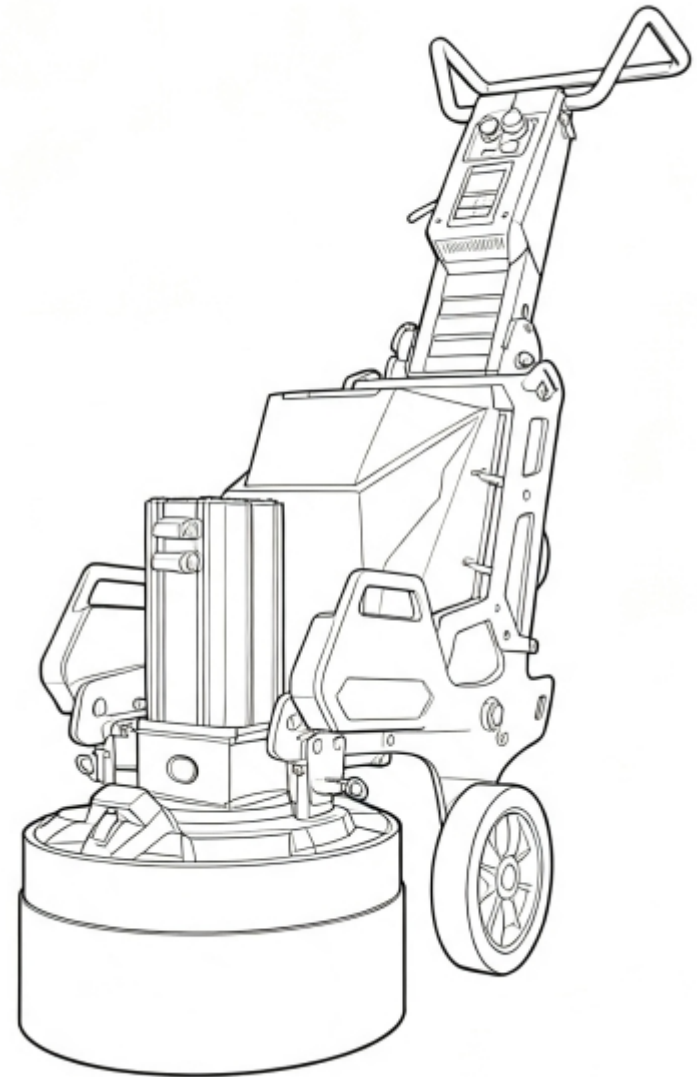




SAFETY & OPERATORS MANUAL

CAUTION: Read the instruction manual before using.

Manual of Shark-460 Floor Grinder



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1. Introduction

1.1 Summary

Shark machines are used to handle the floor surface. The scope of use of the machine depends on the choice of the tool. In addition to the use and general functions, this manual describes information on the use, repair and maintenance of the grinder. You can contact your local retailer for further information.

1.2 Responsibility

We make every effort to make this manual as complete and accurate as possible, and we are not responsible for any errors or loss of information. Shark reserves the right to change the instructions in this manual without prior notice.

This manual is protected by copyright law and can not be reproduced or used in any part without the express written consent of Shark.

1.3 Accessories

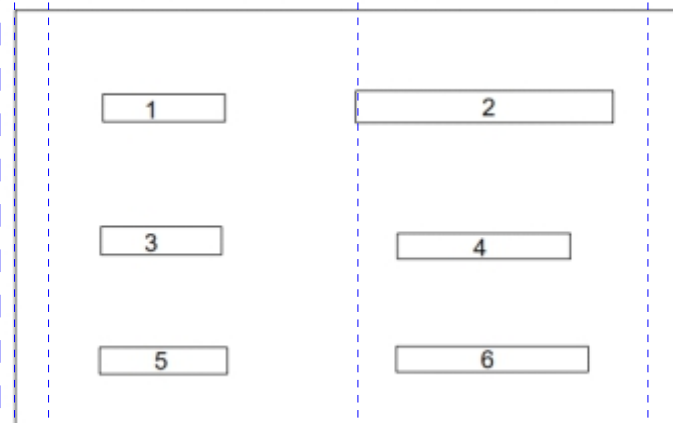
Below accessories are included with the grinder. Contact your supplier if anything is missing.

- (1) 1 set of grinding machine
- (2) 1 copy of machine using manual
- (3) 3 pcs of Velcro-iron accessories
- (4) 1 pcs of socket
- (5) 1 pcs of inverter box key

1.4 Package acceptance

Check carefully to see if the package or the grinder has been damaged during delivery. If there is any sign of damage, contact your supplier and report it. Check that the delivery matches the order. If there are any discrepancies, contact your supplier.

1.5 Machine name plate



- | | |
|-----------------------|-------------------|
| 1. Model | 4. Voltage |
| 2. Manufacturing date | 5. Weight |
| 3. Power | 6. Rotating speed |

1.6 Handling and storage

The grinding machine should be stored in a dry place at room temperature when not in use. Otherwise it may be condensed and cold damaged. The size and weight of the grinder are given in the technical data of the Manual.

Note! Improper operation may lead to the grinding machine overturned and damaged, even endanger personal safety.

1.7 Warranty items

This warranty covers only manufacturing defects. Shark does not assume damage in the transport, unpacking or operation. The manufacturer is not responsible for any damage or defects caused by improper use, corrosion or use of specifications beyond the noted specifications. The manufacturer shall not be responsible for any indirect damage or expense under any circumstances. For complete information on the manufacturer's warranty period, please refer to the current warranty terms of .Shark Local retailer may has special warranty terms. If you have any uncertainty about the warranty terms, please contact with your retailer.

2. Safety Instructions

2.1 Overview

This manual records the key information for machine safety operation. Read the manual carefully before your first operation.

Non-standard operation, modification or maintenance without training may cause losses, machine problems or injury. You are allowed to operate the machine after training. All maintenance must be done by qualified professional technician. Any machine parts that need to be changed must be provided by Shark.

Shark machines only can be used in the way of Shark recommended. And they only can be used for commercial purposes. Anyone who uses a machine should know its function, the location of the emergency stop. The operator should have to ensure the safety rules that the unauthorized person can not be stationed at work area when the machine starts.

