



## INTRODUCTION

#### Dear Users,

Thank you for choosing the DC02 Power Wheelchair for your portable wheelchair transportation needs. It is important to read through this manual before operating your DC02 Power Wheelchair to become familiar with its features as well as its limitations and safety information.

You will find the operation and care of your DC02 Power Wheelchair simple and easy.

Disclaimer: JBH and partners cannot be held responsible for personal injury or property damage resulting from the unsafe or improper operation or maintenance of DC02 Power wheelchair.

As part of our ongoing product improvement initiative, we reserve the right to change specifications and design without notice. As a result, there may be minor differences between your DC02 Power wheelchair and accessories and the photos, illustration and instruction in this manual.

We strongly believe that the wheelchair would bring you more convenient and reach the goal of free life to you. If you discover a problem, contact your authorized local Dealer or Distributor for assistance, alternatively direct contact with manufacturer with the following Contact Information.



#### ANHUI JBH MEDICAL APPARATUS COMPANY LIMITED

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#### Recommendation

Pay attention to "Warning" in the manual is to protect you from any injury. Unable to follow "Notification" in this manual may result in damage the wheelchair.



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# **SYMBOL DEFINITION**

| lack      | Warning<br>Beware of potential hazard   | À           | Attention, see instruction for use  |
|-----------|---|-------------|---|
|           | Refer to instructions for use - Mandatory Failure to read the instructions for use could introduce a hazard | Πi          | Refer to instructions for use - Recommended Failure to read the instructions for use could introduce a hazard |
| •••       | Manufacturer  | Z           | Product fulfill<br>WEEE directive   |
|           | Date of manufacture   | SN          | Serial number   |
| LOT       | Batch number  | <u>*</u>    | Type BF applied part  |
|           | Use until year & month (Expiration date)  | <b>†</b>    | Type B applied part   |
| IPX<br>IP | Water proof grade   | C€          | CE mark   |
| UK        | UKCA mark   | MD          | Medical device  |
|           | =Radio frequency fields<br>beyond this point may<br>exceed FCC general<br>public exposure limit             |             | Importer  |
|           | Don't use when packing damaged  | 25 <u>%</u> | Humidity limitation   |
| -20 C     | Temperature limitation  |             | Store in clean & dry place protected from rain, snow, ice, salt and water.                                    |
| **        | Avoid contacting with rain, snow, ice, salt and keeping in water, keep under clean and dry ambience.        | **          | Protect from heat and radioactive sources   |



|           | Danger of explosion  | 6           | Package Number  |
|-----------|--|-------------|---|
| <b>*</b>  | Keep dry   | <u>&gt;</u> | Foot Switch   |
| <b>₩</b>  | Equipotential  | •           | CF application part   |
| <b>U</b>  | Switch   | -           | Fuse  |
|           | PCTB   |             | Volume control  |
| <u> </u>  | Disposal and recycling only<br>authorized recycling com-<br>panies can recycle parts of<br>this mobility wheelchair  |             | Do use cel phone, remote speakers, note book computer or other wireless ejecting device while operating the unit.   |
|           | Do not adapt battery which is with different capacity and wrong model number.  Never combine use long time used battery with new battery at the same time, always change batteries in brand new condition. |             | Implication of flammable material. Do not expose under fire, fire sparkles and other heat sources conditions. Never transport batteries along with torch easy explosive items or flammable materials. |
|           | Keep away other metal related items or tools away from the negative and positive terminal end to avoid any short cut or electricity shock from happening.  |             | Type 2 device   |
|           | Easy to be crashed, crashing spot  | (i)         | The product has passed electromagnetic test of 20 V/M.  |
|           | With potential explosion   |             | Battery contains an-<br>ti-corossion chemical sub-<br>stance.   |
| Power     | 100∼240VAC, 50∼60 Hz   | Frequency   | 500VA   |
| DC output | +29.4V ==== 2.0 A  |             |   |



#### **SECURITY GUIDANCE**



- 1. The user must perform all of the procedures in this manual.
- 2. This product is suitable for users with age between 18 to 75 years old.
- 3. Do not drive on public highway.
- 4. No over cross any gap which is over 100 mm (3.94") in width.
- 5. Never try to overpass obstacle which is over 40 mm (1.57") in height.
- 6. Wheelchair is suitable for both outdoor and indoor use, hospital, senior center, family or similar circumstances use only.
- 7. The suitable environment of using electric wheelchair: Temperature -10  $\sim\,$  +50  $^\circ$  , Atmospheric Pressure 860  $\sim\,$  1060hPa, Humidity 10%  $\sim\,$  93%
- 8. Power Source Condition:
  - Charging Voltage AC (100-240)V ± 10%, 50 ± 1Hz, Battery Voltage DC 24V(+5%, -10%), Power of Motor ≥180W environmental conditions that might be harmful to the wheelchair (e.g. inclines greater than 12 degrees, rain, snow, ice, etc.), such as temperature and humidity.
- 9. Operate wheelchair after it is under unfolded condition and only allow one person on wheelchair all time.

## **Weight limitations**

- 1. The wheelchair is tested with simulation of human model at 140 kgs (308.7 lb) load capacity.
- 2. Your wheelchair is rated for a maximum weight capacity. Please refer to the product specifications table for this limit. Keep in mind that the maximum weight capacity includes the combined weight of the user and any accessories mounted to the wheelchair. Stay within the specified weight capacity of your wheelchair. Exceeding the weight capacity voids your warranty. We will not be held responsible for injuries and/or property damage resulting from failure to observe weight limitations.



- WARNING! We are not responsible for any damage and inquiry cause due to over weight.
- WARNING! Not to drive on dangerous slopes.
- WARNING! Not to drive backwards when going up and down a hill. Max grad ability is uphill 8°.



#### **Statement**

#### Indications for use:

It is a motor driven, indoor and outdoor transportation vehicle with the intended use to provide mobility to a disabled or elderly person limited to a seated position.

The wheelchair (Model DC02) has a base with Carbon fiber frame, two front wheels, two rear wheels, a seat, an adjustable steering column, a tiller console, an electric motor, an electromagnetic brake, 2 rechargeable Lithium-Ion Batteries with an off-board charger. The movement of the wheelchair is controlled by the rider who operates the throttle lever, speed control dial and handle on the tiller console. The device is installed with an electromagnetic brake that will engage automatically when the wheelchair is not in use and the brake cannot be used manually. The wheelchair only can be operated on the flat road.





- 1. Please read the following statement.
- 2. Please read this manual carefully and understand everything clearly before using the Electric wheelchair for the first time.



- 1. Please do not use the wheelchair in any unclear cases, otherwise, the product may be damaged or people may get hurt. If you have questions, please contact us.
- 2. Please pay attention to the warning and cautions in this manual. We are not responsible for any injury and damage caused by wrong use of this product and neglect of the warnings and cautions.

