery.

**When the red light comes on, the brush motors will stop running. Go to the charging zone and charge the battery. The brushes will re-start once that the battery is charged.**

4

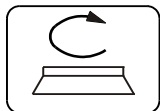


### VACUUM BUTTON

Push the switch to position 1 to turn on the vacuum.

Push the switch to position 0 to turn off the vacuum.

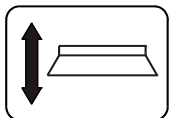
5



### BRUSH DRIVE BUTTON

Push this switch to position 1 to activate the brush function.  
The brushes will start spinning when the forward and reverse gear pedal is pushed.  
When the pedal is released the brushes will spin for another 3 seconds before stopping.  
The solenoid valve is connected to the brush function; it opens and closes the solution flow automatically.

6



**BRUSH PLATE HEIGHT ADJUSTMENT SWITCH**  
Pushing the switch on POS. 1 the brush plate will lower  
Pushing the switch on POS. 0 the brush plate will lift.

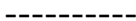
7



### WARNING SYMBOLS

The symbol on the left always recommends using the instruction manual to find any information on the machine, whereas the symbol on the right part of the machine warns the operator not to get the control panels wet as the electrical parts could get damaged.

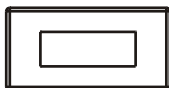
8



### EMERGENCY BUTTON

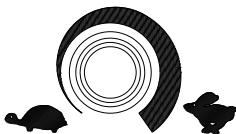
This button is used to halt the machine in case of emergency and to lock all of its functions.  
Turn the knob clockwise to reset the power.

9



### OUR METRE (OPTIONAL)

10

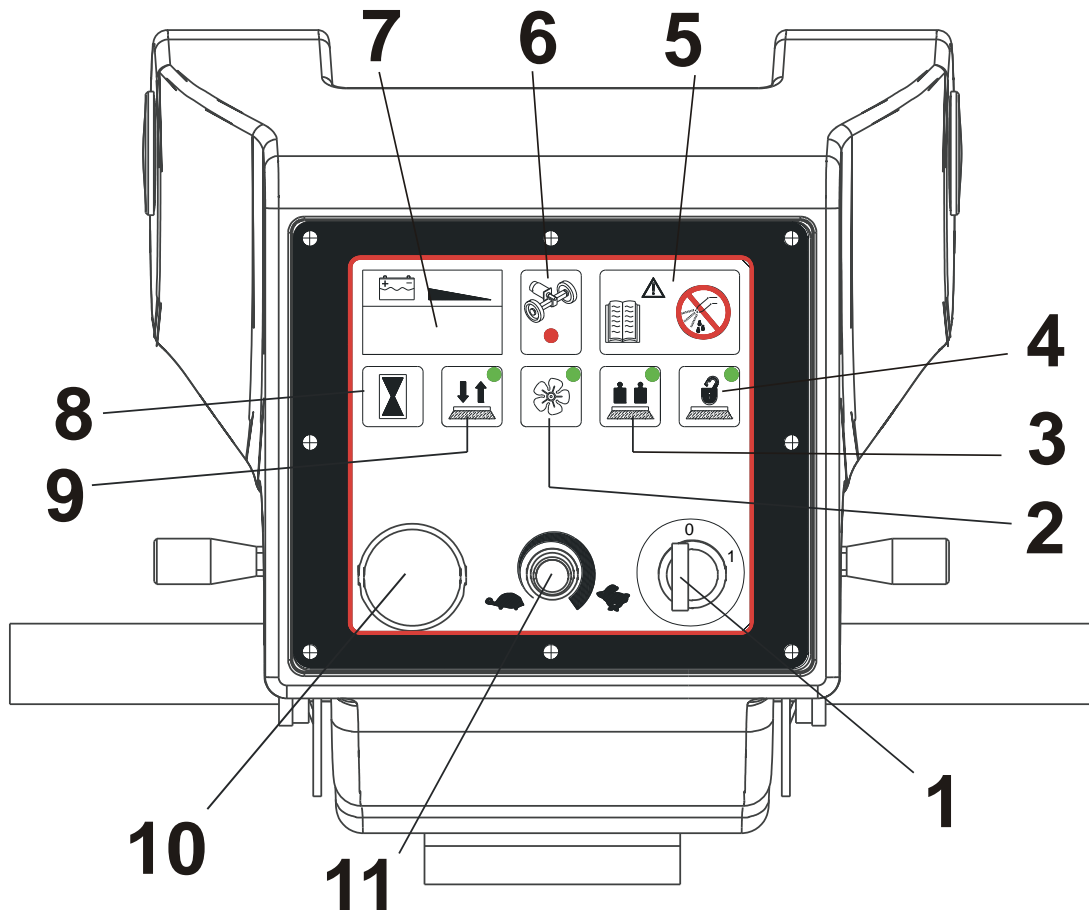


### SPEED ADJUSTING POTENTIOMETER

To set up the maximum speed of the machine turn the knob clockwise or counter-clockwise.

# CONTROL PANEL

## VERSIONS: E71 V2 TRAC – E81 V2 TRAC – M710 V2 TRAC – M810 V2 TRAC



### KEY-OPERATED SWITCH

The ignition sequence will start by rotating the key-operated switch clockwise (position 1); a series of information will appear on the display in successive order. **THE BUTTONS ON THE INSTRUMENT PANEL AND THE DRIVE CONTROLS SHOULD NEVER BE TOUCHED DURING THIS SEQUENCE.** The charge level of the battery will appear on the display at the end of the sequence, e.g. 100 - 90 - 80 etc.

**The machine is ready to be used only at this point.**

### SUCTION FAN BUTTON

If the suction fan is switched off, this button can be used to turn it on and a green light indicator will come on. If the suction fan is switched on, this button can be used to turn it off after a preset delay.

### EXTRA-PRESSURE BUTTON

Press this button to increase pressure on the brush plate; a green led light will come on. This function can be activated only if the brush function is already active. Switch it off to disable extra-pressure and work in normal conditions.

By pressing the brush button when working on extra-pressure mode, you will cause the brushes to stop rotating and the brush plate to automatically rise.

### BRUSH RELEASE BUTTON

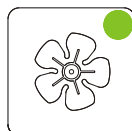
This button will enable the brush release sequence. The led light will start blinking during this sequence.

**This operation shall be carried out with the machine in halt position and with the brush plate in raised position.**

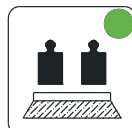
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2



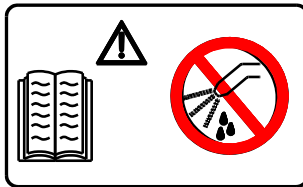
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4



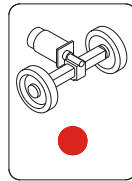
5



#### WARNING SYMBOLS

The symbol on the left advises using the instruction manual at all times for any information regarding the machine, whereas the symbol on the right forbids washing the instrument panel with heavy water jets as there are electrical parts.

6

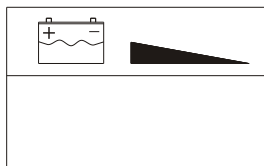


#### RED WARNING LIGHT: DRIVE ALARM

It shows any anomalies present on the motor's drive board.

The number of blinks indicates the type of fault (see troubleshooting table).

7



#### CHARGE BATTERY LEVEL INDICATOR AND DISPLAY

The charge level of the battery is displayed when the machine is switched on (100 – 90 – etc). When the battery charge level reaches 20, the number on the display starts blinking and the brush operation is disabled since a protection device is triggered to prevent the battery from getting damaged, however the suction and drive functions remain active.

At this point, the brush plate shall be raised and the floor shall be dried quickly.

Upon reaching level 10, the number on the display shall start blinking and the suction function will also be disabled, the drive function will be the only active function. Lift the squeegee, go to the tank drainage area and charge the batteries.

When 4 blinking dashes (----) appear on the display, the drive will also be disabled as the battery reaches a minimum discharging threshold.

Therefore, the machine must be pushed over to the tank drainage area and then pushed over to the battery charging area.

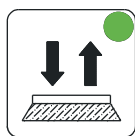
8



#### HOURLY METER BUTTON

Hold down this button to display the operating hours of the machine.

9



#### BRUSH BUTTON

Press this button to enable the brush function; a green led light will come on. The brushes will start rotating when the machine is set in motion.

When the control is released, the brush will rotate for a further 3 seconds before stopping. In case of a prolonged halt, after 1 min the brush plate will automatically rise.

When the machine is in motion with lowered brushes, by pressing the brush button the brushes will stop rotating and the brush plate will automatically rise.

With the extra-pressure function on, by pressing the brush button the brushes will stop rotating and the brush plate will automatically rise. The solenoid valve is also connected to the brush function and allows the user to automatically open or shut the flow of the solution while the brush is rotating.

10



#### EMERGENCY BUTTON

This button is used to halt the machine in case of emergency and to lock all its functions.

Turn the knob clockwise to reset the power.

11

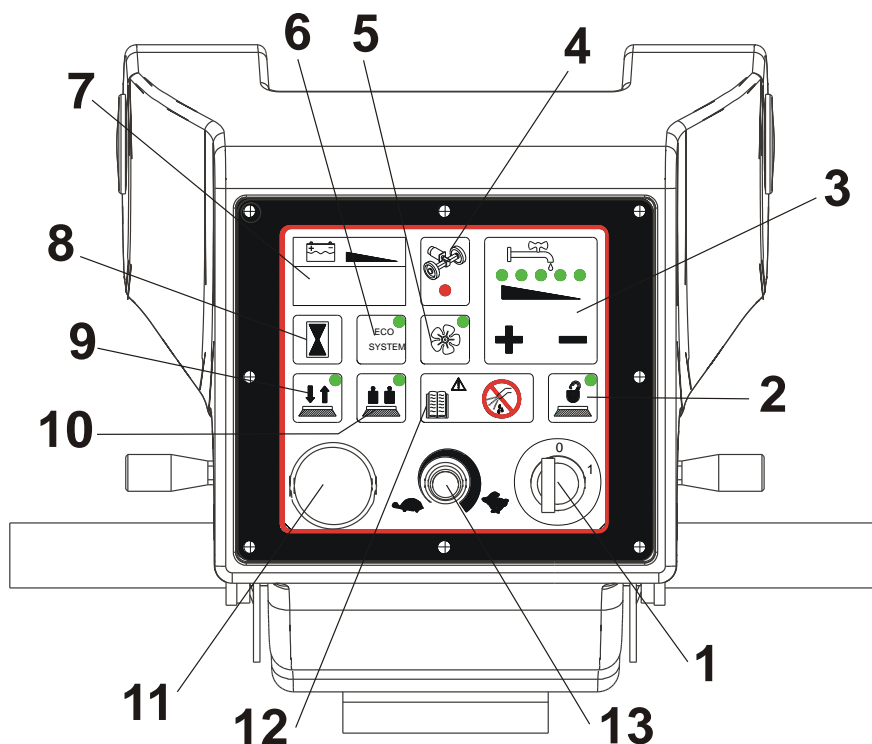


#### SPEED ADJUSTING POTENTIOMETER

To set up the maximum speed of the machine turn the knob clockwise or counter-clockwise.

# CONTROL PANEL

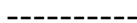
VERSIONS: E71 V3 ECO – E81 V3 ECO – M710 V3 ECO – M810 V3 ECO



## KEY-OPERATED SWITCH

The ignition sequence will start by rotating the key-operated switch clockwise (position 1); a series of information will appear on the display in successive order. **THE BUTTONS ON THE INSTRUMENT PANEL AND THE DRIVE CONTROLS SHALL NEVER BE TOUCHED DURING THIS SEQUENCE.** The charge level of the battery will appear on the display at the end of the sequence, e.g. 100 - 90 - 80 etc. The machine is ready to be used only at this point.

1



## BRUSH RELEASE BUTTON

This button will enable the brush release sequence. The led light will start blinking during this sequence. **This operation shall be carried out with the machine in halt position and with the brush plate in raised position.**

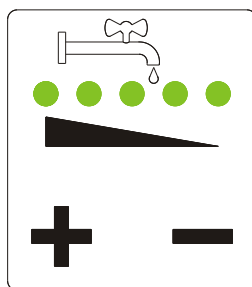
2



## WATER ADJUSTMENT BUTTONS

Use the buttons + or – to set the maximum quantity of water to use for the operation. Press the + button to increase the quantity of water; the 5 green led lights on the panel come on progressively one at a time. Each led light is associated with a maximum pre-set quantity of water. Press the - button to decrease the quantity of water; the 5 led lights will go out progressively one at a time. **The water is shut off when all the led lights are off.** The machine keeps memory of the preset quantity of water even when switched off.

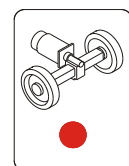
3



## RED WARNING LIGHT: DRIVE ALARM

It shows any anomalies present on the motor's drive board. The number of blinks indicates the type of fault (see troubleshooting table).

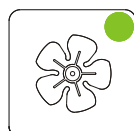
4



## SUCTION FAN BUTTON

If the suction fan is switched off, this button can be used to turn it on and a green light indicator will come on. If the suction fan is switched on, this button can be used to turn it off after a preset delay.

5



6

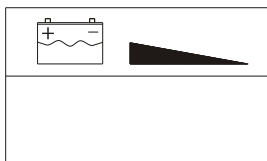


#### ECO-SYSTEM OPERATION BUTTON

Press this button to enable the ECO-SYSTEM.

The green light is on when the system is operating.

7



#### CHARGE BATTERY LEVEL INDICATOR AND DISPLAY

The charge level of the battery is displayed when the machine is switched on (100 – 90 – etc). When the battery charge level reaches 20, the number on the display starts blinking and the brush operation is disabled since a protection device is triggered to prevent the battery from getting damaged, however the suction and drive functions remain active. At this point, the brush plate shall be raised and the floor shall be dried quickly. Upon reaching level 10, the number on the display shall blink and the suction function will also be disabled; the machine drive function will be the only active function. Lift the squeegee, go to the tank drainage area and charge the batteries. When 4 blinking dashes (----) appear on the display, the machine drive will be also disabled as the battery reaches a minimum discharging threshold. Therefore, the machine must be pushed over to the tank drainage area and then pushed over to the battery charging area.

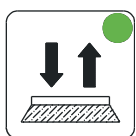
8



#### HOUR METER BUTTON

Hold down this button to display the operating hours of the machine.

9



#### BRUSH BUTTON

Press this button to enable the brush function; a green led light will come on. The brush will start rotating when the machine is set in motion. When the control is released, the brush will rotate for other 3 seconds before stopping. In case of prolonged halt, after 1 min the brush plate will automatically rise.

When the machine is in motion with lowered brushes, by pressing the brush button the brushes will stop rotating and the brush plate will automatically rise. With the extra-pressure function on, by pressing the brush button the brushes will stop rotating and the brush plate will automatically rise. The solenoid valve is also connected to the brush function and allows the user to automatically open or shut the flow of the solution when the brush is rotating.

10



#### EXTRA-PRESSURE BUTTON

Press this button to increase pressure on the brush plate; a green led light will come on. This function can be activated only if the brush function is already active. Switch it off to disable extra-pressure and work in normal conditions.

By pressing the brush button when working on extra-pressure mode, you will cause the brushes to stop rotating and the brush plate to automatically rise.

11



#### EMERGENCY BUTTON

This button is used to halt the machine in case of emergency and to lock all its functions.

Turn the knob clockwise to reset the power.

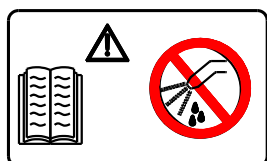
12



#### SPEED ADJUSTING POTENTIOMETER

To set up the maximum speed of the machine turn the knob clockwise or counter-clockwise.

13



#### WARNING SYMBOLS

The symbol on the left advises using the instruction manual at all times for any information regarding the machine, whereas the symbol on the right forbids the use of water on the instrument panel as there are electrical parts.

# SETTING UP THE MACHINE

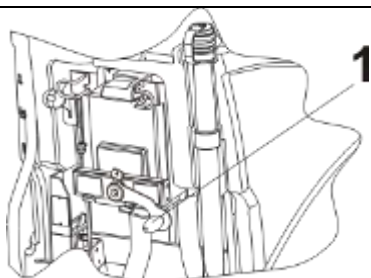


## MOUNTING THE SQUEEGEE

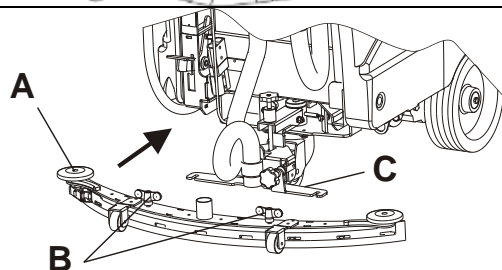
VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-M710 V2 TRAC-M710 V3 ECO-M810 V2 TRAC-M810 V3 ECO

Follow the instructions below to mount the squeegee to the machine:

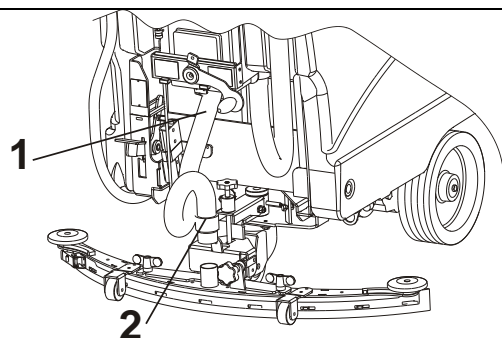
- park the machine on a flat surface, switch it off and remove the key;



- Position the squeegee lever into position 1 (raised position).



