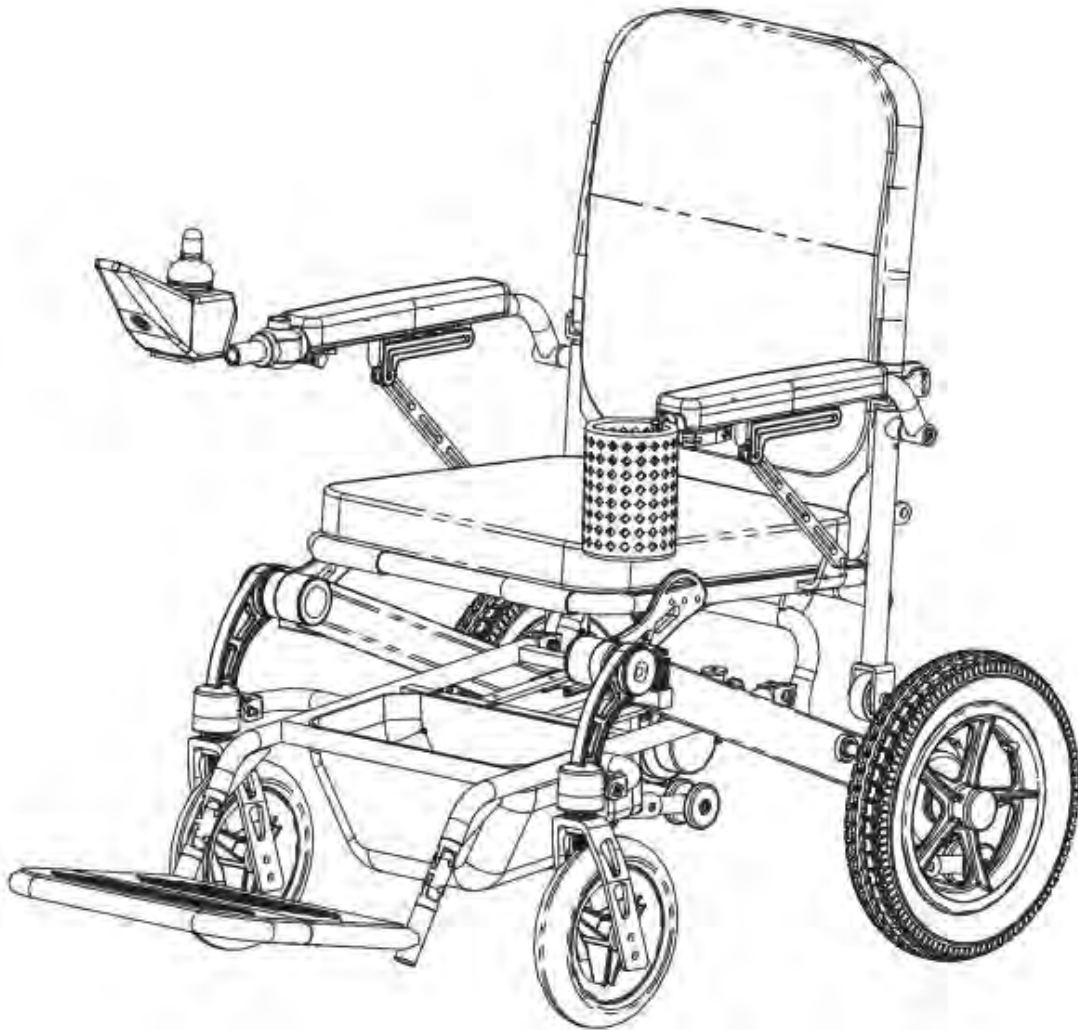


**E Fold (HP358E)**

**Power Wheelchair**



# Owner's Manual



Please read this owner's manual carefully before operating your HP358E Power Wheelchair and keep it for future reference. Rev.: V.01

## **Dear Customer:**

Thank you for purchasing your HP358E power wheelchair.