The operator should be equipped with professional personal protective equipment when you are at work: safety goggles, protective gloves, safety shoes, breathing masks, protective earmuffs, etc.

Note:

1.If the machine must be work on slopes, it should be less than 20 degrees, the company is not responsible for any accident caused by the operation when the slope is greater than 20 degrees.

2.This machine is only used for floor grinding, polishing.

3.Please read and understand the safety guide totally. Different models have different accessories and operation instructions.

4.It only needs one person to operate this machine. Keep children and irrelevant person away. "one person one machine".

5.Operator who is in poor physical state or without training is not allowed to operate the machine. The operator and the repairman must be physically strong and able to withstand the weight of the whole machine and the working intensity of the motor.

6.Do not lend or rent the machine without instruction manual.

7.Helmet, safety shoes, the headset, non-moist goggles and masks are necessary when operating the machine.

8.Keep body, jewelry or loose clothing away from moving machine parts.If not, may cause bodily injury.

9.Random modification of the machine is not allowed. Only Shark accessories can be used for maintenance and modification.

10.Do not operate the machine in rainy or foggy days.

11.Ensure no explosive and flammable materials and steam nearby when operate machine. Do not operate machine near the place with fuel, grain dust, solvents, dilution agent or other flammable items.

2.2 Electrical safety guidance

1.All circuit repairs can only be operated by professionals;

2.Note: after the machine is stopped that the cables are still powered, so cut off all power before servicing the machine;

3.The machine is equipped with an overload protection device and will automatically jump off when the machine is overloaded, prohibiting the machine from running; (re-adjust this overload button in case of safety)

4.Continue using the machine under overload conditions will cause other losses and the machine may not working properly. The manufacturer does not give warranty;

5.The purpose of installing the inverter in the machine is to speed and protect the user and the machine. It is forbidden to modify or adjust the inverter and modify the inverter parameters without the manufacturer's consent. If the unit fails, it is only allowed to replace the defective parts with the accessories provided by the manufacturer; (Other changes caused by changing, adjusting or modifying the inverter parameters without the manufacturer's consent, and the machine is not working properly, the manufacturer does not afford warranty)

6.Never modify the parts or circuits inside the inverter by yourself;

7.Do not operate the machine when the distribution box is not closed;

8.If the machine current is overloaded, we should pay special attention;

9. When the cables are energized or loaded, do not connect or disconnect the wires;

10. Using a damaged power cord may result in electric shock. Do not use a damaged power cord;

11. Wires should be kept away from hot floor surfaces;

12. The dryness of all electrical parts of the machine should be maintained and the machine should be stored in a dry place;

13. After the power is turned off and the panel indicator light is still on, it indicates that there is still high voltage inside the inverter, which is very dangerous. Do not touch the uninsulated electrical machine parts;

14. The machine motor and the frequency conversion box are prohibited from entering the water; (the other damage caused by the water inflow then the machine is not working properly, the manufacturer does not afford the warranty)

15. The machine must be connected to the qualified wire and voltage, specifications is noted by the manufacturer. (The label on machine indicates the power supply specifications)

3. Machine Description

3.1 Overview

Shark-460 is used to grind (rough grind, fine grind and polish) concrete, natural stone and terrazzo floors or other materials specified in this manual or recommend by .

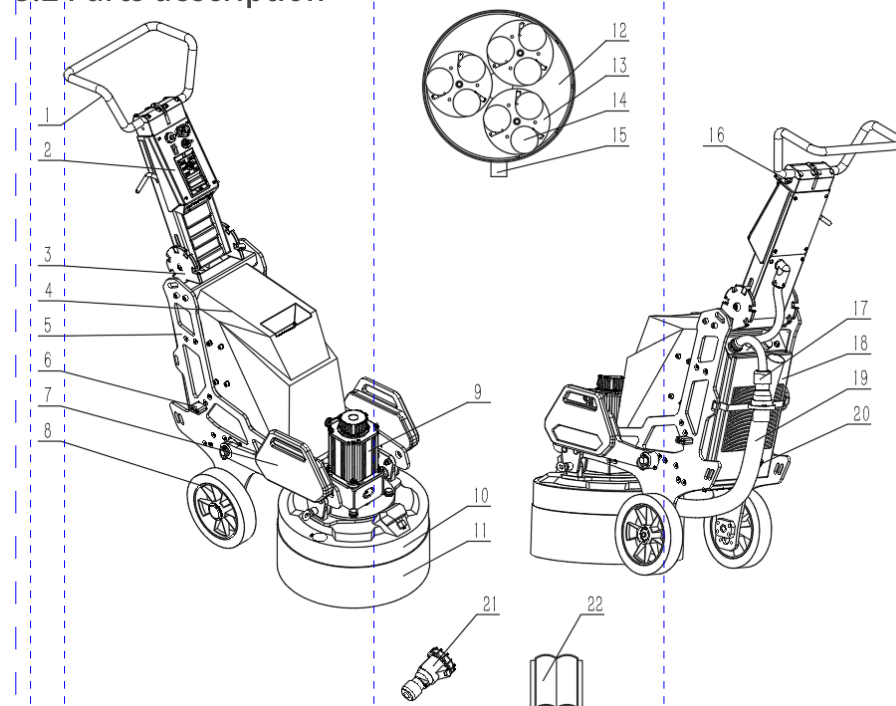
The swing lever and handle can be set in many different tilted positions. The grinding head of the machine can be used with different grinding plate for operation. The anti-dust tape covers the working area of grinding head. Because of floating design, it always touch the floor, which not only ensures that the operator does not touch the rotating mechanical parts, but also reduces the exposure of dust and improves the dust absorption efficiency of the vacuum cleaner.

When dry grinding, to prevent dust from being exposed to air, posing a threat to the health of the operator and nearby people, make sure that the

vacuum cleaner is connected to grinder (preferably equipped with a vacuum cleaner manufactured by Shark) Due to inhalation of dust is harmful in the course of operation, even there is a vacuum cleaner protective mask is also necessary to protect health.

The machine can use different abrasive. Due to the different ground materials, the abrasive discs used in grinding are also different.