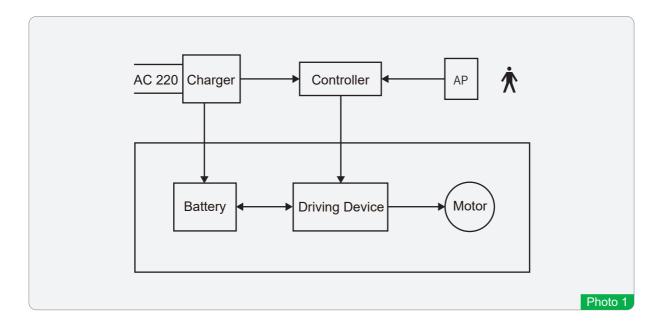
#### Instructions



- 1. Improper use will cause death or serious injury.
- 2. Improper use will cause damage of wheelchair.
- 3. Comply with the manual to keep wheelchair in good condition.
- 4. DO NOT make sharp turns at high speed or on inclines or reverse direction abruptly.
- 5. DO NOT utilize brake release / freewheeling option on any incline without assistance to control motion.
- 6. To avoid danger of suffocation, keep all the plastic bag in the package away from babies and children. Do not use the plastic bag in cribs, beds, carriages or playpens. The plastic bag is not a toy.



## **PRODUCT FEATURES**



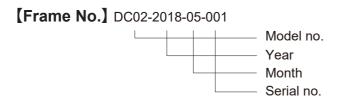
#### **Product features**

- 1. Based on Electric Sshock Proof Classification: Classified as internal power type device during operation, it is type 2 device while it comes to charging.
- 2. Based on classification of Electric Shock Proof: It belongs to B type applicable section.
- 3. Based on classification of liquidity proof: IPX 4
- 4. Based on the safety classification of using combustible anesthetic gas mixed with air, Oxigen, or flammable anesthetic gas mixed with nitrous oxide: Not AP/APG type.
- 5. Classification of running mode: Continuously-running mode.
- 6. Rated Voltage and Frequency: Internal power DC 24, Charger AC 220 V / 50 Hz.
- 7. There is no applicable protection of defibrillation discharge effect.
- 8. There is no signal input.
- 9. The product is not belong to eternal installation.
- 10. For electrical insulation diagram, please refer to photo 1.



## PRODUCT RELATED EXPLANATION

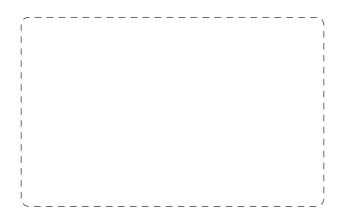
[Contraindications] Intended user, with visual weakness, intellectual impairment or neck disease, who is unable to observe environment on the back, should be operated by others. Anyone with paraplegia below the chest, osteoporosis or hypochondriasis is prohibited to use the product.



[Eternal Identification Mark] Please refer to QR code on frame



#### [ Label of the Wheelchair ]





# **SPECIFICATIONS**

| Model                                     | DC02                                       |
|---|--|
| Material                                  | Carbon Fiber                               |
| Unfold Size (L * W * H) (mm/inch)         | 955 × 600 × 965 mm (37.6"×23.6"×38")       |
| Fold Size (L * W * H) (mm/inch)           | 600 × 320 × 760 mm (23.6"×12.6"×29.9")     |
| Loading Capacity                          | 140 kgs (308.7 lb)                         |
| Motor                                     | 180W × 2 pcs brushless motors              |
| Battery                                   | 24V 6AH × 2 pcs lithium battery            |
| Max Speed                                 | 6 km/h (3.7mph)                            |
| Driving Range                             | 25 km (15.5 miles)                         |
| Front Wheels                              | 175×50 mm (6.9"×2") PU solid wheels        |
| Rear Wheels                               | 200×50 mm (7.9"×2") PU solid wheels        |
| Climbing Slope                            | Max 8°                                     |
| Charging Time                             | 6~8 hours                                  |
| Armrest Spacing                           | 490 mm (19.3")                             |
| Seat Width                                | 400 mm (15.7")                             |
| Seat Depth                                | 400 mm (15.7")                             |
| Seat Height                               | Front 500 mm (19.7") / Back 480 mm (18.9") |
| Turning Radius                            | 700 mm (27.6")                             |
| Drive Model                               | Rear Drive                                 |
| Braking System                            | Electromagnetic Brake                      |
| Net Weight (Without Battery and Joystick) | 16 kgs (35.3 lb)                           |
| Net Weight (Finished Product)             | 19 kgs (41.9 lb)                           |
| Gross Weight (with export packing)        | 24.5 kgs (54 lb)                           |



## **MAJOR PARTS**



- 1 Back cushion
- 2 Backrest frame
- 3 Brushless motor (right)
- 4 Brushless motor (left)
- 5 Backrest supporting frame
- 6 Turnover-proof wheel frame
- 7 Lower controller
- 8 Battery pipe rack (left)
- 9 Battery pipe rack (right)
- 10 Lower support frame

- 11 Front wheel assembly(left)
- 12 Front wheel assembly(right)
- 13 Foot pedal
- 14 Front wheel support frame
- 15 Lithium ion battery set
- 16 Top controller
- 17 Seat cushion frame
- 18 Seat
- 19 Armrest (right)
- 20 Armrest (left)



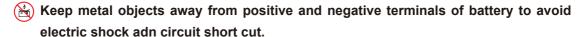
# **SPECIFICATION DIAGRAM**





#### SAFE USE GUIDELINE

#### For uers



- 1. Carefully read through the instructions, or receiving training and guided by professional techinician or nusing staff who is familiar with the product.
- 2. Always have full understanding and feel of electric wheelchair prior to start up and operate the wheelchair.
- 3. Always with help by nurse to practice forwarding, bakcarding, obstacle overcoming and so on, until familiar the operations independently, proficiently and safely.
- 4. Make sure fully aware of safety if you would like to try a new action.
- 5. Have a full realization of the area where you would like go with electric wheelchair, keep away and hazards.

### For caregivers

- 1. The power switch must turned off and the freewheel mode lever each on left and right motor is switched to manual mode before pushing the wheelchair by hand, once the levers are switched to manual mode that motors are not work.
- 2. From behind to push backrest frame while choosing manual push the electric wheelchair. It is safer and it keeps reliable force point to prevent wheelchair from overturning. Make sure the folding and unfolding buckle is securely locked.
- 3. Keep cooperating with user all time, particularly prior to each action inform user your intention and clearly give your reasons.
- 4. To protect the back of user from injury while passing through obstacle, user should have kept with right dynamic body posture. Bend your knees slightly in order to keep you back upright.
- 5. Remind mind user of leaning body agaist backrest while you are about to lift up the back of electric wheelchair.
- 6. Never directly go up and down stages or stairs, there is potential danger of falling off or roll over when turning a a corner, climbing up and down.
- 7. Do not go uphill or dowhill under manual mode condition of electric wheelchair that could lead to the risk of slipping.



#### **Precautions on controller**

Note: Adjust the installed position of joystick controller (as photo 2) to protect from any risk of bump or falling down.

- 1. Inspect and adjust the installation of joystick every six months, as ften as it is necessary.
- 2. Contact with your local dealer or distributor if the control panent of joystick controller abnormal and its operational malfunction.



