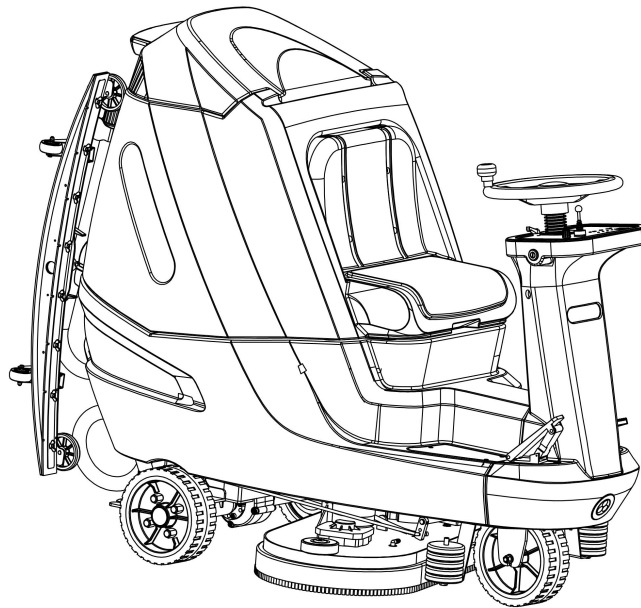




D9

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

Provide the necessary operating manual for each type of machine and maintenance instructions.

Please read this manual and complete understanding of the machine.

To facilitate your operation or maintenance of the machine.

This machine will provide you with efficient and convenient service. In operation, if pay attention to the following matters, can achieve a multiplier effect

- Be careful when operating the machine.
- Maintenance regular—According to each machine to provide maintenance instructions.
- Please use the parts provided by us when maintenance.

Special Note:

- The operator must be trained in the master control of the machine forward, backward, turning, obstacle avoidance and emergency stop after the operation, then can operate independently!
- when working ,please do not exceed 7% angle (4 degrees) to operate the machine
- When the machine is backward, the horn will automatically ring,must be slow
- flammable substances may cause explosion or fire, please do not use flammable substances in the water tank.
- Before leave or repair the machine, please park the machine in a stable ground. Turn off the machine and take out the key.
- Prohibit to operate the machine on land, grassland, artificial turf or carpet laying ground
- This machine can not be used on highways



It is forbidden to enter the slope when the floor scrubber is working! This will cause damage to the brush system. If the slope is more than 12%, it is not allowed to work on the slope for safety. The floor scrubber can only pass through the slope when it is not working!

MACHINE DATA

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

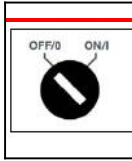
Model No. _____

Series No.- _____

Technical parameter

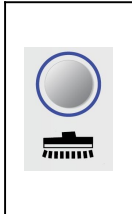
Model	Unit	D9
Voltage	Volt	24
Cleaning Path	Inch	Brush 18"*2 cleaning pad 17"*2
Traction	Traction	forward/backward
Number of brushes	Pcs	2
Brush rotation speed	rpm	200
Brushmotor	V/Watt	24/2×500
Brushpressure	Lb	99
Squeegee	Inch	43
Solution Tank	Gallon	39.63
Recovery Tank	Gallon	47.55
Batteries	V/AH	4×6V/235
Type batteries	standard	GEL
Sound Level	dBA	68
Weight with batteries	lb	838
Run time per charge	Hour	3-4
Cleaning Productivity	Ft ² /Hour	55972.8
Machine sizes	L×W×H Inch	64.57×35.43×56.30
Gradeability	%	20

symbol description



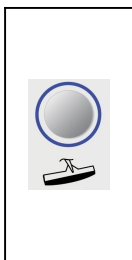
Master switch

On the right side of the console, the on and off state is controlled by the key device



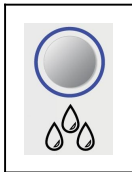
Brush switch

Direct control the lifting and opening of the brush system. Only when the machine is in progress, the brush will work and the machine stops moving forward or backward. The brush disk system will automatically stop working.



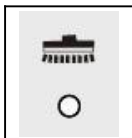
Suction switch

Direct control the water absorption system. Turn on the suction switch, the suction will be placed down automatically, the suction motor will automatically run. The recovery tank is full or reversing, the suction system will automatically shut down, the squeegee will be automatically recovered.



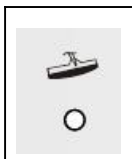
Drainage switch

Direct control the machine drainage system. The brush opens, the drainage system opens automatically. If you do not need to drain the water, press the switch to turn off the system



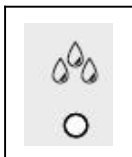
Brush indicator

The light indicates that the brush system is in working condition, Otherwise indicates cease



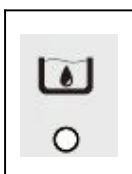
Suction indicator

The light indicates that the suction system is in operation, otherwise indicates cease



Drainage indicator

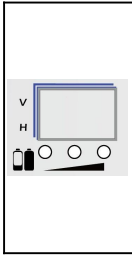
The light indicates that the drain system is in operation, otherwise indicates cease



Full water indicator

When the recovery tank is full to the designated position, the indicator light is on, the system will turn off the suction system and beep the alarm.

symbol description



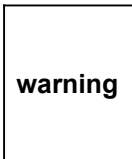
Power status indicator The battery energy management system, the three indicator represents a different power state. The green represents sufficient power; the yellow light represents the electricity half of electricity the red represents nearly exhausted, should finish the work and charge; power management system has already started work on the red light flashes ;



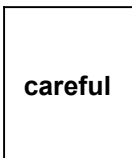
speed control Clockwise rotation knob speed gradually increased. In three control regions: left (black arc area) is the non working state; the middle (black arc section) is the working area; the right (yellow arc section) is high speed region; working state prohibit to working in yellow area.



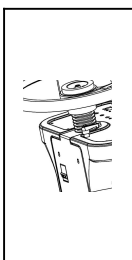
Water regulation indicator The water quantity is regulated by the water regulating handle, and the operator regulates the water quantity according to the work need;



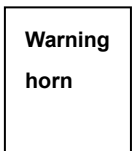
For "warning " appear in the face of the text, operators should not only seriously read, but also keep in mind, can not be violated, once violated, are likely to cause adverse consequences



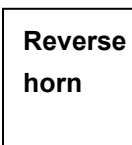
for 'carefull' appear in the face of the text, operators should pay attention to it in their work, and take this as a standard and form good habits



Emergency shutdown switch When the machine control failure, after the closure of the main control switch of the machine is still running, and haul down the emergency shutdown switch, the switch can disconnect the machine main power supply, to ensure the safety of the switch, usually do not often use pull, only in case of emergency .



Warning horn If you need a horn warning, press the switch;



Reverse horn Speaks caution when reversing

General safety rules

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

- Please read the labels on the fuselage carefully and don't cover them for any reason. If damaged, replace them immediately.
- the machine only operate by authorized and trained personnel.
- when the machine work, please pay attention to other people especially children's safety.
- Don't mix different detergents, which can cause harmful gases.
- Do not store any liquid on the machine.
- The storage temperature of the machine must be between -25 and --55 degrees Celsius. The running condition of the machine is from 0 to 40 centigrade.
- The machine's usage of environmental humidity from 30% to 95%.
- The machine is not suitable for outdoor rough ground and should not be stored outdoors.
- This machine is non explosion proof and must not be used in the environment where explosion protection is required.
- This machine is not suitable for cleaning dangerous goods or corrosive objects.
- Flammable liquids are prohibited.
- Not use to be transport articles.
- Acid solution is forbidden so as not to damage the people and the machine.
- The machine will automatically turn off the brush tray when it is not in use to protect the ground from damage.
- Please use dry powder fire extinguisher when the machine is on fire. Please don't use water to extinguish the fire.
- Keep away from dangerous shelves or scaffolding.
- Select proper operating speed according to traction force.
- Note: in order to avoid instability, machines are prohibited from working beyond permissible slope conditions.
- After the machine is stopped, the key is removed, and the foot brake is stepped down so that the foot is in a self-locking state.
- Each machine should be synchronized to complete cleaning and dry ground, any other operating without authority is strictly prohibited, slippery ground should have appropriate signs.
- At any time ,machine is on the blink , please confirm whether due to the insufficient of daily maintenance; if not, please contact with your equipment provider, to seek help.
- When you replace the accessories, please use clean dycon original accessories.
- In case of danger, press the brake immediately; in case of emergency, pull off the emergency switch (at the top left of the column).
- The power supply of the machine must be cut off before any cleaning or maintenance is carried out.

- Do not disassemble by hand, should be disassembly by tools.
- It is forbidden to wash the machine directly with corrosive reagent or high pressure water.
- in order to prevent coagulation of cleaning agent in the water tank filter , please do not leave the agent in solution tank in a long time.
- Do not put caustic soda products in agent it will damage rubber blade.

please moving the machine and wooden pallets together by forklift, the machine has no direct use of forklift position, do not handling equipment directly!

Preparation and configuration of the machine

Battery installation

The batteries are installed in the sewage box below specially designed battery position, composed of high maintenance free battery 4 6v/200ah, normally, the battery installation has been completed at the factory, please do not arbitrarily change the battery configuration, please use the original battery connecting wire and interface.



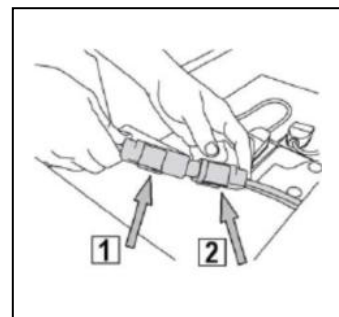
please use the original configuration of the battery and charger, change one configuration, will lose the quality of battery or charger factory guarantee!



please maintenance and charging battery follow the operation manual , regularly check the battery according to the maintenance requirement! Remove the dirt on the surface of the cell, make sure the battery connection fastening, To ensure battery ventilation.

Battery connection

Battery plug (1) located in the battery above, please connect with plug (2)
Do not arbitrarily change the battery connector,
if unauthorized changes will lose the battery charger,
the quality assurance from the original factory.



battery charging connection

Battery charging port located inside of a post operation , As shown in figure (1), please connect charging port (2) with figure (1)

Battery charging

This machine has a battery protection system, in order to avoid causing permanent damage to the battery, do not remember released the battery after all. Please finish work as soon as possible after the alarm from the battery machine, return the machine to the charging area, in order to protect the battery performance, The machine will automatically shut off the brush plate and water work, only keep walking motor, and the alarm will sound.



when the machine shutdown after voltage alarm, if not timely charging, just place a day or a night and then charging, repeatedly, it is a great damage to the battery, the battery will soon enter the decay stage, causing irreparable damage.



The original configuration of the machine is a high performance deep circulation and maintenance free battery, you must use the original configuration of the charger, the charger has the function of intelligent management, no need to worry about excessive charging.



In the use of the day allowed in the middle for supplementary charging of the battery, but can not use supplementary charge instead of a normal charge; to ensure the normal operation of charging a day after the normal charge to complete the charge for over 8 hours. One cannot use supplementary charge instead of a normal charging way, this will cause permanent damage to the battery

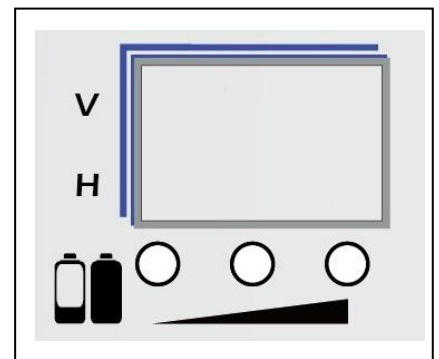
battery capacity indication

The operation panel has intuitive digital display shows the current voltage directly There are 3 power state display lamp, so that you can fully control the working state of the machine

Green light said sufficient power, in full power state;

Yellow light power consumption is lower than 1/2;

Red light said power is close to depletion, after a period of time the red light alarm.





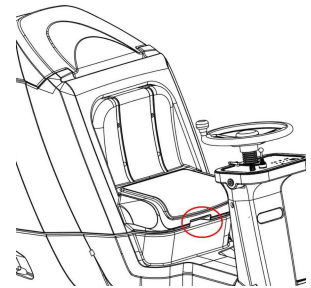
When the battery energy is exhausted, enter the charging state as soon as possible, and if the battery is not charged for a long time, it will damage the battery performance and life, make sure to pay attention to it.



When the machine has low voltage alarm after a few seconds will automatically turn off the brush motor, but the machine can complete the dry ground, when the power is reduced to a certain level, dry function will also be closed, only returned to the charging area walk electricity, then please charge as soon as possible!