3.2 Parts description

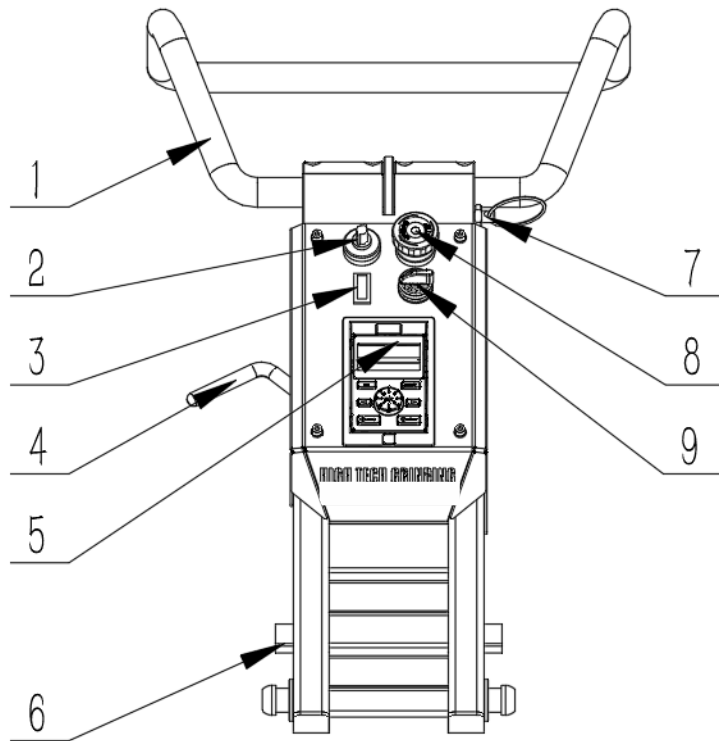


1. Handle
2. Swing lever
3. Sector plate
4. Water tank
5. Water tank
6. Additional weight iron fixing block
7. Additional weight iron
8. Wheel
9. Motor
10. Gear box cover
11. Floating dust cover

12. Gear box
13. Grinding disc
14. Velcro-iron accessories
15. Vacuum hose interface
16. Swing lever bolt
17. Plug

3.3 Swing lever assembly

3.3.1 Overview



- 1.Handle: Where people put their hands when operating the machine.
- 2.Potentiometer: adjust the rotation speed of motor.
- 3.LED light switch: the switch that controls the LED light.
- 4.Swing part adjusting handle: use the handle to adjust the angle of the swing part, and there will be a corresponding position in the corresponding working state.
- 5.Display screen: display some parameters, such as voltage, current, motor speed, overload fault prompt, etc.
- 6.Swing lever locking rod: lock the rotation of swing lever.
- 7.Swing lever bolt: pull out the bolt and the handle can be rotated freely to the proper position to operate the device.
- 8.Emergency stop switch: When the device is in a dangerous state or

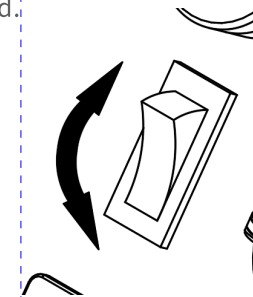
needs to stop working, press the emergency stop switch to cut off the power and stop the operation of the device to achieve the protection of personal and equipment safety.

9. Forward/reverse switch: it has three gears, the motor rotates forward on the left gear, does not rotate at the middle gear and rotates reversely on the right gear.

3.3.2 Led light switch

Toggle the LED light switch to ON, LED light will be turned on, otherwise turned off.

The LED light base is magnetic, so it can be placed at will. It is convenient for users to operate the equipment, and different positions need different lighting directions. At this time, only need to place the LED light in the position required.

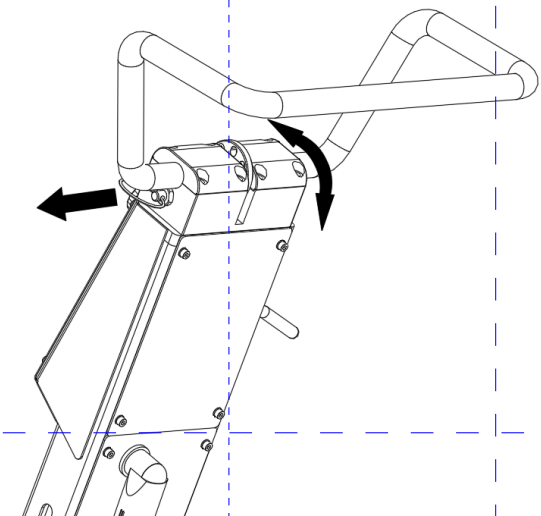


3.3.3 Handle

The adjusting pin on the handle adjusts the handle in different positions by locating different round hole positions to meet the different needs of the user. Hold the armrest in one hand, pull out the adjusting pin in the other hand, rotate to the right position, then release the adjusting pin.

Note:

1. When plugging out the pin, sometimes it will be caught, and the pin can be pulled out by



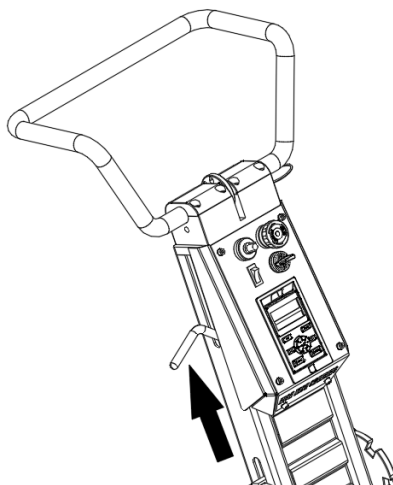
shaking the support wheel.

2. When the handle adjustment bolt is automatically reset, the hole may not be aligned, just rotate up and down.

3. When adjusting the position of the handle, please check whether the handle adjustment pin has been automatically reset before operating the machine.

3.3.4 The angle adjustment of swing lever

Use the swing lever position adjusting handle to adjust the position of swing lever to realize conversion of the machine placement mode in different states. Hold the handle tightly with one hand to support the swing lever, the other hand tightens the swing level adjusting handle and press down the adjustment handle, rotate according to the hole location on sector plate, and release the adjusting handle when it reaches required position.



