



D8 Pro Floor Scrubber Manual



**Please read this manual carefully and make sure fully understand before using.
Please keep this Manual for future reference.**

Dycon Cleantec Co.,Ltd.

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Introduction

This manual provides necessary operation and maintenance instructions for each model of machine, which must be read by operators and equipment maintenance personnel.

Please understand the machine and read this manual completely.

It is convenient for you to operate or repair the machine.

This machine will provide you with efficient and convenient services. If you pay attention to the following items during operation, you can achieve twice the result with half the effort:

- Be very careful when operating the machine.
- Regular maintenance of the machine - follow the maintenance instructions provided for each machine.
- Please use the spare parts and accessories provided by Dycon when maintaining the machine.

Special tips:

- operator must be trained and can operate independently only after mastering the operation of controlling the forward, backward, turning, obstacle avoidance and emergency stop of the machine.
- when working, please do not operate the machine on the slope (the slope can only pass through non-working).
- If the squeegee is in working state, the machine cannot operate backward, the machine can enter the backward mode only after lifting the squeegee.
- flammable substances may cause explosion or fire. Please do not use flammable substances in the water tank.
- for safety reasons, park the machine on a stable floor before leaving or maintenance the machine. Turn off the machine and remove the key.
- It is forbidden to use this machine on land, grassland, artificial turf or carpeted ground.
- this machine cannot be used on public transport roads.
- Do not carry out other operations than those described in this operation manual.



It is forbidden to enter the slope when the floor scrubber is working! This will cause damage to the brush system

Washing the floor on the slope may cause accidents. For safety, please do not work on the slope.

The floor scrubber can only pass through the slope when it is not working!

Machine information (please record and collect it for convenient use during after-sales service)

Please fill in when the equipment is handed over for future reference.

Model - D8 Pro ride on floor scrubber

Serial No. - _____

Purchase date - _____

Technical description

Check the attached accessories and documents

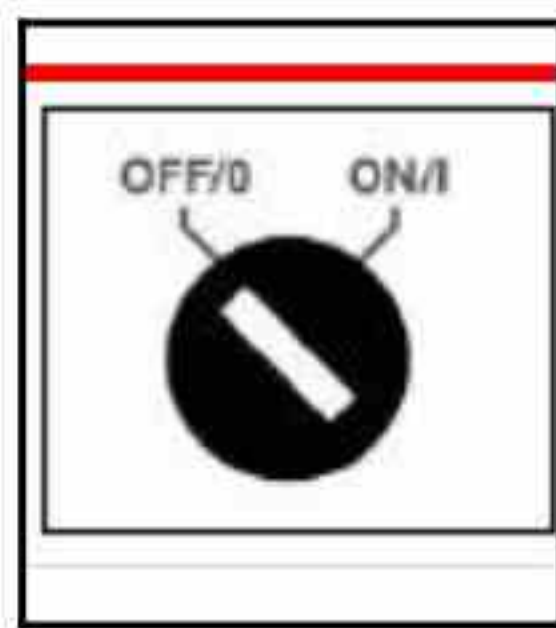
1. one squeegee (it has been assembled and can be used when connected with the machine).
2. two brushes (standard configuration). If you need pad holder, please propose to upgrade the configuration.
3. maintenance free battery + intelligent charger.
4. operator's manual.
5. two copies of machine handover form (one for the machine supplier and one for the machine owner).
6. product certificate

Please check whether the product serial number on the operation manual is consistent with the product serial number on the machine. If there is any error, please contact the field engineer immediately

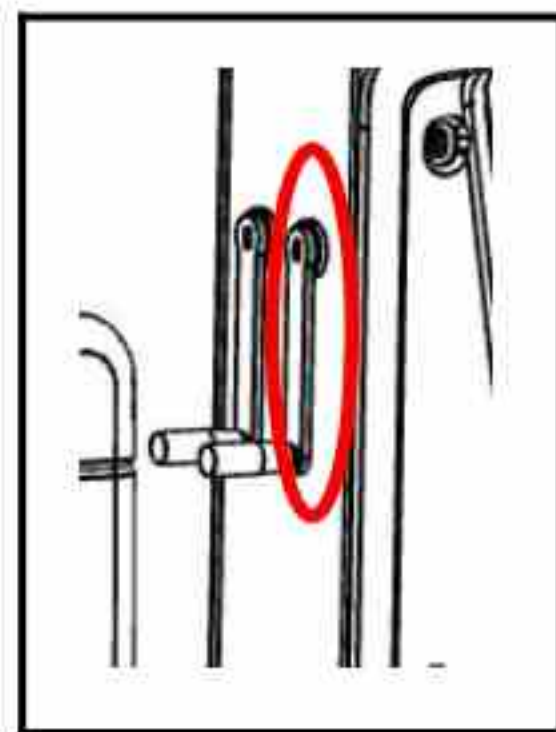
Technical parameter

| Model | Unit | D8 Pro |
|--|-----------------------|-------------------|
| Voltage | Volt | 24 |
| Wording width | Inch | 26 |
| Traction | Traction | forward/backward |
| Number of brushes | Pcs | 2 |
| Brush rotation speed | rpm | 170 |
| Brushmotor | Watt | 24/2×550 |
| Brush pressure | Lb | 85 |
| Squeegee width | Inch | 33.46 |
| Solution Tank | Gallon | 34.34 |
| Recovery Tank | Gallon | 36.98 |
| Batteries | V/AH | 2×12V/141AH/10H |
| Type batteries | standard | GEL |
| Sound Level | dBA | 68 |
| weight | Lb | 584.73 |
| Run time per charge | Hour | 4-5 |
| Cleaning Productivity | Ft ² /Hour | 41441 |
| Machine sizes | L×W×H Inch | 59.84*33.46*51.77 |
| Gradeability (safety requirements) | % | 10 |

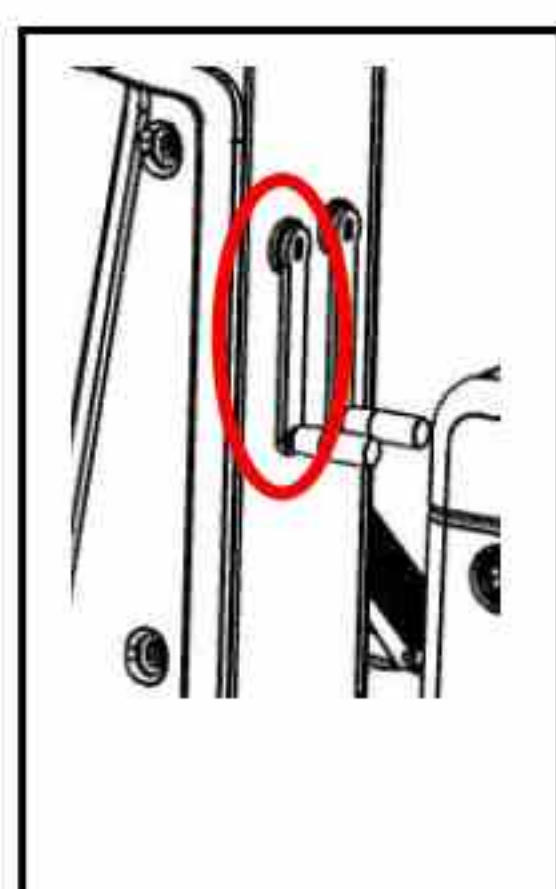
| |
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| Symbol description |
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**Main switch (key switch)**

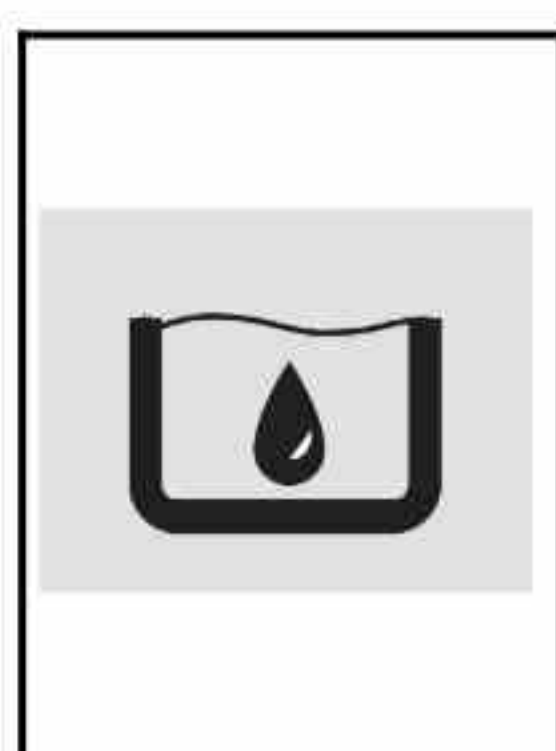
On the right side of the console, the key controls the on and off status of the equipment.

**Brush lifting handle**

The brush can be lifted and lowered directly by pulling the handle, the brush can be put down, as long as the machine moves forward, the brush will rotate automatically without additional switch control.

**Squeegee lifting handle**

Pull the handle to directly operate the lifting and lowering of the squeegee, put down the squeegee, the suction motor will automatically enter the working state. If the machine needs to backward, the squeegee must be lifted before entering the backward mode.

**Water full indication**

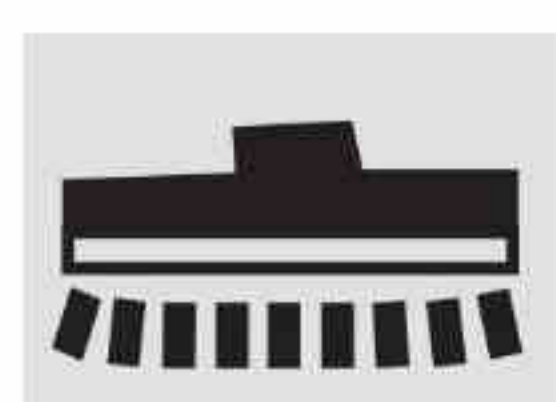
when the sewage in the recovery tank is full to the specified position, the indicator light will be on, the system will turn off the suction system and buzzer alarm.

**Battery on indicator light**

when the key switch is turned on and the machine is in normal working condition, the indicator light is green and always on.



Water absorption indicator light when the water absorption motor works, the water absorption indicator light is on at the same time.



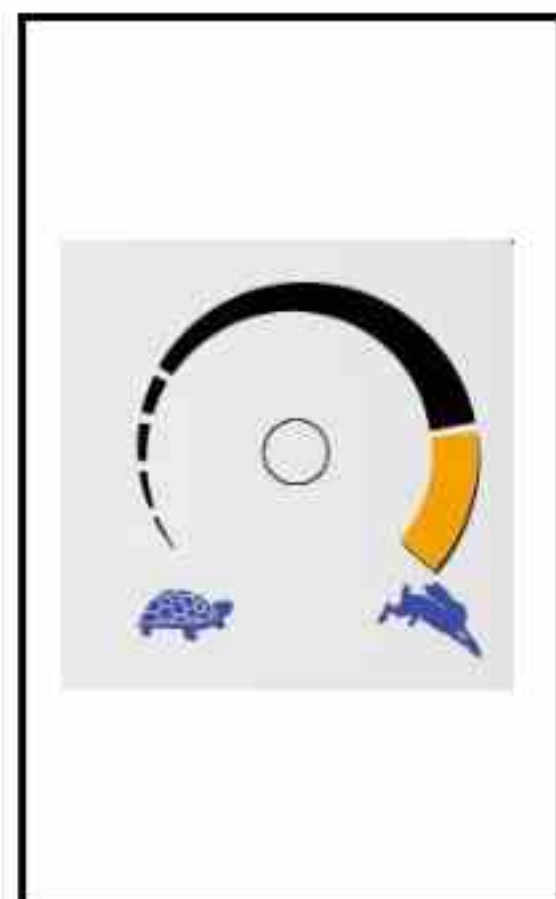
When the brush motor works, the brush disc indicator lights up at the same time.

| |
|---------------------------|
| Symbol description |
|---------------------------|

**Electricity status indicator professional electricity indicator, content:**

- 1) current voltage
- 2) remaining power (%)
- 3) accumulated working hours.

When the voltage is lower than 23V, the low voltage indicator flashes.



The constant speed control is used together with the pedal throttle to make the operation more convenient. Rotate the knob clockwise and the speed increases gradually. For safety, cleaning working do not operate in the yellow area.

**The water volume adjustment indicates**

the water volume is adjusted through the water volume adjustment handle, and the operator adjusts the water volume according to the work needs.



The operators should not only read the warning words carefully, but also keep in mind that they should not violate them. Once they violate them, they may cause adverse consequences



Operators should pay attention to all words that appear with attention to their appearance in their work. They should take this as the standard and form good habits.

**Emergency shutdown switch**

this switch can quickly turn off the control power supply of the machine and make the machine quickly out of working state

**Warning horn**

if you need horn warning, please press the switch



The headlight switch provides lighting for night work.

General safety rules

In order to avoid damage to personnel and machines, please read the following terms carefully:

- Please read the labels on the machine body carefully. They cannot be covered for any reason. If they are damaged, they should be replaced immediately.
- This machine can only be operated by authorized and trained personnel.
- When the machine is working, please pay attention to the safety of other personnel, especially children.
- Never mix different kinds of cleaners, which may produce harmful gases.
- Do not place any liquid storage containers on the machine.
- The storage temperature of the machine must be - 25 °C - 55 °C. Operating conditions of the machine: room temperature 0 °C to 40 °C.
- The ambient humidity of the machine should be 30 to 95%.
- The machine is not suitable for outdoor rough ground use and cannot be stored outdoors.
- This machine is not explosion-proof, and must not be used in an environment with explosion-proof requirements.
- This machine is not suitable for cleaning dangerous dirt or corrosive objects.
- Do not use flammable liquids.
- It is forbidden to use this machine to transport goods.
- It is forbidden to use strong acid solution to avoid damaging personnel and machines.
- The machine will automatically turn off the brush when it cannot running, so as to protect the ground from damage.
- When the machine is on fire, please use dry powder fire extinguisher to put out the fire. Do not use water to put out the fir.
- Do not run near the shelf or scaffold with falling objects.
- Select the appropriate operating speed according to the traction force.
- Note: in order to avoid the occurrence of instability, the machine is prohibited from working under slope conditions.
- After the machine is stopped, remove the key, and the machine will be in self-locking state to prevent sliding.
- The machine shall clean and dry the floor at the same time. Other operations of any unauthorized personnel are strictly prohibited, and appropriate notice boards shall be provided on the slippery floor.
- In case of any operation failure of the machine, please first confirm whether it is caused by insufficient daily maintenance; If not, please contact your equipment provider for help.
- When you replace accessories, please use Dycon's original accessories. Replacing non original accessories without authorization will lose the quality assurance qualification.

- Please select the brush or cleaning pad according to the guidance of "selection and use of cleaning brush".
- In case of danger, release the accelerator pedal immediately, and the machine will be in the braking state automatically, or press the emergency switch.
- Cut off the power supply of the machine before cleaning and maintenance.
- Do not disassemble parts that need to be disassembled with tools by hand.
- It is forbidden to wash the machine directly with corrosive reagent or high-pressure water.
- In order to prevent the detergent from condensing on the filter of the solution tank, please do not keep the clean water containing detergent liquid in the solution tank for a long time.
- It is strictly forbidden to use caustic soda as cleaning agent, which will damage the rubber.

Preparation and configuration of the machine



The machine is placed on a fixed wooden pallet and moved with a forklift; The machine itself does not have a position to be handled directly by forklift. It is strictly prohibited to handle the machine directly by forklift!

battery installation

The battery is installed in the specially designed battery position under the recovery tank

Standard configuration: 12V / 120AH battery pack

Special needs can be configured: 12V / 150AH battery pack

The original factory is equipped with brand maintenance free deep cycle high-efficiency power battery. Generally, the battery has been installed before leaving the factory. Please do not change the battery configuration at will. Please use the battery connecting wire and interface provided by the original factory to prevent polarity error and damage to the machine.

Battery connection: the power supply is composed of two 12V batteries connected in series. In order to maintain the ventilation of the battery, the battery should not be placed close to each other as much as possible, and a certain gap should be left between each battery.



The positive and negative polarity of the original battery has been verified. If you install the battery yourself, the positive and negative polarity must be confirmed correctly before connecting the battery, If the positive and negative poles are connected incorrectly, it will cause direct damage to the brush motor and suction motor!



Please use the original battery and charger. Changing any one of them will lose the quality assurance of the original battery or charger!



Please charge and maintain the battery according to the requirements of the operation manual, and check the battery regularly according to the maintenance requirements! The dirt on the battery surface shall be removed in time to ensure that the battery wiring is fastened. The battery surface shall not be covered and the ventilation of the battery shall be ensured.

