



SM430 Manual Book



Sanitmax.com

SM430 Manual Book

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Preface

Thank you for choosing the electric-Scrubber SM430, the industrial auto cleaning machine that cleans faster, cleaner, safer, greener and is better for everyone. The SM430 compact design allows you to clean right to the edge and under obstacles, minimizing manual scrubbing. The battery-operated SM430 is equipped with two counter-rotating brushes that provide a deep scrub and a great cleaning result. The SM430 significantly reduces the amount of water and chemicals needed which both leads to a greener result and reduces the risk of slippery floors.

Please read this manual carefully for important information and operating instructions before using the SM430. Save this manual for future reference. The SM430 will provide excellent performance. The best results will be obtained when the SM430 is:

- Regularly maintained per the SM430 preventive maintenance instructions in this manual.
- Operated with reasonable care and caution.
- Maintained with manufacturer-supplied parts.

Purpose of the user manual

The purpose of the user manual is to provide the user with information in such a way that during the life of the SM430, the machine is used correctly, efficiently and safely, even in the event of reasonably foreseeable misuse.

The user manual contains instructions regarding:

- Personal operator Safety
- Intended and non-intended use of the SM430
- Instructions for daily use
- Maintenance instructions
- Storage conditions
- Disposal of the SM430

These instructions must be considered to avoid risks that could lead to physical and/or material damage.

Target audience

This user manual is intended for operators of the SM430 and their supervisors, as well as partners and importers.

Operators of the E100

The SM430 may only be operated by a person who has correctly read and understood the instructions in this manual or is trained by an experienced operator who has read and understood the instructions in this manual.








Reading guide

The following symbols and terms are used throughout this manual to alert the reader to safety issues and important information:

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Reading Guide

The following symbols and terms are used throughout this manual to alert the reader to safety issues and important information:

SYMBOL	TERM	EXPLANATION
	WARNING	Indicates a hazardous situation which, if the safety instructions are not followed, can lead to injuries of the operator or bystanders and light or moderate damage to the product or the environment
	CAUTION	Indicates a hazardous situation which, if the safety instructions are not followed, can lead to light and or moderate damage to the product or the environment
	ATTENTION	Indicated a liability situation, where the manufacturer or its partners and affiliates cannot be held accountable for damages caused by non-compliance
	STRONG MAGNET	Indicates the machine contains strong magnets. These can cause pacemakers to stop working or cause electronic data to be damaged, such as information stored on access passes.
	PACKMAKER	Indicates operator and maintenance crew wearing pacemakers should keep a minimal distance of 6in/15cm, in this specific case operators may not use the machine as a backpack.
	BATTERIES	Indicates a battery-operated machine, batteries must be charged according to the instructions in the separate class I battery charger user manual. Batteries must be disposed of according to your local laws and regulations.
	SLIPPERY SURFACE	Indicates the machine can cause floors to become slippery, in the work place, advised to place slippery surface signs in these areas.

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Introduction

The SM430 is an easy and safe machine to use. This manual helps you to get started and explains the operation and maintenance procedure. You will be pleasantly surprised by the fast and effective use of the battery-operated SM430. The batteries must be fully charged before use. Please refer to the user manual of the class | battery charger for correct procedure.

This manual is intended for those who work with the SM430 and/or perform daily maintenance. The manual must be read in full before the first actions. This manual describes the correct method of use, Safety measures, maintenance and transport.

Intended use of the product

The SM430 is a specialized machine for scrubbing hard floor surfaces. You can use any type of water-based scrubbing detergent.



Non-intended use of the product

Non-intended use can have consequences for the safety of operators and bystanders and will void the warranty on the product.

