

Tech 4 Operating Manual



- Dealer: This instruction manual must be given to users of electric wheelchairs.
- User: Before using the electric wheelchair, please read the instructions in this manual and save it for future reference.

There is a mark in this manual that requires special attention from the user, please operate it correctly. ★

Content

<u>01</u>	<u>User Guides</u>	
<u>01</u>	<u>Letter to users</u>	
<u>01</u>	<u>Safety Signs</u>	
<u>02</u>	<u>Product Structure</u>	
<u>03</u>	<u>Technical Parameters</u>	
<u>04</u>	<u>Electromagnetic Interference Information</u>	
<u>05</u>	<u>Safe Use Guide</u>	
<u>05</u>	<u>User</u>	06
	<u>Caregiver</u>	
<u>06</u>	<u>Precautions for the use of joystick</u>	
<u>07</u>	<u>Precautions for use when the wheelchair is stationary</u>	
<u>07</u>	<u>Use environment</u>	
<u>08</u>	<u>Applicable road</u>	
<u>08</u>	<u>Road driving</u>	
<u>09</u>	<u>Riding a motor vehicle</u>	
<u>09</u>	<u>Driving balance</u>	
<u>09</u>	<u>Precautions for getting on and off the wheelchair</u>	
<u>10</u>	<u>Precautions for reaching and leaning</u>	11
	<u>Precautions for dressing in a wheelchair</u>	
<u>12</u>	<u>Crossing obstacles</u>	
<u>12</u>		

<u>12</u>	<u>Reverse driving</u>	
	<u>Slope / hill driving</u>	<u>13</u>
	<u>Weight restriction</u>	
<u>13</u>	<u>Precautions for going up and down stairs</u>	<u>13</u>
	<u>Installation Instruction</u>	
<u>15</u>	<u>Safety belt installation</u>	
<u>15</u>	<u>Joystick installation instruction</u>	
<u>15</u>	<u>Manipulation Guide</u>	
<u>16</u>	<u>Use the joystick to drive the wheelchair</u>	
<u>17</u>	<u>Use of horn</u>	
<u>17</u>	<u>Braking Instruction</u>	
<u>18</u>	<u>Battery Instruction</u>	
<u>18</u>	<u>Install/remove battery</u>	
<u>20</u>		

<u>20</u>	<u>Battery charging</u>	
<u>21</u>	<u>Over-discharge protection device</u>	
<u>21</u>	<u>Over-current protection device</u>	
<u>21</u>	<u>Battery socket port cleaning</u>	
<u>22</u>	<u>Fold and Unfold</u>	
<u>22</u>	<u>Wheelchair folding method</u>	
<u>22</u>	<u>How to unfold the wheelchair</u>	
<u>23</u>	<u>Faults and Troubleshooting Method</u>	<u>24</u>
	<u>System diagnosis</u>	
<u>24</u>	<u>Warranty</u>	
<u>26</u>	<u>Warranty Description</u>	
<u>27</u>		

User Guides

This wheelchair is driven by a DC brush motor and is suitable for both indoor and outdoor use (it is recommended not to use it outdoors for a long time).

A transportation tool for the disabled and the   foldable, portable, safe and comfortable electric wheelchair.

User:

Please do not use and operate this electric wheelchair without reading and understanding this manual.

If you cannot understand the warnings and instructions, please contact the general distributor for professional technical guidance and help, otherwise it may cause danger and injury due to operating errors. In addition, this operation can also be guided by professional and technical personnel with vocational and technical qualifications.

Distributors and professional technicians:

Please do not use and operate this electric wheelchair without reading and understanding this instruction manual and without understanding the electric wheelchair. If you cannot understand the warnings, warnings and instructions, please contact the general distributor for professional technical guidance and help.★

Letter to users

Dear Customer:

Thank you for purchasing our company's electric wheelchair. The electric wheelchair you own has excellent comfort, lightness and other excellent qualities in terms of design and manufacturing.

It will bring you the freedom of action you should enjoy and become your most trusted and dependent travel tool.

Before you operate the electric wheelchair for the first time, please read this instruction manual carefully. This instruction manual will help you understand the performance and operation of the electric wheelchair, as well as proper maintenance. When you use an electric wheelchair, if you still need further help and advice, or can't control the electric wheelchair well, please contact your general distributor or manufacturer for better guidance and help.★

Safety Signs

The following symbols can help you identify some warning operations, mandatory operations and prohibited operations of the electric wheelchair. It is very important to fully recognize and understand them.



Read and follow the instructions of this manual



Safety warning sign: or suggest a dangerous operation that may harm you or others.



Class II (assist) equipment



Main application part



Do not use mobile phones, laptops or other radio transmitters during operation.



Easy extrusion/Crushing point



Avoid contact with rain, snow, ice, salt, and place it in water. It should be maintained under clean and dry conditions.



The product has passed the test of the electromagnetic/RF resistance to 20 V/M.



The battery contains corrosive chemicals



There is a possibility of explosion



Don't use the battery with different capacity and models at the same time, don't mix up the old and new batteries when replacing, please change it entirely.



If

Keep tools and other metal objects away from the positive and negative ends of the battery. they touch both ends, it will cause a short circuit and electric shock.



Tips are flammable materials, do not expose to heat sources such as open flames or sparks. Do not transport the battery with flammable, explosive or combustible materials.



Disposal and Recycling-Recycling has been authorized by the dealer. The company will recycle the product and its packaging after receiving the user's request.

