



User manual

Model: Q50R

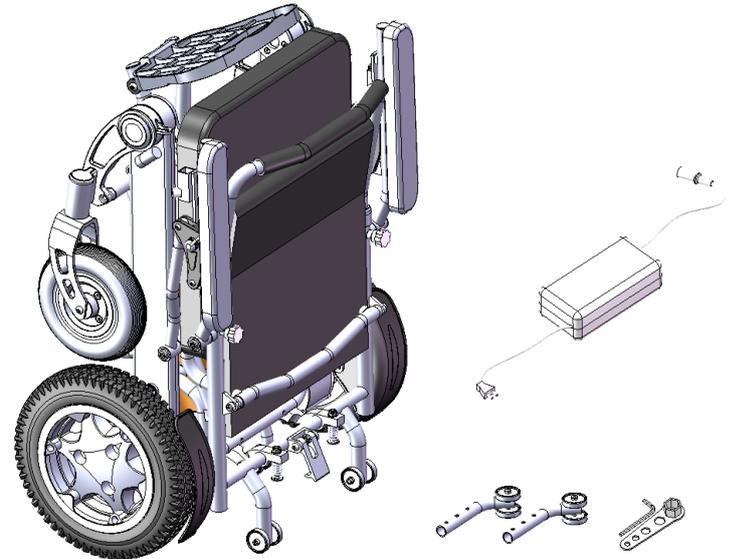


Powered wheelchair

QUICKSTART GUIDE

1.Frame body and spare parts list

1.Frame	x1	
2.Charger	x1	
3.Anti-rolling wheel (Removable)	x2	
4. Toolbox	x1	

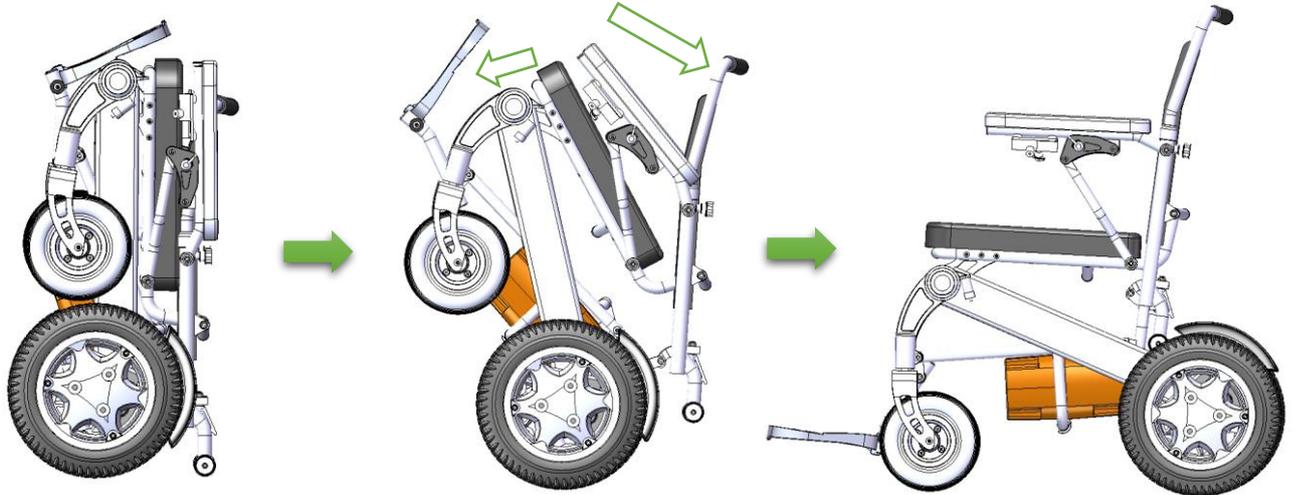


After receiving the product, you need to check whether the part is missing or damaged according to the above picture. If

you have any questions, please contact with Sunrise Medical or the dealer in time.

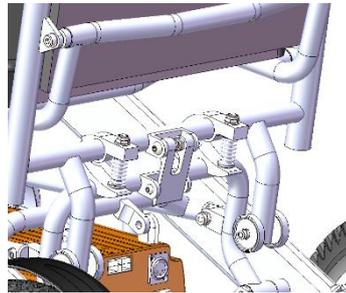
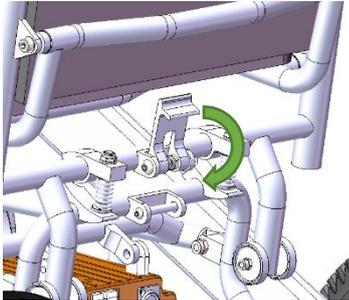
2. Installation steps

Step1 Unfold frame



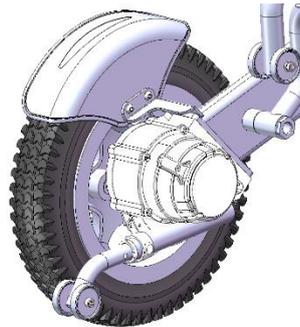
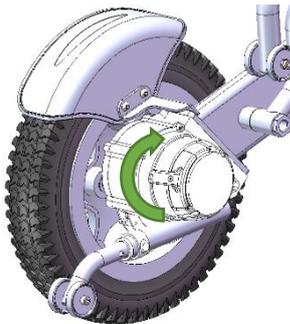
▶ Take the Power wheelchair out of the box and pull the backrest back in the direction shown until it is fully extended.

Step2 Buckle up



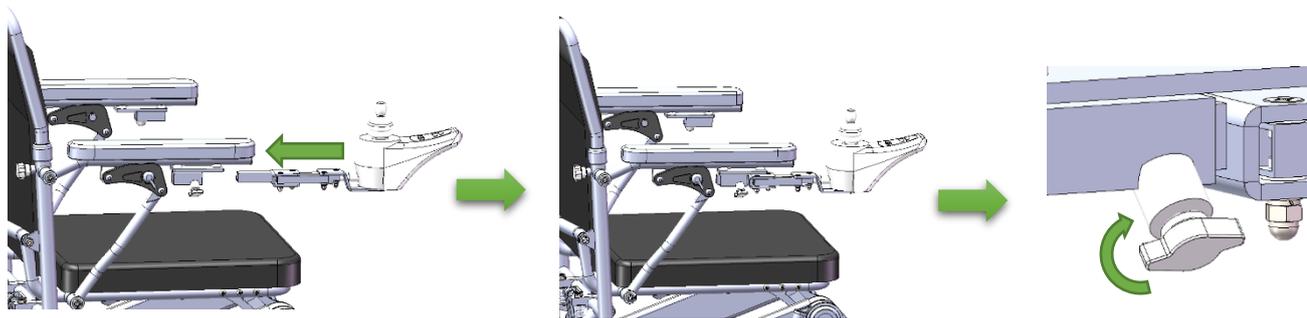
- ▶ Flip the lock down and press it firmly into the lock pin. Check for firmness.

