

# OWNER'S MANUAL

## POWER WHEELCHAIR

N5519



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## 1.Instruction

Read and follow all instructions, warnings, and notes in this manual before attempting to operate your power wheelchair for the first time. If there is any information in this manual which you do not understand, or if you require additional assistance for assembly or operation, please contact with your authorized local provider. These symbols below in this manual are used to identify warnings and important information. All of them are very important to your safety. It is strongly recommended that you should read and understand them completely.



**WARNING! Failure to heed the warnings in the manual may result in personal injury.**



**ATTENTION! Failure to heed the cautions in the manual may result in damage to the power wheelchair.**

1.1 This power wheelchair integrates advanced technology with modern style. Especially, its structure for quick dis-assembly and assembly are very convenient for you to store or place at the trunk of your vehicle while traveling. We are certain that the design features, excellent performance and trouble -free operation of this product will ensure your daily life more convenient.

1.2 This power wheelchair is suitable for all the disabled persons, the elderly and the infirm who have difficulty in walking. The maximum user weight is 100kg.

1.3 This power wheelchair is of an indoor type. It is of Model N5519. Here, “N” indicates an indoor power wheelchair, “5” is the code of category of products, “519” is the serial number of this type.

1.4 This power wheelchair is an indoor type, and suitable for an indoor use and the flat streets near buildings, but not for the grass, gravel, or larger slope and motorized roads, rainy and snowy days, either.

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## 2.Safety use

### 2.1Expiration Date

This power chair is energy, non-asepsis, reusable product without chemical substances.

The safety and period of validity for chair on the clinical use not only depends on its structural strength of products, but also on the user usage and use of the product environment, user habits, whether in accordance with the periodic maintenance, and other factors .

Our products are valid from the date of production for 7 years.

### 2.2Instructions before use

2.2.1If not completely read and understand the user manual, please do not drive.

2.2.2The maximum loading capacity is 100kg, please do not overload driving. And it is single use, please do not carry passengers.

2.2.3Please do not drive after drunk or too tired.(fig.1)

2.2.4Do not drive at night or in the case of a unclear line of sight.

2.2.5Please self-test before driving and refer to the manual section

5.3 "Commissioning" and 6.2.1 "Practice before operation " if drive for the first time.

2.2.6This chair is not waterproof, do not expose in rain and snow as well as driving in rain or snow.(Figure 2)

### 2.3Attention during using

2.3.1This power chair can be driven on a good flat surface, instead of muddy, rugged, soft, narrow, icy road, bad roads without guardrails or waterway. (Figure 3)

2.3.2This power chair has the certain ability of groove obstacle , at this time you should reduce the speed and travel slowly.

2.3.3This power chair has the certain climbing ability, the climbing angle is  $\geq 3^\circ$ , but not beyond  $10^\circ$ .

2.3.4Please avoid driving in the crowds, traffic and other places with heavy traffic.

2.3.5Please make sure that the control system is installed firmly. The joystick position is vertical and correct. Sit firmly and buckle up in time. Head back as far as possible, and lean against the backrest in case any jolts during driving , which maybe out of control.

2.3.6Press the on/off button, firstly check if the current fastest speed setting is appropriate for yourself operating proficiency, or it should be adjusted for safety; We recommend that we should drive slowly at the beginning for every use, and gradually accelerating as well.



#### **ATTENTION!**

**Please pull the lever up when the power chair stop at the incline, or it will slide at low speed, resulting personal injury.**



#### **WARNING!**

**If your wheelchair moves accidentally, please immediately release the joystick so that the wheelchair will stop moving automatically. If the joystick is out of control and the brake fails, please cut off the power.**

### 2.4Electromagnetic Interference

Your wheelchair may be traveling in the areas affected by electromagnetic interference from some radio transmitters such as radio, wireless intercom, mobile phones and radars etc. In these cases, your wheelchair's driving may be affected by them. Electromagnetic interference may affect the control system of the electric wheelchair. Some disturbances may cause brake failure, automatic start or runaway, and may cause permanent damage to the control system.