Product Structure



Technical Parameters

Basic Parameters Of The Tech 4	
Unfolded size (L×W×H)	980×610×960mm
Folded size (L×W×H)	750×610×360mm
Maximum load	150kg
Net Weight	29.5kg
Frame material	Aluminum alloy
Seat back cushion	
Whether flame retardant	Flame retardant
Washable	Not washable
Motor	
Type	DC24V 250W* 2 brush motor
Rated power	250W
Input voltage	DC 24V
Brake system	Electromagnetic brake
Battery	
Type	24V12Ah 18650 lithium battery
Nominal capacity	12Ah*1
Output voltage	DC 24V
Incoming current	2A
Controller	
Type	45A brushed controller
Output voltage/current	DC 24V
Front wheel	
Outer diameter	8" × 2"(200mm x 50mm)
Type	PU filled tire
Quantity	2 PCS
Rear wheel	
Outer diameter	12.5" ×2.25"(320 mm x 57 mm)
Type	PU filled tire
Quantity	2 PCS
Performance index	
Maximum climbing ability	15°
Driving Mileage	10-15 km
Maximum speed	6km/h
Turning radius	835mm
Wheel base	550mm

Electromagnetic Interference Information



Warning

It is important to read and understand the possible effects of electromagnetic interference on electric wheelchairs.

This chapter will explain to users the problems caused by known electromagnetic interference, so as to help users understand and take corresponding protective measures to avoid or minimize risks. Part of the content involves accidents that may occur under certain circumstances or conditions.

•Electromagnetic interference from radio waves

Electric wheelchairs are susceptible to electromagnetic interference. Interference sources include electromagnetic energy emitted by radio stations, television stations, radio transmitters, two-way radio equipment, and mobile phones. The interference of these electromagnetic waves may cause the brakes of the electric wheelchair to fail or lose control, cause it to move on its own or lose its direction control, and may also cause permanent damage to the control system of the electric wheelchair. The ability of the product to resist electromagnetic interference and destruction is particularly important. This electric wheelchair has passed the 20V/m electromagnetic interference resistance test when it leaves the factory. It has a high anti-interference ability and can resist some common radiated electromagnetic interference in life.

Notice



1. Although this electric wheelchair has anti-interference ability, users still need to abide by the following rules when using: When the electric wheelchair is powered on, do not operate portable transceivers, receivers, citizen band (CB) and other radios, or turn on Personal communication equipment such as mobile phones.

2. Try to avoid getting close to radio wave emission sources, such as radio and TV stations.

3. If uncontrolled movement or stop occurs, the power should be turned off in time. And please contact the manufacturer.

Do not make any changes to this electric wheelchair by yourself, including adding or subtracting accessories, so as not to reduce its anti-interference ability.

Safe Use Guide

Warning



User

Before using this electric wheelchair, you should accept to keep tools and other metal objects away from the positive and negative ends of the battery. If they touch both ends, it will cause a short circuit and electric shock.

1. Training and professional guidance for health care personnel in safe use.
2. Before starting to drive this electric wheelchair, you should first understand and feel this electric wheelchair.
3. You should practice driving, turning, jumping obstacles, braking, etc. with the help of a paramedic until you are able to perform them independently, proficiently, and safely.
4. Please do not try new actions if you cannot confirm the safety.
5. Understand the place where the electric wheelchair will operate, check whether there are dangers in the area, and master the methods to avoid these dangers.



Warning

Caregiver

1. You need to cooperate with the passengers and listen to the opinions of the passengers' doctors, nurses or physical therapists to work out the safest method that suits the passengers' abilities.
2. When pushing the electric wheelchair by hand, you must turn off the electromagnetic brake switch to make the wheelchair in the manual state. At this time, the brake on the controller will not work at all.★
3. When pushing this electric wheelchair, you must use the push handle on the back of the backrest. It provides a safe and reliable force point to prevent the wheelchair from tipping over when you push it. You should check the push handle to ensure that the push handle does not rotate or slip. When helping the occupant to pass obstacles: To prevent injury to the occupant's back, keep the occupant in a correct posture that conforms to human dynamics. When you lift or support the occupant or tilt the electric wheelchair, you can bend your knees slightly to keep your back vertical.
4. Before each action operation, you should tell the rider what you plan to do, explain the reason, and at the same time tell him what you want him to do. This will prepare the occupants and reduce the risk of accidental injury.
5. Walk straight up and down the roadside steps or stairs. If you turn a corner, climb

up or down, you may fall and tip over.

6. When you are going to lift the electric wheelchair backwards, remind the occupants to lean on their backs.

7. The electric wheelchair should go down the steps slowly to prevent injury to the occupants and damage to the electric wheelchair of this paragraph. And please pay attention to keep the road unobstructed.

Warning



Precautions for the use of joystick

Note that you may need to adjust the controller settings of the electric wheelchair (see Figure A1) to reduce the risk of collision, falling or falling.

1. Check and adjust the settings every six months. (If necessary, you can often check and adjust)

2. If you find any controller settings that change the following functions, please contact the supplier.

- Control joystick
- Keep your body upright
- Avoid hitting objects during operation



A1

Warning



Precautions for use when the wheelchair is stationary

1. When the electric wheelchair stops, even for a short time, please be sure to turn off the power. This prevents:

- You or other people accidentally touch the joystick and cause the wheelchair to move unexpectedly.
- Interference from accidental electromagnetic sources affects the normal use of electric wheelchairs.