# Precautions when electric wheelchair is under not moving status

- 1. Power off the electric wheelchair while it is stopped, even it is a short time stopping (refer to photo 3). This will prevent any accidental touch of joystick by anyone for the accidental interference on electromagnetic system affect normal use of electric wheelchair.
- 2. Make sure any helper (say shop assistant) is fully understand the joystick function, there no any accidental touch to prevent sudden move wheich is unexpected.





### **Operational environment**

1. This electric wheelchair is not suitable for use or kept under the environment of heavy rain, snow or ice. Contact with water or excessive humidity will lead to electrical failure.



#### Avoid malfunction of electric wheelchairs:

- Do not place or keep the electric wheelchair under direct impact of water (such as heavy rain) or in a very humid environment.
- · Please do not use this electric wheelchair while in bathing, sauna and swimming.
- Please do not use this electric wheelchair near water sources (such as rivers, lakes or oceans).
- Please ensure that the battery charging cover is closed.
- If the joystick is damaged, please replace the joystick device.
- Ensure that all electrical connectors are secured and free of looseness.
- It is forbidden to wash this electric wheelchair with water. If the electric wheelchair is soaked, please remove the battery and dry the electric wheelchair as soon as possible. dry immediately after the electric wheelchair is determined, Insert it into the battery holder for reuse.
- 2. When it is unable to avoid operating the electric wheelchair onto wet or smooth ground, please be careful and keep at very slow speed.
  - One or two main wheels apear to have lose traction, Stop the electric wheelchair immediately to avoid out of control or falling down.
  - Any snow, ice, water or oil film on any slope or ramp, please do not drive when come across these situations.
  - With doubting and can't confirm the safety, please always ask for helping.

#### Suitable surfaces

- 1. The electric wheelchair is only suitable for roads with concrete, asphalt and indoor floor surfaces.
- 2. Do not drive on sandy soil, loose soil or rough and rugged terrain to avoid any damage of wheels, bearings, shafts or motors, for causing loosening of parts.



#### **Driving on road**

Most countries and regions are illegal for powered wheelchairs to drive on motor vehicle lanes. It is dangerous for electric wheelchairs to drive on roads or parking lots.

- 1. When dirve at night or in darkness, reflective stickers attached on electric wheelchair are helpful (refer to photo 4). For safety concern user can also wear a garment with Reflective material.
- 2. When come across with other vehicles, make sure the drivers of vehicles notice you easily. Have eye contact with the driver before you continue. Communicate and allow the driver understand your intention until you are convinced that it is safe.





## Safety tips for riding motorized vehicles

- 1. Do not to drive electric wheelchair through transportation, such as buses, subways, trains, planes and ships.
- 2. If you must drive an electric wheelchair, you should be accompanied by someone to find a reliable place to park, fasten your seat belt and turn off the power supply of the electric wheelchair.
- 3. If the user drives the electric wheelchair alone, it is necessary to find a place where the wheels or the whole electric wheelchair can be fixed and parked, so as to avoid injury of sudden braking or traffic accidents.
- 4. Don't keep the electric wheelchair in the front of any vehicle, as a result of interfering with driving of vehicle driver.
- To get on and off bus, if necessary to lift the user together with the electric wheelchair, please hold the edge of the seat cushion frame, Never hold the armrest or the rear backrest frame.



### **Balance on driving**

The electric wheelchair should be kept in balance and at stability to center gravity while diriving to avoid overturning during the process of forward and backward. The balance to center gravity is affected by the following factors:

- 1. The seat height and angle.
- 2. Dynamic body position, posture or weight distribution of user.
- 3. The angle of ramp or slope.
- 4. Change load and weight distribution of electric wheelchairs by applying backpack or other object.



If modify or adjust this electric wheelchair required, please consult with your dealer in advance, a modification plan should be authorized by the manufacturer in writing. The modification of electric wheelchair could have additional adjustment to correct the center of gravity. When electric wheelchair has been modified, be especially careful to familiar with the balance point of the electric wheelchair and master the ways to avoid falling or overturning.

# Recommended cloth dressing on electric wheelchair

When you sit in an electric wheelchair and dressing colth, your body will rotate. In order to make the electric wheelchair more stable, the front caster should be adjusted to the forward position.



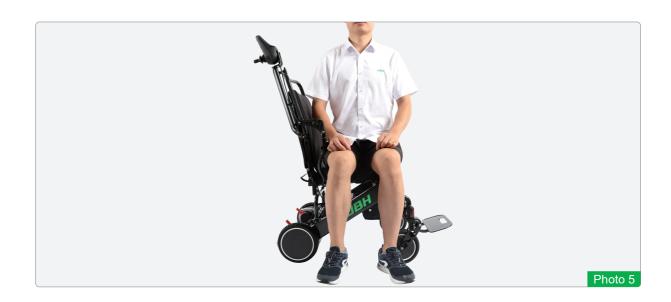
## Precautions for getting on/off electric wheelchairs

- 1. When it is ready to seat on the electric wheelchair, please make sure to turn off the power first. If you touch the joystick, it may cause electricity. The wheelchair moves unexpectedly due to unexpected mistake touching.
- 2. Learn safest way to move your body from your health care professionals, the way to position your body and properlyupport yourself in the process of moving.
- 3. Ask for help you until you before you can safely get on and off the electric wheelchair alone.

#### The correct way to get on/off an electric wheelchair

- 1. Keep electric wheelchair as close as possible where you want to sit. If possible, use a conversion board.
- 2. Rotate the front casters as forward as possible.
  - Don't stand on the foot pedal to move your body, it may lead to harm.
  - Make sure your feet are not caught or caught between the gaps of the pedals.
  - Ensure that it is not blocked or interfered by handrails ( refer to photo 5 ).
  - Move to the seat as soon as possible, it reduces the risk of missing seat and falling.

Be careful every time move yourself, have a support point that is not lower than the seat cushion surface.





# Precaustions of hand extending, body leaning and body strechting while seat on wheelchair

Body part extending, leaning and streching will affect the balance of center gravity of the electric wheelchair, which may cause you to fall or turn over with improper operation. Follow the key points below to reduce the risk of physical injury and damage:

- While change your body center of gravity including raising your body sideways or leaving seat, please don't lean beyong the range of seat cushion of the electric wheelchair.
- Move forward in your seat, please don't lean over or have inclination ( refer to photo 6 ), always keep your hip attach to backrest.
- 3. Don't keep hands reluctantly to grab things which are far away, in case lose body balance and fall.
- 4. Under no circumstances should you try to pick it up articles from between your knees or in front of your body ( refer to photo 6 ).
- 5. Don't put pressure on the pedals when your body is extended, in case of falling off caused by falling over.
- 6. Don't lean against the top of the seat back to prevent from falling and damaging the back.





#### Remember:

Move your electric wheelchair as close as possible to what you want to achieve. Rotate the front casters until they are as forward as possible. This will make electric wheelchair more stable.

#### Note:

- 1. If you move your electric wheelchair beyond the target you want to reach during this operation, step back and approach it, then returned to original place. The front casters will rotate forward.
- 2. When you reach the desired position, turn off the power of the electric wheelchair. If the electric wheelchair tilted to one side, hold the handrail tightly with one hand when leaning, This will prevent you from falling.