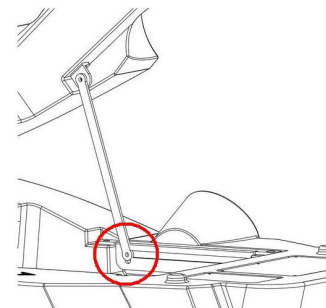
Battery maintenance content(once a month)

1. check the battery usage and charging according to standard operation, must correct bad operation habits.
2. use a dry cloth or damp cloth to wipe the dirt on the surface of the battery, and don't flush with water!
3. check whether the battery connection line is loose, if it is loose, please fasten it in time.
4. check the battery appearance, check if the battery appearance is heat deformation or bulging, if there is a bulge immediately to supervisor and maintenance staff report.
5. in summer please pay attention to check the battery surface temperature when charging, and when found the battery charging temperature is unusually high, should promptly contact the maintenance personnel to confirm whether normal.



Routine maintenance procedure for batteries:

1. open the recovery tank from the front part of the seat.
2. the support rod will slide in the chute. When the support rod falls into the positioning groove, you can release your hand. The support rod will keep the recovery tank in a fixed position.
3. recovery tank is closed, the support rod shall be removed from the positioning buckle to make the support rod return to the chute. During the placing process, the hand shall not leave the recovery tank, and the recovery tank shall be placed stably



Be careful:

Turn over and put down the recovery tank must be pushed gently to ensure safety, especially when putting down the recovery tank, you must hold the recovery tank to ensure that the recovery tank is put down smoothly.

Squeegee

Please install the squeegee as shown in the right figure. Each equipment 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 to fix it

After fixing the squeegee, connect the sewage suction pipe with the squeegee port.



The squeegee and the machine are connected by two fixed screws. When the machine passes through the narrow area, the structure will fall off automatically to prevent the impact damage, so as to ensure the safety of each other.

In case of falling off, as long as the installation is resumed, it is strictly prohibited to fix the squeegee and the machine in mandatory way to fix.

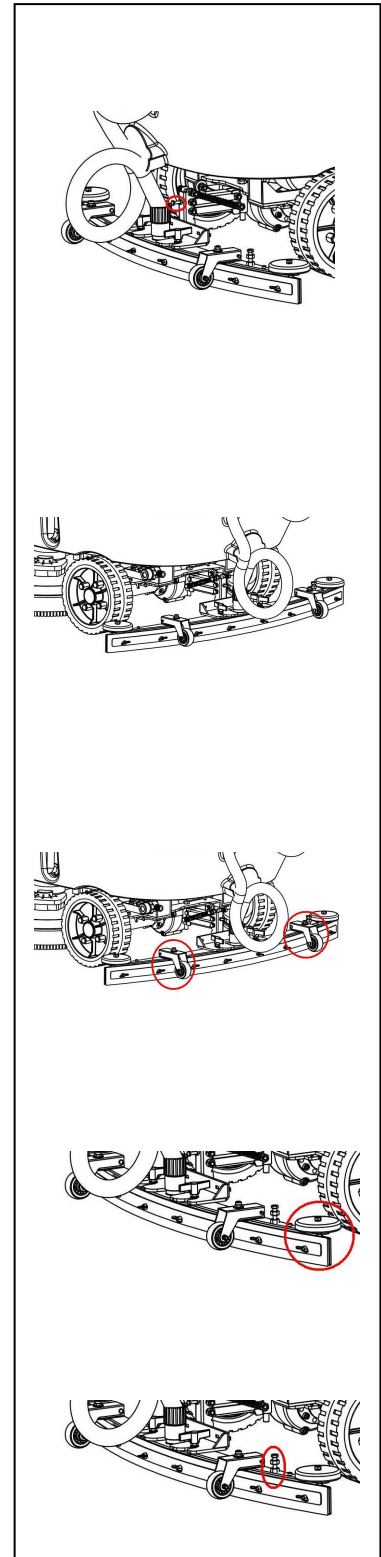
Be careful:

rubber of squeegee in the transport process may appear deformation because of extrusion, do not use any solvent or hot air blowing process, LINATEX professional rubber has a strong recovery elasticity, as long as lift the squeegee and keep it overnight, it will be recovery.

the rear rubber of squeegee should keep a right angle with the floor. When moving forward, the rubber and the floor must be bent evenly. If this requirement is not met, it will affect the scraping effect.

brush loading and unloading

1. check the battery is in good connection.
2. turn the key to the ON position
3. brush system will automatically keep the brush stay in the lifting position.
4. turn the key to the OFF position and remove it from the instrument panel (to ensure that the machine does not have anything to do) by manually putting the brush into the machine.



- the unloading of the brush is opposite to the loading direction, and it is confirmed that the brush has been safely lifted state, hold the brush with two hands and rotate the brush in the opposite direction.

Squeegee can be placed like this when not working

Installation and removal of cleaning brush

- Check whether the battery is in good connection condition.
- Turn the key to the ON position
- The brush system will automatically keep the brush in the lifting position.
- Turn the key to the OFF position and remove it from the instrument panel (to ensure that there is no action of the machine). Manually install the brush into the machine.
- The removal direction of the brush is opposite to the installation direction. After confirming that the brush has been under safely lifted status, hold the brush with both hands and rotate the brush in the opposite direction.

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

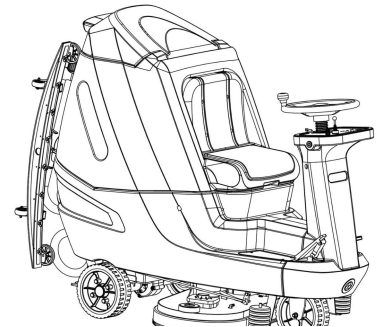
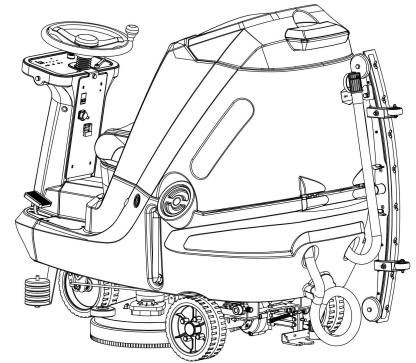
Note:

when each operation, make sure that no affection for circumambient object or personnel. we recommend that you change the left brush and the right brush position weekly. When you find that the bristles of the brush have worn close to 1/3, or when the bristles have been curled, please replace the new brush in time.

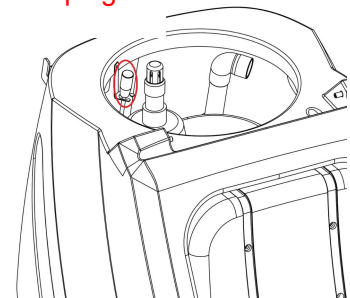
Changing the left and right position of the brush every week can effectively improve the service life of the brush, and find out whether the brush bayonet is damaged or not, and prevent the overload and excessive vibration of the brush motor



the brush is the main working parts of the machine, you must ensure that it is in good condition, the brush disc or cleaning pad wear and tear is normal, the correct action is the timely replacement of the brush or cleaning pad according to the provisions.



Drain plug



Splash proof device:

The machine has a splash brush design, in the working process of the brush can effectively prevent the water from splashing, and can prevent some of the garbage into the brush disc, please clean the brush and comb to a week, to ensure the full play of its function.



Do not remove the water splash proof device, no this device, cleaning water will cause a large spill. if work in oil area, pay more attention to clean the splash brush, much greasy gathered in the brush will affect the cleaning effect.



Splash brush will gather dirt in operation, need to clean the brush every day before the end of the work, to ensure it will not cause pollute the floor secondary pollution

Recovery tank

it is an important part of waste water recycling, attention to maintenance

1. suction pipe inspection

The suction pipe is an important part of squeegee and recovery tank effectively connected, suction pipe is fixed into a circle in order to prevent the return of sewage pipe after the shutdown, please do not cut ring nylon tape

In using because of excessive inhalation may cause suction pipe blockage, when water come from both sides of squeegee, or in turning operation, water will come from one side of squeegee, the squeegee and suction pipe may be blocked.

2. check the discharge pipe cover of recovery tank is effectively closed or not.

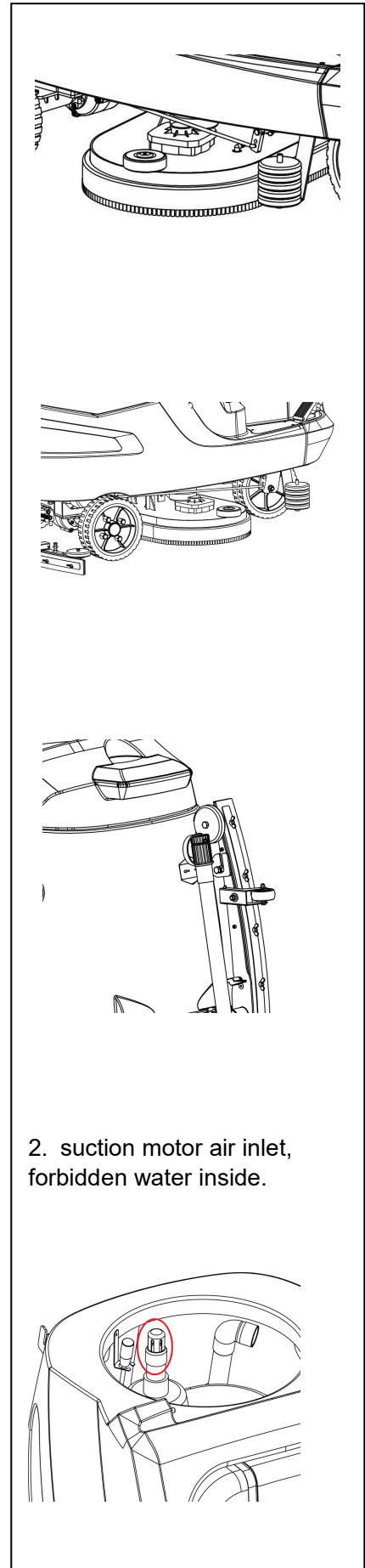
3, check the recovery tank cover ring is intact or not

4. Check the air inlet and filter sponge to make sure the filter sponge is in good condition



Air inlet filter sponge is an important part of the machine. It must be cleaned and checked every week. Sponge blockage will directly affect the work effect;

It is strictly prohibited to cancel the air inlet sponge, there is no air inlet filter sponge, it may cause premature damage to the suction motor!



2. suction motor air inlet, forbidden water inside.



The air inlet device is directly connected with the water suction motor, and the water can not be poured in the cleaning and maintenance process. If there is water entering, it will cause damage to the motor. In this case, you will lose the quality guarantee!

solution tank

clean water is stored in solution tank, clean water is injected into the solution tank (not more than 50°C), and the appropriate detergent is added according to the nature of the dirt on the surface

The machine has two water inlet (1) cleaning agent added, in the absence of water pipe, bucket could be used to add water.(2) is used for water supply pipe, water pipe can be directly inserted into the mouth water

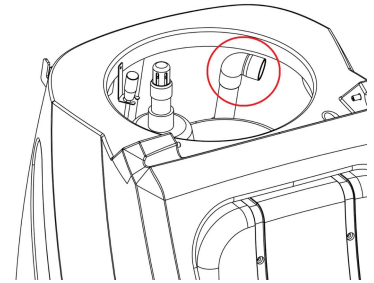
water level pipe

observation port for tank water quantity, through the water level tube, you can know the water storage tank water status;

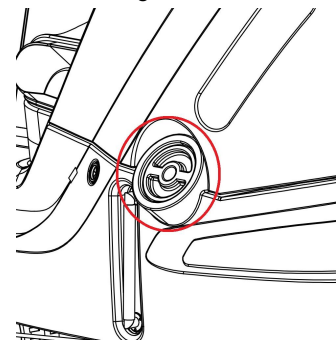
cleaning agent concentration should be adjusted according to the cleaning instructions.

please select the appropriate detergent according to the nature of the dirt on the floor. Do not choose a high foaming cleanser; Pay attention to the proportion of detergent, concentration, excessive ratio will not only cause waste, but also affect the machine and the environment!

