

INSTRUCTION MANUAL

E50 BASE M - E50 TRAC M

E55 BASE M - E55 TRAC M



EN

Instruction manual
(Original instruction)



Attention: Read the instruction before use
the machine



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PRESENTATION

Our company, a leader in the production of industrial cleaning machines, is delighted to have you among the owners of this scrubber and is sure you will be fully satisfied with it. We are sure that during its use, you will see the quality, robustness and possibilities of use it has to offer. This scrubber is suitable for private, industrial or public use. This manual describes the various installation operations, controls and maintenance interventions necessary to maintain perfect efficiency of your scrubber. These are normal maintenance operations that any operator can carry out using devices normally available in a company. For particular works, please contact specialist staff.

OUR COMPANY AIMS TO CONSTANTLY IMPROVE ITS PRODUCTS AND RESERVES THE RIGHT TO MAKE CHANGES AND IMPROVEMENTS WHEN NECESSARY WITHOUT ANY OBLIGATION TO UPGRADE PREVIOUSLY SOLD MACHINES.

ATTENTION!

THE MACHINE IS NOT CERTIFIED FOR ON-ROAD USE.

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. STRICT COMPLIANCE WITH THE REGULATIONS AND THE INSTRUCTIONS CONTAINED IN THIS MANUAL, COMBINED WITH THE OPERATOR'S ATTENTION AND CAUTION, WILL BE THE BEST GUARANTEE AGAINST ACCIDENTS THAT CAN OCCUR IN THE WORKPLACE.

SCRUBBERS ARE DESIGNED TO PROVIDE UTMOST SAFETY IF USED ACCORDING TO INSTRUCTIONS. THIS MACHINE IS INTENDED FOR COMMERCIAL USE, FOR EXAMPLE IN HOTELS, IN SCHOOLS, IN HOSPITALS, IN FACTORIES, IN SHOPS, IN OFFICES AND IN BUSINESSES.

THIS MACHINE IS NOT INTENDED FOR USE BY PEOPLE (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR PSYCHOLOGICAL CAPACITY, OR WITH LACK OF EXPERIENCE AND KNOW-HOW. CHILDREN SHOULD BE MONITORED TO ENSURE THEY DO NOT USE THE EQUIPMENT TO PLAY ON.

THE USER MANUAL IS AN INTEGRAL PART OF THE SCRUBBER AND MUST ACCOMPANY IT UP TO ITS DEMOLITION.

PURSUANT TO DIRECTIVE 2006/42 EC, AND DPR 459 ON 24/07/1996 AND SUBSEQUENT UPDATES, IT IS MADE KNOWN THAT: OPERATOR IS INTENDED AS THE PERSON OR PEOPLE RESPONSIBLE FOR INSTALLING, OPERATING, ADJUSTING, CARRYING OUT ROUTINE MAINTENANCE, CLEANING, REPAIRING AND TRANSPORTING THE MACHINE.

THIS COMPANY CANNOT BE HELD LIABLE FOR PROBLEMS, BREAKAGES, ACCIDENTS OR OTHER ISSUES DUE TO LACK OF KNOW-HOW OR NON-APPLICATION OF THE PROCEDURES CONTAINED IN THIS MANUAL, OR DUE TO IMPROPER USE OF THE MACHINE.

THIS COMPANY ALSO CANNOT BE HELD LIABLE FOR CHANGES, INSTALLATION OF PARTS AND/OR ACCESSORIES WITHOUT PRIOR AUTHORISATION.

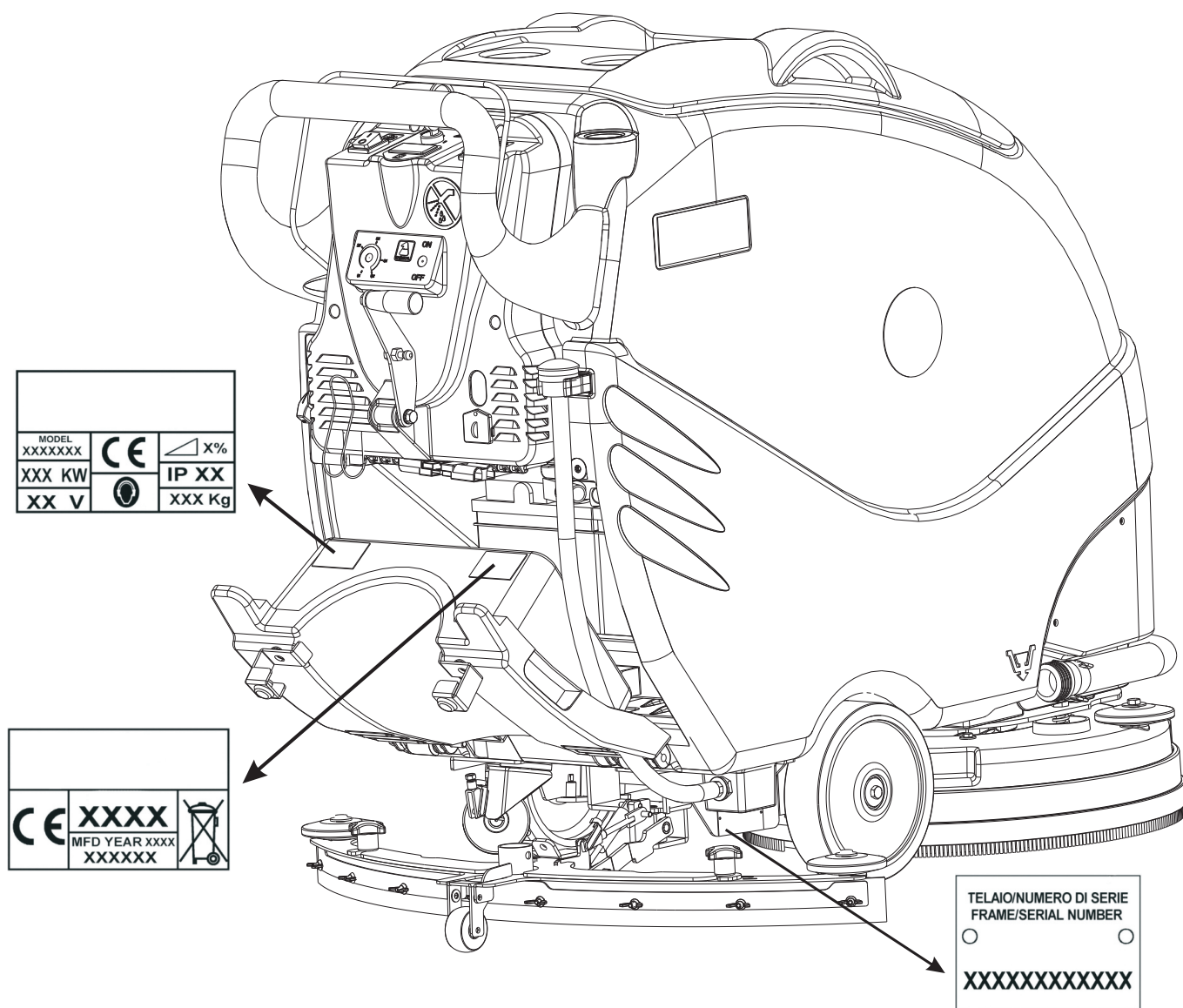


EMERGENCY SITUATIONS

**IN THE EVENT OF FIRE, ONLY USE POWDER EXTINGUISHERS
IF OCCURS ANY ABNORMAL BEHAVIOR (UNCONTROLLED SPEED INCREASE,
OVERHEATING, ...) TURN OFF THE MACHINE IMMEDIATELY**

MACHINE IDENTIFICATION

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



REFER TO THESE DETAILS TO ORDER SPARE PARTS OR WHEN SENDING ANY REQUEST TO THE MANUFACTURER.

The scrubbers comply with EEC directives and display the CE logo.

GENERAL WARNINGS AND ADVICE

DANGER - ATTENTION SIGNS



THIS SYMBOL HIGHLIGHTS ALL THE OPERATIONS THAT REPRESENT A SITUATION OF POTENTIAL DANGER FOR THE OPERATOR.
THEREFORE, PROCEED IN COMPLIANCE WITH THE CONDITIONS HIGHLIGHTED BY THIS SYMBOL



USE OF GLOVES COMPULSORY



USE OF GOGGLES COMPULSORY



ATTENTION: MOVING PARTS, RISK OF TRAPPING HANDS



ATTENTION: DO NOT WET
THE DEVICES MARKED WITH THIS INDICATION MUST NOT GET WET
(THEY ARE NORMALLY ELECTRICAL COMPONENTS)



USE OF ANTI-VAPOUR MASKS WHEN USING CORROSIVE DETERGENTS



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 scrubber-dryer with the key inserted.
- 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.

IMPORTANT COMMUNICATION

WARNING! DURING THE LAST FEW YEARS, A NEW AGGRESSIVE SOLVENT-BASED DETERGENT TYPE WAS MADE AND DISTRIBUTED IN THE MARKET. THIS DETERGENT IS CURRENTLY NAMED AS "DETER-SOLVENT". EVEN IF THE SOLVENT CONTAINED IN THE DETERGENT IS OBTAINED FROM THE FRUITS, IT STILL HAS TO BE CONSIDERED AS "SOLVENT". THE POLIETHYLENE MATERIAL USED IN THE SCRUBBER TANKS IS MIXED WITH A % OF RUBBER. THE "DETER-SOLVENT" PRODUCT, IF LEFT IN THE SCRUBBER'S TANKS FOR A LONG PERIOD OF TIME COULD ATTACK THE RUBBER'S MOLECULAS, CAUSING THE TANK TO SWELL AND CRACK. IF THE "DETER-SOLVENT" PRODUCT IS USED, IT'S MANDATORY TO RINSE THE TANKS PROPERLY WHEN THE MACHINE STOPS WORKING.



CLEANING AND MAINTENANCE

Machine cleaning must be carried out by staff correctly trained for the purpose, who know the controls to bypass energy sources and are familiar with the characteristics of the machine to avoid dangerous situations.

Clean the coverings of the machine, the panels and the controls with a cloth soaked in water or detergent solution.

No solvents must be used such as petrol, alcohol, etc.

Have specialist staff clean the electrical components who should use non-corrosive products, suitable for electrical circuits.

Maintenance of the machine must be carried out by specialist staff with in-depth knowledge of the machine and its components.

Any maintenance and cleaning must be carried out with the machine off, with all the mechanisms stopped, the hot parts cooled and the battery disconnected.

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

STORAGE OF THE MACHINE

If the machine is unused for long periods of time, 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, empty the filter protection and drain the water completely from the system;
- Clean the machine inside and outside. Avoid washing the machine using direct water jet, pressurized water, or corrosive substances;
- Keep the brushes and the squeegee raised;
- Remove the key and 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.



SAFETY PRECAUTIONS FOR OPERATORS AND TECHNICIANS

- The machine must not be used by non-authorized 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 slippery surfaces;
- Make sure the machine is not exposed to rain and bad weather conditions, whether in motion or still;
- Temperature of usage of the machine must be kept within + 5 °C / + 40 °C;
- Humidity should be kept within 30% / 80 %.

UPDATING OF THE USER'S 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 to update the manual with the documentation that the Manufacturer will send if modifications are made to the machine.

DISPOSAL



All packaging is recyclable. The packaging should not be thrown away with domestic waste, but sent to the relevant collection centres.



EXHAUSTED LEAD-ACID BATTERIES

Exhausted batteries are considered harmful toxic waste and therefore should be exclusively given to collection companies with specific authorisation (ascertain on hand-over).

MATERIAL COLLECTED FROM THE MACHINE

The waste collected by the machine must be given to the relevant urban cleaning company since it is considered urban waste or similar. The machine cannot be used to collect toxic-harmful materials.

SCRAPPING THE MACHINE

On scrapping, proceed with the correct disposal of the materials that make up the machine. It is compulsory to give the machine to authorised collection companies which will correctly dispose of oil, filters, plastic, metal, electric motors, electric boards, etc. in compliance with legislation in force. Decommissioned equipment contains precious recyclable materials and therefore should be given to the relevant collection centres. Please dispose of decommissioned equipment through differentiated collection systems.

DISPOSAL OF THE RECOVERY TANK SOLUTION

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



DISPOSAL OF ELECTRICAL EQUIPMENT AND ELECTRONICS



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 condition –in case of damage, inform the forwarder.

PAY ATTENTION WHILE TRANSPORTING THE MACHINE AT TEMPERATURES BELOW 0°C 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 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

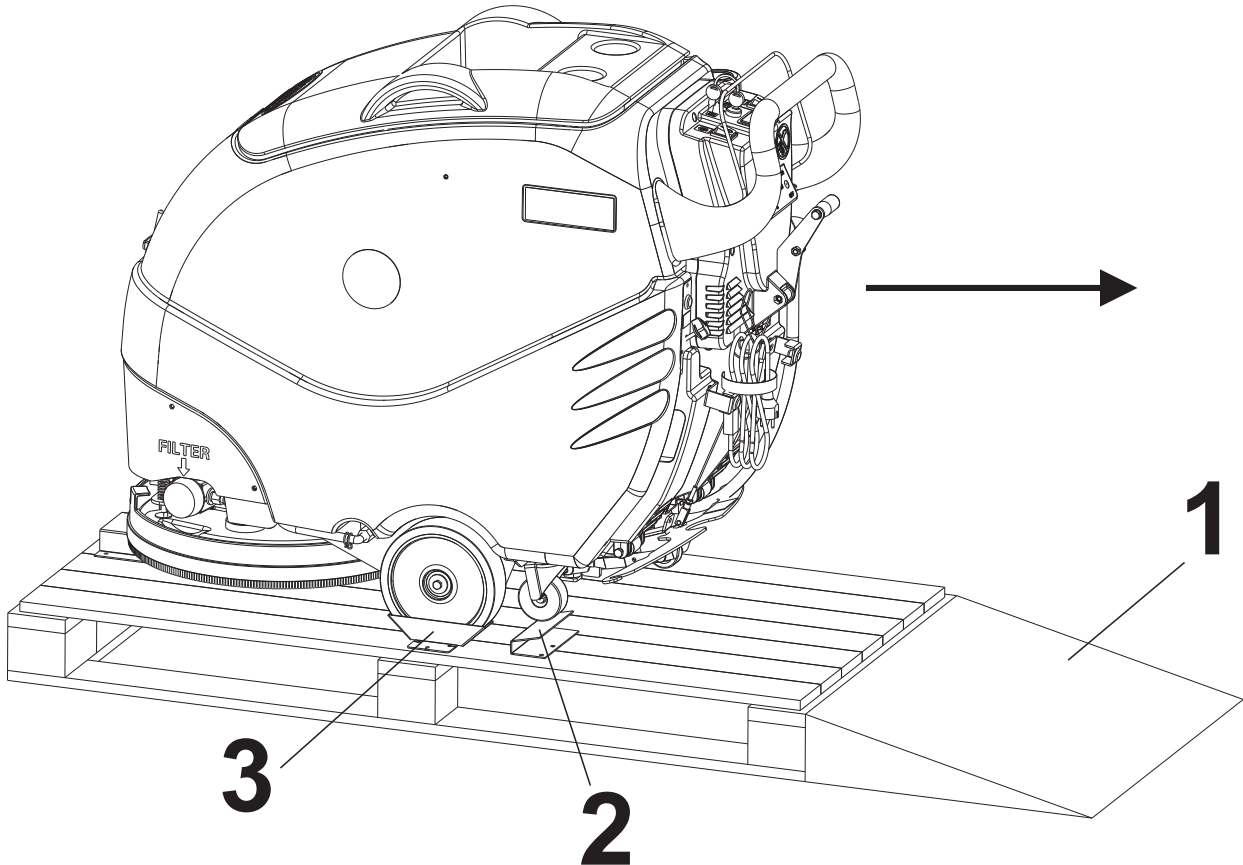


UNPACKING

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

- Squeegee;
- Battery box;
- Battery jumper L = 25 cm, fitted with terminals and terminal covers;
- Battery cable L = 51.5 cm, fitted with connector, terminals and terminal covers;
- Battery charger on board the machine;

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



Follow the instructions below to unpack the machine:

- Connect the inclined ramp (position A) to the front part of the pallet, see fig.1;
- Tilt the machine slightly and place the wheel lifting plate (position B), see fig.1;
- Tilt the machine slightly again and place another wheel lifting plate from the other side of the machine (position C), see fig.2;
- Remove the machine from the pallet along the inclined ramp (see fig. 3-4).