### **Obstacles overpassing**

You may need to overcome some obstacles in daily use, including doorsill, elevator, ramp, pit and broken pavement, etc. Improper operation may damage your electric wheelchair, and also cause personal injury.

- 1. Note that the threshold is very dangerous. Even a small height may jam the casters and tilt the electric wheelchair or rollover, it is recommended that remove the threshold of the room or cover the threshold to slope. Install a ramp to access door.
- When you move the electric wheelchair, please carefully check the area you want to pass, make sure the place where you use electric wheelchair could smoothly and safely cross obstacles.
- 3. Adjust your center of gravity by the following methods: When about to cross an obstacle or pass a section from low to high, slightly tilt your upper body forward. When pass through a section from high to low, upper body should press back.

## **Backwarding**

In reverse extra carefully While rear wheel hits an object, you may lose control of the electric wheelchair and fall.

- 1. When driving backwards, please always slow down.
- 2. Check from time to time to ensure that there are no obstacles endangering safety on the road.

## Driving on incline/slope/hillside

When on the slope, the balance center of gravity of electric wheelchair will change. Note if it is not sure about the safety of using this electric wheelchair on a slope, please use it with some help, and be sure not to use it alone.

Matters needing attention:

- 1. For your safety, please don't use this electric wheelchair on a slope with a gradient older than 8.
- 2. Please don't use electric wheelchair on slippery slopes (such as snow, ice, water or oily film).
- 3. Please don't use this electric wheelchair when the road surface on the slope has ups and downs (ups and downs, bumps and depressions).
- 4. If there is a small pit at the bottom of the slope, please do not use this electric wheelchair.



### Weight restrictions

- 1. The maximum load of this electric wheelchair is 140 kgs (308.7 lb), and the load in use should not exceed this maximum load.
- 2. The bearing capacity of the rear backrest is less than 75kg (165.4 lb), it is not allowed to press down or lift the rear backrest.
- 3. Under no circumstances, do weight training on this electric wheelchair, even if the user's weight is added with the lifted weight. The sum of the quantity does not exceed the maximum bearing capacity of the electric wheelchair.
- 4. In use, the load exceeding the maximum load may damage the seat, frame, fasteners, folding mechanism, etc. May seriously hurt. Or other people, may also damage or scrap the electric wheelchair.
- 5. No warranty is provided for problems caused by the load exceeding the maximum load in use.

### Matters needing attention when going up and down stairs



This electric wheelchair is not used for going up and down stairs or using escalators.

- 1. Always pay attention to the following warnings when using the elevator:
  - Do not use escalators (stepped elevators) between floors to move electric wheelchairs, so as to avoid serious accidents. Personal injury.
  - You can use the up-and-down elevator when sitting in an electric wheelchair. Please
    operate 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, after the electric wheelchair is transported to the required place, if you need to deploy the electric wheelchair, please Refer to the chapter "Electric Wheelchair Deployment Method".
- 2. When you want to move an electric wheelchair through stairs between floors, you should operate according to the following specifications:
  - · Get off electric wheelchair.
  - · Before folding electric wheelchair, the upper controller must be closed and removed.
  - When moving the electric wheelchair up and down the stairs, do not have any imppact on wheelchair.



# **INSTALL SETUP**

## Components

Your DC02 Power Wheelchair will arrive carefully packaged in a cardboard box.

Open the top of the box then turn the box on the side for easier pulling out the chair and contents.

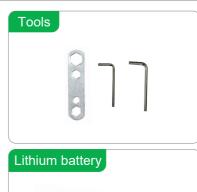
















 To expand the DC02, grasp the push bar and pull up while holding down on the seat to expand the chair and complete the assembly (refer to photo 7).







 Continue to expand the chair into a seated position until you hear a \*CLICK\* indicating it has locked into the seated position (refer to photo 8).

3. Locate the seat cushion and back rest cushion provided. Orientate the seatcushion such that rear of the seat and the Velcro on the bottom of the seat cushion aligns with the Velcro on the seat (refer to photo 9).





4. Next, place the back rest cushion over the top bar and adhere to Velcro on either side of the back rest tension straps. Be sure the JBH logo is at the rear and the back rest is placed behind the horizontal back bar of the chair (refer to photo 10).

5. Install the controller into the open slot on the arm of the chair, on the right side (if user needed, can change to left side)(refer to photo 11). Tighten knob located under the arm-rest to secure the controller in place (refer to photo 12).









 Connect the controller wire harness to the CPU wire harness. Take care the line up the pins properly as arrow tip indicate, so that they do not get bent, broken or damaged (refer to photo 13).



**Note** Make sure connector pins "white arrow" to "white arrow"

#### Seat belt installation

Seat belt plays a role of restraining displacement and buffering, preventing user from sliding down the seat forward. Seat belt can be adjusted according to the user's comfort. In case of accidents, it will firmly hold the user to the seat to prevent personal injury caused by secondary collision.

#### 1. Install seat belt:

Ensure that the seat belt has bound the waist of the body with the lower part of the backrest frame of the electric wheelchair.

#### 2. Adjust the seat belt according to user's comfort:

Please bulked up with a clik sound
Adjust the safety belt with appropriate length, don't be too tight causing discomfort.

#### 3. Unbuckle your seat belt:

Press the button on buckle to unbuckle.



Make sure that the seat belt is properly fixed on the electric wheelchair and adjusted to the most comfortable state for the user. Check whether the seat belt is loose or damaged. If you find a problem, please contact the dealer for maintenance and repair.



# **BATTERY SETUP**

# Install the battery

Just put the battery to battery shell on both side of wheelchair, hold the battery handle, insert the other side of the battery into the opening of the battery tube until the battery is all the way inside (refer to photo 14).





## Remove the battery

Grasp and pull it up of the soft plastic button on the battery shell ,at the same time pull out the battery (refer to photo 15) .







#### **FOLDING AND UNFOLDING**



- 1. Making sure all the attaching parts are fastened properly after any adjustment, repair or maintenance, for avoiding any damage or injury.
- 2. The wheelchair with certain weight that requires correct way of lifting up to avoid injury. While it is necessary to lift up for moving the wheelchair, it is strong suggested user get off wheelchair first.
- 3. If user have to stay in wheelchair for lifting up and moving at the same time, make sure safety is fully secured. Do not hold attaching part for lifting and moving wheelchair.

## Steps for wheelchair folding

- 1. Hold top of backrest frame with one hand, the other hand lift up the locking control rod at the back of back rest for unlocking.
- 2. Lift up the front of seat by hand for folding.
- 3. Push top of back rest and front end of seat together.
- 4. Fold footrest.









## Steps for wheelchair unfolding

- 1. Unfold foot pedal first.
- 2. Hold the top of backrest with one hand, the other hand hold front end of seat.
- 3. Both hand push away till a "Click" sound heard for completely unfold the wheelchair.