Step3 Brake lever switch



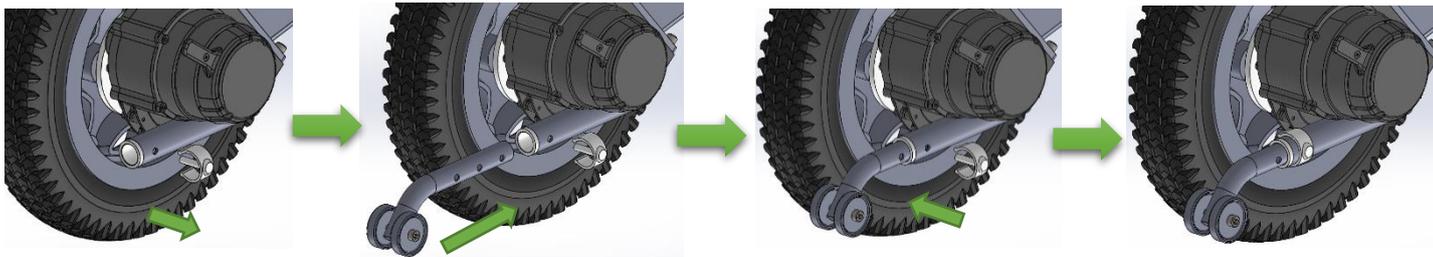
- ▶ Turn the brake handle to the Drive Mode. For details, please refer to 4. Instruction Manual-2. Electromagnetic Brake Handle.

Step4 Install the controller



- ▶ Remove the controller and place it in the corresponding position as shown in the figure.

Step5 Install anti-roll tube



- ▶ Pull out the C-shaped buckle, insert the anti-tilt pipe according to the direction shown in the figure, align the corresponding holes on the frame, and then insert the C-shaped buckle to check whether it is secure.

User Information

Intended use power wheel chairs:

Power wheelchairs are exclusively for a user who is unable to walk or has limited mobility, for their own personal use in- and outdoor.

When an Attendant Control Module is fitted, the Power Wheelchair may be operated by an assistant on behalf of the user.

When a Dual Control Module is fitted the Power Wheelchair may be operated by the user, or control may be switched to an assistant to operate on behalf of the user.

The maximum weight limit (includes both the user and any weight of accessories fitted to the wheelchair) is marked on the serial number label, which is affixed to the chassis of the chair.

In the chair packaging there is an additional chair serial number this can be affixed to the front page of the owners manual supplied with the wheelchair.

Warranty can only be taken on if the product is used under the specified conditions and for the intended purposes.

The intended lifetime of the wheelchair is 5 years. Please DO NOT use or fit any 3rd party components to the wheelchair unless they are officially approved by Sunrise Medical.

NOTE:

General user advice.

Not following these instructions may result in physical injury, damage to the product or damage to the environment!

A notice to the user and/or patient that any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

B4Me special adaptations

Sunrise Medical strongly recommends that in order to ensure that your B4Me product operates, and performs as intended by the manufacturer; all the user information supplied with your B4Me product is read and understood, before the product is first used.

Sunrise Medical also recommends that the user information is not discarded after reading it, but it is kept safely stored for future reference.

Area of application

The variety of fitting variants as well as the modular design mean that it can be used by those who cannot walk or have limited mobility e.g. because of:

- Paralysis
- Loss of extremity (leg amputation)
- Extremity defect deformity
- Joint contractures/joint injuries
- Strokes and brain injuries

- Neurological disabilities (e.g. MS, Parkinson...)
- Illnesses such as heart and circulation deficiencies, disturbance of equilibrium or cachexia as well as for elderly people who still have the strength in the upper body.
- Persons who are mentally and physically able to control an input device to operate the chair and its functions in a safe way.

When considering provision, please also note the body size, weight including the distribution of body weight, the user's physical and psychological constitution, the age of the user, their living conditions and their environment.

If in doubt a health care professional should be involved to ensure the user is not exposed to unacceptable risks.

INTCO is ISO 9001 certified, which ensures quality at all stages of the development and production of this wheelchair.



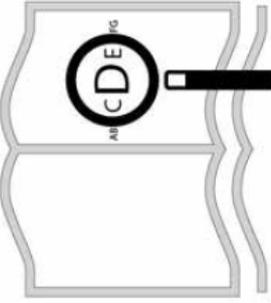
WARNING!

**DO NOT USE YOUR WHEELCHAIR UNTIL THIS MANUAL
HAS BEEN READ AND UNDERSTOOD.**

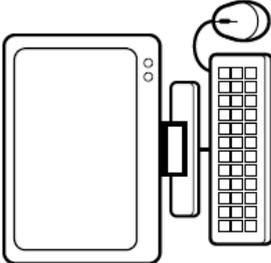


INTCO declares under its sole responsibility that this product is a Class 1 device, and that it complies with the requirements of the EU Medical Device Regulation (EU) MDR 2017/745.

The serial number and other important information can be found on the nameplate located on the left side of the product frame.



If you are visually impaired,
this document can be viewed
in PDF format at
www.SunriseMedical.co.uk

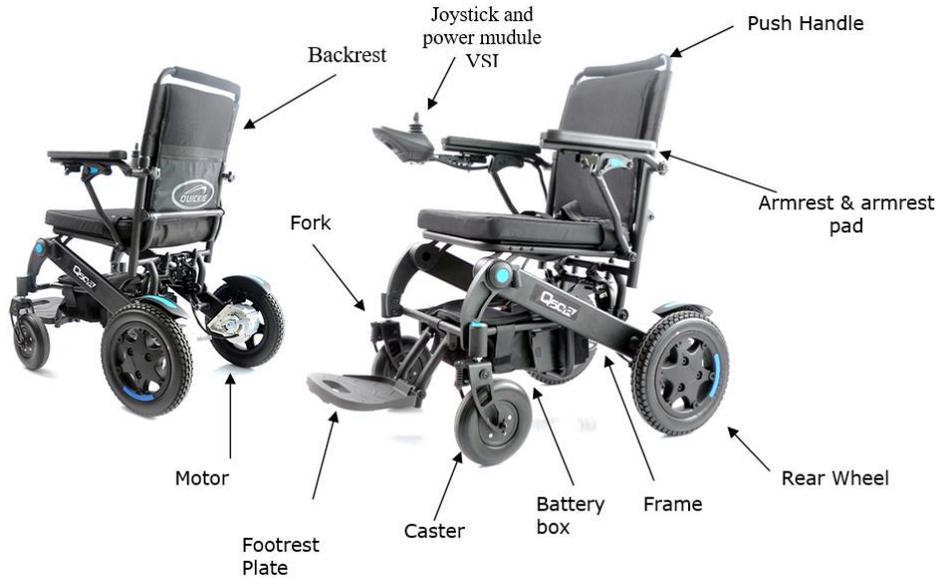


or alternatively is available
on request in large text.



This symbol means
Medical Device

Q50R Features



As part of a continuous product improvement initiative, INTCO reserves the right to change specifications and model without notice. In addition, some functions and options available are not compatible with all chair configurations.

All following dimensions are approximate and subject to change.

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1.0 Safety

If you follow the instructions given in this manual, you will enjoy many trouble-free years of use.



Warning! Failure to heed the warnings in this manual may cause personal injury and damage to this Power wheelchair;

Note! Prompt the user to pay attention to matters, failure to pay attention to these matters may cause damage to your Power wheelchair;

Prompt! Prompt the user for possible phenomena during operation, so that the user can master the operation skills of this Power wheelchair as soon as possible.

Safety guide

Overview:

This product is designed for people with reduced mobility for daily travel and is easy to fold and transport. We recommend either a professional installer completes the assembly of the Power wheelchair according to the provided process description, or the authorized distributor of this product has provided the process description. If the assembly is not completed correctly and this result in a problem is caused by the use part or the care part, INTCO is not responsible for this.

The user must practice using the product under the supervision of trained personnel.

Here are some safety tips to help users use this product safely. Sunrise Medical recommends that you check whether the wheelchair works smoothly and safely before each use. For detailed information on how to perform the inspection, please read "6. Maintenance".