#### 2.4.1Electromagnetic Interference Classification

Short-band radio transceiver. These radios have antennas, such as radio waves in the urban bands, walkie-talkies, cell phone network systems and signal transmission devices.

Medium-band mobile radio transceiver. These are usually installed in the building or outside the vehicle antenna. For example: police, fire, tax, medical ambulance and other radio transceivers.

Large band radio transceiver. These are usually installed on the tower in the antenna, such as: commercial radio TV transmission system.



**ATTENTION!**

**Wheelchair and battery chargers meet GB / T 18029.21 Wheelchair - Part 21: Requirements and test methods for electromagnetic compatibility of power chair, electric scooters and battery chargers.**

**ATTENTION!**

**The chair during driving may be affected by Electro-Magnetic Interference(EMI). Such interference may be from mobile phones, EAS system, etc.**

2.4.2 Prevention of Electromagnetic Interference

- Do not use hand-held radio transceivers when the wheelchair power is turned on, such as mobile phones, radios, etc;
- Avoid close to the radio transmission system, such as radio stations, television stations;
- If the power wheelchair is out of control or brake failure, please contact our company or dealer.

**3. STRUCTURE AND PERFORMANCE**

3.1 Structure of the Power Wheelchair

This power wheelchair consists of the main part including the front wheel, drive wheel, frame, controller, motor with mechanism, armrest, push handle, backrest, seat base, footrest, battery case and charger, the structure shown in Figure 1.

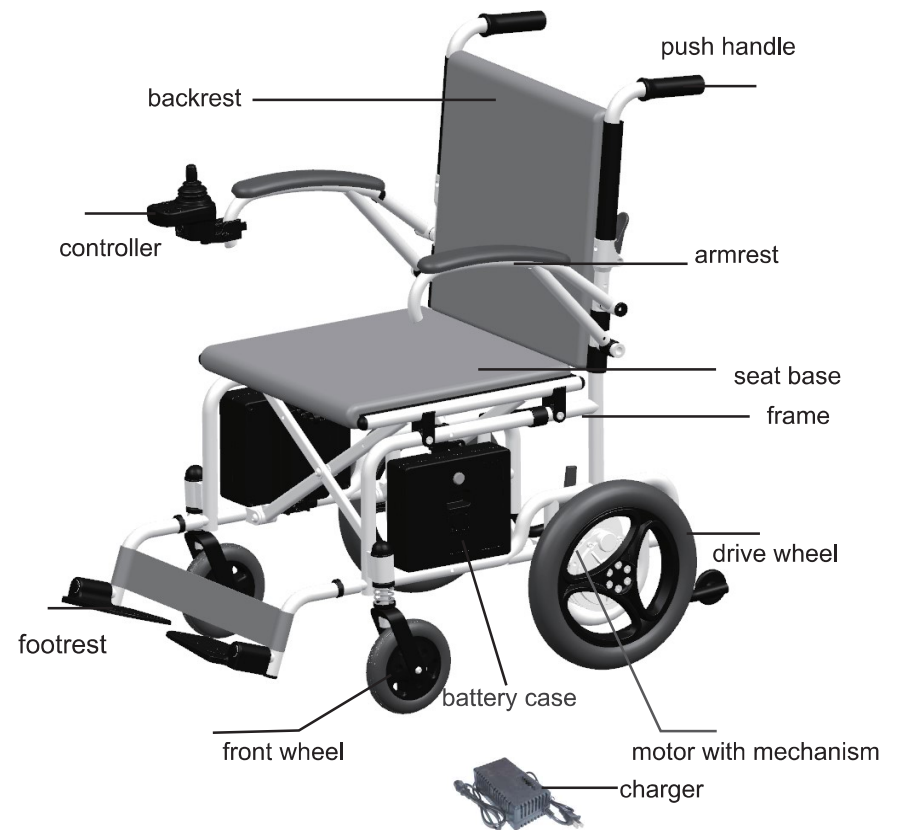
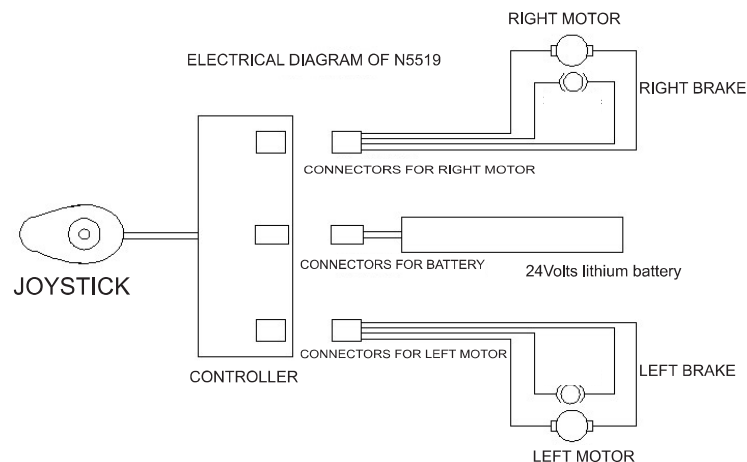