Note:

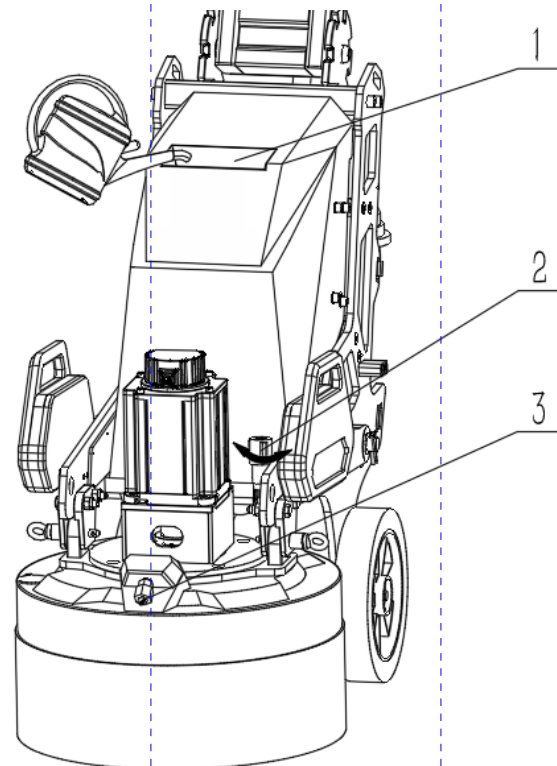
1. After adjusting the position of the swing rod, it is necessary to check whether the swing rod has been limited before operating the machine.

2. The swing rod is heavy, please hold it firmly!

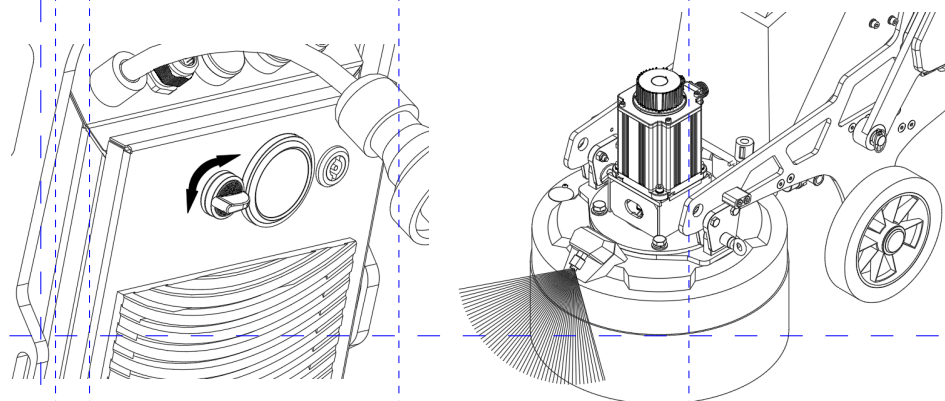
3.4 Water tank

There is a water inlet on the top of the water tank, which can fill the water tank. Turn the water switch clockwise when doing wet grinding. Turn the water switch counter-clockwise after water grinding.

The advantages of water grinding : good adhesion of grinding ground, small cutting amount, easy to shine, suitable for later stone polishing, users can choose water grinding or dry grinding according to their own needs.

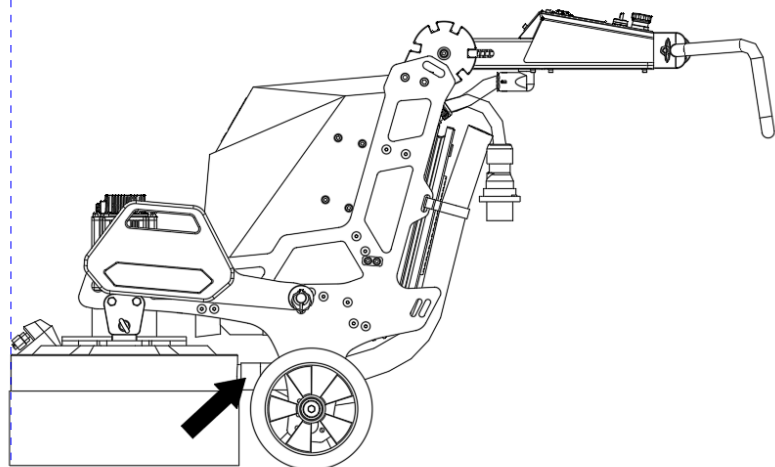


① water inlet ② water switch ③ Sprinkler head



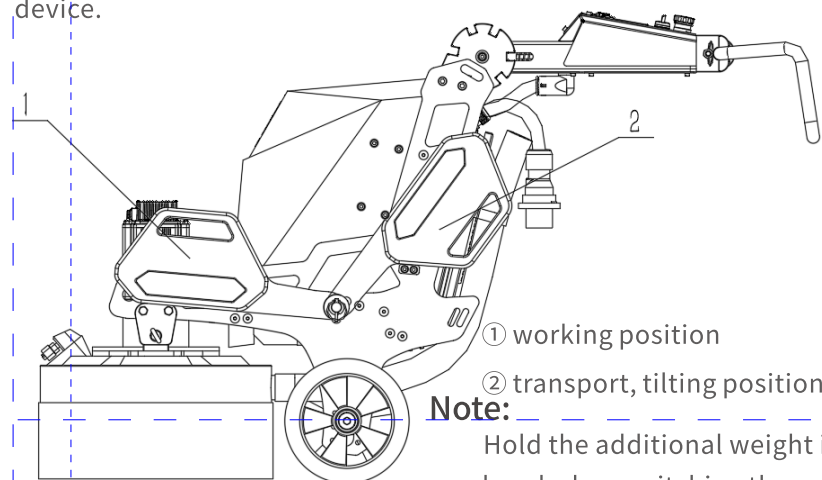
3.5 Vacuum hose installation

This machine can do dry grinding and wet grinding. During dry grinding, one end of the 50mm vacuum hose is connected to the joint of the vacuum, and the other end is connected to the vacuum cleaner. The vacuum hose should be tightly connected when used. The hose should be kept away from the wheel.



3.6 Additional weight iron

There are two positions for the additional weight iron: tilting, and working position. The adjustment of the additional weight iron position mainly relies on manpower to pull the iron and make it resist the limiting device.



Note:

Hold the additional weight iron with one hand when switching the position.

4. Machine operating

4.1 Overview

The following part mainly describes the grinder in different positions, the main operation of the grinder and how to install grinding abrasive.