Please check the following before using this product:

Check the connection between the controller and the battery box to ensure safety and correctness;

- ◆ Check the battery level;
- ◆ Check the firmness of the Lap belt;
- ◆ Check the brake system.

Before you use it, if any problem occurs, please contact your authorized dealer as soon as possible.

Weight capacity:

The maximum weight capacity of this product is 136KG.

Warning! Sunrise Medical will not be responsible for personal injury and vehicle damage caused by overweight.

Slope information: Some buildings have slopes, some slopes may also include a turn. Negotiating a turn on a slope requires you to have good skills in using this product.

When driving up slopes, try to keep the product moving. If you want to stop and restart, adjust the speed so you start-off slowly. When going downhill, set the speed to the slowest speed and drive forward. If the speed of the product is going downhill faster than preset or envisaged, then lower the lever to stop the wheelchair, and then slowly push the lever forward.

Warning! Do not drive on potentially dangerous slopes (such as snow-covered ground, grass, and slopes covered with damp leaves).

Warning! When climbing a hill, you must drive straight up the inclined surface, which will greatly reduce the possibility of overturning. When climbing a hill, be sure to watch out for extreme heights. Do NOT drive backwards when going uphill or downhill, this could lead to personal injury. The safe climbing angle of our wheelchair is 8° , see Figure 1-1 and Figure 1-2.

Warning! Any attempt to drive on a slope exceeding 8° may cause the product to tip over, which may cause personal injury or damage to the product.

The safe climbing angle of our wheelchair is 8° , see Figure 1-1 and Figure 1-2.

Warning! Any attempt to drive on a slope exceeding 8° may cause the product to sway and tip over, which may cause personal injury or damage to the product.



Figure 1-1 Maximum degree of uphill slopes

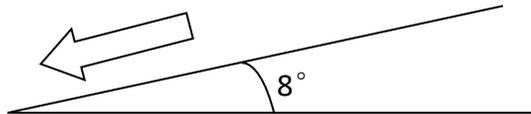


Figure 1-2 Maximum number of downhill slopes

Requirements for outdoor driving:

This product can be driven on conventional cement or asphalt pavement. When choosing a pavement, pay attention to the following:

- Slow down on unknown terrain or soft soil

- Avoid driving on wet grass, tyres may slip
- Avoid driving on soft gravel and beaches

If you are unsure about the condition of the surface, try to avoid driving on it.

Manual mode:

This product is equipped with a Free-wheel Mode that allows an attendant to manually push the wheelchair. For more detailed information about manual mode, please refer to "5. Instructions for use ---- 3. Electromagnetic brake".

Warning! The use of Free-wheel mode is only allowed with an attendant holding the product behind, otherwise the product may run away uncontrolled and result in personal injury.

Warning! When you are sitting in the wheelchair, do not move the position by yourself as you may lose control and this may lead to personal injury. Ask your attendant for help.

Warning! It is forbidden to place a wheelchair in Free-wheel mode on a slope. The wheelchair may roll uncontrolled and cause personal injury.

Fixed obstacles (stairs, curbs, etc.):

Warning! Do not attempt to drive backwards over any steps, curbs, or other obstacles, as this could tip the product over and cause injury.

Roads and parking:

Warning! It is forbidden to drive this product in the motorway. You must know that it is not easy to be seen by others when you are sit in a wheelchair. Please observe local traffic regulations. You should still drive carefully when there are no road obstacles on the road.

Stairs and escalators:

Power wheelchairs are not designed to have the function of ascending or descending stairs or escalators, but can use elevators.

Warning! Do not use this product to go up and down stairs or escalators. Doing so will cause injury to you and others, and may cause damage to this product.

Electromagnetic field:

Radio waves can interfere with Power wheelchairs. Radio waves are a type of electromagnetic energy. When this energy has a negative impact, we call it electromagnetic interference or radio interference.

Your wheelchair may be affected by mobile phones or other transmitting antennas during use. Within range, your wheelchair use may be affected by them.

Do not use a high-power handheld radio transmitter or receiver when the power switch is on. Use personal communications devices such as mobile phone should use qualified products (note: such qualified electronic products are according to the relevant standard tests and conform to the requirements of the electromagnetic compatibility, not interfering the normal work of this wheelchair)

Be aware of nearby radio transmitters, such as radio or television transmitters, to avoid proximity to them or drive carefully

It may be caused by electromagnetic interference for the braking failure and the driving uncontrolled of the Power wheelchair, if you are in safety, turn off the power as soon as possible.

Sitting or leaving a Power wheelchair:

Sitting or leaving a Power wheelchair requires a good sense of balance. When practicing getting in and out of a wheelchair, be sure to have someone supporting you.

In order to avoid injury, it is recommended that users who use this product for the first time be assisted by trained personnel. Before using a wheelchair, please complete the following operations:

Make sure that the controller is off and that the product is in electric mode. Refer to "IV. Instructions for use: motor clutch".

Make sure the armrests are turned up or the footplates are turned up. This will help your feet not touch the footplate.

Warning! Before getting on or off the Power wheelchair, you must ensure that the power is turned off. Otherwise, you may run into the wheelchair and cause serious personal injury.

Warning! It is forbidden to stand on the footplates, otherwise it will cause the wheelchair to fall over and cause personal injury.

Battery:

In addition to following the warnings, you must also ensure compliance with other relevant operating requirements. See "4. Instruction" for more detailed information.

Warning! Do not disassemble, repair or modify the battery.

Prevent accidental wheelchair movement

Warning! If you intend to stay in a fixed position for a while, please turn off the power to prevent accidental movement caused by accidentally touching the controller's operating lever, or even cause personal injury.

Use restrictions:

Wheelchairs are prohibited in the following cases:

- Users do not have the physical strength, intelligence or strain force to operate the power wheelchair safely.
- Persons with visual or intellectual disabilities, please seek advices from a medical care professional.
- Users must have the ability to maintain the upper body balance while operating and to withstand bumps caused by bumps on the road surface.

2.0 Product description

Product name: Power wheelchair

Model: Q50R

Manufacturer: Jiangsu Intco Medical Products Co.,Ltd.

Registered address: NO.77 Yandunshan Road, Dagang Zhenjiang, Jiangsu Province 212132 P.R. China

Production address: NO.77 Yandunshan Road, Dagang Zhenjiang, Jiangsu Province 212132 P.R. China

Distributor: Sunrise Medical

EC Representative: Sunrise Medical GmbH

Main structure:

This product consists of two parts: the electrical part and the wheelchair main body. The electrical part includes motor, battery box, controller and charger. The main parts of the wheelchair include front wheels, rear wheels, frame, armrest, footplate, seat cushion and backrest.



Jiangsu Intco Medical Product Co., Ltd.

For details, please check the manual

Manufacturer: Jiangsu Intco Medical Products Co., Ltd.

Add: No.77 Yandunshan Road, Dagang Zhenjiang, Jiangsu

Zip code: 212132

Tel: 0511-83174088

Production license number:

Product registration number:

Product standard marking:

Period of use: 5 years

Production date:

Distributor: Sunrise Medical S.L.

EC Representative: Sunrise Medical GmbH

Product name: Electric Wheelchair

Product model: Q50R

Product serial number: YW20190900

Voltage: 24VDC

Electric power: 2*200W

Operation mode: Continuous operation

Max Load: 136kg

Max Speed: 6km/h

Controller: newVSI

Battery: 18650 7S12P

Charger: HP1211L2



Power Wheelchair Nameplate

Symbols on the nameplate represent the meaning as below:

 : CE safety certification mark

 : Read the manual

IPX4: waterproof level

 : Electronic waste identification

 : Type B applied part

Type B applied part : Controller

 : Pay attention to safety mark

The equipment must be disposed of in accordance with local environmental regulations at the end of its service life.