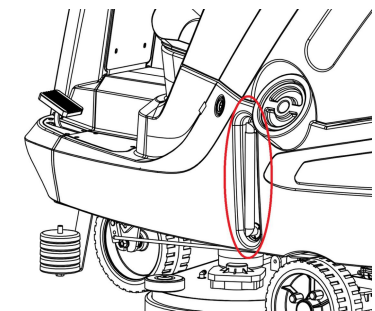
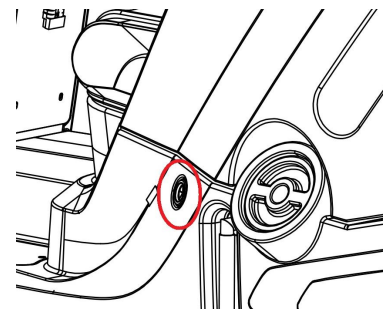
3. clean water flushing suction hose



(1) Detergent inlet



(2) Water pipe mouth



Water level pipe

Be careful

Low foaming detergent should be used. If a high foam cleanser is used, the foam in the recovery tank will overflow into the inlet of the suction motor and cause the motor to burn out.

The use of pure acid or caustic soda will cause serious damage to the machine

The following actions should be completed before running the machine

1. connect the battery plug
2. release the brake pedal
3. check whether the brush is in place and check whether the suction handle is in place
4. place the speed control knob in the work area
5. insert the key and turn clockwise to the ON. Position
6. observe the power indicator and start the device when the electricity is normal.
7. choose working mode

Brush start (A)

- start the brush button, the brush system will automatically drop, the machine is in the state of preparation, if you do not want to drain out water, you can press the water button. The drain indicator light is on means drain out open, and the drain light indicates off means the drain out water is closed.
- If the machine is in a stationary state, the brush system is only in the ready state and the brush system will only enter the working state when the machine enters the forward state.

suction start (B) (water suction indicator light is on)

- press the suction button, the suction system is in the working state, squeegee fall down automatically and the water suction motor will automatically open
- if the surface dirt is particularly serious, you can choose to brush function, only open the brush system, not open the suction system, the machine can be repeated cleaning in serious areas of dirt;

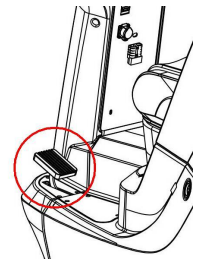


such operations should be placed in the work area warning signs, told the surrounding personnel, pay attention to wet ground anti-skid.

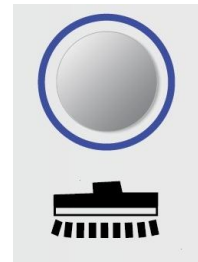
Connect battery



Release the brake pedal



Brush switch A



Suction switch B



Discharge water switch C



- if you select the brush function operation, you can turn off the drain system, so that the brush in the detergent area repeatedly cleaning.
8. select the water flow according to the ground conditions (3) and adjust the water transfer switch to the appropriate position
 9. select the direction of the machine, forward or backward, If backward selected, the machine will shut off all operations automatically, the brush system close and lift, the suction system close and lift.
- If forward selected, the brush system in the ready state automatically enters the working state, and the water suction system enters the working state.**
10. The machine has a foot switch, a key control design, when you complete the work settings, as long as the pedal down, the machine will operate according to the set requirements.



when the machine starts to run, the operator should check if the brush system is effectively lowered, if the suction system normal, if the water suction effect normal, If inappropriate, timely adjustment.

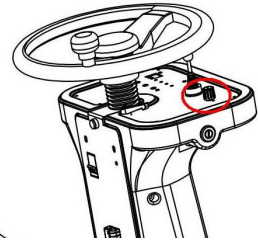


brush system and suction system began operating only the machine move forward, when the machine backward, it will automatically stop the brush system and suction system, the brush and suction system automatically lift, then it can backward.

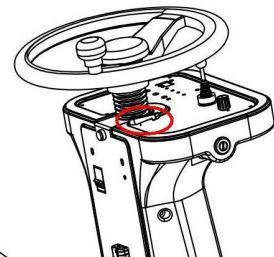


In order to protect the machine, the suction system and brush system are not started as long as the direction of the machine is in a backward position.

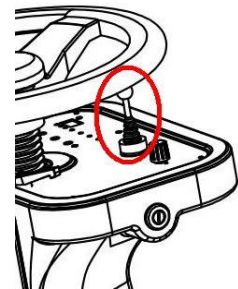
Cruise Control



Water volume regulation (3)



Back off



Wind Booster



Driving skills instruction:

the machine has strong power drive capability, the operator must be trained to operate. Operate independently after handling the machine progress, back, turn, obstacle avoidance and emergency stop.



this is ride on floor scrubber, fit for the width more than 1.5m space, for safety, the machine should be run within the suitable area, don't pull over or close to the equipment operation, to avoid accidents!



the height of the machine is 1.4 meters. Before the work is carried out, the operator must confirm the safety of the work site in advance and make sure the traffic height is high. It must be carried out before the safety is confirmed.

driving rules: driving on the right, from the outside to inside, one by one pressure into the gap.



The machine has automatic buffer start design, speed control knob in the normal working area, can make the machine start smoothly. When the machine starts, the operator should check the speed control knob in time. When the speed control knob is in the high speed zone, it should be adjusted in time to avoid possible danger!



it is strictly prohibited to run at high speed! when you pull over, you should pay attention to the passing position of the suction truck. It is strictly forbidden to pass through the obstacle, so that the operation will not only cause unexpected accidents, but also cause damage to the water absorption system!



in the new area before operation, to examine the working site, running the line on the machine to advance planning, should not blindly follow the act, to ensure the safety of operators and equipment and the safety of surrounding objects!



Although the machine has a strong suction, but after all, is not sweeping machine, in the operation, it is best to pre cleaning the work site, remove particulate waste and debris, in order to improve cleaning efficiency and effectiveness!



After cleaning if the floor surface with filamentous water marks, the reason is the floor particles or hair under the rubber blade, it can be improved or eliminated by site precleaning or staged cleaning!

D9 has excellent electronic brake damping system. As soon as the foot leaves the electronic accelerator, the machine will enter the damping deceleration state, and there is basically no need to use mechanical brake system in the operation process. When the machine is going downhill, please pay attention to the following operation tips to ensure your operation is more reliable.

Operation essentials: (operators who have not participated in the operation training must carefully read the operation essentials before use)

1. When going uphill or downhill, it is necessary to ensure that the machine is in normal operation state (it is strictly prohibited to work on a slope exceeding 12 °).
2. Enter the downhill area, release the electronic accelerator on the right foot (the left foot can not step on the brake), the machine will automatically enter the automatic damping brake state, the machine will be very smoothly controlled in the deceleration state, without any operation;
3. Key switch or power protection switch cannot be turned off during downhill. If it is necessary to stop or need to be slower, mechanical brake can be used to assist.
4. The mechanical foot brake equipped with the machine is a parking brake device, which is equivalent to the hand brake of the car. It is mainly used to stop the car and prevent the car from slipping. Of course, it can also be used as an auxiliary brake in an emergency;
5. In normal operation, the machine does not need to use the brake device. The machine has a complete automatic brake damping design. As long as the electronic accelerator is released, the machine will stop quickly without worrying about safety issues.
6. This machine does not have a manual clutch switch, which saves the trouble of moving the machine and pulling the switch under the back of the machine. As long as the key switch is turned on, the machine is in preparation for automatic damping and operation at any time. At this time, it is difficult for you to push the machine forward or backward. If you want to push the machine manually, you can easily push it by turning off the key switch, which is also the difference of D9.
7. When the machine is charged and placed, it is recommended to step on the brake pedal, so as to ensure that the machine will never slide, and remember to release the brake during operation.



It is strictly forbidden to turn off the key switch or the power protection switch during downhill operation. If this operation is carried out, not only the machine cannot be stopped, but also the speed will be accelerated suddenly because the machine loses the brake damping protection.



When operating downward, under the premise of safety, the electronic accelerator can be used to speed up the operation speed of the machine properly. It must be operated carefully under the premise of skilled technology, safety and reliability!

Main parts:

1. direction device controls the direction control of the machine, and the steering device has a power assisted swing handle, which can effectively help the operator to control the direction of the machine;
2. foot control switch, machine walking and brush operation, the operation of the control is controlled by foot control switch, as long as the foot to loosen the foot, all operations will be stopped.
3. speed control knob, machine forward or backward speed control knob, clockwise rotation speed up, counterclockwise rotation slow down. The machine has a buffer start design, which allows the operator to adjust the speed to the desired position as soon as possible after starting the machine;
4. pedal brake, when the machine stops running, operator want to leave the machine, please pedal brake on the parking space, to ensure that the machine safe parking;At run time, in case of emergency, can also use the left foot on the pedal brake.



in the course of operation, the machine can be turned off by key switch, step on the brake pedal or pull down the emergency closing switch to stop the machine running in the shortest time.



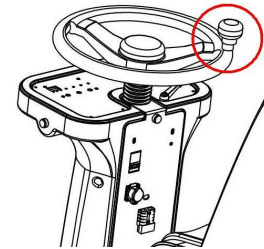
when the battery is too low, the red light is displayed and the brush motor will stop automatically. At this point, the residual water on the ground should be sucked away, return to the charging place and charge the battery in time.

The equipment has a recovery tank full water automatic warning and closed water suction system. When the sewage in the recovery tank reaches the warning water level, the system will automatically warn and close the water suction system.

Correct operation procedure:

when you add water, you must empty the sewage in the recovery tank, to ensure maximum efficiency.

Booster crank handle



Wind Booster



Pedal brake



The recovery tank is full

when the sewage in the recovery tank reaches the warning water level, the machine will alarm automatically, the indicator light will be on, and after a few seconds, the water suction system will be closed and the brush system will be closed,
You must empty the recovery tank.

Drain out methods

the sewage outfall is pulled out from the pipe rack, the drainage hose to the height above the sewage outfall to unscrew the lid (to prevent the drain cover open and sewage overflow) sewage hose down, the completion of the sewage discharge.



When the sewage pipe is put into the pipe rack, the pipe frame adhesive bar is pulled out first, and then the pipe is pushed into the position with glue tape.



Considering the possibility of serious pollution on the factory floor, a drain plug for recovery tank has been added. The device is opened after the drain hose is opened, which can greatly reduce the clogging of the sludge to the drainage pipe. When used in a cleaner area, the device may not be used.

Operation

the machine is equipped with system electronic control equipment, easy to operate, only the following procedures can operate

1. turn the key clockwise to turn on the main power supply. (turn the key counterclockwise and turn off)



When an emergency occurs, you can turn off the key switch, step on the brake pedal or pull down the emergency shutdown switch to stop the machine running in the shortest possible time.

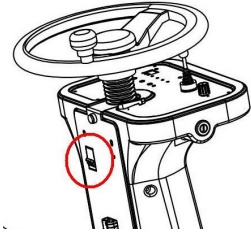
When the machine action is abnormal, the key switch can be opened again, and the system will clean itself and restart;

2. select the direction of operation, forward or backward, step down the operation control switch, the machine can start operation.

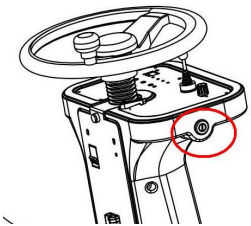


To ensure safety, the machine is in a fallback state and will shut down all working conditions. Please reselect the work after completing the reverse adjustment.

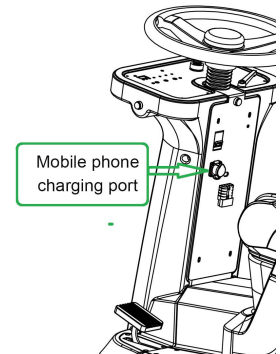
Emergency off switch



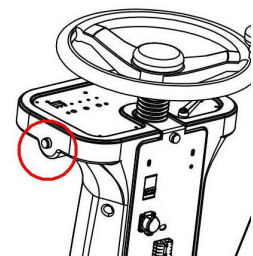
Key switch



USB Charging port




Headlight switch




3. speed control

the speed control of the equipment is controlled by the speed control knob on the panel, as the knob turns to the rabbit, it speeds up and turns to the tortoise, slowing down;




Orange area for high-speed areas, in the normal cleaning operations, do not choose the region, high-speed operation, on the one hand, may affect the cleaning effect, on the other hand, may cause accidents.




The dotted area of the speed indicating indicator is "non working area". If the speed knob is in the area, the machine will be in a state of safety and no forward or backward motion.

4. the brake device is located on the left foot of the operator, if you need to anchor, you can use the brake pedal to complete the operation.