- NEVER operate the SM430 near flammable dusts, liquids or vapors.
- NEVER operate the SM430 when flammable or poisonous liquids like gasoline, oil acids, or other volatile Substances are on the floor.
- DO NOT fill the SM430 with any flammable detergent. ONLY use the water-based cleaning solutions.
- DO NOT use water that exceeds 113 °F/45°C. Using water above this temperature will void the tank warranty.
- DO NOT use cleaning solutions with pH below 3 or above 11 in order to prevent damage to sensitive components.
- DO NOT use the SM430 outdoors or on uneven surfaces.
- DO NOT operate this SM430 over electrical floor outlets in order to avoid electrical shock.
- NO RIDERS! Do not carry passengers on top of the SM430.
- DO NOT use the SM430 as stepladder or platform.
- DO NOT store the SM430 outside in order to avoid damage to electronic components.
- ONLY use manufacturer-Supplied parts for maintenance.
- KEEP AWAY from children! The SM430 is a professional cleaning machine to be used by trained adults only.



Lifespan

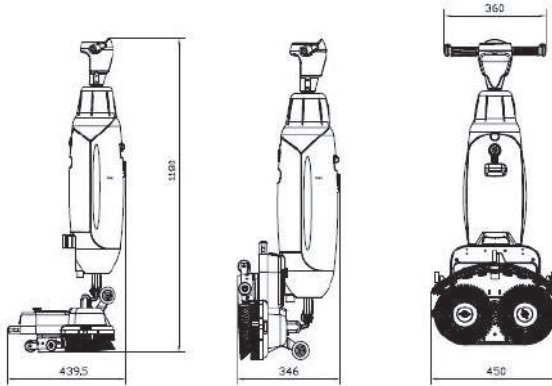
Each SM430 is guaranteed to operate for one year. The wear on brushes and squeegee heavily depends on the roughness of the surface. They need to be checked regularly.

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ensure proper and safe operation throughout the life of the SM430, the machine must be checked every 500 hours by an authorized partner;

Modifications

It is not permitted to make modifications to the design of the SM430 without consultation and permission from the manufacturer. This affects the warranty. Specifications



ITEM	SM430
Rated voltage	DC-36V
Working efficiency	10000sqft
Brusher dimension	8.5*2 inch
Brush speed	350prm/min
Brush motor power	36V-120w
Brush pressure	12LBS
Vacuum motor power	36V-130W
Vacuum degree	10-12KPa
Detergent Tank capacity	1gal
Recovery tank capacity	1.7gal
Noise	65-67DB
Chargingtime of Battery	3hours
Batthey working hours	2hours
Battery weight	8LBS
Net weight	46LBS
Gross Weight	60LBS
Packing Size	45.5*20.7*15 inch
Production Size	46.5*17.7*13.6 inch

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Warranty

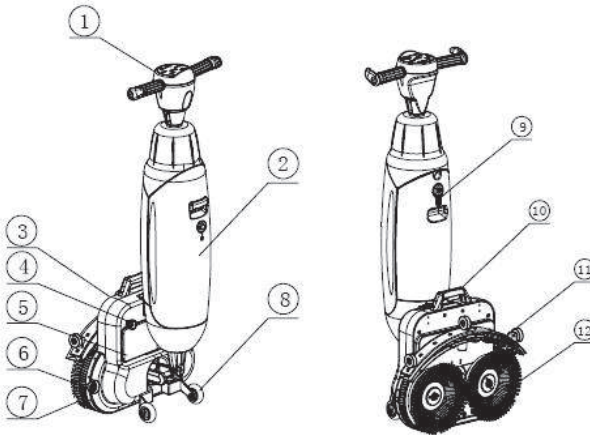
The SM430 should be used as intended and described in this manual. Using the SM430 outside will void the warranty on the product.

Description

- The SM430 consists of two main parts:
- The body that contains the motors (one vacuum motor, two brush motors), cleaning solution tank, recovery tank, handle and control panel with 3 functional buttons & one power display window).
- The scrub deck that contains the brushes and squeegee.

The SM430 can be folded into a park position; this is recommended for storage.