Battery connection

The machine reserves a power connection line, which is connected to the "+" pole of the battery with a red mark, and the black connection line is connected to the "-" pole of the battery;

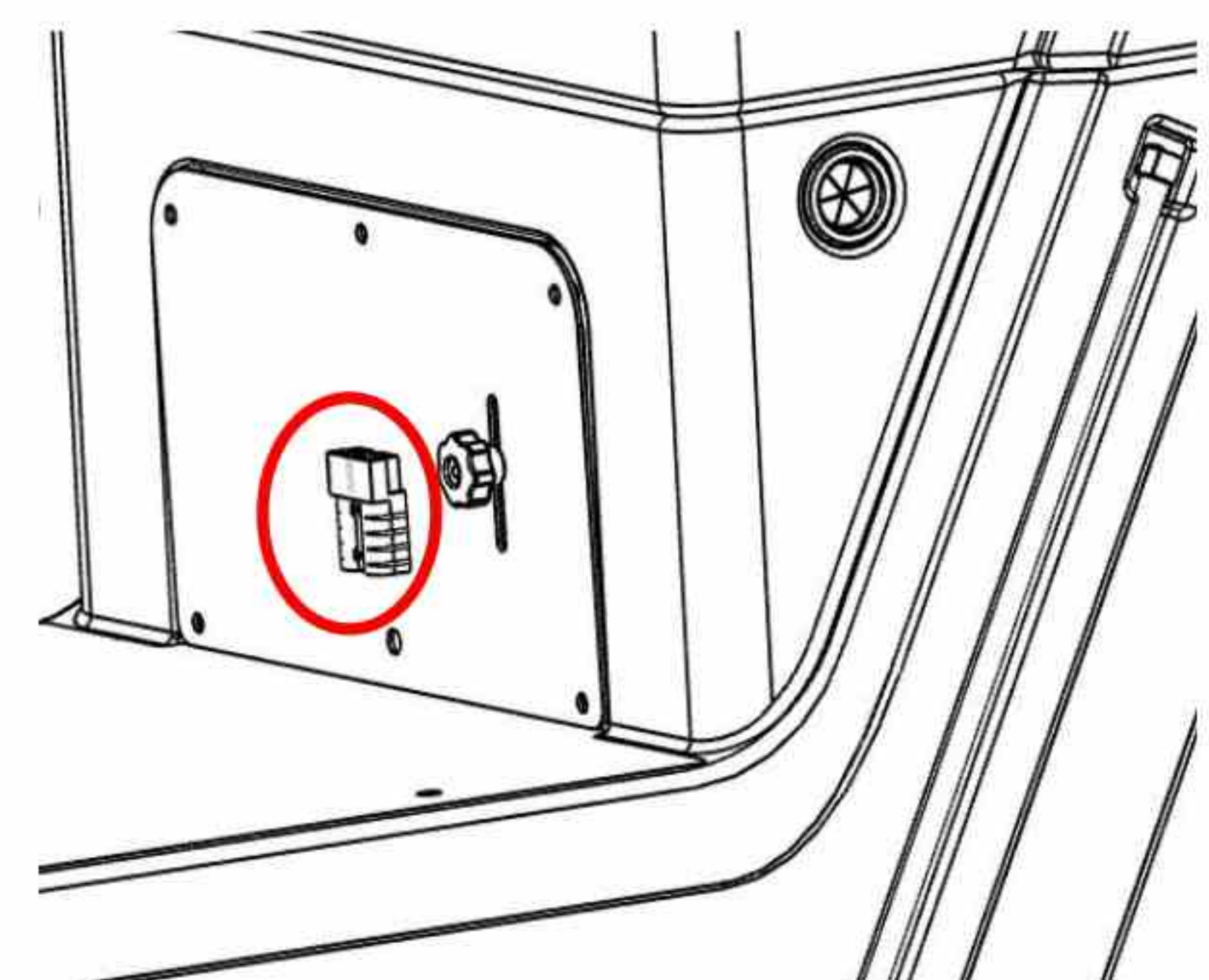
It is strictly prohibited to change the battery connector without authorization. Any change of the original battery connector will lose the quality commitment of the original factory.



When installing the battery by yourself, qualified personnel must be invited to operate. There must be no wrong connection between the positive and negative poles. Once the positive and negative poles are connected reversely, the brush motor and suction motor will be burned.

Charger connection

The charging interface has been installed before the machine leaves the factory. The charging interface is located under the seat. During charging, only connect the charger plug with the charging port.



Battery charging

The machine has a battery protection system. In order to avoid permanent damage to the battery, remember not to release all the power in the battery. When the machine sends a battery alarm, end the operation as soon as possible and arrange the machine to return to the charging area.

In order to protect the performance of the battery, the machine will automatically turn off the work of the brush and water absorption, only keep the walking motor working, and send out an alarm sound.



After the machine is turned off by voltage alarm, if the machine is not charged in time, after placing for one day or one night, the machine is charged and work, such repetition will do great harm to the battery. When such operation habits are formed, the battery will soon enter the attenuation period, resulting in irreparable damage.



The original configuration of the machine is a high-performance deep cycle maintenance free battery. The original charger must be used. The charger has intelligent management function and there is no need to worry about overcharging.



During one day's use, supplementary charging of the battery is allowed, but supplementary charging cannot replace normal charging. Ensure the normal charging after one day's operation. The normal charging shall be completed at one time and continuously charged for 8 hours. It is not allowed to replace normal charging with midway supplementary charging, which will cause permanent damage or even damage to the battery!

Battery power display meter

The voltage digital display + power% display + cumulative working time voltage in the table shows the working voltage output by the current battery



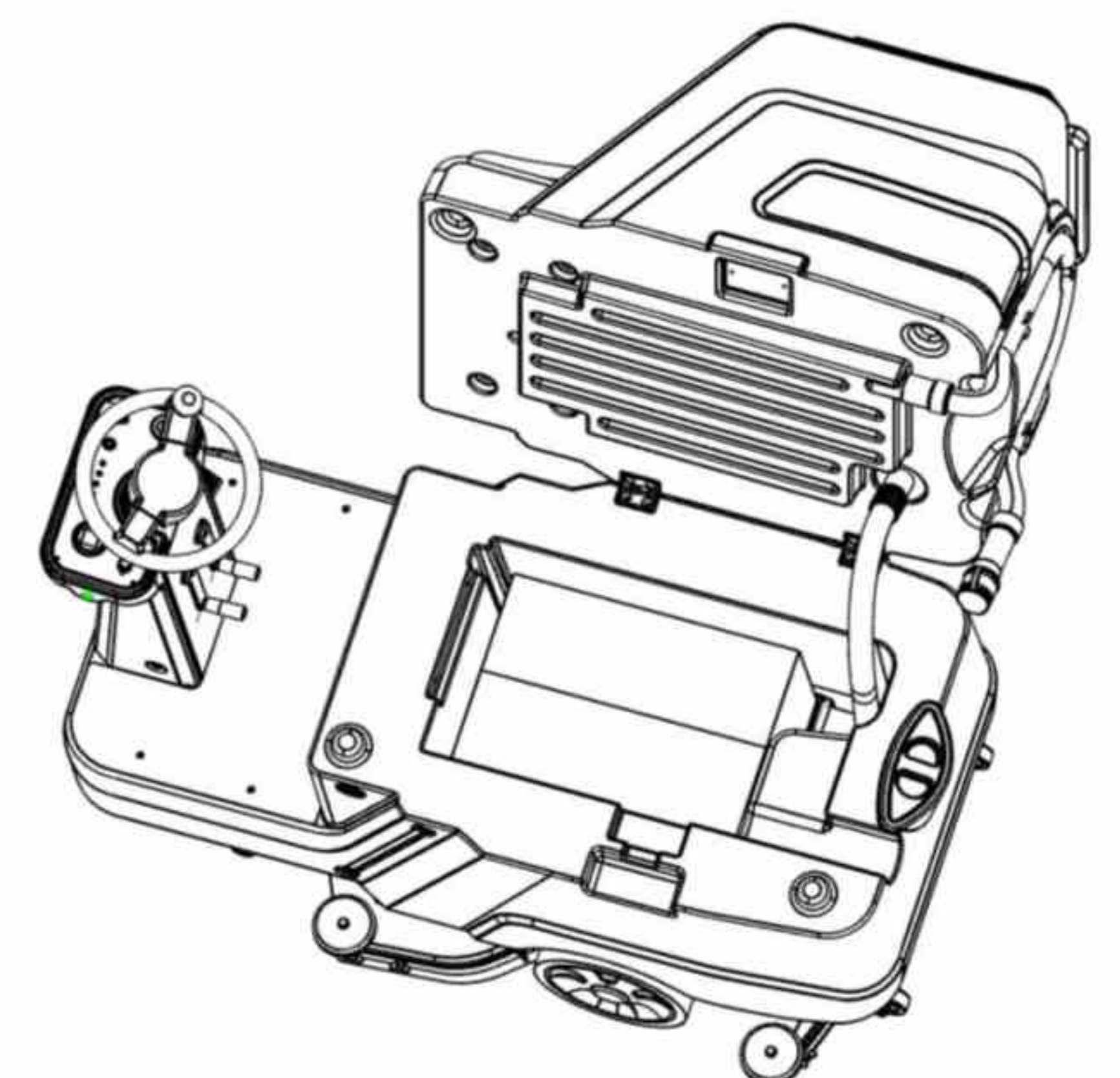
Power shows the percentage of battery power remaining

Cumulative working time refers to the working time of the machine so far

Battery maintenance content (once a month)

1. Check whether the use and charging of the battery are operated according to the specifications, and be sure to correct the bad operating habits.

(the battery can be recharged intermittently, but it cannot replace the normal full charge with intermittent recharge,

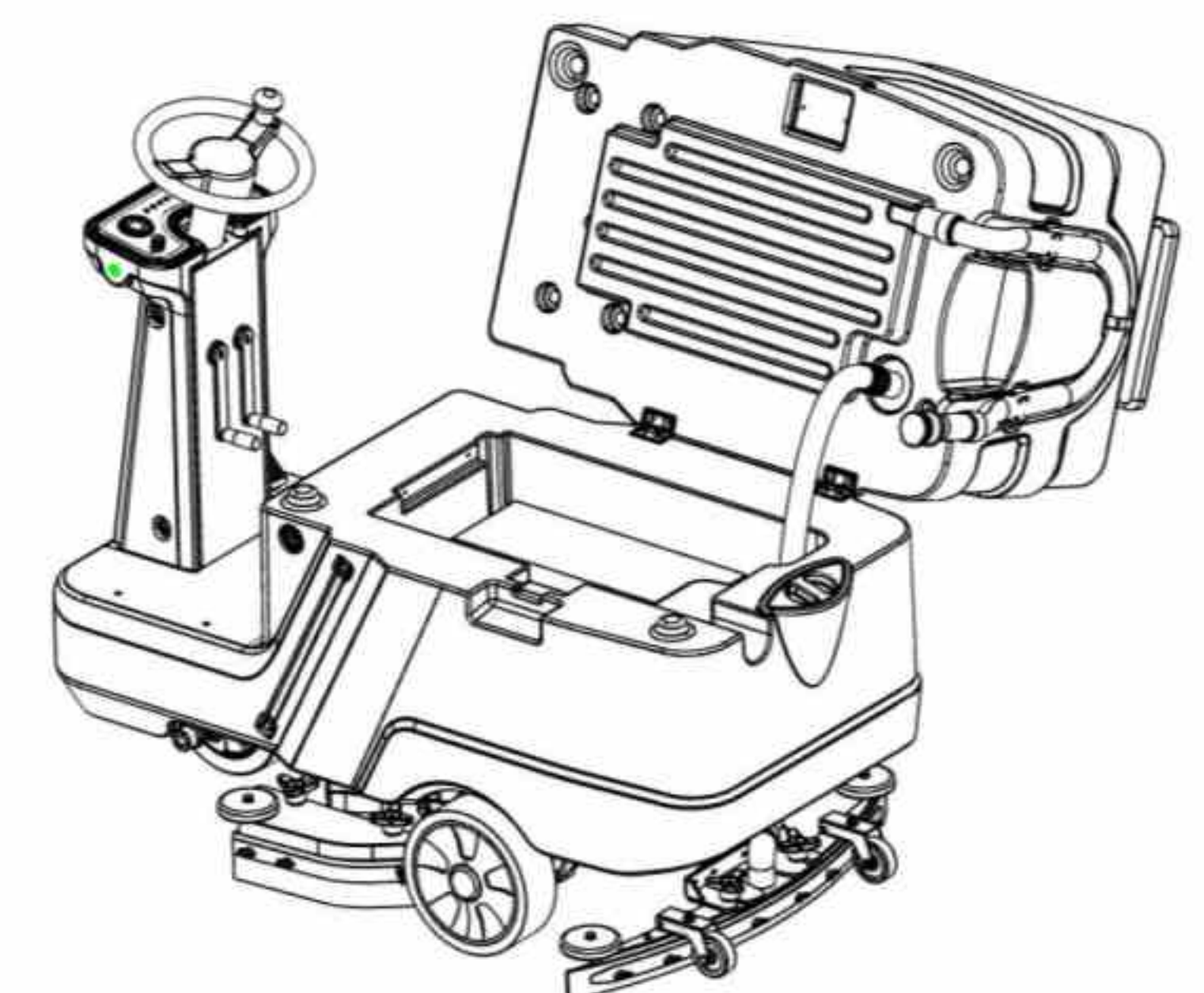
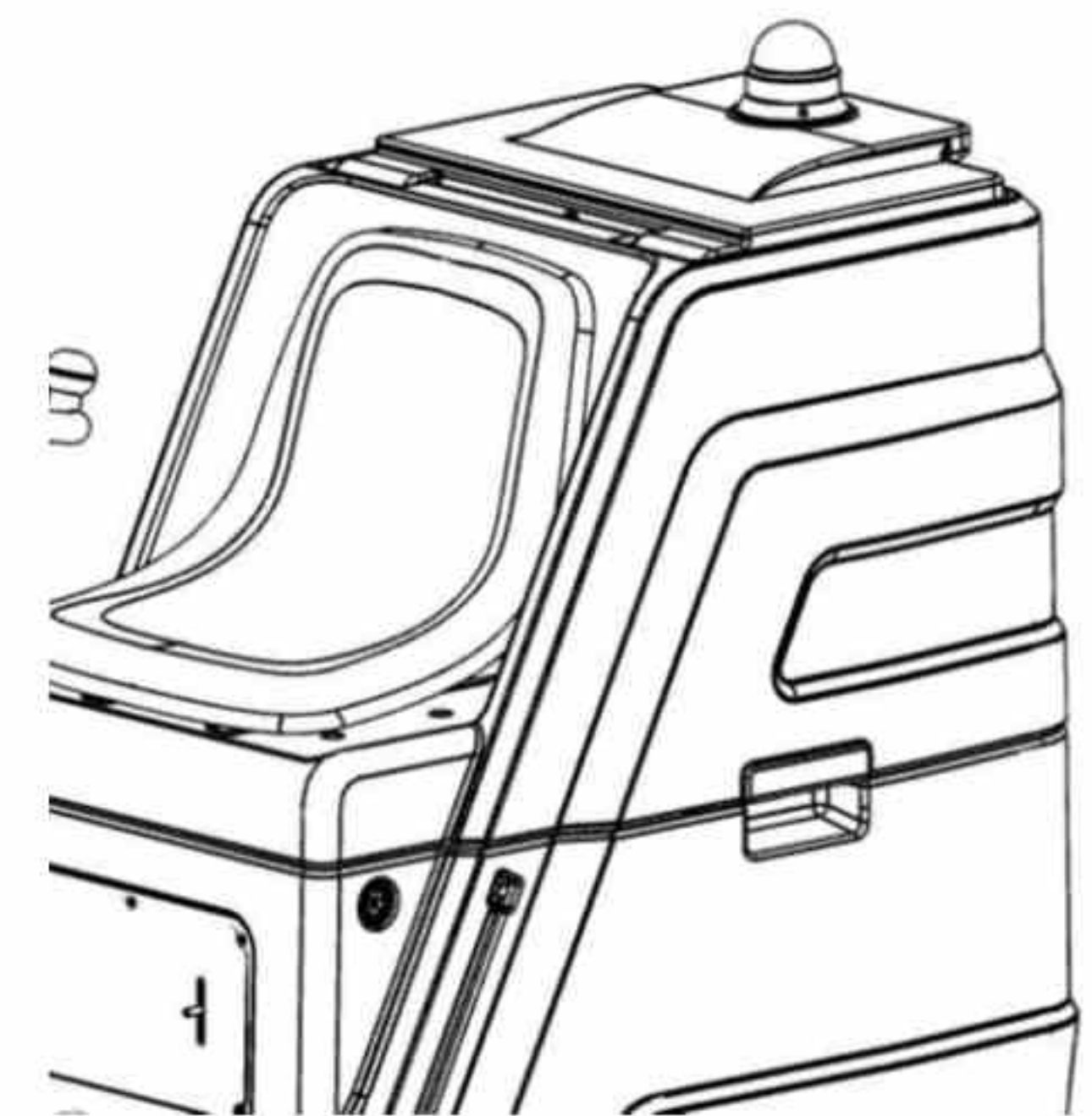


which will greatly shorten the service life of the battery)

2. Wipe the dirt on the battery surface with a dry or wet cloth. It is strictly prohibited to wash with water!
3. Check whether the battery connecting wire is loose. If it is loose, fasten it in time.
4. the surface of the battery shall not be covered with anything. Check whether there is heating, deformation or bulging on the surface of the battery. If there is obvious bulging, report to the supervisor and maintenance personnel immediately.
5. check whether the connector in the charging socket is loose? If it is loose, replace the charging plug in time to avoid affecting the normal charging.