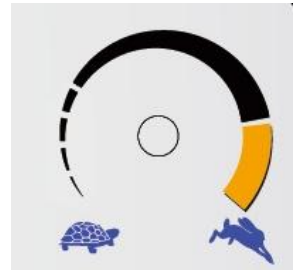
The equipment has electronic damping brake device, as long as the right foot to loosen the control switch, the driving speed will be significantly damped until stop. When the machine is not in use, the brake pedal should be placed in the retaining position to prevent the machine from shifting

5. driving control (one button control)
 when the above operation is completed, the control switch can be operated by simply pressing the right foot lightly on the control switch, releasing the switch, and the machine stops all operations

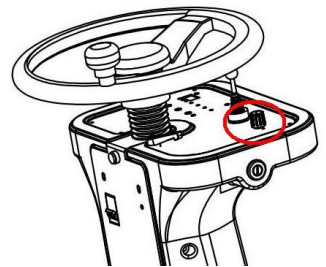


The machine has automatic delay joggings operation design, right foot switch on the machine will delay action, to prevent misoperation, start running from slow to set speed faster if you feel can be immediately adjusted, with enough security.

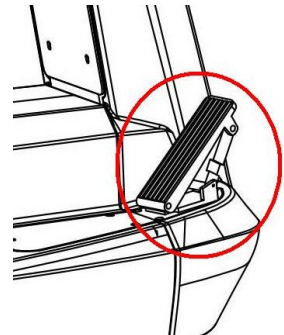
Constant speed control area



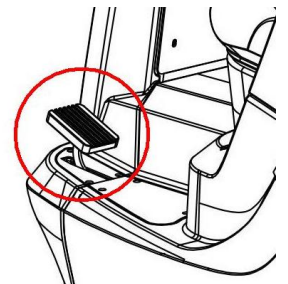
Cruise Control



Accelerator pedal



Pedal brake



Emergency shutdown switch

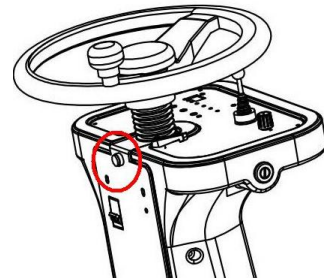
When the machine is abnormal and the key does not stop the machine running, turn off this switch, the machine will be stopped immediately, this device is an emergency handling device, do not toggle the switch when it is normally running or stop working.



If you turn off the emergency shutdown switch when charging, you will not be able to complete the charging operation. When charging, check that the switch is in the normally open condition.

Warning horn, reversing horn

When the equipment is operating, if you need a horn warning, please press the switch. When the machine is reversing, there is a loudspeaker warning.



after work and maintenance

1. after every day work, the recovery tank should be empty, rinse the internal of recovery tank by clean water, clean out the dirt of recovery tank, keep the recovery tank clean (long-term not clean-up sediment is easy to be blocked).
2. to prevent the detergent is solidified in solution tank, the solution tank should be emptied after every day work.
3. rinse the squeegee, clean the surface of the machine with dry cloth, the parts of the electric appliance can not be rinsed directly with water.
4. close brush, suction operation switch.
5. close water valve (water quantity regulating switch on control panel.)
6. turn the key counter clockwise to the OFF position and pull the key out.
7. depress the foot brake, get into brake hold condition.
8. when the machine is parked, make sure that the inspection brush system and suction system have been lifted off the ground;



Do not use the key to directly turn off the power supply when the machine function switch is not turned off. This will cause the control program to make errors, and frequent such operations may cause damage to the control system.

Clean squeegee

1. when the suction switch is opened, the suction switch is in the working state, turn off the power supply with key, the suction system is in a falling position, loose the fixing screw, and pull out the suction hose, then the squeegee can be disassembled.
2. check if the suction hose and squeegee connection is blocked, remove the dirt.
3. clean the suction head with the tap, check the degree of wear of the rubber blade. If necessary, the rubber blade can be turned upside down to use.
4. after cleaning, the squeegee can be hang in the back.

Replacement procedure of rubber.

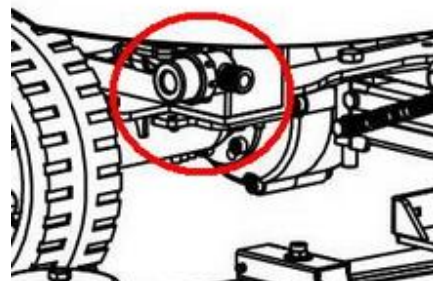
1. The rubber has the function of four sides use, which can be adjusted according to the wear degree.
2. There is no need tools to change the surface and replace the rubber, and do not change the fixed state of the squeegee system at will.
3. Dismount the butterfly nut to remove the pressure plate of the rubber. Before dismounting the pressure plate, pay attention to the fixed position of the pressure plate and do not install it reversely.
4. The rubber shall be kept in a natural and flat state before fixing. Do not pull the rubber deliberately. After fixing, the whole rubber shall be in a flat state. If there is any distortion, it shall be reinstalled!

Be careful:

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

Clean the solution tank and filter

1. solution tank can be discharge water by loosing the filter.
2. when discharging water, the filter screen can be cleaned at the same time,
3. after discharging water, the filter screen must be get back to filter, avoid damage or miss.



No filter screen will damage the water control system

**Warning:**

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 by unscrewing the filter cover and restoring it after cleaning.

Brush assembly and disassembly

Brush is main part of machine, please disassembly and check every week, left and right change according to the requirement to maximize the service life of the brush.

Procedure (Manual installation)

1. when the brush is in lifting state, it can be unloading and loading operation.
2. hold the brush in the direction of the diameter and rotate toward the outside of machine, then the brush can be disassembly.
3. assembly the brush, hold the brush in the diameter direction, make the brush head alignment brush center, rotate the brush to machine center direction, then the brush head bayonet will lock with brush bayonet.
4. after the manual brush assembly is complete, start the machine to check, turn the key to NO, so that the machine is in the forward state, press the brush button, depress the switch by right foot, it will be ok if you feel the brush already been assembled.

Machine installation: (operation after mastering the essentials)

1. Place the brush at the position of the brush.
2. Turn on the key switch, press the brush button, and turn off the key switch when the brush cover is lowered.
3. Check whether the brush is in place? If it is not in place, pull the brush to make it in place.
4. Turn on the key again, press the brush switch to lower the brush cover, gently press the accelerator pedal, you will see the brush rotating, and the machine will install the brush.

It's a skill that needs to be practiced many times.

If you feel the brush is not assembled, repeat "3" operation.

Careful! please take gloves and avoid hands hurt.



Turning direction of loading and unloading brush

Clean the suction hose

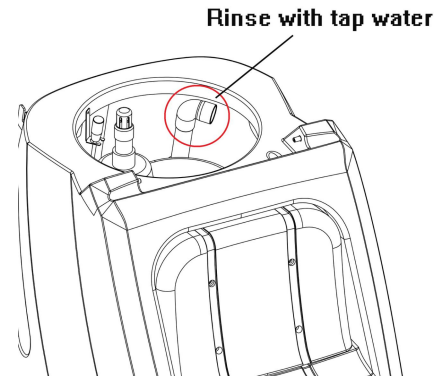
When the machine is running in public places, it will be faced with sand, hair, toothpick and other sundries, when it is running in factory workshops, it will be faced with sand, grease and other sundries. When the machine is working in places with too much garbage and sundries on the ground, it may cause blockage of the suction hose. When you find sewage overflowing from both ends of the squeegee during working, please check whether the suction hose is blocked.



Be careful:

If the suction motor operates normally, when the machine is turning or running straight, the sewage will overflow from both sides of the squeegee, indicating that the suction hose or squeegee must be blocked, please stop the machine for inspection.

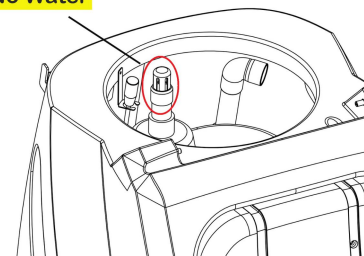
1. Pull the suction hose off the squeegee, and check whether the squeegee and suction hose mouth are blocked.
2. The recovery tank can be turned up, the sewage suction hose can be removed from the recovery tank, the sewage pipe can be drawn out, washed on the tap water, the blockage can be removed and then replaced.



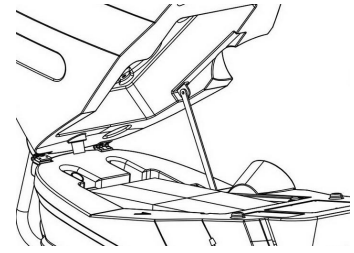
Clean the recovery tank.

Recovery tank is an important container for machine to recover sewage. A considerable amount of sediment remains in the recovery tank every day. It should be cleaned every day, otherwise it will easily cause blockage.

1. At the end of each day work, clean the recovery tank at the last discharge. When the sewage is discharged to a suitable amount, try to lift the recovery tank, as shown in the right figure, so as to discharge more sediment.
2. If possible, flush the recovery tank with clean water to discharge the sediment in the tank in time.
3. During operation, attention shall be paid that the red circle on the right figure is the air inlet of the motor, and water is absolutely not allowed to enter, during operation, cover it with towel to prevent water from pouring into the motor during operation.



4. There is a sewage level sensor in the recovery tank.
Keep the sensor clean and remove the winding on it to ensure it can move freely.



If possible, clean as shown in the right figure



Be careful:

In order to facilitate the cleaning operation, we designed the cover of the recovery tank to be removable. When cleaning the recovery tank, we can remove the cover of the recovery tank and reinstall it after cleaning.



When cleaning the recovery tank, never pour water into the air inlet of the motor. The air inlet is directly connected to the suction motor. Once the water is poured in, it will cause direct damage to the motor.



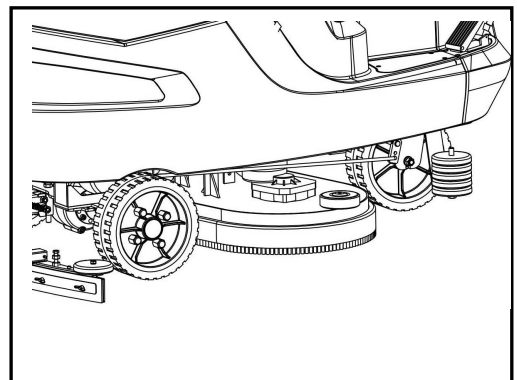
Warning:

There is a liquid level sensor in the recovery tank. When cleaning the recovery tank, it is necessary to pay attention to the removal of any winding and dirt, but do not use water to directly impact or damage its duck beak structure. Once damaged, the machine will lose the full sewage alarm function.

Splash proof skirt brush cleaning

Splash proof skirt brush is a protective device to prevent large sundries from entering the brush and splashing out of the brush. It should also be maintained regularly to play its normal function.

1. If it is not greasy ground, wash the skirt brush properly with clear water after the work every day to keep the skirt brush clean and prevent repeated pollution.
2. If it is greasy ground, spray the diluted degreaser on the skirt brush every day, remove the oil stain in time, and ensure that the skirt brush is clean.
3. The antisplash skirt brush can also be removed from the brush plate cover for cleaning, and then installed after completion.



Be careful:

Splash apron is a consumable that can be disassembled, cleaned or replaced, and can be purchased from a dealer or factory if necessary.

Removal method of splash apron: remove one anti-collision wheel to remove the apron

Common problems and Troubleshooting:

No water or insufficient water from the brush

1. Check whether the water volume control handle has been opened sufficiently
2. Check whether the drain switch is closed?
(check whether the water discharge indicator is on? The indicator light of the water drain switch will only be on when the machine is running under the working state of the brush. If it is not on, check whether the water drain switch is turned off by operation?)
3. Confirm that there is still water in the solution tank
(check the water level pipe of the solution tank. If no water can be seen at the water level pipe, even if there is a small amount of water, it will affect the outlet water.)
4. Check whether the filter screen is blocked?
(remove the filter cover, check whether the filter screen is blocked and clean the filter, observe whether the water outlet of the filter inlet is normal? If the water outlet is not normal, please check whether there is foreign matter blocking in the solution tank. filter screen must be installed, If there is no filter screen, the solenoid valve or other pipelines will be damaged.)

Routine inspection can't be ruled out, then we need to ask professional maintenance personnel.

When the machine pass through, it will leave a silk like trace after squeegee.

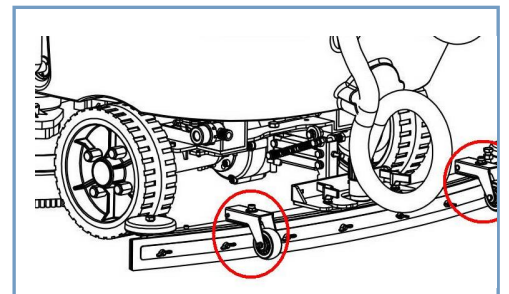
There are sand grains, hair or small sundries on the ground, which will affect the scraping of the rubber, leaving a filiform trace.