2. Make sure that other people, including those who help you (for example, shop assistants) are aware of the manipulation Bar, and know that you can't touch it to prevent sudden movements of the electric wheelchair that you don't want.

Warning 

Usage environment

This electric wheelchair is not suitable for use and placement in heavy rain, snow or icy environments.

1. Contact with water or excessive humidity can cause electrical failure. The frame, motor and other electric wheelchair parts are not completely waterproof and may rust or corrode from the inside.

To prevent malfunction of the electric wheelchair:

- Try to avoid placing or using this electric wheelchair in a direct impact by water (such as heavy rain) or in a very humid environment ★
- Please do not use this electric wheelchair in bathing, sauna and swimming.
- Please do not use this electric wheelchair near water sources (such as rivers, lakes or oceans).
- Make sure that the battery cover is closed.
- If the joystick is damaged, replace the joystick device.
- Ensure that all electrical connections are safe and not loose.
- It is forbidden to wash this electric wheelchair with water. If the electric wheelchair has been soaked, please take out the battery and let the electric wheelchair dry as soon as possible, and make sure it is dry before inserting the battery into it before using it.

2.If you must operate an electric wheelchair on a wet or slippery ground, please be careful and keep moving at a slow speed.

- You must make sure that it is safe to do so.
- If one or two main wheels lose traction, you must stop immediately to prevent the electric wheelchair from losing control or falling.
- If there is snow, ice, water or oil stains on the slope or ramp, please do not drive onto the road.
- When you have doubts and cannot confirm that it is safe, please ask others to help you.

3.When you are not in use, please turn off the power of the electric wheelchair, fully charge the battery, and put it in a clean, dry place.★

 Warning

Applicable road

1. This electric wheelchair is only suitable for driving on concrete, asphalt and indoor floor surfaces.

2. Do not use on sandy soil, loose soil or rough and rugged terrain to prevent damage to wheels, bearings, shafts or motors and other components, as well as possible loosening of fasteners.



Warning

Road driving

In most countries and regions, powered wheelchairs are illegal to drive on public roads.

It must be realized that electric wheelchairs are dangerous on roads or parking lots.

1. In order to make it easy to identify when used at night, this electric wheelchair is pasted with reflective paper (as shown in Figure A3). Passengers can also wear reflective clothing.

2. When meeting with other vehicles, make sure that the driver of the vehicle pays attention to you. Before you continue to operate, make eye contact with the driver and let the driver understand your intentions until you are sure that it is a safe state.



A3



Warning

Riding a motor vehicle

1. Try not to drive an electric wheelchair to take transportation, such as buses, subways, trains, planes, and ships.

2. If you must drive an electric wheelchair to take a vehicle, you should be accompanied by someone, find a reliable place to park, wear a seat belt, and turn off the power of the electric wheelchair.

3. If the occupant drives the electric wheelchair alone to take a vehicle, he should try his best to find a place where the wheel or body of the electric wheelchair can be fixed to avoid injury when the vehicle is suddenly braked or in a traffic accident.

4. Do not place the electric wheelchair in the front row of the vehicle, so as not to interfere with the driver's driving.

5. When getting on and off the vehicle, if you need to lift the occupant and the wheelchair together, please hold the edge of the seat cushion frame, and do not hold the armrest or backrest to lift.★



Warning

Driving balance

When in use, the electric wheelchair should maintain the balance and stability of the center of gravity to avoid tipping over during forward and backward.

The balance of the center of gravity is affected by the following factors:

1. The height of the seat and the angle of the seat.

2. Changes in the occupant's body position, posture or weight distribution
3. The slope of the ramp or slope
4. Whether to use backpacks or other items to change the total weight and weight distribution of the wheelchair.

•If you need to modify or adjust this electric wheelchair, please consult your dealer in advance and obtain the authorization of the manufacturer. The modified wheelchair may require additional adjustments to correct the center of gravity. When using the modified wheelchair, you should be especially careful until you are familiar with the balance point of the electric wheelchair and master the methods to avoid falling or tipping over.



Precautions for getting on/off the wheelchair caveat

The occupant's own movement of the body is dangerous, and it needs to have good balance and flexibility. Please note that every time you move your body on your own, you must have a support point that is not lower than the cushion surface of the wheelchair you are sitting on.

Avoid falling:

- When you are ready to transfer to an electric wheelchair, please be sure to turn off the power first. Otherwise, if you touch the joystick, it may cause the electric wheelchair to move unexpectedly. ★

- Ensure that the motor is locked and the wheelchair will not move by itself.
- Learn the safest way to move your body from your professional health care staff.
- Understand how to position your body and how to support yourself during transmission.

- Let others help you until you are sure that you can get in and out of the wheelchair safely on your own.

Correct way to get on/off a wheelchair:

1. Move your electric wheelchair as close as possible to where you want to sit. If possible, use a conversion board.

2. Rotate the front casters to make them as far forward as possible.

- Do not stand on the pedals to move your body, as this will cause damage to the wheelchair.

- Make sure that your feet are not caught or caught between gaps of the pedals.

- Ensure that it is not blocked by the handrails (as shown in Figure B1).

- You should transfer to the seat as soon as possible, which reduce the risk of you missing your seat and falling.



the

will



Warning

Matters needing attention when the body is tilted and extended

Reaching out and tilting your body will affect the balance of the center of gravity of the electric wheelchair. If the operation method is not correct, it may cause you to fall or tip over. The following are some key points of practice to reduce the risk of injury or damage to the electric wheelchair:

- 1.If you must change your body's center of gravity, including raising your body sideways or leaving the seat, please do not tilt your body out of the wheelchair cushion.
- 2.If you have to move forward on your seat, please do not tilt your body excessively (see figure C1), and always keep the backrest touching your hips.



