



SCRUBBER DRYER RANGE INSTRUCTION MANUAL



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SD RANGE

INSTRUCTION MANUAL

- **Description: Walk-behind scrubber-dryer for use in retail/industrial premises**
- **Model: SD-20; SD-40; SD-50; SD-40 FT; SD-50 FT**
- **Manual revision: 1.0**

**In order to obtain the best results, it is recommended to use original consumables
The trade or registered marks mentioned in this manual belong to their respective owners.**

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PRESENTATION

Dear Customer,

We would like, first of all, to thank you for choosing to purchase, the new **VICTOR SD Range** Walk-behind Scrubber-Dryers which, thanks to its features – described in this manual – we are confident will meet your needs.

The **VICTOR SD Range** has been entirely designed and constructed in total compliance with Machinery Directive 2006/42/EC (implemented with Italian Legislative Decree 17/10), Low Voltage Directive 2014/35/EC, Electromagnetic Compatibility Directive 2014/30/EC, with top quality materials and devoting a special effort to reducing the risk of accidents as much as possible.

We have therefore drawn up this manual to provide you with adequate instructions on the correct use and correct maintenance, which are essential for the operator's safety, for correct operation and consequently long machine duration.

Please carefully read this manual in its entirety, strictly comply with the instructions it contains and above all - for safety reasons - do not perform any type of procedure that is not specifically mentioned herein.

The following symbols are used in the guide for the purposes outlined by the following descriptions:



Warning

WARNING - Hazardous or unsafe procedures that might cause severe personal injury or even be fatal.



Caution

CAUTION - Hazardous or unsafe procedures that might cause non-severe personal injury or damage to the machine or surrounding objects.

For safety

Used to identify actions to be undertaken for safe machine operation.



Before using the device for the first time, read these original instructions, follow them and store them for future use or in case of resale of the device.

1. MACHINE DESCRIPTION

VICTOR SD is a Walk-behind Scrubber-Dryer machine, to wash and dry hard floors, battery powered and with cable, intended for retail use.

The main systems of the machine are as follows:

- The detergent solution tank and relevant circuit,
- The washing brushes plate
- The dirty water recovery tank and relevant circuit
- The electrical system and relevant control panel, the steering and speed device.

The function of the detergent solution tank is to store water (with dilution of any detergent), supplying it to the washing system.

The relevant system includes the tank, filter, proportional valve to adjust flow rate and controls.

The tank contains the detergent solution (water and detergent) and supplies it to the washing system when required. The filter protects the solenoid valve from debris contained in the water. The proportional solenoid valve controls detergent solution supply to the washing system. The valve automatically prevents the flow of the detergent solution. The control selector of the solution flow - by controlling opening duration and section of the solenoid valve - regulates the amount of detergent solution conveyed to the washing system.

The disc washing device includes: two or four counter-rotating disc brushes are moved by an electric motor. The side band, in bristles, lets the detergent solution remain in the brushes' working area.

The wiper (or squeegee) can be lifted manually when it is lifted towards the machine's belly, it attaches firmly to the belly by means of 2 magnets.

The water flow is regulated by a proportional solenoid valve (from 0 to 2.0 litres/minute), there is also the option of mixing the water with the chemical detergent, contained in the specific bottle. The mixture percentage is set by a peristaltic pump which regulates the detergent flow, conveying it and mixing it downstream of the proportional solenoid valve (in the version with Ki-Do device).

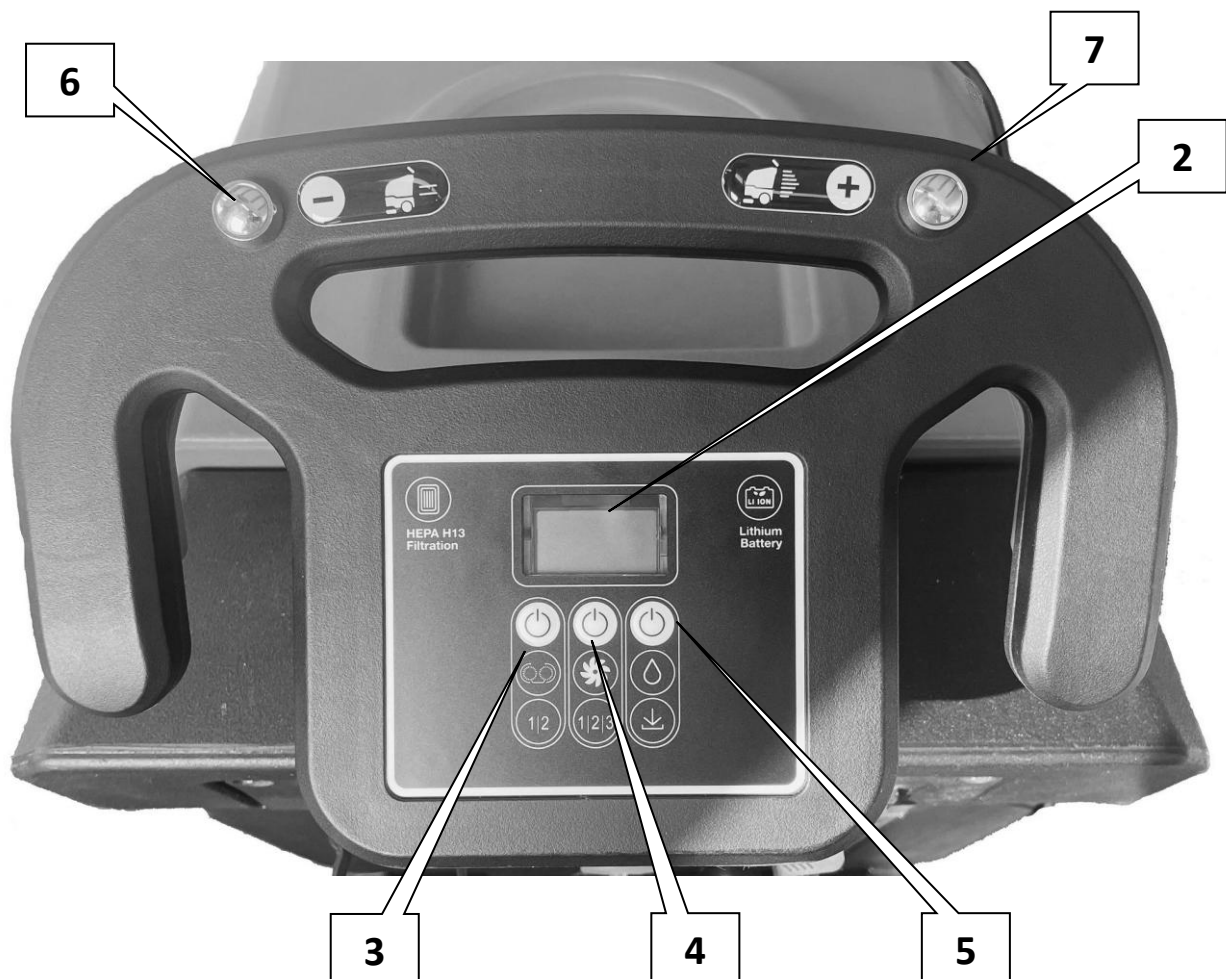
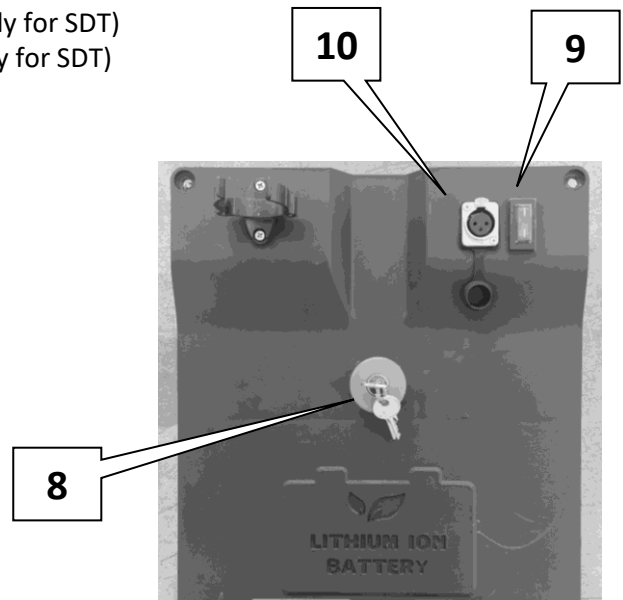
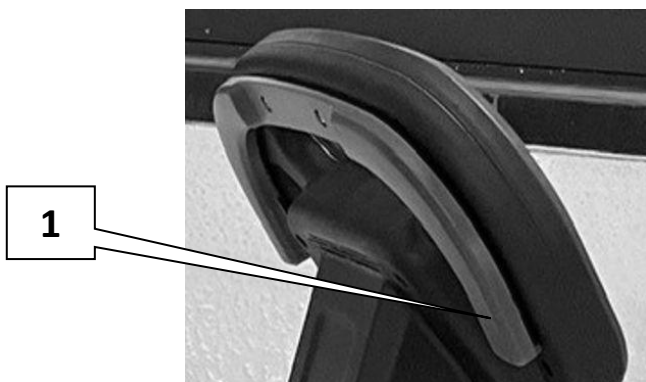
The recovery system includes: the wiper, the vacuum turbine, the filter, the recovery tank and the controls. The wiper collects the dirty detergent solution from the floor as the machine moves forward. The vacuum turbine assures the necessary vacuum to suck the dirty detergent solution from the floor and convey it to the recovery tank. The recovery tank stores the dirty detergent solution.