## **CONTROLLER**

The DC02 Power Wheelchair is equipped with a joystick controller. Detail functions as shown:



## Controller and driving tips



- 1. When driving at high speed, don't make a sharp turn.
- 2. Failure to follow the warning may cause the electric wheelchair to tilt, and may result in user injury or product damage.
- 3. The joystick is located at lower part of the control panel, which can control the speed and direction smoothly. With 360 omni-directional rotation performance, convenience of operation, there is a spring , which can automatically return to the initial intermediate state in joystick.
- 4. Push joystick to the direction which want to, the joystick has the ability to control the drive proportionally. Bigger of push, faster wheelchair would go. Come the top speed is limited to 4.5 km/h.
- 5. If you want to slow down the speed of the electric wheelchair, reduce the pushing of joystick forward. The electric wheelchair automatically slow down allowing smallest.
- 6. Learn to drive electric wheelchair at the first beginning, try at a slower speed and move lightly. Slowly tilt the joystick forward a bit. This exercise will help you learn how to control the electric wheelchair, so that you gradually get to know and familiar with it, including controlling, starting and stopping the electric wheelchair smoothly.



# **BASIC OPERATION**

# **Obstacles overpassing**

Before operating your DC02 Power Power Wheelchair, be sure to read all safety information and precautions included in this manual. Operate only in the appropriate environment after you have practiced operation the wheelchair and know how to work the controller.

| GET IN           | Be certain that the power is OFF before sitting in the seat of Fold Power Wheelchair DC02, with no light on the controller, make sure the footrest is down before getting into the wheelchair. |
|------------------|--|
| POWER ON         | Press the Power button, you will ear a beep and a light will indicate that power is on.  |
| TURING &STEERING | Use the joystick style control to steer and turn left, right or go forward and backward.   |
| STOPPING         | Simply remove your hand from the joystick to stop.   |
| POWER OFF        | When stopping, it is advised that you power OFF the wheelchair to prevent accidents. Press the power button to turn off the wheelchair.  |
| GET OUT          | Make sure there is no light on the controller before getting off the wheelchair.   |



### **CHARGING BATTERIES**

#### Use of batteries

Your DC02 wheelchair will arrive with full charged batteries, which should last about 25 km (15.5 miles) under normal operation conditions. We recommend that you run the DC02 PowerWheelchair until the batteries are completely dead in order to get the most out of the battery life.





👜 💫 Do not use batteries with different capacities, brand and type while replace the battery. The original battery should be replaced and all exiisting batteries should be replaced together. Do not mix the old and new batteries.



The positive and negative electrodes of the battery cannot be connected with conductive objects such as metal, which may cause short circuit or electric shock.



Keep away from flammable material. Do not approach or be exposed to heat sources, such as open flames or sparks. When transporting batteries, do not place them with flammable or combustible material.



There are corrosive chemicals in the battery. It is forbidden to disassemble the battery without permission.



It is not allowed to short-circuit the battery or put the battery into the fire to avoid explosion accidents.

## First charging method

Charge both batteries at the same time via controller charge port.

- 1. Turn the power off.
- 2. Plug in the charger to the controller port (refer to photo 16), please notice connect the charger cable first, then turn the power on.





Do not charge continuously over 6 hours through charging port of controller to prevent over charging while two batteries are inserted into both sides of frame. Never charge over 3 hours when it is only one battery in either side of frame.



- 1. Allow your wheelchair to charge for 6 hours full charge or when the light on the charger turns green, which means your batteries are full charged.
- 2. Should you require them, the lights and what they mean are located on the back of the charger.





Definition of what the light colour mean

#### **Charger light**

**GREEN** colour indicates fully charged. **RED**--battery is charging.

### Second charging method

- 1. Turn off the main power.
- 2. Flip open the charger port protector on the front of battery.
- 3. Use the secondary charger pigtail to adapt the battery charger to plug into the battery directly (refer to photo 17).





- 1. Keep charging time of single battery in 3 hours when it comes to off board charging to avoid over charging.
- 2. Immediatly unplug charger from power source as soon as indicating light on charger turns green.
- 3. No operation of wheelchair allowed while it is in the process of charging battery. It is required to unplug charger from power source prior to operate wheelchair.
- 4. Charging cycles is 500 times for single battery life extend.



### **Tips**

- 1. The Fold Power Wheelchair comes with two charged 24V 6AH lithium batteries.
- 2. Never charge over hours for each battery.
- 3. Turn the main unit's power off while charging.
- 4. Do not leave children unsupervised near the power wheelchair while it is charging.
- 5. Do not attempt to open the battery housing.
- 6. Red means the power is on and the unit is charging; green means the unit is fully charged.
  - Note: This information is also located on the back of the charger.
- 7. When the battery is full charged, remove cable, then take out the DC charging connector and AC input power socket.
- 8. The average time taken to re-charge workable batteries will vary from 2 to 8 hours depending on the level of usage.
- 9. Charging Time: 2-3 hours if one battery charging. 6-8 hours if the dual battery on the wheelchair charging through the joystick.
- 10. Do not charge more than 6 hours.
- 11. If you do not operate the DC02 for two months, we recommend that you charge the battery for 6~8 hours before use.
- 12. The life cycle of a lithium battery is measured in charging cycles with an average of 500 charge cycles.
- 13. Check the battery indicator light daily if you use the DC02 Wheelchair frequently.
- 14. Do not use any battery chargers that have not been certified by JBH.
- 15. If damaged, do not handle the battery without protective gloves and eyewear.
- 16. If the battery needs to be disposed of, locate the nearest hazardous materials disposal facility, and call them for instructions.
- 17. Before storing your DC02 Power Wheelchair for long periods of time, take these steps to maintain the battery.
  - a. Full charge the battery before storing.
  - b. Remove the battery from the wheelchair.
  - c. Store the battery in a room temperature environment that is kept dry.
  - d. Avoid temperature extremes and do not allow the battery to freeze.
- 18. Do not attempt to charge your battery if it is frozen from extreme weather conditions, instead first allow it to thaw for several hours.



## Over current protection

This system is included on the wheelchair and will shut off the current from the batteries if triggered, thus shutting the motor down, which will ensure that the motor and battery do not experience and damage.

## **Cleaning of battery socket**

- 1. Check whether there is corrosion at the positive and negative poles of the battery
- 2. Check whether the battery and plastic battery box are assembled in place.
- 3. Use a battery cleaning tool to clean the battery socket.
- 4. Carefully clean up all metal particles and dust.
- 5. Do not let the battery material contact with skin, cloth or other item. Acidic substance that cause harm or damage and burn. If the material contacts skin, immediately wash the skin thoroughly with cold water. If the situation is serious or with eye contact, please seek medical attention immediately.

## **FREE WHEEL MODE**

In order to have a care giver push the power wheelchair, it must be put in Free Wheel Mode. This mode disengages the drive mechanism to the wheels, making them free to push manually. We recommend that you turn off the power of wheelchair when in this mode, both for safety and to save battery power.

- 1. To put the DC02 in Free Wheel Mode, come to a full stop and turn OFF the power on the controller
- 2. Push down on the two red levers located on each motor as shown (refer to photo 18):





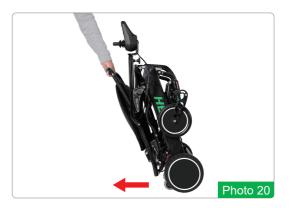
## **TRANSPORTING DC02**



Never transport the power wheelchair in a tie up system (electric mode), as the DC02 Power Wheelchair is not compatible with them. Never sit in the wheelchair and be transported in moving vehicle. Do not place the folded power wheelchair in the front seat with driver where it could move and slide.