fig. 1

### 3.2 Product characteristics of the power wheelchair

- Classification by anti-shock type: wheelchair is internal power supply;
- Classification according to the degree of anti-shock: wheelchair belongs to the B-type application part;
- Classification according to the degree of protection of the feed: IPX0;
- Safety degree when used in flammable anesthesia mixed with air or flammable narcotic with oxygen or oxidized nitrogen Category: Non-AP or APG equipment;
- By operating mode: continuous operation;
- Wheelchair rated voltage and frequency: DC 24V;
- Input power of wheelchair: internal power supply equipment;
- Whether the wheelchair has a protective effect on defibrillation effect: No;
- Whether the wheelchair has a signal output and input part: No;
- Permanent installation of equipment or non-permanent installation of equipment: mobile devices.

### 3.3 Electric Diagram



### 3.4 Product Software Version

Software version of Power Wheelchair N5519 is V1.8.

## 4. Specification

The main specification includes dimension and weight.

Overall Dimensions	890mmX560mmX890mm
Seat Height	460mm
Seat Width	420mm
Seat Depth	400mm
Arm Height	250mm
Seatback Height	420mm
Wheelchair Weight	17kg
Maximum Speed	≤4.5km/h
Braking Distance(on a level surface)	≤1000mm
Minimum Turning Radius	≤900mm
Weight Capacity	100kg
Theoretical Travel Ranging	≥10km
Static Stability	≥6°
Dynamic Stability	≥3°
Slope Performance	6°
Climing Ability	≥3°
Motor Type	24V/150W*2
Lithium Battery Type	24V6AH
Max. Output Current of Controller	35A
Max. Output Current of Charger	2A
Front Wheel	Inflate-free Tyre, O.D. 150mm
Rear Wheel	Inflate-free Tyre,O.D. 300mm

① The weight capacity is tested with a dummy or personnel of same weight.

② Theoretical Travel Ranging is tested on flat road with average speed. It will vary due to drive surface, operation habit, etc.

## 5. Installation, Folding and Debugging

### 5.1 Installation

5.1.1 Take out the wheelchair from the packing box and put it on the ground. Push the chair-frame apart to left and right, and press two tubes on both sides of the seat base down into the grooves on both sides of the chair-frame. (Fig. 2)

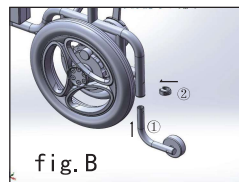
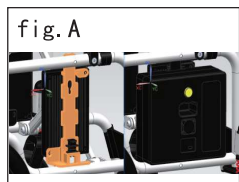
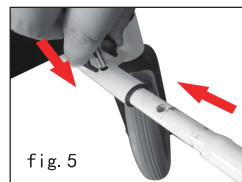
5.1.2 Pull up the handlebars, and lock the folding device. (Fig.3)

5.1.3 Put the controller on the armrest. And then pull down the tightening spanner on the controller to fasten the controller. (Fig.4)