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.



INSTALLING BATTERIES

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

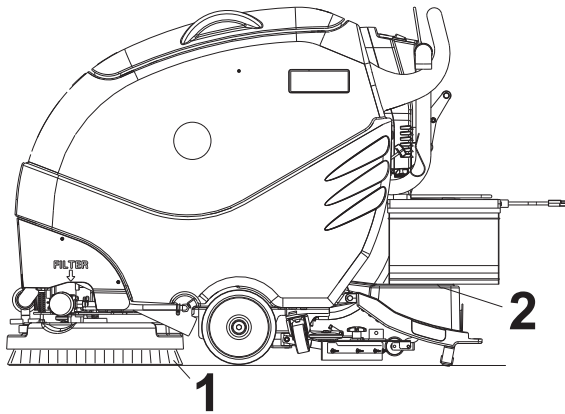
CAUTION: THE BATTERY CHARGER AND THE CONTROL BOARD ARE SET ACCORDING TO THE TYPE OF BATTERIES SHOWN IN THE SHEET ATTACHED TO THE USER'S MANUAL.

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.

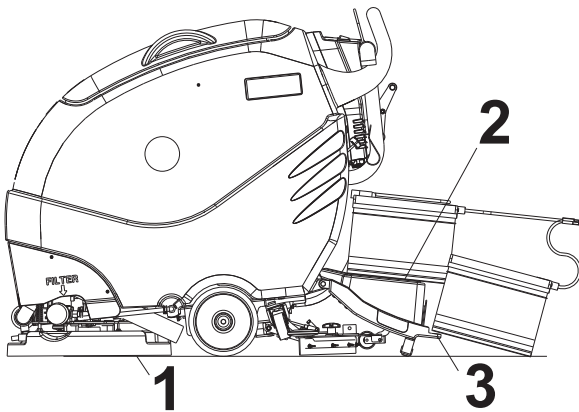
Refer to the specification sheet for battery types and sizes suitable for the machine.

Refer to the specification sheet for battery types and sizes suitable for the machine. Follow the instructions below to mount the batteries to the machine:

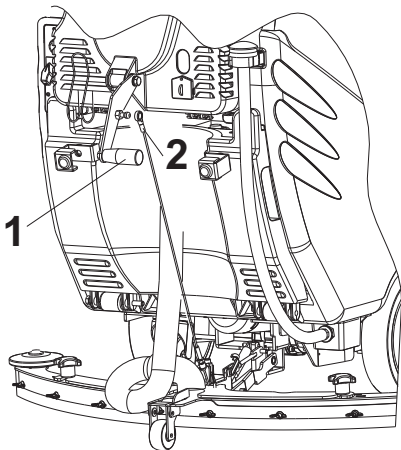
- Park the machine on a flat surface and remove the key (if available).



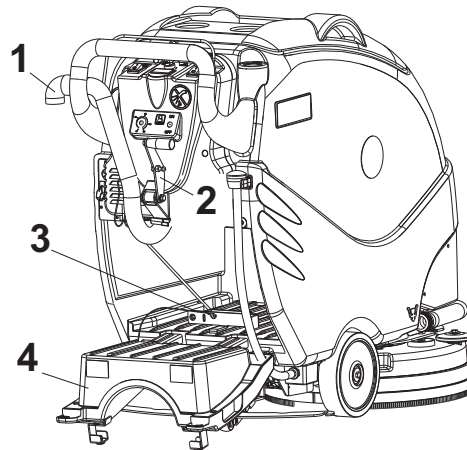
WARNING: BEFORE MOUNTING THE BATTERIES, FIT THE BRUSH POS.1 ON THE BRUSH PLATE.
THIS ALLOWS KEEPING THE PLATFORM IN HORIZONTAL SURFACE SO THAT THE BATTERIES POS. 2 CANNOT SLIP ON THE GROUND.



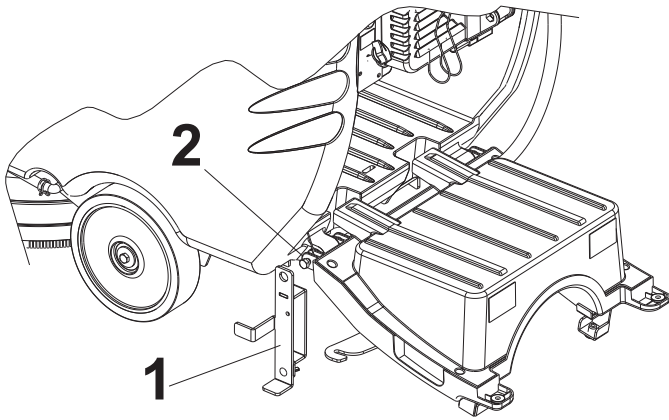
WARNING: IF THE BRUSH IS NOT FITTED ON THE BRUSH PLATE POS.1, THE BATTERIES PLATFORM POS.2 WILL BE TILTED AS SHOWN IN THE PICTURE AND THE BATTERIES MIGHT SLIP ON THE GROUND. THIS MIGHT CAUSE THE BROKEN OF THE DOOR POS.3.



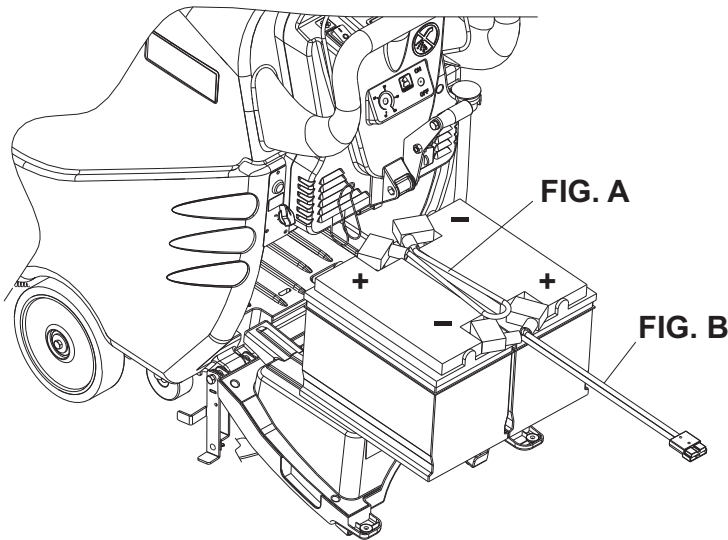
- Lower the squeegee lever pos.1 and disconnect the cable pos.2;



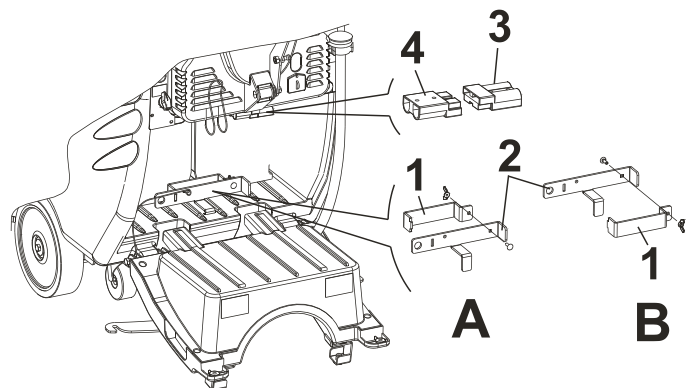
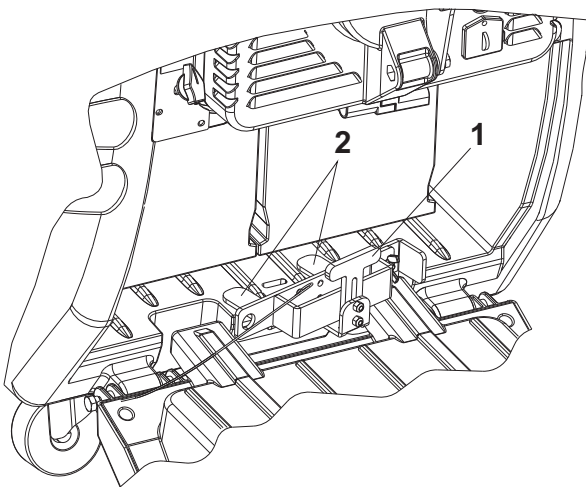
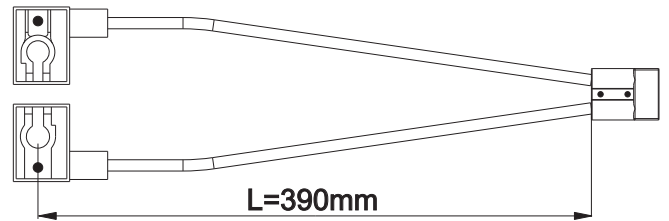
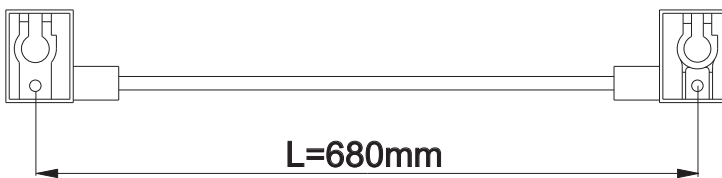
- Disconnect the squeegee vacuum pipe pos.1 and put it as in the picture;
- Raise the squeegee lever pos.2 and open the battery compartment door pos.4;
- Remove the locking part pos.3;



- Insert the battery safety bracket pos.1, keeping it in vertical position as shown in the picture in the pin pos.2. This will be used as a support in the battery installation phase.



- Place the batteries in the battery tray. 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;**
- Connect the jumper fig.C and the battery cable fig.D as indicated in fig.B, make sure to tighten the screws on the terminal clamps and place the terminal covers.



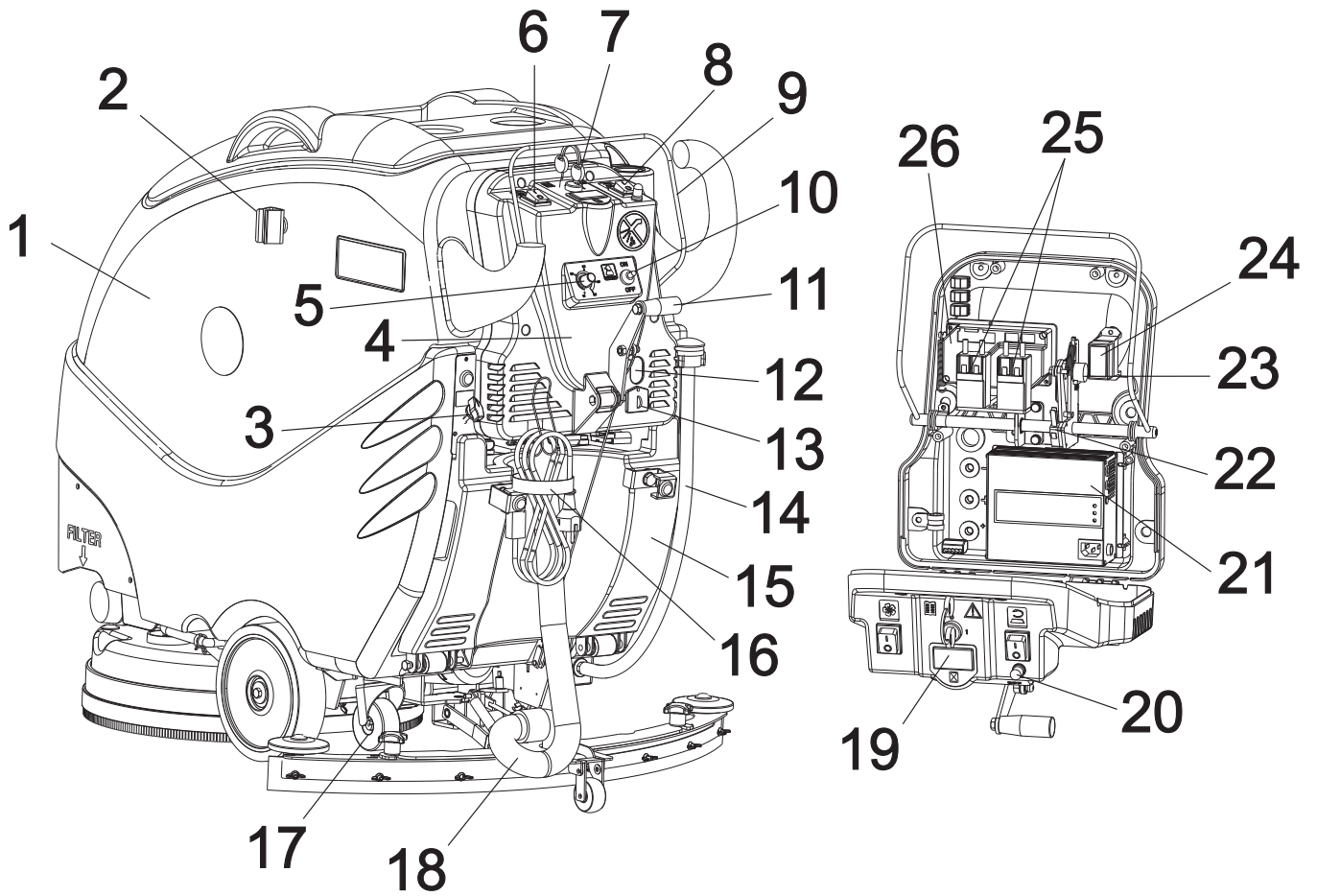
- Insert the battery lock and let the 2 taps slide pos. 2 until the batteries. During the insertion, keep the lock pull upwards as shown in picture pos.1. Once the battery lock is put, push it so that it can get into the appropriate seat on the tank.

ATTENTION: Mount the battery spacer pos.1 on the safety bracket pos.2 by one of the indicate ways A or B.

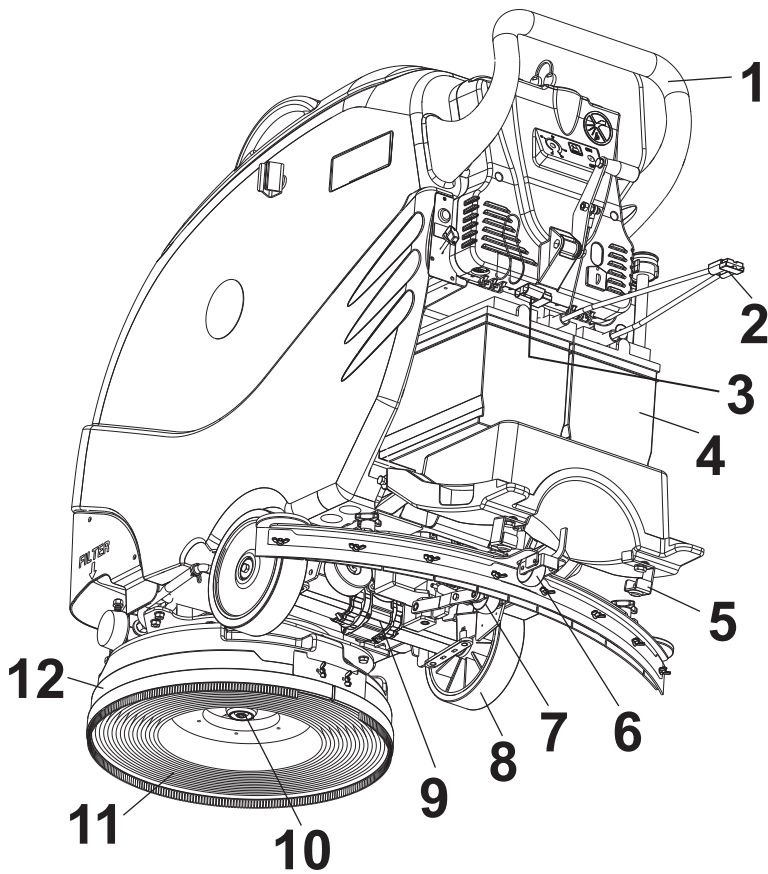
IMPORTANT: mount the spacer pos.1 and be sure that the batteries are pushed towards the front side of the machine to give a max load on the brush.

