



H5 electric wheelchair Instruction Manual

Manufactured by: Shanghai Hubang Intelligent Rehabilitation Equipment Corporation
Distributed by Proactive Mobility Ltd.

Proactive Mobility Ltd

Introduction

Thank you for purchasing the H5 electric wheelchair. This ultra-light electric wheelchair has been carefully researched and developed by Hubang Company for the market. The whole vehicle is lighter, more flexible and safe to operate.

Please read this manual carefully before use, so that you can better use the electric wheelchair and understand its various functions, and to also comply with the requirements of maintenance, to ensure that the wheelchair is always in good condition.

Use

For use by persons with mobility difficulties weighing less than 100KG, but with complete behavioral ability or nursing staff care.

Not for use on a public highway.

Safety precautions

- Do not operate your electric wheelchairs 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 slow reactions and difficulty in coordination should not use this electric wheelchair
- Do not get on or off the motorized wheelchair when the power is on or the motorized wheelchair is in a manual state and there is no caregiver to operate the wheelchair
- 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 wheelchair on a ramp without applying the parking brakes
- Never 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 4 cm
- Do not disassemble or change parts of electric wheelchairs or replace parts not manufactured by the company without permission

EMC Warning Statement

- The electric wheelchairs produced by the company meet the requirements of electromagnetic compatibility of YY0505 and GB/T 18029.21 standards.
- The user should be aware that portable and mobile RF communication equipment such as close proximity to mobile phones, microwave ovens etc. may affect the performance of electric wheelchairs.
- Avoid strong electromagnetic interference when is use.
- Please refer to the attachment for the guidance and manufacturer's statement.

Warning

Use only accessories supplied by the manufacturer otherwise increased emissions from cables may cause operational problems.

The wheelchair should only be operated when fully unfolded.

Explanation of Symbols



Warning signs should not be opened by non-professionals



High electrical current



BF type applies partial tags



Environmental protection

IPX3

Level of moisture penetration resistance

Classification

- According to the management classification of medical devices, this electric wheelchair belongs to the ward nursing equipment and appliances (6856) management category: second class
- Classified by operation mode: continuous operation
- According to the number of users: for use by one person at a time
- Classification by anti-electric shock type: internal power supply; Classification according to the degree of anti-electric shock: BF application part
- Classification according to the degree of protection against moisture: IP3X
- According to the classification of electric wheelchairs: electric outdoor wheelchairs, suitable for

The overall graphic



H5 Specifications

Seat width: 460mm
Seat height: 500mm
Weight: 17kg
Front wheel diameter: 8 inches
Rear wheel diameter: 12 inches
Max user weight: 100kg
Maximum speed: ≤ 6 km/h
Maximum gradient: 8°
Battery: 24V 5.2 AH x 2
Motor power: 150W x 2
Charging current: 3A
Maximum output current of the controller: 45A
Horizontal braking distance: ≤ 1.5 m
Noise: < 65 DB
Turning radius: ≤ 1.2 m
Dynamic stability: $\geq 6^\circ$
Climbing obstacle height: ≥ 40 mm
Use ambient temperature: $- 25^\circ - + 50^\circ$
Outer box size (mm) : 68 x 35 x 74

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

Unfolding the wheelchair

1. Remove the electric wheelchair from the packaging box.
2. Fold down the footrests.
3. Press down on both sides of the seat with both hands until the cushion and back of the wheel chair are fully unfolded (as shown in the figure).



2. Install and store movable hanging feet. Installation: lower the hanging foot to the bottom. Put away: fold the seat cushion in half before putting away the feet.



Figure 1

3. Installation and disassembly of anti-tilting wheel.

Installation: press the ball of anti-tilting wheel with finger and insert it into the pipe hole until it is sure that the ball is buckled. Disassembly: hold the marble with one hand, hold the tilting wheel with the other hand and pull it out backward. (see figure 2) Anti-tilting wheel must be installed when using.



Figure 2

4. Insert the controller lever into the fixing frame and insert the wire into the wire clip.



Figure 3

5. When in use, please press the “-” switch (“-” means on, “o” means off). If not used for a long time, please press the “o” switch. If not applicable for a long time, the battery must be removed and charged once a month. (electric wheelchair batteries should not be stored in the battery)



Figure 4

Directions for use

Before getting into an electric wheel-chair, check the following conditions:
First, press down the manual brake, in the wheelchair brake state, turn off the control power

1. Turn up the pedal and put it down after sitting on the electric wheelchair.
Caution: do not put foot pedal up and down the electric wheelchair, which may cause the tipping of the electric wheelchair.

