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Manual for HTG-820 RC

Remote Control Grinding Machine

-------- Version 1.1

XINGYI Machine USA

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XINGYI Machine USA

1. Introduction

1.1 Summary

XINGYI Machine are used for processing the floor surface. The scope of use of the machine depends on the choice of tools. In addition to the use and general functions, this manual describes information on the use, repair, and maintenance of the grinder. Contact your local dealer for further information.

1.2 Liability

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. XINGYI reserves the right to change the instructions in this manual without prior notice.

1.3 Warranty

This warranty only covers manufacturing defects. XINGYI bears no responsibility for damage that arises or occurs during transportation, unpacking or use. In no instance and under no circumstances shall the manufacturer be held responsible for damage and defects caused by incorrect use, corrosion or use outside the prescribed specifications. The manufacturer is not responsible for indirect damage or costs under any circumstances. For complete information on the manufacturer's warranty period, see XINGYI MACHINE USA’s current warranty terms. Local distributors may have special warranty terms specified in their terms of sale, delivery and warranty. If there is any uncertainty regarding warranty terms, please contact your dealer.

2. Safety

This manual indicates the important information / rules that must be observed when using XINGYI’s machine.

2.1 Operation safety

Users of machines from XINGYI have the ultimate responsibility for ensuring that everybody who works with or in the vicinity of the equipment follows all applicable safety rules. Safety measures must meet the requirements that apply to this type of equipment. Apart from the standard rules that apply in the workplace, the recommendations in this manual shall also be observed.

All work must be performed by trained personnel. Users of machines from XINGYI must have read through the dedicated manual for the machine. Incorrect use of the equipment could result in situations that could cause harm to the operator, the surroundings, or the machine.

Machines from XINGYI may only be used in the way recommended by XINGYI. Machines

from XINGYI may only be used for commercial purposes.

Anyone using the machine shall know about:

- its functions
- location of emergency stops
- the safety rules for the work

The operator shall ensure that:

- No unauthorized person is stationed within the work area when the machine is started up

The workplace shall:

- be suitable for the purpose.
- be secured from loose objects that can be thrown out by the machine.
- be free from protruding bolts etc. on the surface to be processed.

Individuals in the workplace shall always use the recommended personal protective equipment and wear suitable clothing:

- safety goggles
- protective gloves
- steel toe safety shoes
- hearing protection
- respiratory mask
- Do not wear loose-fitting clothing or anything that can catch, such as scarves, bracelets, rings, etc.

General precautions:

- Check the machine is connected to an earthed wall socket.
- Work on live parts shall only be performed by qualified personnel.
- Suitable fire extinguishers should be clearly marked and close to hand.
- Maintenance of the equipment must not be performed during operation.

2.2 Electrical safety

- Work on live parts shall only be performed by qualified personnel.
- The cables and connectors shall meet the machine's specifications.
- The machine is equipped with an overload protector. Once trip the overload protector, power off and then power in to resume it.
- Check the cords before powering in. Any broken cords may cause a serious accident.
- The wires should be away from the high temperature surface.
- Keep motor, electrical box, inverter away from water.

3. General information

3.1 Unpacking

Check the packaging and equipment carefully on delivery for any possible transport damage. If there is any sign of damage, contact the dealer and report the damage by photos, report form or any other necessary evidence in the first place. Report packaging damage to the carrier as well. Check whether the delivery meets the order. If you have any questions, please contact the dealer.

3.2 Transport

Always make sure that the machine is securely anchored to its surroundings and that the grinding head is lowered on to the surface. Tighten the securing straps, or other equipment used for anchoring during transport over non-moving parts, e.g. the machine's chassis. This machine has a protective cover for the electronic display screen, be sure this is in place during transport.

3.3 Lifting

The machine can also be lifted using the lifting eyes provided or using other approved lifting equipment. In which case, make sure that the weights are locked in the forward position and that the handle is in its back position. When lifting the machine, lifting straps must be used.

3.4 Movement

When moving on sloping surfaces, e.g. loading ramps, the battery system should have a minimum of 40% charge. Be sure the wheel locking pins are engaged. The maximum slope should not exceed 20%. The weights should be in the forward position. Otherwise, there is a risk that the machine tips backwards. Ensure there is no one below the machine during movement on sloping surfaces.

3.5 Machine name plate

1. Model name	2. Rated power
3. Full load amps	4. Serial number
5. Rated voltage, phase, frequency	6. Weight

3.6 Storage

The grinding machine should be stored in a heated, dry place at normal temperature when not in use. It may be damaged by condensation and cold.

4. Machine description

The HTG-820RC 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 XINGYI. This machine is expected to be used in commercial applications such as hotels, schools, hospitals, factories, offices and warehouses and retail environments.