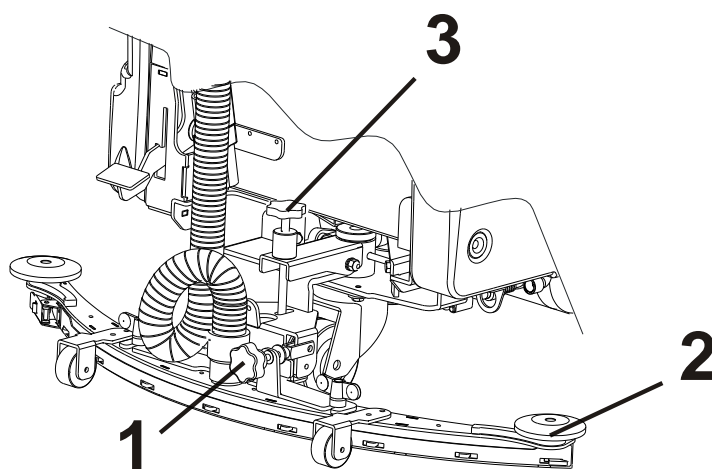
- Fit in the squeegee (position A) into the squeegee support (position C).
- Once the squeegee is fitted completely, secure the knobs (position B).



- Connect the squeegee hose from the straight side (position 1) into the special seat located on the bottom of the tank and press down hard until it fits into place completely.
- Mount the other end of the hose, from the roll-up side (position 2) into the squeegee.

## ADJUSTING THE SQUEEGEE

VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-M710 V2 TRAC-M710 V3 ECO-M810 V2 TRAC-M810 V3 ECO



There are 2 types of adjustments that can be carried out on the squeegee:

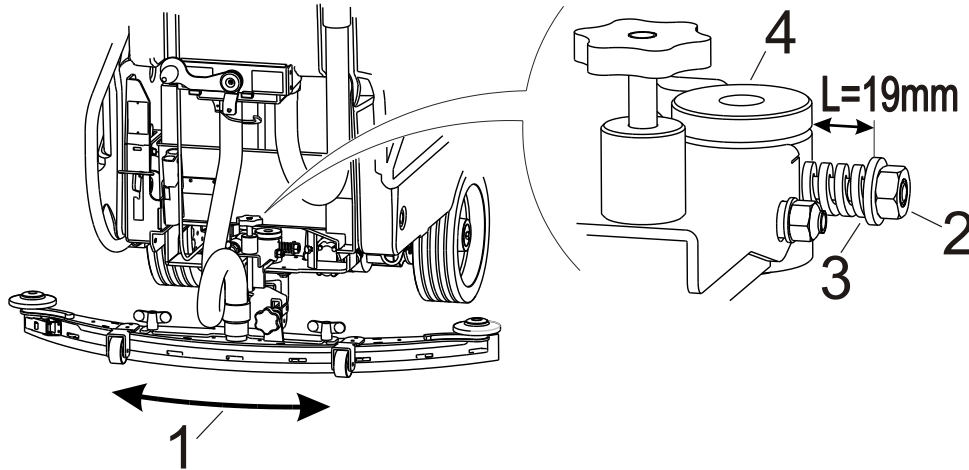
- **Inclination adjustment**, with knob position 1.  
It adjusts the inclination of the squeegee in order to have a constant pressure over the entire length of the blade (position 2).  
Turn the knob counter-clockwise if there is too much pressure on the outer points and little pressure on the central area.  
Turn the knob clockwise if there is little pressure on the outer points and too much pressure on the central area.  
To make the adjustment lower the squeegee, turn on the suction fan and drive forward slowly. Examine the pressure distribution on the blade and if necessary correct the inclination as described above.

- **Pressure adjustment**, using the knob in position 3.  
This allows for optimal pressure on the blade (position 2) which can be adjusted for each type of floor and for each type of blade.  
For rough floors or uneven floors, increase the pressure by turning the knob (position 3) clockwise.  
For smooth floors, lower the pressure by turning the knob counter-clockwise.





## ADJUSTING THE SQUEEGEE OSCILLATING



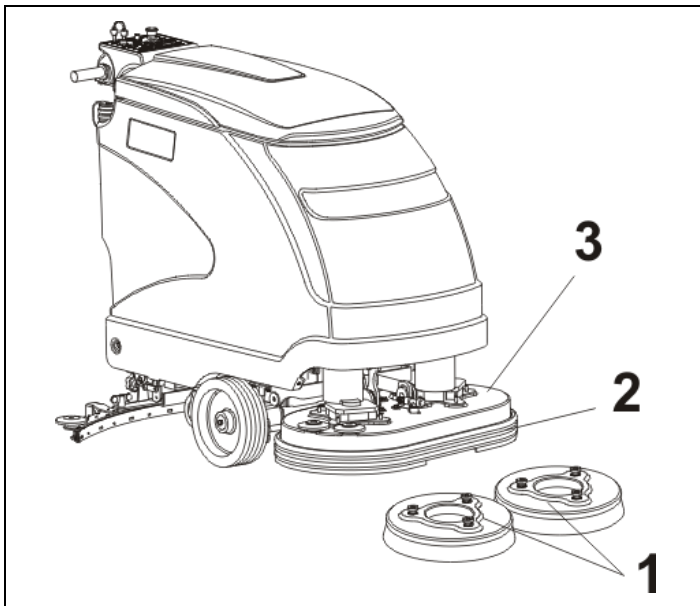
The smoothness of the squeegee oscillating movement can be adjusted; this movement is indicated by the arrow (position 1). Use the screw (position 2) to make the adjustment. The original settings establish a distance of 19 mm between the inner part of the washer (position 3) and the hub (position 4). If the screw (position 2) is driven in, the 19mm distance is reduced and the squeegee movement is less smooth. If the screw is twisted off, the opposite effect is achieved.

**However, make sure that the inclination of the squeegee is set correctly before turning the screw (position 2); in particular, make sure not to apply excessive pressure on the external parts of the squeegee as this could make it oscillate.**


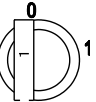




## MOUNTING THE BRUSH OR ABRASIVE DISC ON MACHINE

VERSIONS: E71 V2 TRAC -E81 V2 TRAC- M710 V3 ECO-M810 V3 ECO



Follow the instructions below **to mount** the brush or disc pad holder with abrasive disc:

- Turn off the machine and press the key into position 0 
- Position the brush or disc pad holder (pos.1) under the brush plate lifting the splashguard (pos.2) if necessary.
- Turn the key into pos.1 and wait till the ignition sequence is over and the battery charge level is visible on the display. 
- Lower the brush plate by pressing the brush button on the control panel (pos.3). 
- Move the machine from right to left and vice versa until the brush fits into place correctly on the centre of the plate.

- Put the potentiometer for speed adjustment into min. position by pressing it towards the drawing of the turtle, on the label. 

- Slowly push forward the drive control and release it as soon as the brush starts rotating. The brush motor will rotate for 2 seconds thus allowing for brush release. Repeat the same operation again if necessary.

Follow the instructions below **to release** the brush or disc pad holder with abrasive disc:

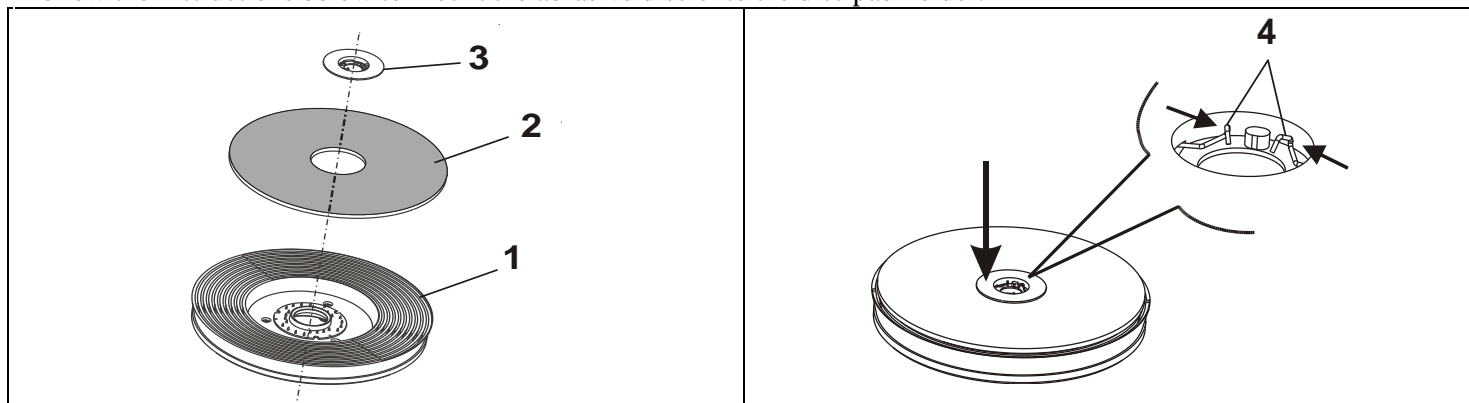
- Lift the brush plate and press the brush button to deactivate the brush function.
- Press the brush release button on the keyboard.  
The releasing sequence will be activated and the brush will be released from the plate.





## MOUNTING THE ABRASIVE DISC ONTO THE DISC PAD HOLDER

The machine can operate with brushes or abrasive discs of various types mounted on special disc pad holders. Follow the instructions below to mount the abrasive disc onto the disc pad holder:



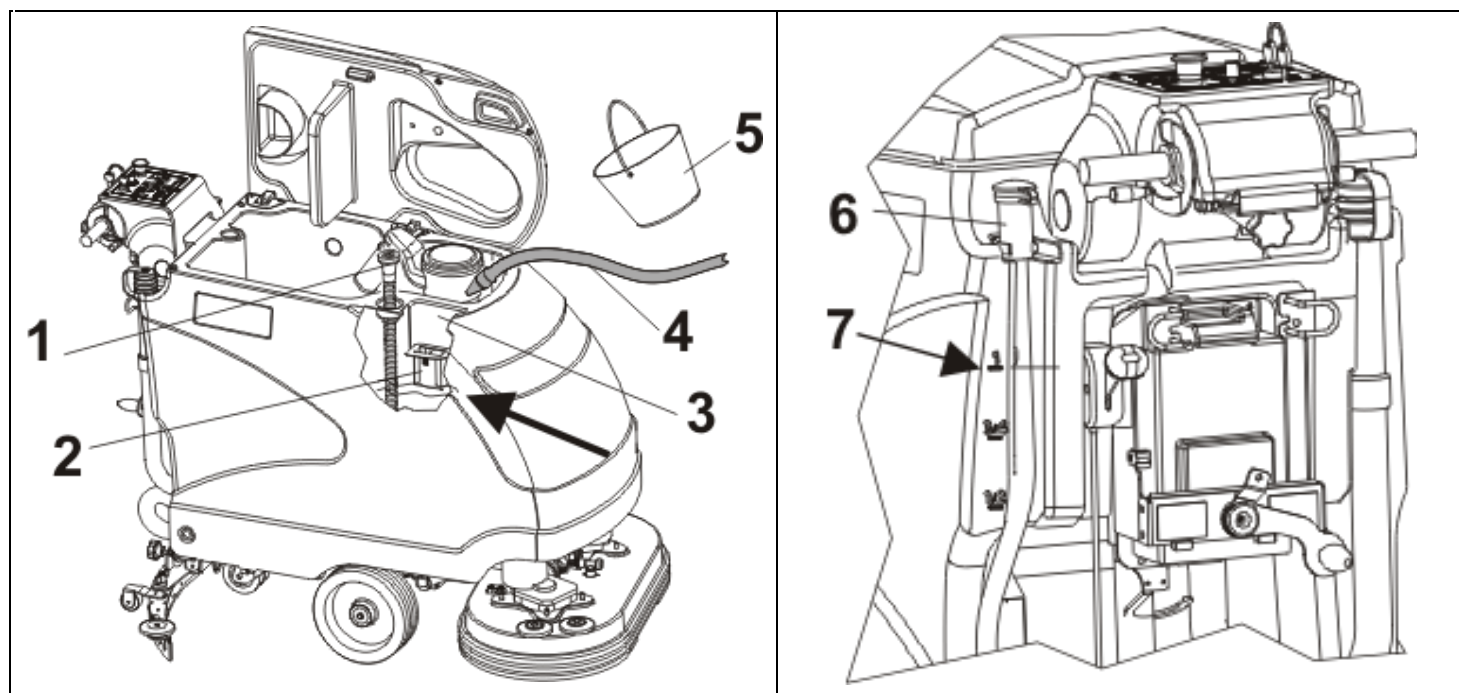
- Remove the disc lock (position 3) from the disc pad holder (position 1) by pressing the 2 ends of the spring catch (position 4) against each other.
- Position the abrasive disc (position 2) and centre it onto the disc pad holder (position 1).
- Place the disc lock (position 3) on the centre and press down hard until the spring fits into place (position 4); this operation can be carried out using the palm of your hand, or your foot if the disc pad holder is resting on the ground.



## FILLING THE DETERGENT SOLUTION TANK

VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-M710 V2 TRAC-M710 V3 ECO-M810 V2 TRAC-M810 V3 ECO

The tank should be filled using clean water mixed with an appropriate detergent solution suited for the type of floor and for the dirty conditions of the floor and using a product suitable for cutting down foam.



Use the mouth of the tank (see position 3) to fill the solution tank.

There is a filter (see position 2) located inside the mouth of the tank (see position 3), which **should only be removed if the opening is clogged or obstructed**.

Use either the flexible pipe (see position 1) present in the machine (take it out and connect it to a tap) or the rubber hose (see position 4) connected to the water distribution system or a clean bucket (see position 5) and pour water into the tank. Make sure the water used to fill the tank does not exceed 40°C. Look at the instructions on the package to determine how much detergent solution to use, how to mix the solution and what safety precautions to take before using the product.

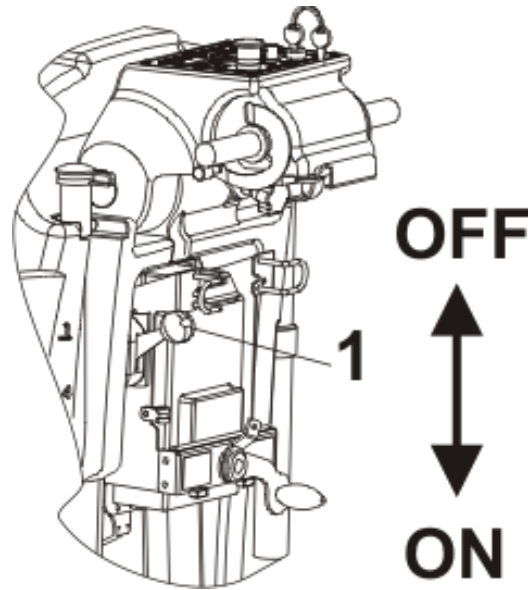
**Make sure to use low-foaming liquid detergents or appropriate products to cut-down foam.**

Fill up the tank only to the level indicated by the filter (see position 2) **without exceeding** notch 1 (see position 5), which is located in the rear part. The tank level can be viewed through the clear pipe (see position 6). In order for the machine to work properly, it is advisable not to exceed notch 1.

**WARNING: DO NOT POUR INFLAMMABLE LIQUIDS INTO THE TANK.**

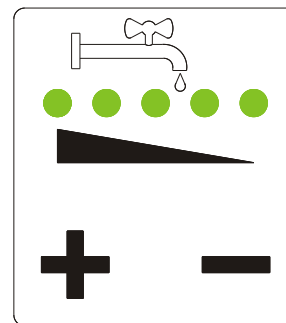
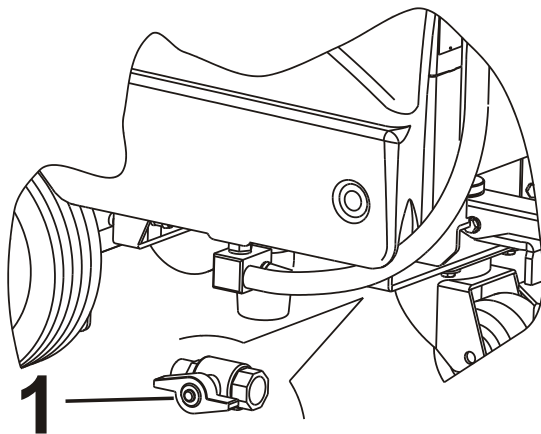
## ADJUSTING THE QUANTITY OF SOLUTION ON THE BRUSHES (WATER + DETERGENT)

**FOR VERSIONS: E71M – E81M – M710M – M810M  
E71 V2 TRAC- E81 V2 TRAC- M710 V2 TRAC – M810 V2 TRAC**



For **TRAC** versions, the quantity of the solution on the brushes can be adjusted using the lever in position 1. The lever in upward position will shut-off the flow of the solution completely. Push down the lever gradually so the valve can open and increase the flow of the solution progressively. Adjust the flow according to the operating speed and the dirty conditions of the floor. The **V2 TRAC** version is fitted with a solenoid valve that prevents the solution from spilling out when the machine comes into a stop position.