5.1.4 Install the footrests to the frame and then fasten them. (Fig.5)

5.1.5 Before power on the wheelchair, the battery must be fixed on the left frame as that put it into the upon rail and then press down to the bottom till it has a "click" sound. (Fig.A)

5.1.6 Take out the anti-tipper assembly (See Fig.B), insert it into the sleeve (See Fig.①), and then fix it with the pin aligning to the hole (See Fig.②)



### 5.2 Folding and Storage

Please operate according to below methods if transport or store the power wheelchair

- ① Put the wheelchair on flat ground and turn off the power supply.
- ② Turn the footrest upward by 90° (Fig.6)
- ③ Press the buttons on both sides of seatback by your forefingers to turn down the seatback for packing up the pushing holders. (Fig. 7).
- ④ Pull up the seat cushion (Fig.8), then the chair frame could be folded from both sides; and also can carry the two handle straps up at the both sides of the seat. (Fig.9)

### 5.3 Debugging

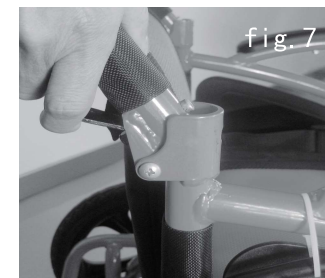
5.3.1 When the motor lock lever downward to manual mode, which can move the chair by hands; when the motor lock lever upward to electric mode, which can't move the chair by hands. (Fig.13)

5.3.2 Press the joystick power, battery indicate light is on.

5.3.3 Rotate the joystick lever toward front to the end, observe the rotation of wheelchair wheels, then rotate other direction to observe if there is rotation for the wheels.

5.3.4 Release the joystick lever, it will be come back to middle position, then you observe the wheels should be stopped.

5.3.5 The armrest can be flip up, better for being on/off the chair. (Fig.12)



## 6. Use and Operation

### 6.1 Use

6.1.1 Controller: It is the key component of a wheelchair. All electronics to operate the latter are housed in it (figure 10). Usually the controller is installed in one armrest, which is connected with motor and battery on power box.




fig. 10

- **Switch button:** Switch button supply the power for control system for electronic equipment, then equipment supply the power for motor of wheelchair. Do not use the switch button to stop the chair unless an emergency situation. Otherwise, it may shorten the life of the wheelchair drive components.

- **Joystick:** The joystick is mainly used to control the wheelchair's movement including its speed and direction (forward, backward and left or right etc). The further you push the joystick from its central position, the faster the wheelchair moves. Whenever you release the joystick, it will automatically go back to the center and the brake will be automatically operative to stop the wheelchair.

-----	0-4.5km/h
-----	0-4km/h
-----	0-3.5km/h
-----	0-3km/h
-----	0-2.5km/h

- **Reserving sound** can be closed by pressing the buttons of speed-down and horn simultaneously for 3 seconds (Pict. 10). If need to turn it on, please press the buttons of speed-up and horn for 3 seconds at the same time, and then the sound will be on.



**WARNING!**  
If your wheelchair moves accidentally, please immediately release the joystick and the chair will stop automatically. ( Figure 5)

- **Charger Socket:** It is only used to this wheelchair. Do not use the socket to supply power to any other electrical equipment. Otherwise, it may damage the wheelchair's control system or its E.M.C performance (Electromagnetic tolerance).



**CAUTION!**  
If you connect any devices other than the supplied battery charger into the socket, causing damage to the control system, then the warranty is invalid.

### 6.1.2 Batteries and Its Usage

Fully charge your new battery prior to its initial use. This brings the battery up to about 90% of its peak performance level; Give the battery another full charge of 4-6 hours and operate your wheelchair again, the batteries will now perform at over 90% of their potential; After four or five charging cycles, the batteries will top off at 100% charge and last for an extended period. Please replace a new battery when the battery failure, and the old battery must be returned to supplier because of environmental pollution.