The HTG-820RC is equipped with a radio control, which allows remote control of the machine at a certain distance. It is feasible to complete setup changes and operations with a few buttons. The digital display on the panel allows the operator to adjust and monitor system information easily, making it easy for users to operate. It comes with a 3.5-inch digital color display. This machine is equipped with a water tank that can be used for wet grinding. The handle can be set in different positions. When the machine is manually operated, you can choose the most suitable position for the operator. For remote control grinding the handle can be placed in a position that is out of the way of operations. To prevent crystalline silica exposure, posing a threat to the health of the operator and other workers, when dry grinding, make sure that a dust collection system of the proper CFM is connected to the grinder (The recommended dust collector for this machine is the Xingyi IVC-45L).

4.1 Standard delivery

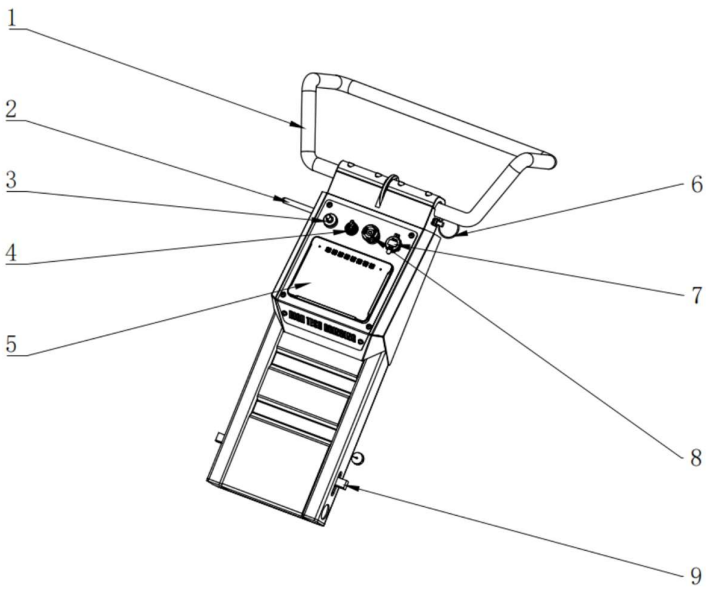
The machine will go with the following items. If anything is lost, please contact your dealer.

- full dust skirt, 1
- female power connector, 1 (male connector on the machine)
- Remote control case, including the remote controller, 2 batteries and a charger, plus a charger for the transport battery, and a strap.
- 2 keys for the main electrical box
- 24-3” Velcro tooling adaptors
- lifting strap, 1

4.2 General description

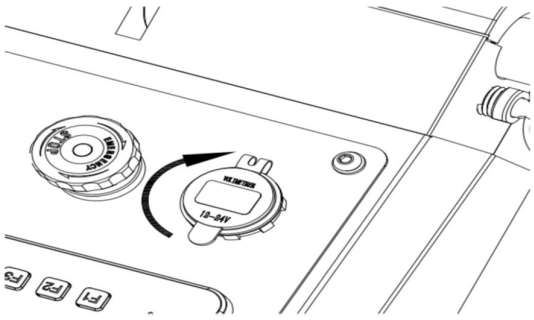
1. Control panel
2. Handlebar
3. Handlebar adjusting pin
4. Main handle
5. Power connector (male)
6. Neutral position weight block
7. Weight kit
8. Weight locking pin
9. Air spring for weight
10. Rubber drive wheel
11. Wheel locking pin
12. Water tank
13. Motor
14. Frame
15. Transport wheel kit
16. Grinding head
17. Spotlights (left & right)
18. Battery charger
19. Power connector (female)
20. Remote control kit
21. Dust shroud

4.3 Main Handle



1. handlebar
2. handle position lever
3. potentiometer for motor speed
4. direction switch, forward/reverse/neutral
5. display screen
6. handlebar adjusting pin
7. USB charge port
8. emergency stop switch
9. handle position notch pin

4.4 USB Charger Port



There is a USB charge port on the control panel. Lift the cover to use the USB interface to charge mobile phones or other devices. Keep the cover closed when not in use to prevent dust or moisture from entering the interface.

4.5 Display Screen

The display screen is operated by pressing the function buttons at the bottom of the screen.

F1 button will display.

1. motor speed

2. working hours

3. travel speed

4. voltage

F2 button will display.

1. technical parameters for the grinding motor

2. technical parameters for the left travel motor

3. technical parameters for the right travel motor

F3 button will display.

Remaining maintenance time, after maintenance has been completed hold the F3 button for 3 seconds to reset the clock to 0.

F4 button will display.

Error codes and troubleshooting fault codes.

F5 button will display.

1. language selection
2. screen brightness
3. maintenance clock
4. system time
5. left shift (select)

6. right shift (select)
7. plus (click to add)
8. minus (click to subtract)

F6 button will display.

turn lights on or off.

F7 button will display.

for water jets on front of machine

F8 button will display.