Supplier should provide circuit diagrams, component lists, legends, correction details or other helpful users' necessary documents, which qualified technicians to repair, and specified repairable equipment parts by the manufacturer.

Specification sheets (EN 12184 & ISO 7176-15)

Maximum occupant mass: Q50R
136kg user.

The wheelchair Q50R conforms to the following standards:

a) requirements and test methods for static, impact and fatigue strengths (ISO 7176-8)

b) power and control systems for electric wheelchairs requirements and test methods (ISO 7176-14)

c) climatic test in accordance with ISO 7176-9

d) the product is specified as a Class B power chair

e) Electro Magnetic compatibility (7176-21, IEC 60601-1-2:2014)

ISO 7176-15	Min	Max	Comments
Overall length (with legrest)	-	1030mm	
Overall width	-	600mm	
Folded length	-	800mm	
Folded height	640mm	400mm	
Total mass (w/batteries)	-	37.5 kg	
Mass of the heaviest part	-	5.5kg	Battery
Static stability downhill	25.9°	26.7°	
Static stability uphill	22.7°	24.1°	
Static stability sideways	20.8°	22.7°	
Energy consumption (Max. range)	-	27km	
Dynamic stability uphill	-	8°	Least / most stable seat
Obstacle climbing	mm	50mm	
Maximum speed forward	-	6km/h	
Min. braking distance from max. speed	420mm	-	
Seat plane angle	-	2°	
Effective seat depth	-	450mm	
Effective seat width	-	430mm	
Seat surface height at front edge	-	490mm	Cushion removed
Backrest angle	-	8°	

Backrest height	-	550mm	Cushion removed
Footrest to seat distance	-	400mm	
Leg to seat surface angle	-	100.5°	
Armrest to seat distance	-	280mm	Cushion removed
Minimum turning radius	609mm	-	
EN 12184	Min	Max	Comments
Maximum height of kerb safely descend	-	50mm	
Minimum width of corridor	1100mm	-	
Minimum ground clearance	80mm	-	
Speed control operation force	-	3,8 N	
Direction control operation force	-	2,5 N	

NOTE: Some of the options and measures may be not available in all countries.

3.0 Use Instruction

The operation steps of driving wheelchair are as follows:

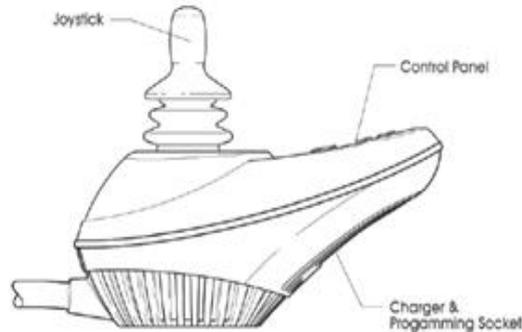
1. Ensure the wheelchair is in Drive Mode
2. Turn on the power.
3. Adjust the speed.
4. Operate the controller handle as follows:

Wheelchair's motion mode	The operation method for joystick
Forward	Push the joystick forward.
Backward	Pull the joystick backward.
Right turn	Turn right the joystick.
Left turn	Turn left the joystick.
Stop	Release the joystick and the wheelchair will automatically stop soon.

1.Controller

Controller composition

With the controller, you can operate the product. The controller can control the wheelchair, detect the battery level, control the working status and the status of the electronic system.

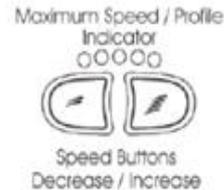


The controller includes:

1. Joystick;
2. Key panel;
3. Charging interface;
4. Power line connector;
5. Motor wire connection;



On/Off Button



Speed Buttons
Decrease / Increase



Horn Button

Joystick;

The joystick controls the direction and speed of the wheelchair. When you push the joystick, the wheelchair moves. The greater the lever push, the greater the wheelchair's operating speed.

Warning! If your wheelchair moves accidentally, release the lever immediately and the wheelchair will stop by itself.

On / off button

The on / off button is used to turn the controller on and off.

Warning! Do not use the on / off key to stop the wheelchair unless it is in an emergency, as this will cause the wheelchair to stop suddenly.

Warning! When your wheelchair is at rest, turn off the power to prevent accidental movement of the wheelchair.

Battery level indicator

The battery level indicator is located in front of the joystick. When the controller is working, it displays the battery level, controller status, and power system status. When all the lights on the display are on, the battery is fully charged. (All lights do not mean the battery is fully charged, please refer to the charger indicator when charging)

1. Only the red light is on or the red light is flashing: it means the battery is insufficient, please charge immediately;
2. All lights flash quickly: the controller or power system has failed;
3. All lights flash alternately: the joystick is not in the normal position when the controller starts. If this happens, turn off the controller, return the joystick to its original position, and then turn it on again.

Tips! If the above still occurs, contact your dealer.

Speed indicators

The speed indicator displays the maximum speed of the current setting. The right LED light indicates the current maximum speed setting. The speed limit mode refers to the maximum speed limit to a certain value set by the program.

The speed indicator has a 5-grade speed regulating function. When the speed indicator LED lights are all bright, the maximum speed is 1.50m/s (plus or minus 5%). The speed of the 4 LED lights is 1.31m/s (plus or minus 5%). The speed of the three LED lights is 1.12m /s (plus or minus 5%). The speed of the two LED lights is 0.97m/s (plus or minus 5%). The speed of light 1 LED lamp is 0.75m/s (plus or minus 5%).

Note! Before familiarizing yourself with the performance of a wheelchair, set it to low speed operation.

Horn button

This button is used to control the horn. When there is a life obstacle in front, you can press the horn button to emit a siren sound to avoid accidents.

Charging Port

Use a separate charger to charge the wheelchair through the three-hole XLR socket on the front of the controller.

Controller connection

Warning! Incorrect connections will cause damage to the controller, charger, and connectors.

2.Battery

The battery is fixed in the middle and rear part of the product, and has a power output port, an overload protector, and a charging hole.

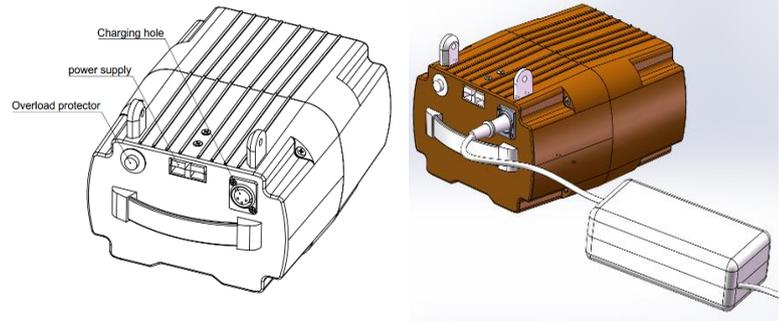
Output port: connected to the controller and powers each system;

Overload protector: protect against power failure when overloaded;

Charging port: Remove the battery case from the wheelchair and use the charger to charge the battery.