Battery daily maintenance procedure

1. turn up the recovery tank to the side from the gap of the recovery tank on the side.
2. the limited position cable of the machine can keep the recovery tank open after opening recovery tank.
3. check around the battery and the charging plug according to the inspection requirements

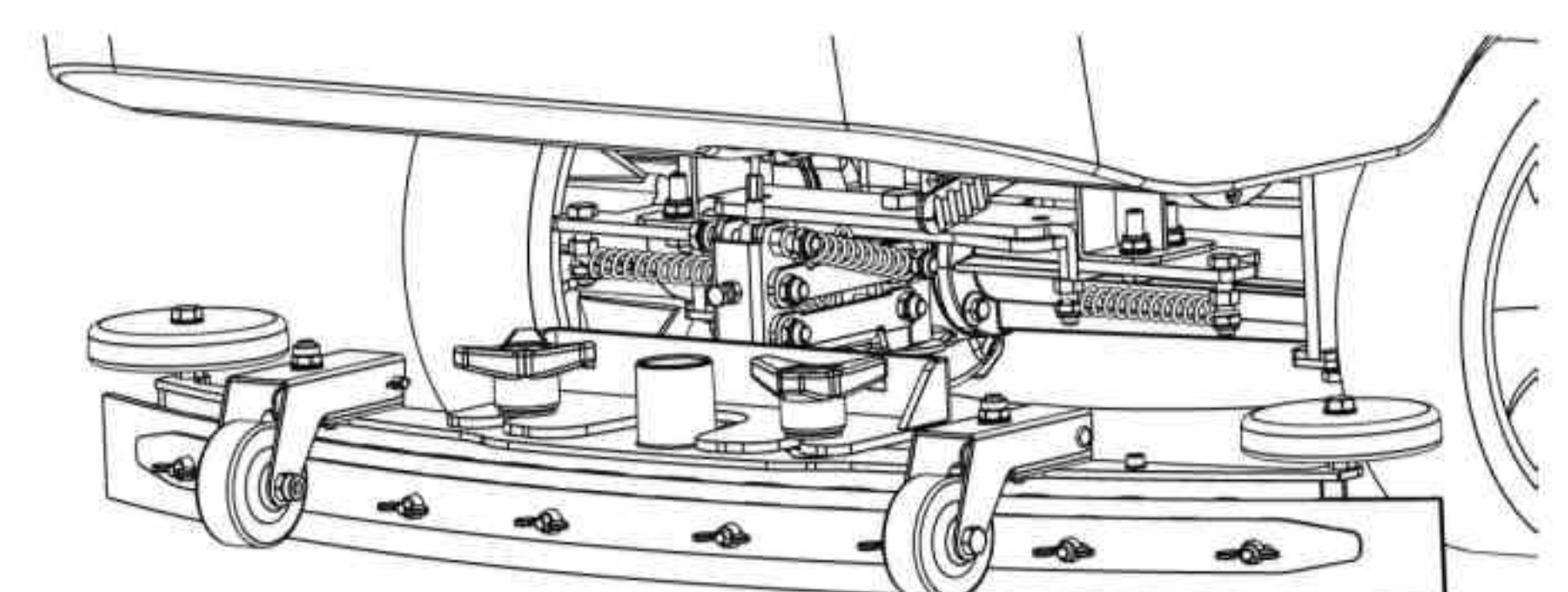


When turning up and putting down the recovery tank, be sure to push and put it gently to ensure safety. Especially when putting down the recovery tank, you must hand the recovery tank to ensure it is put down smoothly.

Squeegee

Install the squeegee as shown in the right figure. Each machine has been adjusted to the best position before leaving the factory. Please do not change the adjusting screw on the squeegee, just insert the squeegee into the fixing screw for fixation.

After the squeegee is fixed, connect the sewage suction



pipe with the mouth of squeegee.



The squeegee and the machine are connected and fixed by two fixing screws. When the machine passes through a narrow small area, in order to prevent impact damage, the structure will fall off after impact to ensure mutual safety. In case of falling off, just restore the installation. It is strictly prohibited to use other methods to make mandatory fixation between the squeegee and the machine!

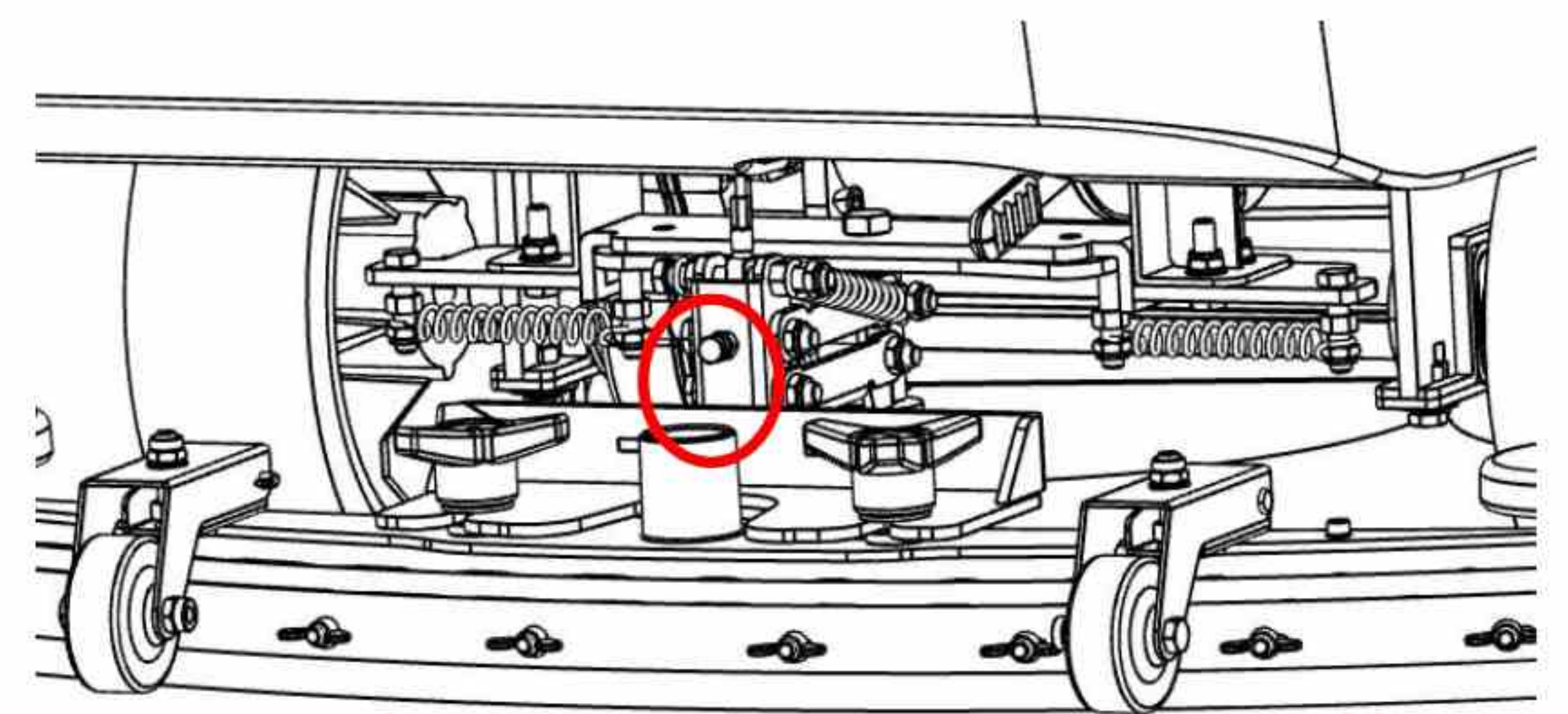


The rubber may be deformed due to extrusion during transportation. Do not use any solvent or heat blowing for treatment. Linatex professional rubber has strong recovery elasticity. It can be recovered as long as the squeegee is lifted and placed overnight or removed and soaked in warm water!

Verticality adjustment of squeegee:

Dycon's squeegee system has adjustment mechanisms in two directions to ensure that the squeegee can be adjusted to the best state.

Verticality adjustment is to maintain the verticality between the squeegee and the ground. Only when the arc squeegee is perpendicular to the ground, the angle of the rubber scraping the ground can be the best, and the scraping effect is the best.

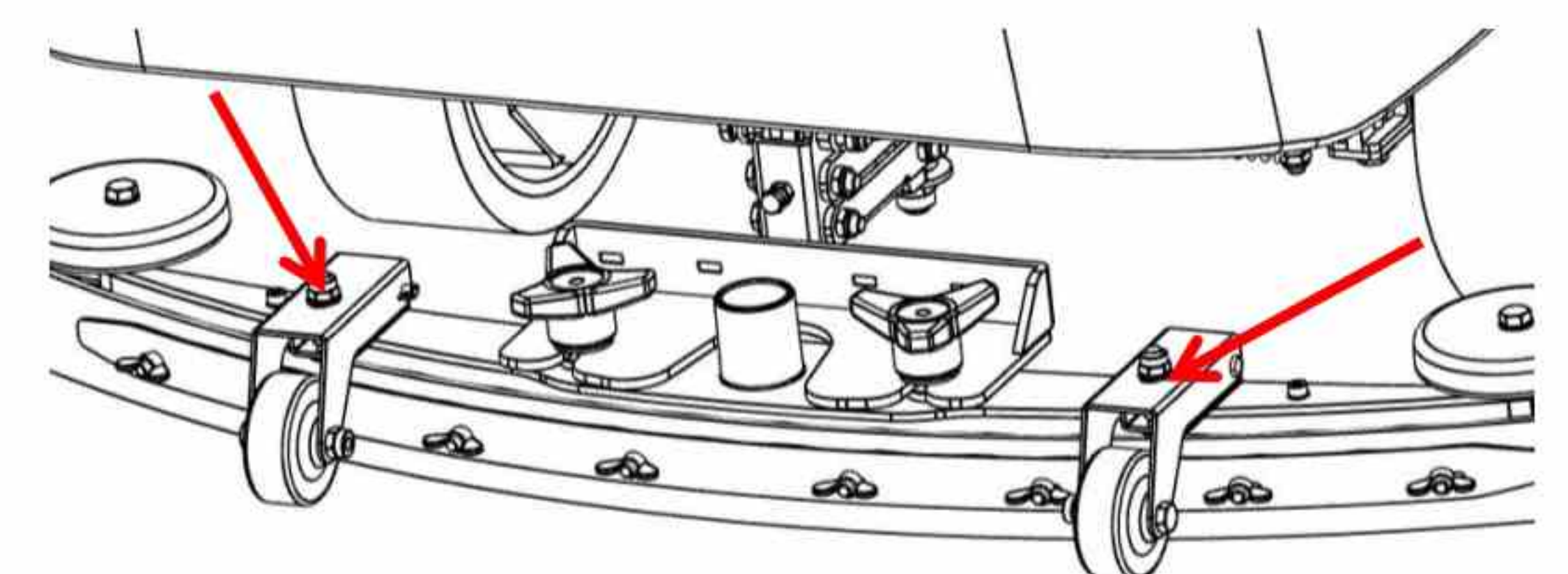


In the following cases, it is necessary to adjust the perpendicularity screw of the squeegee:

- 1) The rubber at both ends are seriously worn, and there is water in the middle of the squeegee and scraping during operation, which is not clean.
- 2) The wear of the middle rubber is more serious than that at both ends, and there is missing scraping at both ends when turning.

Adjustment of squeegee partial pressure universal wheel

The pressure dividing wheel of squeegee is an important part to ensure the normal operation of squeegee. By adjusting the fixing nut, the height of the pressure dividing wheel can be changed to control the pressure of the rubber on the ground at a moderate state.



The rubber should be adjusted to the middle state in the

right figure.

* In the process of use, the rubber and the pressure dividing wheel will be worn, making the squeegee and rubber deviate from the best position. At this time, the squeegee and rubber can also be restored to a good state by adjusting the height of the pressure dividing wheel. The methods are as follows:

1. Put down the squeegee, move the machine slightly forward, stop the machine and observe the contact between the rubber and the ground.

2. According to the contact between the rubber and the ground

As shown on the left, loosen the adjusting nut of the pressure divider wheel.

As shown in the middle, the position of the pressure divider wheel is correct.

As shown on the right, the adjusting nut needs to be tightened.



3. Use a 13# wrench to adjust the fixing nut of the pressure divider wheel.

4. Raise or lower the pressure divider wheel.

5. Push the machine forward, observe the change of the position between the rubber and the ground, and debug repeatedly until the rubber contacts the ground to form a uniform bending.

Installation and removal of brush

1. Lift the handle of the brush cover and place the brush at the position of the brush.

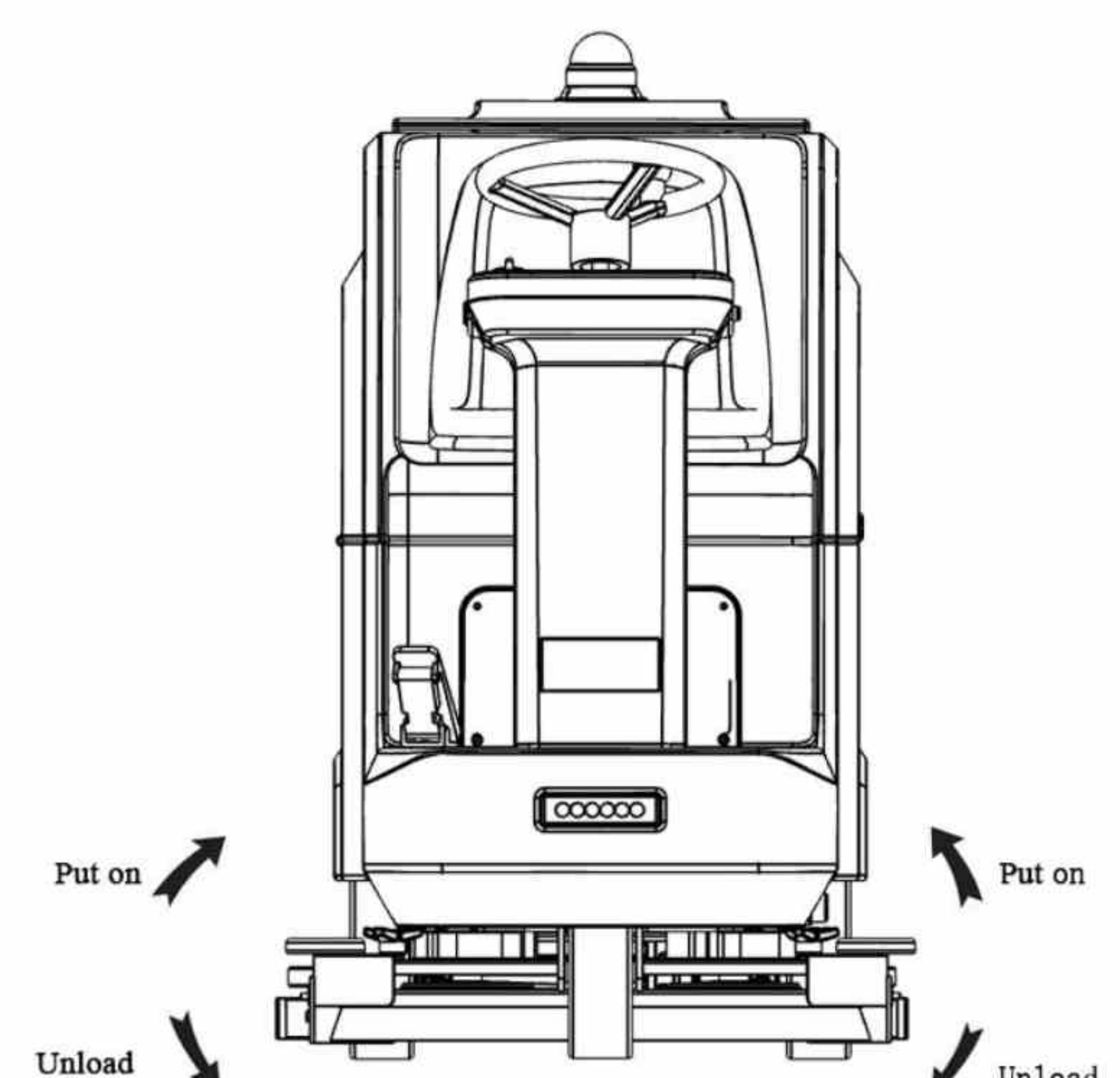
2. Put down the handle to lower the brush cover.