Enter the lock code for the machine. (issued by Xingyi)

1. left shift (select)

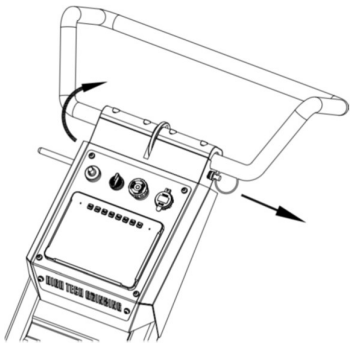
2. right shift (select)

3. plus (click to add)

4. minus (click to subtract)

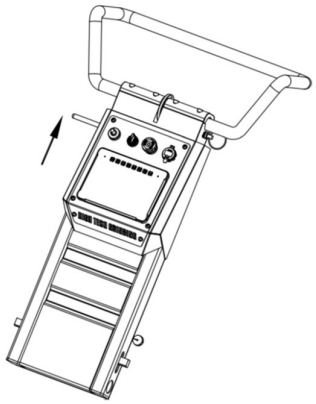
4.6 Handlebar adjustment

The handlebar adjusting pin can be positioned at different positions to accommodate the specific user. Hold the handlebar with one hand, pull out the adjusting pin with the other hand, then release the adjusting bolt when it is rotated to proper position. Be sure that the pin has locked into a secure position.



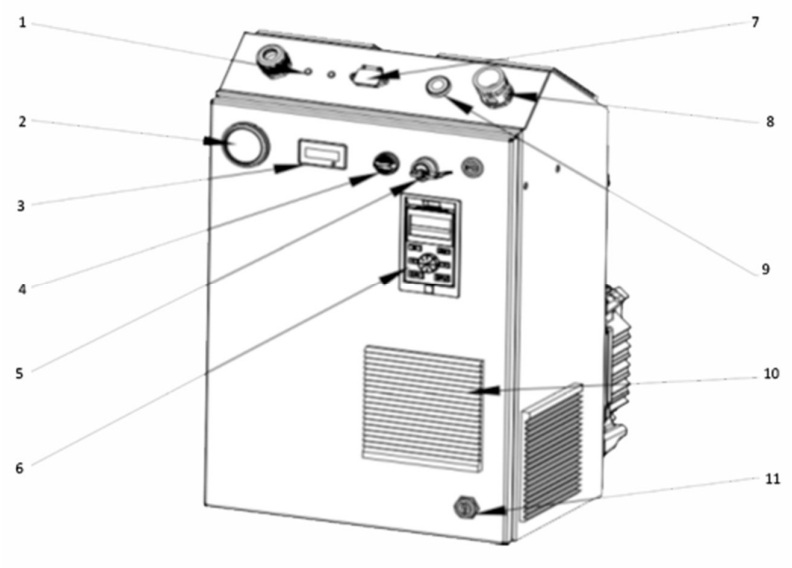
4.7 Main Handle Adjustment

Use the handle position lever to adjust the position of the handle. Hold the handle tightly with one hand to support the handle, pull the lever up to release the handle, rotate the handle to a position that suits you best and release the lever to lock.



Be sure that the handle has locked into a notch for sure operation.

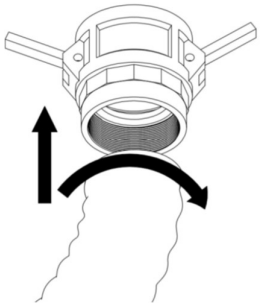
4.8 Electrical Cabinet

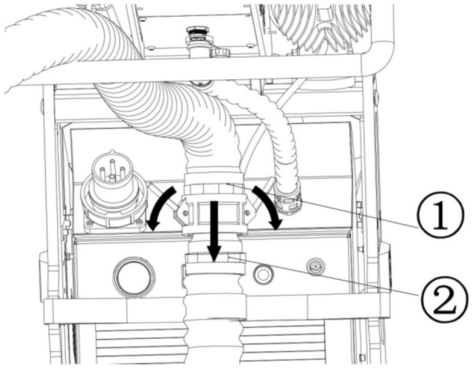


1. Indicator light: Remote control status indicator.
2. Timer: shows the total running time of the machine.
3. Battery indicator: shows how much battery power is stored in the machine.
4. Mode selection knob: remote and manual operation.
5. Key switch: start the DC power supply.
6. inverter external keypad: adjust parameters.
7. Reserve battery charging port: The reserve battery can be charged.
8. Power restraint connector: used to connect wire.
9. Charging indicator light: the battery level is displayed when charging.
10. Fan filter: Cooling fan to prevent excess heat inside the box.
11. Main electric cabinet key lock: used to lock the electric cabinet.

4.9 Vacuum Quick Connector

The fast connector consists of 2 parts, the first part is connected to the grinder, the second part is connected to the vacuum tube. This allows for fast connection of the vacuum to the grinder.