Please read this owner's manual thoroughly before operating your HP358E Power Wheelchair. If there is anything in this manual you do not understand, or if you require any additional assistance, please contact the authorized Hi-fortune distributors.

This owner's manual specifies the operation ways and assembling instruction for each part of HP358E power wheelchair, and disposal solutions as well in case of accident. The symbols below identify warnings, mandatory actions, and prohibited actions. They can be found in the owner's manual and/or on the product. Make sure you understand all safety labels before operating the product. 「★」 indicates prohibited behaviors and actions. Please pay attention to where there are warnings, attentions and suggestions.

- ★ This owner's manual includes: Inspection and maintenance record and letter of warranty, please keep them with your power wheelchair.
- ★ Suppose that you lend your power wheelchair to someone else, please also give this owner's manual to the debtor.
- ★ With the change of design, all information and pictures in this owner's manual is subject to ex-factory, please understand and offer your kindly support if there is any change without notice.
- ★ Thank you for the purchase of our HP358E. We believe Hi-Fortune's power wheelchair not only give you permanent dependable operation and also enhance the quality of your life, making your life more convenient and splendid.

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# 1.SAFETY

## ■ Pre-ride safety notice

- Please drive on the pavement. Otherwise, drive on the proper side.
- Mind the traffic once there is no pavement ahead or you have to drive on the carriageway.
- Pay attention to the pedestrians and vehicles when crossing the road.
- Do not driving in heavy traffic area.
- Never operate your power wheelchair while you are under the influence of alcohol and fatigue.
- Do not drive at night.
- Please abide by the special traffic signs for pedestrians.

## ■ Ground Condition

- Driving your power wheelchair under normal condition (for example a dry concrete or asphalt pavement) to achieve the best stability performance.
- Drive in a park or on the grass is allowed.
- Try to avoid driving on the road with rock smash or covered with soil and sand.
- Do not drive on the road if the road condition is unclear for you.
- HP158E is capable of crossing the obstacle with a certain height, at this time, do lower down the speed and pass the obstacle slowly.

**Warning:** Never exceed the incline limitation and other requirements that specified in the owner's manual.

## ■ Safety Precaution

- Do not operating your HP358E power wheelchair before you read and understand this owner's manual thoroughly.
- 1 people max. Do not carry passengers when driving.
- Switch off the power if the power wheelchair is not in use.
- Make sure the seat is properly locked and fixed.
- Slow down when driving on a rugged road or soft ground.
- Lower the driving speed when turning around the corner.

- Do not attempt to drive your power wheelchair on a steep incline. Never drive your power wheelchair on an incline more than 10° for 100m or above. If more than the climbing limitation, the power shall be automatically cut off and circuit breaker under charging port of battery box must be re-started.

- Be careful when getting to the bottom or approaching the incliner, and driving on raised ground or unprotected borderland (such as side of the road, porch, stairs etc.)

- Do not change initial setting and modify the power wheelchair.

- Drive carefully when getting through the bustling streets, bazaars and shopping malls. Never drive in unsafe areas or roads that are forbidden to pass. Please consult the local government or agency of the state for traffic rules of power wheelchair.

- To use the power wheelchair as a seat for a mobile vehicle is prohibited.

★ Warning: always protect the battery from freezing temperature. Never charge the frozen battery, which may damage the battery and result in human casualties.

★ Do not operate your power wheelchair on icy, slippery or salty ground, otherwise it may cause accident and human casualties.

★ Warning: automatic braking distance becomes longer if driving on a slippery ground when it rains or snows.

■ Notice for use.

- Maintenance and modification

If maintenance and modification is needed, please contact the authorized agency of Hi-Fortune.