The maximum recovery water level is controlled by a level sensor connected to the control unit and acting on the motor; therefore, the turbine and the brushes will stop operating as soon as the recovery water reaches the maximum level.

The function of the control devices is to control the various settings of the machine.

They include:

1. Start controls
2. Display
3. Brush function pushbutton
4. Suction function pushbutton
5. Waterflow & detergent and adjustment menu pushbutton
6. Traction speed control pushbutton, decrease speed (only for SDT)
7. Traction speed control pushbutton, increase speed (only for SDT)
8. Injection key
9. Switch On/off pushbutton
10. Charging plug



1. Control panel description

1. Start-up commands

Press either the right or left red button on the handle to start the machine.

CAUTION: when the machine is switched on, the red lever must NOT be pressed, otherwise the **RELEASE RED LEVER** alarm will appear

2. Display

When the machine is switched on using the key selector located on the emergency mushroom-shaped button, the total hours of work carried out and the total square metres washed hourly total square metres washed (optional) are displayed.

ADAPTIVE MODE: during use, the word ADAPTIVE MODE may flash on the **display accompanied by a reduction in the brush motor revolutions**. This function has been designed to protect the machine from extremely heavy duty or incorrect applications, for example the use of a soft brush on a non-slip floor or running over drainage gratings. As soon as the brush motor consumption returns within the defined parameters, the function will automatically disable.

RECOVERY TANK FULL: during use, the word **RECOVERY TANK ATTENTION** may flash on the display. This indicates that the recovery tank is almost full. When it, the word stops flashing and becomes steady, the suction motor is deactivated. Empty the recovery tank and press the suction button (4) to reset the machine.

3. Brush button

E1: Lower brush speed rotation (ECO)

E2: Maximum power rotation

4. Suction button

You can select 3 modes:

E1: Rotation at lower rpm (recommended on hard/drainage free floors)

E2: Medium power rotation (recommended on most floors with drainage)

E3: Maximum power rotation (recommended on structured floors or with wide drainage lines)

5. Solenoid valve solution and/or detergent (only for KIDO) button

Press to activate or deactivate the dispensing of the solution – the appropriate icon appears on the display.

By holding the button down for 5 seconds you enter the menu to change the water flow rate on the brushes (L/min) and the percentage of chemical product to be dispensed (KIDO only). Memorization is automatic.

By holding down the button and the red lever at the same time (the other functions must be deactivated), you have the possibility of freely draining the water from the solution tank onto a specific drain or drain.

6/7. Traction speed buttons

Press button «6» to decrease, «7» to increase the forward speed of the machine, only for models with SDT traction. The ladder on the left side of the display will light up accordingly.

8. Activation Key – Mushroom/Emergency Button

Machine activation present via key selector present on the emergency button. At the end of the work session, insert emergency and activate locking with key by removing it.

9. Power button

Press to turn on the machine, the display lights up.

10. Charger socket

See specific chapter 13.4

2. TECHNICAL SPECIFICATIONS

Description	SDM-20		SD-20	
Tension	110-240V 50-60Hz		54,6 Volt	
Total power	850 W			
Tank capacity	20 / 22 L			
Area to clean	from 250 to 750 sqm			
Noise level	64,6 - 66 dB(A)			
Energetic CONSUMPTION	0,14-0,21 W/m²			
Length	800 mm			
Width with squeegee	490 mm			
Height	1100 mm			
Protection rate	IP X3			
Max gradient	2%			
Scrubbing system				
Cleaning width	406mm / 2x8"			
Brushes speed	220 / 290 rpm			
Load on brush head	30 kg			
Water flow	0-2 l/min			
Dosing system (KiDo)	0 - 1,5%			
Packaging				
Packaging dimensions	850x560x1010 mm			
Total weight unit / packed	50 / 64 kg	55 / 69 kg	57 / 71 kg	
Description	SD-40	SDT-40	SD-50	SDT-50
Tension	54,6 Volt			
Total power	850 W	950 W	850 W	950 W
Tank capacity	47 / 47 L			
Area to clean	from 500 to 1.500 sqm		from 800 to 2.000 sqm	
Noise level	64,6 - 66 dB(A)			
Length	900 mm		900 mm	
Width with squeegee	590 mm		740 mm	
Height	1100 mm		1100 mm	
Protection rate	IP X3			
Scrubbing system				
Cleaning width	508mm / 2x10"		710 mm / 4x7"	
Brushes speed	220 / 290 rpm			
Load on brush head	30 kg			
Water flow	0-2 l/min			
Dosing system (KiDo)	0 - 1,5%			
Suction				
Suction motor power	350 W			
Traction				
Traction motor power	-	100 W	-	100 W
Max speed		0,5 – 5,5 Km/h		0,5 – 5,5 Km/h
Max gradient	2%			
Packaging				
Packaging dimensions	960x630x1050 mm		960x760x1050 mm	
Total weight unit / packed	69 / 83 kg	72 / 86 kg	69 / 83 kg	72 / 86 kg
Battery and charger				
	SD-20; SD-40; SDT-40; SD-50; SDT-50		SD-20; SD-40; SDT-40; SD-50; SDT-50 PLUS VERSION	
Capacity	54,6V / 10,4Ah		54,6V / 20,8Ah	
Runtime up to	1,5 hours		3,5 hours	
Battery charger	54,6V - 3Amp		54,6V – 5Amp	
Charging time	3.5 hours		4 hours	