**FOR VERSIONS: E71 V3 ECO – E81 V3 ECO – M710 V3 ECO – M810 V3 ECO**



For the **ECO** versions, the quantity of the solution on the brushes can be adjusted using the + and – keys located on the instrument panel. Make sure the valve (see position 1) located beneath the machine is open before operating the machine.

## USING THE MACHINE

Our scrubber-dryers must be operated by properly trained authorised staff.  
Scrubber-dryers that do not operate properly must be taken out of service immediately.

## CHECK BEFORE USE

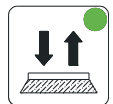
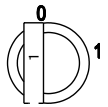
Make sure to check the following before using the machine:

- Make sure the battery connector is plugged-in;
- Make sure the key is fitted correctly;
- Check the battery charge level.
- Make sure the brushes or discs are in good condition and mounted correctly.
- Make sure the splash guards that are mounted into the brush plate are in good condition.
- Make sure the rubber wheels on the squeegee are in good condition and set properly.

The charge level of the battery will appear in the instrument panel when the machine is on. Charge the batteries if the battery charging level is low.

## OPERATION

- Release the parking brake
- Turn the key to position 1
- Lower the squeegee by turning the special lever;
- Enable the brush function using the button in the instrument panel; the brushes will not start rotating until the drive command is enabled.  
If during the washing operation the led light of the brush bottom starts flashing, this means that there is an over-absorption of the motors. After 1 minute with the flashing led light, the writing E1 appears on the control board. The brushes will stop lifting the plate.



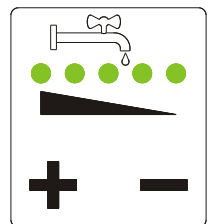
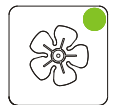
- When using the machine on particularly dirty surfaces, it is possible to have a further “extra-pressure” on the brush plate. This function can be activated by pressing the special button, and only if the brush function is already active. Switch it off to disable extra-pressure and resume normal working conditions.

By pressing the brush button when working on extra-pressure mode, you will cause the brushes to stop rotating and the brush plate to automatically rise.

If during the washing operation the led light of the extra-pressure bottom starts flashing, this means that there is an over-absorption of the motors. After 1 minute with the flashing led light, the extra-pressure function will be deactivated automatically and you will continue working with the normal pressure.



- Turn on the suction fan using the special button in the instrument panel.
- Set the desired maximum operating speed using the potentiometer located in the instrument panel.
- For TRAC version, use the valve to adjust the quantity of the solution in the brushes.
- For the ECO version, set the maximum quantity of the desired solution using the + and – keys. This version is fitted with an electronic solution dosing unit that operates in proportion to the speed of the machine and provides a constant and exact quantity of solution on the brush, preventing any waste. When the machine slows down, the flow of the solution automatically decreases and when the machine speeds up, the flow of the solution increases until reaching the maximum flow once the maximum speed is reached.



- To avoid damaging the floor, **be very careful not to halt the machine over the same floor area while the brushes continue to operate.**

- The brush will stop automatically after 3 seconds when the drive command is released and the solenoid valve will also shut off the flow of the solution. When resuming the drive operation, the brushes will restart and the solution will automatically start to flow.

If the squeegee leaves wet lines on the floor during the washing operation, it means that there are pieces trapped beneath the rear rubber wheels of the squeegee. Lift the squeegee and remove the trapped pieces. Use a cloth to wipe off the rear rubber wheels if the pieces cannot be removed manually. In any case, it is always advisable to sweep the floors before washing.

- Make sure to check the level of the solution present in the clean water tank through the clear pipe. For TRAC version, once the detergent solution is used up, take the machine to the tank drainage area, drain the dirty water into the appropriate location, ready for disposal, then wash the water tank and fill up the tank with clean water and a mix of water and detergent solution, then resume the washing operation.

On the ECO version, once the solution is used up, the machine can continue its washing operation using the ECO SYSTEM function that can be enabled by pressing the button located in the instrument panel, this will enable the machine to re-use the water from the recovery tank as it is duly filtered by the special tank filter. The ECO SYSTEM device can be enabled at the operator's discretion whenever the clean water level drops to ¼ of the tank.



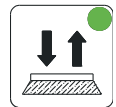
However, if the ECO SYSTEM is started when there is still some solution left in the clean water tank, the operation can be deactivated at any time and it is possible to resume washing using the solution from this tank.

When using the ECO SYSTEM mode, the water is also distributed according to the speed of the machine, therefore the maximum quantity of water will flow when the machine reaches its maximum speed.

- It is advisable to run a pre-wash operation before washing very filthy floor surfaces.
- The machine is also fitted with a float valve that shuts off the suction function when the water level in the dirty water tank is too high.

Under standard machine operating conditions, when filling the clean water tank accordingly, the float valve will never be activated, unless the machine is handled roughly or the floor surface level is uneven. If the suction fan operation stops (which can be easily noticed as the noise of the suction motor will stop and the machine will no longer vacuum), open the lid and make sure the balls located in the float valve have dropped to release the suction function, then resume the operation.

- When completing the washing operation make sure to switch off the brushes using the special button, which will make the brush plate rise, even if working on extra-pressure mode, lift the squeegee, then **turn on the suction function and take the machine to the tank drainage area.**



The suction function is left in on-position to keep water from leaking out from the lid in case there are uneven areas on the floor while going to the tank drainage area.



## PERIODIC SERVICING

### INTRODUCTION

REGULAR AND PERIODIC SERVICING OF YOUR SCRUBBER GUARANTEES OUTSTANDING PERFORMANCE OF THE MACHINE AND ITS LONG LIFE. THE PAGES THAT FOLLOW CONTAIN THE INFORMATION THAT WILL HELP TO PLAN THE CARE AND THE SERVICING THAT THE SCRUBBER NEEDS.

### WARNING!

DO NOT CARRY OUT ANY MAINTENANCE OPERATION NEITHER ON THE MACHINE NOR ON ITS COMPONENTS WITHOUT HAVING FIRST:

- STOPPED THE MACHINE
- ENGAGED THE PARKING BRAKE
- BLOCKED OFF THE WHEELS
- DISCONNECTED THE STARTING BATTERY CONNECTORS.

### WARNING!

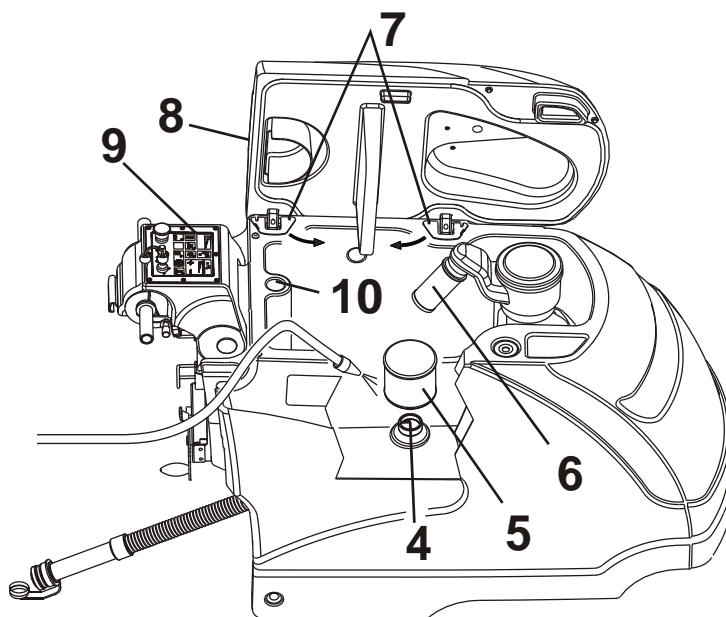
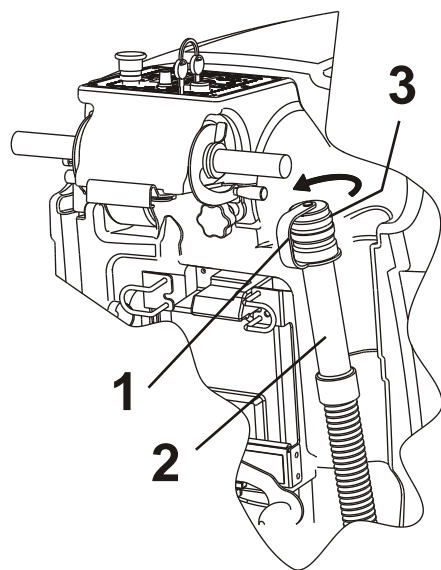
DO NOT TAMPER WITH ANY SAFETY-RELATED PART

THESE CAN BE REMOVED ONLY AS PART OF THE MAINTENANCE OF AN AUTHORISED SERVICE CENTRE.



### DRAINING AND CLEANING THE RECOVERY TANK

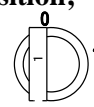
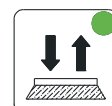
VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-M710 V2 TRAC-M710 V3 ECO-M810 V2 TRAC-M810 V3 ECO



The recovery tank must be drained and cleaned after each washing operation.




In order to drain and wash the tank proceed as follows:

- Turn off the brush function and lift the brush plate;
- Lift the squeegee by pressing the special lever and go to the tank drainage area with the **suction fan in on-position**;
- Turn off the suction fan, turn the key to position 0 and put on the brake.
- Remove the drain pipe from the dirty water tank (see position 1) and while keeping the pipe vertically (see position 2) open the lid by rotating it counterclockwise as indicated by the arrow. Part of the pipe is flexible (see position 3) and therefore it can be squeezed to limit the water flow;



- After draining the tank, make sure to clean it thoroughly using water. To ease this operation, use two fingers to rotate the 2 plates in the direction indicated by the arrows (see position 7) and remove the cover (see position 8);
- Wash the float valve (see position 6) without removing it from the machine.
- For machines fitted with the ECO SYSTEM, use water to wash throughout the filter (see position 5).  
**At the end of each working day**, remove the filter from the tank and wash it carefully both inside and outside, as to remove any encrustation which might have got deposited in it. Before carrying out this operation, clean the tank thoroughly as well as the area around the filter. Screw the filter counterclockwise. **Do not remove the protective screen (see position 4)** located in the joint where the filter is positioned. To clean it, wash it using water.
- After completing the cleaning procedures, put the cap back on the dirty water drain pipe and rotate it clockwise, then place the pipe back into its housing in the tank.
- The suction duct on the squeegee as well as the suction pipe shall be washed periodically.  
 Before proceeding with the above operation, fit the water pipe into the duct (see position 10) then let the water flow without removing the drain pipe. This will help prevent encrustation formation inside the duct, providing an optimal vacuum operation at all times.

**Avoid splashing water onto the instrument panel (see position 9) while cleaning the tank**

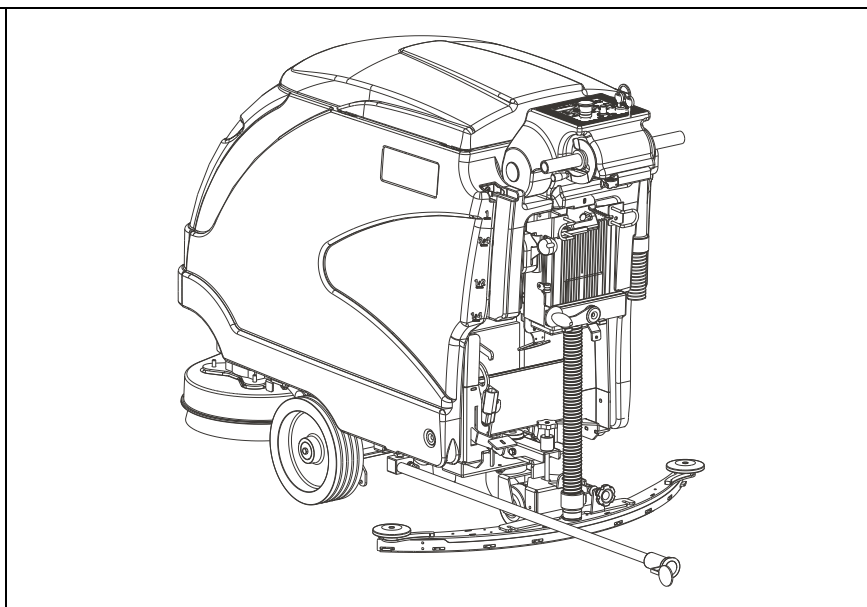
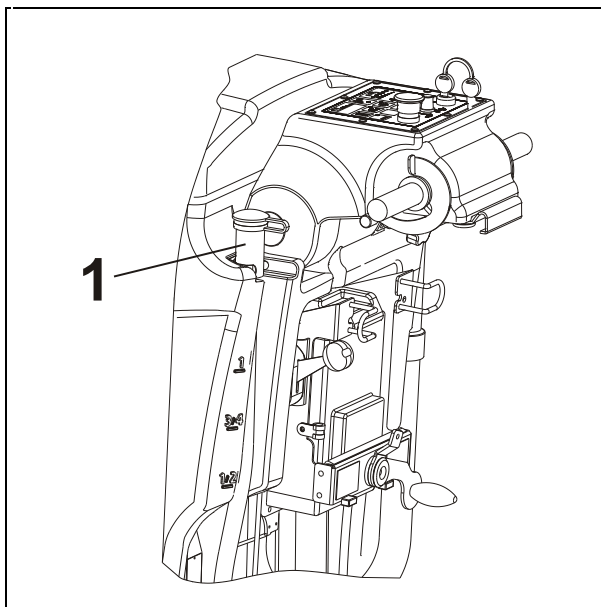
	<p align="center"><b>CLEANING INSTRUCTIONS ECO-SYSTEM</b>  <b>VERSIONS: E71 V3 ECO - E81 V3 ECO - M710 V3 ECO - M810 V3 ECO</b></p>
<p>At the end of each working day take the machine to the tank draining area, turn off the key and activate the parking brake.</p> <p>Empty and wash the recovery tank.</p> <p>Remove and wash carefully the ECO-SYSTEM filter.</p> <p>At this point start the ECO-SYSTEM clearing cycle as follows:</p>	
	<p>With the machine turned off hold the ECO-SYSTEM button, turn the key in pos.1. Hold the button till the word cLEA appears on the display.</p>
	<p>Pour water in the base of the ECO-SYSTEM to allow the complete washing of it (pipes, valve, pump).</p> <p>The cleaning operation will last about 40 seconds.</p> <p>If this time is not enough, repeat the complete cycle.</p>
<p>To restore the normal functions of the machine, turn off and on the key.</p> <p><b>REASSEMBLE THE ECO-SYSTEM FILTER.</b></p>	





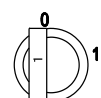
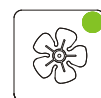
## DRAINING AND CLEANING THE SOLUTION TANK

VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-  
M710 V2 TRAC-M710 V3 ECO-M810 V2 TRAC-M810 V3 ECO



The recovery tank must be drained after each washing operation. In order to drain and wash the tank proceed as follows:

- Turn off the brush function by means of the brush button
- Lift the squeegee by pressing the special lever, turn off the suction fan and go to the tank drainage area;
- Turn the key to position 0 and put on the brake.
- Unhook the transparent pipe indicating the clean water level pos.1 from the knob on the control board.
- Remove the cap pos. 2 and lay the pipe on the ground
- After completing the cleaning procedures, put the cap back on the dirty water drain pipe, then place the pipe back into its housing in the tank.
- The filter located in the mouth of the clear water tank shall be washed periodically.
- It is also recommended to periodically drain the tank completely and then refill it only with water before draining it again as to prevent encrustations due to detergent solution.



## CHECKING BRUSHES OR ABRASIVE DISCS

VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-  
M710 V2 TRAC-M710 V3 ECO-M810 V2 TRAC-M810 V3 ECO

After using the machine, remove the brushes or discs by activating the brush release function

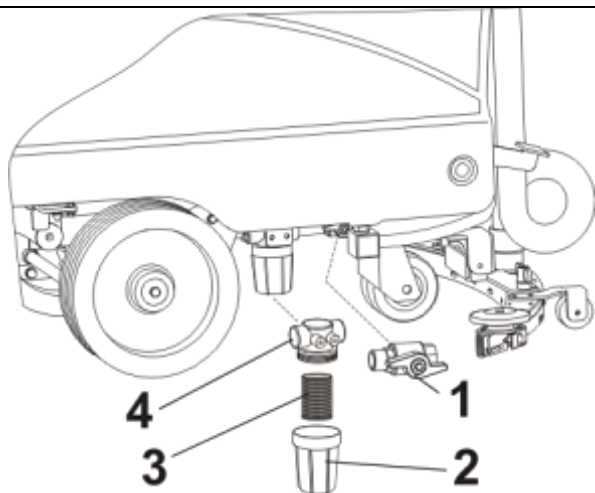


- Check the condition of the brushes and replaced them if they are worn out (the length of the lower bristle shall not be less than 10 millimetres)
  - Check the condition of the abrasive discs and replace them if worn out
- Make sure to switch the right brush with the left brush periodically to even out the wear so they can last longer.