- Original parts

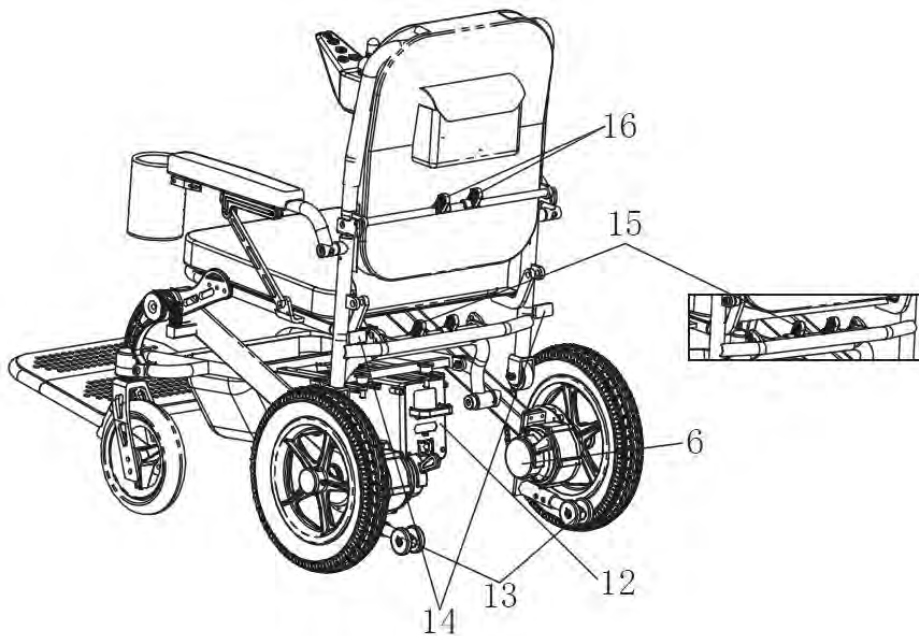
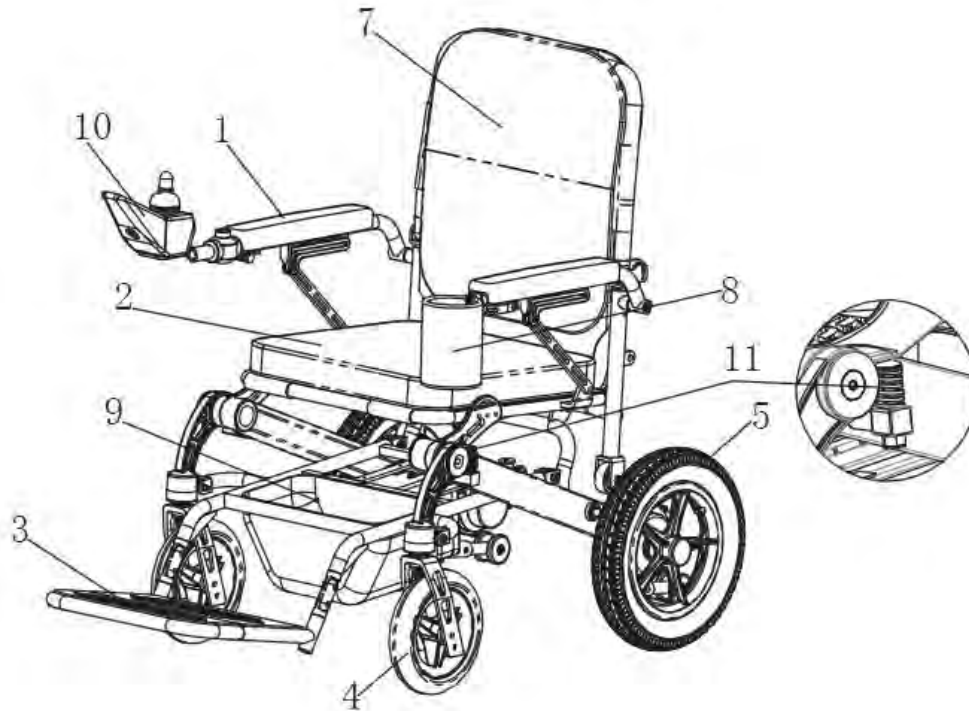
Please use Hi-Fortune's original parts when doing replacement.