C1

3. Don't use both hands to reluctantly access objects that are far away, in case you lose your balance and fall.
4. Under no circumstances should you try to pick up items from between your knees or in front of your body (Figure C2).



C2

5. Do not put pressure on the pedals when the body is extended to prevent serious fall injuries caused by the electric wheelchair tipping over.
6. Do not lean on the top of the seat back to prevent falling and damage to the back.
7. If you have to extend or tilt; do so at your own risk.

Remember:

1. Move your electric wheelchair as close as possible to the object you want to reach.
2. Rotate the front casters until they are as forward as possible. This will make the

electric wheelchair more stable.

Note: If you move your electric wheelchair over the target you want to reach when you perform this operation, you must move backward to approach it, and the front casters will rotate forward when you return.

3. When you arrive, turn off the power of the electric wheelchair. Hold the armrest tightly with one hand. This can prevent the risk of falling if the electric wheelchair is tilted.

Precautions for dressing in a wheelchair



Precautions for dressing in a wheelchair

Note: When you wear clothes in an electric wheelchair, your body will rotate. In order to make the electric wheelchair more stable, you should adjust the rotating front casters to the forward position.



Crossing obstacles

You may need to overcome some obstacles in daily use, including thresholds, elevators, ramps, pits, and broken roads. Incorrect operation may damage your electric wheelchair, or cause personal injury to you.

1. Note: The threshold is very dangerous. Even a small height change may jam the casters and cause the electric wheelchair to tilt or roll over, so it is recommended that you:

- Remove the door threshold of the room or cover the door threshold so that the slope is excessive.
- Install a ramp-type entry and exit door.

2. When you move the electric wheelchair, please carefully check the area you want to pass.

3. Ensure that you can surpass obstacles smoothly and safely in places where you use this electric wheelchair.

4. You can adjust your center of gravity like this:

- When you are about to cross an obstacle, lean your upper body forward slightly.
- When you pass a lot from high to low, your upper body should be pressed back.



Reverse driving

When you drive an electric wheelchair in reverse, you need to be extra careful. If the rear wheel hits an object, you may lose control or fall.

1. When driving, slow down.

2. Stop checking frequently to ensure that there are no obstacles to safety on the road you are going to pass.



Warning

Slope / hill driving

When on a slope, the center of gravity of your electric wheelchair will change.

Not: the "slope" may be a ramp or a hillside. When you are not sure about the safety of applying this electric wheelchair on slopes, please use it with the help of others, and be sure not to use it alone.

Attention:

1. For your safety, please do not use electric wheelchairs on slopes with a slope of $\geq 15^\circ$.
2. Please do not use this electric wheelchair when going on a slippery slope (such as snow, ice, water or oil stains).
3. When the road surface on the slope has ups and downs (uneven, raised or sunken), please do not use this electric wheelchair.
4. If there is a small pit at the bottom of the slope, please do not use this electric wheelchair.



Warning

Weight limit

1. The maximum load of this electric wheelchair is 150 kg, and the load in use should not exceed the maximum load.
2. The backrest bears less than 75 kg, and the backrest shall not be pressed down or raised.
3. Under any circumstances, do not do weight training on this electric wheelchair, even if the total weight of the occupant plus the lifted weight does not exceed the maximum load-bearing capacity of the electric wheelchair.
4. In use, the load exceeding the maximum load may damage the seat, frame, fasteners, folding mechanism, etc. It may seriously injure the occupant or other people, and also damage the electric wheelchair.
5. No warranty is provided for problems caused by the load exceeding the maximum load during use.



Warning

Precautions for going up and down stairs

This electric wheelchair is not used for traveling, going up and down stairs or using

escalators.

1. Always pay attention to the following warnings when using elevators:

- Do not use escalators (staircase elevators) between floors to move electric wheelchairs to avoid serious personal injury.

- You can use the up-and-down elevator when you sit in an electric wheelchair.

Please push the electric wheelchair after the elevator door is opened, and ensure that the elevator door is always open when the electric wheelchair enters and exits the elevator.

- When the elevator is unavailable, once the electric wheelchair is transported to the required place, when it needs to be deployed, please refer to the description of the "transportation" chapter.

2. When moving the electric wheelchair through the stairs between floors, the stairs must be operated in accordance with the following specifications:

- Remove the user from the electric wheelchair.

- Folding electric wheelchair. Before folding, the joystick must be closed and removed. Refer to the instructions in the "Transportation" chapter.

- When moving the electric wheelchair up and down the stairs, care should be taken to avoid collisions.

Installation Guide

Seat belt installation



Warning

The seat belt is only used to fix the user's body and prevent the occupant from sliding forward. It will not protect you in an accident.

You can adjust your protective belt according to the comfort of the occupant. The protective belt is to support the user and prevent the occupant from sliding forward.

Install the seat belt:

- When using the wheelchair, make sure that the seat belt has bound the body from the waist to the lower part of the wheelchair back frame.
- Adjust the seat belt according to the comfort of the user:
 1. After sitting down, insert the plastic card into the plastic case on the other side until you hear a click.
 2. Adjust the protective tape at the plastic card to an appropriate length, so as not to be too tight to cause discomfort.

Untie the safety belt:

- Press the button at the end of the plastic shell and pull out the plastic buckle.