## CLEANING THE DETERGENT SOLUTION FILTER

**VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-M710 V2 TRAC-M710 V3 ECO-M810 V2 TRAC-M810 V3 ECO**



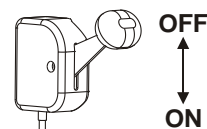
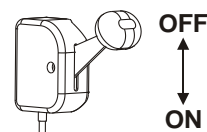
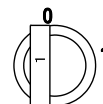
- In case of water in the tank, close the valve.  
For the TRAC version, use the lever handle nearby the instrument panel.  
For the ECO version, shut off the valve using the valve lever (see position 1).

- Unscrew the clear cup manually (see position 2);
- Remove the protective screen (see position 3) and clean it with water together with the cup;
- Put the cup (see position 2) and the protective screen (see position 3) on the fixed part of the filter (see position 4); make sure the protective screen is fitted correctly into its housing inside the cup and into the support;
- For the V2 TRAC version, open the valve (see position 1) if it is closed or the lever handle located near the instrument panel.

The machine is fitted with a filter on the pipe that comes from the detergent solution tank.  
In theory, the solution located in this tank should not have any impurities as the buckets or containers used to fill the solution are supposed to be clean, in addition there is a filter in the mouth of the tank that filters the water.

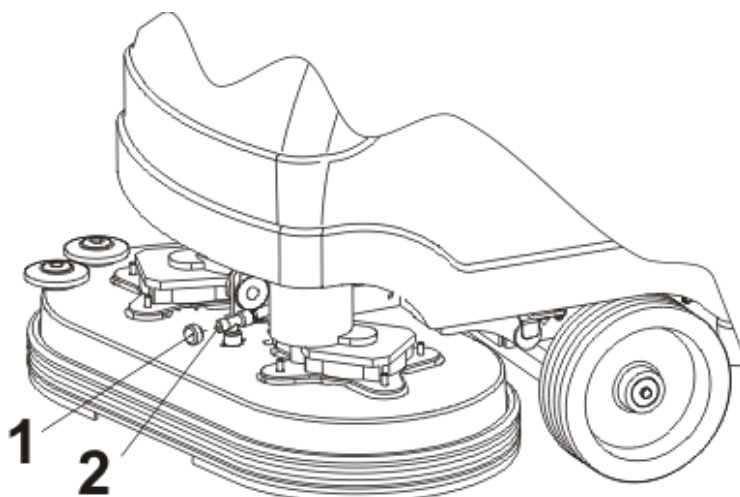
Follow the instructions below to clean the filter:

- Bring the machine into a stop position in a flat surface area and put on the brake;
- Turn off the machine and remove the key;



## CLEANING THE PUMP OUTPUT PIPE FITTING

**VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-M710 V2 TRAC-M710 V3 ECO-M810 V2 TRAC-M810 V3 ECO**

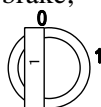


In the ECO versions, the machine is fitted with a metering pump for detergent solutions.

If the solution does not flow out of the tank properly, make sure the output pipe fitting is not obstructed or clogged.  
To check that proceed as follows:

- Bring the machine into a stop position and put on the brake;

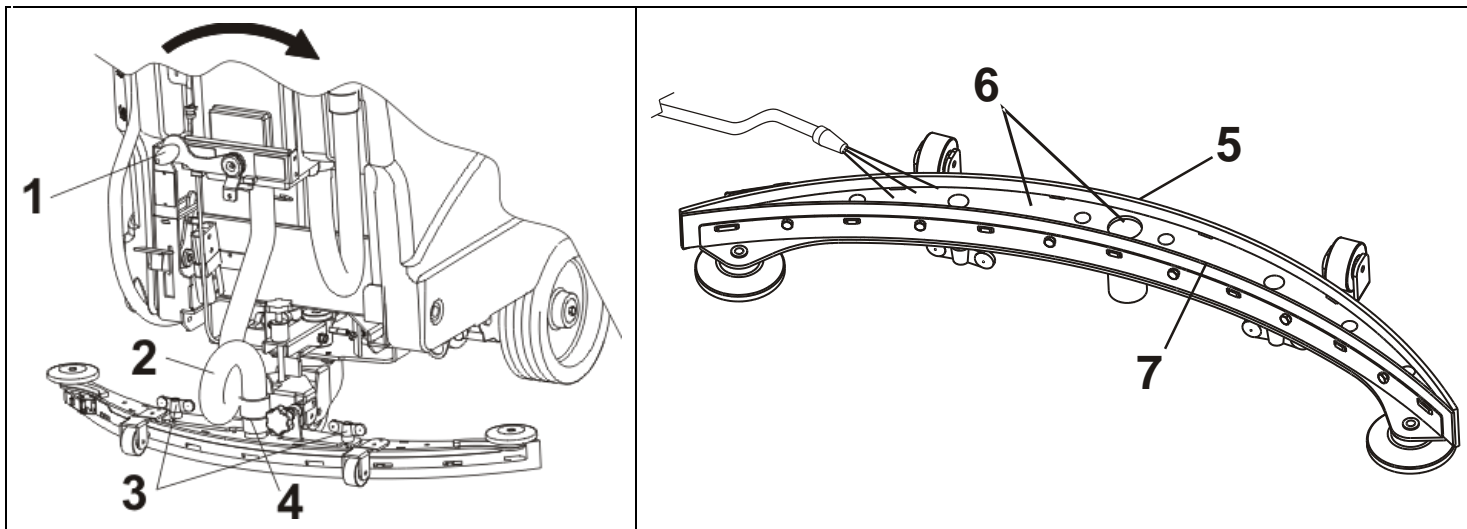
- Turn off the machine and remove the key;



- Unscrew the cap manually (see position 1);
- Use a thin piece of wire of approximately Ø 3 mm and remove any incrustations from the pipe fitting (see position 2);
- Screw the cap back into place (see position 1).



## CLEANING THE SQUEEGEE



After completing the washing operation, clean the squeegee and make sure the blades are in good condition, then proceed as follows:

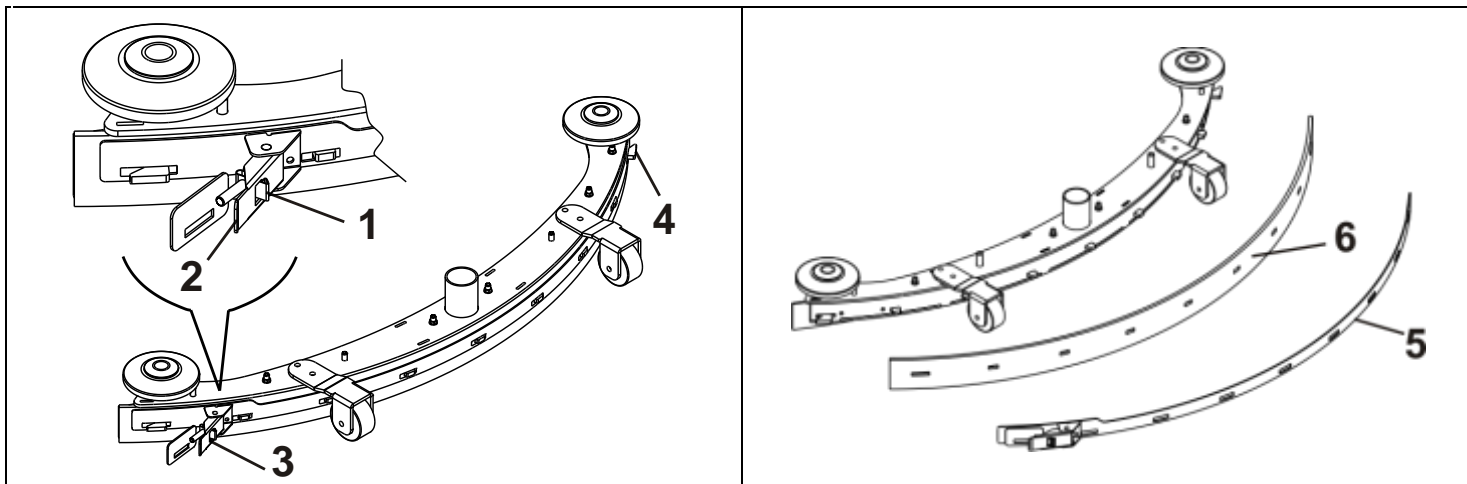
- Bring the machine into a stop position in a flat surface area;
- Turn the key to position 0 and put on the brake
- Lift the squeegee using the lever (see position 1);
- Unscrew both screw knobs (see position 3) and remove the squeegee vacuum pipe (see position 2) from the sleeve (see position 4);
- Remove the squeegee, lay it on the ground facing up (as shown in the figure), wash it using water and for better vacuum flow, remove any pieces or incrustations from the lower part and from the mouth of the squeegee (see position 6);
- Use a piece of cloth to wipe off the rear drying blade (see position 5) and the front drying blade (see position 4)
- Make sure the blades are in good condition and rotate them if necessary in order to have a new edge in contact with the floor.



## REPLACING SQUEEGEE BLADES

The squeegee is fitted with two drying blades, a rear and a front blade, as specified in the previous paragraph. Each blade has 4 edges that can be used and rotated 4 times before being replaced, unless one of the edges is torn. For better drying performance, make sure the edge of the rear blade is not worn out. If the blade is worn out, rotate it or replace it.

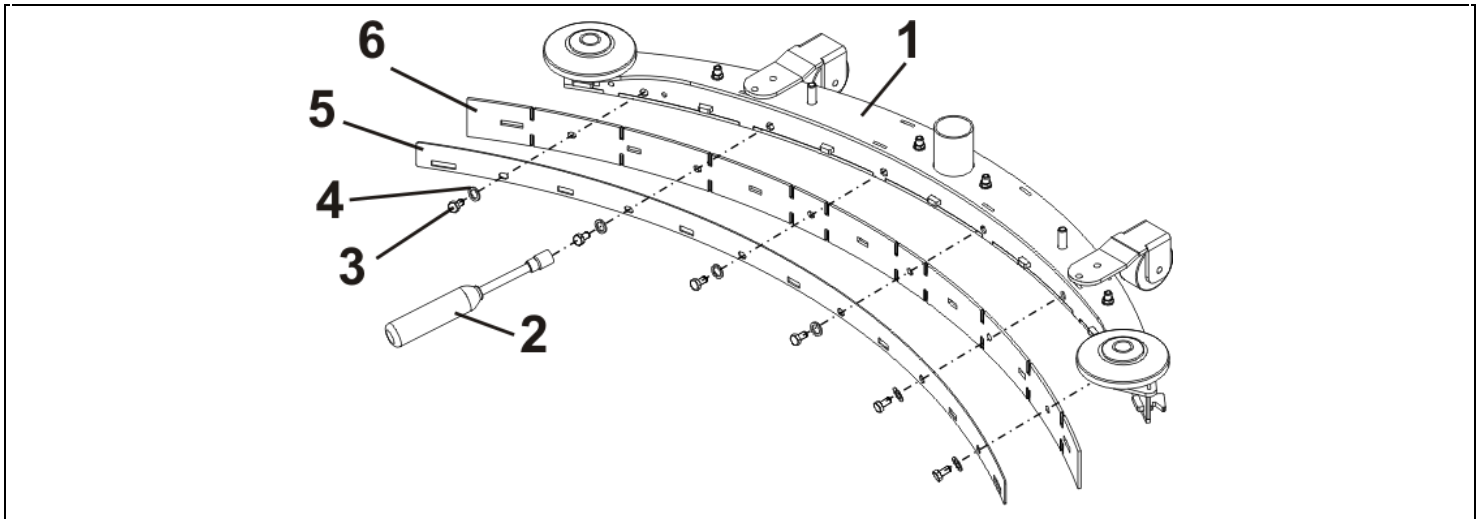
### REPLACING THE REAR BLADE



Follow the instructions below to rotate or replace the **rear blade**:

- Remove the squeegee from the machine;
- Remove the blade locking plate (see position 5) by unlocking the retainer (see position 3). This retainer is fitted with a safety device that keeps it from opening involuntarily. To release the retainer push the small lever (see position 1) towards the outer part of the squeegee and then pull the big lever (see position 2) towards the rear part of the squeegee;
- Follow the same procedure to remove the locking plate (see position 5) from the other end of the squeegee (see position 4);
- Remove the blade (see position 6);
- Rotate the blade and mount it back so that a new edge is on the drying side;
- Hook the locking plate (see position 4);
- Hook the retainer (see position 3) and lock it into place.

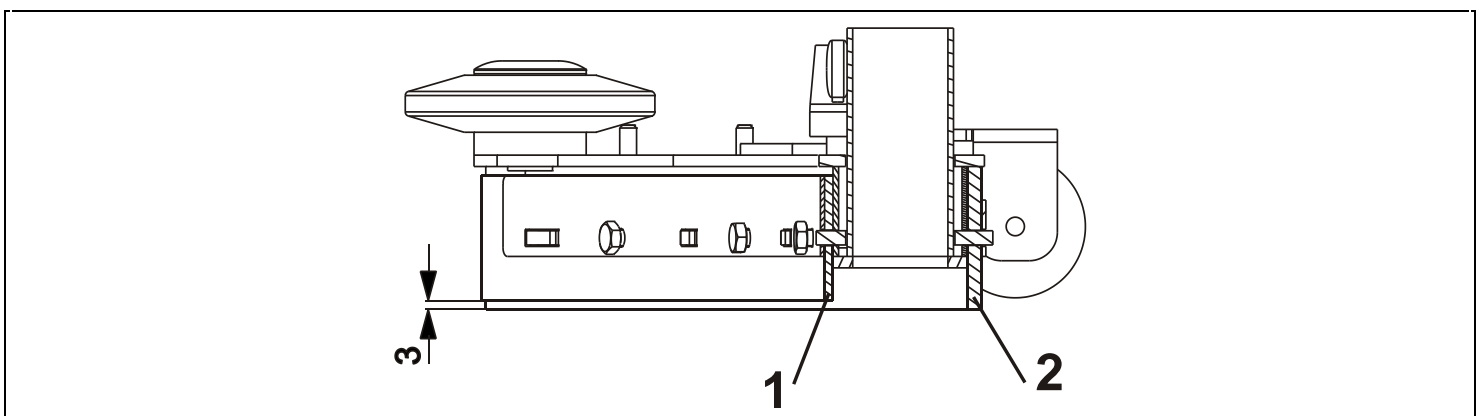
## REPLACING THE FRONT BLADE



Follow the instructions below to replace the **front blade**:

- Remove the squeegee (see position 1) from the machine;
- Use a 10-mm tubular nut driver (see position 2) and remove the 6 screws (see position 3) and the respective washers (see position 4);
- Remove the blade locking plate (see position 5);
- Remove the blade (see position 6);
- Rotate the blade and mount it back so that a new edge is on the drying side of the blade;
- Put the blade locking plate (see position 5) back into place;
- Put the 6 screws back into place (see position 3), including the respective washers (see position 4) and make sure not to tighten the screws excessively causing the rubber blade to deform (swell).

## CHECKING THE INSTALLATION OF THE SQUEEGEE BLADES



Once the squeegee blades are rotated or replaced, lay the squeegee onto a flat surface and check the following:

- Make sure the rear blade (see position 2) is fitted correctly and levelled throughout its entire length. If the blade is not fitted evenly, release the blade locking plate and re-position the blade so that it is levelled correctly against the floor.
- Make sure the front blade (see position 1) is fitted evenly and check for any deformations due to tightening the screws excessively. Also make sure the blade is raised 3 mm above the ground throughout its entire length.

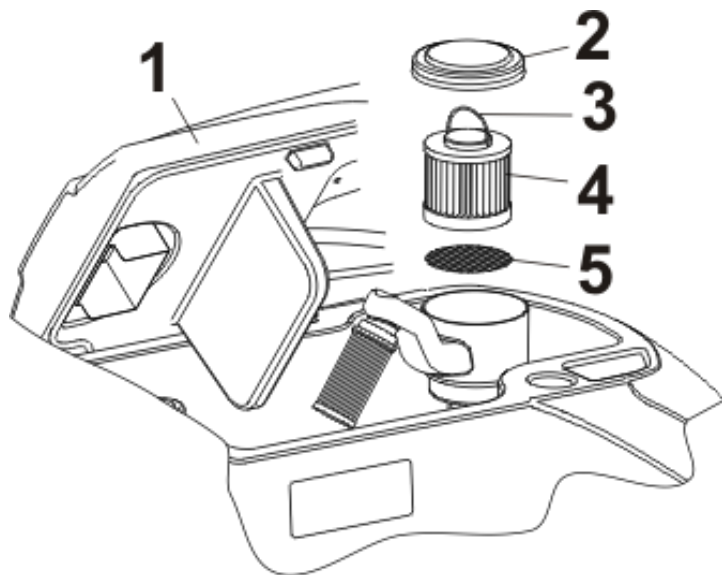


## CLEANING THE SUCTION FILTER


VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-

For the TRAC and ECO versions, the machines are fitted with a washable cartridge filter on the suction duct, which provides two functions:

- 1) To filter the air vacuumed by the squeegee, trapping dust before releasing it into the environment, without putting it back into the air;
- 2) To protect the suction motor against dust that may ruin moving mechanical parts, making them last longer.