Resolvent:

1. The cleaning efficiency can be greatly improved by using the sequence of pre sweeping and then cleaning.
2. Adopt the backward reoperation method, so that the sundries under the rubber can separate from the rubber and resume normal operation.
3. Repeat the cleaning with the methods of initial cleaning and fine cleaning.

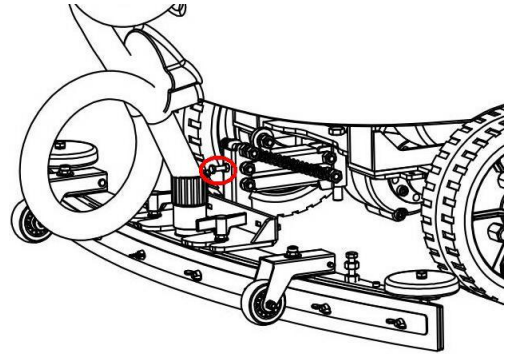
Large area is not clean after machine operation

1. The scraping is good in the middle and bad on both sides of the squeegee.
2. The scraping on both sides of the squeegee is OK, but the scraping in the middle is not good.
3. one side good, one side bad.



Possible causes and Solutions

1. The squeegee may be impacted by accident during the operation or handling of the machine, resulting in displacement.
2. Adjust the squeegee: turn on the suction switch. When the squeegee is fully in the suction state, directly turn off the key. The squeegee will remain in the suction state. First, adjust the partial pressure wheel not to contact the ground, gently push the machine forward, and observe the contact state between the squeegee and the ground.
3. Adjust the adjusting screw in the middle of the figure above, and you can see the change of the contact position between the rubber and the ground, push the machine forward every time, until the rubber is completely and evenly contacted with the ground, at this time, the nut of the adjusting screw is fixed to prevent change.
4. Adjust the pressure dividing wheel of the squeegee, the two pressure dividing wheels shall be lowered equally, first, make the pressure dividing wheel contact the ground, second, adjust the pressure dividing wheel to make the bending degree of the rubber basically consistent under the working condition.

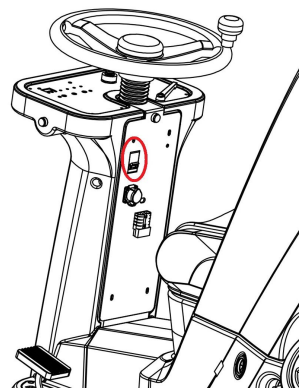


If the squeegee can not be adjusted according to the above method, maybe the squeegee bracket or squeegee suspension system has serious deformation in some place, it needs to be checked by professional personnel.

Machine does not start

***Turn on the key switch, no display, no response to the operation key**

1. Whether the battery connection plug is connected
2. Check whether the power protection switch is turned off.



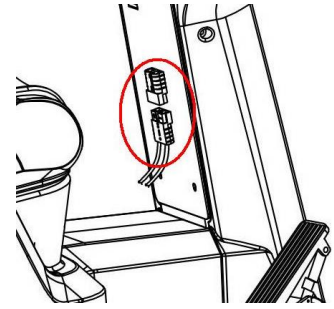
***Turn on the key switch, there is a display, the machine does not walk and other operations.**

1. Check whether the brake pedal is at the right position? Need to release the brake pedal.
2. Check whether the fixed speed knob is in the closed position?
3. Check whether the machine is in low voltage protection state. If
4. the power is under voltage, the machine will protect itself and



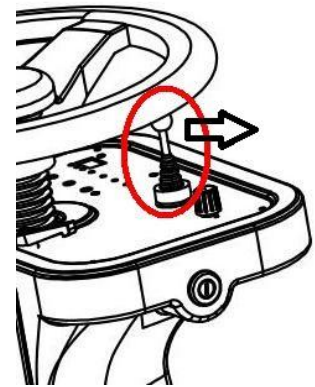
charge immediately.

5. Check whether there is a microswitch contact in the middle of the charging interface is in the reset state, any displacement card will affect the operation of the card.



The machine display is normal, the voltage is normal, the water absorption operation is normal, the brush lifting is normal, but it will not walk.

1. Check whether the brake pedal is in self-locking state and release it.
2. Check whether the constant speed knob is in the non closed state.
3. Ask professional personnel to check whether the electronic accelerator circuit falls off or the internal wire is damaged by the mouse.



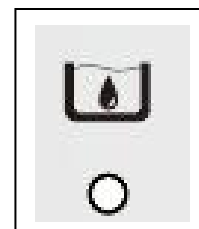
Excess foam in recovery tank

Too much foam in the recovery tank has many disadvantages. It will cause a lot of problems. In the long run, it will cause damage to the suction motor, so please pay more attentions.

1. check whether the use of high foam cleanser, if necessary, add a little defoamer to the recovery tank.
2. If high foam detergent is not used, please check whether the dosage ratio is too much? This phenomenon can be changed by properly controlling the concentration of use.
3. under the same dosage, the more foam the ground, the more foam will be produced. In this case, the amount of detergent must be reduced.

Suction (pump) motor does not work

1. Check whether the sewage indicator light on the control panel is on? Right picture If it is on, it means that the recovery tank is full, empty it.
2. Check whether the indicator light is on after the water absorption switch is pressed? If the indicator light is not on, it may be the controller or control circuit fault, which needs to be checked by professional personnel.

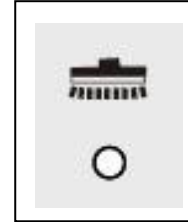


3. Check whether the travel direction switch is in the backward position and return to the forward position.

Brush motor does not work

Note: the cleaning brush motor will only rotate when the equipment is moving.

1. Check whether the indicator light of the brush system is on.
2. Check whether the travel direction switch is in the backward position.
3. Turn off the key switch and restart.
4. It is possible that the clip of the brush is damaged, causing the brush not to rotate



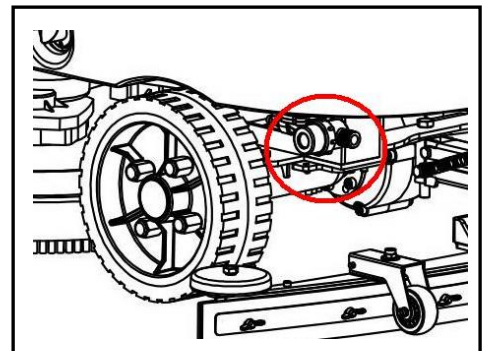
Brush motor and lifting of squeegee

1. Check whether the travel direction switch is in the backward position.
2. Check whether there is impact deformation between brush and squeegee system.
3. Check whether the microswitch at the charging port is displaced and stuck.
4. Ask professionals to check whether the controller, lifting push rod and other parts are in fault.



No or small water output

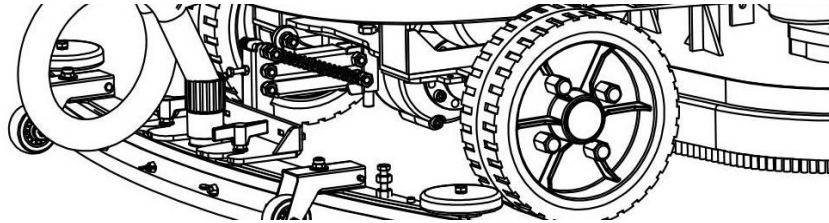
1. The filter of the drainage system is an important part to ensure that the solenoid valve and the drainage system are not blocked, and it must be in good condition.
2. Remove the filter screen and thoroughly clean the filter.
3. Clogged filter screen may cause no water or small water output.



Squeegee often fall off

1. The connection between the squeegee and the machine is designed to fall off, so as to prevent the squeegee from hitting and damaging when the machine passes through a narrow space.
2. Keep the fixing screw tight, too loose will cause falling off during normal operation.

3. Check whether the plane of the fixed nut is damaged, and add a metal gasket under it.



the use time becomes shorter after charging

1. The battery is a power storage and conversion device. In order to have a continuous power output, it must ensure enough charging time for the battery. First of all, please check your charging habits and rules to see if they meet the charging requirements. Poor charging habits will lead to aging in advance, or even direct damage.
2. To change your charging habit, make sure to give enough charging time (> 8 hours) after each continuous use. Try whether the injured battery can be recovered.

After opening the brush, it will automatically stop working for a little time, the brush will rise, check whether the battery power of the machine is consumed. Under normal circumstances, the machine will beep for alarm.

Selection and use of cleaning brush

Polypropylene cleaning brush (PPL)

It is suitable for various types of floor, it is wear-resistant and high temperature resistant (hot water can not exceed 60 °C). As PPL is not hygroscopic, it can also maintain its characteristics when working on wet floor.

Nylon brush

It is suitable for various types of floor, it is wear-resistant and high temperature resistant (hot water can not exceed 60 °C). Because nylon brush is hygroscopic and easy to extend, it can't keep its characteristics when working on wet floor

Wear resistant hard brush

The bristles of this kind of cleaning brush are very hard, which is suitable for the particularly dirty floor. We suggest that you use it with the minimum pressure to avoid damaging the floor.

Steel brush

Steel brush, which is made by mixing steel wire and artificial fiber. Steel brush is used to clean extremely uneven ground or large joints, gaps, and handle extremely difficult to remove dirt

Dense bristle brush

The bristles of the cleaning brush are dense, hard and straight, which is suitable for the tile floor with

narrow and smooth joint.

We recommend that you use a soft brush on uneven or deep seams or corners of the floor in order to get a good cleaning effect.

Please note that the ideal cleaning effect cannot be achieved when the bristles are worn or too short. If the bristles are too long, the brush is prone to jump.

Battery

Type of battery

The energy supply of this machine is: power type gel deep circulation maintenance free battery, the battery and charger are matched, the battery configured by the original factory is guaranteed for six months, and the charger is guaranteed for 12 months.



It is forbidden to use other kinds of chargers to charge the original battery, or use the original charger to charge other batteries. Both conditions may cause damage to the battery or charger.

When carrying the battery, special care must be taken. The weight of each battery is more than 40kg. It should be placed carefully to avoid damage to the shell.

The battery pack of this machine is composed of four 6V batteries in series, and the connection shall be completed by professionals to ensure correct and reliable connection.

The placement of four batteries should leave space for each other to help the machine cool down.

Warning:

If the battery is removed and reconnected, make sure that the polarity of the battery is connected correctly. If the polarity of the battery is connected incorrectly, it will cause direct damage to the brush motor and the suction motor!

Battery maintenance

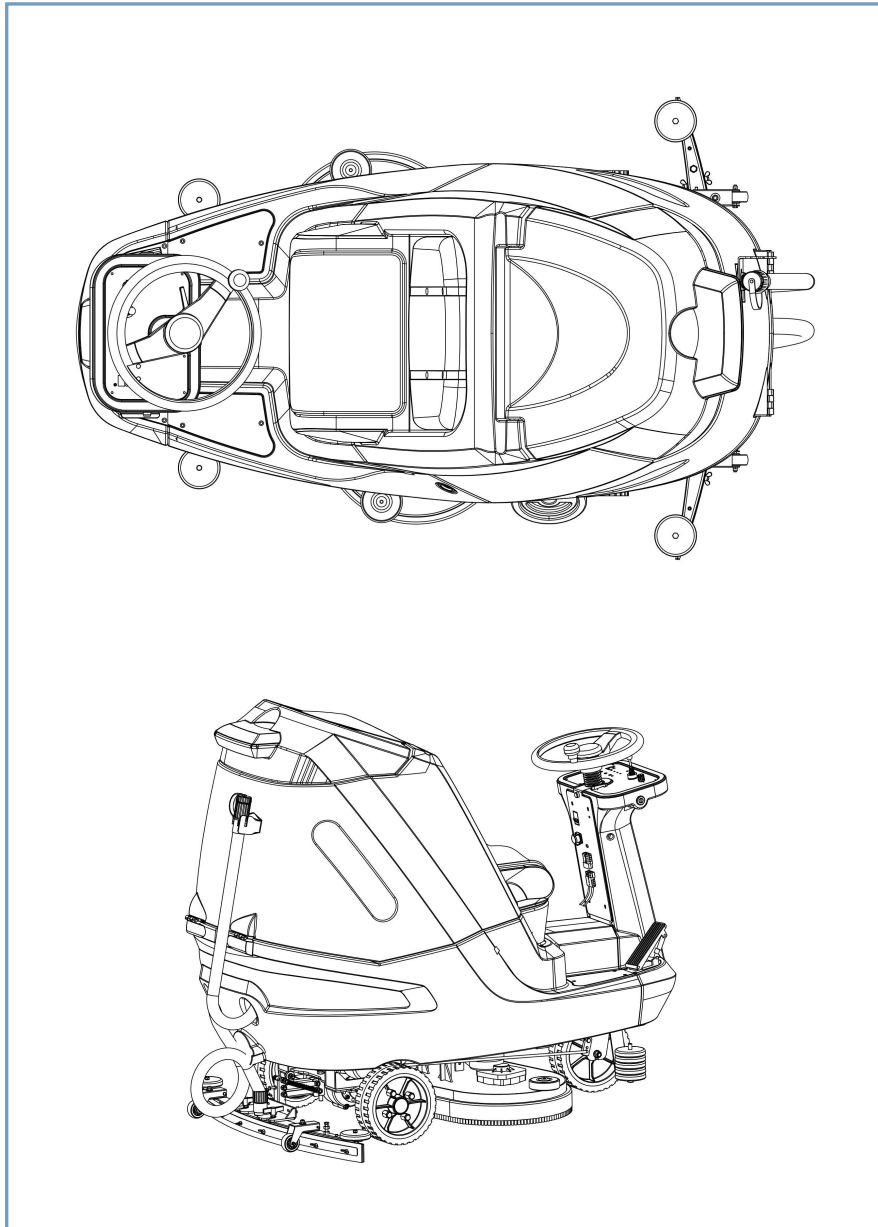
Battery maintenance and charging operation shall be in strict accordance with the factory instructions

Pay special attention to the selection of charger according to battery type and capacity

1. In case of power alarm, follow-up work shall be handled in time, and return to charging as soon as possible after finishing work.
2. The machine with power shortage alarm shall be charged in time after returning. it has a

great impact on the battery life if the battery is not charged in time .the voltage will automatically pick up, never use up this part of power again, which will cause great damage to the battery. By doing so, the battery will not be charged and the storage time will obviously decline.