3. Manually pull the brush, so that the brush has an obvious feeling of entering the buckle.

4. Turn on the key switch and gently step on the accelerator to rotate the brush. If the position is correct, you can see that the brush rotates normally. If the brush has serious abnormal noise, it indicates that the brush is in the wrong position, please operate again.

5. Removal of brush

Lift the brush cover, manually rotate the two brushes to the central position, and the brush can be removed.



Note: during each operation, make sure there is no impact on other surrounding objects or personnel.

We recommend that you exchange the positions of the left brush and the right brush every week. When you find that the bristles of the cleaning brush have worn nearly 1 / 3, or the bristles have curled, please replace the brush in time.

Changing the left and right positions of the brush every week can effectively improve the service life of the brush, timely find out whether the bayonet of the brush is damaged, and prevent overload and excessive vibration of the brush motor.



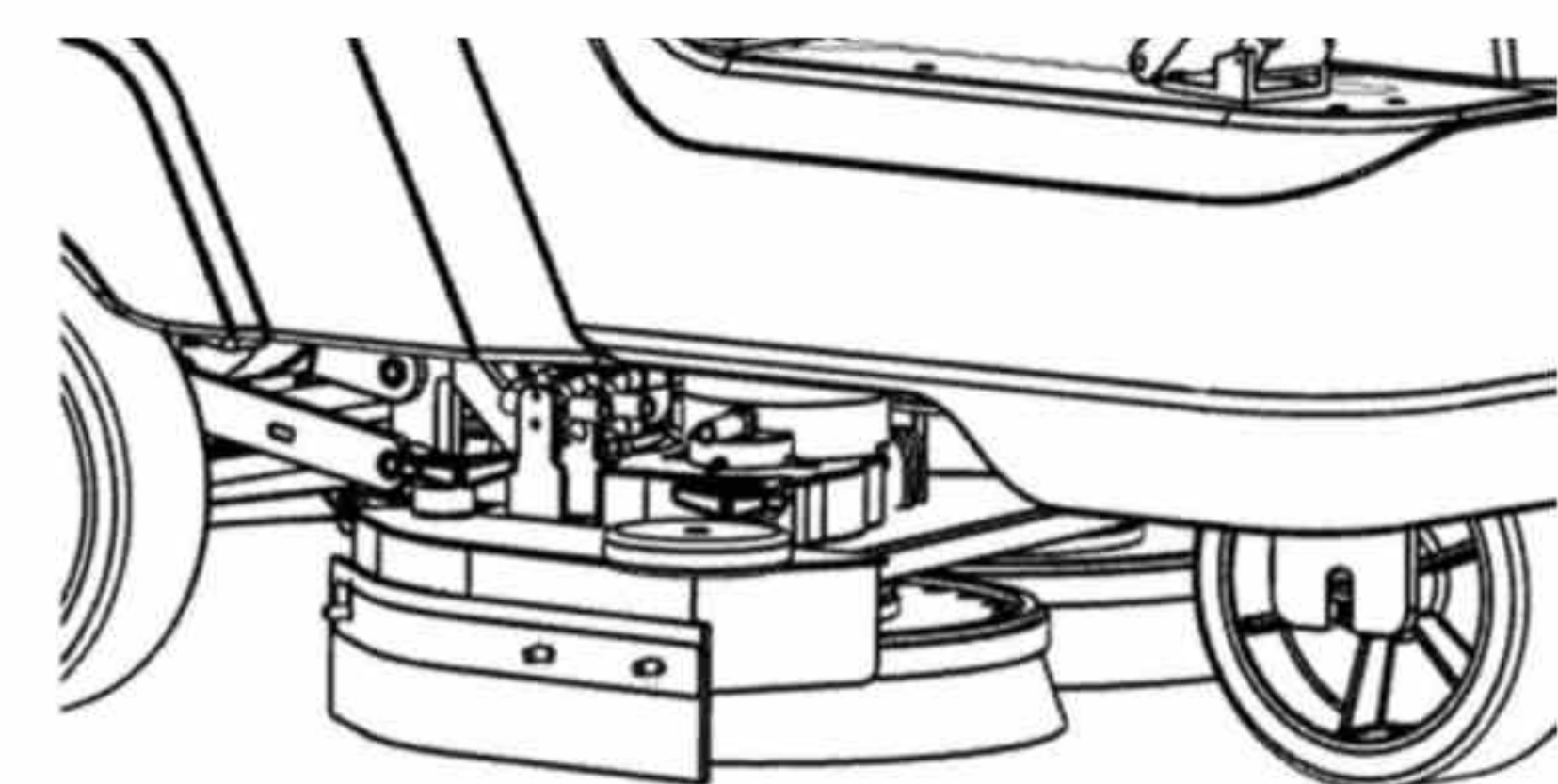
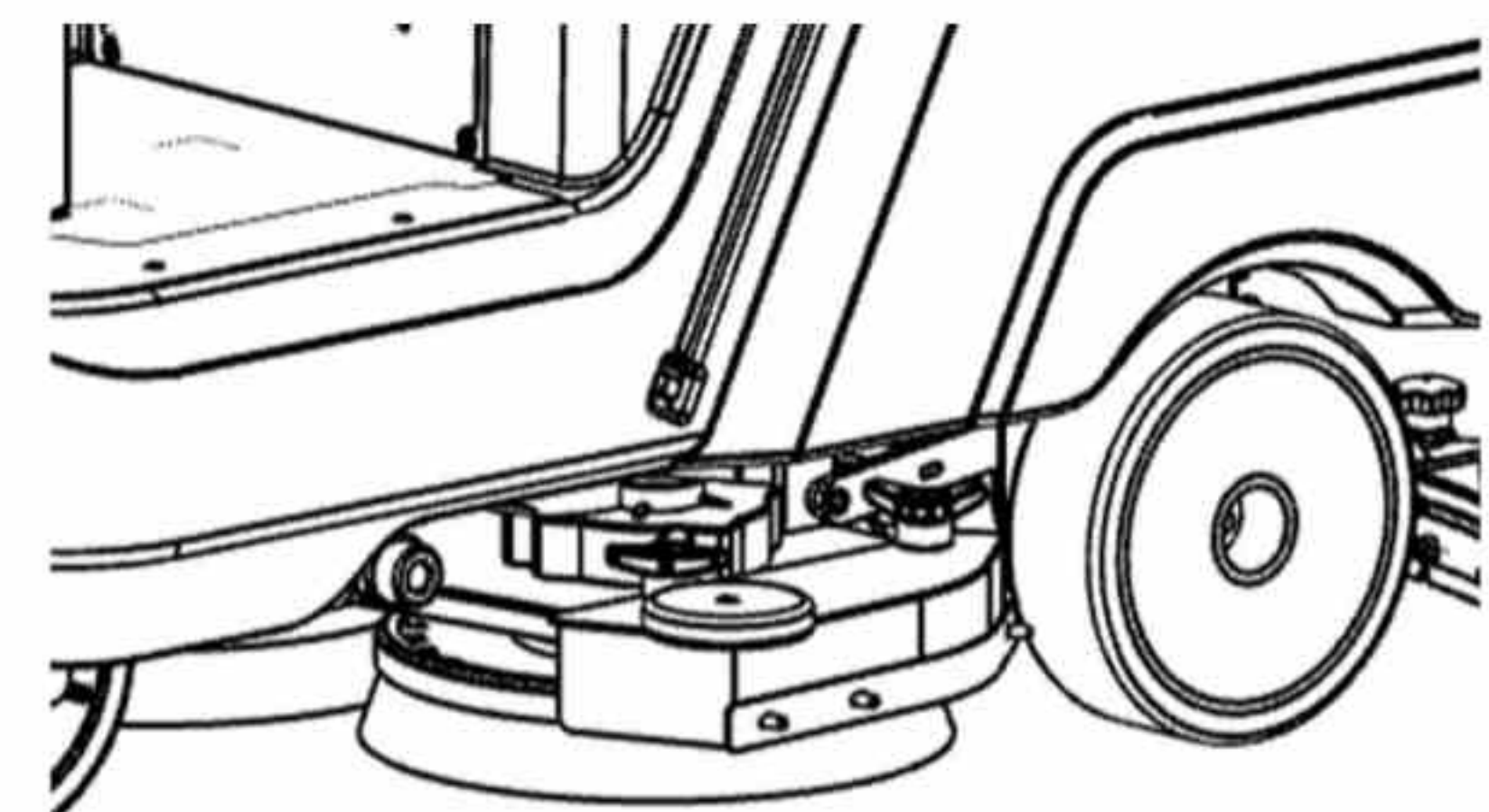
The brush is the main working part of the machine. It must be in good condition. The wear of the brush or cleaning pad is normal, indicating that the ground is being protected. The correct way is to replace the brush or cleaning pad in time according to the regulations.

Anti splash device:

Both ends of the brush cover are equipped with anti-splash lateral rubber device, which can be opened by loosening the nut at one end to facilitate the installation of the brush. Loosen the two nuts to remove the splash shield.

The rubber can be used on four sides (left and right exchange). With the wear of the brush, the pressing degree of the rubber will change. The rubber can be kept in the best state by adjusting the nut.

It is recommended to turn the rubber once every 3-4 months to ensure that the side rubber is in the best condition.



Do not remove the anti-splash device. If there is no anti splash device, it may cause the splash of the brush or the trace that the squeegee cannot completely cover the water when turning at the minimum angle.

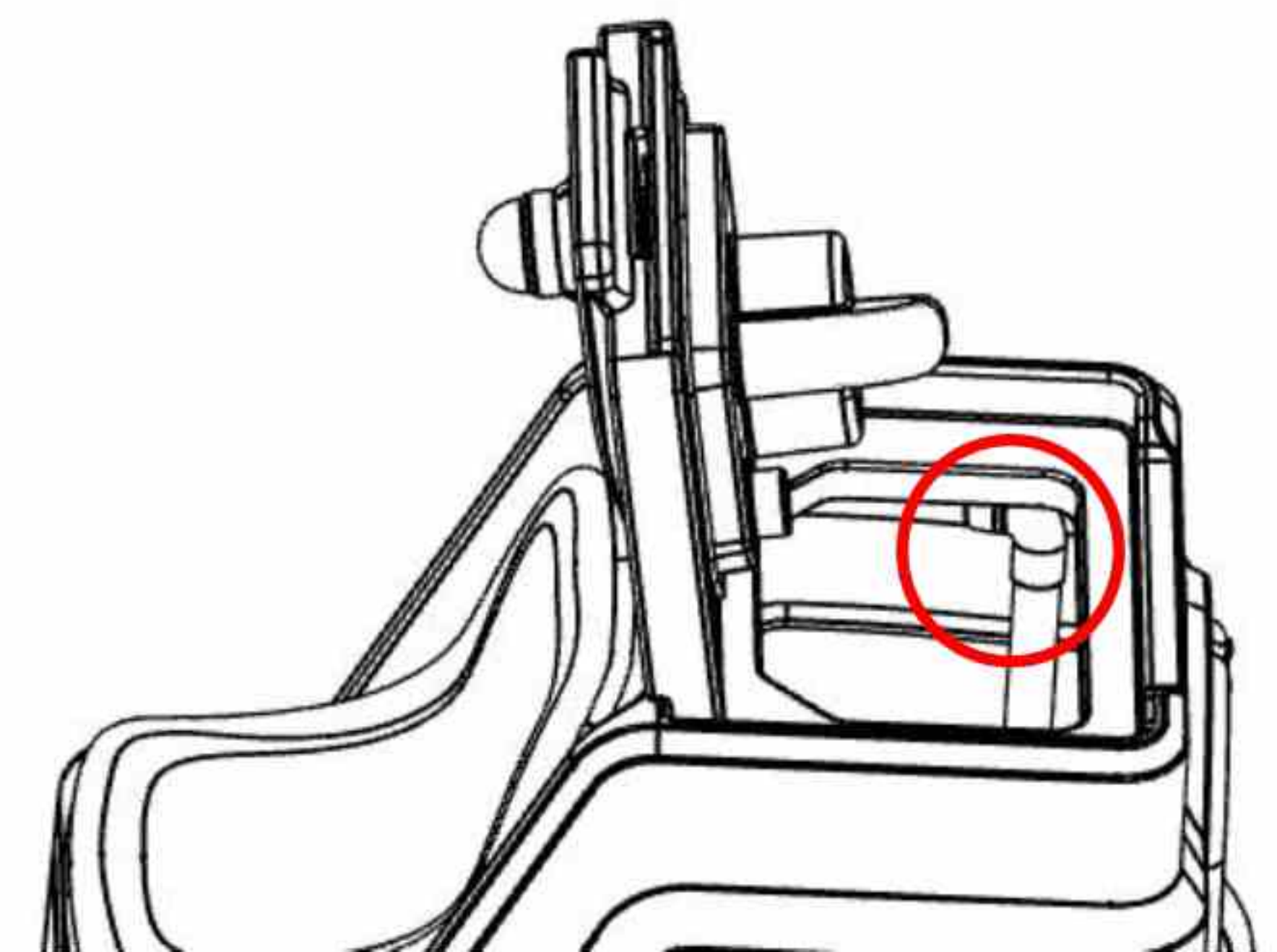
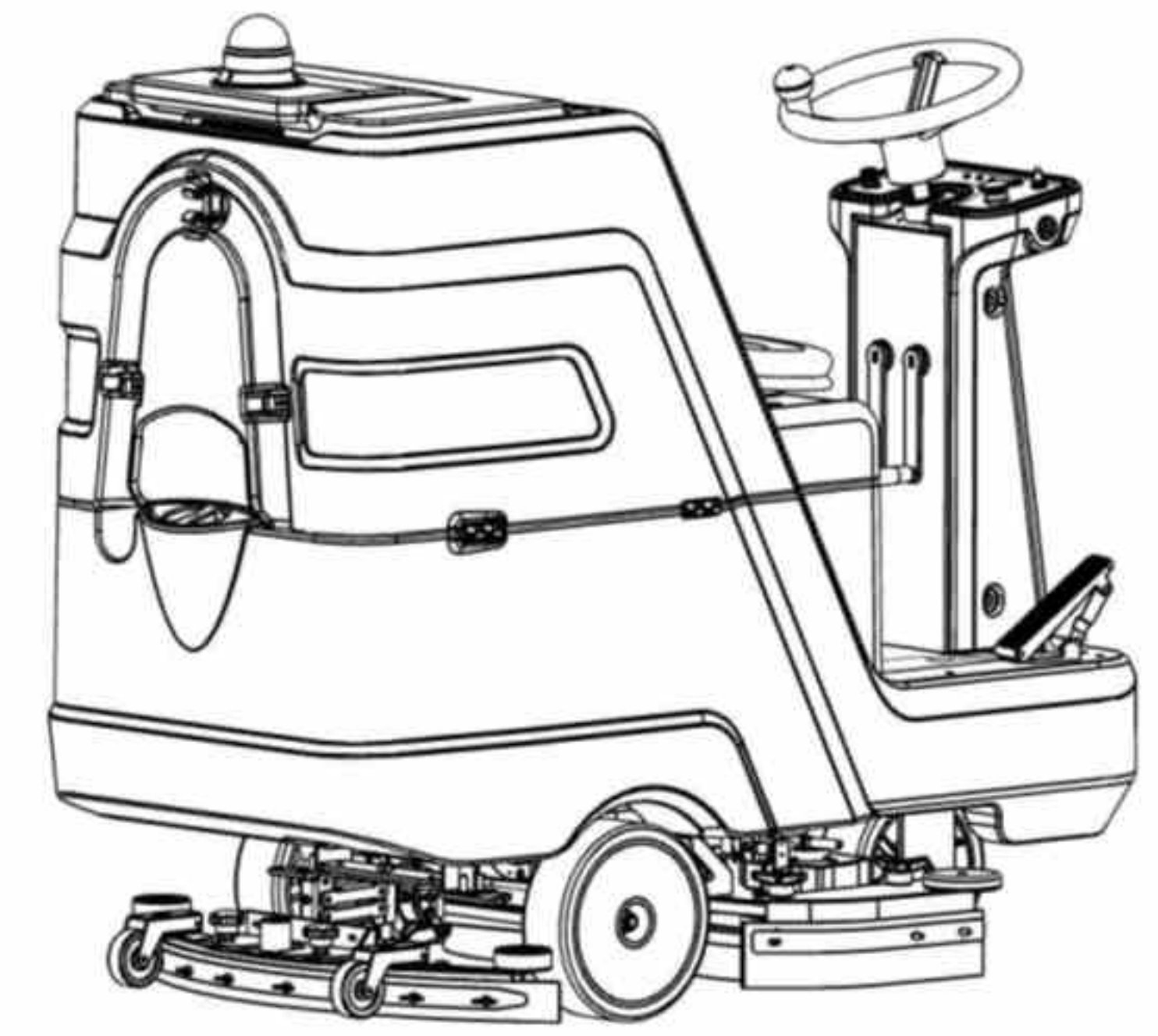
Recovery tank