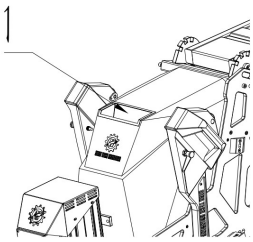


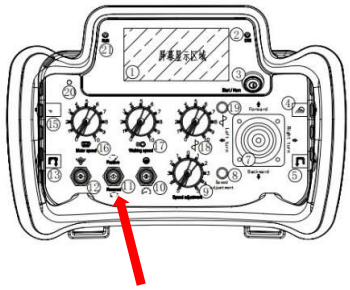
4.10 Water Tank

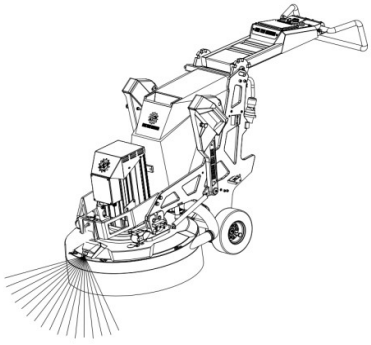
There is a water inlet in front of the water tank. The heat vent openings on both sides of the water tank dissipate heat from the inverter box and can extend the service life of the electrical equipment inside the inverter box.

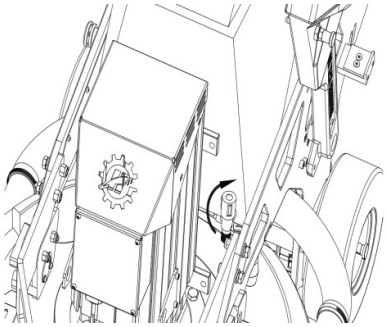
During wet grinding, press the front spray switch F7 in the HMI display on the handle to spray water in front of the machine. Or push up the switch on the side of the remote-control when you operate by remote control mode.

Also, rotate the water valve on the corner of the left side of water tank to provide a water flow to the grinding area.









4.11 Weight Adjustments

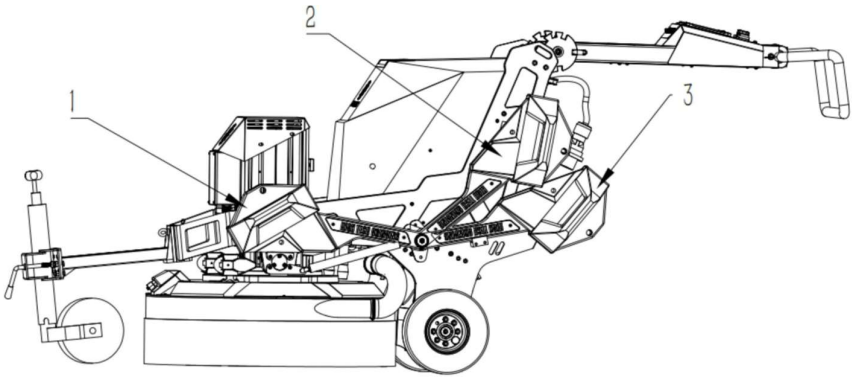
The machine is equipped with two weights to make it easy to move the machine's center of gravity. Each weight is provided with a locking pin, and a front limiting stop and a rear limiting stop on the frame of each side as well as a neutral position weight block.

Position 1: Pull the pin outwards and take hold of the weight and move the weight all the way forward until reach the front limiting stop.

Position 2: Lift the weight up until the pin locks into the neutral position weight block.

Position 3: Pull the pin outwards and take hold of the weight and move the weight all the way backward until reach the rear limiting stop.

In order for the grinding pressure to be maximized, the weights shall be placed in position 1 and to be minimized in position 3. If the machine feels heavy to operate, it may be due to the placing of the weights. Raise the weights to position 2, position 3 to relieve the grinding head. Ensure that the weights are in the same position on both sides to prevent the risk of uneven grinding.



Position 1 Position2 Position3.

4.12 Wheel Locking Pins

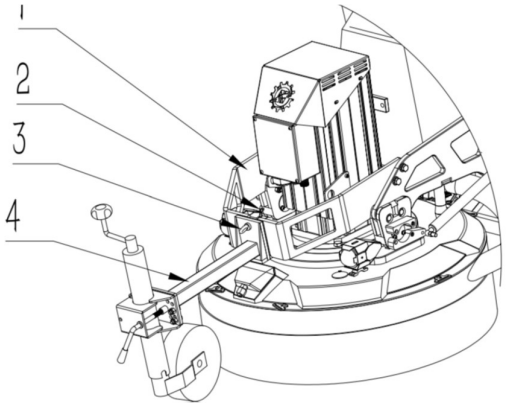
For remote-controlled use, or battery transport, the wheel must be locked using the wheel pins located on both side of the wheels.

To lock the wheels, turn the weight locking pin until it locks into the slot, so the pin will snap into the hole to lock the wheel. To unlock the wheels for manual operation, pull the pin out and turn it to make sure the pin is stuck to the housing which prevents the pin from snapping

back into the wheel. If the pin is tight, simply rock the machine slightly to relieve the tension and the pin will move freely.