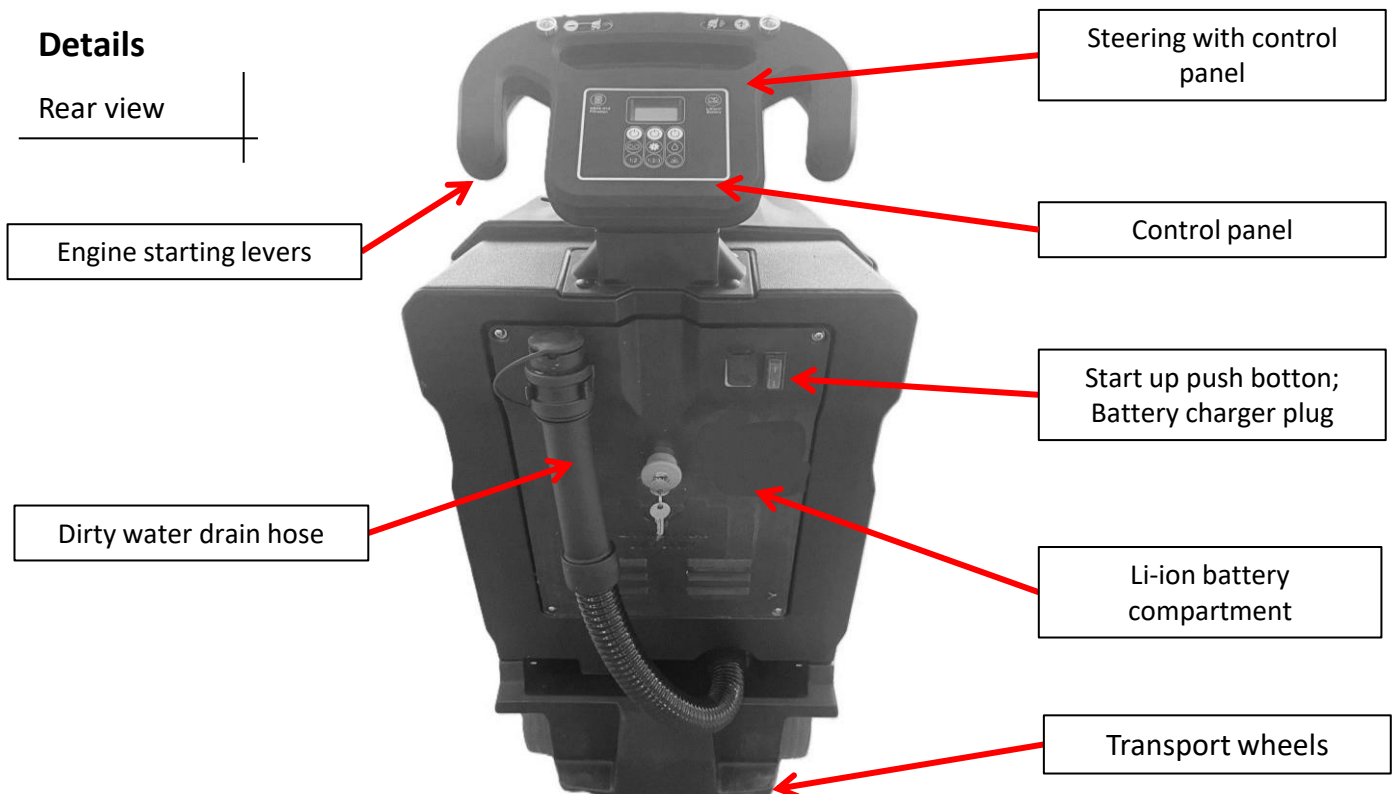
2.1 Functional units

LIST OF UNITS

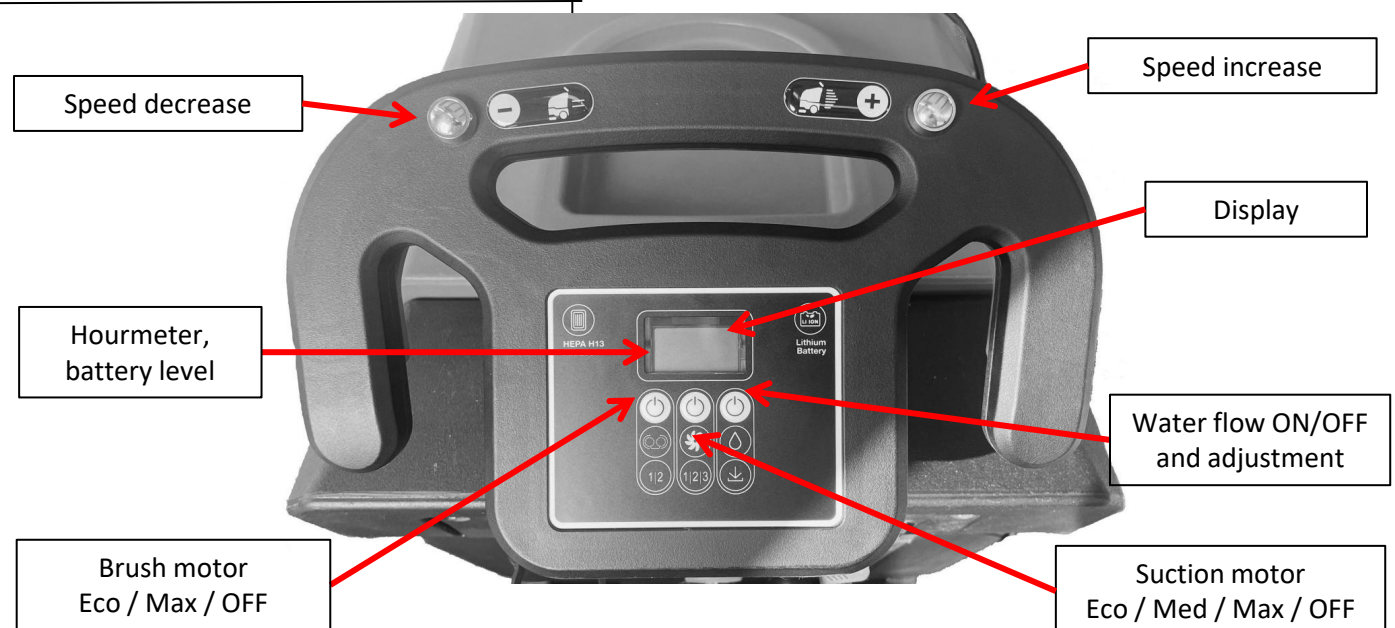
- | | |
|---------------------------------|---|
| 1. Control panel | 8. Vacuum engine (turbine) |
| 2. Solution tank | 9. Chemical detergent tank compartment (OPTIONAL) |
| 3. Recovery tank | 10. Battery compartment |
| 4. Recovery tank lid | 11. Turbine discharge air filter |
| 5. Recovery tank discharge hose | 12. Brush rotation motor |
| 6. Brush head | 13. Water loading spout |
| 7. Wiper | |