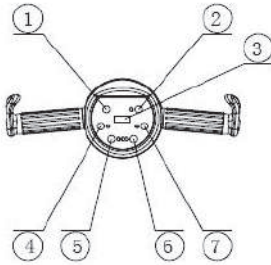
The SM430 consists of:



1	Top handle	7	Surrounding fence
2	Recovery tank	8	Castor wheels
3	Scrub deck	9	Solution tank
4	Battery pack box knob	10	Carrying handle
5	Battery pack box	11	Squeegee assembly
6	Bumper wheels	12	Brushes

The main section of the top handle consists of:

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1	Power switch (ON/OFF)	5	Brush on/off button
2	Water pump on/off button	6	Speed Adjustment – for low “-”
3	Battery indicator	7	Speed Adjustment – for low “+”
4	Vacuum on/off button	8	

Safety

Safety comes first. Therefore, please take your time to read and understand these safety instructions. Improper use can cause harm or void the manufacturer’s warranty. General Safety instructions

Sweep before scrub

Remove objects from the floor that can be propelled by the rotating brushes.

Brush condition

Make sure to check the condition of the brush before use. Change the brush only when the machine is turned off in a park position

Machine orientation

Always keep the body of the SM430 in an upright position when cleaning fluid or batteries are inserted.



Strong magnets

Please be aware of the integrated magnets that hold the fluid tanks in place.



Warning

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Operators and maintenance crew wearing pacemakers should keep a minimal distance of 6 in/15 cm.



Battery Pack

Always use the automatic battery charger provided by the manufacturer.

During normal operation, the 36V battery causes no Safety hazard on their own.

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Operation

Risks during operation

Dress safely

Do not wear a necktie, scarf, or any loose or dangling clothing or jewelry while operating the SM430, these can tangle in rotating parts, causing serious injury or death.

Mark the job site

The SM430 is designed to leave a dry floor without slippery patches, no additional drying is required. When running the E100 with the vacuum function OFF please mark the job site with a wet floor marker.



Caution

Marking the jobsite with a wet floor marker is not required when using the vacuum function of the SM430. Unless this is a mandatory work safety requirement by local law. When unsure: mark the job site to warn passersby.

Careful when parking

Do not park the SM430 on ramps or slopes. Always Park the SM430 on a level, hard surface.

Risks after operation

Remove battery pack

It is best practice to remove the battery before executing any cleaning or maintenance task, or before Storage.

Machine orientation

Always keep the body of the SM430 in an upright (park) position when replacing brushes or squeegee.

Transport and Storage

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General

Always keep the body of the SM430 in an upright position when filling the cleaning solution tank or inserting the batteries.

Before storage or transport, drain the machine and remove the batteries after each use.

Park position

The Park position is the upright vertical position for storage and maintenance tasks.

1. Make sure the vacuum hose is pushed back into the machine so it cannot get squeezed.
2. Crouch down and hold the handle with one hand while holding the scrub deck with your other hand.
3. Lift the scrub deck slowly until it stands upright on the front wheels. Guide the body towards the scrub deck until snaps into a resting position.

Transport outside

When outside:

1. Put the SM430 in park position (refer to below image).
2. Carry the SM430 with one hand while holding the handle with your other



hand.

The transport wheels are not designed to roll over dirty surfaces, sand can cause the wheels to block. Lift the SM430 going from one building to another.

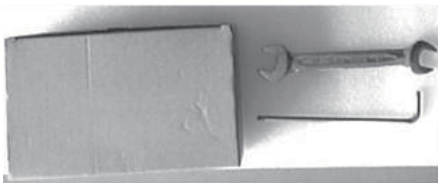
Assembly and installation

The SM430 almost does not require the assembly, you will have to get the wire connectors inserted in place in the battery pack box after taking the machine from the box.

Unboxing

The SM430 with one charger and 2 tool sets are packed in a box.

One charger and one wrench and one hexagon screw wrench are included (refer to the below image).



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Before operation(Charge the battery)

Charge the battery pack when it is correctly connected in the machine. Make sure the battery pack is charged monthly.

Operation(Before you start)

Check the brushes and squeegee for wear and tear.

During operation, the battery indicator on the control panel shows the amount of power left. **It is not recommended to use the battery when charged below 40%.**

Fill the cleaning solution tank

1. Remove the stopper.
2. Pour in a maximum of 18gal/4L of cleaning fluid.
3. Replace the stopper and make sure it seals tight.
4. Put the SM430 in park position.
5. Put the tank on the SM430 with the valve first.
6. Press the tank downward to break the valve seal.
7. Push the tank into place until you hear a "click".
8. Clean your hands afterwards.