- 1. Turn off the power from the controller.
- 2. Remove seat cushion.
- 3. Press down the backrest and flip the back safety latch down to unlock the frame (refer to photo 19).
- 4. Fold the wheelchair.
- 5. When folded, the seat cross bar can be used to move the wheelchair easily (refer to photo 20).





#### **Direction for use**

- Transportation requirements: Batteries should be packed into boxes for transportation.
   During transportation, severe vibration, impact or extrusion should be prevented, and the batteries should be protected from the sun and rain, so that Transport by car, train, ship, plane and other means of transportation.
- 2. **Storage requirements:** The battery should be stored in a clean, dry and ventilated room with an ambient temperature of -5 °C ~ 35 °C and a relative humidity of not more than 75%. Avoid contact with corrosive substance and keep away from fire and heat source.
- 3. The main material of this product is carbon fiber. The product can be used to replace the running and walking function of potential user with mobility disorder having no trauma. It belongs to non-sterile medical device, sterilization/disinfection process is not applicable. Cleaning method of the product: wipe with clean and soft paper or cloth.
- 4. Discarded batteries shall be collected and treated by qualified party, and shall not be thrown at random, causing environmental pollution, so as to minimize risks.



#### **WARRANTY**

- This warranty is valid from the date of exfactory and valid for the replacement of disfunctional parts only. Any parts under warranty will be replaced and shipped to your door.
   Any service and labor fees, if applicable, to replace parts under warranty must be paid by the user.
- Due to its straigtforward design, most parts can be easily exchanged by the end user
  without a professional service tech required. However, it is always recommended you
  seek professional help for maintenance and service, to make sure the work is down
  properly.

## **Under warranty**

| Chair frame   | 3 years | Motors  | 1 year   |
|---|---------|---------|----------|
| Controller and CPU system   | 1 year  | Battery | 6 months |
| Wear parts: Includes tires, seat and back rest, armrests, and support straps. |         |         | 3 months |

#### The warranty does not cover:

- 1. Products damaged by user negligence.
- 2. products damaged accidentally.
- 3. Products damaged intentionally.
- 4. Products that have been subjected to negligence.
- 5. Products that have been subjected to abuse.
- 6. Products that have been improperly stored.
- 7. Products that have been improperly handled.
- 8. Products that have been improperly operated.
- 9. Products that have experienced general misuse.
- 10. Products that have been modified in an unauthorized, unapproved way.

Warranty is non-transferable and only valid for the original wheelchair purchaser.

The company reserves the right to make any change and improvement without prior notice.

It reserves and also the property of models and forbids their reproduction, even partial.



# TROUBLE SHOOTING AND MAINTENANCE

The following represents the most common questions asked about the Fold Power Wheel-chair DC02 with regard to every day use; check this helpful guide or the operator's manual for more information if you have a question about using your power wheelchair.

| Question   | Possible causes   | Answer  |
|--|---|---|
| Why is there No Power to the wheelchair?               | <ol> <li>Controller system power<br/>is not connected.</li> <li>Controller system CPU<br/>and joystick are not<br/>connected.</li> <li>Battery power is too low.</li> </ol> | <ol> <li>Connect the battery.</li> <li>Ensure all connections<br/>between joystick, CPU<br/>and battery are securely<br/>tightened.</li> <li>Charge the battery.</li> </ol> |
| Why is the wheelchair noisy or vibrating when turning? | <ol> <li>Speed is set too low.</li> <li>Motor is damaged.</li> </ol>  | <ol> <li>Raise the speed. At low speeds, the motor may sound or feel strained.</li> <li>Replace the motor.</li> </ol>   |
| Why can't I charge the battery?                        | <ol> <li>Charger light does not turn on.</li> <li>Charger light is always green.</li> <li>Charging time is stopped before full charge is complete.</li> </ol>               | <ol> <li>Replace the charger.</li> <li>Battery is not connected, or may need to be replaced.</li> <li>Capacity of battery as decrease over time. This is normal.</li> </ol> |
| Why can't I connect the controller?                    | Connector pins (male) on the controller have become bent and misaligned with connector holes (female) on the CPU connector.   | Using a small tool, carefully straighten the connector pins (male) on the controller to align with holes (female) on the CPU connector.                                     |



The battery of Power Wheelchair is an extremely important part, the battery life determines the service life of the wheelchair. Try to keep the battery saturated after each use, to develop such a habit, it is recommended to conduct a deep discharge every month! If you don't use a Power Wheelchair for a long time, place it in a place to avoid bumps and pull out the battery to reduce discharge. It is also best not to overload in the process of use, which has direct harm to the battery, so it is not recommended to overload and avoid directly affecting the service life of the battery (refer to photo 21).





After the Power Wheelchair is used for a period of time, it is necessary to check the screw loosening of the Power Wheelchair to ensure the connection and operation between the parts and components, and to avoid accidents (refer to photo 22).

After being wet by Rain Water. Electric walking vehicle should be wiped with dry rag in time, especially the part containing electrical circuit, so that the electric walking vehicle can keep dry and clean (refer to photo 23).





If the Power Wheelchair is on the beach, gravel or wet road, if there is sand, mud or gravel on the tire, it should be cleaned in time to prevent some parts from rusting or the tire running badly, which will affect the beauty and driving comfort and safety (refer to photo 24).



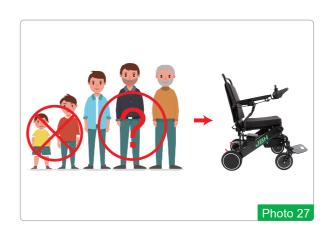
Power Wheelchair should avoid scratching seat leather and PU handrails and plastic ornaments with sharp objects, thus affecting the beauty of the whole vehicle (refer to photo 25).





Electric walking vehicle should be placed in a place where the sun can not shine, please avoid sunlight, otherwise it is not only harmful to the battery, but also has a direct impact on the service life of plastic parts and stickers of electric walking vehicles (refer to photo 26).

Power Wheelchair are relatively simple to operate, avoid driving by children or adults without experience in Power Wheelchair. Drivers should avoid unnecessary large-scale body movements or sleep on Power Wheelchair, which may lead to accidental danger. In order to avoid this situation, it is best to unplug the power switch key when not in use. It also avoids the risk of theft (refer to photo 27).



**Mantainence tool** Simple tool kit is accompanied with Wheelchair in Wheelchair packing, while dry soft fabric and so on are handy and easy to get in the market are not included. The period of maintence is vary depending on the real use frequency and situation, there is no specific rule.



## Maintenance frenquecy

### 1. Daily check

Turn off the controller, check the lever, make sure the lever is not bent and broken, and be sure to retiun to it when you release it. Check the nibber base of the lever for damage. Just check the base and do not repair it. If you have any questions, please contact your dealer.

### 2. Weekly check

Disconnect the controller coimector and charger comiector from the battery compaitment. check the connection and for corrosion. If necessary, please contact the dealer.