**CAUTION!**  
Do not use your wheelchair when the temperature is less than -25 °C or above 50 °C. ( Figure 6)

Battery specification	
Type	Lithium battery
Dimension	162mm*145mm*44 mm
Power	24V

### 6.1.3 Charging batteries

The battery charger is an important part of the wheelchair. The off-board charger attached to this product can charge its batteries quickly and easily to make your wheelchair the best.



**CAUTION!**  
The charge of 24V/2A supplied by our company meets the requirements mentioned in Section I «General Safety Requirements» of medical electrical equipment GB9706.1-2007. The battery must be charged by the charger supplied by us. Any other types of chargers are forbidden.

Charging the batteries using the off-board charger supplied by us:

- Be certain the controller is powered off and the wheelchair is in the drive mode, instead of the manual mode.
- Connect the 3-pin output plug of the charger to the controller. (Fig.15)
- Connect the power plug of the charger to the standard wall outlet.
- The red LED on the charger lights indicating that charging is in progress. The green LED on the charger lights when the batteries are fully charged.
- We recommend you that the batteries is charged for 4-6 hours.
- Remove the charger and power plug when fully charged, and put them into the bag behind the seatback.

**WARNING!**  
**⊗ Please charge the battery at environment temperature 0-35 C. Otherwise, it will cause personal injury and battery damage.**

#### 6.1.4 Overload Protector

The overload protector, which locates in the battery box, is set for the wheelchair's safety. Once motors or batteries overload, the overload protector will trip to cut off the power. After one or two minutes, it will automatically reset and then you can continue to drive the wheelchair.

6.1.5 If no need to operate the wheelchair in electric mode, the nursing personnel should move the brake level to manual mode, and then can push it.

#### 6.1.6 Safety Belt

For your safety, the safety belt must be fastened before you drive the wheelchair.



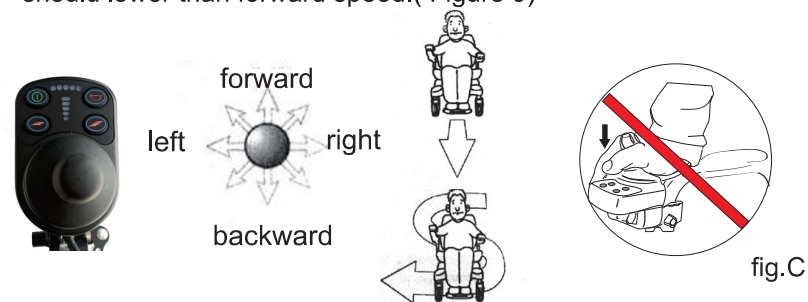
## 6.2 Operation

### 6.2.1 Preparation before operation

- Do not turn on the power switch when sit on the power wheelchair, and do turn off the power switch when get off from the wheelchair. Please observe whether the hand brake works or not.
- Please fold the pedal first then hold the armrest to sit on the wheelchair; Do not get off the wheelchair by stepping on the pedal. Otherwise the chair maybe turned over, which is dangerous.

### 6.2.2 Practice before operation

- Find a spacious place like square and have a assistant to help you practice until you have enough confidence to operate it.
- Be certain to shut down the power when you up and down the wheelchair, and set a speed you need through speed adjustment button.
- We recommend you set the lowest speed until you can operate the electric wheelchair skillfully. (Figure 7)
- To Practice the stop operation, forward and backward. Push the handle, the wheelchair move to anywhere you want. (Figure 8)
- Firstly, ensure that it is the lowest speed when practice forward operation. After Skilled, you can practice "S" shaped turn. After you are familiar with "S" shaped turn, to practice backward operation, and pay attention to the speed control setting. And the backward speed should lower than forward speed. (Figure 9)



**⊗ Warning!**  
**Do not press the joystick hard by hand when getting on/off the wheelchair to avoid any accident (Fig.C) .**



### 6.2.3 Operation

Please do it according to precautions operation.