- Environment Protection

Never arbitrarily discard the scrapped vehicles and batteries. If needed, please contact the authorized agency of Hi-Fortune.

## 2.PARTS INTRODUCTION

### •PARTS INTRODUCTION



**1..Armrest    2. Cushion    3. Footrest    4.Front Wheel Assembly    5. Rear Wheel Assembly**

**6. Motor    7.Backrest    8. Cup Holder(optional)    9. Storage bag    10. Controller**

**11. Front Suspension    12. Battery box    13. Anti-tip wheel    14.Reflector**

**15. Folding and Locking Mechanism    16.Backrest adjustment button**

### 3. SPECIFICATION

<b>Model</b>	HP358E
<b>Size</b>	Length:1020mm Width:560mm Height:845mm
<b>Max Speed</b>	6km/h
<b>Min. turning radius</b>	925mm
<b>Maximum Climbing Capacity</b>	10°±1°
<b>Drive system</b>	2 gears, rear wheel drive 2*24Vdc*250W
<b>Braking system</b>	Intelligent brake system (joystick control)
<b>Weight Capacity</b>	125kg
<b>Tyres</b>	Drive wheel 2*12.5"solid PU, plastic hub (optional aluminum hub)
	Front wheel 2*6", solid PU, plastic hub (optional aluminum hub)
<b>Battery</b>	25.9Vx10AHx1PCS Lithium Battery
<b>Charger</b>	29.4V/2.0A
<b>Controller</b>	Micon controller
<b>Total Weight (battery included)</b>	26kg (24kg without battery)
<b>Braking distance</b>	≤ 1.0m
<b>Obstacle clearing capability</b>	≥25mm
<b>Spanning ability</b>	100mm

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## 4. Battery and Battery Charging

### • Battery

Lithium battery is used on this power wheelchair. Charge the battery 8-12 hours for initial use.

### • Charger

Charge the power wheelchair with DC29.4V/2A charger.

### • Charging Method

1. Switch off the power wheelchair.
2. Charge the battery by plugging the charger into charging port of controller handle.

#### Charging Modes

1. Charge the controller via charging port on handle of controller (Charging mode #1)
2. Plug the charger into home power supply.
3. When start charging, red indicate light lit. The charging period differs as per the status and temperature etc of battery, normally it lasts 6-8 hours. After charging finishes, the indicate light turns to green and charging automatically interrupts.
4. It indicates the charging is completed once indicator light turns to green. At this time, pull out the input cable of charger, then unplug the microphone plug from the charging socket.

**★Notice: It is much better to charge another 2 hours after the indicate light becomes green, that do good to the battery's lifespan.**

★Attention: to avoid accidents caused by abnormal charging, please follow the following rules.

★Use the designated charger only for this power wheelchair and make sure it is fully charged. If the designated charger is not used, charging failure or battery damage may happen.

★ Never disassemble or modify the charger.

★ Charge at where there is no sun exposure and in good ventilation.

### •Notice for lithium battery.

1. Not recharge the lithium battery after being fully charged.
2. Avoid deep discharge, better to control the discharge depth between 30%~50%, no more than 80%.
3. In the event of not frequent use, do not repeatedly charge your battery, charge it once a month.
4. Charge a discharged battery as soon as possible, do not leave lithium batteries in a low state

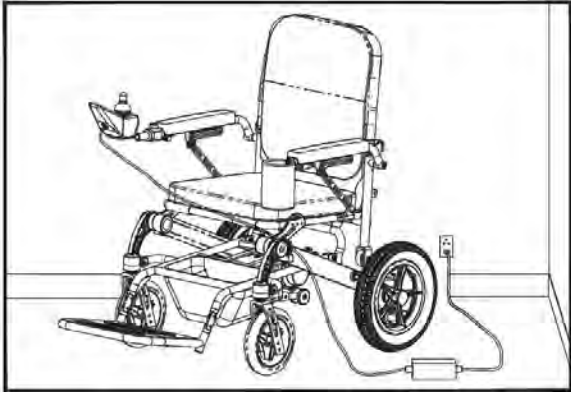


of charge for extended periods.