**It is an important part of the machine to recover sewage.
Pay attention to maintenance**

1. Inspection of suction hose

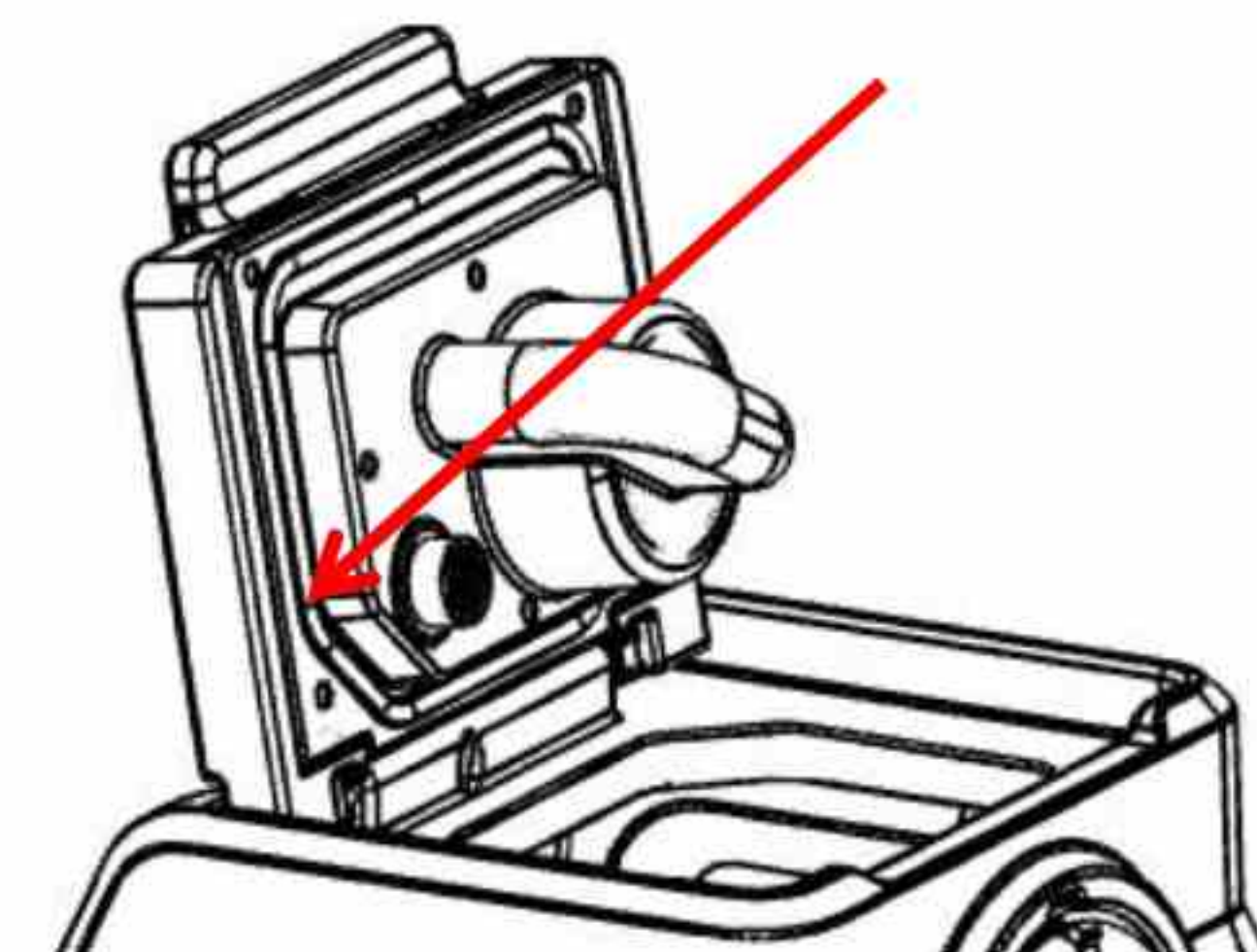
The suction hose is an important part of the effective connection between the squeegee and the recovery tank, the suction hose is fixed in a ring shape to prevent the suction hose from returning water after shutdown. Please do not remove the buckle of the fixed ring.

In the process of use, the suction hose may be blocked due to the inhalation of too much garbage. When it is found that the water will overflow from both sides of the suction hose during the working process, or the water will overflow from the side of the suction hose when turning, it indicates that the suction hose or squeegee may be blocked. At this time, it is necessary to remove the blockage in time. See the troubleshooting section for the method.



When cleaning the recovery tank at the end of each day's work, flush the suction hose orifice in the recovery tank with water. See that the water is removed from the squeegee and remove possible foreign matter blockage.

2. Check whether the sealing strip of the recovery tank cover is intact? The lack of sealing strip will directly affect the water absorption effect.



3. Check whether the air inlet filter screen on the upper cover of the recovery tank is unblocked? The filter sponge shall be cleaned every week.





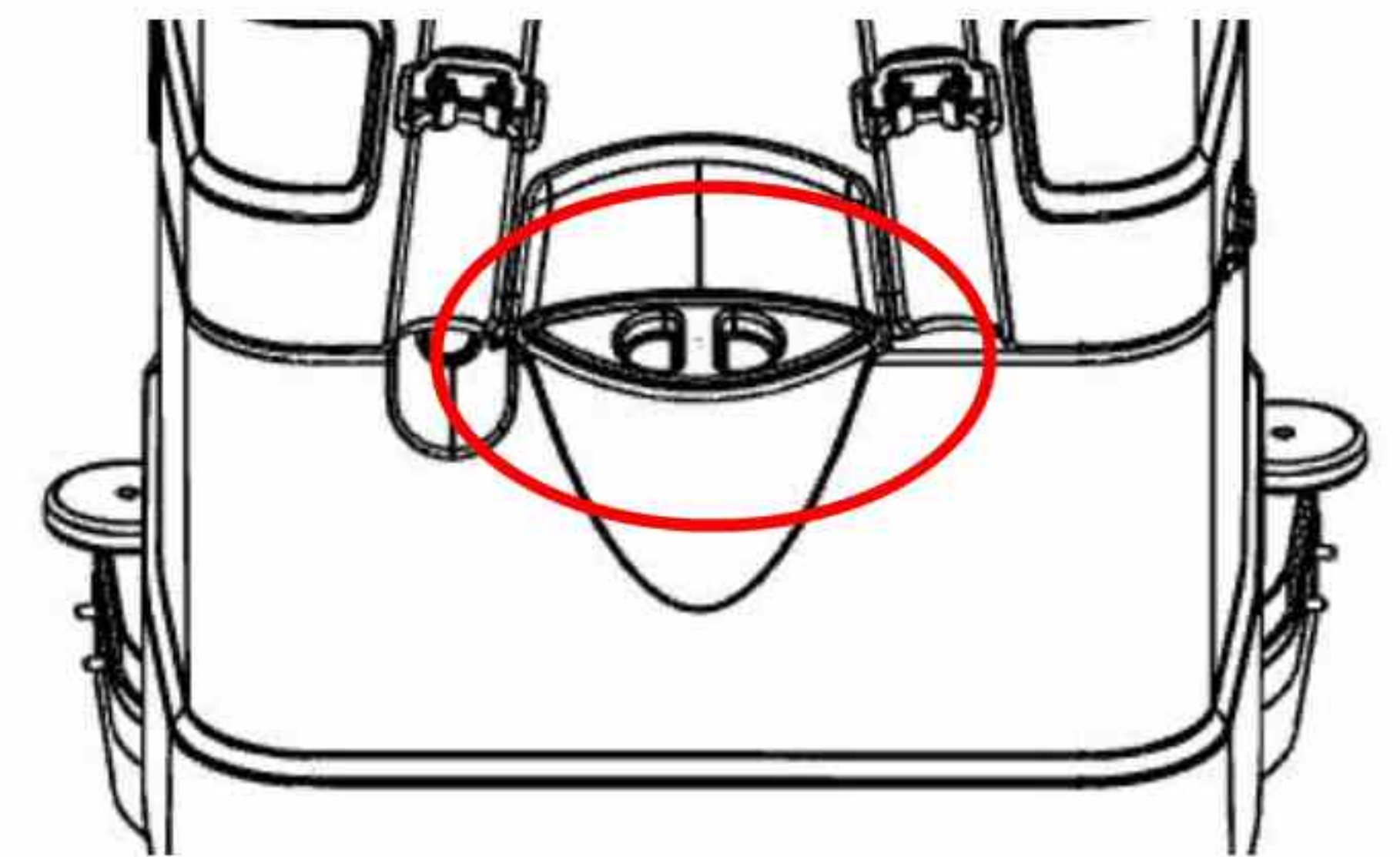
The filter sponge at the air inlet is an important part of the machine. It should be cleaned and checked every week. The blockage of the sponge will directly affect the working effect. It is strictly forbidden to cancel the air inlet sponge. Without the air inlet filter sponge, the water suction motor may be damaged in advance!



The air inlet device is directly connected with the suction motor. Water cannot be poured in during cleaning and maintenance. If water enters, the motor will be damaged. If this happens, you will lose the qualification of warranty!

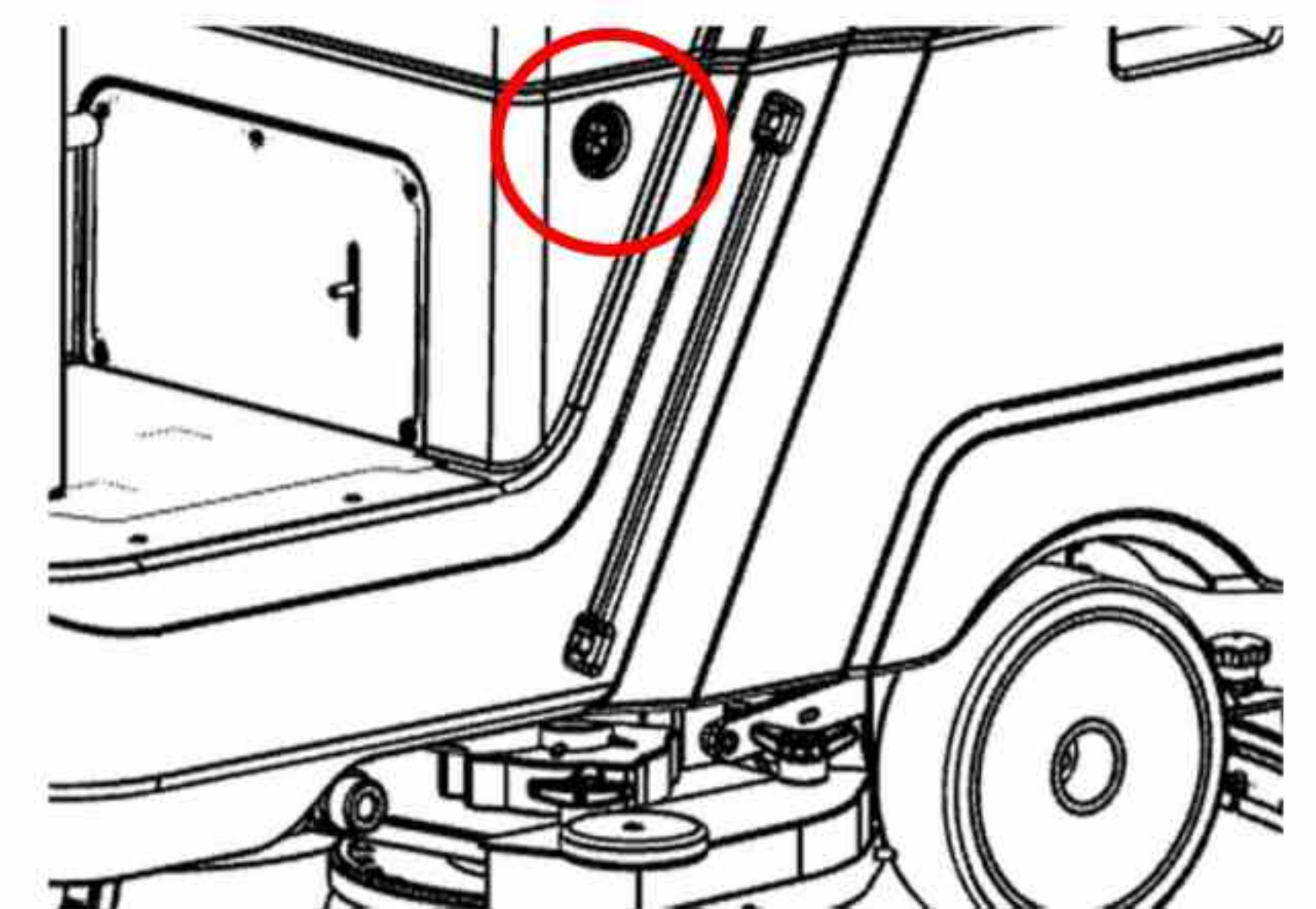
Solution tank

The cleaning water shall be stored in the solution tank, and the solution tank shall be filled with clean water (no more than 50 ° C), and appropriate detergent shall be added according to the nature of dirt on the ground.



The machine has two clean water inlets:

- (1) is the cleaner inlet. under the condition of no water pipe, water can be added from the inlet with a bucket.
- (2) It is a special port for water supply pipe to add water. The water pipe can be directly inserted into the port to add water.



Water level pipe:

it is the observation port to observe the water storage condition of the water tank. The water storage condition of the water tank can be known through the water level pipe.

The concentration of detergent shall be prepared according to the instructions of detergent



Please choose the appropriate cleaner according to the nature of the dirt on the ground, not the high foam cleaner. Pay attention to the proportioning concentration of detergent. Excessive proportioning will not only cause waste, but also affect the machine and environment!



Low foam cleaners should be used. If the use of high bubble cleaners, the recovery tank will overflow into the suction motor inlet, resulting in motor burn out.

It is forbidden to use pure acid or caustic soda, which will cause serious damage to the machine.

The purpose of cleaning is to separate the dirt from the object surface and take the dirt away from the object surface without damaging the object surface.

Before operating the machine complete the following operations

1. Check the battery connection line (if install the battery by yourself , make sure to confirm that the positive and negative poles are connected correctly)
2. Confirm that the brush and squeegee lifting handle are in the lifting state.
3. Confirm that the brush and squeegee have been installed in place.
4. Place the speed control knob in the work area (12 o'clock position)
5. Insert the key and turn it clockwise to ON position
6. Observe the display of the electricity meter and start the machine when the electricity is normal.
7. Gently depress the accelerator and the machine will enter the forward state. Change the accelerator to test the speed control feeling of the machine.
8. Release the accelerator and feel the machine from forward to stop.
9. Enter the operation state test
 - 1) Put down the brush, step on the accelerator, the brush should enter the working state, and observe whether the rotation of the two brush is stable? (if the brush jumps, it means that the brush is not installed in place, reinstall the brush)
 - 2) Observe whether the water outlet is uniform after the brush rotates? The water output can be adjusted to the appropriate position through the water volume adjusting rod.
 - 3) Put down the squeegee handle, and the machine will automatically enter the water absorption state observe whether the water absorption effect is perfect.



If the machine is in a static state, the brush system is only in the ready state, and the brush system will enter the working state only when the machine enters the forward state.

driving skill guidance

The machine is a ride on type cleaning machine with strong electric driving ability. The operator must be trained in operation. Only after mastering the operation of controlling the machine to move forward and backward, turn, avoid obstacles and emergency stop can it be operated independently.



The height of the machine is 1.4m. Before starting the work, the operator must confirm the safety of the work site in advance. The safe passage height must be confirmed before starting the work.

Driving rules: drive on the right, from the outside to the inside, press in one by one, leaving no gap



During operation, it is strictly prohibited to drive at high speed! When working alongside, pay attention to the passing position of squeegee, and it is strictly prohibited to pass through obstacles by force. Such operation will not only cause possible accidents, but also likely cause damage to the water absorption system!



Before operation in the new area, the operation site shall be inspected in advance, and the operation line of the machine shall be planned in advance. It is not allowed to act blindly. It is necessary to ensure the safety of operators and equipment and the safety of surrounding personnel and objects!