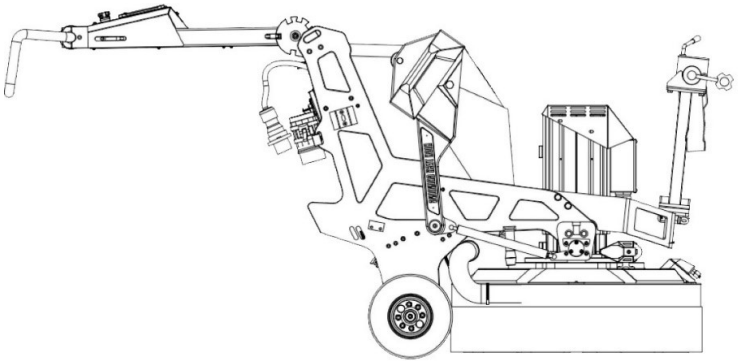
4.13 Transport Wheel

When using battery transport to mobilize the machine on a job site, it is more convenient and labor-saving to install the supporting wheel to move the grinder. Remove or place it in the up position when grinding.



(1) Front wheel supporting frame (2)R-type cotter pin (3) locating pin (4) Supporting wheel

To remove the supporting wheel: press the emergency stop switch, crank the support wheel jack to the lowest position (so there is no weight on the wheel) remove the R-shaped split pin, remove the locating pin, remove the support wheel from the bracket.
To install the supporting wheel: press the emergency stop switch, align the support wheel with the pin hole on front wheel support frame, then insert the wheel into the bracket, insert the R-type cotter pin, and lock the locating pin. Rotate the lever on the top in clockwise direction to raise the grinding head up until it is off the ground.



The support wheel may also be mounted to the front of the machine, upside down, when not in use. This allows for additional head weight and eliminates the need to store the wheel in another place.

4.14 Remote Control Kit

The remote control comes in a hardshell case that includes the remote controller, 2 batteries, a charger for the remote batteries, and a charger for the machine transport battery, and a shoulder strap.

1. Display screen shows voltage, motor speed.
2. Battery charge indicator.
3. Start button, to engage grinding motor.
4. Light switch.
5. Left turn button.
6. Power switch for remote control.
7. Joystick control, four directions.
8. Travel speed knob.
9. Oscillation control.
10. Tracking control.
11. Auto pilot switch, up is on, down is off.
12. Motor direction switch, clockwise or reverse.
13. Front water spray.
14. Left turn button.
15. Program button.
16. Motor speed.
17. Emergency stop switch.

4.15 One Click Turn Feature

During grinding operations, when the machine is ready to turn, you can press the No. 14 button to turn right (or press the No. 5 button to turn left) as the machine is moving. After the turn is completed, the machine will continue to grind as normal. The amount of overlap is automatic. This feature is also used when setting up the autopilot feature.

4.16 Basic Remote Operation

Be sure to install a fully charged battery before beginning. Turn the key on the machine electrical box to engage the onboard systems, this will include the receiver for the remote. Next turn on the remote control using the switch on the side of the controller. Allow a few seconds for the remote to power up. The locking pins on the machine wheels must be engaged for the remote control to work, either for grinding or transport. The emergency stop on the machine control handle must be in the up position. See the specific instructions for each operation as needed.

5. Transportation

The machine can be transported either manually, or by using the onboard battery system with the remote control and the transport wheel. Machine transport can be done without connecting the machine to a power supply.

5.1 Manual Transport

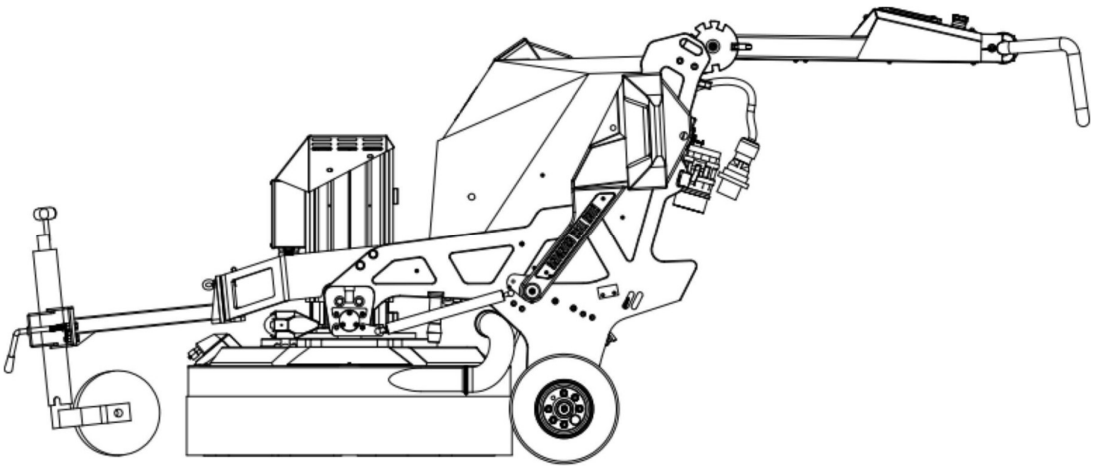
1. Install the support wheel to raise the grinding machine from the ground. It is recommended that the lowest position of the grinding disc is one inch from the ground.
2. Unlock the wheel locking pins. Leave the pins in the out position.
3. The machine can be pushed manually now.