Make sure that all parts of the controller are tightly connected to the product, do not screw the screws too tiglitly.

Check the brakes. This inspection must be canied out on a level siuface and there must be enough open space around.

#### Check the brakes:

- Tum on the controller. After one second. check the batteiy indicator to make sure the batteiy is powered.
- Slowly push the lever forwaid to guide you to hear the "beep" of the brakes, and immediately release the lever. You must hear the brake operation sound after each lever is pushed for a few seconds:
- Repeat the operation tluee times to push the controller to the rear, left and riglit sides for inspection.

### 3. Monthly check

- Check the anti-roll wheel for excessive wear and replace the wheel if necessary.
- Check the wear of the front wheels and drive wheels. If maintenance is required. please contact your dealer.
- Check the front fork for wear and looseness, which may indicate that adjustment is needed or the bearing needs to be replaced. Please contact the dealer for repair, or replacement.
- Keep the product clean and do not leave debris, such as food, beverages, residues, etc.



#### 4. Storage

This product should be stored in a cool and dry environment. Do not store it at the extreme temperature. If it cannot be stored under the above conditions, it may cause rusting of the wheelchair, and damage to the electrical system. Storage conditions: temperature: -40  $\sim$  +65 degree C; Relative humidity: W80%; Atmospheric pressure: 86kPa  $\sim$  106kPa.

If you discover a problem, require for parts supply (Such as battery, tire, charger and so on) contact your authorized local Dealer or Distributor for assistance, alternatively direct contact with manufacturer with the following Contact Information.



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### www.jbhmedical.com

Hightly suggest that use oringinal parts from supplier to avoid any potential issues or failure of function of wheelchair, please always consult with authorized local Dealer or Distributor first.



## **DIAGNOSTICS**

Your controller as an indicator light that, during normal operation, is a steady GREEN. This light also functions as a diagnostic tool by flashing in patterns that indicate problems. It is important to pay attention to these diagnostics in case the power wheelchair must be put out of use for safety reasons until maintenance can be performed.

If the indicator light indicates a fault, turn off the power and then turn on power again. If the fault is not released after turning on power again, 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 method still does not help you troubleshoot, please contact your dealer. When communicating with the dealer, provide the specific problems in detail as much as possible.



**1 red light flash** indicates the pressure of battery is not full.



**2 red lights flash** indicates no signal of joystick.



**3 red lights flash** indicates the wheelchair is charging.



**4 red lights flash** indicates moving the joystick when turning on power. Or do not connect the motor wires.



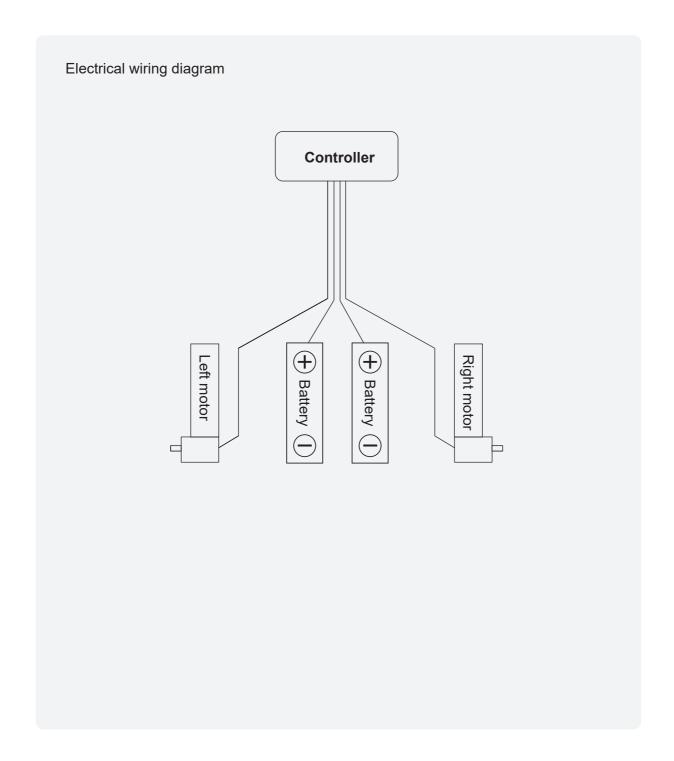
**5 red lights flash** indicates the brake solenoid is not connected or damaged.



If the left situation arises, check the corresponding connection plug and cable of the controller, or check the corresponding components.



# **ELECTRICAL WIRING DIAGRAM**





# **ELECTROMAGNETIC INTERFERENCE & COMPATIBILITY**



- 1. DC02 Power Wheelchair meets the electromagnetic compatibility requirements of IEC60601 standards.
- 2. The user shall install and use according to the EMC information provided in the attached documents.
- 3. The portable and mobile RF communication equipment may affect the performance of electric wheelchair and avoid strong electromagnetic interference when using, such as close to mobile phones, microwave ovens, etc.
- 4. The guide and the manufacturer's statement are detailed in the annex.



- 1. DC02 Power Wheelchair should not be used close to or stacked with other equipment. If it must be used close to or stacked, it should be observed and verified that it can operate normally under the configuration used.
- 2. In addition to the cables sold by DC02 Power Wheelchair manufacturers as spare parts of internal components, the use of accessories and cables other than those specified may result in increased emission or reduced immunity of DC02 Power Wheelchair.

| Project             | Cablelength (m) | Whether or not shielded | Remark |
|---------------------|-----------------|-------------------------|--------|
| POWER CORD          | 1.4             | NO                      | /      |
| CHARGER OUTPUT LINE | 1.1             | NO                      | /      |
| EXTENSION CORD      | 0.12            | NO                      | /      |



### **Guidelines and manufacturer's statement-Electromagnetic Emission**

DC02 Power Wheelchair is expected to be used in the electromagnetic environment specified below, and the buyer or user of the electric wheelchair vehicle shall ensure that it is used in this electromagnetic environment:

| Launch test  | Compliance | Electromagnetic environment-Guidelines  |
|--|------------|---|
| IEC60601<br>RFlaunch                                 | 1          | DC02 Power Wheelchair only uses RF energy for its internal functions. Therefore, its RF emission is very low and may not cause any interference to the nearby electronic equipment. |
| IEC60601<br>RFlaunch                                 | В          |   |
| IEC60601<br>Harmonic emission                        | А          | DC02 Power Wheelchair is suitable for domestic use and all facilities directly connected to the public low-voltage powersupply network for domestic use.                            |
| IEC60601<br>Voltage fluctuation/<br>flicker emission | FIT        |   |



### Guidelines and manufacturer's statement-Electromagnetic Immunity

DC02 Power Wheelchair is expected to be used in the electromagnetic environment specified below, and the buyer or user of the electric wheelchair vehicle shall ensure that it is used in this electromagnetic environment.