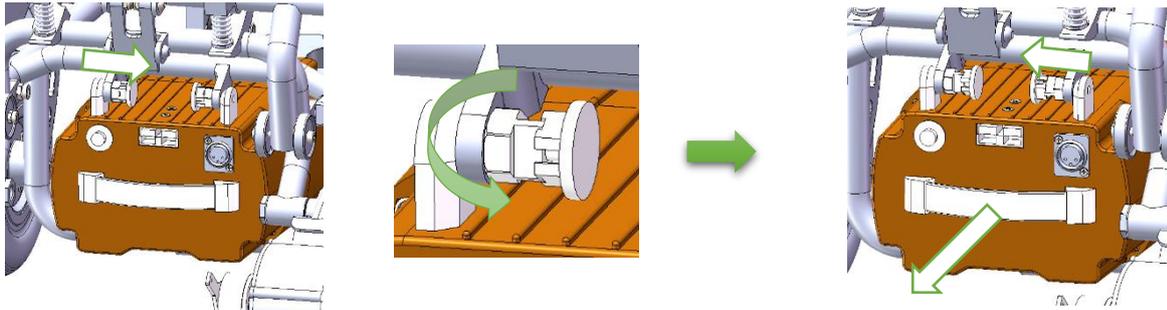
This product uses a single 30Ah lithium battery and is sealed and maintenance-free.

Warning! You must use the charger provided with the wheelchair to charge the battery. DO NOT use other chargers.



Battery case disassembly:

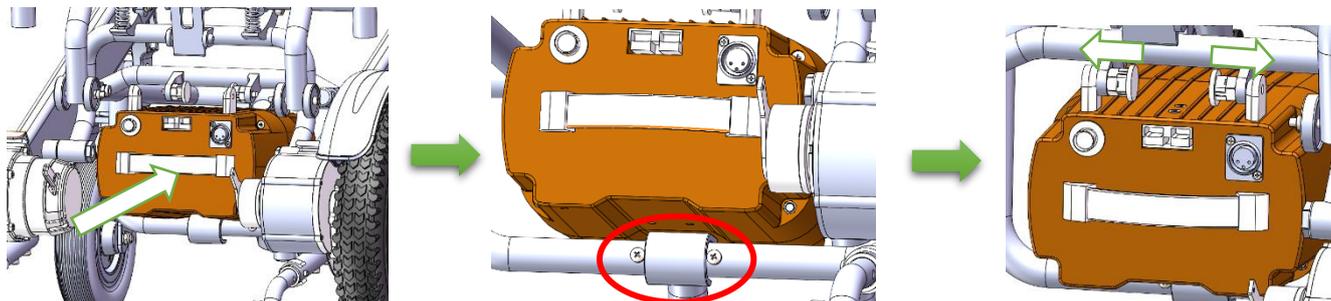
1. Un-plug the power connector
2. Pull the lock pin at one end outward, and release it after rotating a certain angle, so that it is in the normally open position
3. Grasp the handle of the battery case, and at the same time pull open the lock pin at the other end to remove the battery case



Install the battery case:

1. Lift the battery case into the frame as shown.
2. Push the battery case forward to the end. Note that there are two screws on the frame for the limit of the battery case.

3. Align the mounting holes on the battery case with the lock pins on the frame, insert the lock pins, and check that they are secure.



3. Electromagnetic brake

For convenience, this product is equipped with two modes:

Free-wheel Mode and Drive Mode.

Manual mode and electric mode:

1. Each motor has an electromagnetic brake handle at the rear, see Figure 4-2.
2. Push the handle down to the Free-wheel mode position
3. Push the handle up to the Drive Mode position

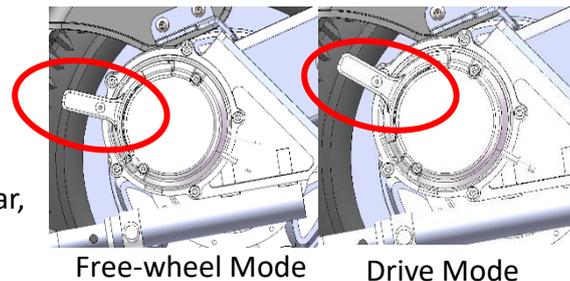


Fig 4-2

Warning! It is forbidden to try to place your wheelchair in free-wheel mode while you are in a wheelchair, otherwise personal injury may be caused. Please ask your attendant for assistance.

Warning! When on an inclined surface, it is prohibited to set this product in free-wheel mode, otherwise the wheelchair will slide uncontrollably and cause personal injury.

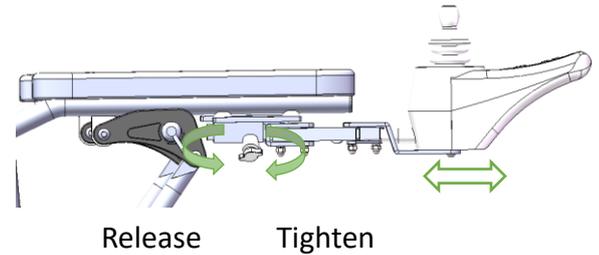
Warning! Please keep in mind that when this product is in free-wheel mode, the brake system is disengaged, and this mode is prohibited when downhill.

Warning! In order to protect your personal safety and this product from accidental damage, please be careful to use the electromagnetic brake handle.

4. Controller adjustment lever:

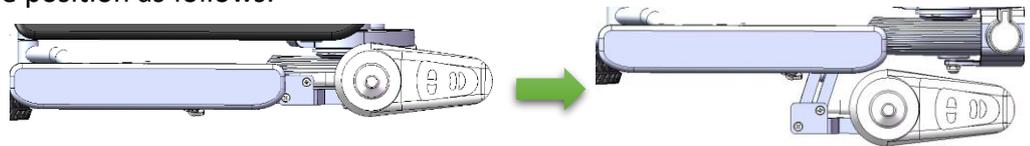
The joystick can be easily extended and shortened as follows:

1. Turn the plastic screw clockwise (from top to bottom) to loosen the controller adjustment lever;
2. Pull the controller adjustment lever forward or backward to adjust to the desired position;
3. Turn the plastic screw counterclockwise until it is tightened.



The controller can adjust the position as follows:

1. Turn off the controller;
2. Pull the controller to the right and back.



5. Anti-tips:

The anti-tips are designed to enhance the stability of the wheelchair. This will reduce the possibility of a wheelchair overturning during uphill.

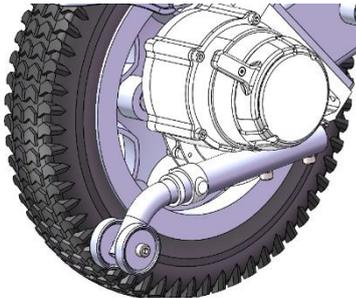
The anti-tips has three positions adjustable, as shown in the figure below, positions 1, 2, 3

Position 1: When folding the wheelchair, adjust the anti-roll wheel to position 1 for easy folding

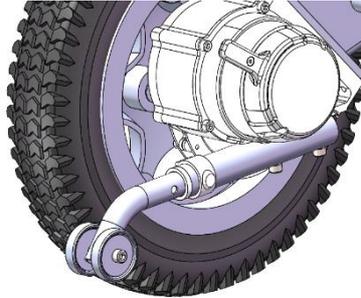
Warning! In position 1 the Anti-tip does NOT function as an anti-tip. When using a wheelchair, it is forbidden to adjust the anti-tip to this position.

Position 2: The position 2 is for use when using the wheelchair on flat surfaces, such as an indoor environment.

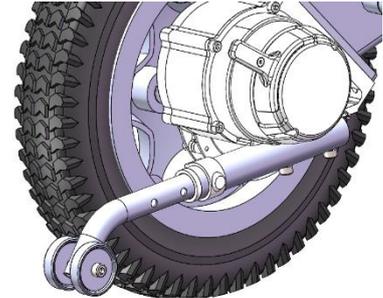
Position 3: The most effective anti-tip position, **ALLWAYS** adjust to this position.



