

Please read this manual carefully before use

whizzi lite

Electric wheelchair Instruction manual



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Preface :

Thank you for purchasing the **ICON Rehab Whizzi Lite powerchair/electric wheelchair!**

This electric wheelchair is ultra-light and has been carefully researched and developed by ICON Rehab, featuring low carbon, environmental protection, high efficiency and energy saving during the manufacturing process. The whole vehicle is light, energy efficient, more user friendly and safe to operate.

Please read this manual carefully before use, so that you can use this device correctly and understand its various functions and maintenance requirements, to ensure that it remains in good condition and gives you many years of reliable operation.

Who would benefit from using this equipment

This powerchair is designed for those with limited ability to walk long distances, disabled persons as well as the elderly or infirm, who weigh less than 120KG,

Please note that this device is designed for use on pedestrian walk ways and at home. It is not designed for use on roads.

IMPORTANT SAFETY INFORMATION!



- Do not operate your electric wheelchair until you have read and fully understand this manual.
- Do not operate your wheelchairs until assembly and inspection is complete.
- It is suggested that people with developmental issues, slow reactions, poor spacial awareness, poor assessment of distance or hand control difficulty should not use this electric wheelchair.
- Do not attempt to get on or off the motorized wheelchair when the motors are disengaged (i.e. manual wheelchair mode) when there is no caregiver to stop the wheelchair moving.
- Do not drive your electric wheel-chair in violation of national and local traffic regulations.
- Do not make sharp turns at high speed
- Do not park the electric wheel-chair car on an incline or a ramp
- Never attempt to turn on a slope
- Do not use electric wheelchairs on sandy or soft ground
- Avoid driving on slopes greater than 8 degrees or over obstacles greater than 4cm
- Do not disassemble or change parts of electric wheelchairs or replace parts not manufactured by the company without permission

EMC warning statement

This electric wheelchair is designed to meet the requirements of electromagnetic compatibility of YY0505 and GB/T 18029.21 standards

The user should be aware of EMC information provided in the appendix of this document

Portable and mobile RF communications equipment may affect the performance of this electric wheelchair, we recommend avoiding areas of strong electromagnetic or radio interference when used such as close proximity to phone masts, microwave ovens, radio masts etc.

Please refer to the attachment at the end of this document for guidance and manufacturer's statement

Warning :



Do not use or fit 3rd party replacement cables and connectors except for cables & connectors sold by the manufacturer!

Other cables & connectors may result in increased emissions from the equipment.

The equipment or system should not be used in proximity to, or in combination with other equipment. If it must be used in proximity or combination with other equipment, it should be observed and verified to function properly in the configuration in which it is being used;



Warning signs should not be opened by non-professionals



There is high pressure



BF type applies partial tags



The environmental protection

IPX3

Level of penetration resistance

Equipment classification:

According to the management and classification of medical devices, electric wheelchairs belong to "nursing equipment & appliances (6856) management category second class.

Classified by operation mode: Continuous operation

Number of users: Single use of equipment

Classification by anti-electric shock: Internal power supply

Classification according to the the degree of anti-electric shock: BF application part

Classification according to degree of protection against liquid ingress/injection: IP3X

According to the classification of electric wheelchair: Outdoor electric wheelchair, suitable for outdoor medium distance driving.

Whizzy Powerchair features:



Whizzy Lite performance configuraton

Product type: Outdoor type	Climbing ability 6 degrees
Maximum speed 6km/h	Climbing obstacke height 40mm
User Max weight 120Kg	Dynamic stability 6 degrees
Maximum range per charge 20km	Breaking distance 1.5m
Motor power 150W x 2	Turning circle (radius) 1.2m
Operating temperature -25 to +50 degrees C	Operating noise 65DB
Power supply 24v 5.2Ah x 2	Max incline 9 degrees

Whizzy Lite important dimensions

Outer box size (mm) 580x340x920	Seat width 440mm
Unit weight 15Kg	Rear wheel diameter 12"
Front wheel diameter 8"	Dynamic stability 6 degrees

Whizzy Lite electrical parameters

Motor rated power - 150W x 2	Motor approved voltage - 24V
Battery voltage - 24V	Charger input - 220-240V
Battery Capacity - 5.2Ah	Charging current - 3A
Max current of controller - 45A	Dynamic stability 6 degrees

- The above parameters will vary according to the weight of the driver, road surface condition and battery usage.