2 After you get into the electric wheelchair, please fasten your seat belt. Turn on the controller power button. The indicator light will be on (FIG. 7) and the joystick should be in the middle position.



Figure 7

3 The joystick can control the direction and speed at the same time, and slowly push the joystick towards the driving direction. Then the electric wheelchair will start driving, increase the driving range of the joystick and realize acceleration, otherwise, it will slow down.

4 To stop the moving electric wheelchair, just release your hand and reset the joystick. Press down the braking force to realize smooth parking.

5 When parking on the ramp, if the electromagnetic brake is not strong enough, manual brake parking device should be used (press both manual brake parking devices).



Figure 11

6 The speed of the controller can adjust the speed of the electric wheelchair. The user should choose the maximum speed of the electric wheelchair according to his/her physical condition and road condition. Speed display: it is the default gear when starting. If you need big power or high speed, please adjust "+" by speed to make all three speed display lights on. If you need small power or low speed, please adjust "-" by speed.



Figure 12

- 7 When pushing the wheelchair, first turn off the control handle (do not turn off the main power switch), please press the "manual mode button" to push the wheelchair easily. If the power suddenly goes out when driving, the control handle will automatically shut down.



Main power switch
manual mode button

- 8 Electric wheelchair is suitable for driving on flat road, which will cause damage to transmission mechanism and control system of electric wheelchair on muddy, potholed and uneven road.

- 9 Before getting off, first turn off the power of the controller, press down the braking force, then turn up the pedal, and then get off.

Charging

- 1 Turn on the power switch of the controller, the power indicator light in the front row will be on, and the full power will be 5 lights (2 red, 1 yellow, 2 green), the power will be more or less, their color will not change, the second is to change the number of lights. The lights will go off one by one when in use. When two red lights flashing, serious power loss, prohibit continued use, timely charging.



Power display 1 or 2 flashing lights,
serious power loss, prohibit use, timely charging.

- 2 Remove the battery, plug the charger into the battery charging port, and plug the two box plugs at the other end of the charger into the 220V power socket.



charging port
Switch

- 3 when charging, please take the battery down, the battery red button down, the battery to the outside, you can remove the battery, when loading the battery, the battery to the battery seat guide slot, advance to hear a click, the battery is fixed.

- 4 If the wheelchair is not used for a long time, please press the "o" switch. If it is not used for a long time, please remove the battery and charge it once a month. (electric wheelchair batteries should not be stored in the battery)

Folding transportation

Hold the seat with both hands and pull it up in the middle. Fold back the back of the chair and fold the wheelchair.



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 is not 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 electrical fish or transformers
	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 skewed to the right.	
	2. Press the horn + shift button if the car is deflected 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

- Maintenance

Note: the battery plug must be turned off at 8 o'clock before maintenance
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 brake			✓		
battery terminal				✓	
wire				✓	
exterior surface of frame				✓	
Lubricating components				✓	
clean seat cushion					✓
bearing					✓
tire					✓
electromagnetic braking					✓

- Cover and back of chair: remove the cover and back of chair. Wash the cover and back of chair with warm water and diluted soapy water.
- General maintenance: do not use lubricant to maintain the wheelchair. Check the screws and screws regularly for firmness and reliability
- Do not flush any part of the wheelchair with water

Maintenance contents and instructions

- Battery: mainly check the remaining battery power. If the battery life is over and the battery needs to be replaced, you can contact the supplier or buy batteries with the same specifications locally
- Tire 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.
- Electrical appliances: check whether the connection is reliable (the connector has a service life, please do not unplug it easily if it is unnecessary), electrical parts and connecting wires, check whether there is any damage or damage, if there is, please contact the supplier or find a professional qualified personnel to deal with, do not try to repair by yourself.

- 4 Hand brake: it is used to prevent the wheelchair-car from moving after parking. It is not used as the brake when driving.
- 5 Electromagnetic braking: it is a driving brake. Inspection method for asphalt in split allow wheelchairs to maximum speed driving straight ahead, then loosen the controller joystick, make its automatic recovery in situ, measuring the distance from the release lever to stop, if the distance is larger than the original, is fallen, braking effect if the distance is more than 1.5 m, you should contact the supplier to repair.
- 6 Lubrication and bearing: check for oil leakage or noise increase; if so, contact the supplier.