Position 1



Position 2

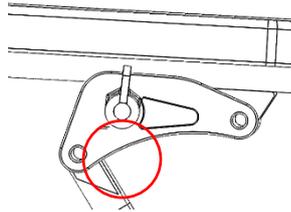


Position 3

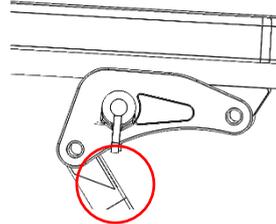
6. Armrest

In order to facilitate the user to move the wheelchair up and down from the side, the Q50R's armrest can be easily turned backwards. The specific operation method is as follows:

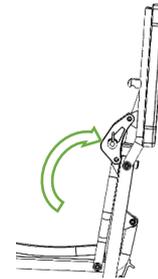
1. Turn the switch down to unlock it. At this time, the armrest can be lifted up and turned back.
2. Turn the switch to the right to lock it.



Locked state



Unlocked state



7. Charging

Charging steps

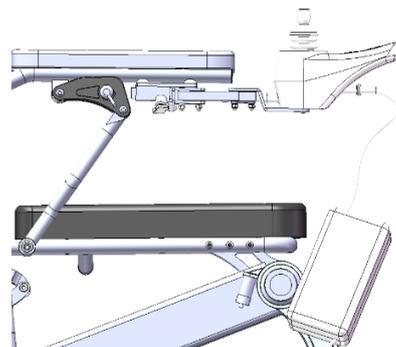
1. Park this product in a place with a standard electrical power socket nearby, confirm that the controller is turned off and that this product is in drive mode;
2. Connect the three-pin XLR plug of the charger to the three-hole socket of the controller;
3. When the indicator light on the charger is red (orange), it means that it is charging, and when the indicator light is green, it means that the battery is fully charged.

Charging frequency

1. Daily use: If you use this product every day, please charge it immediately after the end of the day, so that this product can be used for a whole day. We recommend that you can charge it for 6-8 hours, not more than 12 hours.
2. Occasional use: If you use it infrequently (once a week or less), you should charge it at least 6-8 hours per week.

Warning! Keep the battery dry and avoid deep discharge. Do not exceed 12 hours on a single charge.

If you do not use this product often, we recommend that you take care of the battery and charge it at least once a week. If you plan not to use the product for a longer period, you should charge the battery before storing. Unplug the cable and store the product in a warm, dry environment. Avoid extreme temperatures such as extreme cold and extreme heat. Do not charge frozen batteries.



8. Transfer

When transferring between wheelchair and other seats, please turn off the power first. The wheelchair may sideslip under stress during the transfer. Make sure the precautionary measure must be taken in case of personal injury.

Attn.: For those users who are able to move and have upper body strength, this action could be done independently.

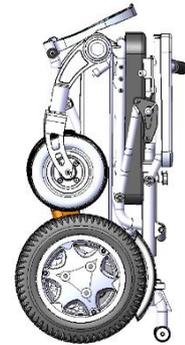
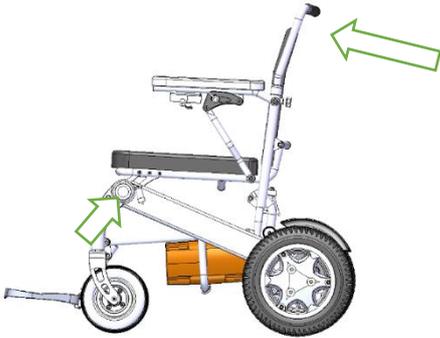
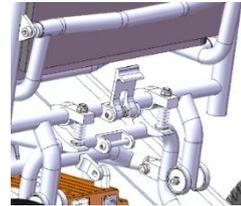
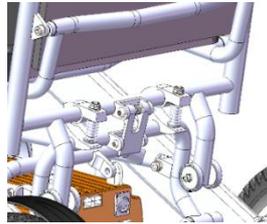
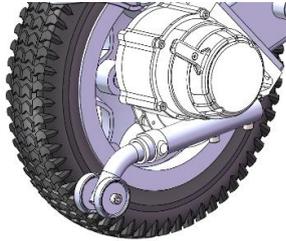
1. Move the wheelchair as close as possible to the side of the target seat.
2. After placing the wheelchair correctly, recheck the wheelchair is in Drive Mode.
3. Fold up the footplate.
4. Flip back the armrest near to the target seat.
5. Move slowly from the front of wheelchair to the target seat.

When transferring, the seat cushion shall be used less or not be used at all under the body. In addition, during the transferring, namely after leaving the seat cushion, please look out for side slipping. A longboard could be put above two chairs to assist the transfer, if possible.

9. Fold

Folding the wheelchair can make better use of space and is convenient for storage and transportation. The specific methods are as follows:

1. Adjust the anti-tips to position 1 (refer to 5. Anti-tip)
2. Open buckle
3. Fold the wheelchair



4.0 Transport

The Q50R is not approved to be used as an occupant seat in a vehicle. Therefore the user cannot be transported in a vehicle whilst seated in the wheelchair. Although this product is equipped with a lap belt, it is not designed for car transportation.

Transport the wheelchair in a car

step1: Fold the wheelchair

step2: Unplug the power connector.

Step3: Put the wheelchair in the trunk of the car

Warning! it is forbidden to carry the wheelchair by holding the adjustable or moving parts of the wheelchair, otherwise it may cause personal injury or damage to the wheelchair

Warning! It is forbidden to sit on your Power wheelchair while the car is moving, otherwise it may cause personal injury.

Warning! Be sure to ensure that your Power wheelchair is safe during transportation, otherwise it may cause personal injury or damage to the wheelchair.

Protective measures for severe weather:

Warning! Do not expose this product to a humid environment (such as rain, snow, haze, flushing, etc.), otherwise it will damage your product, and the wet product must be dried before use.

5.0 Maintenance & cleaning

This product is Power wheelchair that requires regular maintenance. Maintenance is very important, and if you follow the maintenance inspection instructions in this section, you can use this product easily and happily for years. You can do some routine checks yourself, while others are assisted by your dealer. For questions regarding maintenance or operation of this product, please contact the distributor of this product.

Warning! This product like most electrical or mechanical equipment, which is susceptible to the effects of the natural environment. In any case, avoid a humid environment, if contact with water or a wet environment directly may cause the electrical equipment or mechanical equipment of the wheelchair to malfunction. Water can cause corrosion of electronic components and rust of the frame!

If the product comes in contact with water, please perform the following maintenance:

- 1 Use a piece of cloth to dry as much moisture as possible and store in a dry place;
- 2 Perform all safety and operational tests before use;
- 3 If any abnormal situation occurs, please contact the distributor of this product.

General guidance

- 1、 Avoid knocking or hitting the controller, especially the joystick;
- 2、 Avoid prolonged exposure to harsh conditions, such as overheating, coldness or humidity, and keep the controller clean;
- 3、 Check all electrical connections to ensure that they are securely and securely connected, and check the cable connections of the charger.