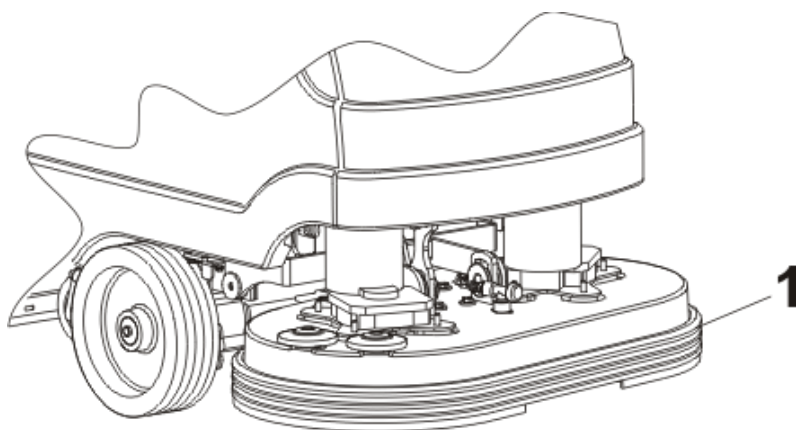


Follow the instructions below to clean the filter:

- Bring the machine into a stop position in a flat surface area and put on the brake;
- Drain the dirty water tank and wash it
- Turn off the machine and remove the key; 
- Open the cover (see position 1);
- Remove the lid from the filter support (see position 2);
- Position the ring (see position 3) located above the filter into a vertical position and pull it vigorously until releasing the filter from its housing (see position 4);
- Wash the filter with water and dry it using hot air, be careful not to damage it;
- There is a safety filter (see position 5) located beneath the suction filter, which normally does not need any maintenance. However, **if deemed necessary clean the filter without removing it from its housing**;
- Put the air filter (see position 4) back into place by pressing it down until it is fitted into its housing; make sure the filter is completely dry or use a spare filter;
- Position the ring (see position 3) back into horizontal position;
- **Put the lid back on (see position 2);**
- Close the tank cover (see position 1).



## CHECKING THE BRUSH PLATE SPLASHGUARD



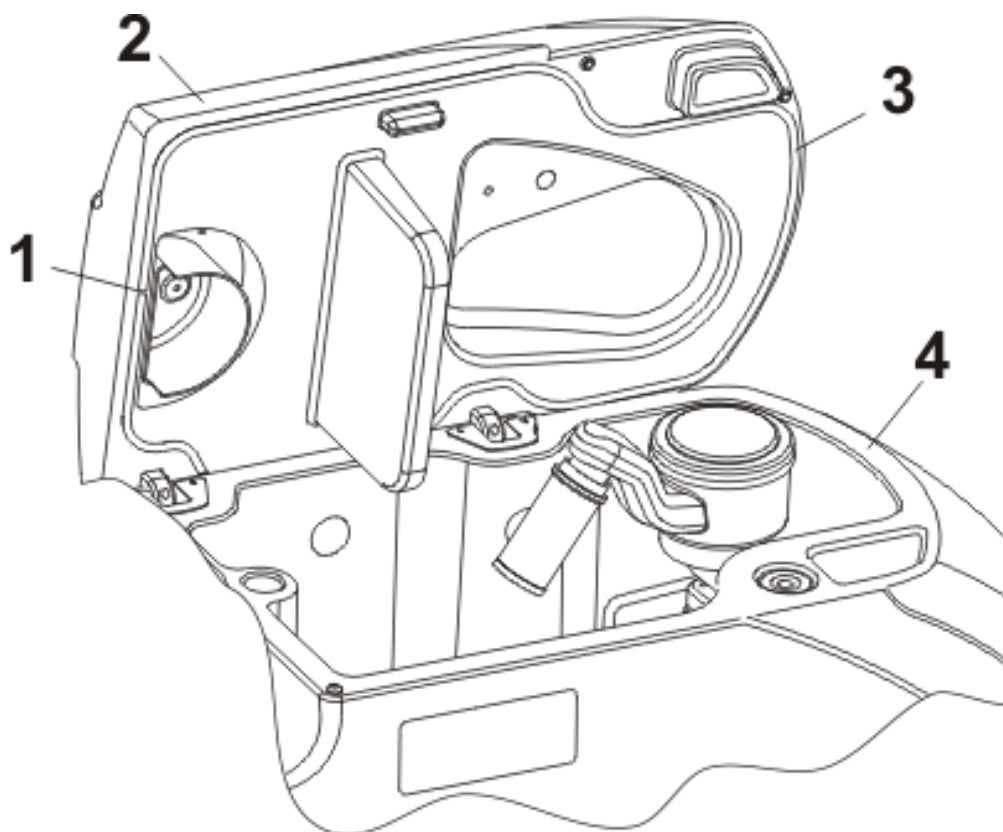
Check the splashguards periodically to make sure they are in good condition (see position 1). Replace the splashguards if damaged.





## CHECK THE SEAL ON THE COVER

VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-  
M710 V2 TRAC-M710 V3 ECO-M810 V2 TRAC-M810 V3 ECO



The recovery tank cover seal ensures that a proper vacuum is created inside the tank and this provides a better suction performance on the squeegee.

It is very important to keep the seal intact in order for the machine to work properly.

To clean and check the seal, proceed as follows:

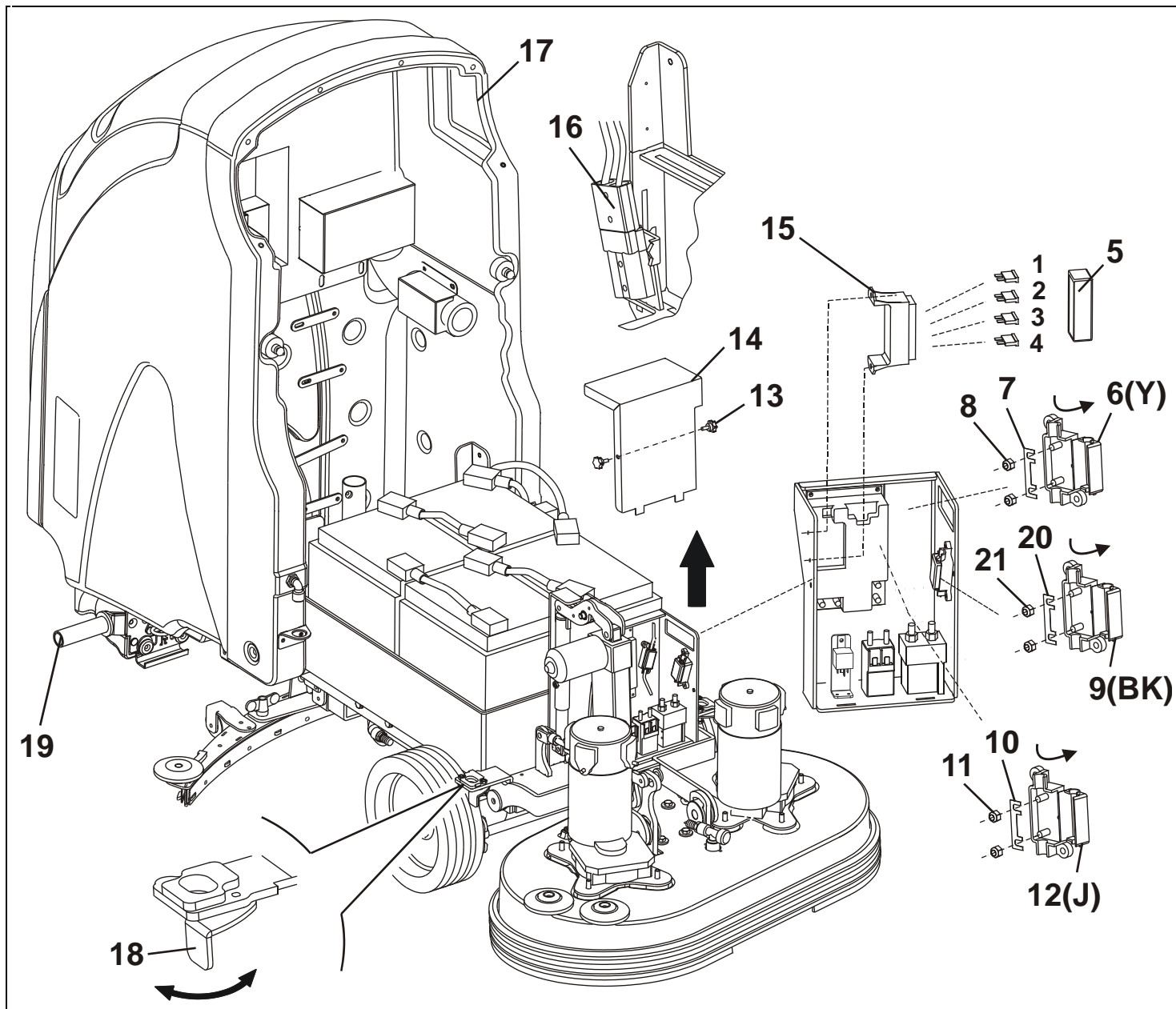
- Open the cover (see position 2);
- Use a piece of cloth to wipe off the seal (see position 3) and make sure it is not broken or damaged;
- If the seal is damaged, remove it from the cover, mount a new seal and make sure to fit the seam of the seal into the rear position (see position 1);
- Clean the area of the tank where the seal leans (see position 4) when the cover is closed.



## CHECKING OR REPLACING FUSES

VERSIONS: E71 M – E81 M – M710M – M810 M

### CHECKING OR REPLACING FUSES IN THE FRONT SWITCHBOARD



To check or replace the fuses on the switchboard proceed as follows:

- Drain both tanks into the special drainage areas;
- Bring the machine into a stop position in a flat surface area and put on the brake;
- Unplug the battery plug (see position 16);
- Unfasten the tank (see position 17) by pushing it inwards using the small levers (see position 18) located at both ends of the machine;
- **REACH THE DRIVER'S POSITION AND LIFT THE TANK BY THE GRIPS (POS. 19) PAYING ATTENTION TO HANDLE IT WITH CARE WHILE LAYING ON THE GROUND.**
- Unscrew the 2 screw knobs (see position 13), pull upwards and remove the switchboard cover (see position 14);
- Remove the lid (see position 5) from the fuse holder (see position 15);
- There are 5 fuses located in the fuse holder pos.15 and they have the following functions and features:
  - POSITION 1:** 5A fuse for the control panel;
  - POSITION 2:** 10A fuse for electrical equipment under key pole +15 protection;
  - POSITION 3:** 5A fuse for brush plate actuator protection;
  - POSITION 4:** 5A fuse for drive system protection;



- Fuse holder pos.6 recognizable from the label Y: 60A fuse **PROTECTION OF THE DRIVE SYSTEM;**

TO REPLACE IT, PROCEED AS FOLLOWS:

- Open the lid of the fuse holder (pos. 6) by pulling it up from the side indicated by the arrow;
- Unscrew the 2 fuse locking nuts (pos. 8 );
- Replace the **60A fuse** (pos.7) with a fuse of equal amperage;
- Reassemble the nuts and close the lid of the fuse holder.

- Fuse holder pos.9 recognizable from the label BK: 60A fuse **PROTECTION OF THE BRUSH MOTORS;**

TO REPLACE IT, PROCEED AS FOLLOWS:

- Open the lid of the fuse holder (pos. 9) by pulling it up from the side indicated by the arrow;
- Unscrew the 2 fuse locking nuts (pos. 21 );
- Replace the **60A fuse** (pos.20) with a fuse of equal amperage;
- Reassemble the nuts and close the lid of the fuse holder.

- Fuse holder pos.12 recognizable from the label J: 30A fuse **PROTECTION OF VACUUM MOTOR;**

TO REPLACE IT, PROCEED AS FOLLOWS:

- Open the lid of the fuse holder (pos. 12) by pulling it up from the side indicated by the arrow;
- Unscrew the 2 fuse locking nuts (pos. 11 );
- Replace the **30A fuse** (pos.10) with a fuse of equal amperage;
- Reassemble the nuts and close the lid of the fuse holder.

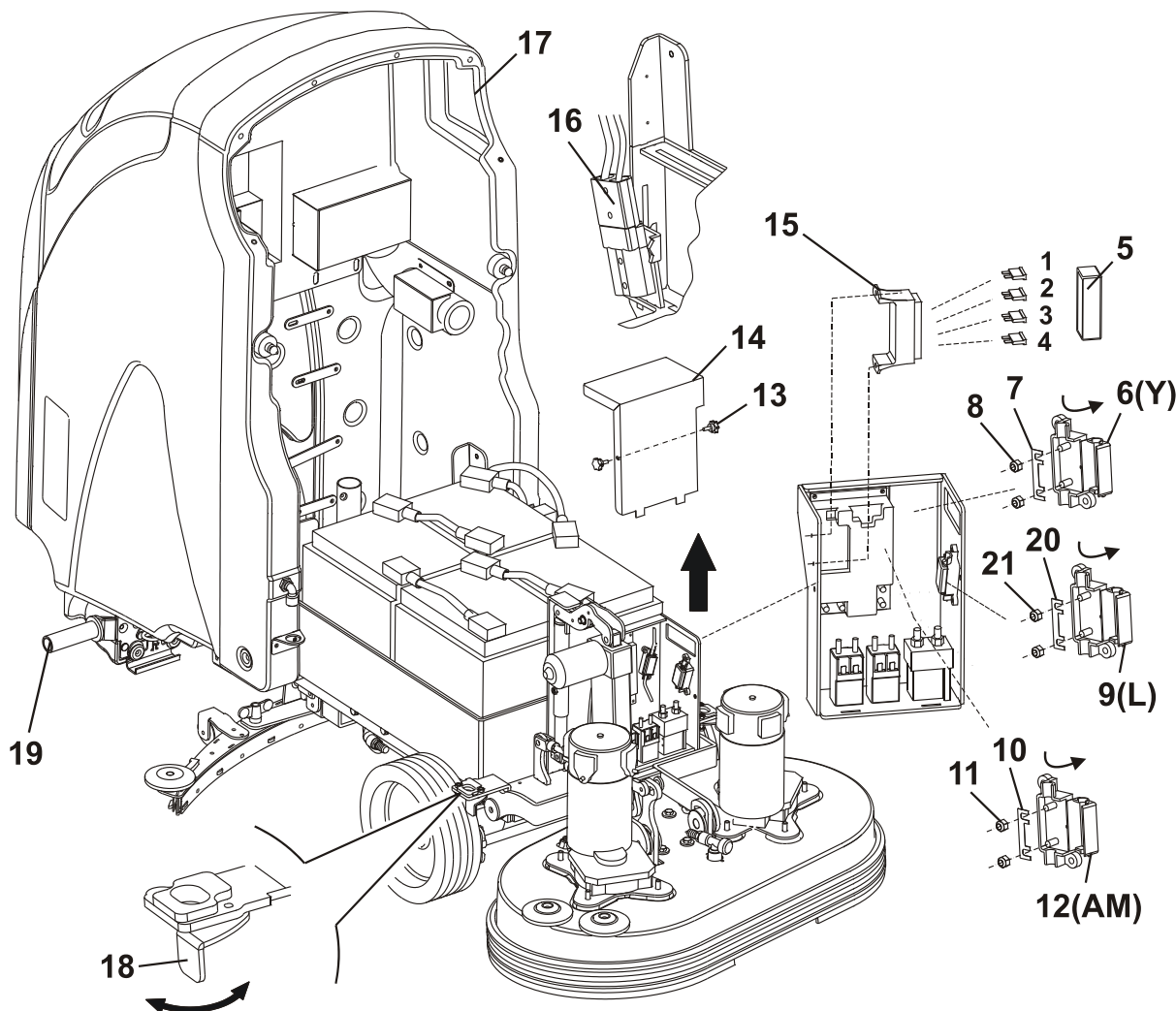
Once the fuses are checked or replaced, put everything back together and bring the machine back to its operating condition.