Although this machine has strong suction, it is not a floor sweeper after all. It is best to pre clean the operation site before operation to remove large foreign matters, garbage and sundries, so as to improve the cleaning efficiency and effect!



If there are filamentous water marks on the ground, it is because the small particles or hair on the ground are pressed under the rubber. please take pre sweeping or graded cleaning to improve and eliminate!

D8-N has excellent electronic brake damping system. As soon as the foot leaves the electronic accelerator, the machine will enter the damping deceleration state. It can operate safely without mechanical brake system.

When the machine enters the downhill, the downhill speed is controlled by the throttle. Release the throttle and the machine can stop automatically. For safety, please do not use large throttle on the slope.

Operation essentials:

(personnel who have not participated in operation training must carefully read this operation essentials before use)

1. When going uphill or downhill, the machine must be in normal operation (cleaning on the ramp is strictly prohibited).
2. Enter the downhill area, control the electronic accelerator with your right foot, and make the machine run smoothly through low-speed damping braking. Release the accelerator completely, and the machine will stop.
3. In the process of downhill, the machine can also be stopped by the emergency stop switch, but the emergency stop switch should be used carefully to prevent other accidents caused by rapid stop.
4. The machine is equipped with a mechanical clutch switch, which is engaged downward and separated upward at the right rear of the machine. When the machine is in the clutch separation state, the controller status light on the panel will flash, and the machine can only be pushed and cannot walk by itself.
5. If the machine is not working, please keep the clutch in **on state** to prevent the machine from moving accidentally.
6. When the machine is charged and placed, keep the brush and squeegee in the lifting state and the clutch in **the on state**.

Operator training elements

(Those with automobile driving experience can appropriately reduce the primary training programs)

1. **Practice stepping on the accelerator:** the operator must develop the correct operation habit, that is, stably control the accelerator pedal with foot. When the key switch is turned off,

continuously do 10 actions of stably controlling the accelerator with foot as a group until all 10 actions are correct. Step down steadily and release slowly for one time. There must be no jumping action of stepping on and releasing one time.

2. Step 1 after passing the training, enter the practical training, turn on the key switch, is the starting operation qualified? Train until you can start smoothly, walk for 3-5 meters and then stop. It is required to complete the start for more than 3 consecutive times and pass the parking space on the specified line.
3. **Walking manipulation training:** use mineral water bottles as signs to practice walking in a straight line, turning, reversing and turning around. The whole process does not open the functions of floor washing and water absorption, but only practice the machine control. The turning training starts from a relatively wide schematic channel and decreases bit by bit until you can turn around in place to pass through.
4. **Ground washing operation training:** turn on the functions of ground washing and water absorption, select an interval, and train the operator to complete the cleaning work with what walking route and high quality. The assessment requirements are as follows: 1) straight line, pressed by strips, without missing washing interval. 2) Turn and follow, no washing leakage. 3) Finally, how to close the mouth.
5. **Operation skill training:** after completing the above training, operation skill training shall be carried out
 - 1) Through the narrow aisle training, train the operator to judge the width, know what width they can pass and what width they can't pass, so as to set up a variety of width channels and check the operator's mastery level.
 - 2) Side cleaning training, let the operator practice with his own feeling, and check whose control technology is better. Side training can be divided into the following situations:
 - * The training of leaning against the wall in a straight line requires the operator to master how to clean the sideline to the greatest extent without making the squeegee fall off.
 - * Square column training + round column training, master the method of cleaning the column base, and know under what circumstances the machine cannot be cleaned, which needs to be completed by pushing the machine by hand.
 - * Training how to avoid obstacles in your workplace? Determine which areas are inaccessible to self driving machines.
 - 3) Channel turning and channel turning training: on the basis of passing the simulation training, carry out familiarity training for the areas you need to clean, and know where you can turn around and what areas you can't enter.
 - 4) Access elevator training: understand the elevator size of the building and know which elevator can enter? The supervisor should personally participate in the training of access methods, clarify the methods of access to the elevator, and specify whether to push or drive access?

The above training is a training requirement that must be passed by the operator of the ride on floor scrubber. Each supervisor can adjust the training content according to the specific situation.

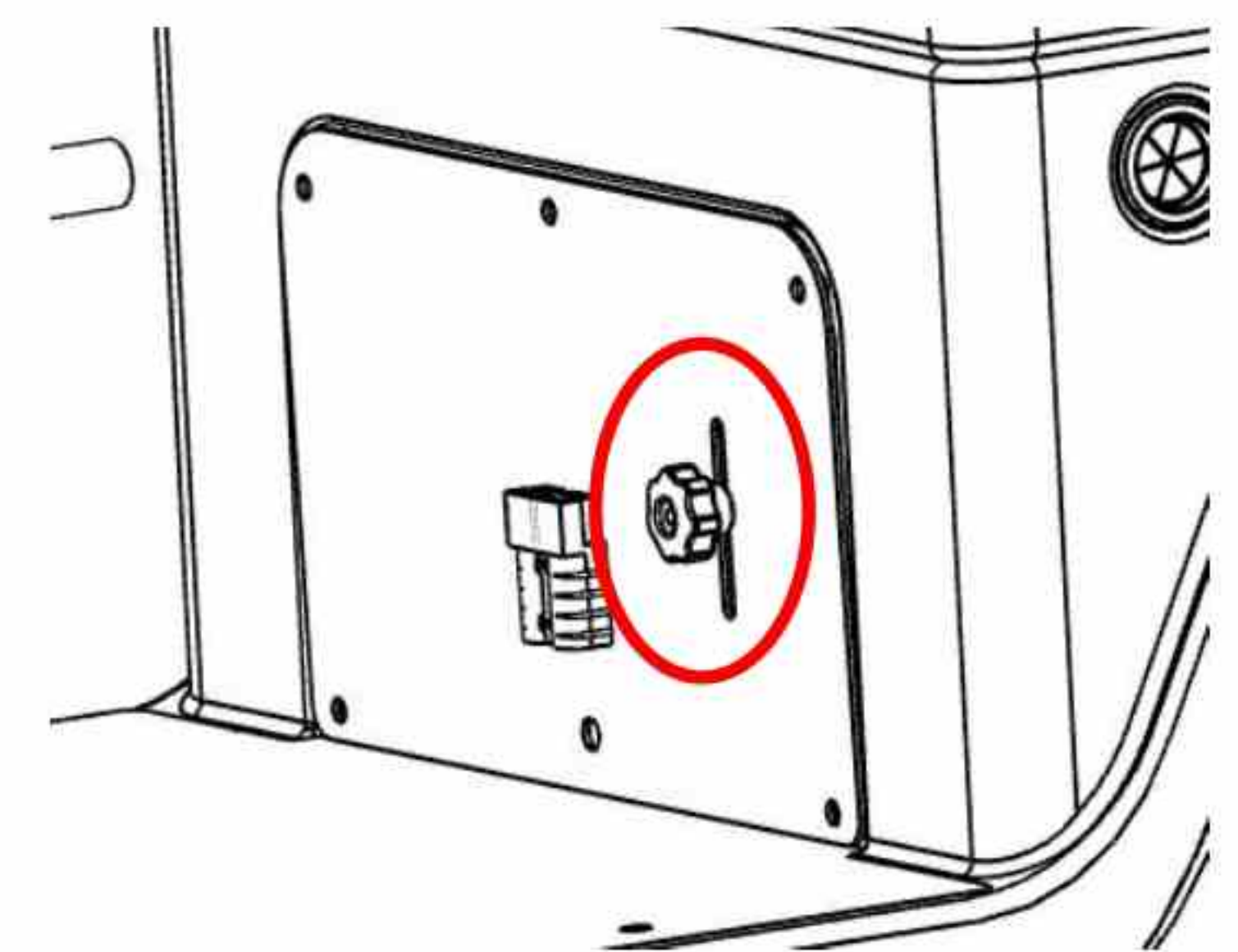
Matters needing attention in daily work

- A. If the dirt on the ground is particularly serious, you can choose to operate with the function of brushing the ground separately. Only turn on the brush system without turning on the water absorption system. The machine can be cleaned repeatedly in the area with serious dirt.



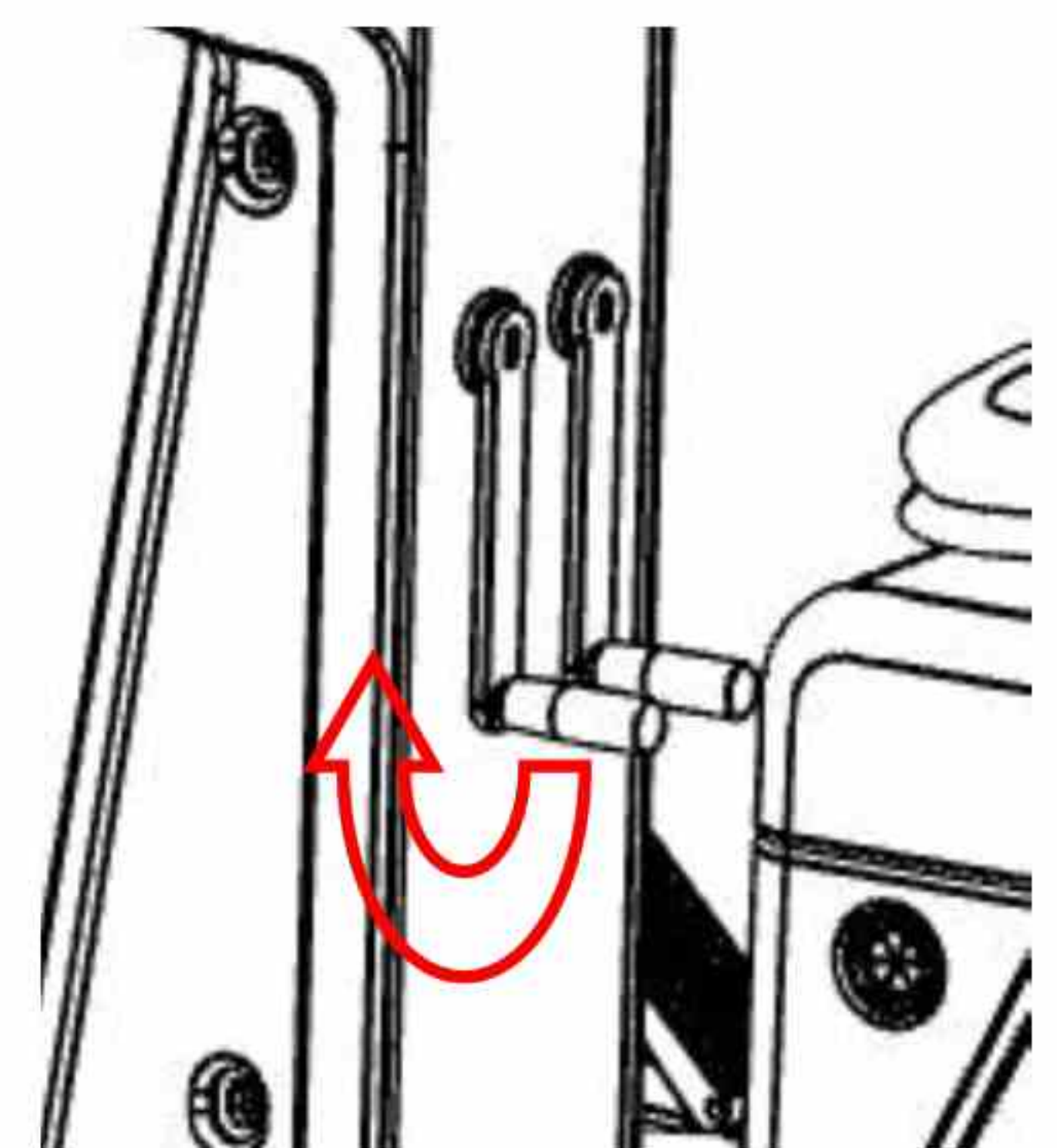
During such operations, warning signs shall be placed in the working area to tell the surrounding personnel to pay attention to the wet ground and anti-skid.

- B. If you choose to brush the ground, the drainage system can be turned off to make the brush wash repeatedly in the area with detergent.



- C. Adjust the water volume adjustment switch in the figure to the appropriate position according to the ground conditions.

- D. If choose to reverse, the squeegee must be lifted first, otherwise the machine will be stopped.



- E. The working and walking of the brush of the machine are controlled by linkage. When you put down the handle of the brush, the brush will not rotate. When the machine moves forward, the brush will run. When the machine stops moving, the brush will automatically stop working.



Before the machine starts running, the operator should observe whether the handle of the brush is down? Is the position of the water volume switch appropriate? Is the squeegee handle down? If it is improper, it shall be adjusted in time.



The brush system starts to operate only when the machine is moving forward. If the machine is going to enter the reverse procedure, the reverse operation can be carried out only after all the brush and squeegee are lifted manually.



In order to protect the machine, as long as the direction push rod of the machine is in the backward position, the water absorption system and brush system cannot be started even if the handle is put down. The direction switch must be in the forward position to work normally.



When the recovery tank is full, the machine will automatically alarm, the water full indicator will be on, and the machine will automatically turn off the suction motor. The operator should drive the machine to the sewage discharge place to drain the sewage.