5.2 Battery Transport

1. Install the support wheel to raise the grinding machine from the ground. It is recommended that the lowest position of the grinding disc is one inch from the ground.
2. Lock the wheel locking pins. Be sure that the pins click into the slot.
3. Turn the key on the machine electrical cabinet to engage the onboard systems.
4. Turn the mode selector switch on the electrical box to remote control operation.
5. Turn on the remote control and allow it to power up. Make sure the emergency stop switch is in the up position.
6. Turn the travel speed knob on the remote to a low setting.
7. Press the start button on the remote control.
8. Push the joystick forward to start movement. Steering and direction is now controlled by the remote control. Use the travel speed knob to control the speed.
9. Press the emergency stop button down to stop all movement.

Note: The weight kit should be in the neutral or back position during transport. Diamond tooling should be removed from the grinding heads before transport. Be sure not to run on a

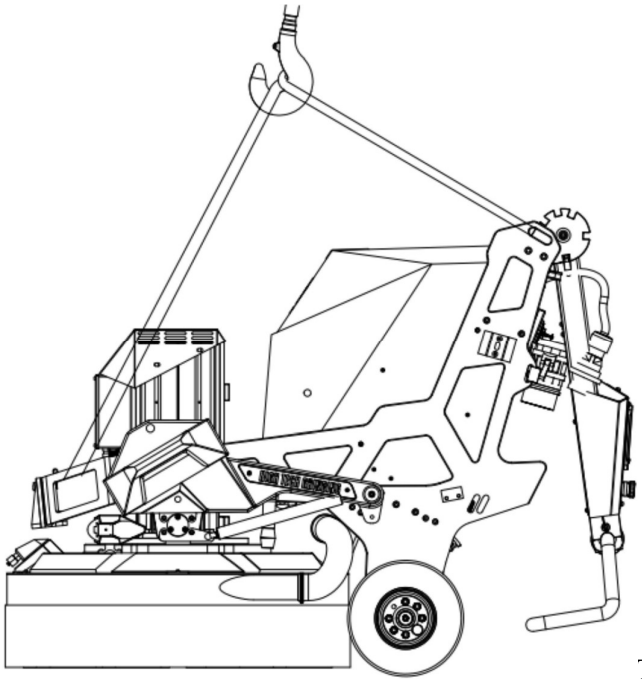
slope exceeding 17°. Be sure that the area around the machine is free and clear of any debris, tools before moving. Be sure that no personnel are in the immediate area when moving the machine.



The machine transport position.

5.3 Lifting Machine

The image below shows the correct configuration for lifting the machine using a crane or forklift. Always use the designated lifting eyes on the frame. Use the lifting straps that come with the machine, or straps that are sufficient for the weight of the machine. Be sure that the area is clear before lifting, be sure there are no people under the machine during lifting.



The machine lifting position.

6. Operation

The following section describes how to change tools and how to operate the machine in manual or remote-control mode.
The machine may be operated either way depending on the job site requirements and the operator's skill level. Only experienced operators should use the remote control to run the machine.

6.1 Handle setting

Place in the right working height using the various settings. Ensure that the handle lock locks properly in the position wanted when adjusting the handle.

6.2 Weight setting

Place the weights in the right position for current work. If the machine is heavy to operate, it may be due to the placing of the weights. Fold the weights up or back to unload the grinding head.

Risk of crushing.

Risk for the lock releasing.

6.3 Access to grinding tools.

WARNING

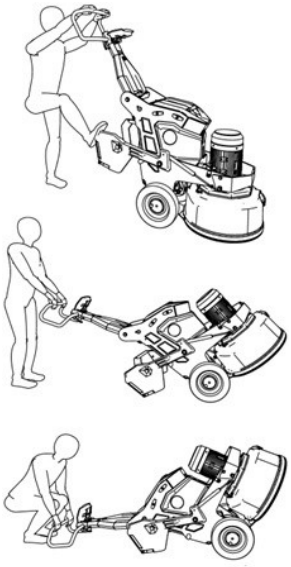
Risk of crushing.

Risk for personal injury and mechanical damage.

Disconnect the power prior to cleaning, maintenance, change of tools and repair.

Raise the handle to the high position in accordance with the Handle Settings page 9. Lower the weights back and place a foot on one of the weights. See Weight Kit page 14. Carefully, tip the machine backwards, until the weights reach the floor.

Ensure that the machine lies supported on the handle.



6.4 Fitting grinding tools

The machine uses 12 or 24 grinding tools.

Insert the flat screwdriver into the slot to remove the Velcro adapter. Align the 3 holes on the tool with the 3 pins on the plate and the tool will be attached immediately by magnet which is embedded in the tool plate. Unlock the tool plate.

The tool plate holds the tools in place for the grinding application.