Details

Rear view



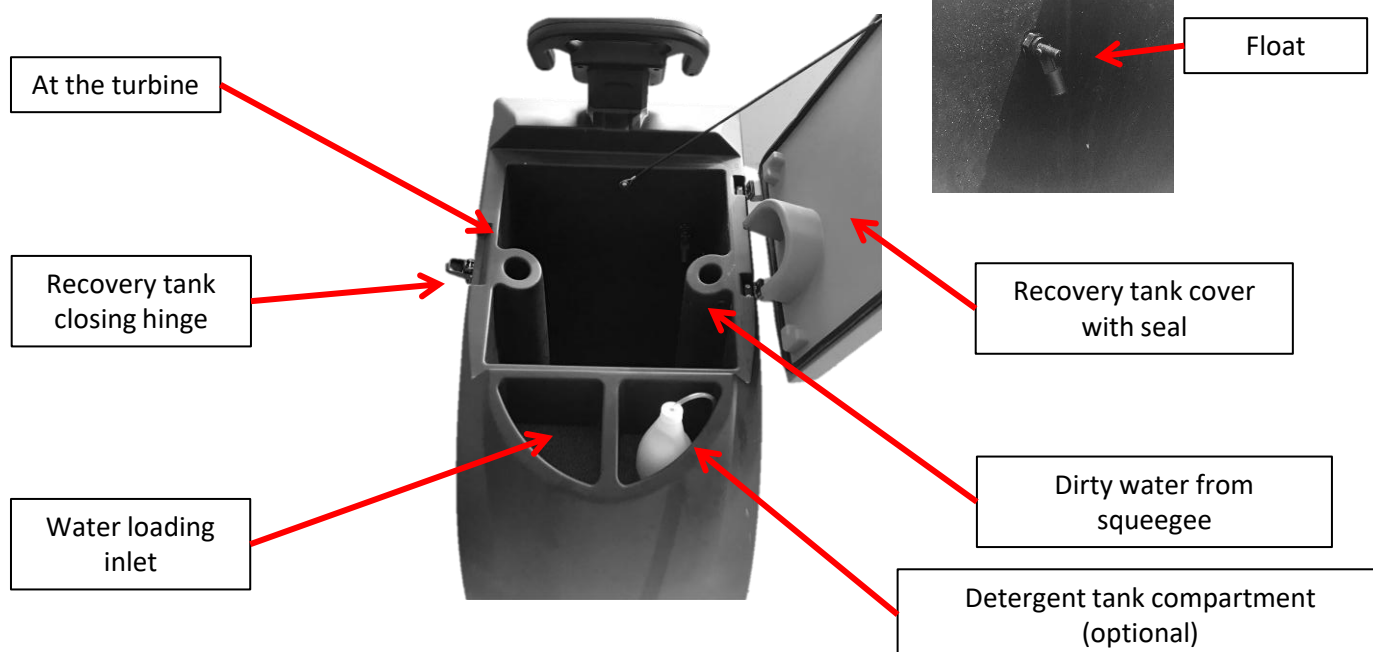
Ergonomic steering wheel & Control panel



Tank internal view



Float



3. SAFETY FEATURES

In view of the safety standards of the unified text of the Machine Directive 2006/42/CE and Electromagnetic Compatibility 2014/30/EU.



Warning

- To reduce the risk of fire, electrical shocks or personal injury, comply with the following instructions
- Only use the machine indoors. Do not use the machine outdoors and do not expose it to rain.
- Exclusively use the machine complying with the instructions described in this manual.
- Only use the components and accessories recommended by the manufacturer.
- If the machine does not work correctly, or it has been dropped, has been damaged, has been left outside or has fallen in water, hand it to an authorized service center.
- Do not use the machine if one of the openings is obstructed. Keep the openings clear from debris which might reduce the air flow.
- The machine has not been designed to collect hazardous powders.
- If it is operated near flammable vapors or materials, the machine may cause fires.
- Do not operate the machine near flammable liquids, powders or vapors.
- The machine is designed for commercial use, e.g. to be used inside supermarkets, hotels, schools, hospitals, factories, warehouses, thus for more complex applications than simple domestic cleaning operations.
- The use of the machine must be exclusively entrusted to personnel trained and informed on correct use.
- Maintenance and repair operations must be performed exclusively by qualified personnel.
- Should any foam or liquids escape the machine, immediately turn it off.
- Before performing cleaning or maintenance operations, disconnect the battery (when the emergency is engaged, all connections are cut off, including the battery)
- Before handing the machine to a waste collection center, the battery must be removed and correctly disposed.
- Ensure all warning labels are legible and correctly applied to the machine.
- During operation, pay the utmost attention to other people, especially children.
- Before using the machine ensure all covers and doors are in the positions specified in the instructions.

-
- When the machine is left unattended, adopt all necessary measures to prevent any unintentional movement of the same.
 - The machine must be exclusively operated by trained and authorized personnel.
 - When the machine is left unattended, engage the emergency, turn the locking key and extract the key.
 - Exclusively use the chemicals recommended by the manufacturer.
 - The machine is designed to be used with the brushes specified by the manufacturer. The use of other types of brushes may affect the machine's safety.



Warning

- Lithium-Ion batteries comply with specific reference standards – Correct use according to the manufacturer's manual is recommended
- Do not use the machine near sparks or naked flames.
- Keep the batteries away from sparks or naked flames.
- Do not smoke near the batteries.



Warning

- Disconnect the batteries before performing any kind of procedure on the machine. (engage or release the emergency)
- Every procedure on the machine must exclusively be performed by skilled personnel. Always wear protective clothing and glasses in case of operations on the batteries or near them



Warning

- Strictly do not wash the floor scrubber dryer with pressure washers and electrical parts with water.

For safety

- Immediately report any machine damage or malfunctioning.
- Do not use the machine unless it is in perfect operating conditions. Carefully read the information.
- Identify all the machine's safety devices.
- Assure adequate training of the personnel in charge of operating the machine.

DO NOT OPERATE THE MACHINE IN THE FOLLOWING CASES:

- You have not been trained and authorized.
- The operating Guide has not been read.
- You are in an area under risk of fire or explosions.
- You are in an area where there is a falling objects hazard.

DURING MAINTENANCE OPERATIONS:

- Avoid moving parts.
- Do not wear loose clothes, such as jackets, shirts or in general, necklaces or hanging objects clothes with wide sleeves when using the machine.
- Use original approved spare parts.

3.1. Declaration of absence of harmful substances

We hereby declare that our products, used in the process of assembling the machine, are produced with materials that comply with the limits established by the regulations in force on the protection of health and the environment and do not contain substances classified as SVHC (Substance of Very High Concern) in accordance with CE 1907/2006 regulation (REACH, i.e. Registration, Evaluation, Authorisation and Restriction of Chemical substances). Although the above mentioned substances are not employed in processing cycles of raw materials and our products, their presence cannot however be ruled out in the order of p.p.m. (parts per million), due to the micro-pollution of the raw materials.

3.2. Safety devices of fixed closing guards

The components that protect some areas that contain moving parts or live equipment are considered fixed closing guards.

The brush plate is fitted with closing guard, consisting in the plastic material protection casing.



Warning

Do not remove the fixed closing guards. In the event of maintenance, ensure the same are reassembled before turning on the machine and starting to work.

3.3. Safety devices relevant to mobile guards

The brush plate is protected by a mobile guard.

The battery compartment is located on the back plate, in front of the operator. To access it, remove the 4 screws locking the plate and disconnect the wires.

Inside the battery are 2 safety adhesive labels, that prevent removing the battery from its compartment.

Tampering with these seals entails forfeiting the battery warranty.

For any maintenance need, the customer must remove the entire compartment + battery, by unscrewing the set from the back plate and must ship it to the manufacturer for tests and possible replacement under warranty.

4. UKCA PLATE POSITION

The technical specifications plate bearing the CE marking is attached on the control handle base, it is adhesive and must not be removed for any reason.

5. MACHINE TRANSPORT AND LIFTING

The machine is fitted with two main wheels to use the machine in work mode, whereas for transfers two small additional caster wheels are used, which become operational when the machine is tilted towards the operator. Place the machine on a pallet, taking care to lock the wheels to prevent the machine from moving. (possibly use wedges)

Transport and any lifting must be done with the machine on a pallet.

It is recommended to empty the solution recovery tanks.



Warning

In the **versions with forward traction only (SDT)**, the machine traction occurs **ONLY** with at least one function engaged (brush and/or turbine).

If the machine is tilted and rested on the rear wheels, the word **OVER TILT** will appear on the display and all functions will be blocked!

6. INTENDED USE OF THE MACHINE (washing and drying phase)

VICTOR SD is a Walk-behind Scrubber-Dryer machine, to wash and dry hard floors, battery powered or with cable, intended for retail use.

The machinery applies a detergent solution to the hard floor, a solution that is collected in the solution tank and is conveyed through suitable piping to the brush plate, with solenoid valve adjustable flow, it scrubs the floor by the combined action of two counter-rotating brushes and then draws the dirty water into the recovery tank.

It is also possible to spray the floor with water, actuating the brushes only for scrubbing and cleaning, without drying.

Finally, it might be required to switch off the water adjustments, when the floor is already wet, and make several runs until the floor is completely clean and dry.

The **VICTOR SD** machine is not intended for any other operations.