- Connect the mobile connector pos.3 with the fixed one pos.4;

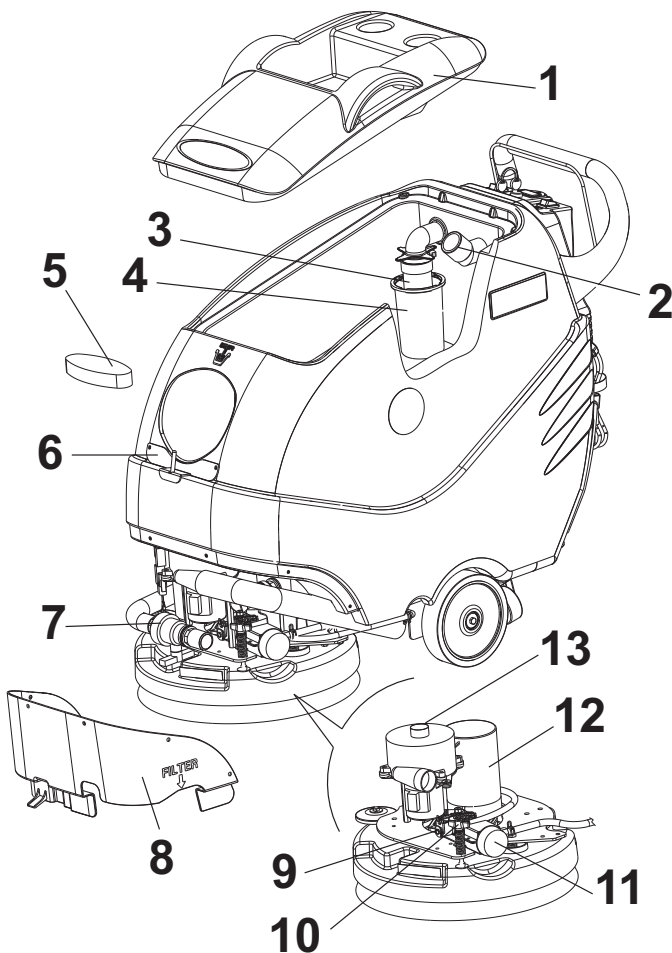
MACHINE DESCRIPTION



- | | |
|--|--|
| 1. TANK | 14. LEVEL INDICATOR AND SOLUTION TANK DRAIN PIPE |
| 2. BROOM HOLDER | 15. BATTERY COMPARTMENT CLOSURE |
| 3. SOLUTION ADJUSTMENT KNOB | 16. CHARGER CONNECTION CABLE TO THE MAIN SOCKET |
| 4. CONTROL BOARD | 17. PIVOTING WHEEL |
| 5. DETERGENT DOSING ADJUSTMENT KNOB (OPTIONAL) | 18. SQUEEGEE PIPE |
| 6. VACUUM BUTTON | 19. HOUR METER |
| 7. KEY SWITCH | 20. BRUSH MOTOR SAFETY FUSE |
| 8. BRUSH BUTTON | 21. CHARGER |
| 9. BAR | 22. MICROSWITCH |
| 10. DETERGENT DOSING SYSTEM SWITCH | 23. POTENTIOMETER (TRAC VERSION) |
| 11. SQUEEGEE LEVER | 24. FUSE HOLDER |
| 12. BATTERY CHARGER DISPLAY | 25. REMOTE SWITCHES |
| 13. CHARGER PLUG PROTECTION | 26. DRIVE CARD (TRAC VERSION) |

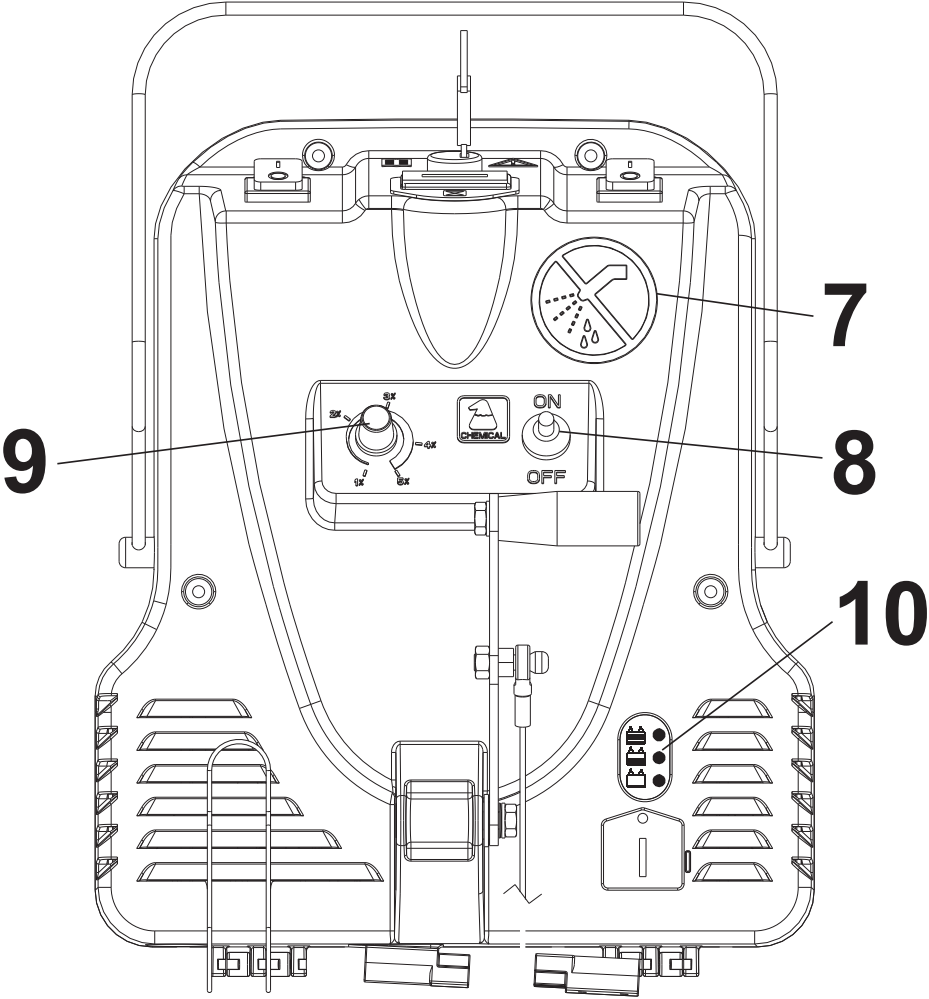
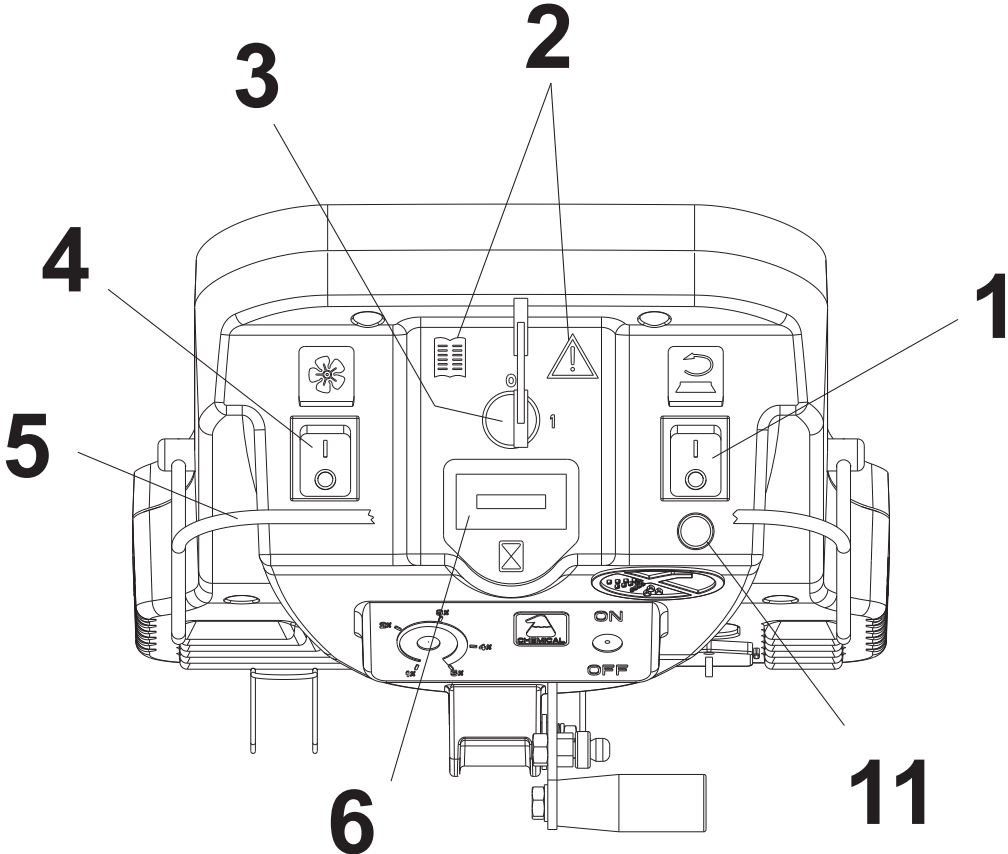



1. TANK GRIP
2. MOBILE CONNECTOR
3. FIXED CONNECTOR
4. BATTERIES
5. BATTERY UNLOADING PART
6. PREWASHING WHEEL
7. SQUEEGEE PRESSURE ADJUSTMENT WHEEL
8. WHEEL
9. FORWARD DRIVE MOTOR (TRAC VERSION)
10. BRUSH HUB
11. BRUSH
12. SPLASHGUARD



1. TANK COVER
2. 45° SLEEVE
3. VACUUM CLOSING FLOAT WITH FILTER
4. VACUUM ANTI-FOAM PROTECTION
5. CLEAN WATER FILTER
6. SQUEEGEE FASTENING ACCESSORY (OPTIONAL)
7. RECOVERY TANK DRAIN VALVE
8. MOTOR COMPARTMENT CLOSING GUARD
9. SOLENOID VALVE (OPTIONAL)
10. BRUSH ANGLE ADJUSTMENT KNOB
11. DETERGENT SOLUTION FILTER (OPTIONAL)
12. BRUSH GEAR REDUCTION MOTOR
13. VACUUM MOTOR


MAIN FUNCTIONS AND CONTROLS



- 1**  **BRUSH SWITCH**
By pressing the button towards position 1, the brush function starts. The brush will start turning when the drive bar is pressed. When the bar is released the brush stops. To the brush function is also connected the solenoid valve (if fitted) which permits automatically opening and closing the solution flow. By pressing the button towards position 0, the brush stops and the solenoid valve closes (if fitted). In the TRAC version, when the brush is on, the machine goes at a reduced speed. This allows advantages in washing, drying and maneuverability quality.
-

- 2**  **WARNING SYMBOLS**
The symbol on the left advises to use the instruction manual at all times for any information regarding the machine.
-


- 3**  **KEY-OPERATED SWITCH**
The machine will start by rotating the key switch clockwise pos.1;
-

- 4**  **VACUUM SWITCH**
By pressing the rocker switch towards pos. 1, the vacuum unit comes on.
By pressing the rocker switch towards pos. 0, the vacuum unit switches off.
-

- 5** **DRIVE BAR**
With the key in pos.1 and the brush switch in pos.1 by pulling the bar, the brush starts operating. When the bar is released, the brush stops. In the TRAC version by pulling more or less the bar, the forward drive and the speed of the machine can be adjusted.
-

- 6**  **HOUR METER (OPTIONAL)**
-

- 7**  **NO WASH SYMBOL**
Do not wet the control panels. Electrical hazard.
-

- 8**  **LEVER SWITCH (OPTIONAL)**
To turn on/off the detergent dosing system pull the lever towards pos ON or OFF
-

- 9** **DETERGENT PERCENTUAGE ADJUSTING POTENTIOMETER (OPTIONAL)**
To increase or decrease the detergent percentage on brushes turn the knob clockwise or counter-clockwise
-

- 10** **CHARGE BATTERY LEVEL INDICATOR / CHARGER DISPLAY**
With a working machine, the charger display works as the charge battery level indicator.
Green led lights on: charged batteries
Yellow led lights on: batteries low level
Flashing red led light: flat batteries and brush motor stop. Bring the machine to battery charging area.
-

- 11** **BRUSH MOTOR PROTECTOR FUSE**
When the brush motors exceed a power draw, the fuse will engage and stop the motor. Wait 1-2 minutes then press the fuse button and the brush will resume operation. If it occurs repeatedly, check to see if there are any objects that blocks the rotation or if the type of brushes is suited for the type of floor.

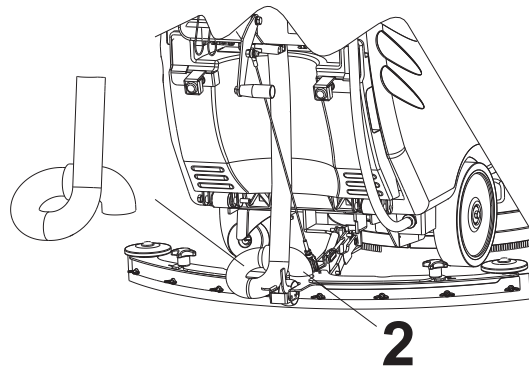
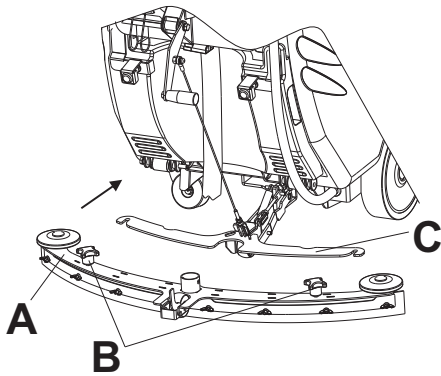
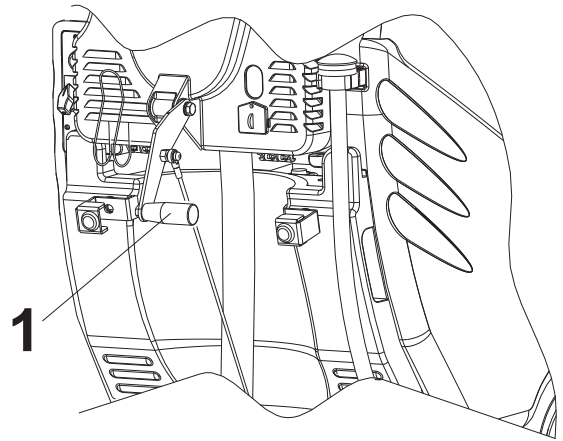
MACHINE PREPARATION



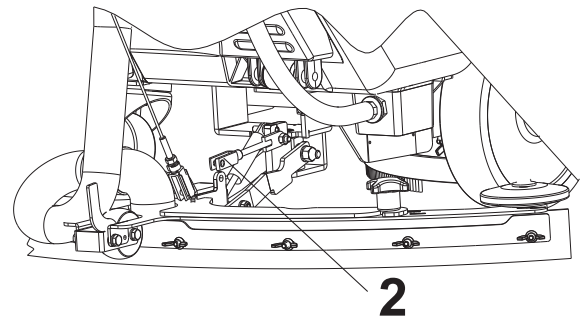
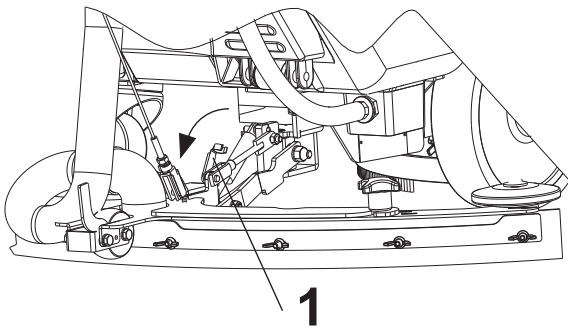
MOUNTING THE SQUEEGEE

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

- Park the machine on a flat surface, put the key in pos.0 and remove it;
- Put the squeegee lever in pos.1 (squeegee in low position).
- Fit in the squeegee pos. A into the squeegee support pos.C;
- Once the squeegee is fitted completely, secure the knobs pos.B.
- Fit the pipe pos.1 on the squeegee and connect it as shown in the picture so it makes a loop, which will act as an anti-drop device.