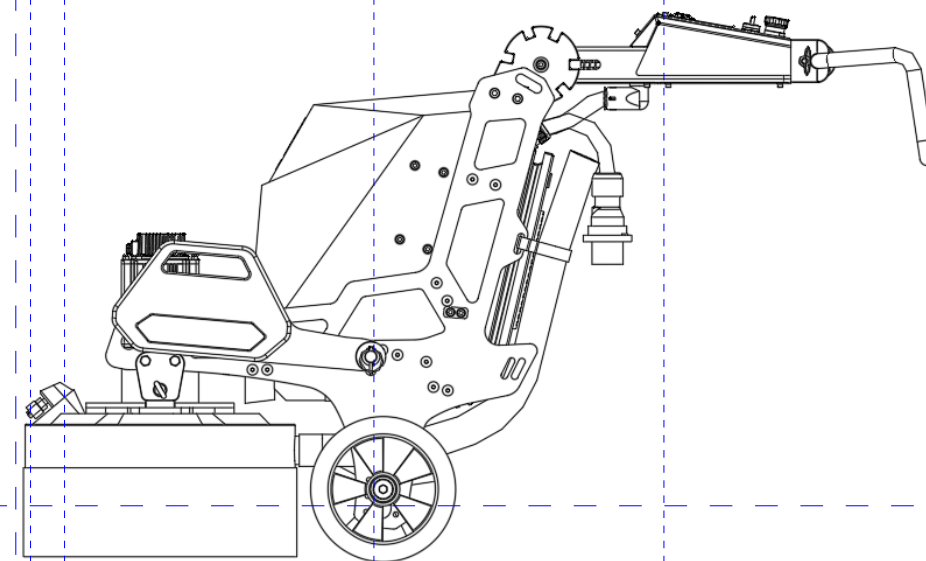
Note:

1. Grinders can only be used or repaired by personnel who have received the necessary theoretical and practical training and have carefully read the user manual.
2. Wear protective equipment such as protective gloves, protective masks, overalls, helmets, insulated shoes, etc. when operating the grinder.

4.2 Machine position description

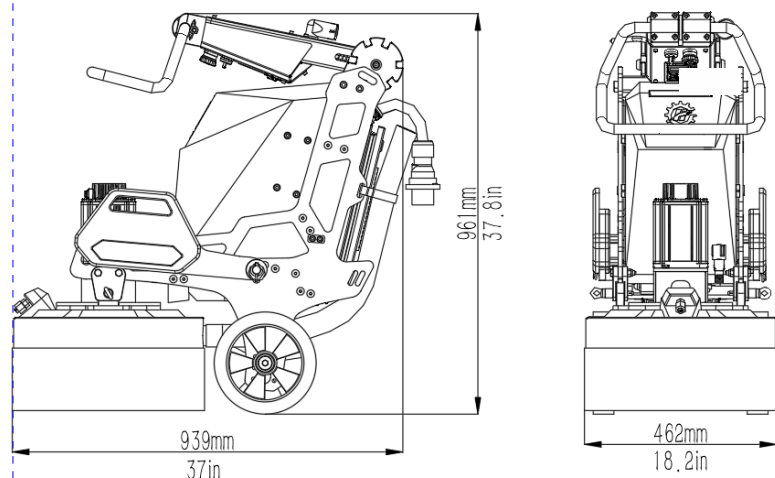
4.2.1 Machine working position

During grinding, adjust the additional weight to the working position and adjust the position of handle and swing lever to achieve the most proper working position.



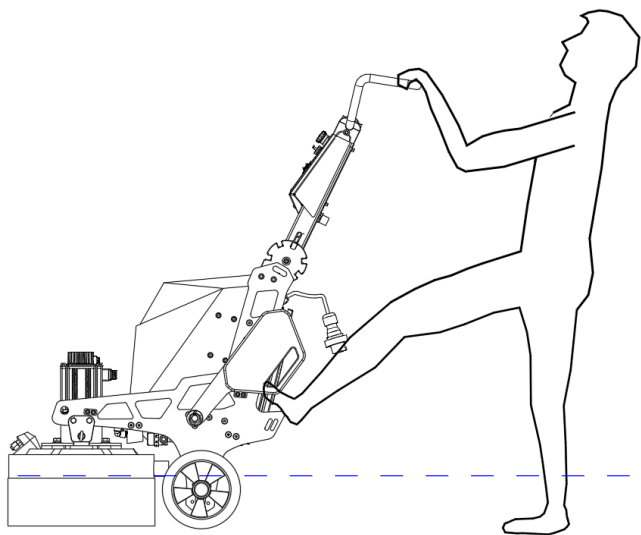
4.2.2 Machine package position

Adjust the position of the additional weight iron, handle and swing lever to the proper position. The minimum package size is as follows and the machine can be packaged according to its size.



4.2.3 Machine tilting position

Adjust the additional weight to the tilting position, adjust the handle, swing lever position to the lifting position. (Users can adjust the most appropriate lifting position according to their own needs)



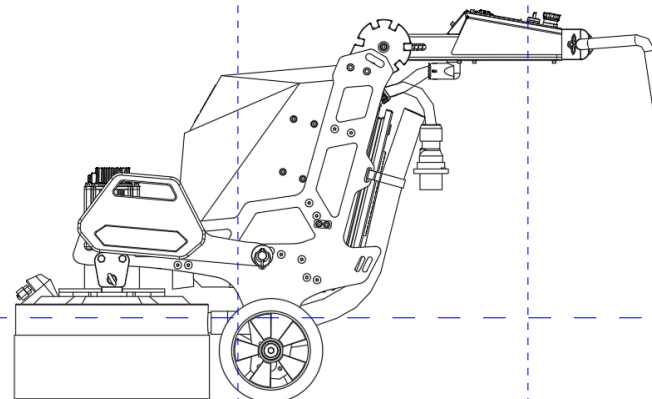
To put the machine down, you need to hold the handles tightly with both hands. Place your feet on the weighting iron lever handle, balance the machine with your own gravity, and slowly lower it to protect the grinding head. When you put down the machine, pay attention to your own strength, and do your best to ensure the safety of the machine and person. The supplier does not assume any responsibility for machine damage and personal injury caused by improper operation.