#### **WARNING!**

**Do not use your wheelchair unless getting help from your assistant when the wheelchair is in manual mode. Otherwise it may result in personal injury.**



**Do not set your wheelchair in manual mode by yourself while you are seated in the wheelchair. Otherwise it may result in personal injury. In this case, please ask your assistant to help you.**

**Do not set your wheelchair in manual mode when it is on an incline. Otherwise, the wheelchair could be out of control to roll down by itself, and result in personal injury.**

### 7. Fault Diagnosis and Troubleshooting

This product has an automatic fault warning function to give you very convenience. Once it malfunctions, the LEDs on the controller will flash with alarm sounded by the horn. You can find where a fault is according to information in Table 2.

If the fault still exists after checking out the fault based on that in table 2, do not use the wheelchair. Please turn off the power and consult your service agent immediately.

LED display	Fault Diagnosis	Troubleshooting	Remark
1 LED lamp flashes	Battery is low capacity	charge the battery	
2 LED lamp flashes	The left motor failure	Check the motor and wiring harness	
3 LED lamp flashes	The left brake failure	Check if the brake lever is in the correct position, and if there is damage for brake	
4 LED lamp flashes	The right motor failure	Check the motor and wiring harness	
5 LED lamp flashes	The right brake failure	Check if the brake lever is in the correct position, and if there is damage for brake	
6 LED lamp flashes	Overload of the controller	Check if the brake is released, and wheels are locked.	
7 LED lamp flashes	Failure of the joystick	Check if the rocker of controller in the central position	
8 LED lamp flashes	Failure of the controller itself	Controller fault	
9 LED lamp flashes	Failure of the controller	Controller fault	

### 8. Safety devices and accident treatment

8.1 Overload Protector: Refer to instruction manual 6.1.4

8.2 Safety belt: Refer to instruction manual 6.1.6

8.3 Please release the joystick whenever there is wheelchair fault, the wheelchair will be stopped.

#### 9.1 Maintenance

Like other motorized vehicle, your power wheelchair also requires routine maintenance. Some checks can be performed by yourself, others you can ask for assistance from your service agent. Preventive maintenance is very important. If you follow the maintenance and checks in this section, your wheelchair will give you years of trouble-free operation. If you have any doubt your wheelchair's care or operation, please contact your service agent or our after-sale service dept.

##### 9.1.1 Humidity

Your wheelchair, like most electrical and mechanical equipment, is susceptible to external conditions. In any case, the wheelchair should be avoided damp environment. Direct or prolonged exposure to water or dampness could cause the wheelchair to malfunction electronically and mechanically. Water can cause electrical components and the chair's frame to corrode.


##### 9.1.2 Temperature

- Some parts of your wheelchair are susceptible to temperature.
- In extremely cold temperature, the battery may be frozen. Special temperatures may cause a lot of factors to freeze, like charger type, usage, battery components (such as sealed lead-acid batteries or gel batteries);
- Temperature above 55° may cause your wheelchair's speed to reduce.

### 9.1.3 General Guidelines

- Avoid beating the controller, especially the joystick.
- Avoid prolonged exposure of your wheelchair to extreme conditions, such as hot, cold or moisture environment.
- Keep the controller clean.
- Check all electric connections, including the cable and connectors of the charger, and ensure that they are all tight and secure.
- If only red LEDs on the Battery Gauge lights, the batteries are nearly running out of charge. You should recharge the batteries as soon as possible. We recommend charging the battery for 8-12 hours
- Check the rear wheel inflatable situation, if the tire deformed serious when riding, it should be inflated;
- The frame surface has been sprayed with a clear sealant coating. You can apply a light coat of car wax to make the surface keep a high gloss.
- Check all cable connections. Make ensure they are fastened and are not corroded. The battery must be placed in the battery area, flat, the battery plug inward, relative display, refer to the correct connection on the main frame label;
- All wheel bearings are lubricated and sealed. Do not need to lubricate them.
- Check if there is loose phenomenon for wheel hub, drive device, and chair itself, if loose, please screw tightly in time.