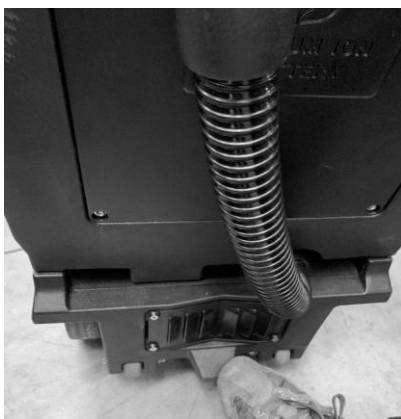
Any other operation should therefore be considered as misuse.

7. INTENDED USE OF THE MACHINE (machine being moved without washing or drying)

VICTOR SD can be handled without brush plate lowered and brushes in contact with the floor, or with the drying turbine turned off. This can happen during transfer from one room to another, at the end of cleaning or for other reasons. Just act on the rear support located on the machine back to be able to move it conveniently.

In the **versions with forward traction only (SDT)**, the machine traction occurs **ONLY** with at least one function engaged (brush and/or turbine).

If the machine is tilted and rested on the rear wheels, the word **OVER TILT** will appear on the display and all functions will be blocked!



8. REASONABLY FORESEEABLE INCORRECT USE OF THE MACHINE



Warning

The machine is not intended for outdoors use.

Do not wash and extract corrosive, flammable, explosive liquids, even if diluted.

It is strictly forbidden to use the machine in environments with explosion hazard where there are flammable and explosive gases, vapors, liquids and powders.

For safety

Do not wash the floors with water hotter than 50°C;

Do not use diesel fuel/benzene or corrosive detergents for washing floors;



Warning

The machine has been designed to work on flat surfaces and minor gradients.

The maximum permitted gradient, which can be travelled up either during operation or transfers, is 2%.

To travel down, it is recommended to move in reverse for optimal performance.

If one travels down in the travel direction, owing to the possible surface condition (wet, uneven or low friction material) dangerous slipping may occur, or long braking space, even more evident and hazardous when transferring and moving the machine, when the brush plate is lifted from the floor.

9. SUPPLIED KIT

No other material is supplied with the machine in addition to this instruction manual.

10. INSTALLATION

Preliminary operations

The machine is shipped completely assembled and packed on a pallet.

To load the machine from the pallet, resting it on the floor, use the special slide platform. It is recommended not to push the machine down the pallet without a suitable ramp.



Before use perform the following operations:

1. Perform a preliminary inspection to identify any problems that might cause malfunctioning or breakdowns.
2. Visually ensure there is no external damage, leaks and the wheels are not damaged.
3. Ensure the wiper is correctly adjusted.
4. Ensure the discharge pipe, the relevant cap, the pipe from the wiper are correctly installed.
5. Check battery conditions and if necessary, recharge it.

Should any damage, fault or missing parts be detected, do not commission the machine and contact your Dealer.

11. MACHINE PREPARATION AND COMMISSIONING

11.1. Machine start up

NOTE: Before operating the machine, perform preliminary inspection.

For Safety

Before starting the machine up, ensure the emergency on the back of the machine is not pressed.

11.2 Machine filling

For Safety

Before leaving the machine unattended or performing any maintenance operation, ensure it is on a flat surface, turn off the machine.

1. The solution tank may be filled to maximum filling capacity paying attention to the level shown in the small gauge pipe located on the side of the tank, under the filling spout.
2. It is advisable to fill the solution tank, and pour the filling water in the appropriate housing, fitted with blue filter (dirt filter)
3. Leave a sufficient volume for the detergent.
4. To avoid damaging the tank, the water temperature must not exceed 50°C.
5. Measure the amount of chemical in the solution tank after filling it with water. Before adding not-liquid chemicals into the tank of the solution, dissolve them completely. The machine can also be equipped with automatic chemical dispenser, adjustable from control panel (for version KiDo -optional).



12. USE OF THE MACHINE

12.1. Floor washing and drying

Plan the washing and drying route in advance. The longest route follows the perimeter of the area to be treated. The ideal route has the least turns, stops or brush plate lifting and lowering (to maneuver).

To obtain the best results, the area to be cleaned must be accurately swept prior. Remove large debris, ropes and cables, to prevent them to get into contact with the brushes or wiper.

If the machine is left on with the brush plate lowered and operating, the solution does not flow, and the brushes do not rotate unless the red lever behind the handle will be pressed.



12.2. Start of washing and drying

When the machine is used in the presence of people, pay the utmost attention to unexpected movement. Pay even more attention in the presence of children.

1. Press the switch on the battery compartment
2. Press the brush start button and suction button on the control panel. Both motors are ready to be started in **ECO mode**. when the operator starts pressing the buttons on the control handle.
3. Select the water flow quantity
4. Select the quantity of detergent (Optional)

NOTE: The rotation of the brushes and the flow of the solution are automatically interrupted when the operator takes off his/her hands from the handle. Brush motion and flow automatically resume when the start-up buttons are pressed again.

12.3. Double washing and single drying

Particularly dirty floors may not be sufficiently cleaned with one pass. In these cases, double brushing must be performed.

To perform double scrubbing and washing, make a first pass with lifted wiper, manually lifting it and locking it with the magnets.

In this way the solution is in contact with the floor while the brushes work to reduce the layer of dirt. Leave a reasonable length of time elapse so that the solution is sufficiently in contact with the floor. The length of time elapsed between the first and second pass depends on the amount of dirt and type of chemical used.

A second pass with wiper and brushes lowered and activated solution further reduces the layer of dirt. A further application of solution contributes to making a hard cleaning operation much easier.

12.4. Emptying and cleaning the recovery tank

1. Place the vehicle near a manhole drain. The discharge pipe is at the rear of the machine.
2. Remove the drain hose from the hook. Unscrew the cap and lower the drain hose towards the floor drain. Stay behind the end of the pipe. Lock the filthy water by pressing the rubber; remove the cap from the drain hose slowly. The recovered solution escapes with adjustable pressure from the rubber hose mentioned above.
3. Open the upper tank cover.
4. Wash the recovery tank with clean water. Repeat washing until clean water issues from the discharge pipe. Do not use water at temperature higher than 50°C as it might damage the tank.
5. Replace the cap and the discharge pipe.
6. If the machine must be left inactive for a long period of time do not close the recovery tank upper cover and the drain hose cap, to allow air to circulate inside it.



12.5 Emptying and cleaning the solution tank

1. Place the vehicle near a floor drain. Activate draining function as describe at chapter 1. This way, water flows out in the middle on the brush plate
2. Wash the tank with clean water and run clean water into the system, until reaching tank capacity. Do not use water at temperature higher than 50° to clean the tank as it might be damaged.

NOTE: Never leave the solution inside the tank as it might damage the tank, the seal gaskets and the solenoid valves.

13. CONTROL PANEL

13.1 Control panel



1. Start-up commands

Press either the right or left red button on the handle to start the machine.

CAUTION: when the machine is switched on, the red lever must NOT be pressed, otherwise the **RELEASE RED LEVER** alarm will appear

2. Display

When the machine is switched on using the key selector located on the emergency mushroom-shaped button, the total hours of work carried out and the total square metres washed hourly total square metres washed (optional) are displayed.

3. Brush button

E1: Lower brush speed rotation (ECO)

E2: Maximum power rotation

4. Suction button

You can select 3 modes:

E1: Rotation at lower rpm (recommended on hard/drainage free floors)

E2: Medium power rotation (recommended on most floors with drainage)

E3: Maximum power rotation (recommended on structured floors or with wide drainage lines)

5. Solenoid valve solution and/or detergent (only for KIDO) button

Press to activate or deactivate the dispensing of the solution – the appropriate icon appears on the display.

By holding the button down for 5 seconds you enter the menu to change the water flow rate on the brushes (L/min) and the percentage of chemical product to be dispensed (KIDO only). Memorization is automatic.