Limited warranty

- 1 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.

Warm prompt

- 1 First of all, thank you for using Hubang 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 stopped and 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, fixed 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 the following specified electromagnetic environment, and the purchaser or user of the electric wheelchairs shall ensure that it is used in such electromagnetic environment		
Launch experiments	complex	electromagnetic environment - guide
GB4824 RF emissions	Group 1	Electric wheelchairs use RF energy only for their internal functions, so their RF emissions are low and may not interfere with nearby electronics.

Guidance and manufacturer's statement - electromagnetic immunity			
Electric wheelchairs are intended to be used in the following specified electromagnetic environment, and the purchaser or user of the electric wheelchairs shall ensure that it is used in such electromagnetic environment:			
Immunity test	IEC60601, GB/T18029.21 test level	In line with the level	Electromagnetic environment - guidelines
Electrostatic discharge (ESD) GB/T18029.21 GB/T17626.2	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	30A/m	30A/m 50/60Hz	The power frequency magnetic field should have the horizontal characteristics of the power frequency magnetic field in a typical business or hospital environment.
Note: Ut 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/T18029.21 GB/T17626.6 RF radiation (charger) GB/T18029.21 GB/T17626.3 RF radiation (wheelchairs) GB/T18029.21 GB/T17626.3	3 VRMS 150 KHZ to 80 MHz 3 v/ms 80 MHz to 1.0 Ghz 20 v/ms 26 MHz to 2.5 Ghz	Do not apply 3 v/M 20 v/M	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. 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, NPL003 NPL002, electric wheelchair, field strength is higher than the place of the application of RF in line with the level, the electric wheelchair should be observed to verify their can run normally, if the observed abnormal performance of the supplementary measures may be required, such as directional or positioning of electric wheelchairs. B. In the whole frequency range of 150khz-80mhz, the field intensity should be lower than 3V/M.			

Recommended isolation distance between portable and mobile RF communication equipment and electric wheelchairs					
Electric wheelchairs are expected to be used in an electromagnetic environment where RF radiation harassment is controlled. Depending on the maximum output power of the communication equipment, the purchaser or user of an electric chair vehicle may prevent electromagnetic interference by maintaining the minimum distance between a portable and mobile RF communication device (transmitter) and the electric chair vehicle as recommended below.					
The rated maximum output power of the transmitter /W	The rated maximum output power of the transmitter /W				
	150 kHz ~ 80 MHz	80 MHz ~ 800 MHz (charger)	800 MHz ~ 1.0 GHz (charger)	26MHz ~ 800 MHz (wheelchair)	800 MHz ~ 2.5 GHz (wheelchair)
	$d = 1.2\sqrt{P}$	$d = 1.2\sqrt{P}$	$d = 2.3\sqrt{P}$	$d = 0.2\sqrt{P}$	$d = 0.4\sqrt{P}$
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 rated maximum output power of the transmitter not listed in the above table, the recommended isolation distance is d in meters (m), which can be determined by the formula in the corresponding transmitter frequency column. Here, P is the maximum output rated power of the transmitter provided by the transmitter manufacturer, in watts (W). Note 1: at 80MHz and 800MHz frequencies, a formula for a higher frequency range 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.					

Warranty instructions:

1. 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.
2. Wheelchairs have different wear and tear on tires due to different road conditions.
 - Ii. The warranty card shall be provided during the warranty
 - Iii. The following situations are not covered by the warranty:
 1. No warranty card;
 2. The product model recorded on the warranty card is inconsistent with the maintenance product model or has been altered;
 3. Improper use of goods and other accidental and man-made damage;
 4. 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; Damage caused by unpredictable natural disasters.
 6. Other damages not caused by quality problems.
 - Iv. 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)

Name: _____ Contact number: _____

Address: _____ Zip code: _____

Consumer information:

Name: _____ Contact number: _____

Address: _____ Zip code: _____

Product information:

Product model: _____ Date of purchase: _____

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Name: _____ Contact number: _____

Address: _____ Zip code: _____

Product information:

Product model: _____ Date of purchase: _____

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 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 :				