Whizzy Powerchair - How to unfold

- 1 Remove the wheelchair from the container, hold a handle with one hand and press/put pressure on the front seat frame with the other hand pushing downward until the seat and the back of the chair are 90°, and it clicks/locks into place.

Do not use the electric wheelchair before the lock connecting the seat and the frame is firmly locked, if the seat is not locked, the consequences arising therefrom shall be your own.



The first step

The second step

The third step

The fourth step

- 2 Lower the footrest by pushing down at the front edge of the metal bar/footrest



Figure 1

- 3 **Installation and disassembly of anti-tippers:** Press the ball of anti-tilting wheel with finger and insert it into the pipe hole until the ball clicks into the receiving hole, you will be able to see the ball in place once it is in the correct position.

Disassembly: Press the silver ball with one hand, hold the anti-tipper with the other hand and pull it out backward (see figure 2) **Note:** the Anti-tipping system must be installed when using the wheelchair.



Figure 2

- 4 Insert the hand controller tubing into the fixing frame and connect the wire into the receiving clip.

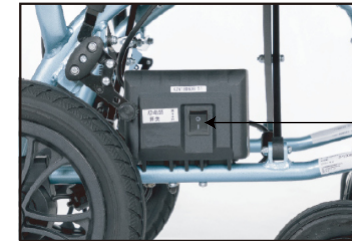


Insertion point

Figure 3

- 5 To turn the powerchair on, please press the "--" switch (" -- "means on," 0 "means off).If not used for a long time, please press the "o" switch.

If you do not intend to use the powerchair for a long time, the battery must be removed and charged once a month (batteries should not be stored for long periods with the battery fitted)



Main power switch
(Manual mode switch)

Figure 4

Directions for use:

- 1 Before getting into an electric wheel-chair, check the following conditions:

First, press down the manual brake (if fitted), in the wheelchair braked state, turn off the control power. Ensure the floor surface is flat so that the wheelchair is not prone to moving as you get onto the seat. If you do not have a manual brake fitted, have someone steady and hold the chair as you get into it.

Put the the footrest down once you are seated but do not step directly onto the footrest



Caution: Do not use the footrest to get on or off the wheelchair

2 Please fasten your seat belt when you get into the electric wheelchair.

Turn on the controller power button. The power display indicator will light up (as shown in Figure 5). At this time, the joystick should be in the middle position. Push the joystick and the electric wheelchair will start moving.

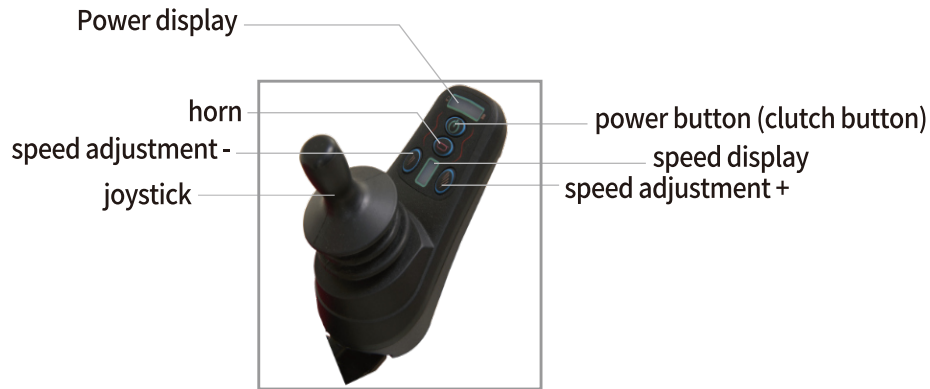


Figure 5

3 The joystick can control the direction and speed at the same time, slowly push the joystick to the driving direction, the electric wheelchair will start driving, increase the push range of the joystick and achieve acceleration, and vice versa, deceleration.