**WARNING!**



**Please be sure the tire pressure is within 230KPa±10%. Please inflate the tires with regulated air source and check with pressure gauge. Do not exceed the pressure range, otherwise may cause exploded tires or personal injury. ( Figure 11)**

### 9.1.4 Maintenance after use

- Turn off the power.(please disconnect all the connectors if not use for long time.)
- Inhibit children and unconscious person to use the wheelchair.
- Store the wheelchair in normal temperature to prevent reformation so that it keeps its performances for long period.
- Clean the wheelchair with a clear and soft cloth and dry it. Never use any chemicals to clean it.(to prevent deformation and discoloration)
- Remove the cloth cover of the seat rest to be washed if it is dirty, and then dry it for use.

### 9.1.5 Daily Checks

In order to keep the wheelchair in good condition, you should check before each use. And to maintain the weekly, monthly, semi-annual investigation, check the project see (Table III).

Inspection Items	At any time	Weekly	Monthly	Six monthly
All parts			○	
Joystick function	○			
Brake System	○			
Connection		○		
Battery Condition	○			
Tire Condition			○	
Frame Condition				○
Front Wheel Condition		○		
Pureness	○			

### 9.1.6 Cleaning

Way of cleaning as below:

- Never wash your wheelchair with water or expose directly to water.
- Surface of wheelchair frame is coated with a protective coating. Therefore, it is very easy to wipe it clean with a damp cloth. Never use any chemicals to clean the vinylon seat and armrest, as they may cause the latter slip or chapped. You can use a damp cloth and neutral soapy water to clean them, and then dry thoroughly.

### 9.2 Repair

9.2.1 Users could repair or replace some spare parts like push handle, push handle cover which could be self-maintained or replaced by users under the instructions of after-sales service staff of our corporation or the dealers'.

9.2.2 Within the warranty, our corporation or the dealers will maintain or replace the faulted spare parts, like motor, battery, charger, controller, bearing, shaft sleeve, etc., due to material or manufacturing defects free of charge.

9.2.3 The spare parts like motor, controller, etc. which are confirmed by the after-sale staff or our corporation or our dealers' to be disassembled could be sent to our corporation or the dealers for maintenance.

9.2.4 Please contact your distributor or the after-sale service dept. of our corporation for any questions regarding the maintenance of power wheelchairs. Please refer to 12.1 Product Warranty.



**Caution!**

**In order to guarantee the quality of the power wheelchair, Please contact us or our dealers to replace the spare parts with same models and specifications if the consumable parts like batteries, tyres, controller, motors and charger, etc. need to be replaced. The maintenance should be proceeded at our corporation or the dealers' maintenance dept.**

**10. Transportation and storage**

**10.1 Transportation**

You can load and transport according to the shipping marks and graphics. For details, see the attachment.

**10.2 Storage**

Your wheelchair should be stored in a dry condition free from sources of extreme temperature and dampness. Remove the batteries from the wheelchair prior to storage. Otherwise, the frame may rust and the electronics may be damaged.

**11. Opening and Checking**

Open the packing box, and you can check whether there is anything missed or damaged.

**Packing List**

No.	Name	Quantity	Remark
1	Power Wheelchair	1pc	Model:N5519
2	Charger	1pc	Model: HP0060WL2/ 60HZ 24V2A
3	Instruction Manual	1pc	
4	footrest	2pc	
5	Controller	1set	

**12. Quality Assurance**

**12.1 Warranty**

12.2.1 Chair frame will have 5 years warranty service.

12.2.2 Within 1 year from the purchase date, for the following parts, we will supply free maintenance and replace service for original customer after the dealer check there are materials and production defect.

- Electrical control or lever system
- Motor/Drive System
- Bearing and shaft sleeve