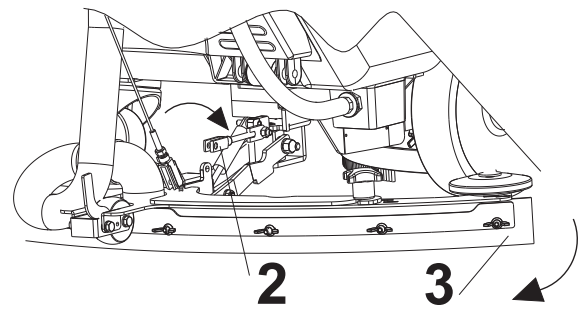
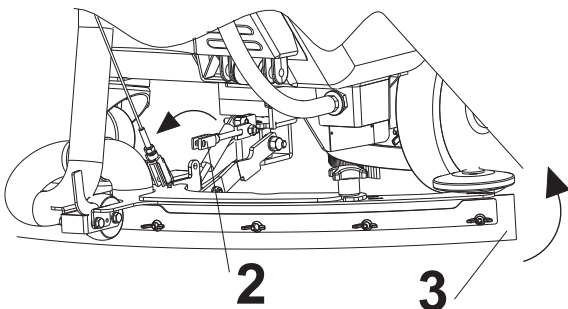


SQUEEGEE ADJUSTMENTS



- Lower the squeegee.
- Release and remove the clips pos.1

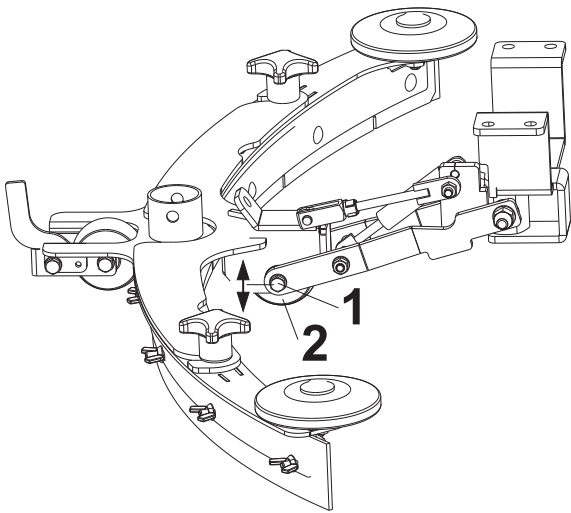
- Lift the regulator pos. 2 from its housing



- Turn the regulator pos.2 anticlockwise to lift the tips of the squeegee pos.3

- Turn the regulator pos.2 clockwise to lower the tips of the squeegee pos.3

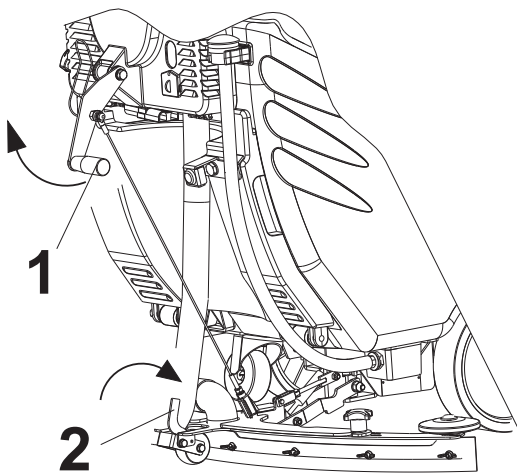
SQUEEGEE PRESSURE ADJUSTMENT



To adjust the pressure, loosen the nut pos.1 and move the wheel pos.2:

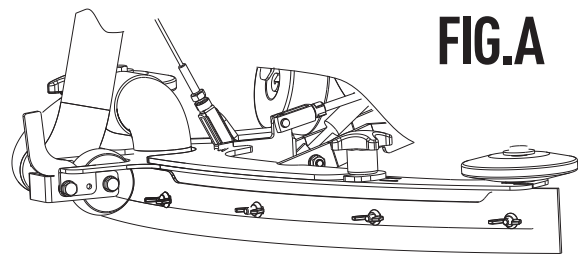
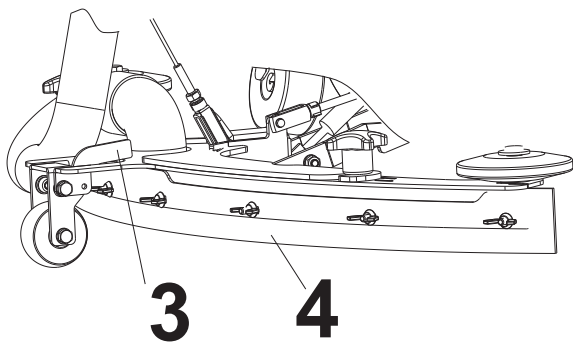
- upwards to increase the pressure;
- downwards to reduce the pressure;

SQUEEGEE PREWASH WHEEL

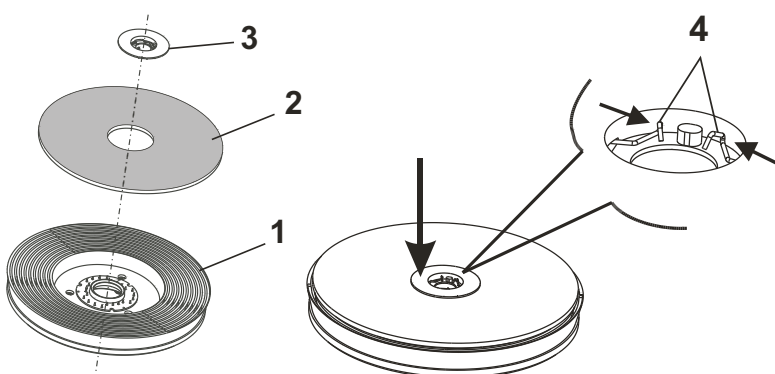


To perform prewash, position the wheel as follows:

- Slightly lift the squeegee by means of the lever pos.1;
- Turn the wheel support pos.2 in the direction indicated by the arrow until the lever rests on the squeegee body pos.3;
- Lower the squeegee lifting lever pos.1;
- The blades of the squeegee will be lifted off the ground to perform prewash pos.4.
- After completing prewash, to return the squeegee to drying conditions, return the wheel to raised position as shown in the picture.



FASTENING OF THE ABRASIVE DISC TO THE DRIVE DISC

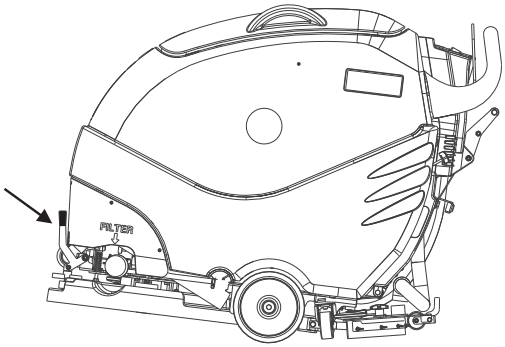


The machine can operate with brushes or abrasive discs of various types mounted on special disc pad holders. Follow the instructions below to mount the abrasive disc onto the disc pad holder:

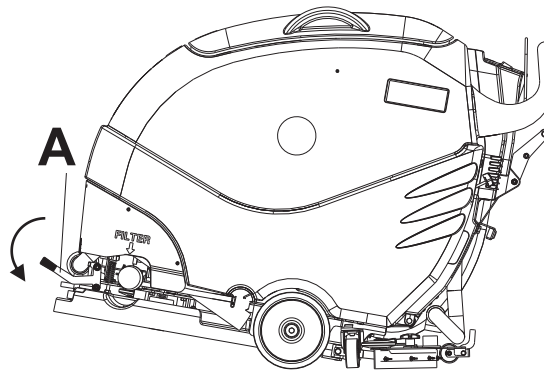
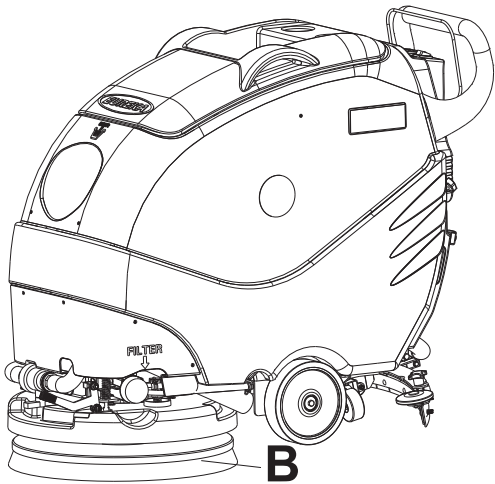
- Remove the disc lock pos.3 from the disc pad holder pos.1 by pressing the 2 ends of the spring catch pos.4 against each other;
- Position the abrasive disc and center it onto the disc pad holder;
- Place the disc lock pos.3 on the center and press down hard until the spring fits into place pos.4; this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



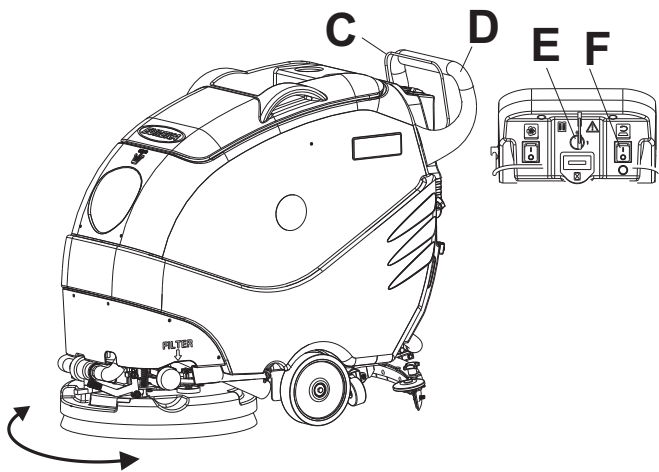
FITTING THE BRUSH OR ABRASIVE DISC



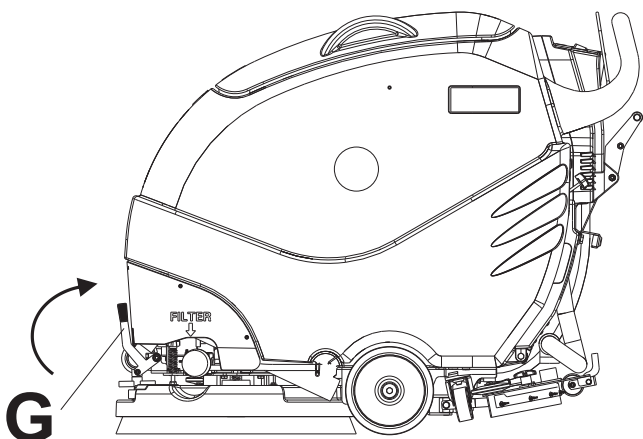
Brush engage device



- Lower the lever pos.A in horizontal position;
- Place the brush pos.B;



- From the drive position pos.D lower the brush desk, move it from right to links to make easy the correct mounting of the hub on the brush;
- Bring the key pos.E in position 1, pressing the button pos.F towards position 1;
- Then activate the drive bar pos.C to engage it;

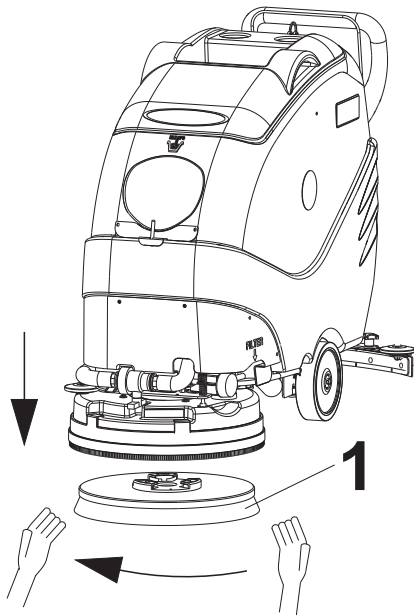


ATTENTION!!

Put the lever pos.G in vertical position.
The machine is ready to be used.



REMOVING THE BRUSH OR ABRASIVE DISC



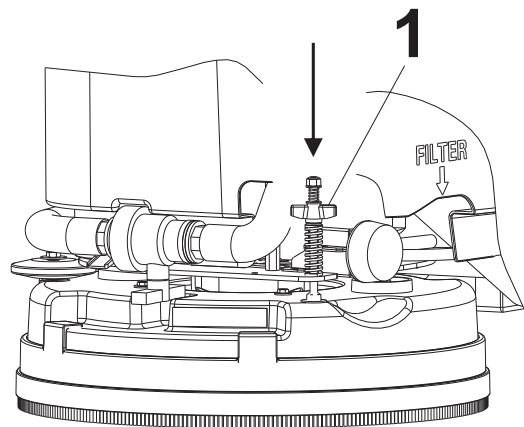
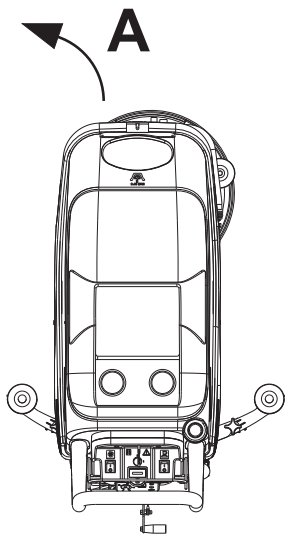
To remove the brush or abrasive disc pad holder, proceed as follows:

- Turn the machine off by putting the key in pos 0 and remove it
- Place the machine in raised-brush position;
- Move to the front of the machine;
- Turn the brush or disc pad pos.1 holder with your hands in the direction indicated by the arrow.

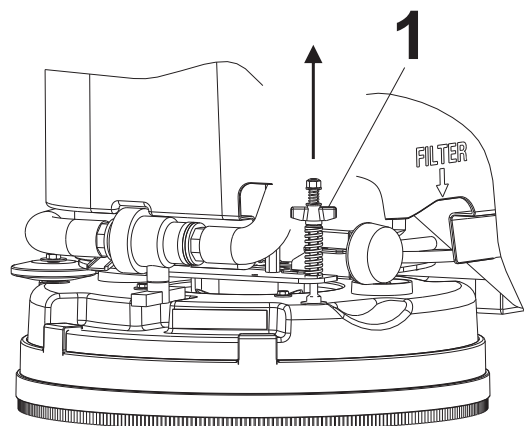
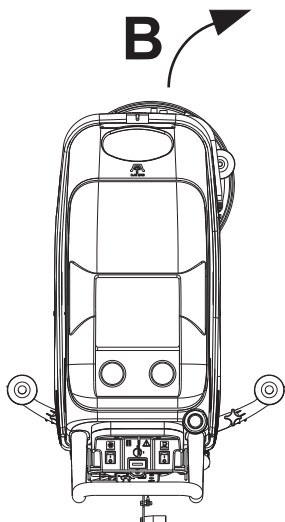


ADJUSTING THE MACHINE DRIVE DIRECTION

IMPORTANT: this adjustment must be made with the machine operating, full of water, with squeegee lowered and vacuum on.



If, during operation, the machine tends to move in the direction A indicated by the arrow, adjust the knob pos.1 by screwing it (turn clockwise) thereby loading the spring.