4 If you want to make the moving electric wheelchair stop, just release your hand, the joystick will reset to its central position, then press engage the manual brake (if fitted)

5 When parking on a ramp or incline, please use the lowest speed setting (first gear) when facing downhill, and the highest speed setting (third gear) when facing uphill, release the joystick handle, if the electromagnetic brake is not enough, you will need to engage the manual brake (activate the manual brake on both sides at the same time).



Figure 6

6 The speed adjustment button of the controller can adjust the speed of the electric wheelchair. The user should choose the maximum speed of the electric wheelchair according to their own physical capabilities and the road conditions.

Speed display: the default one gear when starting, if you need large power or high speed, please adjust "+" according to the speed, so that all three speed display lights will be on.

If you only require a little power or a low speed, please adjust "-" to reduce the speed.

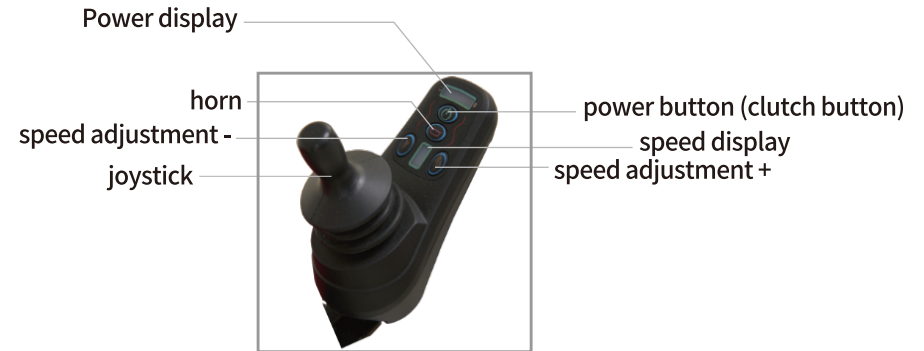


Figure 7

7 When pushing the electric wheelchair by hand, first turn off the control handle, and then turn off the main power switch (press down 0), you can easily push the electric wheelchair. Main power switch, manual mode switch.

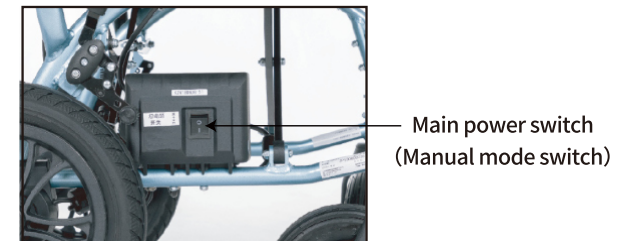


Figure 8

8 Electric wheelchairs are suitable for driving on flat surfaces & roads. For muddy, potholed and uneven roads, the transmission mechanism and control system of electric wheelchairs could be damaged.

9 Before getting off a bus, first turn off the power on the controller, press down the manual brake, and then lift up the footrest before getting off the bus.

Charging:

1 Turn on the power switch of the controller and the electric quantity indicator light at the front of the controller will light up. There will be 5 segments of lights (2 red, 1 yellow and 2 green) when the powerchair is at full charge. The lights will go off one by one when the chair is used, allowing you to see how much charge is left.

If the two red lights flash, do not use the wheelchair as it may be unsafe to continue to use, you need to charge your powerchair before use.

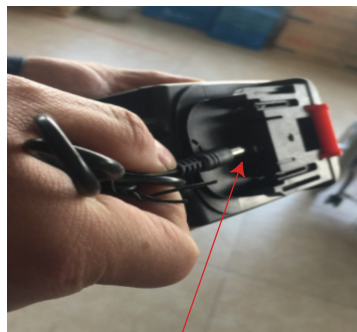


Power display 1,2 lights flash, serious power loss, prohibited use, timely charging.