12.2.3 Six-Months warranty for the batteries.

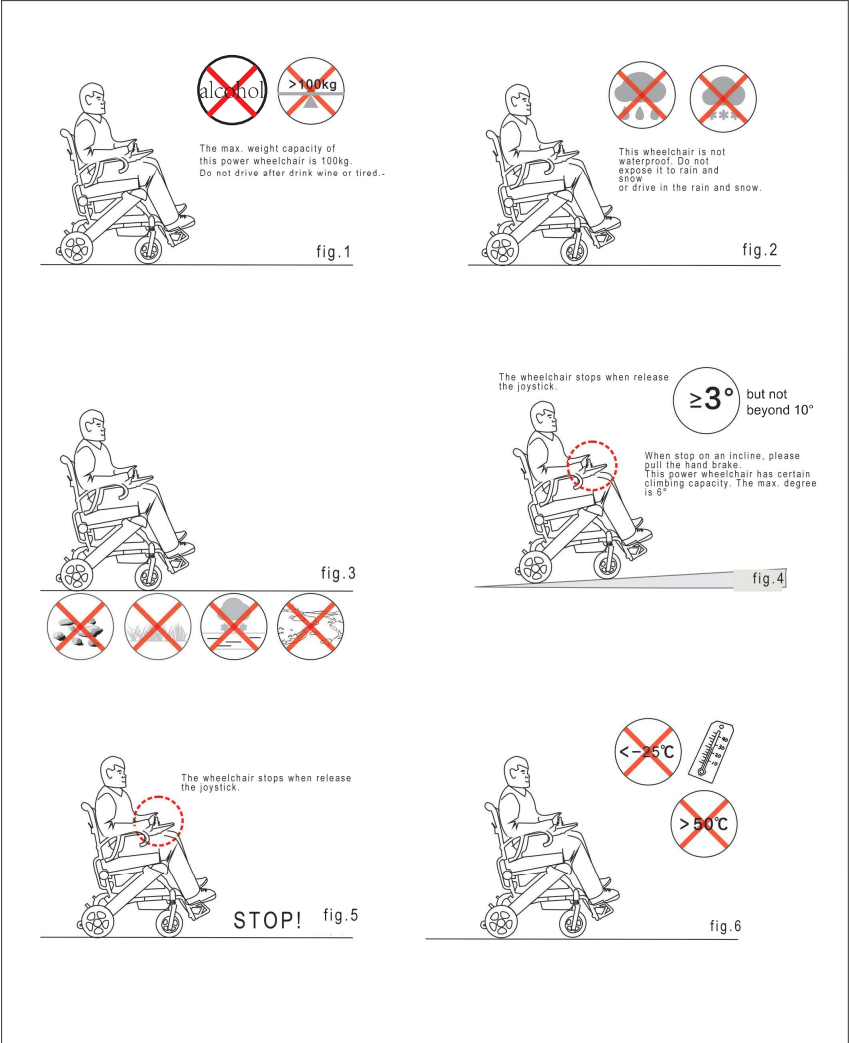
Please note the warranty service is provided by your dealer, and finally finished by our after-sales department and dealer together.


**Out of warranty**


- ABS plastic cover shell and rubber pad
- Tyre
- Interior decoration
- Damage by abuse, wrong operation, accidents and negligence
- Business use or other abnormal use


The name and symbols of the signs


No.	Sign	meaning
1		fragile objects inside the packaging, please handle with care
2		keep the packaging up during transportation
3		Keep the packaging avoid from rain
4		The max. layers of stacking same packaging is 2.
5		Hand hooks are forbidden when carry or transport the packagings
6		Application type B
7	IPX1	Plummeted Droplets (condensed water for example) do not damage the electrical appliance.
8		Attentions




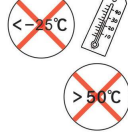
**fig.1**  
  
 The max. weight capacity of this power wheelchair is 100kg. Do not drive after drink wine or tired.

**fig.2**  
  
 This wheelchair is not waterproof. Do not expose it to rain and snow or drive in the rain and snow.

**fig.3**  
  
 The wheelchair stops when release the joystick.

**fig.4**  
  
 The wheelchair stops when release the joystick.  $\geq 3^\circ$  but not beyond  $10^\circ$ .  
 When stop on an incline, please pull the hand brake. This power wheelchair has certain climbing capacity. The max. degree is  $6^\circ$ .

**fig.5**  
  
 The wheelchair stops when release the joystick. **STOP!**

**fig.6**  
  
 Prohibitions:  $< -25^\circ\text{C}$  and  $> 50^\circ\text{C}$ .