Warning

Before each use, make sure that the protective belt is properly fixed on the electric wheelchair and adjusted to the most comfortable state for the user.

Before each use, check whether the protective belt is loose or damaged. If you find a problem, please contact the supplier for maintenance and repair.

Joystick installation

According to different user needs, the control panel can be installed on the left or right armrest.

1. As shown in figure D1, insert the control lever into the inner hole of the armrest tube and make sure it is inserted in place, and then lock the lever fixing knob.
2. As shown in Figure D2, align the direction of the socket notch, and insert the four-pin plug of the controller joystick into the small socket on the left.

D1

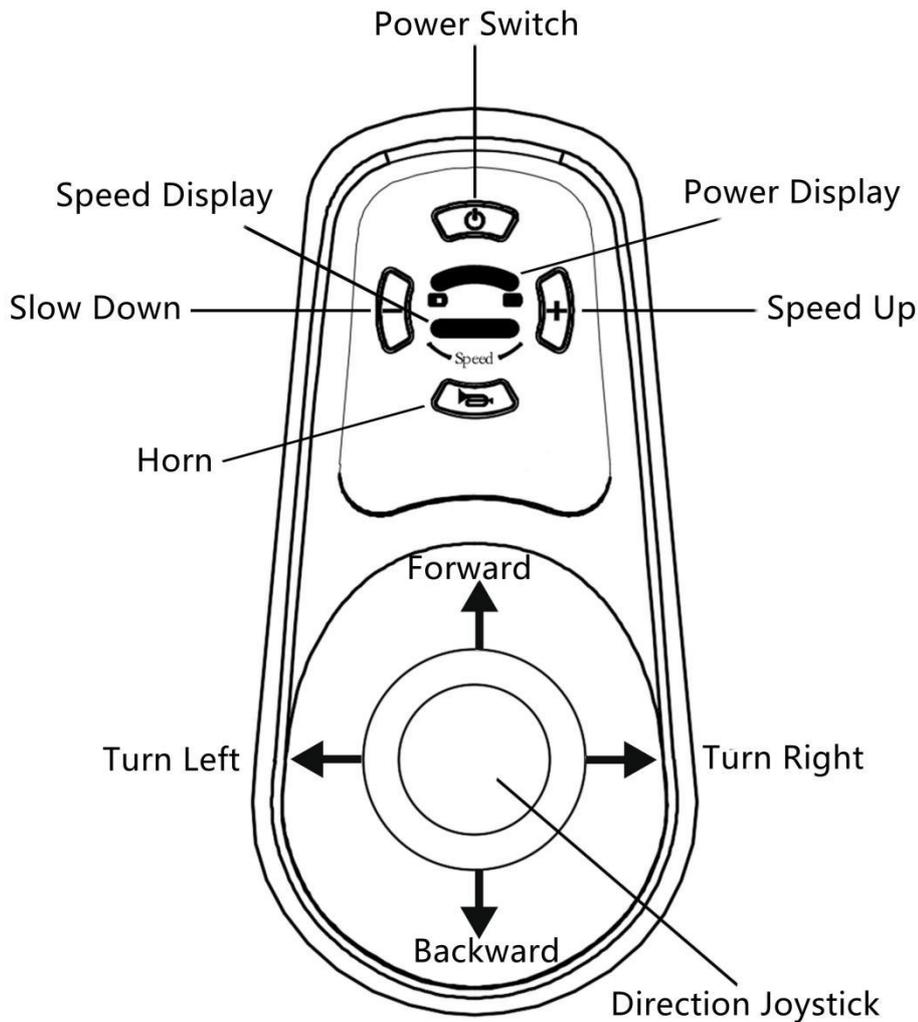


D2



Manipulation Guide

The control panel controls the movement of the electric wheelchair. It consists of the following parts:



1. Power switch: Press this button to turn on and off the power of the electric wheelchair.
2. Acceleration button: Press this button to increase the speed. The top speed is 6 kilometers per hour (3.75 miles per hour).
3. Slow down button: Press this button to decrease the speed.
4. Horn: Press this button, the horn will sound, release it to stop.
5. Power display: Display the battery power status.
6. Control lever: The joystick controls the direction and speed of the electric wheelchair, push the joystick in the direction you want to go. (For details, please refer to the chapter "Using the joystick to drive the wheelchair").
7. Light switch: Press the small light to turn on, then press to close.
8. Parameter setting indicator light (speed/information diagnosis indicator light): The

light is on to indicate the function, and the light indicates the meaning of the display: there are a total of 10 lights. The indicator light flashes intermittently to provide diagnostic information. Please refer to the table below for details.

Use the joystick to drive the wheelchair

9. Fault display: When the power is turned on, it will flash if there is a failure.



1. When driving at high speeds, don't make sharp sharp turns.
2. Failure to follow the warning may cause the electric wheelchair to tilt, and may result in injury to the user or damage to the product.
3. The joystick is located behind the control panel, it can control the speed and direction smoothly. It is equipped with 360-degree omni-directional mobility and easy operation. The control rod is equipped with a spring, which can automatically return to the initial intermediate state.
4. To push the joystick in the direction you want to go, the joystick has the ability to proportionally control the drive. The greater the pushing range, the faster the speed. The maximum speed is limited to 6 km/h (3.75 mph).
5. If you want to slow down the wheelchair, just release the joystick. The wheelchair will automatically decelerate and correct the direction in the smallest range.
6. When learning to drive this electric wheelchair for the first time, you should choose a slower speed to try, and gently tilt the control lever forward. This exercise will help you learn how to control an electric wheelchair, and let you slowly understand and familiarize yourself with how to control the force, and smoothly master the methods of starting and stopping the electric wheelchair.