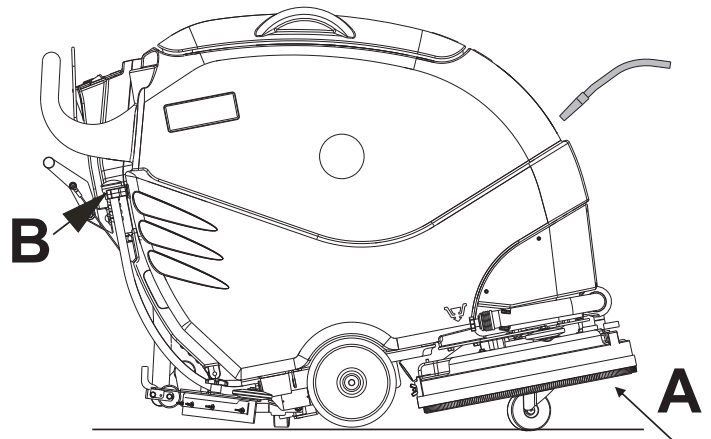
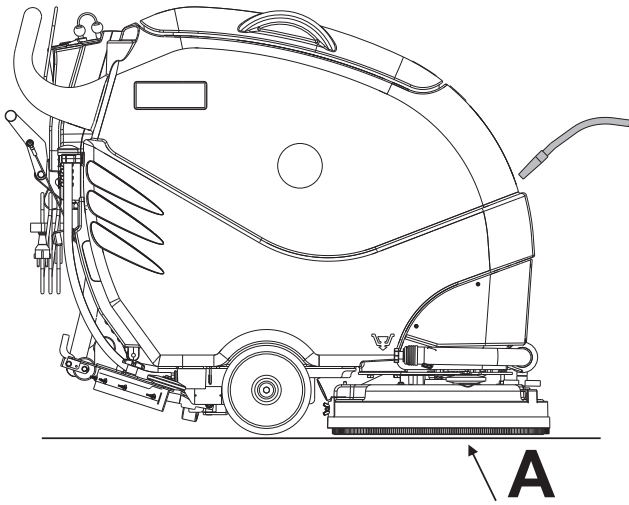


If, during operation, the machine tends to move in the direction B indicated by the arrow, adjust the knob pos.1 by unscrewing it (turn anti-clockwise) thereby releasing the spring.



FILLING THE DETERGENT SOLUTION TANK

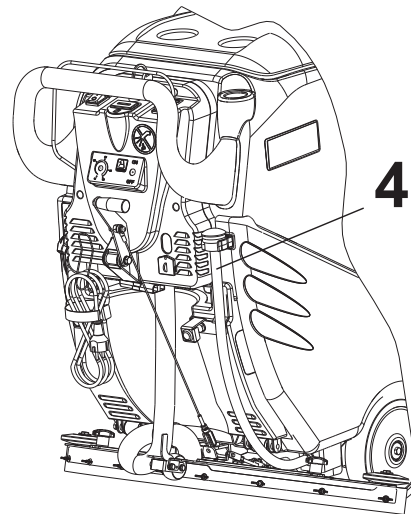
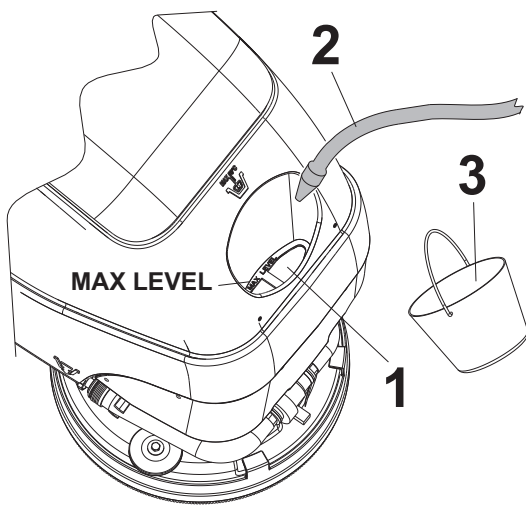
The tank should be filled using clean water mixed with an appropriate detergent solution suited for the type of floor and for the dirty conditions of the floor and using a product suitable for cutting down foam.



Before filling the tank, fit the brush or the disc pad holder on the machine.

To correctly fill the tank, the machine must be in work position as in fig. 1 with the brush (pos. A) resting on the ground.

Do not fill the tank with the machine in transport or parking position as in fig. 2 with the brush (pos. A) raised. In this case, more water would be loaded than necessary and this would come out of the overflow pos. B on the level pipe and through the loading opening when the brush is lowered.



To fill the solution tank, use the opening on the tank pos.1.

To pour water into the tank use either a rubber hose pos.2 connected to the supply mains or a bucket pos.3. In this case, make sure it is clean.

The water used to fill the tank must not exceed a temperature of 50 °C.

For detergent percentages, mixing procedures and safety requirements, see the indications on the pack.

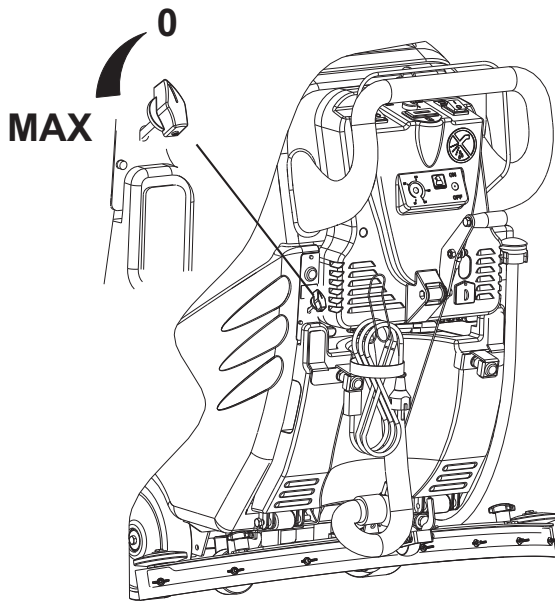
Use low-foam liquid detergents or a product suitable for reducing foam.

Fill the tank until MAX LEVEL is reached, as indicated on the tank opening. Do not exceed this level.

The level inside the tank is displayed by means of the transparent pipe pos.4.

IMPORTANT: DO NOT POUR INFLAMMABLE LIQUIDS INSIDE THE TANK.

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

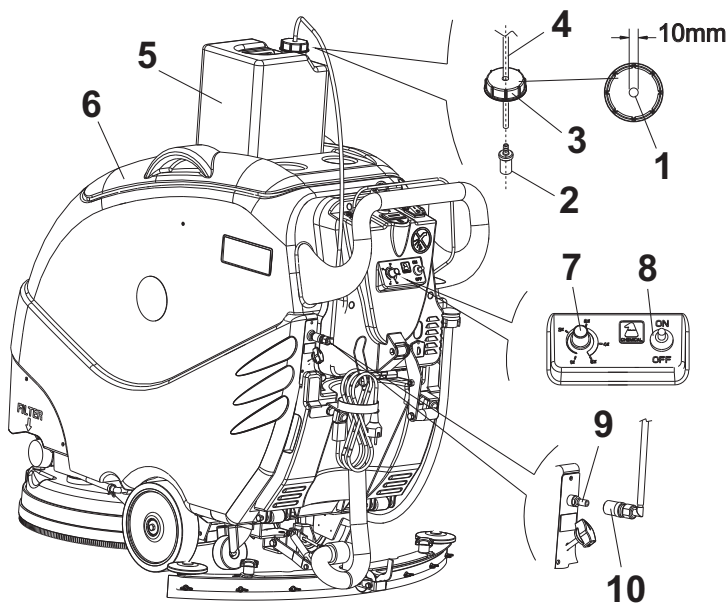


Adjust the quantity of solution on the brush by means of the knob shown in the image. When this knob is in position 0, the flow of solution is completely closed. As the knob is gradually turned towards the MAX position, the amount of solution gradually increases.

Regulate the intensity of the flow according to work speed and to the amount of dirt on the floor. Remember to close the flow when the machine is stopped to prevent too much solution coming out.

As an optional, the solenoid valve kit is available which permits interrupting solution outflow when the machine is stopped.

DETERGENT DOSING SYSTEM (OPTIONAL)



To use the detergent dosing system, proceed as follows:

- Remove the cap from the detergent can pos.3 and drill it in the middle pos.1 by a 10 mm drill;
- Insert the pipe pos.4 in the hole and connect the filter pos.2 making pressure with hands;
- Put the can pos.5 inside the compartment on the cover pos.6;
- Screw the cap and pull the pipe with the filter toward the bottom of the can;
- Connect the other extremity of the pipe pos.10 to the joint pos.9 on the machine;
- Activate the system by the switch pos.8 and adjust the detergent quantity by the knob pos.7.

THIS SYSTEM FUNCTIONS WHEN THE BRUSH IS OPERATING. BY RELEASING THE BRUSH DEVICE, THE DETERGENT DOSING STOPS. AFTER EACH USE WASH THE SYSTEM BY PUTTING A WATER CAN INSTEAD OF THE DETERGENT CAN AND LET THE SYSTEM FUNCTION FOR FEW MINUTES. THIS WILL KEEP THE SYSTEM ALWAYS EFFICIENT.

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 by the 3 led light on the charger display. Charge the batteries if the battery charging level is low;
- 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.

OPERATION

- Bring the key in pos.1;
- Lower the squeegee by turning the special lever;
- Start the brush function by means of the bottom on the panel. The brush will not start to turn until the drive bar has been pulled. In the TRAC version when the brush is working the machine goes at reduced speed;
- Turn on the suction fan using the special button in the instrument panel;
- Regulate the quantity of solution on the brushes by means of the adjustment knob. If the machine does not feature a solenoid valve, close the water after stopping;
- Start washing, be very careful not to halt the machine over the same floor area while the brushes continue to operate, to avoid damaging the floor.

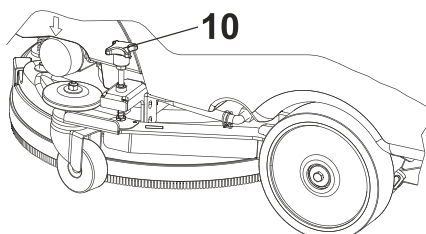
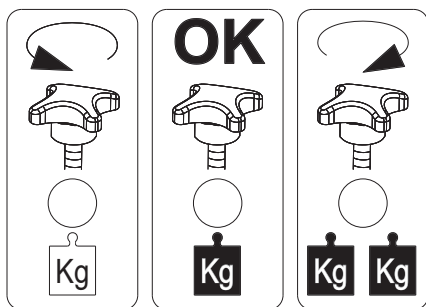
If the squeegee leaves wet lines on the floor during the washing operation, it means that there are pieces trapped beneath the rear rubber wheels of the squeegee. Lift the squeegee and remove the trapped pieces. Use a cloth to wipe off the rear rubber wheels if the pieces cannot be removed manually.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

- During the washing operation, check the level of the solution in the clean water tank by means of the transparent hose pipe.

Once the detergent solution has been used up, move to the tank draining area, empty the dirty water into containers for subsequent disposal, wash the dirty water tank, fill the clean water tank with the water and detergent mix and then start washing again;

- In case of washing very dirty floors, we suggest pre-washing the floor using the squeegee wheel;
- 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 brush using the special button, shut off the water valve, if the machine is not equipped with the electrovalve;
- Place the machine in raised-brush position;
- Complete drying, raise the squeegee, wait a few seconds and switch off the vacuum unit;
- Move to the tank draining area.

OPTIONAL



On the display check the led light indicating the pressure on the brush.

- **Green led light on:** means that there is optimal pressure on the brush.
- **Yellow led light on:** means that there is low pressure on the brush. Increase the pressure until it returns to the optimal range indicated by the green led light. Turn the adjusting knob pos.10 counterclockwise.
- **Red led light on:** means that there is high pressure on the brush. Reduce the pressure until it returns to the optimal range of the green led light. Turn the adjusting knob pos. 10 clockwise.
- **Red led light flashing:** means that pressure exceeded the limit allowed. Turn the adjusting knob to reduce the pressure.

MAINTENANCE

SERVICING YOUR SCRUBBER-DRYER REGULARLY AND PERIODICALLY WILL ENSURE BETTER PERFORMANCE AND MORE DURABILITY. THE FOLLOWING PAGES CONTAIN INFORMATION THAT WILL HELP YOU PLAN THE MAINTENANCE AND CARE FOR THE MACHINE NEEDS.

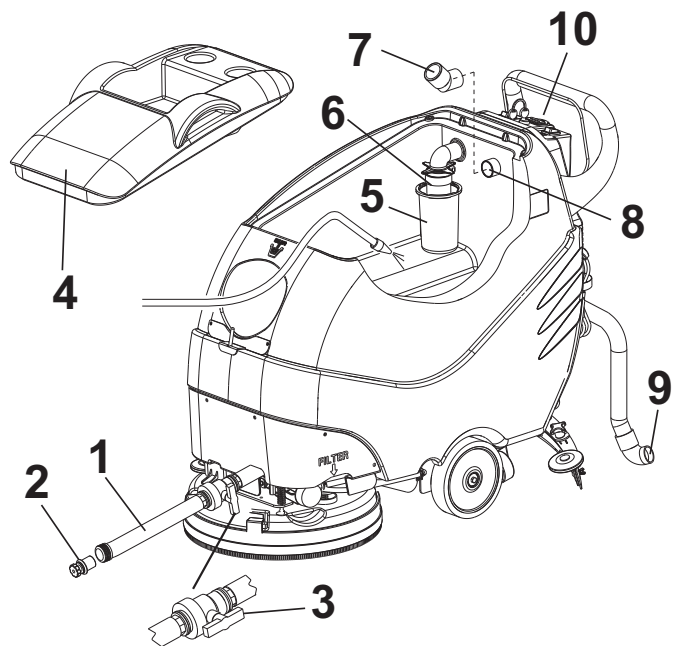
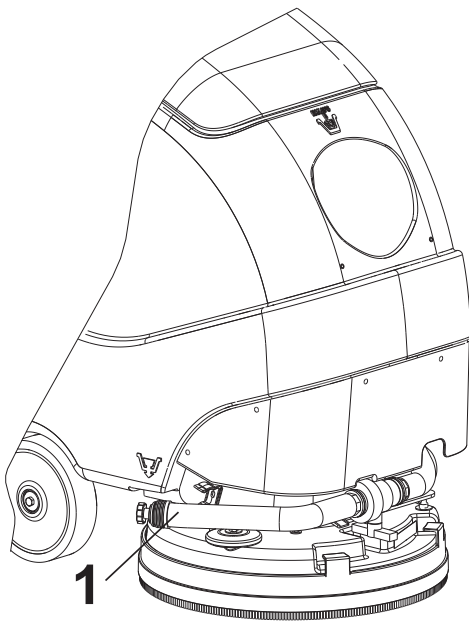
WARNING!: DO NOT CARRY OUT ANY MAINTENANCE OPERATION NEITHER ON THE MACHINE NOR ON ITS COMPONENTS WITHOUT HAVING FIRST STOPPED THE MACHINE, PUT IT ON A FLAT FLOOR AND DISCONNECTED THE STARTING BATTERY CONNECTOR.

WARNING!: DO NOT TAMPER WITH ANY SAFETY DEVICE.

THESE DEVICES CAN ONLY BE REMOVED WHEN PERFORMING MAINTENANCE BY AN AUTHORISED ASSISTANCE CENTRE (AAC).



DRAINING AND CLEANING THE RECOVERY TANK



The recovery tank must be drained and cleaned after each washing operation. To drain and wash the tank proceed as follows:

- Switch off the brush function, close the solution tap if the machine does not feature a solenoid valve and place the machine in raised-brush position;
- Complete drying, raise the squeegee by means of the lever provided. After a few seconds switch off the vacuum unit and move to the area dedicated to tank emptying, stopping on a flat section of floor;

- Put the key in pos. 0;
- Remove the dirty water tank drain pipe pos. 1;
- Remove the safety cap pos. 2;
- Gradually open the valve by turning the device pos. 3 and dosing the water leakage to avoid splashing;
- Once the tank has been emptied, remove the cover pos. 4 and carefully wash the inside with water.