## CHECKING OR REPLACING FUSES

VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-  
M710 V2 TRAC-M710 V3 ECO-M810 V2 TRAC-M810 V3 ECO

### CHECKING OR REPLACING FUSES IN THE FRONT SWITCHBOARD



To check or replace the fuses on the switchboard proceed as follows:

- Drain both tanks into the special drainage areas;
- Bring the machine into a stop position in a flat surface area and put on the brake;
- Unplug the battery plug (see position 16);
- Unfasten the tank (see position 17) by pushing it inwards using the small levers (see position 18) located at both ends of the machine;
- **REACH THE DRIVER'S POSITION AND LIFT THE TANK BY THE GRIPS (POS. 19) PAYING ATTENTION TO HANDLE IT WITH CARE WHILE LAYING ON THE GROUND.**
- Unscrew the 2 screw knobs (see position 13), pull upwards and remove the switchboard cover (see position 14);
- Remove the lid (see position 5) from the fuse holder (see position 15);
- There are 5 fuses located in the fuse holder pos.15 and they have the following functions and features:  
**POSITION 1:** 5A fuse for electrical equipment protection;  
**POSITION 2:** 7.5A fuse for pump protection **ONLY FOR VERSION V3 – ECO**;  
**POSITION 3:** 30A fuse for suction motor protection;  
**POSITION 4:** 5A fuse for drive system protection;
- Fuse holder pos.6 recognizable from the label Y: 60A fuse **PROTECTION OF THE DRIVE SYSTEM**;  
**TO REPLACE IT, PROCEED AS FOLLOWS:**
  - Open the lid of the fuse holder (pos. 6) by pulling it up from the side indicated by the arrow;
  - Unscrew the 2 fuse locking nuts (pos. 8 );
  - Replace the **60A fuse** (pos.7) with a fuse of equal amperage;
  - Reassemble the nuts and close the lid of the fuse holder.

- Fuse holder pos.12 recognizable from the label AM: 40 A fuse holder **PROTECTION OF BRUSH RELEASE FUNCTION.**

TO REPLACE IT, PROCEED AS FOLLOWS:

- Open the lid of the fuse holder (pos. 12) by pulling it up from the side indicated by the arrow;
- Unscrew the 2 fuse locking nuts (pos. 11 );
- Replace the **40A fuse** (pos.10) with a fuse of equal amperage;
- Reassemble the nuts and close the lid of the fuse holder.

- Fuse holder pos. 9 – label L: 80 Ah fuse - **BRUSH MOTORS PROTECTION.**

#### ATTENTION:

This fuse is used by the function card to control the correct absorption of brush motors (amperometric protection). It is possible that, although the motor reducers work with a correct absorption, error E1 appears on the display. In this case there is an oxidation of the fuse that gives a wrong reading.

Please proceed as follows:

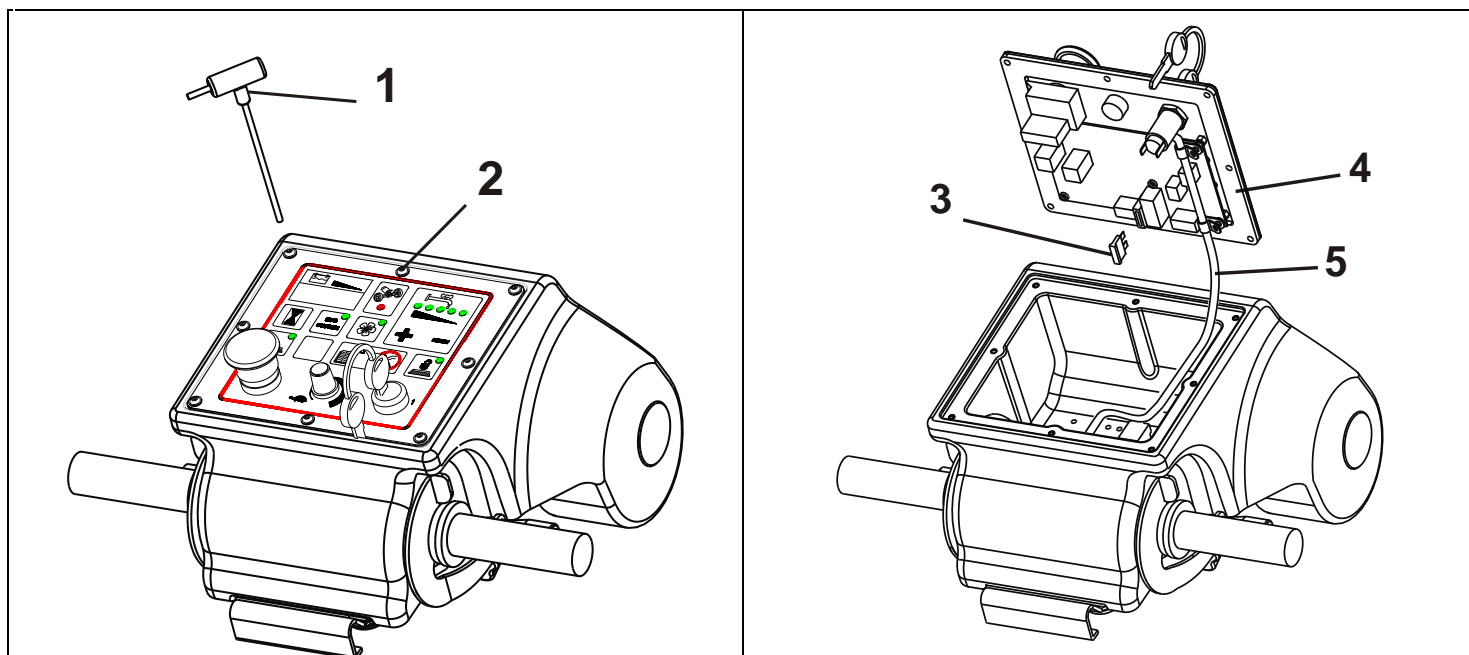
- Unscrew the 2 nuts pos.21 that fix the fuse of 80 A pos. 20
- Clean the fuse holder and oil it with vaseline
- Reassemble the nuts and close the fuse holder lid.

**IMPORTANT:** use exclusively the spare fuse by Eureka

Once the fuses are checked or replaced, put everything back together and bring the machine back to its operating condition.

### CHECKING OR REPLACING FUSES IN THE INSTRUMENT PANEL

VERSIONS: E71 V2 TRAC -E81 V2 TRAC--E71 V3 ECO E81 V3 ECO-M710 V2 TRAC-M710 V3 ECO-M810 V2 TRAC-M810 V3 ECO



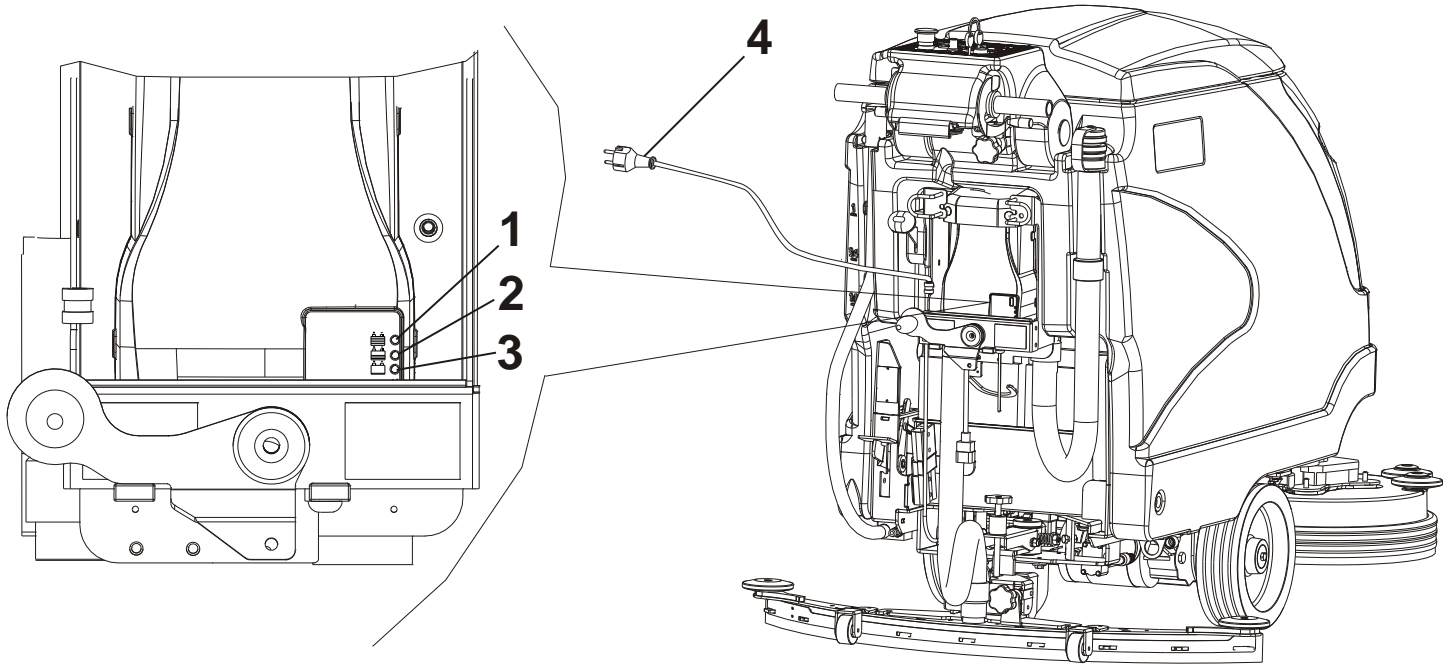
To check or replace the fuses beneath the instrument panel, proceed as follows:

- Turn off the key and unplug the battery connector as specified in the previous paragraph;
- Use a 2.5mm Allen wrench (see position 1) and remove the 8 clamping screws (see position 2) from the instrument panel, including the respective nylon washers;
- Carefully turn the instrument panel (see position 4), follow the arrows and make sure not to jerk it as it may damage the electrical system;
- Remove the **20 A fuse** (see position 3), check it and replace it if necessary with a fuse of equal amperage;
- Put the instrument panel back into place (see position 4) and make sure to keep the cables (see position 5) and the terminals away from the gearing area located inside the instrument panel;
- Put the washer and screws back into place (see position 2) and close the panel using the special wrench (see position 1), make sure to apply enough pressure on the seal beneath the panel (see position 4).





## RECHARGING OF BATTERIES

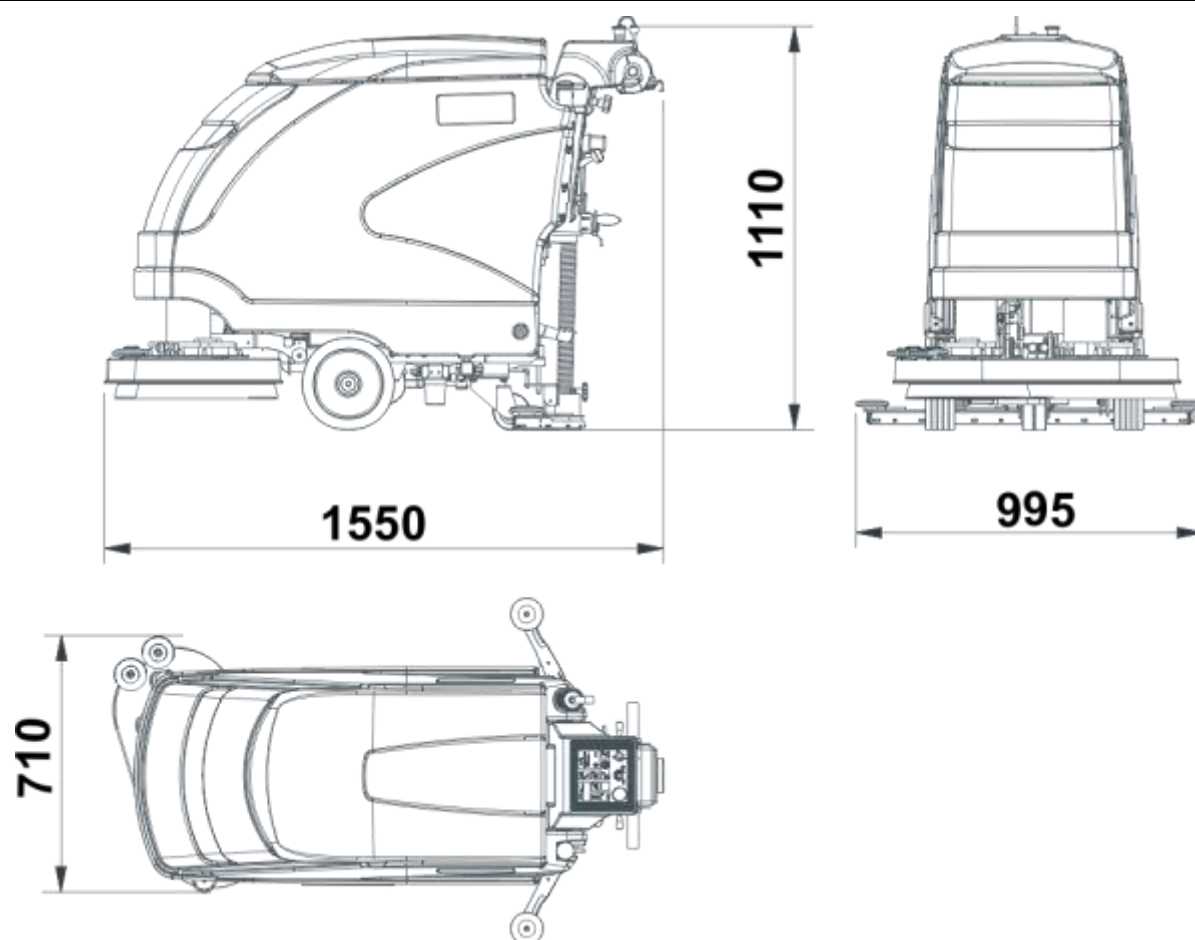


**WARNING! THE CHARGER IS PRESET FOR LEAD BATTERIES. TO MOUNT GEL OR AGM BATTERIES, BOTH THE STATUS LED AND THE CHARGER HAVE TO BE SET ACCORDING TO THE TYPE OF BATTERY WHICH IS TO BE USED. TO THIS AIM, PLEASE CONTACT EITHER A TECHNICIAN OR AN AUTHORIZED RETAILER.**

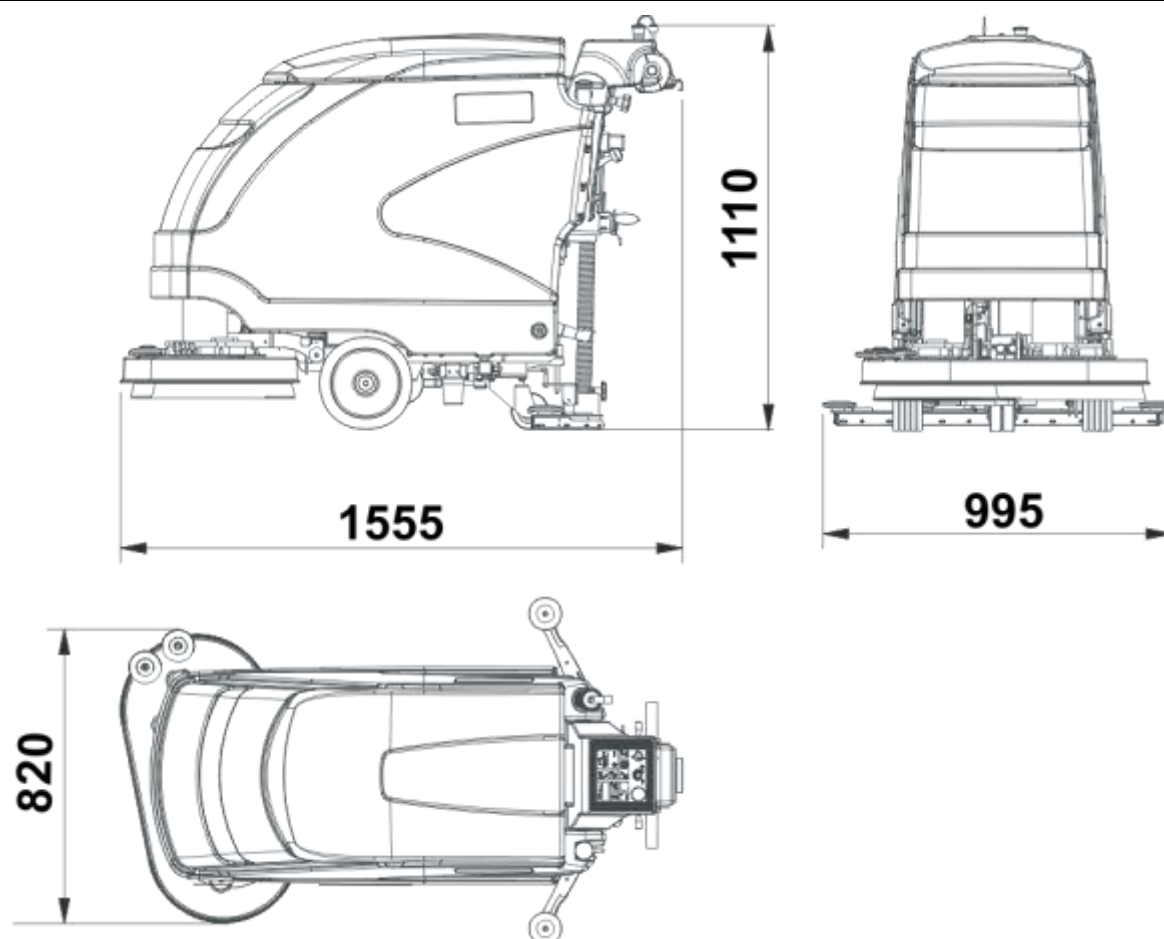
To charge the batteries follow the instructions below:

- Bring the machine into a stop position in a flat surface area, turn it off and put on the brake;
- **Before charging the battery make sure to scrupulously follow the battery charger instruction manual provided with the machine;**
- Uncoil the cable from the cable reel located on board the machine and connect the plug pos.4 into a standard electrical power socket. When you plug the socket, a double flash of the red led light pos.3 indicates that the charger is set to charge lead/acid batteries, otherwise a double flash of the green light pos.1 indicates that the charger is set to charge GEL-AGM-SONNENSCHN batteries. At this point the charger will make a test to check if it is necessary to charge the battery. If the battery is not connected to the charger, the red led light pos. 3 will start flashing. If the test succeeds, after a second it will start the charge of the battery (signaled by the red led light pos. 3 switched on). If, during the charging, the operator disconnects the battery from the charger, after few seconds the charger will reset itself and it will be ready to start a new charge process.
- **WARNING: WHEN PLUGGING THE BATTERY CHARGER INTO THE ELECTRICAL SOCKET, THE MACHINE FUNCTIONS ARE AUTOMATICALLY DISABLED.**
- There are 3 led lights located above the battery charger:  
pos. 1 GREEN led light - pos.2 YELLOW led light - pos.3 RED led light .  
These led lights indicate the charging status of the battery.  
The GREEN led light indicates that the charging cycle is completed and the plug can be disconnected from the electrical socket and rolled back into the cable reel.
- **Once the battery is charged make sure to check the electrolyte level and if necessary fill it up only using distilled water.**
- The battery must always be charged in ventilated areas.
- The gas released during the charging process can cause explosions if it comes into contact with flames or sparks.
- Battery acid should never come into contact with the eyes, skin or clothes, make sure to wear goggles, gloves and appropriate clothing.
- If it comes into contact with eyes or skin, wash immediately with abundant water.
- Do not place metal objects on the batteries.
- Do not fill the batteries with sulphuric or other products.