By holding down the button and the red lever at the same time (the other functions must be deactivated), you have the possibility of freely draining the water from the solution tank onto a specific drain or drain.

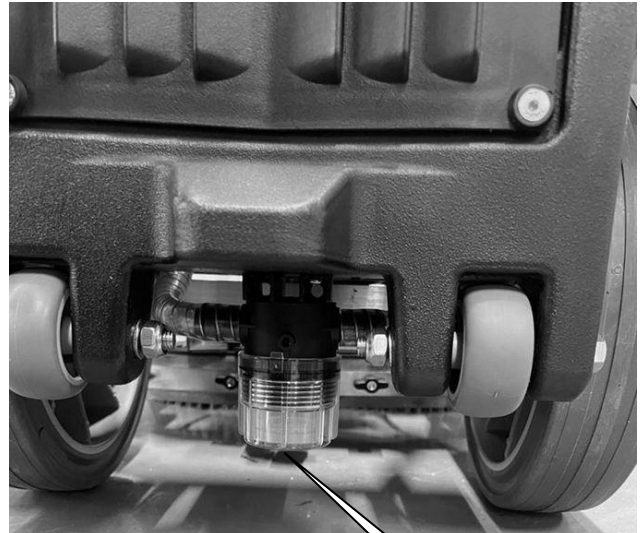
6/7. Traction speed buttons

Press button «6» to decrease, «7» to increase the forward speed of the machine, only for models with SDT traction. The ladder on the left side of the display will light up accordingly.

13.2 CONTROLS

It is recommended to clean the wiper after each work cycle: release it from the connection by unscrewing the locking knobs "1" and clean in running water.

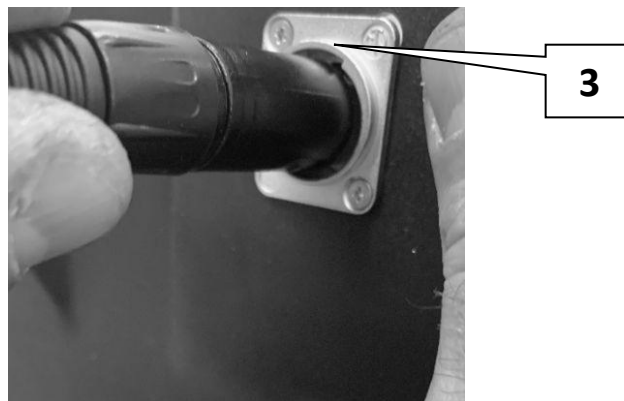
Water filter cleaning: it's located in the middle under the machine, unscrew the cap "2" and clean the inner mesh. Fit everything back on after cleaning



13.2.1 Battery charging socket

It is located directly on the back plate.

To unplug, press connector release button "3"



13.3. Batteries

The batteries supply the power to operate the machine. For the batteries to always assure peak performance, some maintenance operations must be regularly carried out.

The Lithium-Ion battery fitted is sealed and poses no hazards at all if it is used according to the requirements of the technical specifications.

The material contained in this battery may pose a hazard only if the integrity of the battery is undermined or if it has been tampered with, mechanically, thermally or electrically.

Caution: do not open or disassemble the battery, do not expose it to naked flames. Do not short-circuit, pierce, burn, break, overload, over-discharge or expose the battery to higher temperatures than indicated. In these case there might be explosion or fire hazard or release of unpleasant odors and fumes.

Indications for proper maintenance

Maintenance

- Recharge within 6 months. Recommended 3 months.
- Store at a temperature between 5 and 30 °C, in the original packaging.

Main rules and precautions for use

- protect the battery from possible impacts and mechanical and thermal shocks
- Do not disassemble the battery
- Adhere to the warnings on the appropriate battery label
- Do not leave the battery charger connected once charging is completed
- For other information please refer to the cell's technical specifications

Standards of reference

- EN 62281
- IEC 62133-2 Rev 2 (2017)

13.4. Charging the batteries

To charge the floor washer, connect the appropriate charger supplied to the socket on the machine then connect to the mains.



When the battery is empty, the writing **BATTERY EMPTY** appears on the display. The brush rotation and solution dispensing functions are deactivated. Only the suction and traction functions will remain active.

For safety

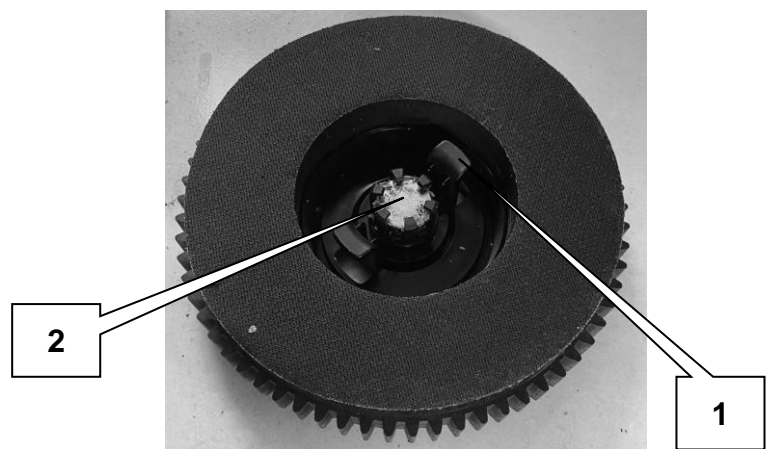
Before leaving the machine unattended or performing any maintenance operation, ensure it is on a flat surface, turn off the machine and remove the key.

When charging the batteries, connect the battery charger to the batteries before connecting it to the power outlet.

13.5. Brush replacement

This is done as follows.

1. With brush plate raised (tilted machine) **ATTENTION:** Operation to be carried out with empty recovery tank
 2. Pull the brush using the handle located in the center of the brush itself (1).
 3. In case of replacement, remove the magnet (2) from the worn brush and install it on the new one.
ATTENTION: all brushes/drivers are sold WITHOUT magnets to protect the environment and avoid unnecessary waste!
 4. To insert the new brush, take the brush using the central handle and bring it close to the black hub. The magnet placed in the center of the brush will hold it in place.
- To avoid deformation of the brushes or pads in case of non-use, it is always recommended to keep the machine in an inclined position, **WITHOUT water inside the tanks!**



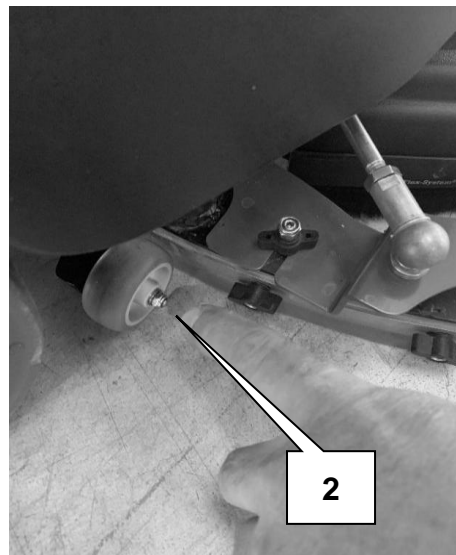
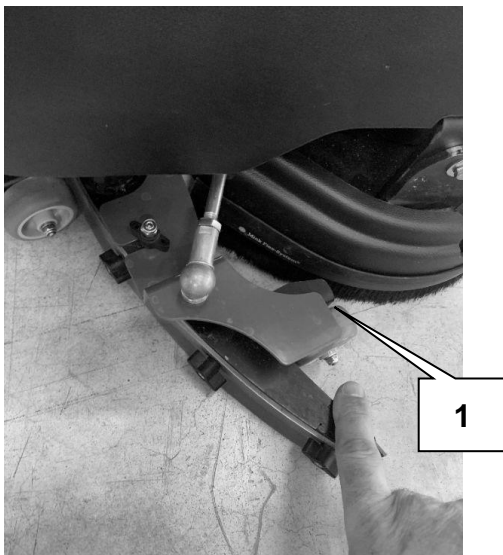
13.6. Wiper assembly

The machine is packed, shipped and delivered with assembled wiper.