Operation procedure

Walking to the job site

To move the SM430 from one location to another one in a building:

1. Put the SM430 in park position (refer to the below image).
2. Hold the handle with one hand (refer to the below image).
3. Walk slowly and pay extra attention if you pull the SM430 over obstacles.
4. To lift the SM430 over obstacles, always use two hands.
 - Hold the handle with one hand.

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- Lift the scrub deck with the other hand

Reminder: If the floor is quite flat, you can also rely on the castor wheels for easy movement.



Packing position

stop one of the castors wheels



Lift the scrub on other hand by holding the carrying

It is in the park position and get the main body tilted forward properly, then holding the properly, then holding the top

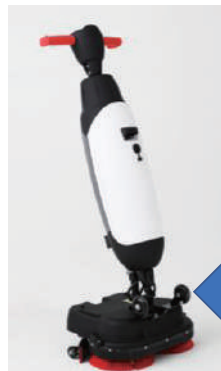
Attention: When the recovery tank has had a big amount of dirty water



Push the handle forward with your other hand

Crouch down while holding the carrying handle of the scrub deck

(Step 1~2)



To stop one of the castor wheels

(Step 3)

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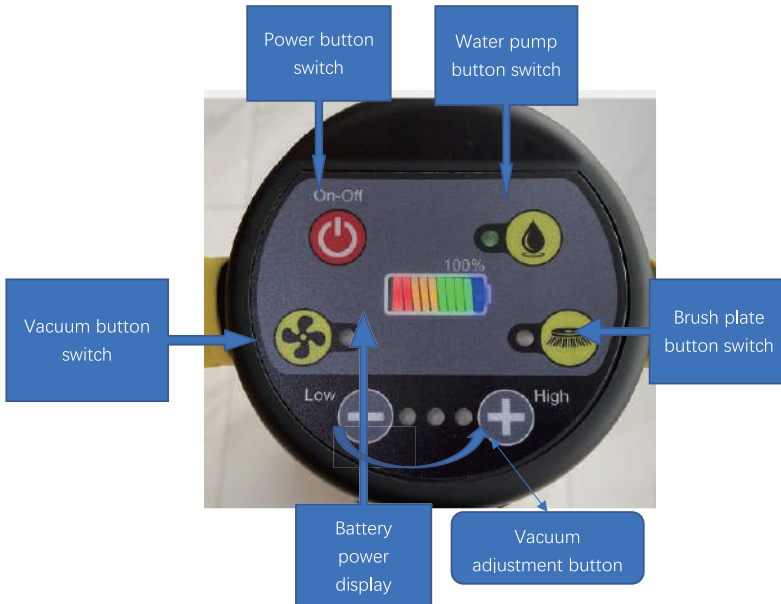


WARNING

Never push down the scrub deck with your foot.

At the job site

1. Crouch down while holding the carrying handle of the scrub deck firmly with one hand.
2. Push the handle forward with your other hand.
3. Bring the scrub deck slowly down to the floor.
4. stand behind the SM430.
5. Choose your cleaning mode via the mode buttons/switches (refer to the below image) after pressing down the main On/Off switch first at the rear side of the control panel (refer to the below image), meanwhile, the battery indicator will illuminate.



MODE 1: Vacuum only (Pressing down the Vacuum button only), the product will not move forward automatically

MODE 2: Brush only (Pressing down the Brush button only). the product will move forward automatically

MODE 3: Water/cleaning solution only (Pressing down the water pump button only), the

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product will not move forward automatically.