## DIMENSIONAL DRAWINGS VERSIONS: E71 – M710

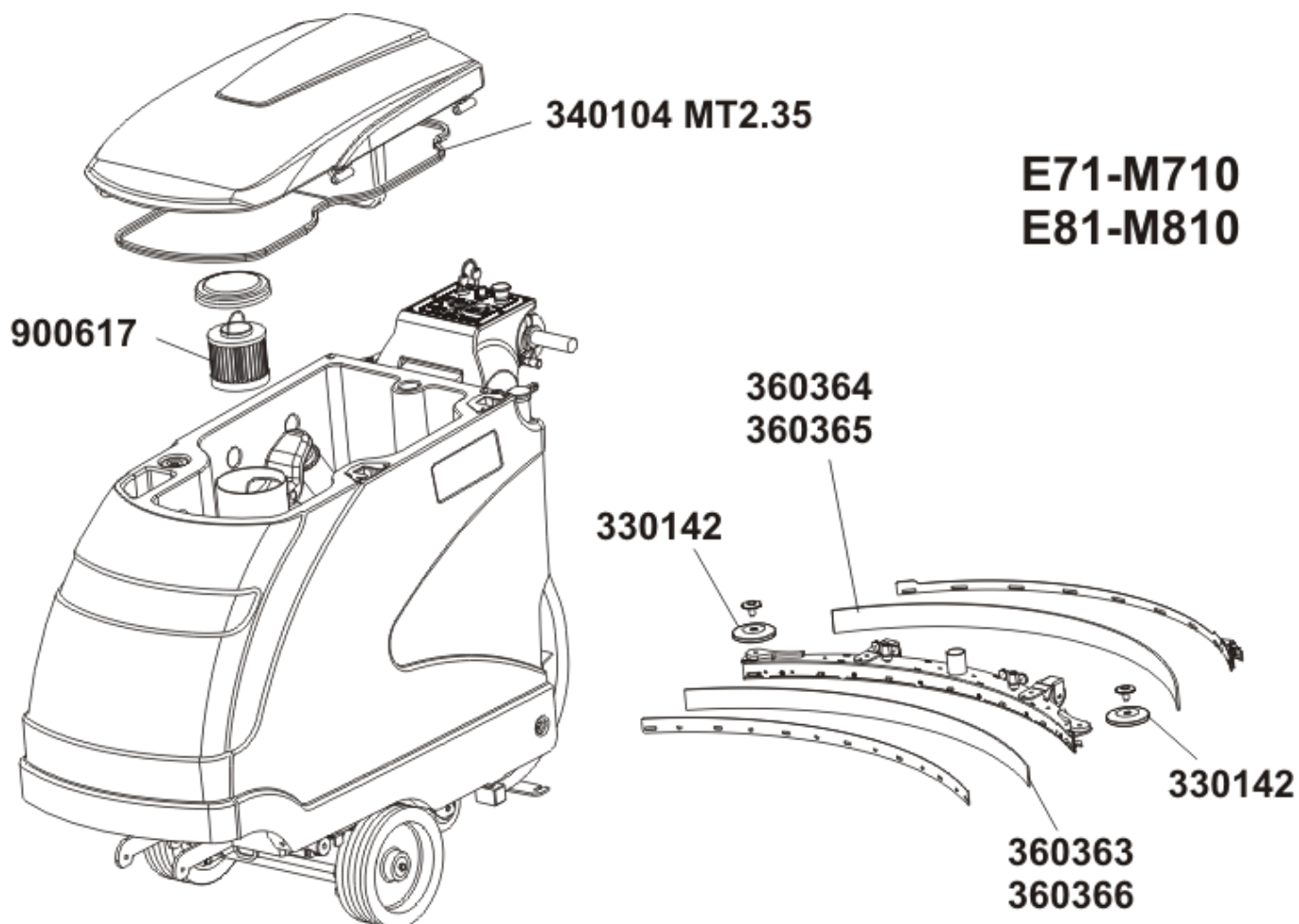


## DIMENSIONAL DRAWINGS VERSIONS: E81 – M810

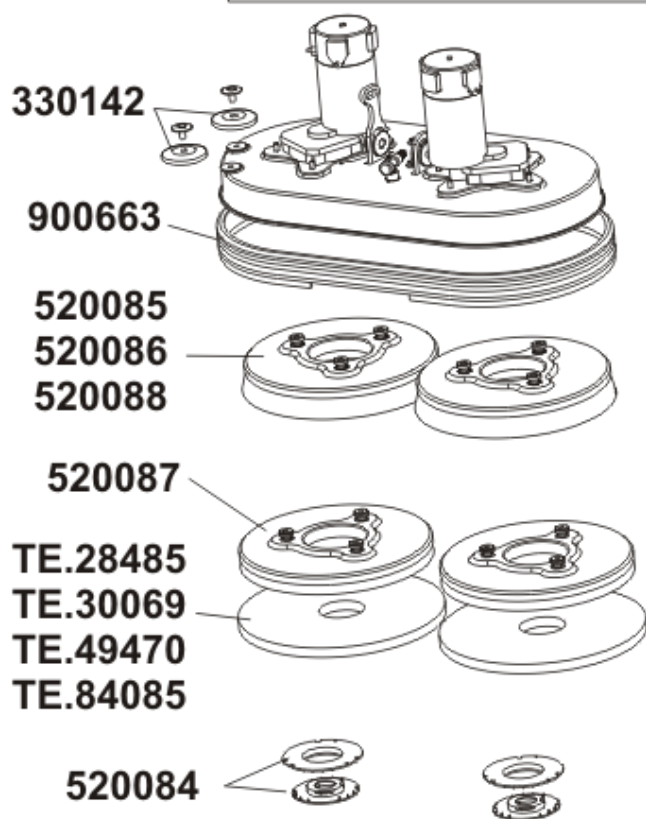




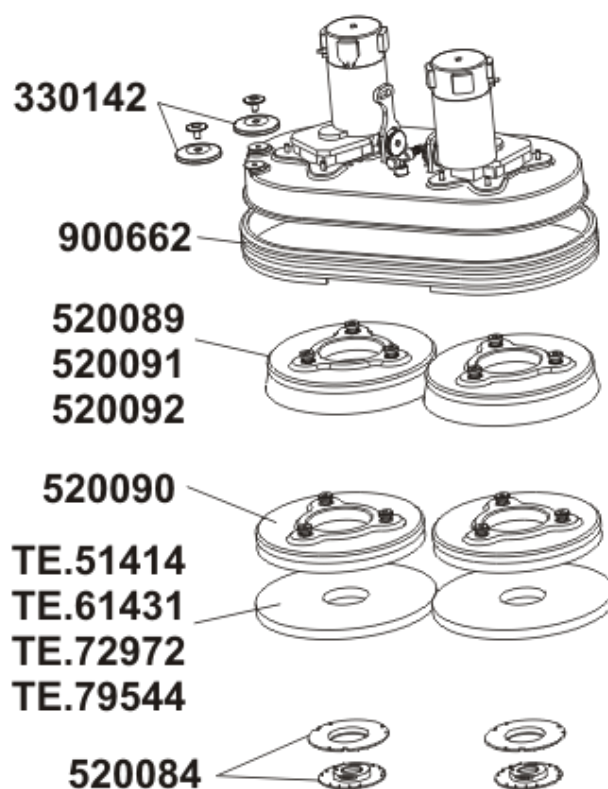
**RECOMMENDED SPARE PARTS USED FOR SERVICING. SERVICING OPERATIONS CAN BE CARRIED OUT BY THE USER HIMSELF ON CONDITION IT HAS PREVIOUSLY BEEN INSTRUCTED BY EITHER THE MACHINE OWNER OR HIS EMPLOYER**



### E81-M810



### E71-M710





**RECOMMENDED SPARE PARTS USED FOR SERVICING. SERVICING OPERATIONS CAN BE CARRIED OUT BY THE USER HIMSELF ON CONDITION IT HAS PREVIOUSLY BEEN INSTRUCTED BY EITHER THE MACHINE OWNER OR HIS EMPLOYER**

- **COD. 330142: BUMPER DISC**
- **COD. 340104: LID GASKET MT. 2,35**
- **COD. 360363: SQUEEGEE FRONT RUBBER IN LYNATEX (STANDARD)**
- **COD. 360364: SQUEEGEE REAR RUBBER IN LYNATEX (STANDARD)**
- **COD. 360365: SQUEEGEE REAR RUBBER POLYURETHANE (OIL- RESISTANT)**
- **COD. 360366: SQUEEGEE FRONT RUBBER IN POLYURETHANE (OIL-RESISTANT)**
- **COD. 520084: FIXING FLANGE**
- **COD. 520085: PPL BRUSH E81-M810 0,6 mm (2 X MACHINE)**
- **COD. 520086: TYNEX BRUSH E81-M810 1,2 mm (2 X MACHINE)**
- **COD. 520087: PAD E81-M810 (2 X MACHINE)**
- **COD. 520088: PPL BRUSH E81-M810 0,9 mm (2 X MACHINE)**
- **COD. 520089: PPL BRUSH E71-M710 0,6 mm (2 X MACHINE)**
- **COD. 520090: PAD E71-M710 (2 X MACHINE)**
- **COD. 520091: PPL BRUSH E71-M710 0,9 mm (2 X MACHINE)**
- **COD. 520092: TYNEX BRUSH E71-M710 1,2 mm (2 X MACHINE)**
- **COD. 900617: SUCTION CARTRIDGE FILTER CLASS M (ex USGC)**
- **COD. 900622: SELF-LEVELLING SPLASHGUARD E71-M710**
- **COD. 900663: SELF-LEVELLING SPLASHGUARD E81-M810**
- **COD. TE.28485: RED ABRASIVE DISC - 16" 406 mm E81- M810**
- **COD. TE.30069: WHITE ABRASIVE DISC - 16" 406 mm E81- M810**
- **COD. TE.49470: BLACK ABRASIVE DISC - 16" 406mm E81- M810**
- **COD. TE.51414: BLACK ABRASIVE DISC - 14" 355 mm E71-M710**
- **COD. TE.61431: RED ABRASIVE DISC - 14" 355mm E71-M710**
- **COD. TE.72972: WHITE ABRASIVE DISC - 14" 355mm E71-M710**
- **COD. TE.79544: BLUE ABRASIVE DISC - 14" 355mm E71-M710**
- **COD. TE.84085: BLUE ABRASIVE DISC - 16" 406mm E81- M810**

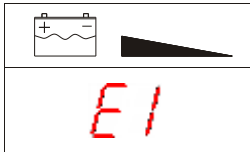
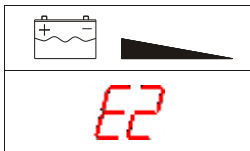
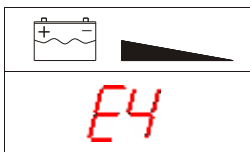
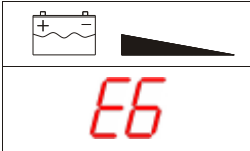
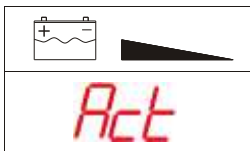
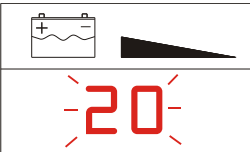
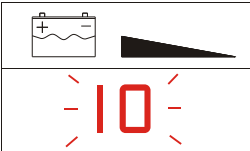
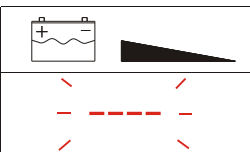
## TECHNICAL SPECIFICATIONS SCRUBBER-DRYERS

TECHNICAL SPECIFICATIONS				
TECHNICAL SPECIFICATIONS	MODEL			
	E71	E81	M710	M810
SCRUBBING WIDTH WITH BRUSH	mm 710	mm 810	mm 710	mm 810
BRUSH PRESSURE	Kg 57	Kg 60	Kg 57	Kg 60
CAPACITY OF SOLUTION TANK – RECOVERY TANK	Lt 70 - Lt 80	Lt 70 - Lt 80	Lt 70 - Lt 80	Lt 70 - Lt 80
PRODUCTIVITY	Sq/m/h 3195	Sq/m/h 3645	Sq/m/h 3195	Sq/m/h 3645
WEIGHT(with on-board battery charter, without batteries)	Kg 173	Kg 178	Kg 173	Kg 178
SIZE (without squeegee)	mm 1550x710 H=1110	mm 1555x820 H=1110	mm 1550x710 H=1110	mm 1555x820 H=1110
SQUEEGEE WIDTH	mm 995	mm 995	mm 995	mm 995
BRUSH / PAD DIAMETER , RPM	Mm 330/355 - rpm 200	Mm380/ 395 - rpm 200	Mm330/355 - rpm 200	Mm380/395 - rpm 200
REDUCTION MOTOR FOR BRUSH/ES	V/Watt 24/500	V/Watt 24/500	V/Watt 24/500	V/Watt 24/500
WATERFLOW ADJUST PUMP	V/Watt 24/120	V/Watt 24/120	V/Watt 24/120	V/Watt 24/120
VACUUM MOTOR	V/Watt 24/550	V/Watt 24/550	V/Watt 24/550	V/Watt 24/550
NEGATIVE PRESSURE, VACUUM MOTOR	mm / H2O 1250	mm / H2O 1250	mm / H2O 1250	mm / H2O 1250
DRIVE	ELECTRONIC	ELECTRONIC	ELECTRONIC	ELECTRONIC
DRIVE MOTOR WITH DIFFERENTIAL	V/Watt 24/300	V/Watt 24/300	V/Watt 24/300	V/Watt 24/300
POLYURETHANE FRONT WHEEL WITH BRAKE	Ø 255 X 80	Ø 255 X 80	Ø 255 X 80	Ø 255 X 80
MAX FWD/REV SPEED	Km/h 4 - Km/h 1,5	Km/h 4 - Km/h 1,5	Km/h 4 - Km/h 1,5	Km/h 4 - Km/h 1,5
MAX GRADIENTS (empty tank)	20%	20%	20%	20%
RECOMMENDED BATTERIES: 4pcs 6 V -180 Ah (IN C5)	mm 242X190X285h Kg 32.6 each	mm 242X190X285 h 32.6 each	mm 2420X190x285 h 32.6 each	mm 2420X190x285 h 32.6 each
RECOMMENDED BATTERIES: 4pcs GEL TYPE 6 V -180 Ah (IN C5)	mm 2440X190X275 h kg.31 each	mm 2440X190X275 h kg.31 each	mm 2440X190X275 h kg.31 each	mm 2440X190X275 h kg.31 each
<b>NOISE LEVEL IN OBSERVANCE OF ISO 3744 – ACOUSTIC PRESSURE MEDIUM LEVEL Lpm=</b>	64.8 dB	64.8 dB	64.8 dB	64.8 dB
<b>VIBRATION: The vibrations to which the operator is subjected is below the max allowed by the CE DIRECTORY for industrial machinery(CEE89\392 ).</b>				