13.7. Wiper adjustment

Two wiper adjustments are possible:

lengthwise tilting, act on the wheel locking nut, vertically move the two side wheels (1) to adjust the height and the central one (2) to adjust the tilt.



13.8. Wiper drying blade replacement

Two blades are assembled: one on the front and one rear, different from one each other. They are built to avoid installation errors.

The wiper has the purpose of picking up the water from the floor through a vacuum chamber that generates inside it.

To achieve maximum vacuum, plastic material drying blades (various types) are fitted that allow it to perfectly adhere to the floor with no vacuum losses. Blade replacement is therefore required to prevent decrease of water extraction properties by the wiper.

To replace the blades:

1. Loosen the two knobs, on the right and left, that lock the wiper and aim it outwards to make access easy. Remove the wiper and place it on a work bench.
2. Loosen and remove the thumbscrews that fasten the blade.
3. Remove the fastening strap and the blade, then rotate upside down or completely replace the blade.
4. The same blade can be used for 4 times, causing it to work, every time, on a different edge (you should turn them every 20 working hours as a maximum).
5. Fit the blade and fastening strap on the reference pins, then screw the hand-wheels again.
6. Replace the wiper.

Normally the rear blade has an average service life halved compared to the front one.

It is also possible, if required to pass twice in the cleaning cycle, to manually lift the wiper, and fasten it with the magnets on the back plate.

In this manner the wiper remains lifted and allows the machine to wash, with the detergent on the floor. At the second pass, the wiper is lowered manually by detaching it from the magnets, to wipe the water off the floor and dry it.

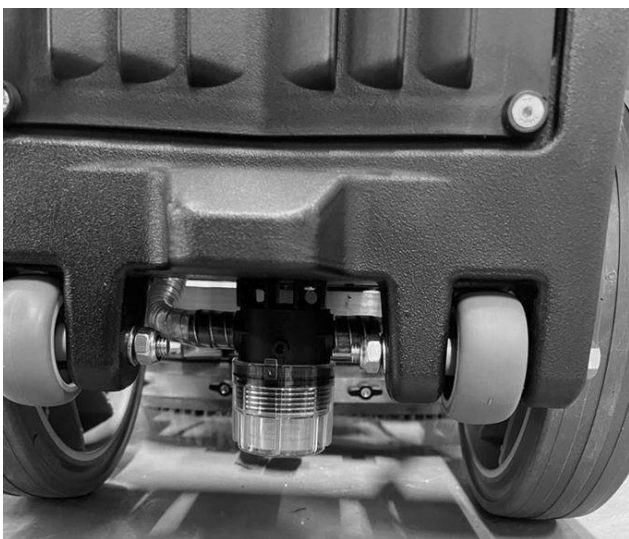
13.9. Clean water filter cleaning

The clean water filter is fitted under the machine's floor, in the middle. The filter has the purpose of preserving the solenoid valve controlling solution flow rate from any debris or sediment and dirt there might be in the solution tank.

It is recommended to clean the filter weekly.

To clean it unscrew the cup, remove the filter inside it and wash it under running water. Replace it and fit the cup back in.

The filter used also acts as a shut-off valve on the solution tank, that is by unscrewing the cup the flow automatically stops



13.10. Hepa filter replacement

It is recommended to replace the Hepa 13 filter every approximately 250 hours of work which is installed directly on the exhaust of the suction motor.

To replace it, you need to access the suction motor, remove the soundproof filter and the three elastic bands that hold it in place. Replace and reassemble everything.

13.11. Maintenance schedule

Maintenance action	daily	every 50 hours	every 250 hours
Check seal of recovery tank cover.	x		
Visually check integrity (damage or wear) of the tyres.		x	
Ensure the brushes are correctly mounted.		x	
Check connections of vacuum flexible hoses.	x		
Clean the detergent solution filter and tank. Check flow.		x	
Clean brushes and check them for wear.		x	
Clean wiper rubbers and check them for wear.	x		
Clean the outer part of the tank. Check integrity.	x		
Charge batteries.	x		
Clean the detergent solution filters. (in the bottle)		x	
Hepa 13 filter replacement			x

13.12. Summary for good maintenance of the machine

1. Unloading from pallet: always use a wooden base to slide down the machine
2. Loading or unloading on/from vehicle: lift the head (tilt),
3. End cleaning: always tilt the machine
4. End cleaning: always clean the recovery tank/dirty water
5. End cleaning: always clean the drying blades
6. Suction blades: it is recommended to turn them when necessary, bearing in mind that there are 4 useful positions.
7. Brushes: check for wear and replace them when requires and in any case at least once a year.
8. Water filter: inspect it and wash it regularly.
9. Batteries : charge for at least 2 hours

13.13 Troubleshooting

PROBLEM	CAUSE	SOLUTION
Machinery without power supply	Emergency button pressed	Check the button
	Disconnected power cables (behind emergency button)	Check connections.
	Flat battery	See display
No thrust forward or poor thrust backward	Worn brushes	Check wear
	Unsuitable brushes for the floor	Check type
	Traction motor damaged	Check traction motor
Poor water collection or no water collection	Wiper not adjusted	Adjust the wiper
	Wiper clogged by debris	Remove debris
	Worn wiper blades	Rotate or replace the blades
	Water collection flexible hose clogged	Release the vacuum flexible hose
	Water collection flexible hose not correctly inserted in the recovery tank	Reconnect the vacuum flexible hose.
	Water collection flexible hose damaged	Replace the flexible hose.
	Recovery tank not hermetic.	Replace damaged seals (gaskets)
	Recovery tank full of foam	Empty the recovery tank, use less detergent or a different detergent. Use an anti-foaming agent.
Detergent solution flow to the floor is poor or absent	Solution tank empty	Fill the detergent solution tank.
	Detergent solution flow de-activated or adjusted too low	Activate detergent solution flow or increase the flow adjustment
	Detergent solution filter obstructed	Clean the detergent solution filter.
	Obstructed piping of the detergent solution	Clear the piping.
	Detergent solution solenoid valve obstructed or jammed	Clean or replace the solenoid valve

13.14 Alarms on the display

PROBLEM	CAUSE	SOLUTION
OVER CURRENT BRUSH	Absorption limit allowed for the brush motor exceeded	Check that the brushes rotate freely Check that the brush/flooring is correctly matched
OVER TEMPERATURE BRUSH	Electronic board temperature limit exceeded due to brush motor	Check that the brushes rotate freely Check that the brush/flooring is correctly matched
OPEN CIRCUIT BRUSH	Brush motor cable disconnected	Check brush motor wires
OVER CURRENT SUCTION	Absorption limit allowed for the suction motor exceeded	The vacuum motor could be damaged
OVER TEMPERATURE SUCTION	Electronic board temperature limit exceeded due to suction motor	The vacuum motor could be damaged
OPEN CIRCUIT SUCTION	Suction motor cable disconnected	Check Suction motor wires
OVER CURRENT TRACTION	Absorption limit allowed for the traction motor exceeded	Check that the wheels turn freely Check ramp inclination Check traction motor
OVER TEMPERATURE TRACTION	Electronic board temperature limit exceeded due to traction motor	Traction motor could be damaged
OPEN CIRCUIT TRACTION	Traction motor cable disconnected	Check Traction motor wires
RECOVERY TANK FULL	Recovery tank full	Empty and clean the recovery tank
RECOVERY TANK ATTENTION	Recovery tank full almost full	If possible, empty recovery tank
OVER TILT	Machine inclined/resting on rear wheels	Place the machine in working position
OVER TILT SENSOR ERROR	The gyroscope is damaged or out of order	Try reloading the program
RELEASE RED LEVER	Machine turned on with red lever pressed	Check if microswitches under the red lever are pressed or stuck
BATTERY EMPTY	Battery discharged (brushes deactivated; Suction and traction still running)	Charge the battery, at least for 30 minutes
BRUSH ADAPTIVE MODE	Brush motor consumption close to its limit	Floor too rough, Wrong brushes