4.2.4 Precautions

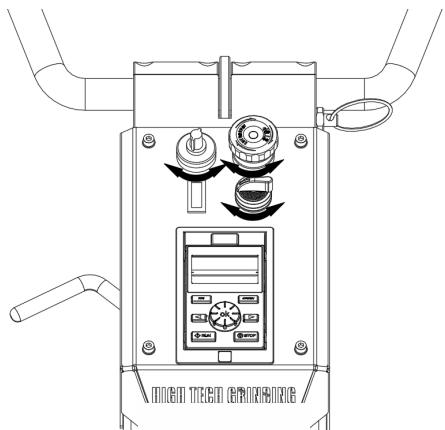
1. Improper operation may lead to the grinding machine overturned and damaged, even endanger personal safety.
2. When the handle adjustment pin is pulled out, sometimes it will be stuck, and the handle needs to be pulled out while shaking the handle.
3. During adjustment, it is necessary to confirm the reset of the locking device before operating the machine.
4. Be careful when the grinder is adjusted to the position of transportation or packaging and there is a risk of crushing injury.
5. Dust inhalation is harmful. Please bring a professional mask during operation to ensure physical safety.
6. In the process of lifting and downing the machine, pay special attention to your safety and avoid damage to the machine.

4.3 Start and stop the grinder

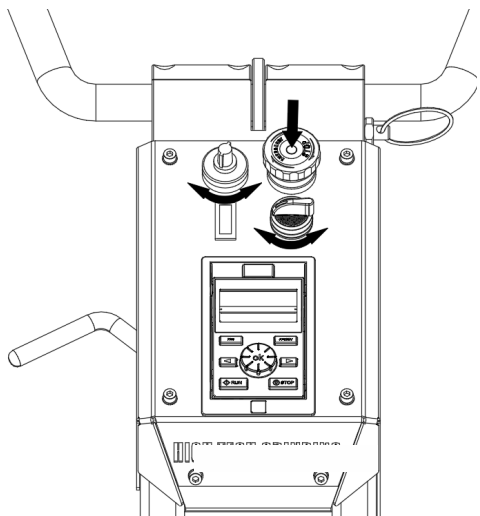
1. Start the grinder:
 - (1) Adjust the swing lever, handle and additional weight iron to the working position.



(2) Turn on the emergency stop switch, turn the potentiometer to adjust the rotation speed of the motor, turn the switch to the left, the motor will rotate forward (rotate to the right, the motor will reverse), to start the machine. (When doing wet grinding, turn the water switch after filling the water.)



2. Stop the grinder: Press the emergency stop switch (remember to reset the forward/reverse switch and potentiometer, unplug the power plug).



Note:

When stopping the device, it is recommended to unplug the power supply for safety reasons.

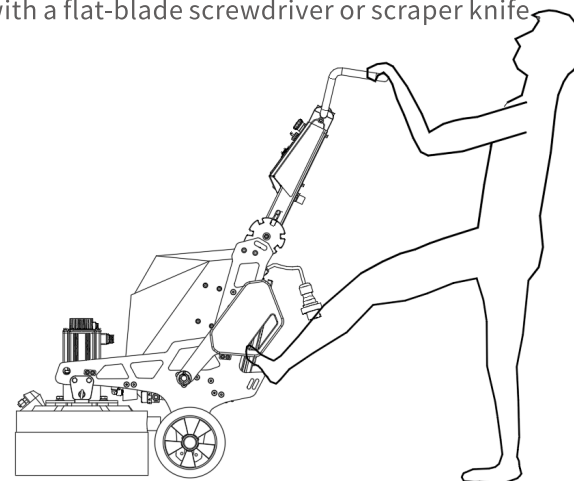
The emergency stop switch can only be rotated and pressed down

according to the direction of rotation above the emergency stop switch, and cannot be pulled up.

When starting the machine, it is recommended to press the handle to lift the machine slightly, reduce the pressure of the grinding disc, and reduce the friction between the grinding disc and the ground, so as to avoid motor overloading when starting the machine.

4.4 Replace abrasives

When changing the abrasives, adjust machine to lifting position, then tip the machine carefully and lay it flat. After leveling the machine, stand next to the machine and check whether the machine is stable. Change the abrasives with a flat-blade screwdriver or scraper knife.

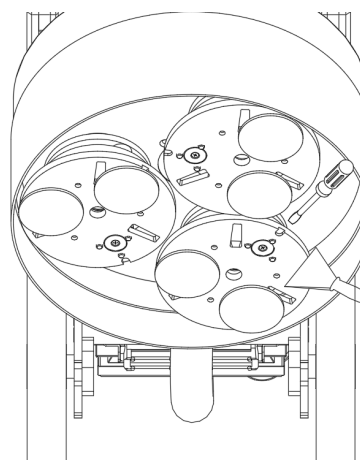


Note:

1. Please ensure that the machine won't tip forward before replacing the abrasive;

2. After the machine has been running for a period of time, the abrasive, grinding disc and the gear box will generate high temperature. Be careful to be burn when you replace the abrasive.

3. Replace the abrasive only when the power is unplugged and the emergency stop is pressed.



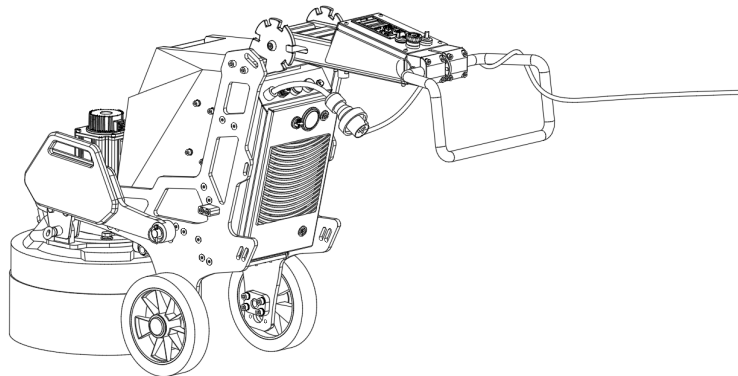
4.5 The wire winding

During machine working process, the wire wind method is particularly important, you can greatly improve your work efficiency and improve your safety. The specific operation is as follows:

1. Plug in an external power supply;
2. Turn the power cord through the swing lever handle;
3. The power cord wrapped around the handle at least two laps;
4. Slightly hard to pull the power cord to ensure that the power cord has enough friction so that the power cord firmly fixed on the handle.