2 Remove the battery, insert the charger plug into the battery charging port and insert the two boxes of plugs on the other end of the charger into the 220V power socket.



Main power switch
(Manual mode switch)



Charging mouth

3 When charging, please take off the battery, press the red button of the battery housing upwards and then the battery can be taken out. When installing the battery, aim the battery at the guide slot of the battery housing and push it to hear a click, which means the battery is secured.

4 If the wheelchair is not in use for a long time, please press the switch "O" (off). If the wheelchair is not in use for a long time, the battery needs to be removed and charged once a month. Do not allow the battery of the electric wheelchair to be stored without power for long periods otherwise this could damage the battery.

Folding up the powerchair:

First, lift the armrest to the highest position, hold the lock rod under the front end of the seat with one hand hold one of the wheelchair push handles with the other hand to push up the front end of the seat, fold the wheelchair and then fold up the footrest. See images below.



The first step



The second step



The third step



The fourth step

Fault determination processing :

Most of the failures of electric wheelchairs are related to the battery. Check the battery condition before changing parts.

Fault:	The reason:	Elimination method:
(after pressing the power switch, the indicator light does not work)	Loose power plug	Stuck tightly
	Low battery	charging
Turn on the controls. The wheelchair won't go	The charger isn't unplugged	Unplug the charger
Unable to move or move irregularly	Controller or motor failure	Contact seller
Battery fails to charge	Charger failure	Contact seller
	The ac power supply is abnormal	Check fuse or transformer
	The battery failure	Change the batteries
No straight line in advance (universal controller only)	First turn on the power (light on) 1. Press the horn + shift button 3-40 times (or more) if it is steering to the right. 2. Press the horn + shift button if the chair is steering to the left. 3. Press the shift up button + shift down button at the same time to restore the factory Settings.	

Product characteristics :

- By type of anti - shock classification: internal power supply equipment;
- Classification by degree of protection against electric shock: BF application part;
- According to the degree of protection into the classification: IPX3;
- Classification by degree of safety when used in flammable anaesthesia apparatus mixed with air or flammable anaesthesia gas mixed with oxygen or nitrous oxide: non-ao /APG type;
- Classification by operation mode: continuous operation;
- Internal power supply voltage: d.c.24V;
- No part of the application having a protective effect against defibrillation discharge;
- No signal output part;
- Non-permanent installation of products;

The maintenance :

1 Maintenance

Note: Unplug the battery and cut off the power supply before maintenance work
If necessary, adjust and replace worn parts, please find a professional maintenance.

Check cycle:	daily	weekly	monthly	every 3 months	every 6 months
Battery	✓				
Power Connection		✓			
Tire Pressure			✓		
Hand Brakes			✓		
Battery Terminals				✓	
Cables				✓	
Frame Outer Surface				✓	
Lubrication Components				✓	
Cleaning Cushion					✓
Bearings					✓
Tyres					✓
Electromagnetic Brakes					✓

- 2 Chair cover and backrest: Please remove it and clean the chair cover and leather backrest with warm water and diluted soapy water, and avoid putting the electric wheel chair in a wet place.
- 3 General maintenance: do not use lubricant to maintain the wheelchair.
Check the screws and screws regularly to see if they are firm and reliable.
- 4 Do not flush any parts of the wheelchair with water.