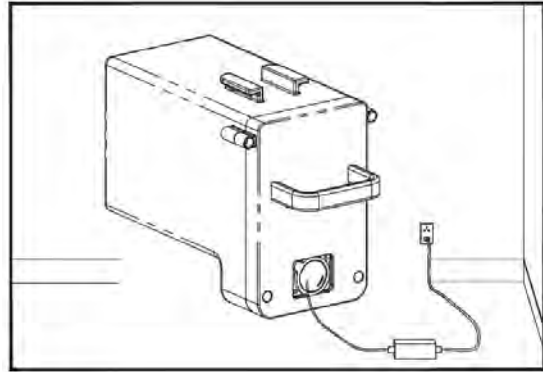
5.Keep the lithium battery away from fire, water and overheat(45°C) and avoid violent vibration, crash and positive and negative pole shorted.

6.Do not overcharge the lithium battery. Charging period shall be no more than 20 hours.

7.Never arbitrarily discard the lithium battery, if needed, contact us or Hi-Fortune' authorized agency.



(Charging Modes I )



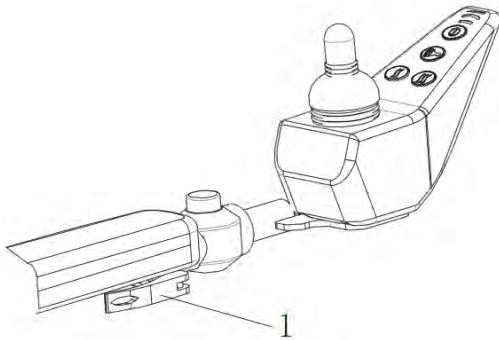
(Charging Modes II )

## 5.ASSEMBLY AND OPERATION

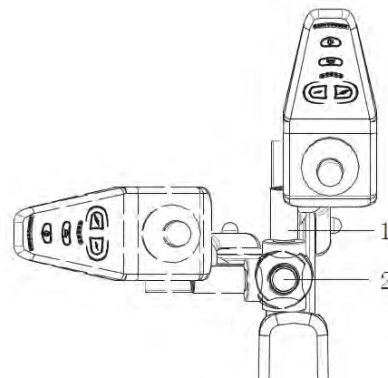
### • Assembling of joystick

1. Put the fixing rod of joystick into tube of right armrest(see image below) , hold the locknut with left hand, rotating the quick release handle clockwise, then have it locked properly. If operating with left hand is preferred, fixing the joystick on the left armrest.

2. Press the button on the joint to adjust rotation angle of joystick.



1. Locknut



1. Joint (optional) 2. Button

## • Operation of Controller

### 1. Power button:

Power on and off the whole power wheelchair. Power system is activated once pressing the power button and the system is off after pressing again,

### 2. Joystick:

Control the power wheelchair to move forward, backward, turn left/ right, speed up and park. Push the joystick straight forward after power on, the power chair will move forward. The further you push the joystick, the faster power chair will travel. Release the joystick gently, the power chair will slow down. When joystick back to central position, power chair shall stop after joystick is completely released. Pull the joystick backward, the power chair will move backward, the further the joystick away from the center, the faster the power chair will travel. After joystick be completed released, the power chair will stop and brake.

### 3. Acceleration and deceleration button

Press the speed button sequentially to accelerate the power wheelchair. The speed button offers 5 discrete steps to speed up. Similarly, then press the speed button sequentially to decelerate, also the speed button offers 5 discrete steps for speed reduction.

### 4. Speed indicator:

press the acceleration button and the speed indicator shall be lightened by 5 steps accordingly. Press the reduction speed button and the speed indicator shall be turned off in proper sequence.