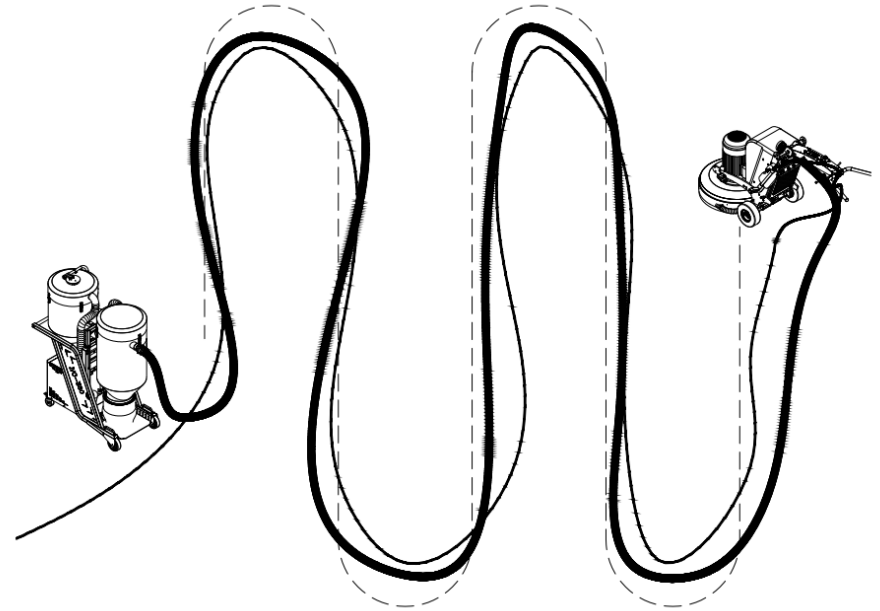
Note:

1. Make sure the power plug and socket are securely connected;
2. Please make sure the emergency stop has been pressed before plug the power supply, and the other switch has been reset;
3. Power supply line, please use (please find in Manual) wire minimum wire size;
4. Please use the correct power supply.



4.6 Grinding route (for reference)

When grinding the ground, it should be in accordance with the # method to grind the ground to get better effect. And according to # to grind ground, the machine grinding direction makes the wire more and more farther away, so that you can further avoid the interference of the wire to the normal work of the grinding machine.



Note:

The above picture for machine model can be ignored. The grinding route and winding method are for reference only.

5. Equipment maintenance

5.1 Overview

We recommend that the grinding machine be checked regularly to extend the service life.

Note:

During the maintenance and repair process, the power of the grinder must be disconnected.

Wear protective equipment such as safety shoes, protective gloves, protective masks, etc.

5.2 Daily check

5.2.1 Check the switches

The emergency stop switch should be rotated along the rotation direction of the switch. Turn the motor positive and negative knob to start the machine (Safely and normally start the machine, the running light will light up, if not normally start, then there will be the error code showed on the display screen)

Turn on the grinder and press the emergency stop switch to see if the machine stops.

Note:

For safety reasons, it is strongly recommended to press the emergency stop switch when stopping the device, which would be safer.

When starting the machine, it is recommended to press the handle to lift the machine slightly, reduce the pressure of the grinding disc, and reduce the friction between the grinding disc and the ground, so as to avoid motor overloading when starting the machine.

5.2.2 Check the disc cover

When there is a large amount of dust, it is easy to cause dust nozzle of grinding disc cover clogged by dust, use flashlight to see if there is dust clogged, clean up if necessary.

5.2.3 Check the disc

In the case of long hours of work or a large amount of dust, the grinding plate of grinding head may be stained with dust. It will lead lack of connection between grinding head and plate, which will affect grinding efficiency even lead to abrasive drop and cause accident. In view of this situation, please remember to clean up in time.

5.2.4 Note:

Be sure to wear protective equipment for maintenance checking such as protective gloves, protective masks, insulated shoes, etc.

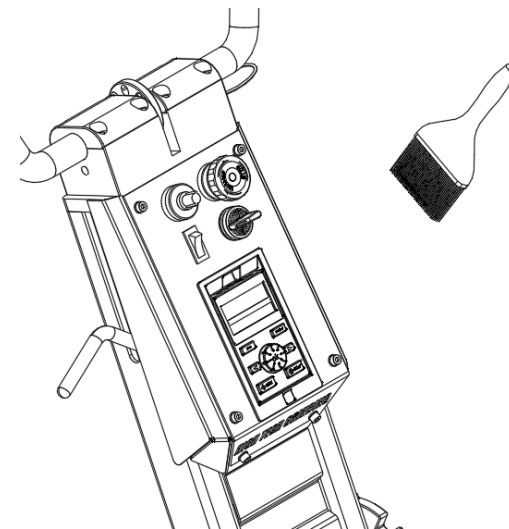
The maintenance operation must be done when the emergency stop pressed and the power unplugged.

When the machine is tilted, make sure that the machine is flat and then check the operation of the grinding disc.

5.3 Cleaning

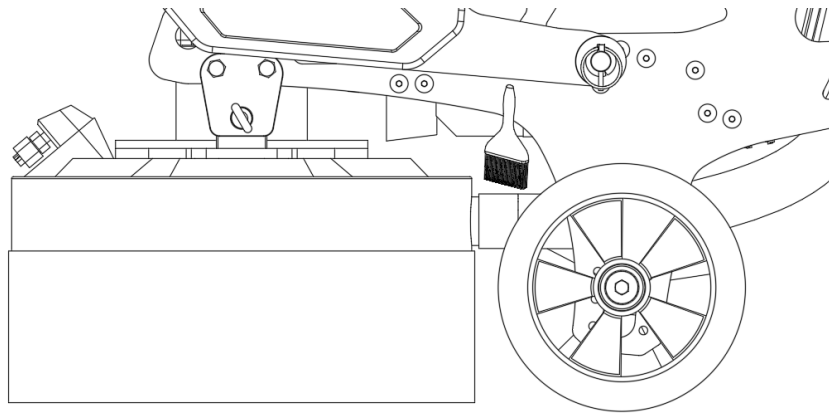
5.3.1 Clean switches

Grinding machine works on site for a long time, and the switch will inevitably run into the dust. For this reason, please check switch after grinding, to see whether the part is clogged by dust. Otherwise, it may cause the switch failure.