Maintenance contents and instructions :

- 1 **Battery:** Check the remaining battery power. If the battery life is over i.e. does not retain power, or charge fully then the battery needs to be replaced, you can contact the supplier or buy batteries with the same specifications locally
- 2 **Tyre pressure:** it is recommended that 12*1.75 and 8*2 tires be inflated to 345kpa, and 12 1/0*2 1/4 wheelchairs to 240kpa. (for pneumatic tyres only - not required with solid tyres)
- 3 **Electrical wiring:** check whether the main power connection is securely fitted (the connector has a service life), electrical parts and connecting wires, check whether there is any damage or wear, if there is, please contact the supplier or find a professional qualified personnel to deal with, do not try to repair by yourself.
- 4 **Manual (Hand) brake:** If fitted it is used to prevent the electric wheelchair from moving when parking. It is not used as a brake when driving.
- 5 **Electromagnetic braking:** is the main driving brake. Inspection method: drive straight ahead, then release the controller joystick, measure the distance from when the joystick was released to where the wheelchair stopped, if the distance is more than 1.5 m, you should contact the supplier to repair.
- 6 **Lubrication and bearings:** check for oil leakage or any noise increase; if so, contact the supplier.

Limited warranty :

This quality assurance service is only valid for the original purchaser of this product. Parts not manufactured by the company or parts added by the company after the purchase of complete vehicles are not included in the scope of this quality assurance service, and product damage caused by user's failure to operate, maintain or improper storage and transportation as required by this manual is not included in the scope of essential warranty service.

Battery safety:

- 1 First of all, thank you for using our electric wheelchair. Second, please pay attention to the following matters in daily use:
 - a) Please timely check and cut off the power if anything abnormal is found during charging.
 - b) avoid near the heat source or more than 50 ° environment using battery.
- 2 Do not disassemble or damage the battery. In case of serious battery impact, please contact the manufacturer immediately.
- 3 Once the battery is soaked in water during use or storage, it must be sent back to the manufacturer for testing before normal use.
- 4 Precautions for battery use:
 - a) Please charge the battery in normal indoor environment.
 - b) Please charge the battery with a professional charger.
 - c) Do not charge the battery for more than 8 hours when using the supporting charger.
 - d) Be sure to keep away from flammable and explosive materials during charging and storage.
 - e) Charge while being watched.

Waste disposal :

- 1 When the battery is recycled or discarded, be sure to use tape to insulate part of the electrode. Contact with other metals will lead to battery heating, rupture or fire.
- 2 Please send the used batteries to the company's authorized maintenance service center or recycler, or dispose of them according to local regulations.

Electromagnetic interference :

The electromagnetic wave emitted by this product may interfere with the medical equipment of the hospital. Please be sure to comply with the regulations of the hospital when using in the hospital and other places.

Radio waves (radio, television, amateur radio transmitters, walkie-talkies, mobile telephones) affect electric wheelchairs. Following these warnings will reduce the risk of loss of control or brake failure, which can lead to serious injury or equipment damage.

- 1 Do not turn on handheld communication devices, such as medium and short-wave radios and mobile phones, while the motorized wheelchair is open;
- 2 Notice nearby transmitters, such as radio or television stations, and try to avoid them;
- 3 In case of out-of-control wheelchairs or brake failure, shut down the electric wheelchairs as soon as possible;
- 4 Be aware of additions or modifications to attachments that may increase sensitivity to radio waves (note: it is not easy to assess their effects in electric wheelchairs);
- 5 Report to the wheelchair manufacturer if the wheelchairs are out of control or if the brakes are not working, and note if there is a radio source nearby.


Attachment :

Guidance and manufacturer's statement - electromagnetic emission		
Electric wheelchairs are intended to be used in normal electromagnetic environments, such as home, on the pavement, shopping centres and offices, the purchaser or user of the electric wheelchairs shall ensure that it is not used in environments where there could be high/strong electromagnetic interference such as near radio masts and mobile communications towers as this could affect the operation of the powerchair		
Launch Tests	conformance	Electromagnetic Environments-Guide
GB4824	one group	Electric wheelchairs use RF energy only for their internal functions, so their RF emissions are low and not interfere with nearby electronics.