### 5. Horn button:

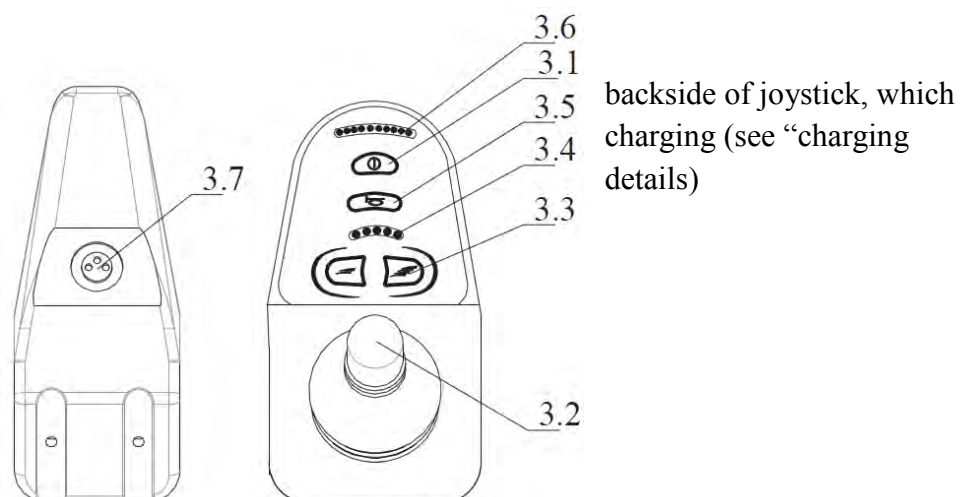
Press the horn button when power on, the beeper will buzz. Releasing the button, the buzz stops.

### 6. Battery gauge:

The battery gauge comprises five different LEDs (1 x RED, 2 x AMBER, 2 x GREEN). Once 2 green leds are off, it is the right time to charge the battery to prolong the lifetime of battery. Once the red led is on, which means the battery starts warning . Operation on the power wheelchair is prohibited at this time since continuous use on the power wheelchair will cause the battery deep discharged and shorten the lifespan of battery. The accuracy of five LEDs display will be reduced with the extension of battery usage period.

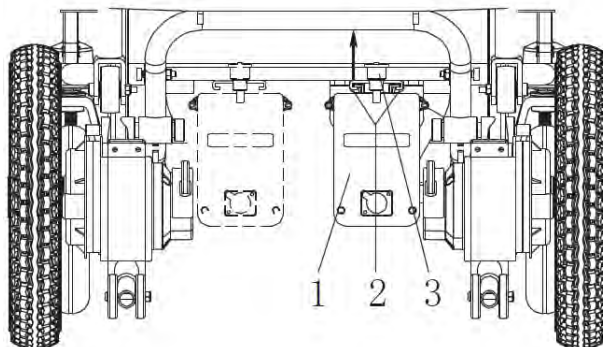
### 7. Charging port:

Locate on the is use for battery mode#1” for more



### ●Installation and operation of Battery Box



1. Hold the handle bar of battery box with one hand , then push it horizontally into slot under the chassis until it reaches the end and connect with the its connector.
2. After it is well connected, prop the battery box with knob to avoid movement of battery box when driving.
3. If you want to remove the battery box, just lift the knob and then pull it out.




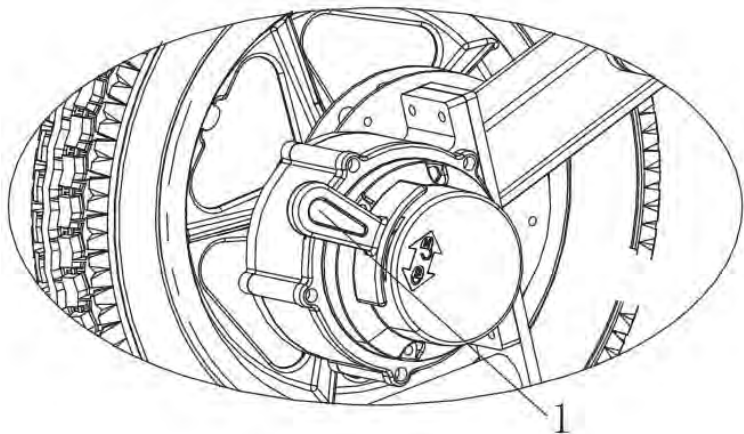
1. Battery box
2. Slot
3. Knob

Remark: As an option, both battery boxes can be used at the same time.