Wash well to make sure all residues are removed, even the smallest ones (sand) and clean the closing valve well so it is always in good operating condition;

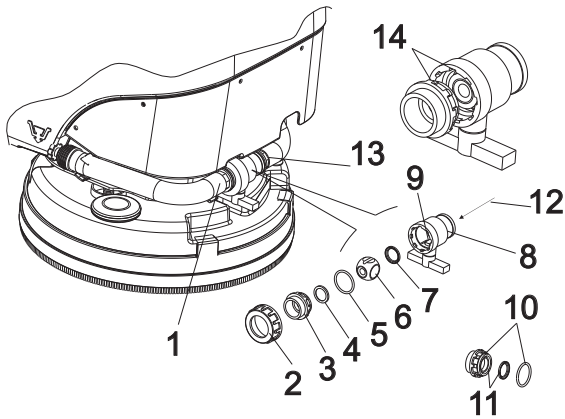
- Screw off the anti-foam device pos. 5 and wash the float pos. 6 without removing it from the machine;
- Remove and wash the curved sleeve pos. 7 removing any dirt deposits;
- Wash the squeegee vacuum pipe. To perform this operation, remove the pipe pos. 9 from the squeegee, fit the water pipe in the duct pos. 8 and allow water to flow.

This will avoid the formation of scale deposits inside the pipe and vacuum will always be perfect;

- After cleaning, fit the anti-foam device pos. 5 back on together with the curved sleeve pos. 7. Close the valve pos. 3, fit the cap pos. 2 back on and return the drain pipe pos. 1 to its housing. Fit the cover pos. 4 back on and refit the squeegee vacuum pipe pos. 9 making it form the anti-drip loop;
- **During tank cleaning avoid any water spraying onto the control panel pos. 10.**



RECOVERY TANK DRAIN VALVE CLEANING



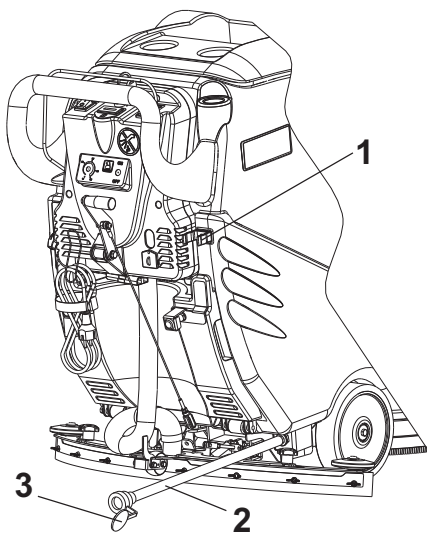
In case of difficulty in closing the valve, check it and remove any scale or residues. This operation must be performed with the recovery tank empty and clean. Proceed as follows:

- Unscrew the pipe pos.1 from the valve;
- Unscrew the valve from the pipe pos.13;
- Unscrew and remove the ring nut pos.2 manually;
- Remove the sleeve pos.3 in which the seal pos.4 and the gasket pos. 5 are fitted;
- With the valve in closed position, take out the ball pos. 6 by pushing it with your finger on the side indicated by the arrow pos.12;
- Take the seal pos.7 out of the valve body pos.8;
- Clean the valve body pos.8, the seals pos.4 and 7 and the ball pos.6;
- Put everything back in place, being careful to fit the seal pos.7 back into its housing in the valve body pos.8 keeping the chamfered side towards the ball pos.6;

- Fit the ball pos.6 back on being careful to center it properly on the valve body pos.9;
- Fit the seal pos.4 (make sure the chamfered side is turned towards the ball) and fit the gasket pos.5 in the sleeve pos.3 back on into the corresponding housings as indicated in pos.10-11;
- Fit the sleeve pos.3 in the valve body, being careful to ensure the sleeve teeth coincide with the valve body housings as can be seen in pos.14;
- Fit the ring nut pos.2 back on and secure manually;
- Fit the valve back on the machine and screw it up on the pipes pos.1 and 13 in accordance with the direction shown in the pictures.



DRAINING AND CLEANING THE SOLUTION TANK



After completing the washing operation, to drain any leftover water from the solution tank, proceed as follows:

- Disengage the brush function and close the solution tap if the machine does not feature a solenoid valve and place the machine in raised-brush position;
- After drying, raise the squeegee by means of the lever provided. After a few seconds turn off the vacuum unit and move to the area dedicated to tank emptying, stopping on a flat section of floor;
- Put the key in pos. 0;
- Release the clean water level clear pipe pos.2 from its seat pos.1;
- Open the cap position.3 and lay the pipe on the ground;
- Once the tank is drained, put the cap back into the pipe and place it into its special housing;
- It is recommended to flush the tank using only water once it is drained completely and then empty it; this will help prevent incrustations due to the detergent solution;



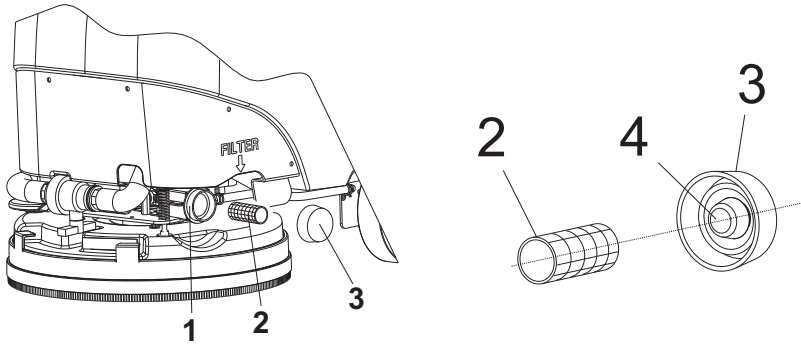
CHECKING BRUSHES OR ABRASIVE DISCS

After using the machine, remove the brushes or discs manually:

- 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 millimeters);
- Check the condition of the abrasive discs and replace them if worn out.



DRAINING AND CLEANING THE SOLUTION TANK



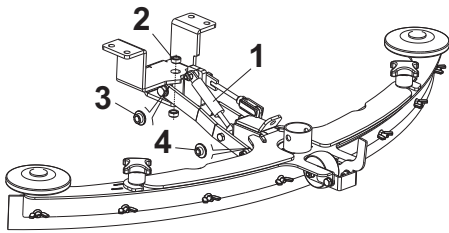
The machine is fitted with a filter on the duct that comes from the detergent solution tank.

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;
- Turn the machine off and remove the key;
- Close the valve and unscrew the clear cup manually pos.3;
- Remove and clean the protective screen pos.2. Clean the filter housing pos.1 too;
- Put protective screen pos.2; make sure the protective screen is fitted correctly into its housing pos.4 of the cap pos.3;
- Screw the cup pos.3 and open the valve;



GAS SPRING AND SQUEEGEE BUSHINGS INSPECTION



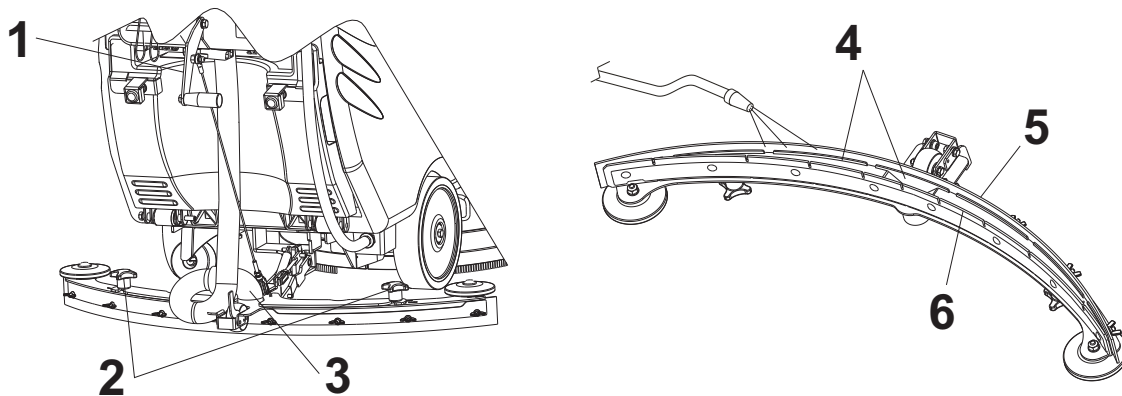
Periodically check the squeegee gas spring pos.1.

Make sure it is not damaged and that it is working properly and applies the correct pressure to the squeegee.

Also check the brushes pos. 2-3-4 on the squeegee movement mechanisms.



CLEANING THE SQUEEGEE



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

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

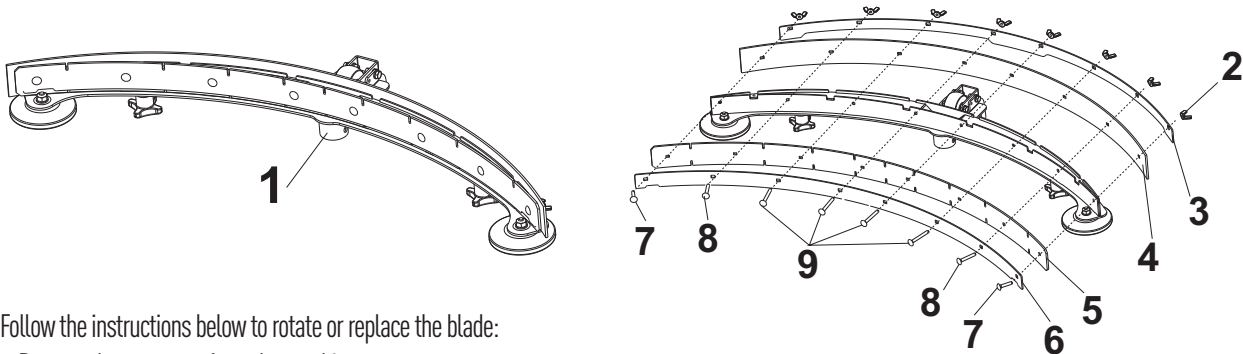


REPLACING SQUEEGEE BLADES

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.

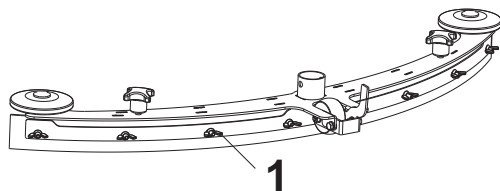
For better drying performance, make sure the edge of the rear blade is not worn out. If the blade is worn out, rotate it or replace it.



Follow the instructions below to rotate or replace the blade:

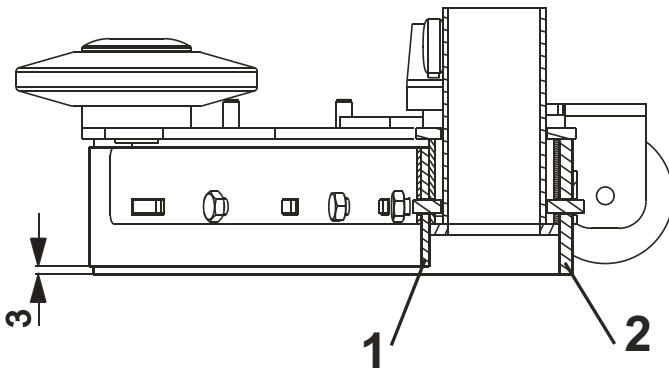
- Remove the squeegee from the machine;
- Block the squeegee in upturned position as shown in the picture, using the pipe pos. 1 and avoiding any crushing of the pipe;
- Remove the butterfly nut pos.2;
- Remove the rear blade blocking plate pos.3;
- Remove the rear blade pos.4;
- Remove the screws pos. 7-8-9 being careful not to mix them up as they have different lengths (pos.7 25mm, pos.8 35mm, pos.9 45mm);
- Remove the front blade blocking plate pos.6;
- Remove the front blade pos.5;
- Rotate or replace the blades;
- Fit everything back together again in the opposite sequence.

Mind that the front blade blocking plate pos.6 and rear blade blocking plate pos.3 are in the right position (above/below).



- Fit the butterfly nuts pos. 1 back on being careful not to tighten them too much, thus creating deformations (swellings) on the rubber blade.
- Once tightened up, position them all horizontally to the floor as shown in the image.

CHECKING THE INSTALLATION OF THE SQUEEGEE BLADES

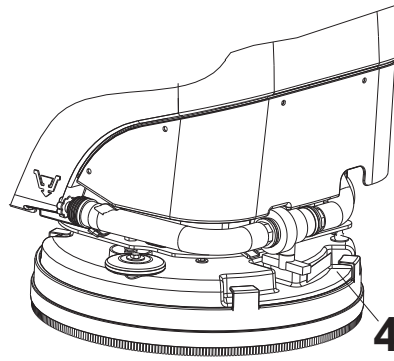
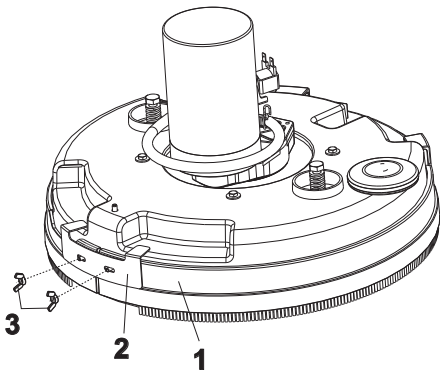


Once the squeegee blades are rotated or replaced, lay the squeegee onto a flat surface and check the following:

- 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.



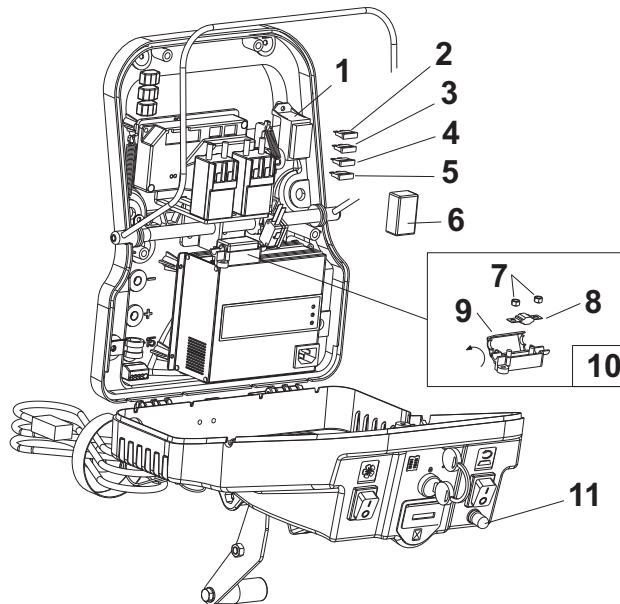
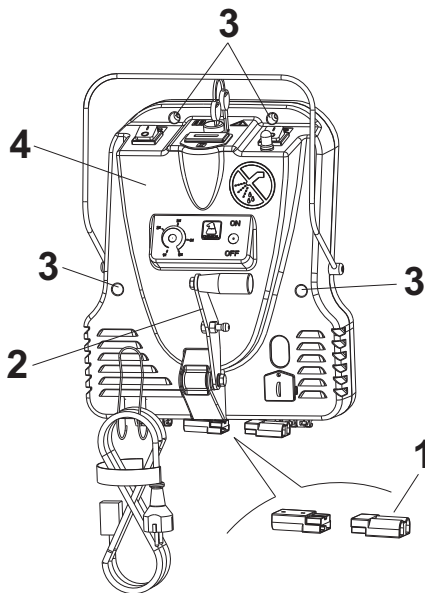
FITTING, ADJUSTING AND CHECKING THE SPLASHGUARD



- To fit or remove the splashguard, proceed as follows:
- Fit the splashguard around the brush plate and insert it in the front part of the plates as shown in pos.4;
 - Fit the fixing plate pos.2;
 - Fasten the butterfly nuts pos.3 without fully tightening them;
 - Adjust the width of the splashguard using the slots on the plate, enabling it to run freely on the outside of the brush plate;
 - Fully tighten the nuts pos. 3.
- Periodically check the condition of the splashguard. If it is worn or damaged, replace it.