| Anti-interference measurement  | IEC60601 Test Level  | Coincidence level  | Electromagnetic<br>environment-<br>Guidelines   |
|--|--|--|---|
| Electrostatic<br>discharge<br>(ESD)<br>ISO7176<br>IEC60601   | ±6 kV Contact discharge<br>±8 kV Air discharge   | ±6 kV Contact discharge<br>±8 kV Air discharge   | The floor should be wood, concrete or ceramic tile, and if the floor is covered with synthetic materials, the relative humidity should be at least 30%.   |
| Electrical fast<br>transient burst<br>ISO7176<br>IEC60601  | ±2kV To the power cord   | ±2kV To the power cord   | The power supply in the hospital or in the commercial environment should be of typical quality.   |
| Surge<br>ISO7176<br>IEC60601   | ±1 kV<br>Differential-mode<br>voltage<br>±2 kV Common mode<br>voltage  | ±1 kV<br>Differential-mode<br>voltage  | The power supply in the hospital or in the commercial environment should be of typical quality.   |
| Voltage sag,<br>short int errup-<br>tion and voltage<br>variation on<br>power in put line<br>ISO7176<br>IEC60601 | $ \begin{array}{c} <5\% \ \mathrm{U_T}, \ \mathrm{Last} \ \mathrm{for} \ 0.5 \\ \mathrm{circuits} \ (\mathrm{on} \ \mathrm{U_T}, > 95\% \\ \mathrm{sag}) \\ 40\% \ \mathrm{U_T}, \mathrm{Last} \ \mathrm{for} \ 1 \\ \mathrm{circuit} (\mathrm{on} \ \mathrm{UT}, 60\% \ \mathrm{sag}) \\ 70\% \ \mathrm{U_T}, \ \mathrm{Last} \ \mathrm{for} \ 25 \\ \mathrm{circuits} \ (\mathrm{on} \ \mathrm{U_T}, 30\% \\ \mathrm{sag}) \\ <5\% \ \mathrm{U_T}, \mathrm{Last} \ \mathrm{for} \ 5 \ \mathrm{seconds} \ (\mathrm{on} \ \mathrm{U_T}, > 95\% \\ \mathrm{sag}) \\ \end{array} $ | <5% UT, Last for 0.5 circuits (on UT, >95% sag)  40% UT, Last for 1 circuit (on UT,100% sag)  70 % UT, Last for 25 circuits (on UT,30% sag)  <5% UT, Last for 5 s e c o n d s ( o n UT,>95% sag) | The power supply in the hospital or in the commercial environment should be of typical quality. If the users of electric wheelchair need continuous operation during power interruption, uninterruptible power supply or battery power supply is recommended. |
| Power frequency<br>magnetic field<br>(50/60Hz)<br>ISO7176<br>IEC60601  | 30 A/m   | 30 A/m   | The power frequency magnetic field should have the horizontal characteristics of power frequency magnetic field in typical commercial or hospital environment.  |

Note:  $U_T$  refers to the AC network voltage before the test voltage is applied.



DC02 Power Wheelchair is expected to be used in the following specified electromagnetic environment, and the purchasers or users of NPL001、NPL002、NPL003 electric wheelchairs shall ensure that it is used in this electromagnetic environment:

| Anti-interference measurement       | IEC60601<br>Test Level         | Coincidence<br>level | Electromagnetic environment-Guidelines   |
|-------------------------------------|--------------------------------|----------------------|--|
| RFconduction<br>ISO7176<br>IEC60601 | 3 Vrms<br>150 kHz to<br>80 MHz | 3 Vrms               | Portable and mobile RF communication equipment shall not be used closer to any part of the electric wheelchair, including cables, than the recommended isolation distance. The distance shall be calculated by the formula corresponding to the transmitter frequency. |
|                                     |                                |                      | Recommended isolation distance   |
| RF radiation                        | 0.14                           |                      | d= $1.2 \sqrt{P}$  |
| (charger)                           | 3 V/m<br>80 MHz to             | 3 V/m                | d= 1.2 $\sqrt{P}$ 80 MHz to 800 MHz  |
| ISO7176<br>IEC60601                 | 1.0 GHz                        |                      | d= $2.3 \sqrt{P}$ 800 MHz to 1.0GHz  |
|                                     |                                |                      | d= $0.2 \sqrt{P}$ 26 MHz to 800 MHz  |
| RF radiation                        |                                |                      | d= $0.4 \sqrt{P}$ 800 MHz to $2.5 \text{ GHz}$   |
| (wheelchair) ISO7176 IEC60601       |                                | 20 V/m               | Where P is the maximum output rated power of the transmitter provided by the transmitter manufacturer, in watts (W), and d is the recommended isolation distance in meters (m). <sup>B</sup>   |
|                                     |                                |                      | The field strength of the fixed RF-transmitter is determined by surveying the electromagnetic field A. in each frequency range, B should be lower than the coincidence level.  |
|                                     |                                |                      | Interference may occur near equip-<br>ment marked with the following sym-  |
|                                     |                                |                      | bols.  |

Note 1: At the frequency of 80MHz and 800MHz, the formula of higher frequency band is adopted.

Note 2: These guidelines may not be suitable for all cases where electromagnetic propagation is affected by absorption and reflection of buildings, objects and human bodies.



- a. If the fixed transmitting airport is strong, such as the base station of wireless (cellular / cordless) telephone and ground mobile radio, amateur radio, am (amplitude modulation) and FM (frequency modulation) radio broadcast and television broadcast, and the field strength of the place where NPL001、NPL002、NPL003 electric wheelchairs are located is higher than the RF coincidence level of the above application, then the electric wheelchair should be observed to verify It can operate normally. If abnormal performance is observed, supplementary measures may be necessary, such as reorientation or repositioning of the electric wheelchair.
- b. The field strength should be less than 3 V / m in the whole frequency range of 150 kHz to 80 MHz.

Recommended separation distance between portable and mobile RF communication equipment and electric wheelchair.

DC02 Power Wheelchair is expected to be used in an electromagnetic environment where radiated RF disturbances are controlled. According to the maximum output power of communication equipment, the buyer or user of electric wheelchair can prevent electromagnetic interference by maintaining the minimum distance between portable and mobile RF communication equipment (transmitter) and electric wheelchair.

| Rated maximum                            | Isolation distance corresponding to different frequencies of transmitter/m |                             |           |  |                                     |
|--|--|-----------------------------|-----------|--|-------------------------------------|
| output<br>power of<br>transmit-<br>ter/W | 150 kHz<br>~ 80<br>MHz-  | 80MHz ~ 800<br>MH (Charger) |           | $\begin{array}{l} {\rm 26MHz} \sim 800 \\ {\rm MHz} \\ {\rm (Wheelchair)} \end{array}$ | 800 MHz $\sim$ 2.5 GHz (Wheelchair) |
|  | d= 1.2 √P  | d= 1.2 √P                   | d= 2.3 √P | d= 0.2 √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 D, in meters (m), can be determined by the formula in the corresponding transmitter frequency column, where P is the maximum output rated power of the transmitter provided by the transmitter manufacturer, in watt (W).

Note 1: At 80 MHz and 800 MHz frequencies, the formula for the higher frequency range is used.

Note 2: These guidelines may not be suitable for all cases where electromagnetic propagation is affected by absorption and reflection of buildings, objects and human bodies.

# **WARRANTY CARD**







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