MODE 4: Vacuum + brush (Pressing down both the vacuum button and the brush button),

MODE 5: Vacuum + water/cleaning solution (Pressing down both the left button and the right button),

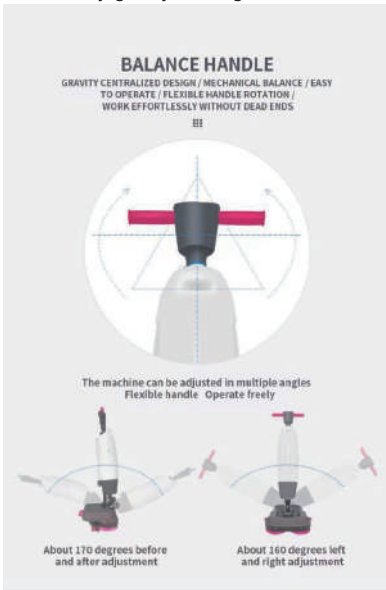
MODE 6: Brush + water/cleaning solution (Pressing down both the middle button and the right button), the product will not move forward automatically,

MODE 7: Brush + water/cleaning solution+ Vacuum (Pressing down all 3 buttons), the product will move forward automatically and cleaning the floor with water cleaning and vacuum automatically.

6. hold the handle with both hand .

7. Walk behind the SM430

8. Steer by gently turning the handle left or right to move the scrub deck.



.If you want to stop cleaning the floor , please according flow instruction :

1. Press water cleaning button to stop the water releasing;
2. Press brush button to stop the brush (we recommend continuous move forward 5~8m to keep cleaning activities)
3. Press vacuum button to stop the vacuum
4. Press power off
- 5.

Note:

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Releasing the main on/off switch will immediately stop the SM430. But due to the water releasing more on the floor, we recommend you first stop the water cleaning button , and continuous forward 5~8m to keep your floor cleaning and no any dust or water leave on the floor)



Warning!

- Do not operate the SM430 at greater than arm's length. Operating below a 45-degree angle can cause water to run into the vacuum engine.
- Dispose water or cleaning solution from both tanks in an appropriate drain. Even though the recovery tank is bigger, empty it each time the cleaning solution tank is filled.
- Please observe the local provisions regarding solution disposal related to wastewater treatment.
- Flush the system Be sure to flush the tanks out completely. To thoroughly flush out any solution in the lines and vales

Cleaning and storage

1. Refill solution tank with 0.5 to 1 liter of clean water-.
2. Use the SM430 main on/off switch and choose MODE 7 Brush + Water/Cleaning solution + Dry vacuum by pressing all the 3 Switches.

Cleaning the tanks

1. Dispose water or cleaning solution from both tanks in an appropriate drain.
2. To clean the recovery tank thoroughly:
 - Partially fill the tank with fresh water and hold it horizontally with the holes facing up.
 - Tilt the tank repeatedly, thoroughly rinsing all the dirt and debris out from the tank.
3. To clean the solution tank, follow the same procedure.

TIP: Dry the tanks

Slightly open both tank caps before storage to allow the tanks to dry.

Check the brushes and squeegee

1. Check to see if both brushes are clean and intact.
 - Clean the under fresh water or replace them if necessary.
 - Replace brushes if the yellow wear indicator is the same height as other bristles.
2. Check to see if the squeegee is clean and intact.
 - Clean it with fresh water and wipe it with a clean, damp cloth.
 - Replace the squeegee blades when necessary.

Store in an upright position

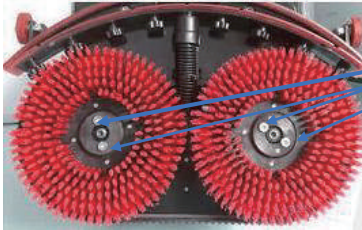
1. Please ensure that the SM430 is parked in a place where nobody can bump into it.
2. Put the SM430 in the park position.
3. Store the SM430 close to a wall with the handle pointing towards the wall and the brushes facing away from the wall.

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Maintenance

Brushes replacement

1. Put the SM430 in the park position.
2. The brushes connect on the machine by magnetic force. So simply grab the left and right side of the brushes (stripping pads holder) by two hands and pull the brush out against machine;



Each 2 screws

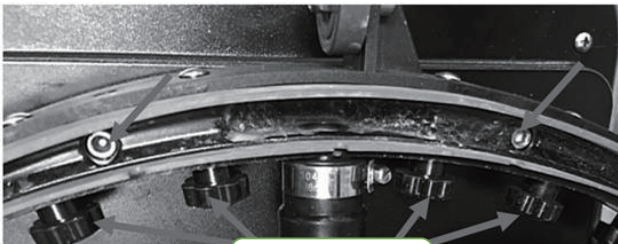
3. Visually inspect the motor disks
4. Clean the SM430 scrub deck with a clean, dry cloth before you install the brushes or stripping pads holder.