## CHECKING THE ALARMS ON THE DISPLAY OF THE CONTROL BOARD

**1.VERSIONS: E71 V2 TRAC – E71 V3 ECO – E81 V2 TRAC – E81 V3 ECO**

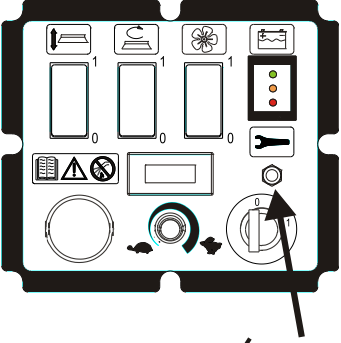
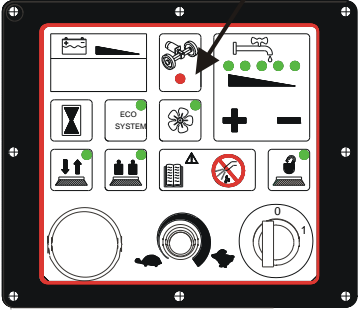
**2.M710 V2 TRAC – M710 V3 ECO – M810 V2 TRAC – M810 V3 ECO**

ALARM	CAUSE	SOLUTION
	<p>Amperometric protection for over-absorption of the brush motor. The led light of the brush bottom flashes for 1 minute and then the writing E1 appears, the brushes will stop lifting the plate.</p>	<p>Stop the machine and start it again. If the problem persists, check out the cause of over-absorption (threads or any other material which might get tangled with the brush; the brush is not suitable for the type of floor)</p> <p>If the alarm persists, check if there is any oxidation in the 80Ah fuse that can give a wrong reading.</p> <p>Check pag. 35 fuse (pos. 20 – L) inside the fuse holder pos. 9.</p> <p>Follow the instructions at pag. 36.</p>
	<p>Alarm: the contact of both the actuator limit switches is open.</p>	<p>Make sure that there are no foreign bodies preventing the brush plate from functioning.</p> <p>If the problem persists, make contact with either a retailer or technician.</p>
	<p>Alarm: the final position of the actuator is not reached within the max. lapse of time (10secs)</p>	<p>Make sure that there are no foreign bodies preventing the brush plate from functioning.</p> <p>If the problem persists, make contact with either a retailer or a technician.</p>
	<p>Alarm: when starting up the machine, pos. 0 is not reached within the max. lapse of time (10secs).</p>	<p>Make sure that there are no foreign bodies preventing the brush plate from functioning.</p> <p>If the problem persists, make contact with either a retailer or a technician.</p>
	<p>That is not an alarm but rather a warning signal indicating that the brush plate is not in raised position when starting up the machine. The machine requires the brush plate to be lowered before being used for any other operation.</p>	<p>Wait for a few seconds till the brush plate has been raised completely.</p>
	<p>1° The battery charge level is too much low. Upon reaching level 20 the number on the display shall start blinking and the brush function will be disabled, lifting the plate</p>	<p>Complete drying.</p> <p>Empty the recovery tank and recharge the batteries.</p>
	<p>2° The battery charge level is too much low. Upon reaching level 10 the number on the display shall start blinking and the suction function will be disabled.</p>	<p>Lift the squeegee, empty the recovery tank and recharge the batteries</p>
	<p>3° The battery charge level is too much low. When 4 blinking dashes appear on the display unit, it means that the minimum discharge threshold of the battery has reached its maximum level and if the battery is used any further it will cause irreparable damages. At this point, the forward drive will no longer operate.</p>	<p>The machine must be taken to the tank drainage area manually in order to charge the batteries..</p>

## TROUBLE-SHOOTING CHART

**WARNING ! ANY OTHER TYPE OF SERVICE OPERATION OR TEST, EXCEPTION MADE FOR THOSE SHOWN IN THE PRESENT MANUAL, MUST BE CARRIED OUT BY AUTHORISED SERVICE CENTRES ONLY**

PROBLEM	CAUSE	SOLUTION
The battery gets discharged	1. Either exhaust or broken elements	Replace it
The display of the control card does not switch on when inserting the key <b>VERSIONS:TRAC – ECO</b>	2. Flat or worn out battery 3. Fuse burn out 4. Emergency switch pressed 5. Battery mobile connector disconnected 6. Key operated switch broken 7. Control board is broken	Recharge it Replace it Unblock it Connect it Replace it Replace it
When you press the brush button the brush plate can not be lowered <b>VERSIONS:TRAC – ECO</b>	8. Flat or worn out battery 9. Faulty actuator 10. Faulty card 11. Actuator control module on the control board is broken. 12. Some material got entangled underneath the brush plate thus preventing it from lowering	Recharge it Replace it Replace it Replace it Remove the material as to unlock the brush plate
With the brush plate height switch on POS.1 the brush plate doesn't lower <b>VERSION M</b>	13. Flat or worn out battery 14. Faulty actuator 15. Faulty switch 16. 5A fuse on POS. 3 worn out	Recharge it Replace it Replace it Replace it
The brush motor does not rotate	17. Flat or worn out battery 18. Electric remote switch is broken 19. Control board is broken (TRAC-ECO)	Recharge it Replace it Replace it
	20. Amperometric protection for over-absorption of the motor <b>ON THE DISPLAY IT WILL APPEAR THE INDICATION “EI” (TRAC-ECO)</b>	Follow the instructions at pag. 42 <b>(EI)</b> .
	21. Carbons are worn out 22. Fuse worn out 23. Faulty motors 24. Brush switch not in POS. 1 ( <b>VERS. M</b> ) 25. Faulty brush plate ( <b>VERS. M</b> )	Replace them Replace it Replace it Push switch on POS. 1 Replace it
By pressing the “extra-pressure” button the brush plate does not get into correct position <b>VERSIONS:TRAC – ECO</b>	26. Faulty actuator 27. Faulty card 28. Actuator control module on the control board is broken.	Replace it Replace it Replace it
The brush release function does not work <b>VERSIONS:TRAC – ECO</b>	29. The brush function is still on 30. The machine is in motion 31. 40A Fuse (FUSE-HOLDER WITH LABEL <b>AM</b> ) for protection of brush release is broken 32. Release remote switch is broken 33. Control board is broken	Disable the brush function Release the drive button Replace it Replace it Replace it
The drive does not work	34. Brake is engaged 35. Flat or worn out battery 36. Key disconnected 37. 60A Fuse (FUSE-HOLDER WITH LABEL Y). Traction fuse is faulty. 38. 5A protection traction fuse (POS. 5 OF THE FUSE-HOLDER) is broken 39. Motorreducer is faulty 40. Motor carbons are worn out 41. Electronic control board is broken 42. Microswitch in the control panel is broken 43. Main potentiometer is faulty 44. Potentiometer on control panel (V-MAX) is faulty	Disengage it Recharge it Insert it Replace it Replace it Replace it Replace them Replace it Replace it Replace it Replace it
The red warning light on the control board card indicating -when switched off- the correct functioning of the drive electric control is blinking	45. Diagnosis for led flashings	
	<b>- SWITCHED OFF: NO ERRORS, NORMAL WORKING CONDITIONS</b>	
	- 1 FLASHING: forward speed microswitch engaged when starting up the machine	- Pull the drive control switch in O position - Check that the switch is correctly placed into O position
	2 FLASHINGS: reverse speed microswitch engaged when starting up the machine	- Check the microswitch on the drive control
	- 3 FLASHINGS: the potentiometer signal is off - 4 FLASHINGS: the potentiometer is not working	Check the cables of the potentiometer - Pull the drive control switch in O position. - Check that the switch is correctly placed into O position - Check the microswitch on the drive control

PROBLEM	CAUSE	SOLUTION
 	- 5 FLASHINGS: thermal protection	Wait for some minutes before starting and checking the absorptions of the motor
	- 6 FLASHINGS: Faulty power component on the starting card	Replace the chopper
	- 7 FLASHINGS: overcurrent	Cables from the battery to the chopper and from chopper to engine are loose, oxidized or not properly connected. Check the cables.
	- 8 FLASHINGS: either the power fuse or the power relay is faulty	Check that the 30A power fuse (pos. 4 on the fuse-holder) from + battery till the chopper is OK and that the battery and motor wires are properly connected If necessary, replace the chopper
	- 9 FLASHINGS: under tension	Battery tension lower than 19V.
	- 10 FLASHINGS: overcurrent	Battery tension higher than 45V.
	- 11 FLASHINGS: amperometric protection	Work above max. nominal current 15 A for 10 seconds.
	- 13 FLASHINGS: electric feeding is not correct	Electric feeding of the chopper is not correct (24V). Check the wires
	- 14 FLASHINGS: failed data reading	Remove the key and put the service switch in O position If necessary, replace the chopper
The suction motor does not work	46. Flat batteries VERSIONS TRAC-ECO 47. 30A suction motor fuse worn out 48. Electric remote switch is broken 49. Vacuum motor disconnected 50. Vacuum motor is faulty 51. Vacuum motor carbons are worn out 52. Control board is broken V. TRAC-ECO 53. Faulty vacuum motor switch <b>VERSION M</b> 54. 10A fuse on POS.2 worn out <b>VERSION M</b>	Recharge them Replace the fuse – Pos. 3 of the fuse holder Replace it Check the motor wiring Replace it Replace them Replace it Replace it Replace it
Not enough suction on the squeegee	55. Recovery tank is full 56. Float on the recovery tank  57. Lid on the exhaust pipe is open 58. Vacuum pipe disconnected 59. Vacuum pipe is clogged  60. Faulty vacuum pipe 61. Dirty squeegee 62. The squeegee is not adjusted properly 63. Material tangled with the squeegee blades 64. Squeegee blades either broken or worn out 65. The tank is either open or not properly closed 66. Damaged lid gasket 67. Faulty suction motor 68. Flat batteries	Empty it Switch off the vacuum motor and unblock the float ball Tight the lid Verify that it is mounted properly Clean both the pipe and the vacuum hose on the tank Replace the pipe Clean the squeegee Adjust inclination and pressure Clean the blades Reverse the blades or replace them Close it Replace the gasket Replace/check the motor Recharge them
Not enough water flow on the brush	69. Solution tank is empty 70. Tap is closed 71. Faulty electrovalve of the detergent solution. 72. Faulty ECO-SYSTEM electrovalve of the detergent solution. Version ECO 73. The cable from the handwheel to the tap is broken. Version M - TRAC 74. Clogged detergent solution filter Versions: TRAC and ECO 75. The solution pipe from the tank to the brush is clogged. 76. Faulty 7.5A pump fuse Version: ECO 77. Worn out carbons of the pump motor Version: ECO 78. Pump either clogged or faulty                      Version: ECO 79. In ECO-SYSTEM mode not enough water in the recovery tank . Version: ECO 80. ECO-SYSTEM filter clogged Version: ECO 81. Outlet pump connection clogged Version: ECO	Fill the tank Open the tap Replace it Replace it  Replace the cable  Clean the filter  Make sure there is no incrustations  Replace fuse Pos.2 of the fuse-holder  Replace them  Check the pump /replace it  Verify the water level  Clean it  Clean the connection

# PRODUCT WARRANTY

Eureka Srl warrants that our machine will be free from defects in material and workmanship for a period of 12 months from date of installation. Written notice of any claimed defect must be given to Eureka Srl or its Authorized Sales/Service Representative within the warranty period and within thirty (30) days after such defect is discovered. Liability under this warranty is limited to either replacing or repairing, at Eureka or its Authorized Sales/Service Representative election, any part or parts deemed defective after examination.

This warranty does not extend to labour charges, handling charges or transport charges.

This warranty does not extend to the machine, or its parts, that have been subject to misuse, accident or improper handling, installation, maintenance or application, nor does it extend to the machine and/or parts which have been repaired or altered outside Eureka's plant or the facility of Eureka's Authorized Sales/Service Representative.

This warranty does not apply to routine wearable parts such as brushes, splashguards, flaps, filters, seals, plugs, hoses, fuses or similar items. Moreover, this warranty does not extend to the machine or any of its parts already repaired or replaced under this warranty.

Only replacement parts supplied by Eureka or Eureka's Authorized Sales/Service Representative are warranted for 30 days after installation.

The warranty for engines shall be limited to the warranty extended by the engine's manufacturer.

## **IMPORTANT!**

***Warranty claims will be evaluated only if the Installation Form will be sent by fax or by mail, filled in all its parts, to Eureka's headquarter within thirty (30) days after the machine's installation.***

**EUREKA** S.r.l.

Via dell'Industria 32 , CITTADELLA ( PD ) 35013 - ITALY

Tel. ++39 - 049- 9481800

Fax. ++39 -049 – 9481899

INTERNET: [www.eurekasweepers.com](http://www.eurekasweepers.com) E-MAIL: [info@eurekasweepers.com](mailto:info@eurekasweepers.com)



## INSTALLATION FORM NECESSARY TO ACTIVATE WARRANTY

*Warranty claims will be evaluated only if the following Installation Form will be sent by fax or by mail, filled in all its parts, to Eureka's headquarter within thirty (30) days after the machine's installation. PLEASE RETAIN THE ORIGINAL COPY WITHIN THE MANUAL.*

<b>COMPANY &amp; NAME OF THE SELLER</b>	<b>STAMP &amp; SIGNATURE OF THE SELLER</b>
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<b>USES' INFORMATION</b>	
<b>TYPE OF FLOOR</b>	
<b>CLEANING AREA ( m<sup>2</sup> )</b>	

<b>MACHINE INFORMATION</b>	
<b>MODEL OF THE MACHINE</b>	
<b>FRAME'S NUMBER</b>	
<b>S/N</b>	<b>INSTALLATION DATE:</b>

<b>GENERAL INFORMATION I</b>			
1) HAS THE LEAD TIME BEEN RESPECTED?		4) HAVE YOU READ THE OPERATION MANUAL PRIOR TO USE THE MACHINE?	
2) HAVE YOU BEEN SHOWN HOW TO USE THE MACHINE?		5) HAVE YOU BEEN OFFERED A PREVENTIVE "MAINTENANCE CONTRACT" ?	
3) HAVE YOU CHECKED THE PERFECT FUNCTIONING OF THE MACHINE PRIOR TO USE IT??		6) HAVE YOU ACCEPTED IT?	

<b>USER'S INFORMATION</b>			
<b>COMPANY NAME</b>			
<b>ADDRESS</b>			<b>N°</b>
<b>CITY</b>			
<b>PROVINCE</b>			
<b>COUNTRY</b>			
<b>PHONE #</b>		<b>FAX #</b>	
<b>INTERNET ADDRESS</b>			
<b>E-MAIL</b>			
<b>BUSINESS ACTIVITY</b>			
<b>NAME OF THE PERSON WHO RECEIVES THE MACHINE:</b>			
<b>POSITION:</b>			
<b>DATE</b>		<b>SIGNATURE</b>	

**Eureka srl**

Via dell'Industria 32, 35013 CITTADELLA ( PD ) Italy Tel ++39 - 049 - 9481800 Fax ++39 - 049 - 9481899  
INTERNET: [www.eurekasweepers.com](http://www.eurekasweepers.com) E-MAIL: [info@eurekasweepers.com](mailto:info@eurekasweepers.com)

**DICHIARAZIONE DI CONFORMITA'**  
**2006/42/CEE, 72/23/CEE, 89/336/CEE 92/31/CEE,**  
**93/67CEE, 93/68/CEE**

Noi: **EUREKA S.r.l.**  
Via dell'Industria 32  
35013 CITTADELLA (PD)

**dichiariamo sotto la nostra esclusiva responsabilità che il prodotto**

**LAVASCIUGA PAVIMENTI:**

**MODELLI:**  
**E71-M; E81-M**  
**E71-TRAC; E71-ECO;**  
**E81-TRAC; E81-ECO.**

**al quale questa dichiarazione si riferisce è conforme alle seguenti norme:**

- **Sicurezza del macchinario, Concetti fondamentali, principi generali di progettazione Specifiche e principi tecnici - UNI EN 12100-1, UNI EN 12100-2**
- **Sicurezza del macchinario. Distanze di sicurezza per impedire il raggiungimento di zone pericolose con gli arti superiori. UNI EN 294.**
- **Sicurezza del macchinario. Spazi minimi per evitare lo schiacciamento di parti del corpo. UNI EN 349.**
- **Sicurezza degli apparecchi elettrici d'uso domestico e similare. Parte generale - EN 60335-1 (1994) + A11(1995) + A1(1996) + A2(2000) + A13(1998) + A14(1998) + A15(2000) + A16(2001)**
- **Sicurezza degli apparecchi elettrici d'uso domestico e similare. Parte 2: Norma particolare per macchine automatiche per il trattamento dei pavimenti per uso industriale e collettivo - EN 60335-2-72 (1998) + A1(2000)**
- **Compatibilità elettromagnetica – Parte 6.3 – Norma generica di emissione per ambiente residenziale, commerciale ed industria leggera - EN 61000-6-3 (2001)**
- **Compatibilità elettromagnetica – Parte 6.1 – Norma generica di immunità per ambiente residenziale, commerciale ed industria leggera - EN 61000-6-1 (2001)**

**in base a quanto previsto dalle Direttive:**  
**2006/42/CEE, 73/23/CEE, 89/336/CEE, 92/31/CEE, 93/67CEE, 93/68CEE**

**LEGALE RAPPRESENTANTE**

**CITTADELLA 04/05/11**

**GIANFRANCO LAGO**