To drive an electric wheelchair, please do the following:

1. Adjust the control panel to the appropriate settings.
2. Turn on the power. Please refer to the previous section "Press the power on/off button" for operation.
3. Move the joystick in the following way:

Movement	Operating lever
Forward	Push the lever forward
Backward	Pull the lever back
To the right	Push the lever to the right
To the left	Push the lever to the left
Stop	Release the lever (the wheelchair will slow down soon)

Use of horn

Press the horn button located on the control panel, and use the horn when passing people.

Braking Instruction

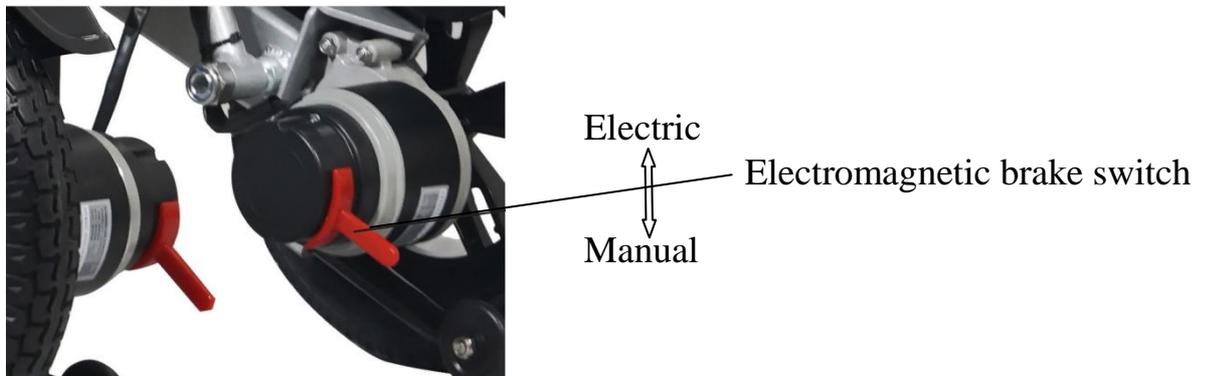


Warning

After any adjustment, repair or maintenance, please make sure to tighten all additional parts before use, otherwise it may cause injury or damage.

When the power is not turned off, do not turn on or turn off the electromagnetic brake.

The electromagnetic brake can be controlled by the operation of the handle: push forward in manual mode (meaning that the electromagnetic brake is released and the wheels can roll freely) or push backward in electric mode (refer to the electromagnetic brake acting to lock the free rolling of the wheels), push After the manual mode, the wheelchair can be easily pushed by the escort (as following picture)



Battery Instruction

Battery Usage



Do not use batteries of different capacities, and do not use batteries of different brands and types. Replace all batteries at the same time. Do not mix old and new batteries.



The positive and negative poles of the battery cannot be connected with conductive objects such as metal. If the connection will cause a short circuit, it may cause electric shock and cause accidental injury.



Do not approach flammable materials. Do not approach or expose to heat sources, such as open flames or sparks. Do not transport the battery with flammable or combustible materials.



There are corrosive chemicals in the battery box, so it is strictly forbidden to disassemble the battery without permission.



It is strictly forbidden to short-circuit the battery or throw the battery into the fire to avoid an explosion accident.



Precautions for Charging

1. Do not try to use pliers or cable wires to directly connect the battery terminals to charge the battery.
2. Do not use an electric wheelchair while the battery is charging.
3. Do not use non-standard power sources (such as generators or inverters), even if their voltage and frequency seem to meet the requirements. ★
4. Prevent the power cord from being stepped on, squeezed and severely bent, especially at the port. Prevent the power cord from being yanked or knotted. ★
5. Keep children and pets away from the power cord, and don't let them chew or chew on the power cord. When unplugging the power cord, hold the plug and pull it out.
6. If the circuit breaker (circuit fuse) trips several times during charging, please unplug the charger immediately and contact the dealer or professional technicians.
7. This electric wheelchair is designed with an electronic locking anti-driving device to prevent the electric wheelchair from being driven while charging.
8. The battery warranty and performance indicators mentioned in this guide are all for lithium-ion batteries.
9. Do not smoke or ignite near the battery.
10. Ambient temperature suitable for battery use.
11. The ambient temperature and its consequences where the battery is not suitable for use.



1. After the initial use of the new battery, the first time it is charged, it must be fully charged (approximately 24 hours) to ensure that the battery is fully activated.
2. Before the first use, charging the battery will reduce the service life of the battery (the battery should be used up for the first time, and then start charging, so that the battery can be fully activated.)
3. Check whether the power supply is sufficient before use, and charge it in time when the power is insufficient. When the power is exhausted, charging takes 6-8 hours until the yellow light on the charger turns to orange. ★
4. The recommended range of charging time for each battery is about 6 to 8 hours.
5. Charge the battery frequently. As long as the electric wheelchair is used, charge the battery after use until it is fully charged. If the electric wheelchair is not used for a long

time, please recharge the electric wheelchair every 2 months, and charge about 80% of the electricity each time. If the battery is out of power for a long time, the battery will be damaged, the battery will be unusable, and the electric wheelchair will be damaged seriously. ★

6. If you use batteries of incorrect specifications, voltage and capacity, your electric wheelchair may be damaged, and the electric wheelchair may not achieve the best performance and effect.