Guidance and manufacturer's statement - electromagnetic immunity			
Electric wheelchairs are intended to be used in normal electromagnetic environments, such as home, on the pavement, shopping centres and offices, the purchaser or user of the electric wheelchairs shall ensure that it is not used in environments where there could be high/strong electromagnetic interference such as near radio masts and mobile communications towers as this could affect the operation of the powerchair			
Immunity test	IEC60601, GB/T18029.21 test level	In line with the level	Electromagnetic environment - guidelines
Electrostatic discharge (ESD) GB/T 18029.21 GB/T 17626.2	±6kV contact discharge ±8kV air discharge	±6kV contact discharge ±8kV air discharge	The floor should be wood, concrete or tile, and if it is covered with synthetic material, the relative humidity should be at least 30%.
Power frequency magnetic field (50/60hz) GB/T 18029.21 GB/T 17626.8	30 A/m	30 A/m 50/60 Hz	The power frequency magnetic field should have the horizontal characteristics of the power frequency magnetic field in a typical business or hospital environment.
Note: U _i means the ac network voltage before the test voltage is applied.			

Guidance and manufacturer's statement - electromagnetic immunity

Electric wheelchairs are intended to be used in the following specified electromagnetic environments. Purchasers or users of NPL001, NPL002 and NPL003 electric wheelchairs should ensure that they are used in such electromagnetic environments:

Immunity test	IEC60601, GB/T18029.21 test level	In line with the level	Electromagnetic environment - guidelines
The RF transmission GB/T 18029.21 GB/T 17626.6	3 Vrms 150 kHz to 80 MHz	Do not apply	Portable and multi-mobile RF communication equipment shall not be used closer to any part of the electric wheelchairs than the recommended isolation distance, including cables. The distance shall be calculated by a formula corresponding to the transmitter frequency. $d = 1.2\sqrt{P}$
RF radiation (charger) GB/T 18029.21 GB/T 17626.3	3 V/m 80 MHz to 1.0 GHz 20 V/m 26 MHz to 2.5 GHz	3 V/m 20 V/m	$d = 1.2\sqrt{P}$ 80 MHz to 800 MHz $d = 2.3\sqrt{P}$ 80 MHz to 1.0 GHz $d = 0.2\sqrt{P}$ 26 MHz to 800 MHz $d = 0.4\sqrt{P}$ 800 MHz to 2.5 GHz
RF radiation (wheelchairs) GB/T 18029.21 GB/T 17626.3			Where, P is the maximum output rated power of the transmitter provided by the transmitter manufacturer, in watts (W); d is the recommended isolation distance, in meters (m). The field strength of a stationary RF transmitter is determined by surveying the electromagnetic field and should be lower than the coincidence level at each frequency range. Interference may occur near devices that mark the following conformance. 

Note 1: at 80MHz and 800MHz frequencies, the higher frequency band formula is used.
Note 2 these guidelines may not be appropriate for all situations where electromagnetic transmission is affected by absorption and reflection by buildings, objects and the human body.

A. fixed transmitter field, such as wireless cellular/cordless phones and ground mobile radio base station, amateur radio, AM (amplitude modulation) and FM (frequency modulation) radio and television broadcasting, etc., the field intensity in theory are NPL001, NPL002, NPL003, if this signal is too strong it may interfere with the electric wheelchair, check that the wheelchair operates normally in these environments, if abnormal performance is observed then supplementary measures may be required, such as moving or positioning of electric wheelchairs away from the signal source.

B. In the whole frequency range of 150KHz-80MHz, the field intensity should be lower than 3V/m.

The recommended isolation distance between portable and mobile RF communication equipment and electric wheelchairs

The electric wheelchair is intended for use in a controlled electromagnetic environment with radiated RF harassment. Depending on the maximum power output of the communication equipment, buyers or users of electric wheelchairs can prevent electromagnetic interference by maintaining the minimum distance between portable and mobile RF communication equipment (transmitters) and electric wheelchairs as recommended below.