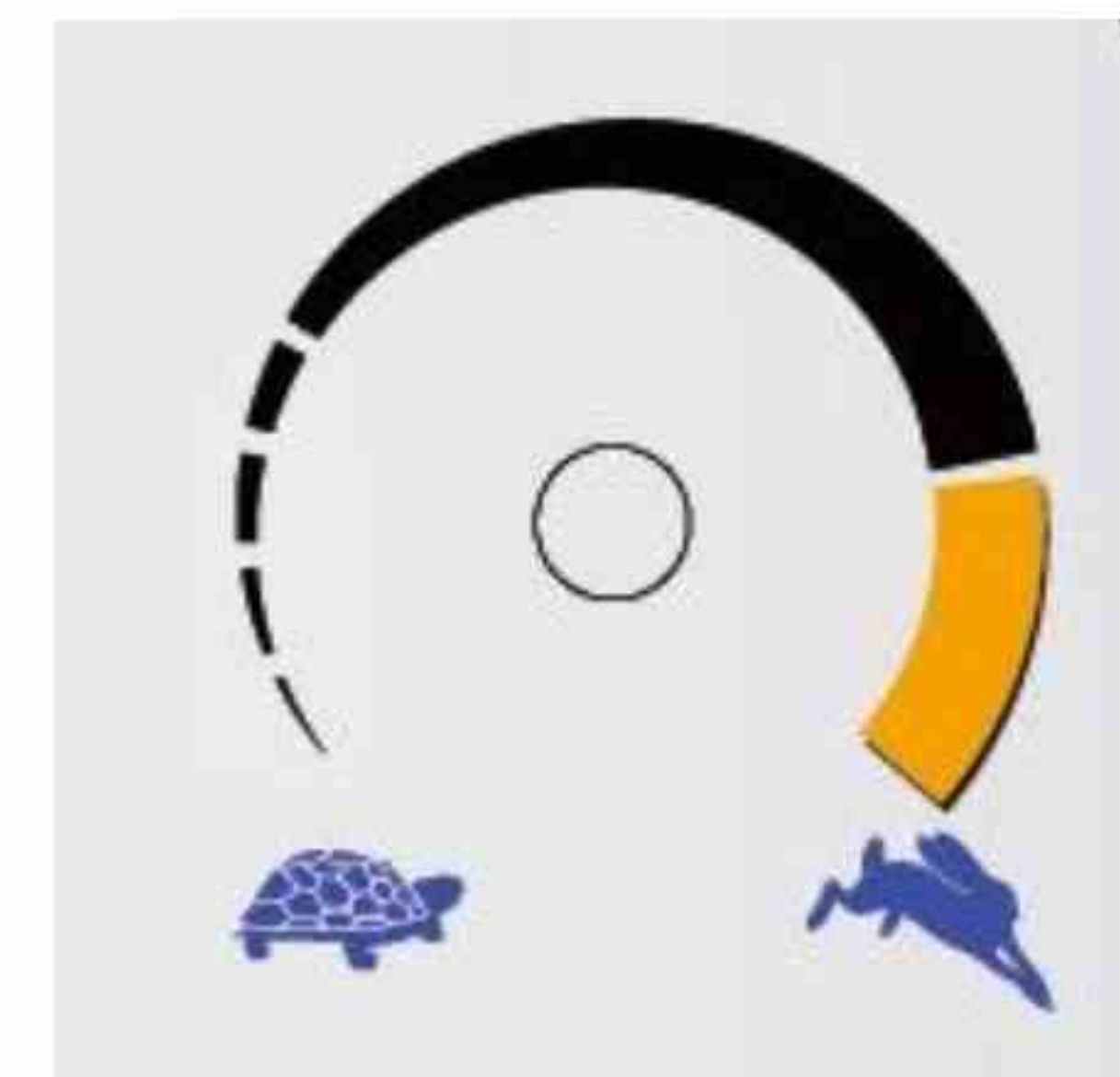
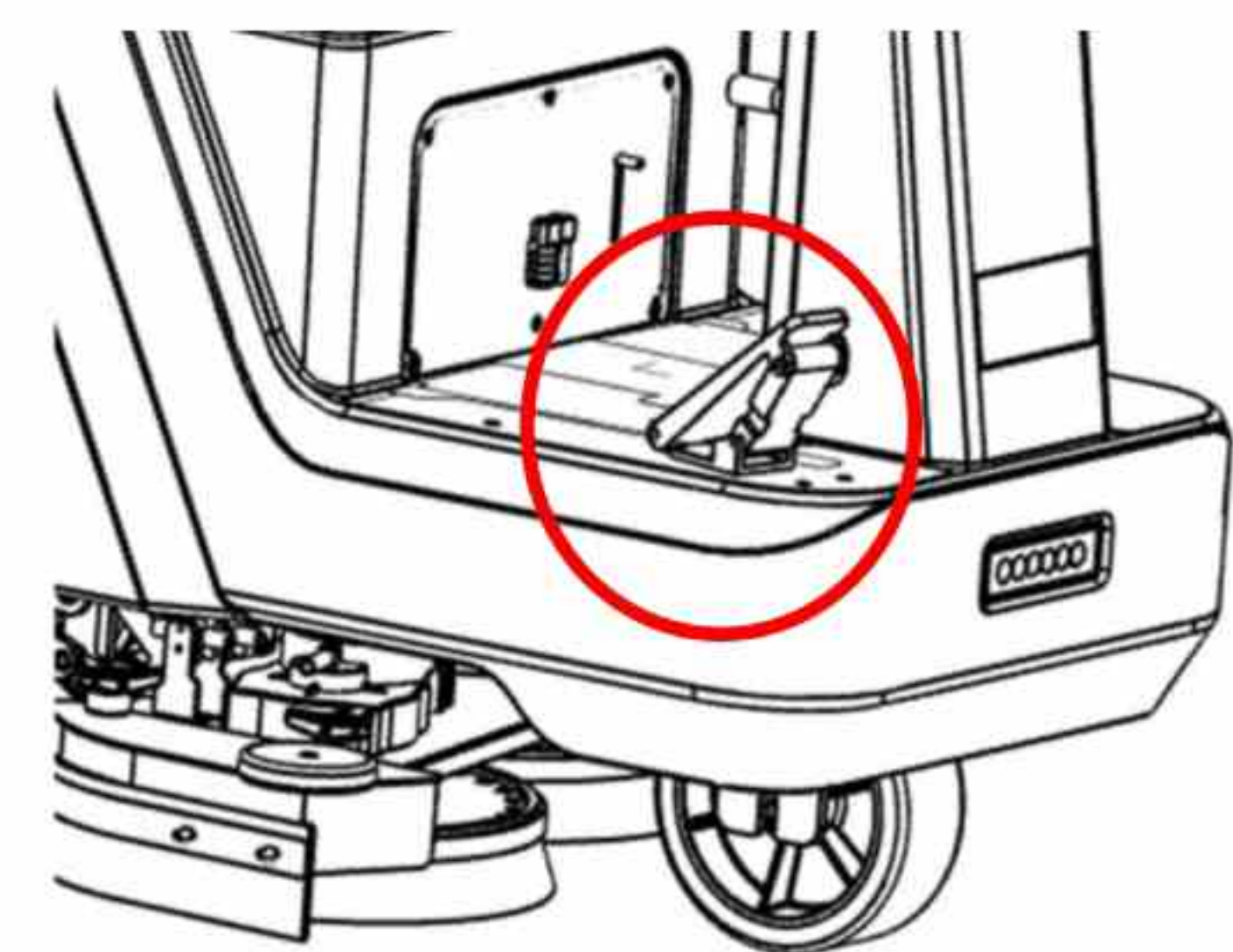
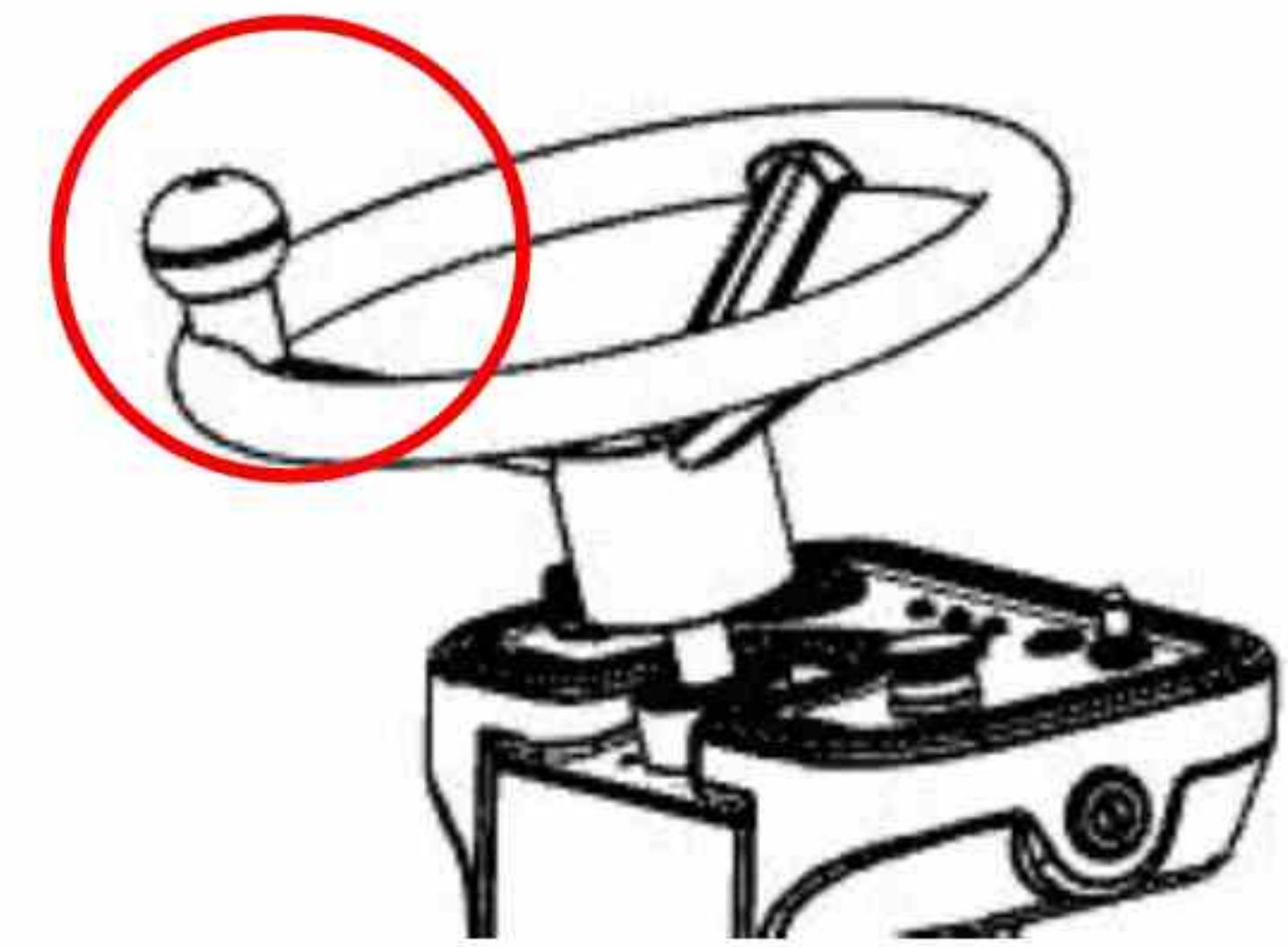
This machine is a ride on type high-efficiency cleaning machine, which is suitable for running in channels or areas with a width of more than 0.9m. The minimum turning radius of the machine is 0.8m.

In order to be safe, the machine must work in a safe area. Do not run too close to the side or close to the machine to avoid accidents!



Main operating parts

1. The steering gear controls the running direction of the machine, and there is a power assisted rocker on the steering gear, It can effectively help the operator to control the direction of the machine.
2. The electronic accelerator the execution control of machine walking and brush operation is controlled by stepping on the electronic accelerator controlled by stepping on the electronic accelerator. As long as the foot is released, the machine will stop automatically through the electronic brake system.
3. Constant speed knob the forward or backward speed of the machine is controlled by stepping on the electronic accelerator and the constant speed knob. The constant speed knob can limit the maximum speed of the machine. Stepping on the electronic accelerator can control the speed within the area set by the constant speed knob, which is safer and more reliable.



The machine has an electronic damping braking system. As long as the electronic accelerator is released, the machine will stop moving quickly.

If the clutch is in the open state, the red indicator light on the panel will flash, and the machine cannot enter the walking state and can only be pushed.

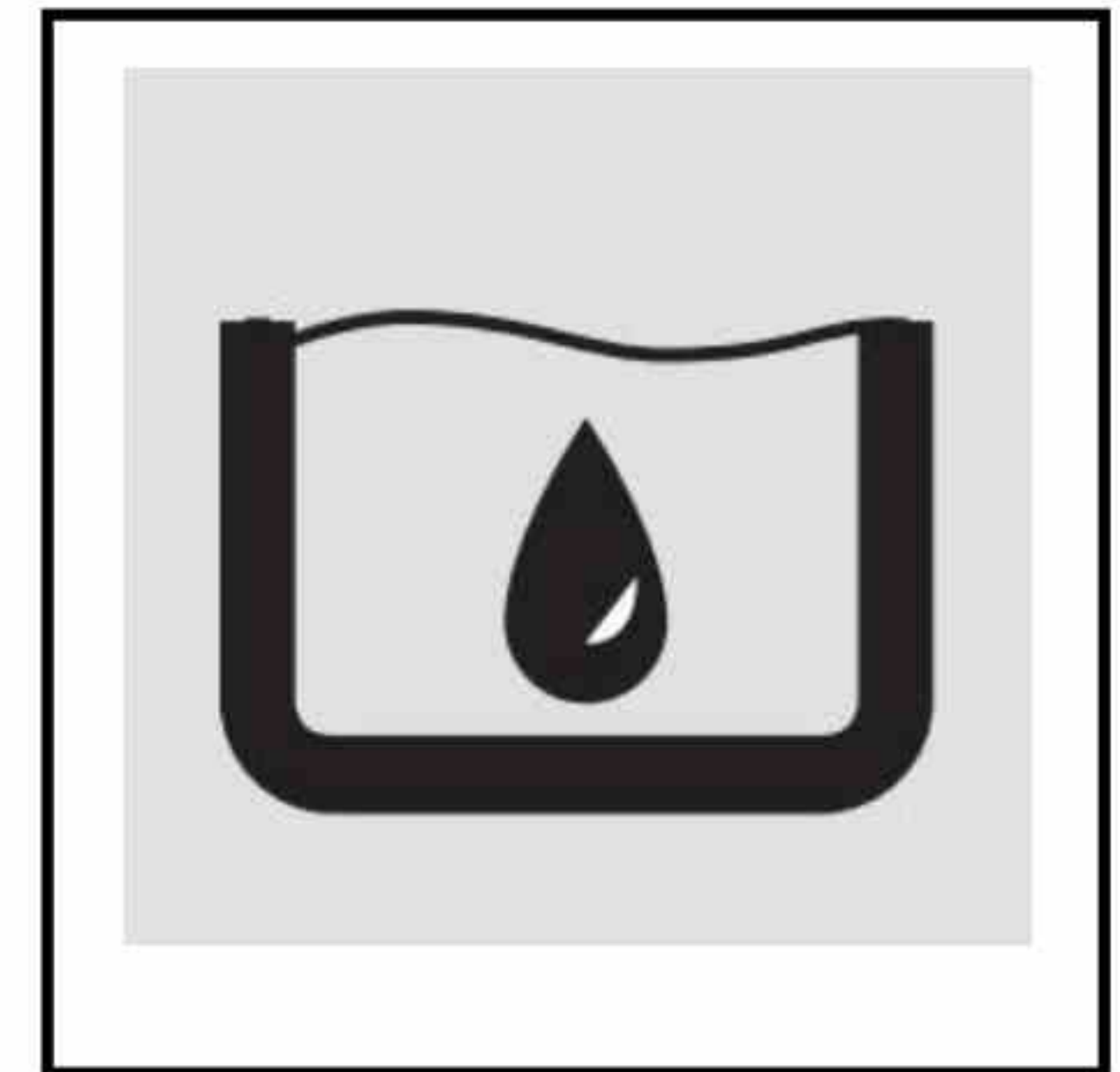


When the battery power is low, the power indicator will flash and there will be an alarm sound. At this time, you should finish the work as soon as possible, return to the charging place and charge the battery in time.

When the power is too low, both the brush and suction motor will be turned off.

The recovery tank is full

When the sewage in the recovery tank reaches the warning water level, the machine will automatically give an alarm, the recovery tank full indicator light will be on, and the water absorption system and the brush system will be turned off in a few seconds. the recovery tank must be empty.



Correct operation procedure:

before adding clean water, you must empty the sewage in the recovery tank. To ensure maximum efficiency.

Sewage discharge method:

pull the sewage hose out of the pipe rack, lift the sewage hose to a height higher than the sewage surface, then unscrew the sewage pipe cover (to prevent sewage overflow after the sewage hose cover is opened), and then put down the sewage hose to complete sewage discharge.

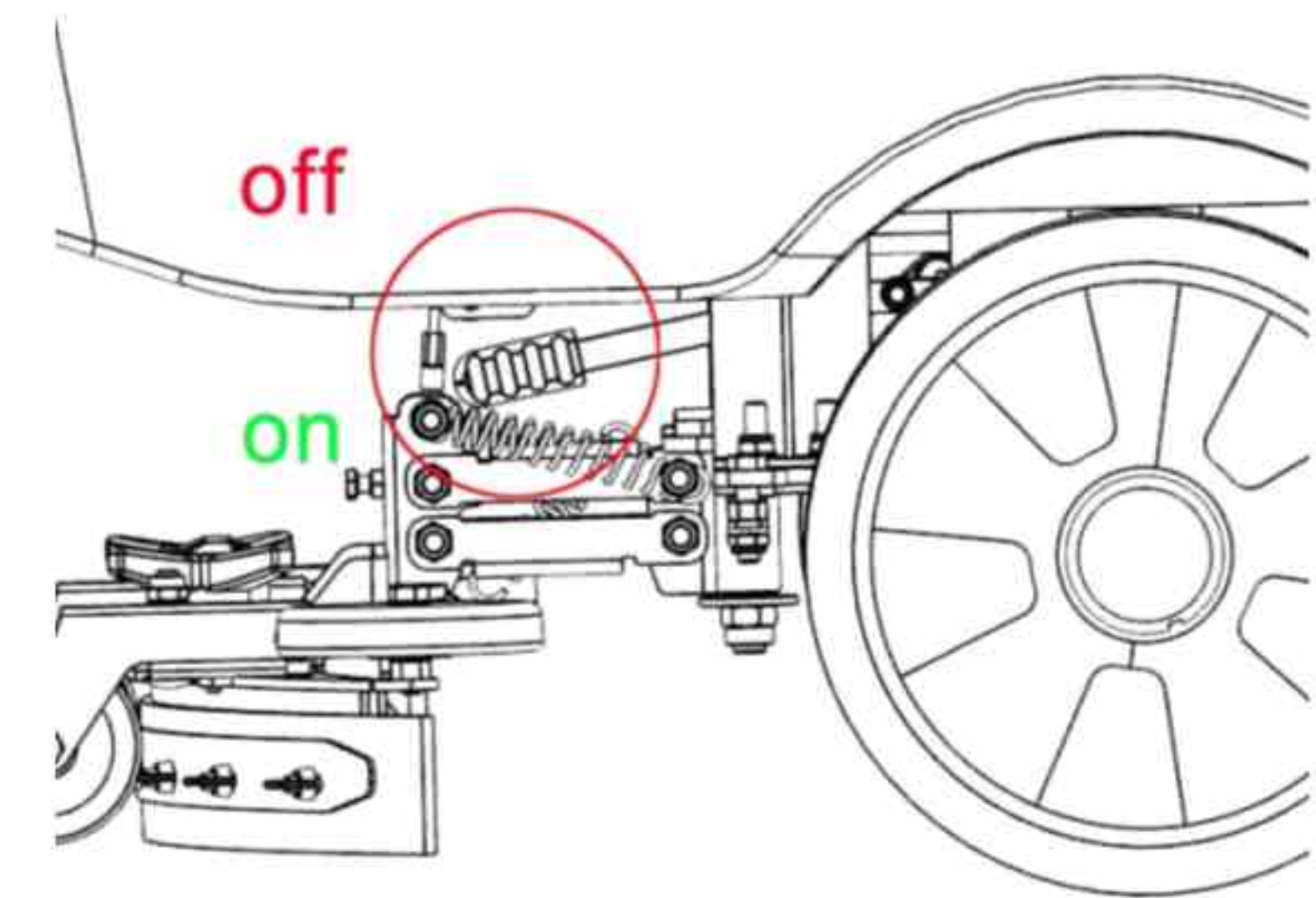
Clutch operation

The machine is driven by rear wheel differential and equipped with manual clutch. The clutch pull handle is located at the right rear wheel and has an indication label.