- 4、 When the lights of the battery status meter are all on, the battery has sufficient power and the controller and electrical system work normally;
- 5、 If the red light on the battery status table flashes slowly, it indicates that the battery is low and needs to be charged, but the controller and electrical system work normally;
- 6、 If the battery status table flashes quickly, the controller has detected an error. Refer to the troubleshooting table;
- 7、 Check all cable connections to make sure they are securely connected and free from corrosion;
- 8、 All wheel bearings are lubricated and sealed, they do not need to add lubricant.
- 9、 Drive the wheelchair in each of the drive profiles, (if installed), to make sure the wheelchair performs as it did before.
- 10、 Visually inspect the wheelchair to make sure the leg-rests, armrests, etc are correctly positioned and attached to the wheelchair and all fasteners are sufficiently tightened

Warning! After performing any maintenance or repairs on the wheelchair you must make sure that it is functioning correctly before it is used

Product check

Daily check:

Turn off the controller, check the joystick, make sure it is not bent and broken, and make sure it returns to its original position when you release it. To check whether the rubber base of the joystick is damaged, you only need to visually inspect the base, do not handle or repair it. If you have questions, please contact your dealer;

Visually inspect the controller cables to ensure that they are not cracked or broken or that the wires are bare. If there is any problem with the cable, please contact your dealer.

Weekly check:

Disconnect the controller connector from the battery box, check the connection, and check for corrosion. If necessary, contact your dealer;

Check the brakes. This check must be carried out on a level surface and there must be enough open space around it.

Check the brakes:

1. Turn on the controller. After one second, check the power indicator to make sure the battery has power;
2. Push the joystick forward slowly to guide you to hear the "click" sound of the brake. Release the joystick immediately. You must hear the sound of the brake operation after each push of the joystick for a few seconds;
3. Repeat the operation three times and push the controller to the back, left and right to check.

Monthly check:

1. Check the wear of the front wheels and drive wheels. If maintenance is required, please contact your dealer;
2. Check the front fork for wear and looseness. This may indicate the need for adjustment or the bearing needs to be replaced. Please contact the dealer for repair or replacement;
3. Keep this product clean and free of debris, such as hair, food, drinks, residues, etc.

Other related situations

Temperature (some parts of the wheelchair are susceptible to temperature)

- ① At extremely low temperatures, the battery may freeze. There are many factors that may cause freezing at special temperatures, such as charger type, usage, and battery composition (such as sealed lead acid batteries or gel batteries)
- ② Excessive temperature may slow down the wheelchair. The safety performance of the controller protects the motor and other electronic components from damage.

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 rust in the wheelchair and damage the electrical system. Storage conditions: temperature : $-40^{\circ}\text{C}\sim+65^{\circ}\text{C}$; Relative humidity: $\leq 80\%$;

Atmospheric pressure: $86\text{kPa}\sim 106\text{kPa}$

Warning! For long-term storage, unplug the battery power!

Cleaning

- ① Avoid rinsing the product with water or direct contact with water;
- ② This product can be easily wiped clean with a damp cloth. Do not use chemicals to clean the seat. This may cause corrosion and tearing of the seat cloth. Clean it with a wet towel and neutral soap and let it dry thoroughly. If there is oil, remove the cloth from the seat and wash it separately.

6.0 Machine Fault Repair Guide

Phenomenon	Possible Causes	Solution	Number of replacement parts	Method of obtaining
Short driving distance	A: Battery charging time is short B: The battery is aging and the energy storage is insufficient	A: Charge the battery overnight or ensure it is charged for 8 hours. B: Replace the battery.	A:/ B: Batteryx1	Contact an authorized reseller or Intco to purchase
Battery can not be charged	A: The charger is damaged B: The battery line is loose; or the battery fuse is damaged C: Charging power outlet is dead D: Charger, charger	A: Replace the charger. B: Check all the wiring, connect the wiring; or replace the fuse. C: Replace with a new power outlet. D: It may be necessary to replace the charger and internal overhaul.	A: charger x1 B:/ C:/ D: charger x1	Contact an authorized reseller or Intco to purchase

	wire, plug, or bad internal wiring			
Battery charging current is too large	The battery is damaged	Check the battery for a short circuit. Replace the battery if necessary.	Batteryx1	Contact an authorized reseller or Intco to purchase
The charge indicator will soon show a low battery charge after charging	A: The battery is aging and the charge cannot be saved B: circuit failure C: charger failure	A: Replace the battery. B: Please contact the dealer/manufacturer. C: Replace the charger, please contact the dealer/manufacturer	A: Batteryx1 B: / C: Charger x1	Contact an authorized reseller or Intco to purchase
The battery indicator flashes immediately after	A: Battery aging B: circuit failure C: charger failure	A: Replace the battery. B: Please contact the dealer/manufacturer. C: Replace the charger	A: Batteryx1 B: / C: Charger x1	Contact an authorized reseller or Intco to purchase

recharging, showing low battery				
Wheelchairs can't drive	A: power wheelchair in manual mode B: The battery needs to be charged C: Unplugged charger D: circuit failure	A: Turn the motor wrench to the power position. B: The battery is charged. C: Unplug the charger plug. D: Check and replace the battery positive fuse when necessary. Otherwise, internal inspection may be required.	A: / B: / C: / D: /	Contact an authorized reseller or Intco to purchase
Abnormal noise or abnormal operation of the motor	circuit failure	Please contact dealer/manufacture	/	Contact an authorized reseller or Intco to purchase
Only one wheel turns	A: Circuit failure B: One of the motor	A: Please contact your dealer/manufacture for	A:/ B: /	Contact an authorized

	wrenches is in the manual position	maintenance. B: Move the motor wrench brake to the electric gear.		reseller or Intco to purchase
Controller error or no response	A: Circuit failure B: The controller program is incorrect	A: Please contact your dealer/manufacture for maintenance. B: The controller is reprogrammed.	A:/ B:/	Contact an authorized reseller or Intco to purchase
Wheelchair does not respond to instructions	A: Bad connection of battery terminal connection	Clean the battery connection terminals. If the fault cannot be rectified, contact your dealer/manufacture for maintenance.	/	Contact an authorized reseller or Intco to purchase
Wheelchair does not respond to instructions	A: Bad connection of battery terminal connection	Clean the battery connection terminals. If the fault cannot be rectified, contact your dealer/manufacture for maintenance.	/	Contact an authorized reseller or Intco to purchase

The power indicator is not displayed even after recharging	A: Circuit failure	Check if the battery is normal. Otherwise, contact your dealer/manufacturer for service.	/	Contact an authorized reseller or Intco to purchase
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Note: If the wheelchair needs to be replaced or disassembled, please consult the local authorized dealer or Intco for disposal. It is forbidden to dismantle and replace by yourself, so as not to cause damage to the wheelchair or personal injury.

Fault Self-Diagnosis (All 5 LEDs in the battery display are flashing)

This indicates a system trip in the new VSI has detected a problem somewhere in the wheelchair ' s electrical system. Please follow the following procedure.

1. Switch off the controller.
2. Make sure that all connectors on the wheelchair and the control system are mated securely.
3. If you can' t find the problem, try using the self-help guide.
4. Switch on the controller again and try to drive the wheelchair. If the safety circuit operate again, switch off and do not try to use the wheelchair. Contact your service agent.

Times	Diagnosis	Solution
1	The battery needs charging or there is a bad connection to the battery.	Check the connections to the battery. If the connections are good, try charging the battery.
2	The left hand motor has a bad connection.	Check the connections to the left hand motor.
3	The left hand motor has a short circuit to battery connection.	Contact your service agent.
4	The right hand motor has a bad connection.	Check the connections to the right hand motor.
5	The right hand motor has a short circuit to battery connection.	Contact your service agent.
6	Not used.	/
7	A joystick fault is indicated.	Make sure that the joystick is in the center position before switching on the controller.
8	A controller fault is indicated.	Make sure that all connections are secure.
9	The parking brakes have a bad connection.	Check the parking brake and motor connections.