The rated maximum output power of the transmitter in / W	Isolation distance /m for different frequencies of the transmitter				
	150 kHz ~ 80 MHz $d = 1.2\sqrt{P}$	80 MHz ~ 800 MHz (The charger) $d = 1.2\sqrt{P}$	800 MHz ~ 1.0 GHz (The charger) $d = 2.3\sqrt{P}$	26 MHz ~ 800 MHz (wheelchair) $d = 0.2\sqrt{P}$	800 MHz ~ 2.5 GHz (wheelchair) $d = 0.4\sqrt{P}$
0.01	0.12	0.12	0.23	0.02	0.04
0.1	0.38	0.38	0.73	0.06	0.13
1	1.2	1.2	2.3	0.2	0.4
10	3.8	3.8	7.3	0.63	1.26
100	12	12	23	2	4

For the maximum output rating of the transmitter not listed in the table above, it is recommended that the isolation distance d , in meters (m), be determined by the formula in the corresponding transmitter frequency column, where P is the maximum output rating in watts (W) provided by the transmitter manufacturer.

Note 1: The formula for the higher frequency range is used at 80MHz and 800MHz frequencies.
Note 2: These guidelines may not be suitable for all situations. Electromagnetic propagation is affected by absorption and emission from buildings, objects and the human body.

International wheelchair warranty card (Customer)

Warranty instructions:

- 1 (motor, controller, charger) warranty for one year, other parts are not covered by the warranty;
 - a) The battery will directly affect the service life of the battery and reduce the range with the number of charging or power loss. If you do not use electric wheelchair for a long time, you must charge it once a month.
 - b) Wheelchairs have different wear and tear on tires due to different road conditions.
- 2 The warranty card shall be provided during the warranty;
- 3 The following situations are not covered by the warranty:
 - a) No warranty card;
 - b) The product model recorded on the warranty card is inconsistent with the maintenance product model or has been altered;
 - c) Improper use of goods and other accidental and man-made damage;
 - d) If any non-technical personnel of our company change the product structure or do not use the original parts of our company for maintenance, the warranty period will be cancelled, and the company will not be responsible for the losses caused thereby;
 - e) Damage caused by unpredictable natural disasters;
 - f) Other damages not caused by quality problems.
- 4 For products that exceed the warranty period or are not within the warranty scope, the company will still provide you with maintenance services during the use period, but the company shall charge the accessory fees and appropriate on-site maintenance service fees according to the "retail accessory price list".
- 5 Due to the continuous improvement of the product, there may be some differences between the specific product and the description in the manual. These differences will not affect the structure and safety.

Sales unit information (please fill in by the dealer) Consumer information:

Name:	Name:
Address:	Address:
Contact number:	Contact number:
Zip code:	Zip code:

Product information:

Product model:
Date of purchase:

International wheelchair warranty card (Company)

Warranty instructions:

- 1 (motor, controller, charger) warranty for one year, other parts are not covered by the warranty;
 - a) The battery will directly affect the service life of the battery and reduce the range with the number of charging or power loss. If you do not use electric wheelchair for a long time, you must charge it once a month.
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Name:	Name:
Address:	Address:
Contact number:	Contact number:
Zip code:	Zip code:

Product information:

Product model:
Date of purchase:

Maintenance record (customer retention) :

Maintenance record 1				
Send a date	Fault description	The cause of the problem	Submit the date	Maintenance man
Handling:				
Maintenance record 2				
Send a date	Fault description	The cause of the problem	Submit the date	Maintenance man
Handling:				
Maintenance record 3				
Send a date	Fault description	The cause of the problem	Submit the date	Maintenance man
Handling:				
Certificate of return and replacement:				

Maintenance record (company retention) :

Maintenance record 1				
Send a date	Fault description	The cause of the problem	Submit the date	Maintenance man
Handling:				
Maintenance record 2				
Send a date	Fault description	The cause of the problem	Submit the date	Maintenance man
Handling:				
Maintenance record 3				
Send a date	Fault description	The cause of the problem	Submit the date	Maintenance man
Handling:				
Certificate of return and replacement:				