3. Ensure that the battery can have a complete battery charging time every day. If the daily working time is long, it is allowed to conduct supplementary charging in the middle, but it is absolutely not allowed to replace the normal charging with supplementary charging. Such operation will cause the battery performance to decline rapidly and the storage capacity to decline.
4. Keep the battery at full power, and do not leave the battery at power shortage.
5. If it is not used for more than 3 months, the battery shall also be charged.
6. Only with good charging habits can the service life of the battery be fully extended



Be careful:

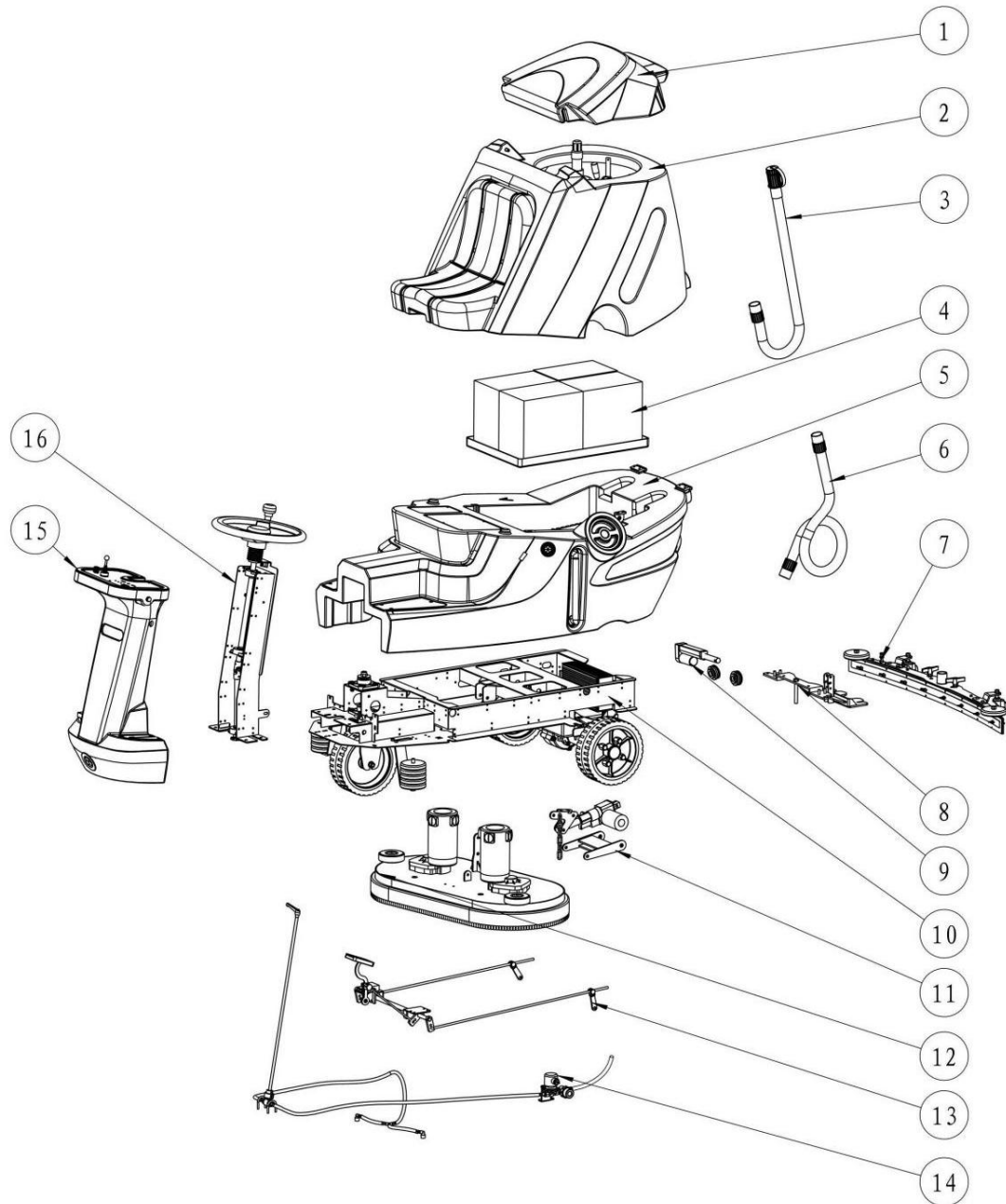
The original machine is equipped with Linatex rubber, which is the same as Tennant, Nilfist and Karcher brand machines. It has the characteristics of good wiping effect, wear resistance and long use time. The use of brand rubber will make you feel its charm.



Turning direction of loading and unloading brush

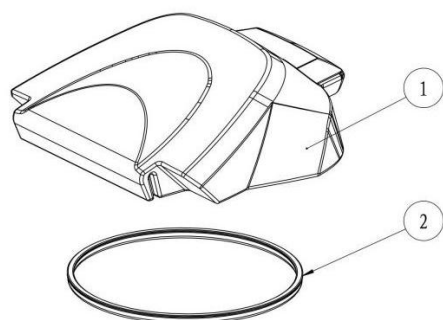
D9 ride on floor scrubber diagram

overview



- | | | | | |
|------------------------------|-------------------------------|---------------------------------|------------|------------------|
| 01 upper cover | 02 recovery tank | 03 drain out hose | 04 battery | 05 solution tank |
| 06 suction hose | 07 squeegee assembly | 08 squeegee connection assembly | | |
| 09 squeegee lifting assembly | 10 machine frame assembly | 11 brush lifting assembly | | |
| 12 brush assembly | 13 brake system | 14 clean water pipe system | | |
| 15 machine body console | 16 directional control system | | | |