Position indication of clutch wrench:

handle up ----- OFF ----- push

Handle down -----ON ----- drive



If the key switch is turned on, the red indicator light on the panel flashes and there is no response when operating the throttle, indicating that the clutch is in the **off state** at this time. Please pull down the clutch wrench to the **on state** to resume normal operation!

During non working hours, please keep the clutch in the **on state** to ensure that the machine will not slip!

First run

This machine is a floor scrubber mounted floor washing and drying machine, which can be operated by one person. It can efficiently complete the whole process from cleaning to drying of a large area of hard floor at one time, restore the cleanness and brightness of the floor, and replace the manual mopping efficiency of 10 people. It is deeply clean, which is incomparable with the effect of manual operation.

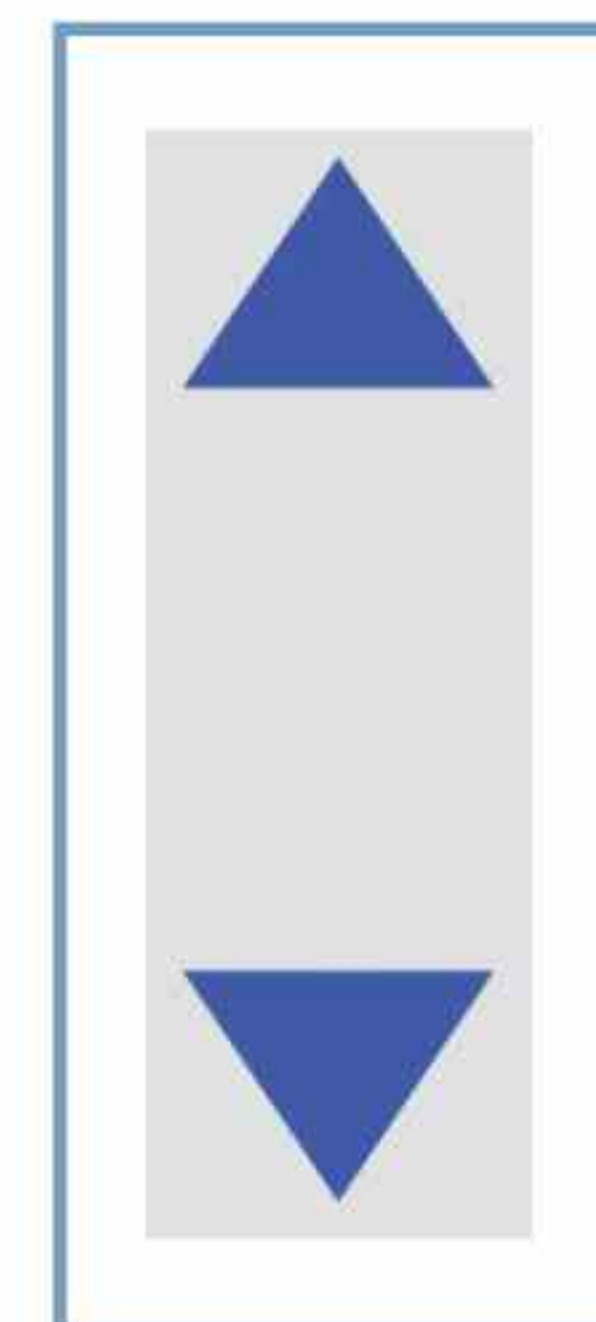
After training, operators shall operate according to the following procedures:

1. Turn on the key switch (turn the key clockwise and turn it counterclockwise to turn it off)
The electricity meter will display normally, and the controller status indicator is always on (please charge if the electricity is insufficient, the controller indicator flashes, please check the clutch handle)



There is no display on the panel after opening the key. Please check whether the emergency stop switch is off? Turn on the emergency stop switch according to the direction indicated by the switch to enter normal operation.

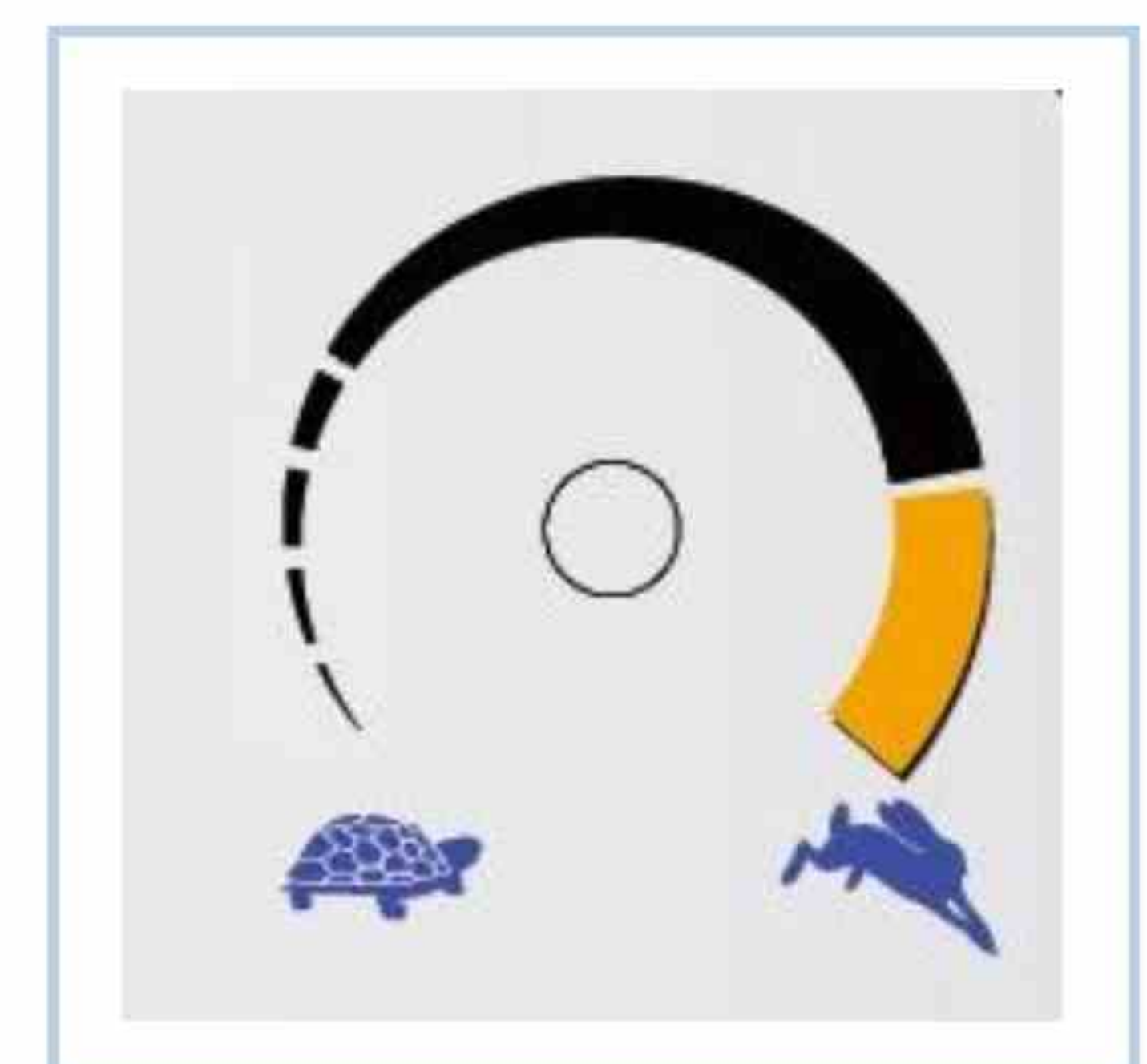
2. **Select the running direction** (pushing forward and reversing backward), and press the electronic accelerator control pedal to start the machine.



3. **Constant speed control**

This is the unique safety control design of the machine. Through the constant speed control knob on the panel, the maximum speed of the machine can be set. No matter how the accelerator is increased, the speed of the machine will not exceed the set speed.

The knob rotates in the direction of the rabbit, and the speed increases, the knob rotates in the direction of the tortoise and the speed slows down.



The orange area is a high-speed area. Do not select this area during normal cleaning operation. On the one hand, high-speed operation may affect the cleaning effect, on the other hand, it may cause accidents.

4. **Electronic accelerator pedal controller** (one button control)

After completing the above operation selection, just press the accelerator pedal gently with your right foot to operate the machine. Release the pedal and the machine will immediately enter the automatic stop mode.



When the machine enters the downhill operation, it needs to control the speed with the throttle. When the throttle is fully released, the machine will stop. The emergency stop switch can also make the machine enter the stop state.

5. **Emergency stop switch**

The machine can be shut down in case of emergency operation.

- * During normal operation, please do not use this switch to end the operation at will.
- * It is not necessary to turn off this switch at the end of each day.



In case of non-emergency, please keep the switch on. Do not turn the switch frequently. The switch can be turned off during machine maintenance.

6. **Brush and suction operation**

The brush and suction are operated by the brush lifting handle and the suction lifting handle.

Put down the brush handle: the brush system automatically enters the work preparation stage. As long as the machine moves forward, the brush will automatically follow and rotate.

Put down the suction handle: the suction handle drops, the suction system operates automatically, and the machine enters the water absorption state.

Machine completion and basic maintenance: (daily maintenance)

1. When completing the work of the day, the sewage in the recovery tank shall be drained, and the interior of the recovery tank shall be washed with clean water to clean and discharge the

dirt deposited in the tank as much as possible, so as to keep the recovery tank in a clean state (it is easy to cause blockage if the sediment is not cleaned for a long time).

2. The detergent will form coagulates in the solution tank for a long time, which will block the clean water pipeline system. In order to prevent the detergent from solidifying in the solution tank, empty the clean water tank after the work is completed every day.
3. Wash the squeegee with clean water and wipe the surface of the machine with a dry cloth. The control panel cannot be washed directly with water.
4. Pull up the brush and the suction lifting handle to keep the brush and the squeegee off the floor.
5. The clean water valve is electronically controlled and will close automatically. The water volume regulating switch is only used to adjust the water volume. Do not close it every day (this valve needs to be closed only in case of solenoid valve failure).
6. Turn the key counterclockwise to the off position and pull out the key.
7. Keep the clutch in a engaged state to prevent slipping.
8. Wipe the machine surface with a wet cloth.



Do not lift the brush while the machine is moving, as it is easy to make the brush fall off.

Cleaning and inspection of squeegee (once a week)

1. Remove the connection between the suction hose and the squeegee, loosen the fixing bolts of the squeegee, and remove the squeegee.
2. Loosen the anti backflow ring of the suction hose. If possible, fill it directly from the sewage inlet of the recovery tank with clean water. If the suction hose is not blocked, you can see that the water at the outlet of the suction hose is very smooth. If it is blocked, find a way to dredge it.
3. Clean the squeegee head with clean water. Check the wear degree of the rubber. In principle, the rubber should be used on another side in two months. When all four sides are worn, the rubber must be replaced with a new one.
4. After the cleaning inspection is completed, the squeegee can be installed back to the tailstock or hung at the rear of the machine.

Replacement procedure of rubber

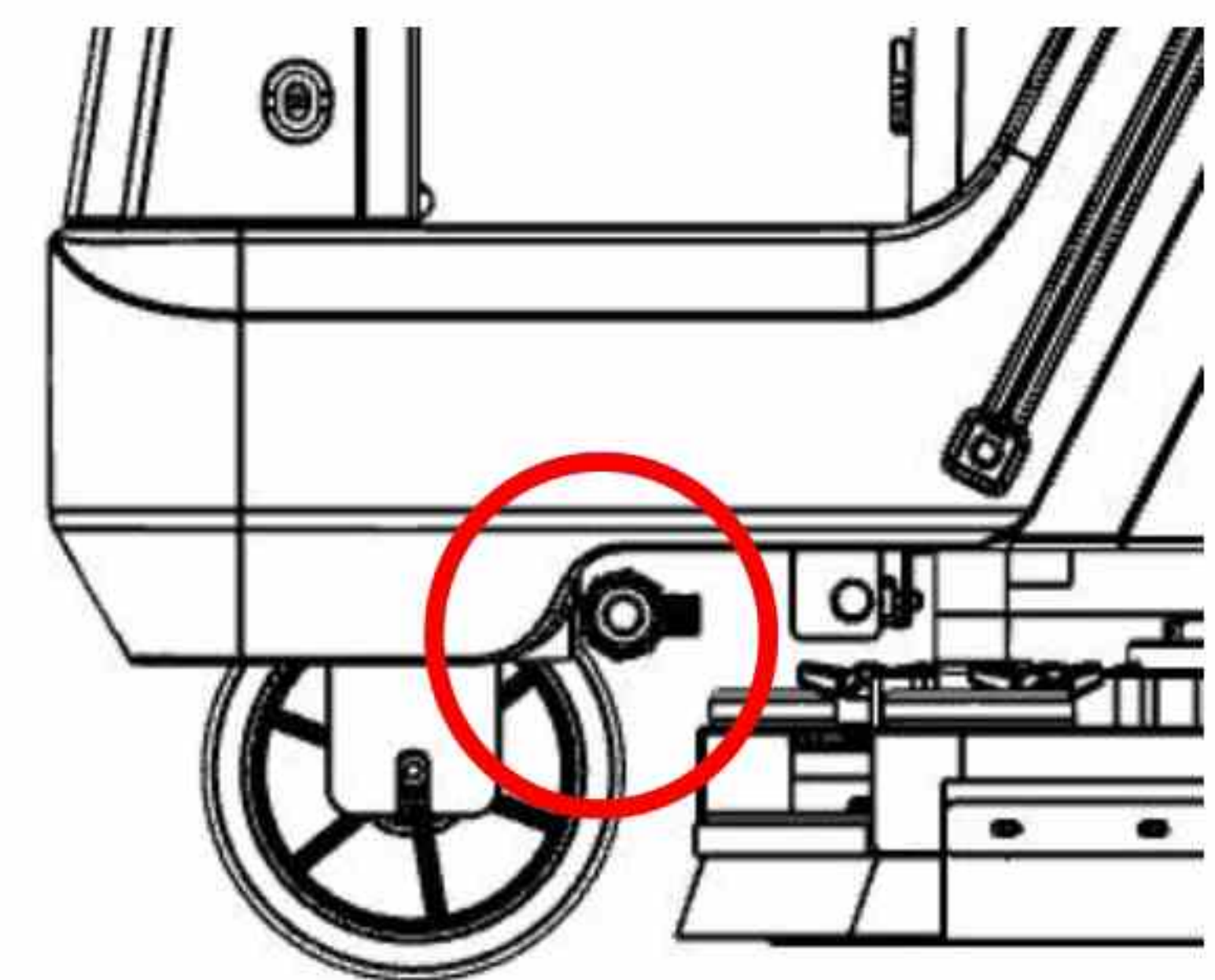
1. The rubber can be used four sides, which can be adjusted according to the degree of wear.
2. There is no need for tools to change the surface and replace the rubber. Do not change the fixed state of the squeegee system at will.
3. Remove the butterfly nut to remove the rubber pressing plate. Pay attention before removing the pressing plate The fixed position of the pressing plate shall not be installed reversely.
4. Before fixing the rubber, keep the natural and flat state of the rubber, and never pull it deliberately. After fixing, the whole rubber shall be flat, if there is distortion, it should be reinstalled.



If the rubber is seriously fat and twisted, it is caused by excessive contact with greasy. If the working environment is often greasy, please buy special oil-resistant rubber from the local dealer or the original factory.

Clean the solution tank and filter

1. The water in the solution tank can be drained by loosening the filter.
2. Clean the filter screen at the same time when discharging water.
3. After discharging water, the filter screen must be installed back into the filter, if the filter screen is damaged or lost to make it up in time. No filter screen will damage the machine control system.



The filter screen in the filter is an important part of the drainage system. Without the filter screen, the drainage system will be blocked! The filter screen shall be inspected once a week. Inspection method: unscrew the filter cover, clean it and restore it.

Installation and removal of brush:

The brush is the main working part of the machine. The brush shall be removed for inspection every week and replaced left and right as required to maximize the service life of the brush. If