14. Sound emission

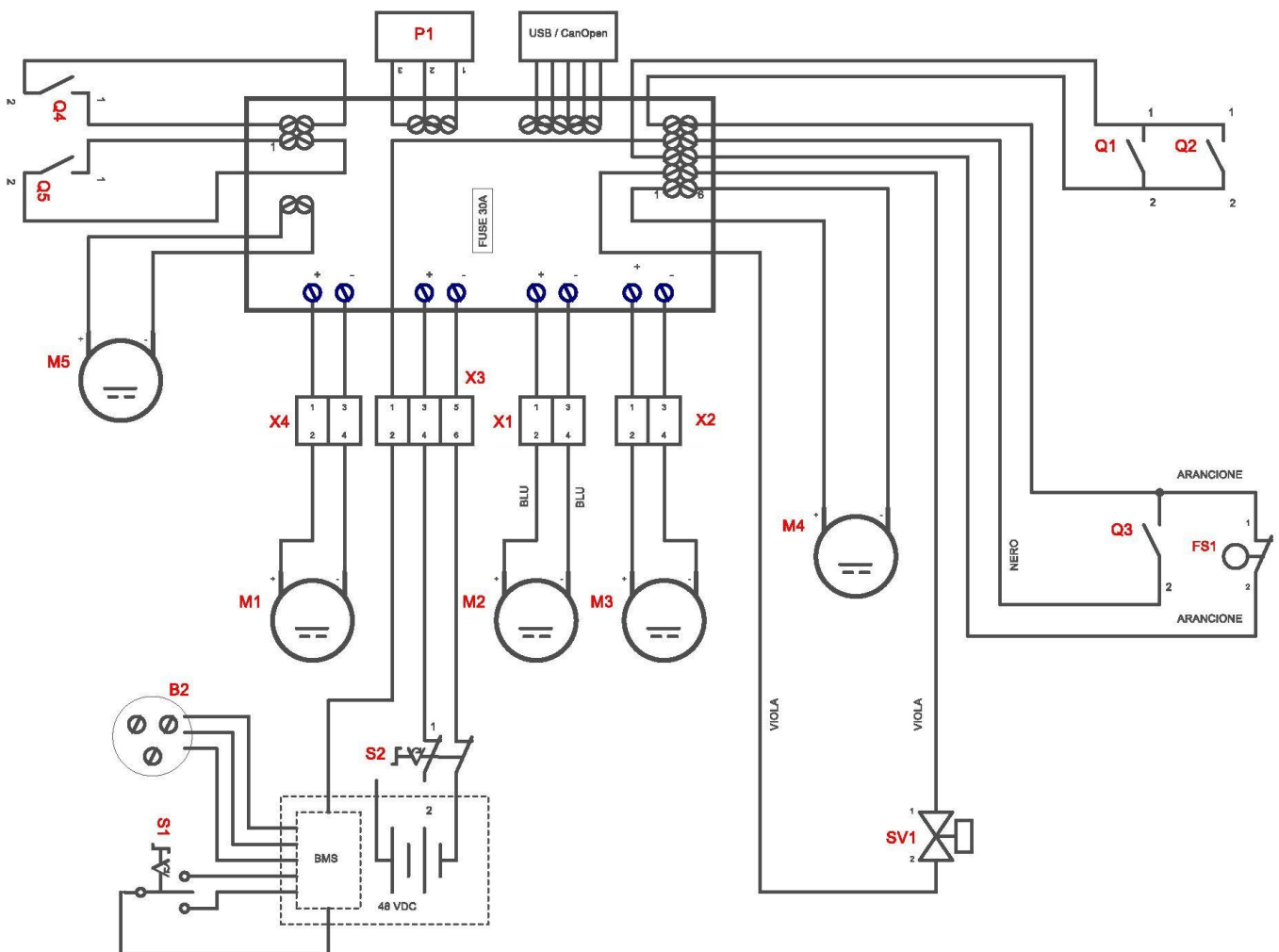
The Leq equivalent level averaged over multiple processing cycles was detected with Class 1 precision sound level meter as set out in IEC standards with constant fast-slow reading, both from the position where the operator is located, and in positions surrounding the machine being considered.

The measured value of the sound pressure at the level of the operator, is equal to $Leq(A) = 66 \text{ dB(A)}$.

15. Wiring diagram

Legenda	Description
B1	Li-ion battery 50V
B2	Charging plug
E1	Mainboard
FS1	Floating level sensor
M1	Suction motor
M2	Brush motor
M3	Traction motor (Only T version)
M4	Peristaltic pump (only with KIDO)
M5	Ventilation fan (optional)

Legenda	Description
P1	Water flow meter (Optional)
Q1 / Q2	Microswitch
Q3	Cleaning sqm counter (optional)
Q4	Pushbutton «-» speed (only T)
Q5	Pushbutton «+» speed (only T)
S1	Battery switch ON/OFF
S2	Emergency pushbutton
SV1	Solenoid valve
X1, X2, X3, X4	Connectors



UK DECLARATION OF CONFORMITY



We:

**IIC PRODUCTS Ltd, t/a VictorFloorcare,
Unit 15/16 Ace Business Park,
Mackadown Lane, Birmingham**

declare under our responsibility that the products:

Machine Type: ☐ SD-20 ☐ SD-40 ☐ SDT-40 ☐ SD-50 ☐ SDT-50

Serial number: _____ **Year of manufacture:** _____

to which this documentation relates are in conformity with the following United Kingdom Regulations and their modifications:

Electromagnetic Compatibility Regulations 2016 (S.I. 2016/1091)

Electrical Equipment Safety Regulations 2016 (S.I. 2016/1101)

Supply of Machinery Safety Regulations 2008 (S.I. 2008/1597)

The Designated standard and Statutory Instruments applied are:

EN 60335-1:2012; EN 60335-1:2012/AC:2014; EN 60335-1:2012/A11:2014; EN 60335-1:2012/A13:2017; EN 60335-1:2012/A1:2019; EN 60335-1:2012/A14:2019; EN 60335-1:2012/A2:2019; EN 60335-1:2012/A15:2021 (Household and similar electrical appliances-Safety - Part 1: General requirements) Preumption of conformity of S.I. 2016 No. 1101, from 01/2021, publication 0061/22;

EN 60335-2-72:2012 (Household and similar electrical appliances - Safety - Part 2-72: Particular requirements for floor treatment machines with or without traction drive, for commercial use) Preumption of conformity of S.I. 2008 No. 1597, from 01/2021, publication 0015/21;

BS EN 60704-3:2019 (Household and similar electrical appliances - Test code for the determination of airborne acoustical noise);

BS EN 55014-1:2017+A11:2020 (Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission) Preumption of conformity of S.I. 2016 No. 1091, from 01/2021, publication 0007/21;

BS EN IEC 55014-2:2021 (Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity) Preumption of conformity of S.I. 2016 No. 1091, from 01/2021, publication 0007/21;

BS EN IEC 61000-3-2:2019+A2:2024 (Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments) Preumption of conformity of S.I. 2016 No. 1091, from 01/2021, publication 0007/21;

BS EN 61000-3-3:2013+A2:2021 (Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments) Preumption of conformity of S.I. 2016 No. 1091, from 01/2021, publication 0007/21

The Technical documentation relevant to the above equipment Will be held at the address above.

Edward Blackledge

Managing Director

Date of issue: January 2025