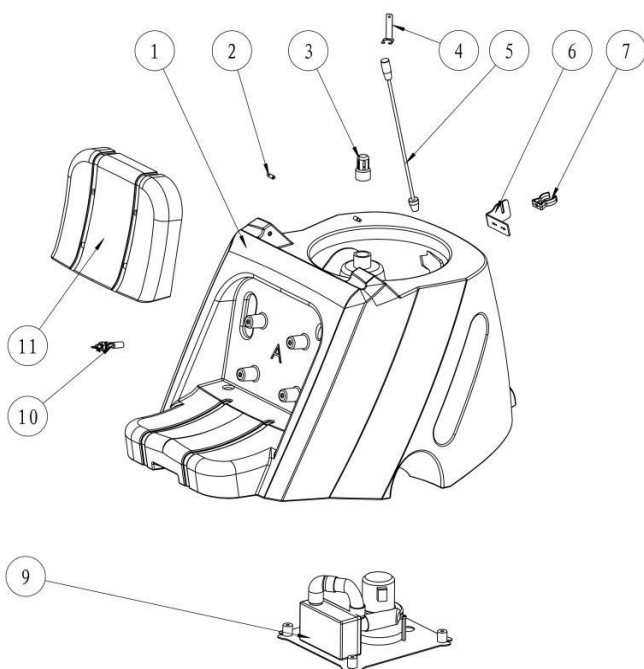
01 upper cover



01-01 upper cover

01-02 sealing strip

02 recovery tank



02-01 recovery tank

02-02 shaft pin

02-03 filter cap + sponge

02-04 drain out plug fixed bracket

02-05 drain out plug

02-06 drain out hose fixed bracket

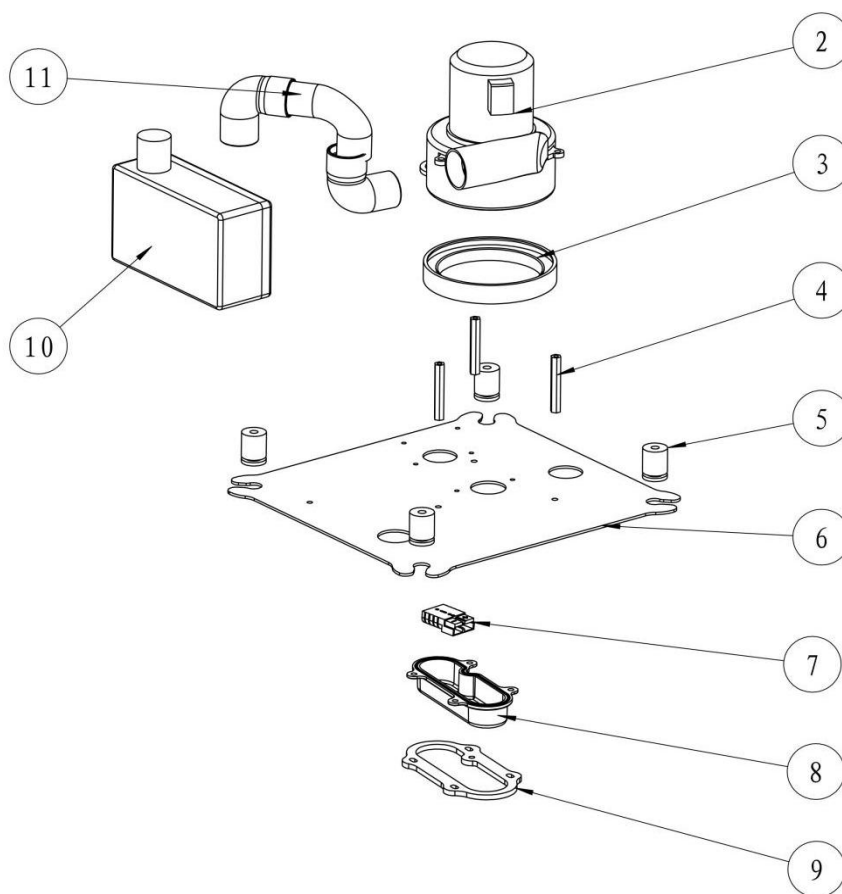
02-07 pipe clamp

02-09 suction motor assembly

02-10 level sensor

02-11 seat cushion

02-09 Suction motor assembly



02-09-02 suction motor

02-09-05 shock reduction column

02-09-08 vacuum tube cover

02-09-11 connection tube

02-09-03 suction motor seal ring

02-09-06 suction motor fixed plate

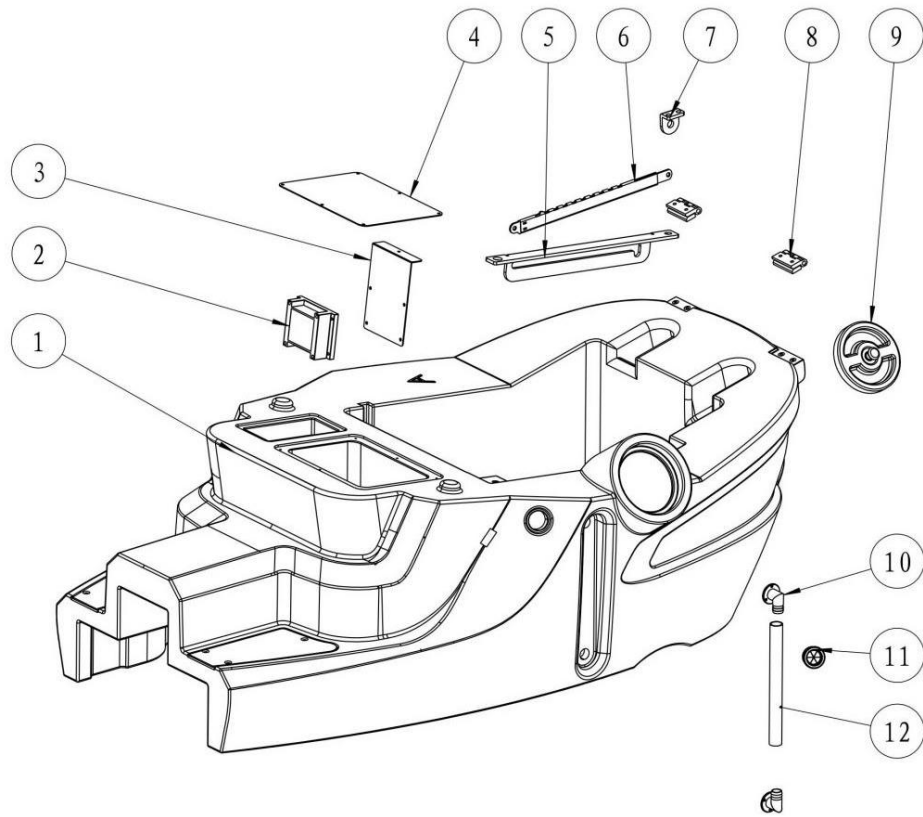
02-09-09 cover plate

02-09-04 motor fixed column

02-09-07 motor connection seat

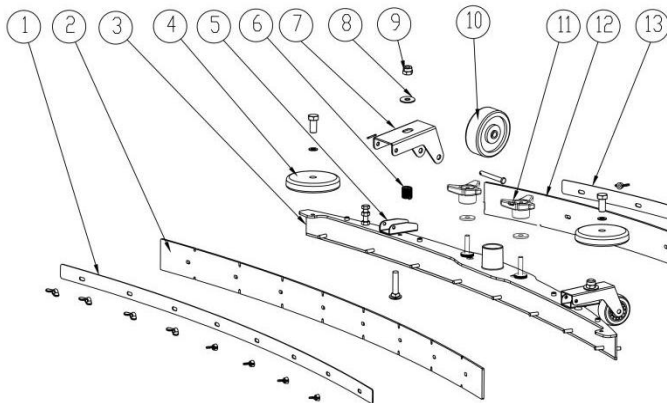
02-09-10 muffler box

05 solution tank



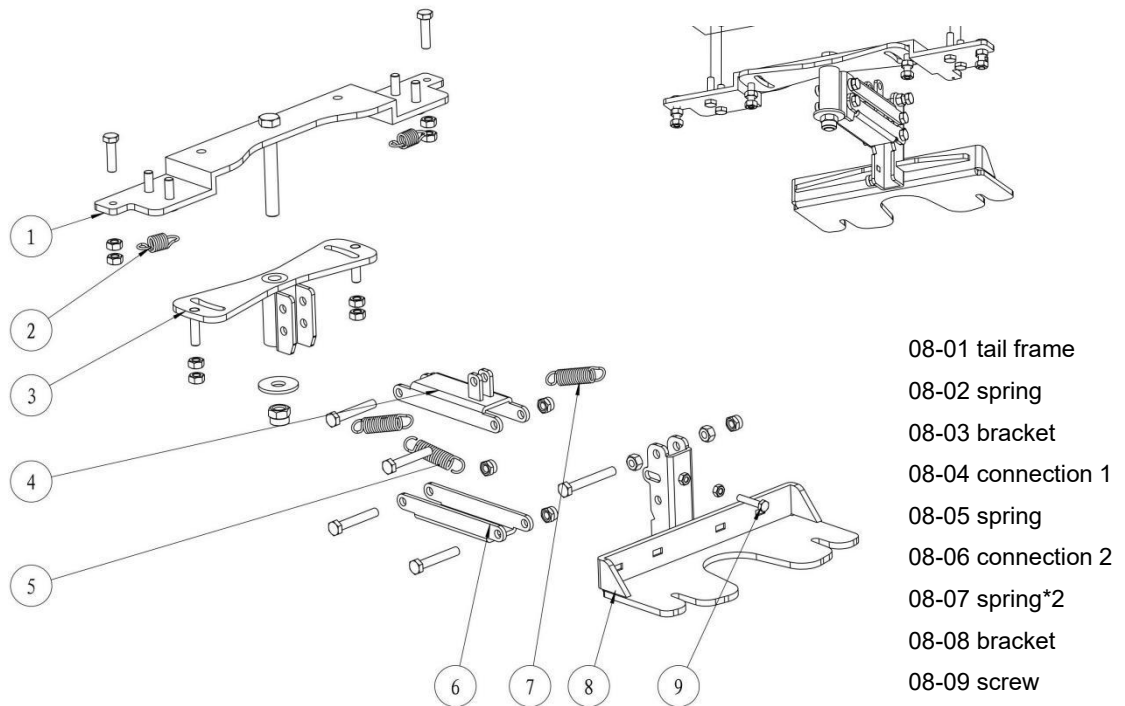
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|---------------------------|------------------|-------------------|-----------------|
| 05-01 body | 05-02 controller | 05-03 fixed plate | 05-04 net cover |
| 05-05 slide way | 05-06 arm-tie | 05-07 fixed seat | 05-08 hinge*2 |
| 05-09 solution tank cover | 05-10 pipe joint | 05-11 sealing | 05-12 joint |

07 1100 squeegee assembly

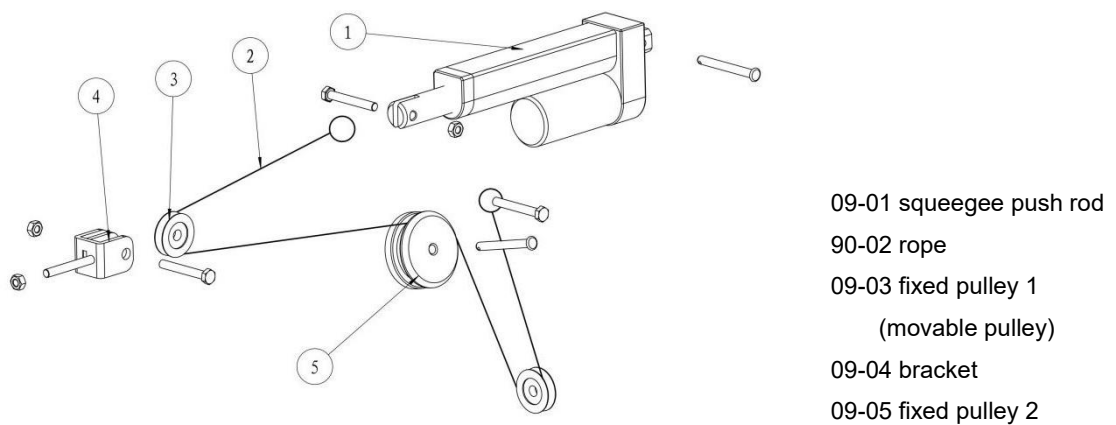


- 07-01 front press plate
- 07-02 front rubber
- 07-03 squeegee
- 07-04 wheel
- 07-05 base
- 07-06 spring
- 07-07 wheel frame
- 07-09 nut
- 07-10 partial pressure wheel
- 07-11 screw
- 07-12 rear rubber
- 07-13 rear press plate

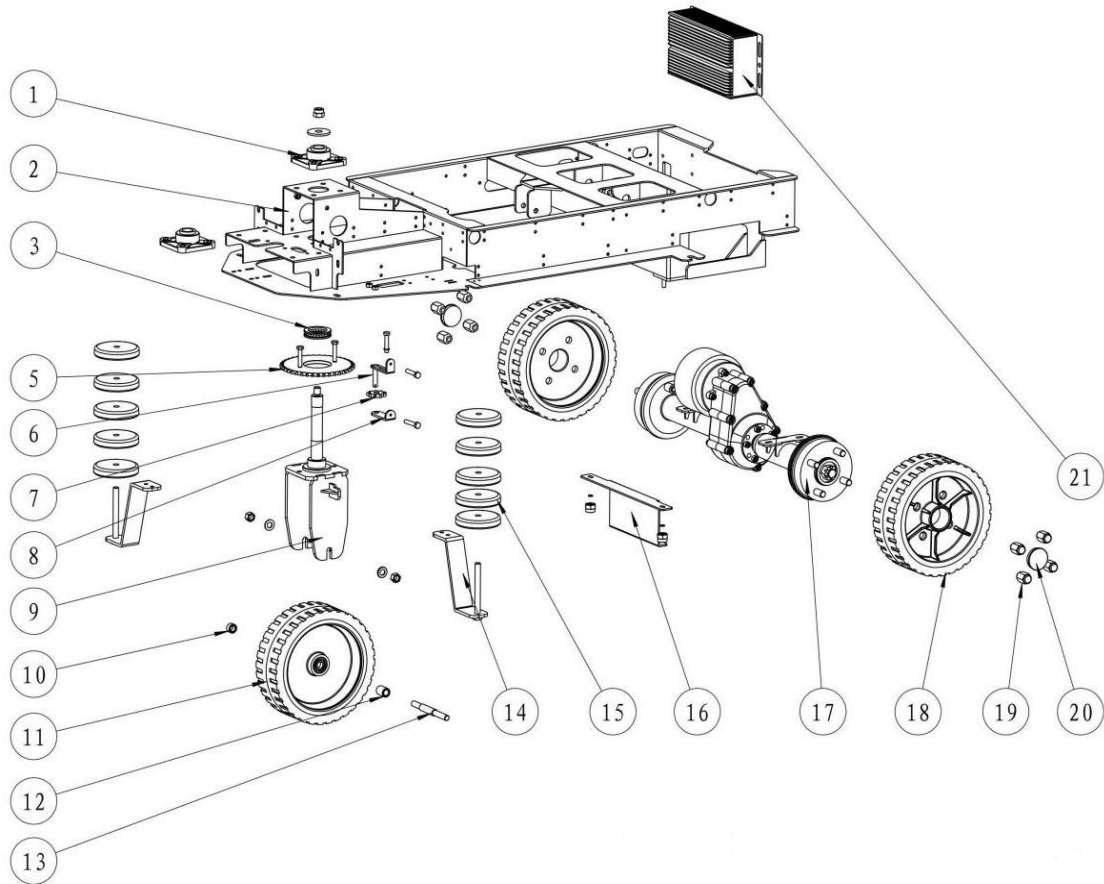
08 Squeegee connection assembly



09 Squeegee lifting assembly



10 machine frame assembly



10-01 bearing seat*2

10-05 chain wheel

10-13 front wheel shaft

10-16 plate

10-19 nut

10-02 machine frame assembly

10-09 front fork

10-14 bracket

10-17 rear drive assembly

10-20 wheel cover

10-03 bearing

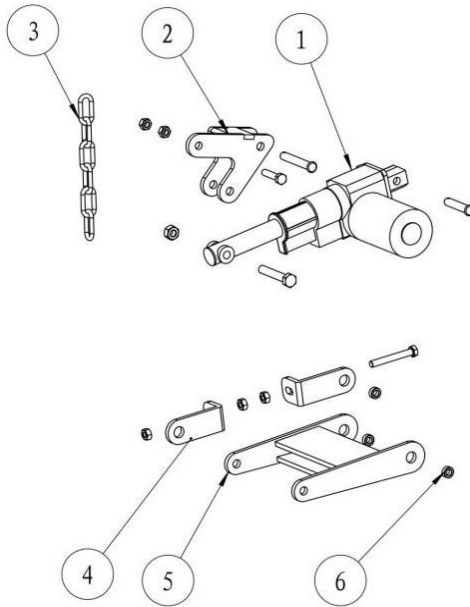
10-11 front wheel

10-15 wheel

10-18 rear wheel*2

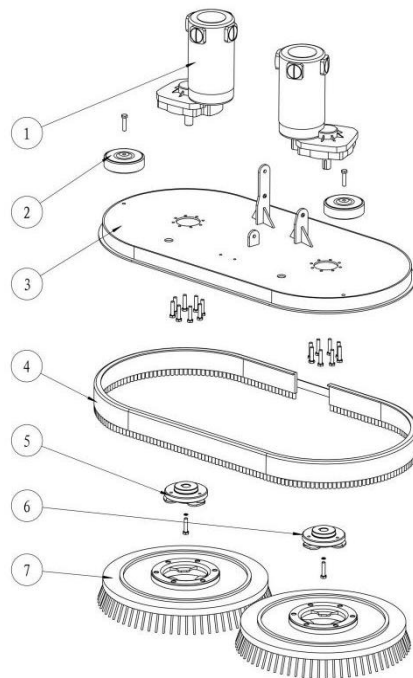
10-21 controller

11 brush lifting assembly



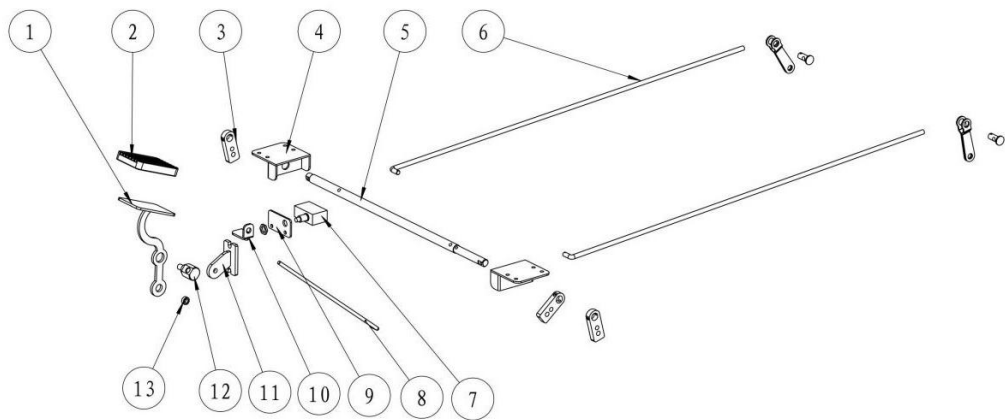
- 11-01 brush push rod
- 11-02 push arm
- 11-03 chain
- 11-04 adjusting rod *2
- 11-05 bracket
- 11-06 shaft sleeve *3