		Make sure the controller connections are secure.
10	A excessive voltage has been applied to the controller.	This is usually caused by a poor battery connection. Check the battery connections.

Other situations where a dealer's service is required:

- * Excessive noise from the motor
- * Severe cracks or ruptures in the joints
- * Unable to run
- * Tire wear and tear
- * Generates severe jitter

7.0 EMC Guidelines

Safety: Electromagnetic radiation

The standard version of your Power wheelchair has been tested on the applicable requirements with respect to electromagnetic radiation (EMC) 7176-21 requirements. In spite of these tests it cannot be excluded that electromagnetic radiation may have an influence on the wheelchair, For example:

Mobile telephony

Large-scale medical apparatus

Other sources of electromagnetic radiation

It cannot be excluded that the wheelchair may interfere with electromagnetic fields. For example:

Shop doors

Burglar alarm systems in shops

Garage door openers

In the unlikely event that such problems do occur, we request that you notify your dealer immediately.

Below cables information are provided for EMC reference.

Cable	Max. cable length, Shielded/unshielded		Number	Cable classification
AC Power Line	1.7m	Unshielded	1 Set	AC Power
DC Power Line	1.15m	Unshielded	1 Set	DC Power

Important information regarding Electro Magnetic Compatibility (EMC)

POWER WHEELCHAIR needs special precautions regarding EMC and put into service according to the EMC information provided in the user manual; POWER WHEELCHAIR conforms to this IEC 60601-1-2:2014 standard for both immunity and emissions. Nevertheless, special precautions need to be observed:

POWER WHEELCHAIR with no ESSENTIAL PERFORMANCE is intended used in Home healthcare environment.

WARNING: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the POWER WHEELCHAIR, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.”

The use of accessories, and cables other than those specified by JIANGSU INTCO, with the exception of accessories and cables sold by JIANGSU INTCO of POWER WHEELCHAIR as replacement parts for internal components, may result in increased EMISSIONS or decreased IMMUNITY of the POWER WHEELCHAIR.

WARNING: Use of this equipment POWER WHEELCHAIR adjacent to or stacked with other equipment should be avoided because it could result in improper operation.”

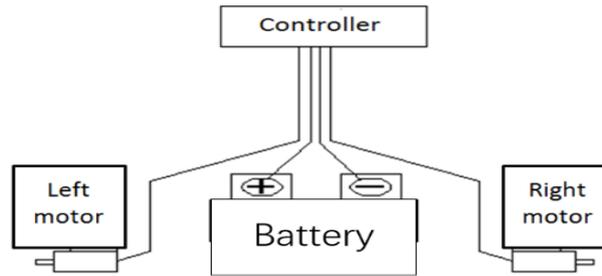
When the AC input voltage is interrupted, the POWER WHEELCHAIR will stop battery charging and if the power supply restored, it should be recovered automatically, this degradation could be accepted because it will not lead to unacceptable risks and it will not result in the loss of basic safety or essential performance

EMI Compliance Table

Table 4– Input a.c. power Port

Phenomenon	Basic EMC standard	Immunity test levels
		Home healthcare environment
Electrical fast transients/burst	IEC 61000-4-4	±2 kV 100kHz repetition frequency
Surges Line-to-line	IEC 61000-4-5	±0.5 kV, ±1 kV
Conducted disturbances induced by RF fields	IEC 61000-4-6	3V, 0.15MHz-80MHz 6V in ISM bands and amateur radio bands between 0.15MHz and 80MHz 80%AM at 1kHz
Voltage dips	IEC 61000-4-11	0% UT; 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°
		0% UT; 1 cycle and 70% UT; 25/30 cycles Single phase: at 0°
Voltage interruptions	IEC 61000-4-11	0% UT; 250/300 cycles

Electrical circuit diagram

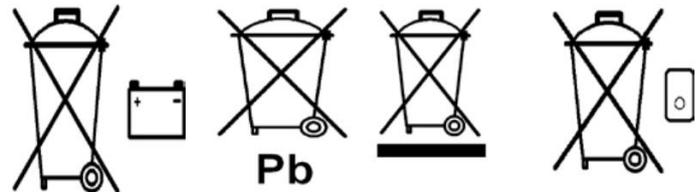


8.0 Disposal

The symbols below mean that in accordance with local laws and regulations your product should be disposed of separately from household waste. When this product reaches the end of its life, take it to the local collection point designated by local authorities.

The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects the environment.

Ensure you are the legal owner of the product prior to arranging for the product disposal in accordance with the above.



9.0 Service advice-service history

This section is designed to assist you in keeping a record of any service and repairs to your wheelchair. The service

Agent will complete this section and return the manual to you.

NOTE: Please contact your local Sunrise medical approved servicing agent for any warranty, service or repair work required.

Mode:

Serial Number	1	2	3	4	Brakes	1	2	3	4
Year					Brushes				
Service dates					Freewheel Device				
Controller					Chassis				
On/Off switch					Condition				
Output plug					Steering				
Operation					Upholstery				
Dynamic braking					Seat				
Programmable configuration					Back				
Batteries					Armrests				

Physical Damage					Electric's				
Connections					Condition of loom				
Discharge tests					Connections				
Wheels/Tyres					Test run				
Wear					Forward				
Pressure					Reverse				
Bearings					Emergency stop				
Whel nuts					Left run				
Motors					Right run				
Wiring					Up/Down slope				
Noises					Over obstacle				
Connections					Parking brake				

Servicing Agents Only:

Any parts required should be obtained from Sunrise Medical only either through our web site or by direct contact with our Customer Service or Service department. Do not used unauthorized parts or carry out unauthorized modifications.

10.0 Guarantee

THIS GUARANTEE DOES NOT AFFECT YOUR LEGAL RIGHTS IN ANY WAY.

INTCO* provides a guarantee, as set out in the warranty conditions, for products to its customers covering the following.

Warranty conditions:

1. Should a part or parts of the product require repair or replacement as a result of a manufacturing and/or material fault within 24 months, then the affected part or parts will be repaired or replaced free of charge. The warranty will only cover manufacturing defects
2. To enforce the warranty, please contact Sunrise Medical Customer Service with the exact details of the nature of the difficulty. Should you be using the product outside the area covered by the Sunrise Medical customer service agent, repairs or replacement will be carried out by another agency as designated by the manufacturer The product must be repaired by a Sunrise Medical designated Customer Service agent, (dealer).
3. For parts, which have been repaired or exchanged within the scope of this warranty, we provide a warranty in accordance with these warranty conditions for the remaining warranty period for the product in accordance with point 1.

4. For original spare parts which have been fitted at the customer's expense, these will have a 12 months guarantee, (following the fitting), in accordance with these warranty conditions.
 5. Claims from this warranty shall not arise, if a repair or replacement of a product or a part is required for the following reasons:
 - a) Normal wear and tear, which include but is not limited to the following parts where fitted; batteries, armrest pads, upholstery, tyres, brakes shoes, ferrules, etc.
 - b) Any overloading of the product, please check the EC label for maximum user weight.
 - c) The product or part has not been maintained or serviced in accordance with the manufacturer's recommendations as shown in the user instructions and/or the service instructions.
 - d) Accessories have been used which are not specified as original accessories.
 - e) The product or part having been damaged by neglect, accident or improper use.
 - f) Changes/modifications have been made to the product or parts, which deviate from the manufacturer's specifications.
 - g) Repairs have been carried out, before our Customer Service has been informed of the circumstances.
 6. This guarantee is subject to the law of the country in which the product was purchased from Sunrise Medical“
- * Means the Sunrise Medical facility from which the product was purchased.



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