Battery installation/removal



Please make sure that the power of the wheelchair is turned off before performing this operation.

Remove the battery:

Press the buckle inside the handle of the battery box with your fingers (as shown by the arrow in Figure F1), and at the same time grab the handle of the battery box and pull it out (Figure F2).



F1



F2

Install the battery:

Grasp the handle of the battery box, align the bottom of the battery with the battery tube and insert it (make sure to insert it all the way, so that the inside of the handle of the battery box-the buckle pops out, and the battery box is connected to the socket contacts on the frame), the left and right sides are the same.

Battery charging

1. It can be charged with standard AC power (AC 110-220 V, 50-60 Hz), and the charging port is under the front of the control panel.
2. Make sure to turn off the power of the electric wheelchair before charging.
3. Insert the charging port of the charger into the charging port on the front bottom of the control panel (as shown in Figure G1), or directly insert the charger into the charging port at the battery handle to connect for charging (as shown in Figure G2).

4. Plug the end of the charger connected to the external power source into the power socket. When the yellow indicator light is on, it means it is charging.

5. When the charger indicator turns from yellow to orange, keep charging for another 30 minutes to ensure that the battery is fully charged, first unplug the charger socket of the external power supply, and then unplug the plug at the control panel.

6. Please charge in the environment temperature suitable for charging.

G1



G2



Over-discharge protection

When the battery of the electric wheelchair is nearly exhausted, the over-discharge protection device will protect the battery from over-discharge. The user should note that the maximum speed will decrease when the over-discharge protection device is activated.

In this case, please charge the battery as soon as possible.

Overcurrent protection device

This electric wheelchair is also equipped with an overcurrent protection device. If the current supplied to the motor becomes too large, the electronic fuse will shut off the current. When driving an electric wheelchair encounters a malfunction, the overcurrent protection device will be activated, and the driving wheel of the wheelchair will be blocked from turning during driving. In this process, the fuse will cut off the current to prevent damage to the motor from overheating. The signal indicator light on the control panel will show. (Refer to the control panel section for details)



Battery socket cleaning

1. Check the battery box and the positive and negative poles of the battery for corrosion.
2. Check whether the battery and plastic battery box are assembled in place.
3. Use a battery cleaning tool, wire brush or medium sandpaper to clean the battery port.

Note: After cleaning, the above parts should be bright and dry.

4. Carefully clean up all metal particles and dust.

5. Do not let battery materials come into contact with skin, clothing or other property. It is an acidic material and can cause harmful or destructive burns. If the material comes into contact with your skin, immediately wash the skin of the contact area thoroughly with cold water. If the condition is severe or if there is eye contact, seek medical attention immediately.

Fold and Unfold



After any adjustment, repair or maintenance, make sure to tighten all additional parts, otherwise it may cause injury or damage.

The weight of the wheelchair (including the battery seat back pad charger) is 29.5 kg. Please use the correct lifting method (raising your legs) to avoid injury. It is strongly recommended that when lifting and moving the electric wheelchair, first remove the occupant from the wheelchair, and then move the wheelchair. If you want to move the wheelchair and the occupant together, you must be fully prepared for safety, and two movers must move it together. Make sure to grab the non-detachable part to lift the electric wheelchair.

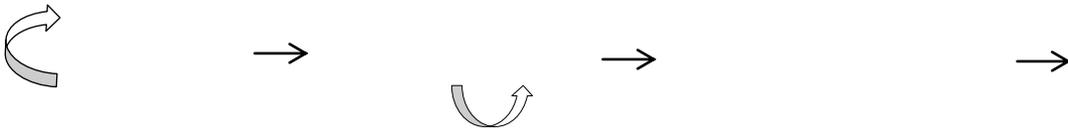
Wheelchair folding method

Step:

1. Remove the seat cushion from the wheelchair.
2. Grab the safety buckle under the backrest frame and open it up.
3. Grasp the backrest frame with one hand, and hold the lower support frame of the frame with one hand, and at the same time, fold the two hands to the inside until they fit together.
4. Loosen the knob under the armrest to the right and pull out the upper controller and place it in the storage bag. The wheelchair is folded.

For the process, please refer to the figure below for details



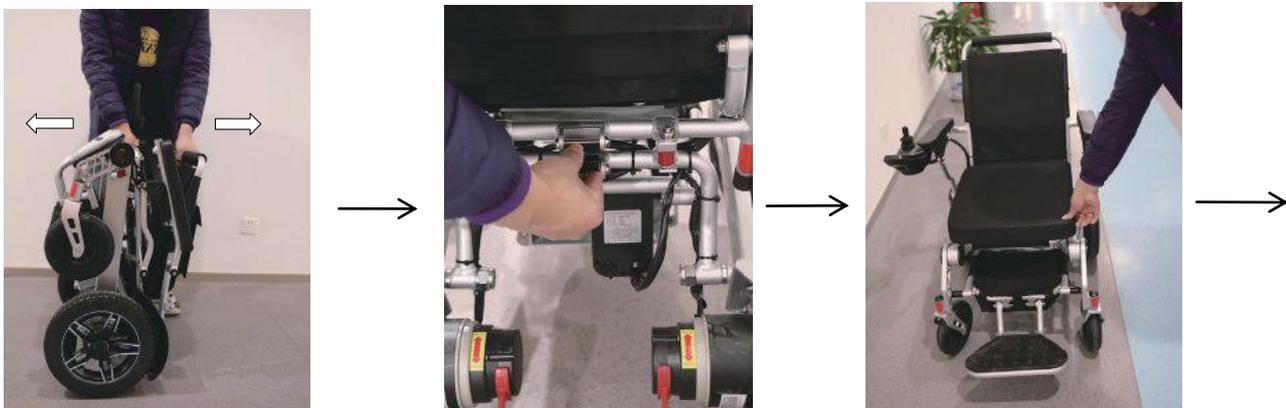


How to unfold the wheelchair

Step:

1. Grasp the backrest frame and push forward to fully open the wheelchair.
2. Push the safety buckle under the backrest frame forward so that the safety buckle is completely buckled with the lower support frame.
3. Align the seat cushion with the felt and stick it on the seat cushion cloth.
4. Align the support rod of the upper controller with the inner hole of the armrest tube and insert and straighten it.
5. Tighten the knob under the armrest tube.

For the process, please refer to the figure below for details





Faults and Troubleshooting Methods

There is an information diagnostic indicator on the control panel. When the indicator light turns into a green display state, it means that this electric wheelchair is not malfunctioning. When there is a fault state, it will be reported by the flashing of the corresponding indicator light.

If the indicator light indicates a fault, turn off the power switch button first, and then turn it on again.

If the fault is not resolved after turning it on again, and the indicator repeats this error message, please refer to the fault information diagnosis table to help you find possible problems and corresponding solutions.

If the above methods still cannot help you troubleshoot, please contact your dealer. When communicating with dealers, provide the specific status and information of the fault as much as possible.

System diagnosis

1. Introduction

When the product maintenance LED light flashes, it means that there is an abnormal situation in the electric wheelchair. The wrong warning information raised by the product components may occur in the motor, brake, battery, wire connection and the product itself.

The nature of the abnormal condition can be classified according to the diagnosis number. According to the maintenance, the LED light flashes several times, pauses, flashes several times, and repeats. The number of flashes is the diagnosis number. For example, the maintenance LED light flashes four times, pauses, flashes four more times, Repeatedly, it means that the left motor is abnormal. Five flashes means the right motor is abnormal.

Depending on the severity of the situation, the electric wheelchair may or may not stop driving. In some cases, electric wheelchairs are not allowed to drive.

2. Flashing code



Through the function of the built-in information consultation device in the product, the displayed diagnosis number can reflect the nature of the abnormal condition. These abnormal conditions can still be detected without using other service tools.

Light description	Sign meaning	Remarks
All LED lights are off and no sound	The power is off or in standby or the system is in sleep mode. The power cord is in poor contact, the fuse has tripped or burned out	
All LED lights are on	Power on. The product can be used normally after the power-on self-check is passed	Less LED light means less battery power
The leftmost red LED light is on. Meanwhile, the audible alarm sounds a short	Extremely low battery	Please charge it as soon as possible, it may be that the battery is broken and cannot be charged
The buzzer beeps two short sounds. The five-digit power indicator flashes twice	Left motor failure	The left motor is in poor contact or the wire is disconnected
The buzzer beeps three short sounds. The five-digit power indicator flashes three times	Left brake failure	The left brake is in poor contact, or the brake power switch is damaged
The buzzer beep four short sounds. The five-digit power indicator flashes four times	Right motor failure	The left motor is in poor contact or the wire is disconnected
The buzzer beep five short sounds. The five-digit power indicator flashes five times	Right brake failure	The right brake is in poor contact, or the brake power switch is damaged
The buzzer beep six short sounds. Five-digit power indicator flashes six times	The controller has overcurrent. Protection status	Check the brake, whether the motor drive mechanism is stuck, the current detected by the ammeter is unlikely to be a controller problem
The buzzer beep seven short sounds. The five-digit power indicator flashes seven times	Joystick failure	The joystick does not reset or the joystick wire is broken, there may be a loose connector
The buzzer beep eight short sounds. Five-digit power indicator flashes eight times	Controller internal fault	Please consult the dealer
The buzzer beep nine short sounds. The five-digit power indicator flashes nine times	Controller internal fault	Please consult the dealer

Warranty

Warranty Description:

Items	Warranty period	Remark
Main frame	One year	Inappropriate use, man-made sabotage or unauthorized modification cause failure, no warranty or maintenance fee will be charged.
Motor	One year	If the load exceeds the limit, the motor is overloaded or the motor is damaged by disassembling the motor privately, and it is not warranted.
Battery	Six months	If the battery is not charged in the correct way, or if the battery is opened privately, it will cause damage, and it will not be covered by the warranty. The company is not responsible for the accident.
Controller	One year	Inappropriate use, man-made sabotage or unauthorized modification cause failure, no warranty or maintenance fee will be charged.
Joystick	One year	Inappropriate use, man-made sabotage or unauthorized modification cause failure, no warranty or maintenance fee will be charged.

Warranty Description

No warranty coverage:

1. We do not guarantee:

a) Backrest cushions, seat cushions, armrests, backrest foamed cotton, and decorative parts are damaged after use.

b) Damage caused by negligent operation, accident, misuse, improper installation and repair.

c) Problems caused by product modification without the written consent of the manufacturer.

d) Damage caused by the load exceeding the maximum load.

2. This warranty card is non-transferable and is only for wheelchair purchasers.

As a distributor, the company's responsibility is to repair or replace damaged parts.

To the extent permitted by law, this warranty description will replace any other warranty guarantees (such as written or oral, express or implied guarantees, including guarantees of merchantability or suitability for specific purposes). All are based on this warranty description.