CHECKING OR REPLACING FUSE



To check or replace the fuse proceed as follows:

- Stop the machine on a flat section of floor;
- Disconnect the battery jack pos.1 and lower the squeegee lever pos.2;
- Unscrew the 4 screws pos.3; and open the control panel cover pos.4.
- Remove the lid pos.6 from the fuse holder pos.1;
- There are 4 fuses located in the fuse holder with the following functions and features:

POSITION 1: 5A fuse for electrical equipment protection;

POSITION 2: 5A fuse for electronic drive board protection;

POSITION 3: 30A fuse for suction motor protection;

POSITION 4: 30A fuse for drive system protection.

- **BRUSH MOTOR PROTECTION POS.10 (UP TO FRAME 500005830515 (MATR. 1514) AND UP TO FRAME 055002060515 (MATR. 1130))**

- Pull the fuse-holder lid (POS. 9) towards the direction indicated by the arrow and open it;

- Unscrew the 2 locking nuts (pos. 7) that hold the fuse;

- Replace the fuse (POS. 5) with a fuse of equal amperage (30A fuse for E50, 40A fuse for E55);

- Screw the nuts back into place and close the fuse-holder lid;

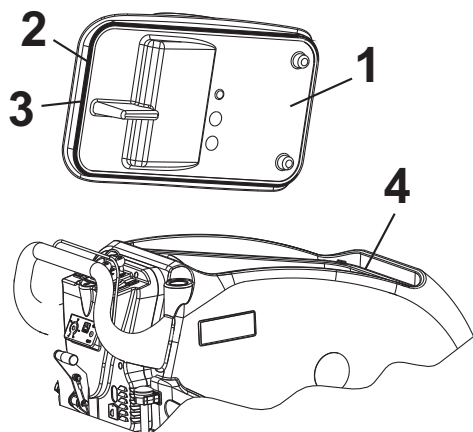
- **BRUSH MOTOR PROTECTION POS.11 (FROM FRAME 500005840515 (MATR. 1515) AND FROM FRAME 055002070615 (MATR. 1131))**

When the brush motors exceed a power draw, the fuse will engage and stop the motor. Wait for 1-2 minutes then press the fuse button and the brush will resume operation. If it occurs repeatedly, check to see if there are any objects that prevent the brushes from spinning freely or if the type of brushes is suited for the type of floor.

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



CHECK THE SEAL ON THE COVER



The recovery tank cover gasket ensures the creation of the vacuum in the tank itself and this permits achieving a perfect vacuum on the squeegee.

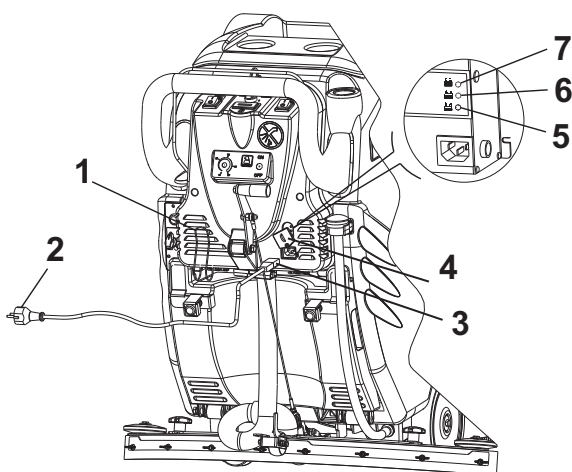
The integrity of the gasket is therefore very important for correct machine operation.

To clean and inspect the gasket proceed as follows:

- Open the cover pos.1;
- Clean the gasket with a rag pos.2 and make sure it is not cut or damaged;
- If it is damaged, replace it by removing it from its housing on the cover and fit a new gasket being careful to position the gasket joint in the rear area pos.3;
- Clean the area of the tank pos.4 where the gasket rests when the cover is closed.



RECHARGING BATTERIES



To charge the batteries follow the instructions below:

- Bring the machine into a stop position in a flat surface area, turn it off;
- 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 pos.1;
- Turn the protection pos.4 and connect the plug pos.3 in the cable. Insert the other plug pos.2 into a standard electrical power socket. The battery charger can run with a voltage range of 100-240 VAC.

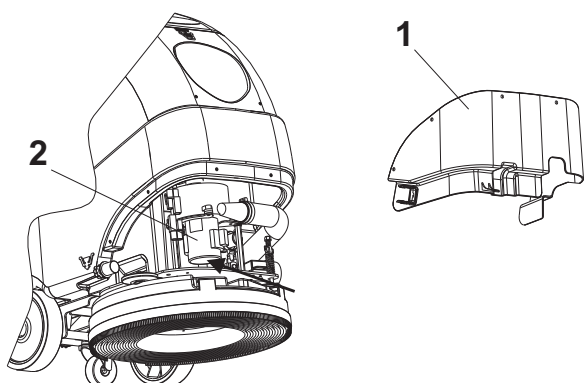
WARNING: WHEN PLUGGING THE BATTERY CHARGER INTO THE ELECTRICAL SOCKET, THE MACHINE FUNCTIONS ARE AUTOMATICALLY DISABLE.

- There are 3 led lights located on the battery charger: pos.5 RED light, pos.6 YELLOW light, pos.7 GREEN 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;
- If you use lead acid batteries (NOT sealed), open the inspection door pos.8 during the charge phase in order to facilitate the aeration of the compartment;
- 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 the eyes or skin, wash immediately with abundant water;
- Do not place metal objects on the batteries;
- Do not fill the batteries with sulphuric acid or other products.



CLEAN THE COOLING GRID OF THE VACUUM MOTOR

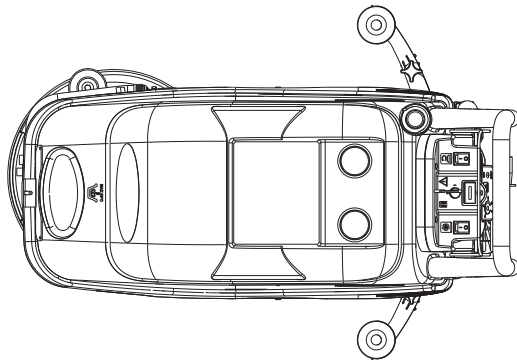
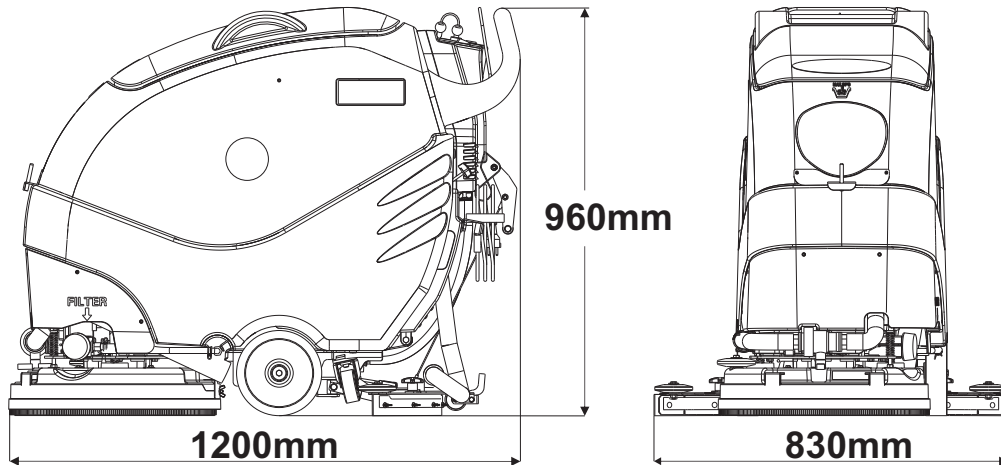


To clean the cooling grid, follow the instructions below:

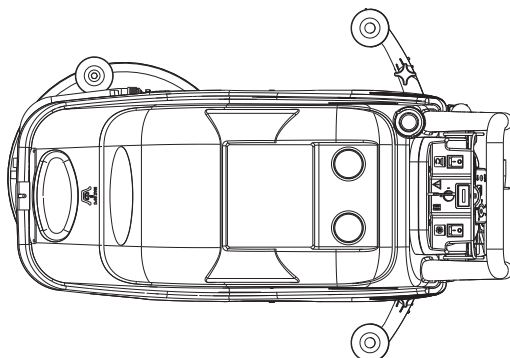
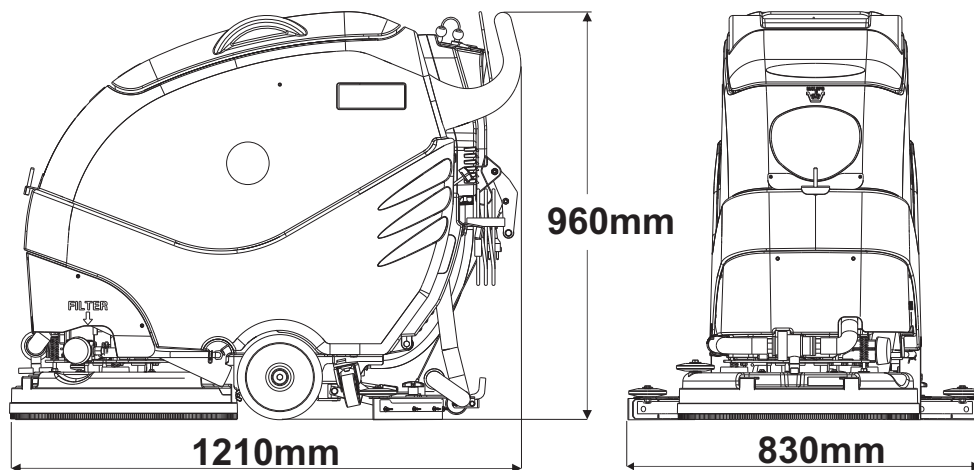
- Bring the machine into a stop position in a flat surface area, turn it off;
- Remove the carter pos.1;
- Check and eventually clean the cooling grid of the vacuum motor pos.2.

DIMENSIONAL TECHNICAL DRAWINGS

E50 BASE M - E50 TRAC M



E55 BASE M - E55 TRAC M



TECHNICAL CHART

TECHNICAL SPECIFICATIONS		E50 BASE M	E50 TRAC M
MAIN SPECIFICATIONS	Cleaning path	500 mm	
	Hourly performance	2.000 m ² /h	
	Solution tank capacity	40 L	
	Recovery tank capacity	50 L	
	Forward speed	0 - 4 km/h	
	Maximum gradient	20 %	
	Turning radius	690 mm	
DIMENSIONS AND WEIGHT	Dimensions (without squeegee)	1.200 x 535 x 960 mm	
	Width (with squeegee)	830 mm	
	Weight	73 kg	78 kg
	Weight (with type A batteries)	127 kg	132 kg
	Weight (with type B batteries)	136 kg	141 kg
	Packaging dimensions	1.400 x 680 x 1.100 mm	
	Packaging weight	25,5 kg	
	Packaging volume	1,05 m ³	
BRUSHES	Brush dimensions	Ø 460 - 500 mm	
	Pad size (only with pad holder)	460 mm / 18"	
	Brush motor	Gear motor: 24V - 600 W - 33A - 180 RPM - IP 20	
TRACTION SYSTEM	Traction type	Mechanic	Forward traction via gear motor, controlled electronically
	Traction motor	-	24V - 180 W - 9.5A
BATTERIES	Batteries	2 x 12 V	
	Battery tray dimensions	335 x 355 x 250 mm	
TYPE A BATTERIES	Type	2 lead acid batteries 12V 105A C20 - 85A C5	
	Dimensions ea.	308 x 174 x 225 mm	
	Weight (with acid) ea.	27 kg	
	Autonomy (theoretical)	3 h	
TYPE B BATTERIES	Type	2 AGM Zenith batteries 12V 115A C20	
	Dimensions ea.	328 x 172 x 219 mm	
	Weight (with acid) ea.	31,5 kg	
	Autonomy (theoretical)	3 h	

TECHNICAL SPECIFICATIONS		E50 BASE M	E50 TRAC M
BATTERY CHARGER	Model	24V - 11A 100/240V, 50/60 Hz input voltage	
	Settings	Calibrated for lead acid, AGM / gel, or gel Sonnenschein batteries	
SOLUTION FLOW	Solution control	24V 32W - 1,5A	
	Flow rate	0 - 2,3 L/min	
VACUUM SYSTEM	Vacuum motor	2 stage - 24V - 400 W - 14/15 A	
	Water pick up	1.183 mm/H ₂ O	
	Standard filter	Stainless steel mesh	
WHEELS	Front wheel	Ø 200 x 50 mm -solid rubber, super elastic, non-marking and oil resistant. Hub made of nylon coated in polyurethane	
SOUND LEVEL (UNI EN ISO 11201)	Noise emission value LpA	66.5 dB (A)	
	Uncertainty KpA	2.4 dB (A)	
VIBRATION LEVEL	Whole-body vibration level aW	0.64 m/s ²	
	Uncertainty K	-	
TEMPERATURE RATING	Storage temperature	+5 / +40 °C	
	Operating temperature	+5 / +40 °C	

TECHNICAL CHART

TECHNICAL SPECIFICATIONS		E55 BASE M	E55 TRAC M
MAIN SPECIFICATIONS	Cleaning path	550 mm	
	Hourly performance	2.200 m ² /h	
	Solution tank capacity	40 L	
	Recovery tank capacity	50 L	
	Forward speed	0 - 4 km/h	
	Maximum gradient	20 %	
	Turning radius	753 mm	
DIMENSIONS AND WEIGHT	Dimensions (without squeegee)	1.210 x 570 x 960 mm	
	Width (with squeegee)	830 mm	
	Weight	78,5 kg	83,5 kg
	Weight (with type A batteries)	132,5 kg	137,5 kg
	Weight (with type B batteries)	141,5 kg	146,5 kg
	Packaging dimensions	1.400 x 680 x 1.100 mm	
	Packaging weight	25,5 kg	
	Packaging volume	1,05 m ³	
BRUSHES	Brush dimensions	Ø 530 - 550 mm	
	Pad size (only with pad holder)	530 mm / 21"	
	Brush motor	Gear motor: 24V - 750 W - 38A - 180 RPM - IP 20	
TRACTION SYSTEM	Traction type	Mechanic	Forward traction via gear motor, controlled electronically
	Traction motor	-	24V - 180 W - 9.5A
BATTERIES	Batteries	2 x 12 V	
	Battery tray dimensions	335 x 355 x 250 mm	
TYPE A BATTERIES	Type	2 lead acid batteries 12V 105A C20 - 85A C5	
	Dimensions ea.	308 x 174 x 225 mm	
	Weight (with acid) ea.	27 kg	
	Autonomy (theoretical)	2 h 30 min	
TYPE B BATTERIES	Type	2 AGM Zenith batteries 12V 115A C20	
	Dimensions ea.	328 x 172 x 219 mm	
	Weight (with acid) ea.	31,5 kg	
	Autonomy (theoretical)	2 h 30 min	

SPECIFICHE TECNICHE		E55 BASE M	E55 TRAC M
BATTERY CHARGER	Model	24V - 11A 100/240V, 50/60 Hz input voltage	
	Settings	Calibrated for lead acid, AGM / gel, or gel Sonnenschein batteries	
SOLUTION FLOW	Solution control	24V 32W - 1,5A	
	Flow rate	0 - 2,3 L/min	
VACUUM SYSTEM	Vacuum motor	2 stage - 24V - 400 W - 14/15 A	
	Water pick up	1.183 mm/H ₂ O	
	Standard filter	Stainless steel mesh	
WHEELS	Front wheel	Ø 200 x 50 mm -solid rubber, super elastic, non-marking and oil resistant. Hub made of nylon coated in polyurethane	
SOUND LEVEL (UNI EN ISO 11201)	Noise emission value LpA	66.5 dB (A)	
	Uncertainty KpA	2.4 dB (A)	
VIBRATION LEVEL	Whole-body vibration level aW	0.64 m/s ²	
	Uncertainty K	-	
TEMPERATURE RATING	Storage temperature	+5 / +40 °C	
	Operating temperature	+5 / +40 °C	