12 brush assembly



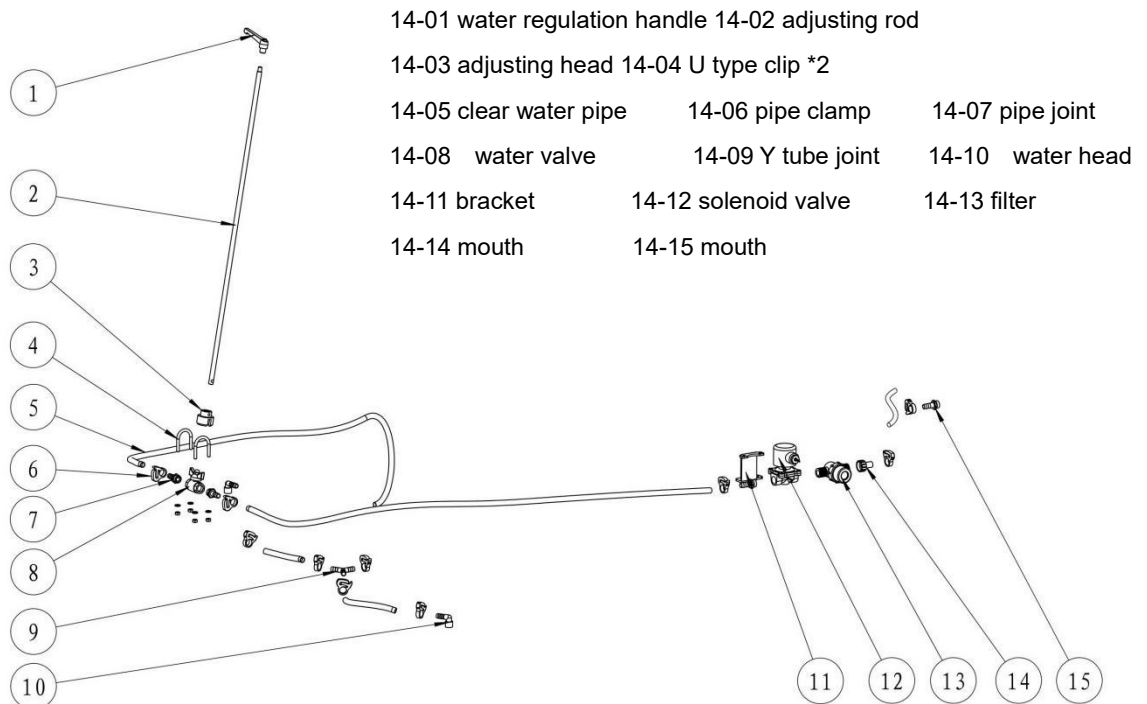
- 12-01 brush motor*2
- 12-02 wheel*2
- 12-03 brush cover assembly
- 12-04 apron
- 12-05/06 154 brush head
- 12-07 brush

13 brake system



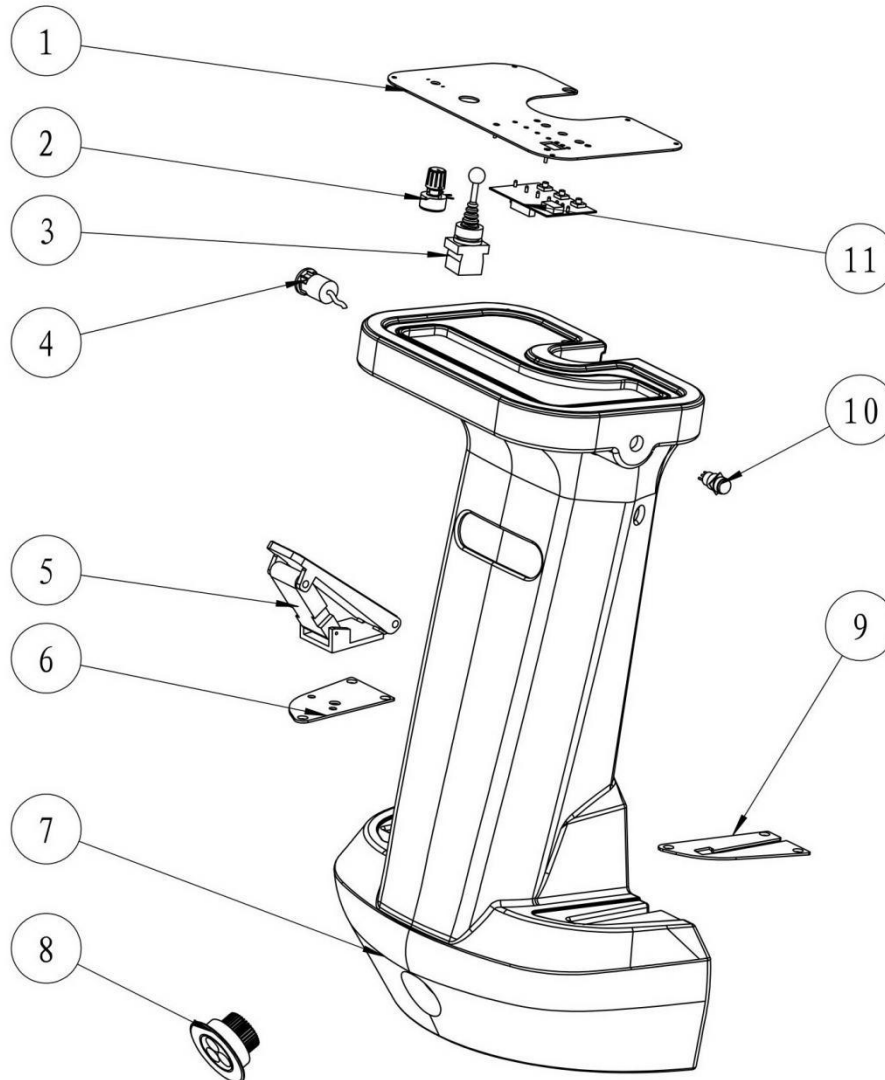
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|-------------------|---------------------|-----------------------|----------------|
| 13-01 brake pedal | 13-02 rubber sleeve | 13-03 rubber sleeve*3 | 13-04 bracket |
| 13-05 brake shaft | 13-06 pull rod *2 | 13-07 brake switch | 13-08 pull rod |
| 13-09 fixed plate | 13-10 press plat | 13-11 bracket | 13-12 screw |
| 13-13 axle sleeve | | | |

14 clean water pipe system



- | | | |
|-------------------------------|----------------------|------------------|
| 14-01 water regulation handle | 14-02 adjusting rod | |
| 14-03 adjusting head | 14-04 U type clip *2 | |
| 14-05 clear water pipe | 14-06 pipe clamp | 14-07 pipe joint |
| 14-08 water valve | 14-09 Y tube joint | 14-10 water head |
| 14-11 bracket | 14-12 solenoid valve | 14-13 filter |
| 14-14 mouth | 14-15 mouth | |

15 machine body console

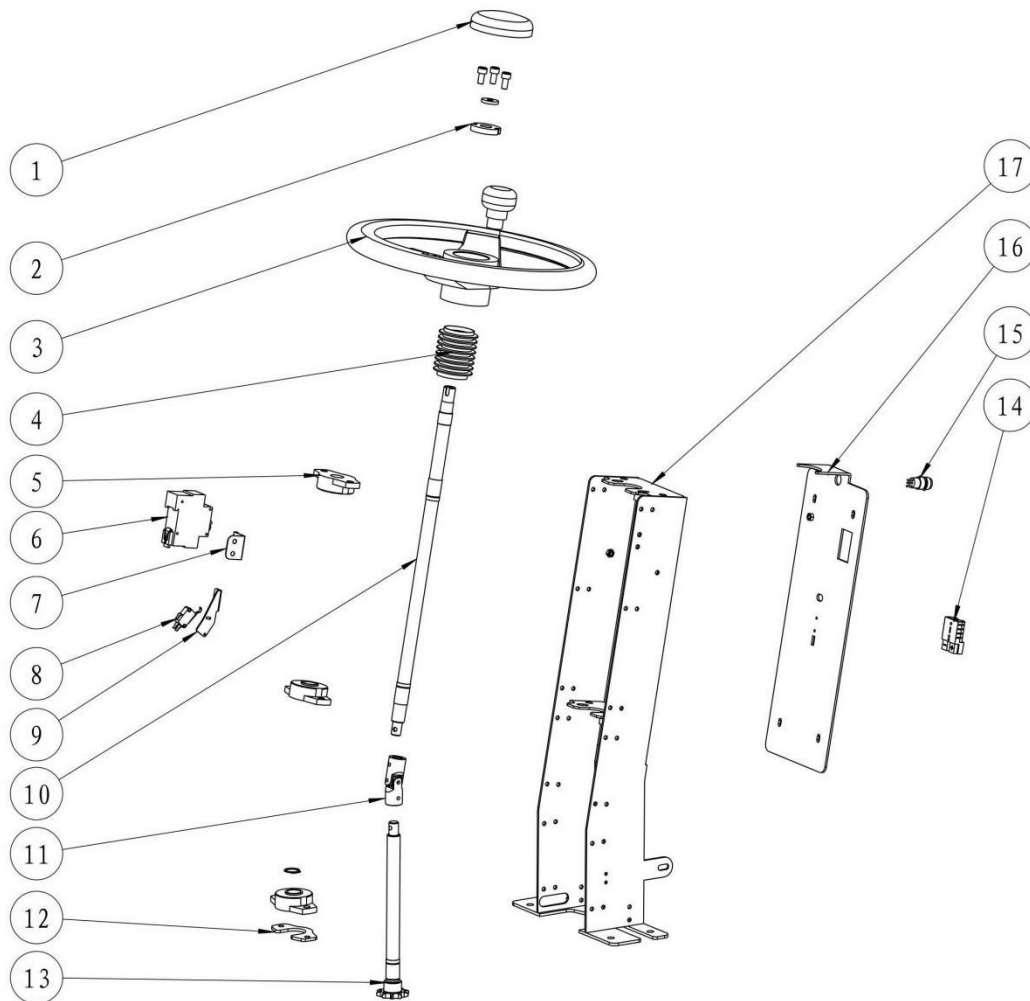


15-01 control plate 15-02 speed regulating potentiometer 15-03 switch

15-04 key switch 15-05 E-gas 15-06 plate 15-07 main console

15-08 front light 15-09 brake plate 15-10 switch for front light 15-11 circuit board

16 directional control system



16-01 cap	16-02 positioning plate	16-03 steering wheel	16-04 sheath
16-05 bearing seat*3	16-06 main switch	16-07 bracket	16-08 micro switch
16-09 bracket	16-10 direction axis (long)	16-11 joint	16-12 shim
16-13 direction axis (short)	16-14 charging joint	16-15 horn switch	
16-16 back cover	16-17 bracket		

D9 Diagram

Version F 2022