6.5 Manual Operation

Place the machine where you intend to start grinding operations. Remove the transport wheel or place it in the upright position so the heads can touch the ground. Install the tooling on the grinding heads as needed for the operation. Connect the vacuum hose using the quick connector, (unless wet grinding. If wet grinding be sure that the water tank has been filled). Release the locking wheel pins to allow the machine to move freely. Make sure the emergency stop switch is pressed down (stop position). Plug in the power supply to the machine. Be sure it is the correct voltage for your machine, (240V or 480V). Set the mode selection to manual operation. Turn on the key to engage the onboard systems. Release the emergency switch to the up position. Flip the rotation switch to any direction, (clockwise or counterclockwise) turn up the motor speed knob and the machine will begin grinding. Adjust the motor speed as needed for the tooling. Push the machine manually to move over the surface. Average speed for grinding should not exceed 8-10 feet per minute. To stop the machine, press down the emergency stop switch.

6.6 Remote Control Operation

Place the machine where you intend to start grinding operations. Install the tooling on the grinding heads as needed for the operation. Remove the transport wheel or place it in the upright position so the heads can touch the ground. Connect the vacuum hose using the quick connector, (unless wet grinding. If wet grinding be sure that the water tank has been filled). Lock the self-locking wheel pins. Be sure that the pins click into the locked position. Make sure the emergency stop switch is pressed down (stop position). Plug in the power supply to the machine. Be sure it is the correct voltage for your machine, (240V or 480V). Set the mode selection switch to remote operation. Install a fully charged battery into the remote controller, (install the shoulder strap for easier operation). Turn on the key on the electrical box to engage the onboard systems. Power up the remote control using the switch on the left side. Rotate the emergency stop switch on the machine handle to the up position. Rotate the emergency stop switch on the remote control to the up position, (the indicator light on the electrical box should turn green, indicating the remote is paired and ready to use). Flip the rotation switch on the remote to any direction, (clockwise or counterclockwise). Press the start button on the remote to start grinding. Be sure the motor speed is set to a low setting. The remote-control screen will show you the motor speed in RPM's. Bump the joystick forward to begin moving the machine over the surface. Use the travel speed knob to set the machine walking speed. Maneuver the grinder using the remote-control. To stop grinding press the emergency stop switch on the remote.

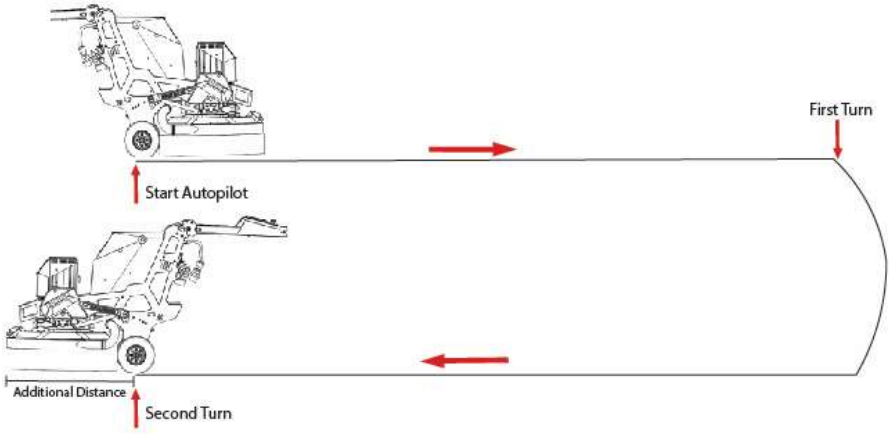
6.7 Autopilot Operation

The autopilot function allows the operator to set up a specific area for grinding with distance and turns programmed into the remote for that floor. This is an advanced operation and should only be attempted by experienced operators. You can watch our video on the Xingyi Machine USA website or by link https://youtu.be/AF4Ae5ASiys.

The image below indicates the buttons you need for this function.

Autopilot Sequence:

Begin by positioning the grinder where you want to start working. The path must be clear of any obstacles, posts, penetrations, or other equipment. You must begin at least 6' from a wall line to avoid the grinder hitting the wall on the return pass. The autopilot feature will measure the distance that the wheels travel, so when the grinder returns to that staring point the grinding head will be 4' in front of the wheels. (see diagram below)



Using the remote control start the grinder motor and push the joystick forward to begin moving. The autopilot switch should be off (down) at this point. Push the P (program) button, this will erase any previous memory. The grinder will stop moving, bump the joystick again to continue. Move the autopilot switch up into the on position, this designates your starting point. Allow the grinder to move forward until you reach the spot you want the machine to turn. Use the one click button for the first turn, (do not use the joystick). Left or right depending on the direction you need to turn. The machine will turn

90 degrees, overlap, and turn another 90 degrees to complete the first turn. If the machine turns too far (due to rotation of the head) you can compensate using the tracking control knob to straighten the path. Do not touch the joystick. When the machine reaches the starting point, it will initiate the next turn automatically. The grinder will continue to run passes between the 2 points you set until you stop it. This leaves the operator free to manage the vacuum hose and power cords. The operator should keep the remote attached to himself in case of any emergency. To stop the autopilot function simply flip the switch down to the off position, or hit the emergency stop on the remote control.