SERVICE AND MAINTENANCE RECORDS

1°

SERVICE AND MAINTENANCE RECORD

TO 100 HOURS

DATE

DAY	MONTH	YEAR	WORKING HOURS

- Check that the batteries clamps are not loosen or oxidized
- Check the cover gasket
- Make sure there are no loose screws or bolts
- Make sure the squeegee gas spring is not damaged and that it is working properly
- Check and clean the recovery tank drain valve
- Check the vacuum motor float filter
- Check the drainpipe of the recovery and solution tank
- Make sure the squeegee vacuum pipe is not broken or blocked
- Check and if necessary rotate or replace the squeegee blades
- Check and eventually clean the cooling grid of the vacuum motor
- Make sure all machine functions are operating correctly

THE SERVICE WAS CARRIED OUT ON:

NAME:

SURNAME:

SIGNATURE:

STAMP OF DEALER WHO CARRIED OUT SERVICE

NOTES

2°

SERVICE AND MAINTENANCE RECORD

TO 200 HOURS

DATE

DAY	MONTH	YEAR	WORKING HOURS

- Check that the batteries clamps are not loosen or oxidized
- Check the cover gasket
- Make sure there are no loose screws or bolts
- Make sure the squeegee gas spring is not damaged and that it is working properly
- Check and clean the recovery tank drain valve
- Check the vacuum motor float filter
- Check the drainpipe of the recovery and solution tank
- Make sure the squeegee vacuum pipe is not broken or blocked
- Check and if necessary rotate or replace the squeegee blades
- Check the squeegee lifting lever and the related cable
- Check the bushings on the squeegee
- Check and eventually clean the cooling grid of the vacuum motor
- Make sure all machine functions are operating correctly

THE SERVICE WAS CARRIED OUT ON:

NAME:

SURNAME:

SIGNATURE:

STAMP OF DEALER WHO CARRIED OUT SERVICE

NOTES

3°

SERVICE AND MAINTENANCE RECORD

TO 300 HOURS

DATE

DAY	MONTH	YEAR	WORKING HOURS

- Check that the batteries clamps are not loosen or oxidized
- Check the cover gasket
- Make sure there are no loose screws or bolts
- Make sure the squeegee gas spring is not damaged and that it is working properly
- Check and clean the recovery tank drain valve
- Check the vacuum motor float filter
- Check the drainpipe of the recovery and solution tank
- Make sure the squeegee vacuum pipe is not broken or blocked
- Check and if necessary rotate or replace the squeegee blades
- Check and eventually clean the cooling grid of the vacuum motor
- Make sure all machine functions are operating correctly

THE SERVICE WAS CARRIED OUT ON:

NAME:

SURNAME:

SIGNATURE:

STAMP OF DEALER WHO CARRIED OUT SERVICE

NOTES

4°

SERVICE AND MAINTENANCE RECORD

TO 400 HOURS

DATE

DAY	MONTH	YEAR	WORKING HOURS

- Check that the batteries clamps are not loosen or oxidized
- Check the cover gasket
- Make sure there are no loose screws or bolts
- Make sure the squeegee gas spring is not damaged and that it is working properly
- Check and clean the recovery tank drain valve
- Check the vacuum motor float filter
- Check the drainpipe of the recovery and solution tank
- Make sure the squeegee vacuum pipe is not broken or blocked
- Check and if necessary rotate or replace the squeegee blades
- Check the squeegee lifting lever and the related cable
- Check the bushings on the squeegee
- Check and eventually clean the cooling grid of the vacuum motor
- Make sure all machine functions are operating correctly

THE SERVICE WAS CARRIED OUT ON:

NAME:

SURNAME:

SIGNATURE:

STAMP OF DEALER WHO CARRIED OUT SERVICE

NOTES

5°

SERVICE AND MAINTENANCE RECORD

TO 500 HOURS

DATE

DAY	MONTH	YEAR	WORKING HOURS

CHECK AND REMOVE THE MOTOR CARBON BRUSHES ONE AT A TIME SO AS NOT TO INVERT THEM. THE MOTOR CARBON BRUSHES SETTLE AND WEAR DIFFERENTLY THE ONE FROM THE OTHER, CONSEQUENTLY IF THESE ARE INSPECTED AND PUT BACK ON AGAIN BECAUSE THEY ARE NOT FULLY WORN, THEY MUST BE REFITTED IN THE SAME POSITION.

VACUUM MOTOR COD. 900804

Check the carbon brushes and replace them if they are shorter than 5 mm. Length of new motor carbon brush: 28 mm.

N°2 carbons (cod 640338) for each motor;

TRACTION GEAR REDUCTION MOTOR COD. 490552

Check the carbon brushes and replace them if they are shorter than 12 mm. Length of new motor carbon brush: 19 mm.

N°2 carbons (cod 640326) for each motor;

BRUSH GEAR REDUCTION MOTOR COD. 900805

Check the carbon brushes and replace them if they are shorter than 6 mm. Length of new motor carbon brush: 19 mm.

N°4 carbons (cod 640327) for each motor;

BRUSH GEAR REDUCTION MOTOR COD. 610072

Check the carbon brushes and replace them if they are shorter than 7 mm. Length of new motor carbon brush: 19 mm.

N°4 carbons (cod 640325) for each motor;

- Check that the batteries clamps are not loosen or oxidized
- Check the cover gasket
- Make sure there are no loose screws or bolts
- Make sure the squeegee gas spring is not damaged and that it is working properly
- Check and clean the recovery tank drain valve
- Check the vacuum motor float filter
- Check the drainpipe of the recovery and solution tank
- Make sure the squeegee vacuum pipe is not broken or blocked
- Check and if necessary rotate or replace the squeegee blades
- Check the wheel bearing (version w/o traction)
- Check the squeegee lifting lever and the related cable
- Check the bushings on the squeegee
- Check and eventually clean the cooling grid of the vacuum motor
- Check the adjusting/closing detergent solution tap
- Check the solenoid valve (if present)
- Check the pivoting wheel
- Make sure all machine functions are operating correctly

THE SERVICE WAS CARRIED OUT ON:

NAME:
SURNAME:
SIGNATURE:

STAMP OF DEALER WHO CARRIED OUT SERVICE

NOTES

UP TO 600 HOURS AS FOR 100 HOURS	DATE	DAY	MONTH	YEAR	WORK. HOURS
THE SERVICE WAS CARRIED OUT ON:		STAMP OF DEALER WHO CARRIED OUT SERVICE			
NAME:					
SURNAME:					
SIGNATURE:					

UP TO 700 HOURS AS FOR 200 HOURS	DATE	DAY	MONTH	YEAR	WORK. HOURS
THE SERVICE WAS CARRIED OUT ON:		STAMP OF DEALER WHO CARRIED OUT SERVICE			
NAME:					
SURNAME:					
SIGNATURE:					

UP TO 800 HOURS AS FOR 300 HOURS	DATE	DAY	MONTH	YEAR	WORK. HOURS
THE SERVICE WAS CARRIED OUT ON:		STAMP OF DEALER WHO CARRIED OUT SERVICE			
NAME:					
SURNAME:					
SIGNATURE:					

UP TO 900 HOURS AS FOR 400 HOURS	DATE	DAY	MONTH	YEAR	WORK. HOURS
THE SERVICE WAS CARRIED OUT ON:		STAMP OF DEALER WHO CARRIED OUT SERVICE			
NAME:					
SURNAME:					
SIGNATURE:					

UP TO 1000 HOURS AS FOR 500 HOURS	DATE	DAY	MONTH	YEAR	WORK. HOURS
THE SERVICE WAS CARRIED OUT ON:		STAMP OF DEALER WHO CARRIED OUT SERVICE			
NAME:					
SURNAME:					
SIGNATURE:					

NOTES

TROUBLE-SHOOTING CHART

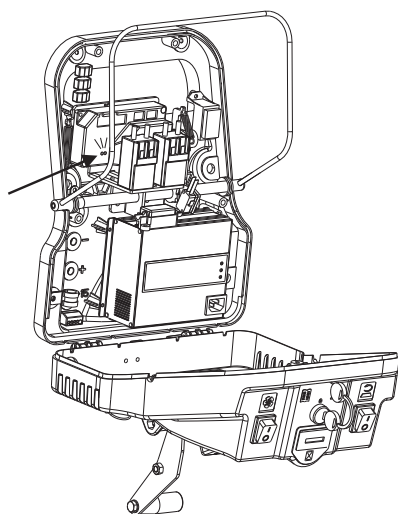
WARNING!

ANY TYPE OF SERVICE OPERATION OR TEST, WITH THE EXCEPTION OF THOSE SHOWN IN THE ENGINE'S MANUAL OR THE BATTERY'S MANUAL, MUST BE CARRIED OUT BY AUTHORIZED SERVICE CENTRES ONLY.

BEFORE ANY INTERVENTIONS CHECK THE CORRECT VOLTAGE OF THE BATTERY: 24 V		
PROBLEM	CAUSE	SOLUTION
The battery gets discharged	Either exhaust or broken elements	Replace it
The display of the control card does not switch on when inserting the key	Flat or worn out battery	Recharge it
	Fuse burn out	Replace it
	Battery connector disconnected	Connect it
	Key operated switch broken	Replace it
	For machine with on-board charger: inner remote switch is faulty	Replace the battery charger
	For machine with on-board charger: charge phase of the machine	Disconnect the battery charger from the main power
The brush motor does not rotate	Flat battery (charger's red led light flashing)	Recharge it
	Faulty fuse	Replace it
	Brush motor protection fuse is engaged	Refresh it
	Faulty remote switch	Replace it
	Microswitch is faulty	Replace it
	Electric motor remote switch is faulty	Replace it
	Carbons worn out	Replace it
	Faulty motor	Replace it
	Thermal drill of the brush gear motor intervenes	Wait for the machine to cool down and start it again. Make sure there are no metal wires, plastic wires or other material wrapped around the brush
The drive does not work VERSION TRAC	Faulty battery	Recharge it
	Key disconnected	Insert the key
	30A Fuse (pos.4) traction fuse is faulty	Replace it
	5A protection traction fuse (pos.25) is broken	Replace it
	Motor reducer is faulty	Replace it
	Motor carbons are worn out	Replace it
	Electronic control board is broken	Replace it
	Microswitch in the control panel is broken	Replace it
	Main potentiometer is faulty	Replace it

DIAGNOSIS FOR TRACTION CARD LED FLASHINGS

If the drive does not work, check any red lights on the drive board (see picture). To do it, when the machine stops, without turning the key off, open the electrical board by removing the 4 screws and check the numbers of the flashings



SWITCHED OFF: NO ERRORS, NORMAL WORKING CONDITIONS	
1 FLASHING: forward speed microswitch engaged when starting up the machine	<ul style="list-style-type: none"> • Pull the drive control switch in 0 position • Check that the switch is correctly placed into 0 position • Check the microswitch on the drive control
3 FLASHINGS: the potentiometer signal is off	Check the cables of the potentiometer
4 FLASHINGS: the potentiometer is not working	<ul style="list-style-type: none"> • Pull the drive control switch in 0 position. • Check that the switch is correctly placed into 0 position • Check the microswitch on the drive control
5 FLASHINGS: thermal protection	Wait for some minutes before starting and checking the absorptions of the motor
6 FLASHINGS: <ul style="list-style-type: none"> • the power fuse is faulty • power phase damaged 	<ul style="list-style-type: none"> • Replace the 30A power fuse (pos.4) • Replace the traction board
7 FLASHINGS: overcurrent	Cables from the battery to the traction board or from traction board to the 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 traction board is OK and that the battery and motor wires are properly connected. If necessary, replace the traction board.
9 FLASHINGS: under voltage (< 19 V)	Check and charge the batteries
10 FLASHINGS: overvoltage	Battery tension higher than 45V
11 FLASHINGS: amperometric protection of the traction motor: the motor has worked for more than 10 seconds above the maximum nominal current value (15 A)	Verify that the differential spins freely. Check with an ammeter the motor consumption. For the correct consumption values refer to the technical chart.
13 FLASHINGS: temporary power supply interruption	Electric feeding of the traction board is not correct (24 V). Check the wires. WARNING: AFTER TURNING OFF THE MACHINE BY THE KEY, WAIT UNTIL 3-4 SECONDS BEFORE STARTING IT AGAIN. If the problem persists, it could be a bad electrical contact issue: check that in the ignition switch, fuses and the 16 poles connector of the chopper there isn't any intermittent contact. If the problem persists again, replace the chopper.
14 FLASHINGS: failed data reading	Remove the key and put the service switch in 0 position. If necessary, replace the traction board.

PROBLEM	CAUSE	SOLUTION
The suction motor does not work	Flat batteries	Recharge them
	30A suction motor fuse worn out	Replace the 30 A fuse (pos. 3 of the fuse holder)
	Vacuum motor disconnected	Check the motor wiring
	Vacuum motor is faulty	Replace it
	Vacuum motor carbons are worn out	Replace them
	Vacuum motor switch is broken	Replace it
	Faulty remote switch	Replace it
Not enough suction on the squeegee	Recovery tank is full	Empty it
	Float on the recovery tank	Switch off the vacuum motor and unblock the float ball
	Valve on tank drainpipe open and safety cap removed	Close the valve and put the cap
	Vacuum pipe not connected	Check it is mounted correctly
	Vacuum duct blocked	Clean the pipe
	Faulty vacuum pipe	Replace the pipe
	Dirty squeegee	Clean the squeegee
	The squeegee is not adjusted properly	Adjust inclination and pressure
	Material tangled with the squeegee blades	Clean the blades
	Squeegee blades either broken or worn out	Reverse the blades or replace them
	The tank is either open or not properly closed	Close it
	Damaged lid gasket	Replace the gasket
	Faulty suction motor	Replace/check the motor
	Flat batteries	Recharge them
	Gas spring damaged	Replace it
Bushes worn on squeegee movement mechanisms	Replace them	
Not enough water flow on the brush	Solution tank is empty	Fill the tank
	Tap is closed	Open the tap
	Tap clogged or scaled up	Check it or replace it
	Faulty electrovalve of the detergent solution	Replace it
	Detergent solution filter clogged	Clean the filter
	Solution duct clogged between tank and brush.	Make sure there is no incrustations

Battery charger breakdown	1 yellow led light flashing: disconnected battery or polarity inversion or short circuit	Check the connections to the battery
	2 yellow led light flashings: alarm time-out	The max charge time is exceeded (15 hours) try to start a new charge cycle again in case of very flat batteries. If the problem persists, check the batteries
	3 yellow led light flashings: alarm of a faulty battery charger	Replace the charger
	4 yellow led light flashings: alarm over-temperature	Environment temperature where the charge cycle is taking place is too hot. Recharge in a cooler place

EU DECLARATION OF CONFORMITY

according to Annex II A of the Machinery Directive 2006/42/CE

The manufacturer that places this product on the market:

EUREKA S.p.A. Unipersonale
VIALE DELL'ARTIGIANATO 30/32, 35013 CITTADELLA (PD) - ITALY

formally declares that the product:

Scrubber E50 BASE M
Scrubber E50 TRAC M
Scrubber E55 BASE M
Scrubber E55 TRAC M

complies with the following EU Directives:

2006 / 42 / CE
2014 / 30 / UE
2014 / 35 / UE
2011/ 65 / UE + 2015 / 863
2009 / 125 / CE

Machinery Directive, Annex 1
Electromagnetic Compatibility (EMC) Directive
Low Voltage Directive
RoHS 3 Directive
Energy-Related Products (ErP) Directive

The following harmonised and technical standards have been applied:

EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction.
EN 60335-1:2013	Household and similar electrical appliances - Safety - Part 1: General requirements.
EN 60335-2-72:2016	Household and similar electrical appliances - Safety - Part 2: Particular requirements for floor treatment machines with or without traction drive, for commercial use.
EN 55014-1:2019	Electromagnetic compatibility - Requirements for household appliances - electric tools and similar apparatus - Part 1: Emission.
EN 55014-2:2015	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity - Product family standard.
EN 61000-6-2:2016	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments.
EN 61000-6-4:2018	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments.
EN 62233:2008	Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure.

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Cittadella, 15/12/2023

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