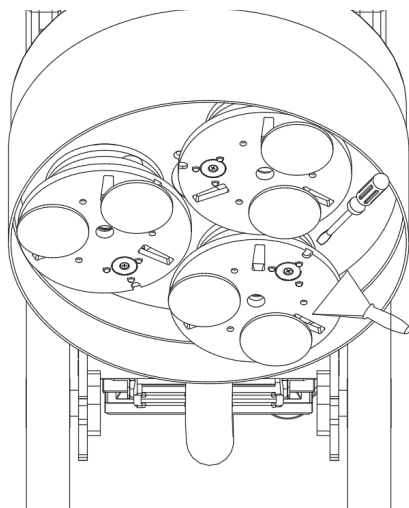
5.3.2 Clean the grinding disc cover

Remove the vacuum hose connector, use a flashlight to illuminate, and use a brush to clean the dust of the vacuum hose. Makes dust from blocking the the vacuum hose, affecting the efficiency.



5.3.3 Clean the grinding plate and Velcro-iron accessories

Tilt the machine and use a cross screwdriver to remove the pads, and use shovel to remove dust. If you do not clean up in time, it is possible to make the pads disconnected, and pads fly out when grinding, causing damage to the machine and threaten personal safety.



5.3.4 Note

1.Be sure to disconnect the plug from the socket before cleaning, maintenance or assembly.

2.Be sure to clean the whole grinder after each day' s working. Do not use a pressure washer to clean the machine directly.

5.4 Overload protection

The machine is equipped with an overload protection function on the inverter. When the machine is overloaded, the overload error will be showed on the display of the control panel. In this case, it is necessary to cut off the power, reduce the load, stop the machine for 10-30 minutes (depending on the motor temperature), and then restart the machine.

5.5 Maintenance

Any repairs must be performed by Shark Service Center training service personnel and use original Shark accessories. If your machine needs repair, please contact with your retailer.

6. Frequently Asked Questions and Solutions

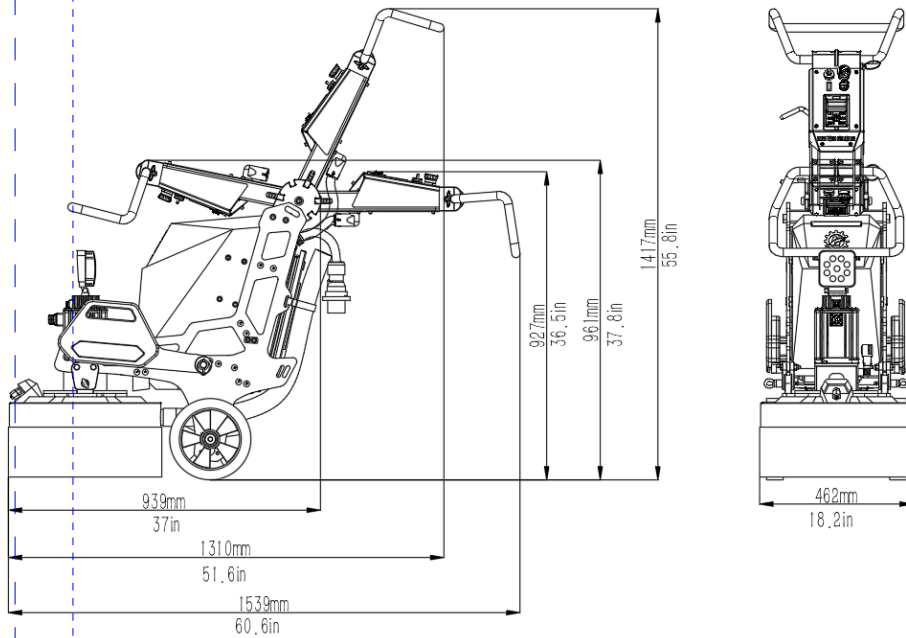
This chapter describes some of the possible failures and how to handle them. If you still can not resolve or have an error, please contact your nearest retailer.

Problem	Potential cause	Solution
The machine can't run.	Emergency stop switch is pressed	Turn on the emergency stop switch
	Overload	Reduce the load and try to restart
	Power and power cable damage	Contact a licensed electrician
	Problem with the motor start switch	Change the switch
The machine stops immediately after starting	Overload protection	Reduce the load and try to restart
The machine is difficult to control or the motor current is consumed	There are not enough diamonds pads under the device or using wrong diamonds	Use the number of diamonds recommended by Xingyi to reduce workforce on the grinder and operator
Machine beating	Diamond pads may not be properly installed or heights are different	Properly install diamonds with the same height
	The grinding disk is not flat	Adjust and install the disks

7. Technical Data

The table and picture show the technical data and dimensions of the grinder.

Engine power	2.3KW / 3HP
Rated voltage	1P220V
Rated current	8.1A
Input hertz	50HZ/60HZ
Inverter power	4KW/5.5HP
Working width	456 mm/179.5in
Diameter of grinding disk	Φ 200mm/Φ78.7in
Grinding speed	0 – 1500 r/min
Dimension(rear position)L*W*H	1310×462×1417mm/51.6×18.2×55.8in
Dimension(working position)L*W*H	1539×462×927mm/60.6×18.2×36.5in
Dimension(packing position)L*W*H	939×462×961mm/37×18.2×37.8in
Max.Length*width*height L*W*H	1539×462×1417mm/60.6×18.2×55.8in
Grinding pressure (weight iron in front)	85KG
Grinding pressure (weight iron is behind)	54.5Kg
Total weight	193.5KG
Cable model	3x2.5mm ²
Storage temperature	-20 ~ +60°C / -4 ~ +140°F
Working temperature	-10 ~ +40°C / +14 ~ +104°F
Humidity	Below 95% (no condensation)



8. Warranty

Shark does not bear the cost of machine damage caused by customer transportation, unpacking and customer use. Local distributors may be subject to specific warranty terms, please contact with your local distributor for specific warranty terms.