6.8 Oscillation Operation

The purpose of the oscillation control is to prevent the machine from creating ridge lines or stripping the floor. When engaged the machine will swing left and right during the pass automatically. The amount of swing is controlled by the oscillation knob on the remote control. This should only be used during heavy grinding or removal operations.

6.9 Overload Protection

The machine comes with an overload protection circuit for the inverter in case of an overload event. Typically caused by incorrect power, or a power surge from a generator or unstable power source. If the machine becomes overloaded, a warning will appear on the control panel. Disconnect the machine from power and wait for the power to drain, (this can take up to 3 minutes). Re-connect the power supply and restart the machine.

Repairs should always be performed at a XINGYI Service Center, or by an authorized XINGYI mechanic. Contact your retailer for service options, parts, and information, or www.xingyimachineusa.com

7. Machine Maintenance

We recommend that the grinding machine be checked regularly to extend the service life. Always be sure that the machine is unplugged from power when performing maintenance or repairs.

7.1 Daily

Should include keeping the machine free of dust and as clean as possible. Use a vacuum to remove excess dust from the grinding heads and other critical areas of the machine. The grinding heads should be cleaned when changing abrasives, the magnets will collect dust and metal fragments from the tooling. This can cause the tools to not sit properly on the head, loose tools may fly off and or cause irregular scratches in the floor. Check the switches on the control panel to ensure all the functions are working properly. This can be done with battery power, simply turn on the key switch. Clean the switches as needed using a soft brush or cleaning rag. Do not use water to clean the switches.

7.2 Monthly

Check the batteries, they should be charged monthly to ensure proper operation. If storing the machine for more than one month, you should remove the batteries from the remote controller to prevent discharge. The batteries are lead-acid based batteries. In cold weather conditions the operation time will be shorter. If the machine has been stored for more than a month, the battery should be charged before plugging in to 3 phase power. During normal grinding operations the battery will trickle charge when connected to power. Check the electrical compartment for dust, make sure it is clean and dry.

7.3 Gear Box Service

The machine gear box oil should be changed after the first 500 hours of operation, after that the gear oil should be changed annually. There is a drain plug under the gear box, where the grinding plates are attached. The fill point is on top of the gear box cover. The HTG-820 RC holds approx. 2 gallons/8.2L of gear oil. The recommended oil is VG320 or VG460, These are ISO-VG(viscosity) mm^2/s DIN-51519,at 40°C.

8. Troubleshooting

Problem	Possible Cause	Solution
The Machine won't run	Emergency stop is engaged	Reset the stop switch
	The motor is jammed	Remove the debris
	Power cable damage	Replace the cable / check power supply
	Non-standard operation	Refer to operation manual
The machine makes a low buzz when turned on	Motor may be burned out	Replace the motor
	Phase loss	Have electrician check the power phase
Machine is difficult to control / AMP draw is too high	Not enough tooling under the machine	Use the correct number of tools for the heads
	Power service not sufficient	Check the service amps
Battery cannot charge with 3 phase / battery cannot charge with dedicated charger	3 phase voltage is below the required range	Check the voltage and amps are correct for the machine
	Battery has reached its service life	Replace the battery
	Battery has drained to 0%	Charge for 4 hours with dedicated charger
	Battery charger is damaged	Replace charger
Machine bouncing	Diamond tools may not be installed correctly	Check to be sure tooling is correct
	Diamond may be different heights	Check the tooling is all the same height. Replace as needed
	The grinding plates are not flat	Replace the grinding plate
Machine travel is not correct	Wheel pins are not locked	Lock the wheel pins
	The clutch is not engaged	Check the clutch
	Servo motor control failure	Contact the factory / repair or replace
	Broken keyway between the wheel and driver	Contact the factory / replace the keyway
Remote control won't sync	Battery too low	Charge or change battery
	Receiver overheat	Disconnect power / let cool and restart
	Emergency stop on remote	Reset the stop switch
	Machine not in remote mode	Change the selector switch to remote operation

9. Technical Data

HTG-820 RC		
Motor power	15KW / 20 HP	
Rated voltage	3P 240V	3P 480V
Rated AMPS	60 A	35A
Input hertz	50HZ / 60HZ	
Inverter power	18.5KW / 25HP	
Working width	820mm / 32 in	
Grinding disc size	278mm / 11in	
Motor speed	350-1950 RPM	
Head weight /weights forward	293.5KG/650lbs	
Head weight /weights neutral	225KG/500lbs	
Head weight/weights back	195KG/430LBS	
Dimensions / packed	1590x833x1130mm/62x32x54in	
Dimensions /operation	2305x833x1165mm/90x32x75in	
Total weight	620KG/1366LBS	
Cable size	10mm /6-4	
Storage temperature	-20° - 60°C /-4°-140°F	
Operating temperature	-10°-40°C /14°-104°F	
Humidity	Below 95% (no condensation)	

10. Dimensions