Squeegee replacement

The squeegee blades come in pairs and wear out over time. When you notice the floor is no longer being dried properly, replace the squeegee blades

Detach the squeegee

1. Put the SM430 in the park position.
2. Hold the scrub deck firmly with one hand.
3. Use the supplied hex wrench to remove the two hexagonal screws inside the squeegee completely.
4. Pull out the squeegee properly.
5. Remove the vacuum hose from the squeegee by twisting the hose.



8 Plastic nuts

Flip/replace the squeegee blade

1. Unscrew the 8 plastic nuts on the back (refer to the above image).

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2. Take off the squeegee rear plate.
3. Once the plastic part is removed, you can easily take off the rear rubber blade.
4. Push the 8 screws through the front blade in order to remove the squeegee front plate.
5. Take off the rear rubber blade.
6. Inspect the front and rear rubber blades:
 - The first time: flip the blades so the top of the blade is now facing the floor. Push the front plate screws through the holes
 - The second time: attach a new set of blades. Push the front plate screws through the holes.



Caution:

The special squeegee blades that contain small arrow-like shapes cannot be switched. These need to be replaced every time

- Put back the plastic rear plate.
- Screw the 8 plastic nuts on the back.



Attach the Squeegee:

1. Take the vacuum hose,
2. Insert the hose connector (refer to the above image) in the Squeegee.
3. Twist the hose connector 1/4turn for a firm fit.
4. Carefully pull the vacuum hose from the top of the machine
5. Hold the scrub deck firmly with one hand.
6. Align the pins on the scrub deck with the holes on the squeegee.
7. Screw the squeegee in place.

Replace vacuum hose

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Hose connector

1. Detach the squeegee as described in above sections.
2. Remove the solution tank. You can see where the vacuum hose is connected at the E100 handle.
3. Hold the scrub deck firmly with one hand,
4. Detach the vacuum hose by twisting the connector 1/4 turn anticlockwise.
5. Now you can carefully pull the vacuum hose from the top of the machine.
6. .Guide the new vacuum hose via the opening to the hose connector located at the SM430 handle.
7. Connect the top to the hose connector by twisting the clockwise 1 /4 turn until they have lined up.
8. Reinstall the squeegee.

Recommended additional cleaning

Clean the exterior of the SM430 weekly with a non-abrasive, non-solvent cleaner or a clean, damp cloth. To clean the scrub deck, remove the brushes first

Decommissioning and disposal

It is the responsibility of the SM430 owner to dispose of the product responsibly. After decommissioning, the SM430 still contains valuable resources and needs to be disposed of according to your local laws and regulations regarding recycling of electrical equipment.



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Before disposal please:

1. Flush the machine properly.
2. Remove the battery pack for separate disposal.
3. Remove all loose components like brushes, tanks and squeegee
4. Dispose all items according to your local laws and regulations

Troubleshooting

Problem	Cause	Solution
No power	No Battery pack	Put battery pack
	Empty battery pack	Charge battery pack
	Battery pack incorrectly connected	Reconnect battery pack
Insufficient/no water flow	Wrong switch on	Check the switch button on the control panel
	Main on/off switch is "off"	Check the main on/off switch button
	Empty tank	Fill the tank
	Tank incorrectly placed	The tank valve must be clicked on the nipple to open the seal, replace the tank
	Filter blocked	Ensure the solution tank have no dirt particles and the filter is clean
	Blocked water Pipe	Request for service
Poor water recovery	Squeegee opening blocked	Remove the pipe and clean the squeegee opening
	Tears in squeegee blades	Replace squeegee blades
	Filter blocked	Check the foam filter and clean if necessary
	Vacuum hose blocked	Check and remove blockage
	Vacuum motor not running	Request for service
leakage	Tanks incorrectly placed	Check and reattach fluid tanks
	Tear in vacuum hose	Replace vacuum hose or request for service
Battery not charging	Battery is at end of life	Replace battery