### •Operation of Electromagnetic Brake

Disengage the handle to unlocked position  and have the brake unlocked, the power wheelchair shall be driven by manpower (no matter the power is on or off, this function can be achieved after pulling this handle). Pull the handle to locked position  (no matter the power is on or off, this function can be achieved after pulling this handle), the power wheelchair shall be braked and can not move.

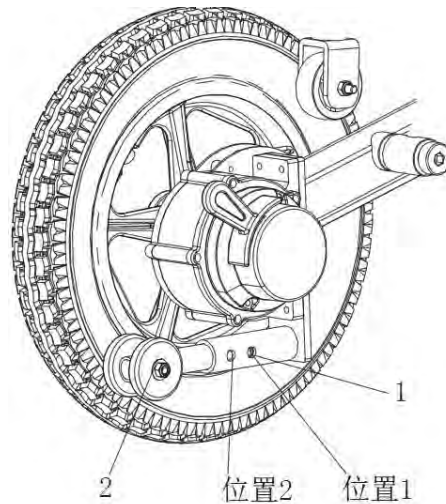
**Warning:** The power wheelchair shall be moved after mechanical clutch pull rod is locked (the power wheelchair is braked). For user and power wheelchair's safety, to use unlocked function  when going up or down slope is prohibited.



1. Brake handle



### •Function and installation/disassembly of the anti-tipping wheels.

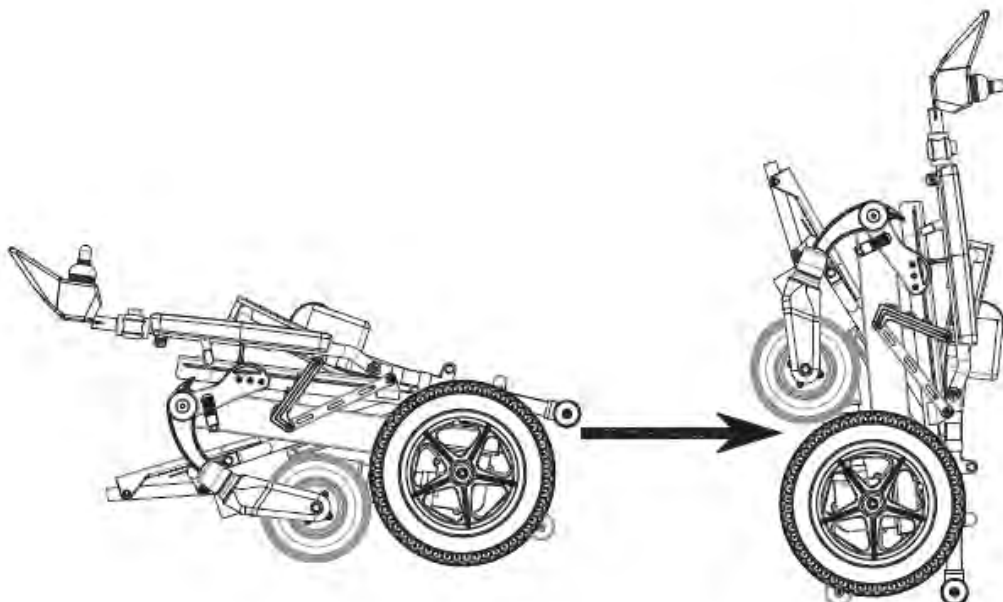
- 1.To prevent the power wheelchair from backward tipping while going uphill.
- 2.To insert the anti-tipping wheel into hole and release the clip to disassemble the anti-tipping wheel (see image below)
3. 2 positions are available to adjust the height of anti-tipping wheels.



1. metal shrapnel 2. Anti-tip wheel assembly

### ● Folding and unfolding

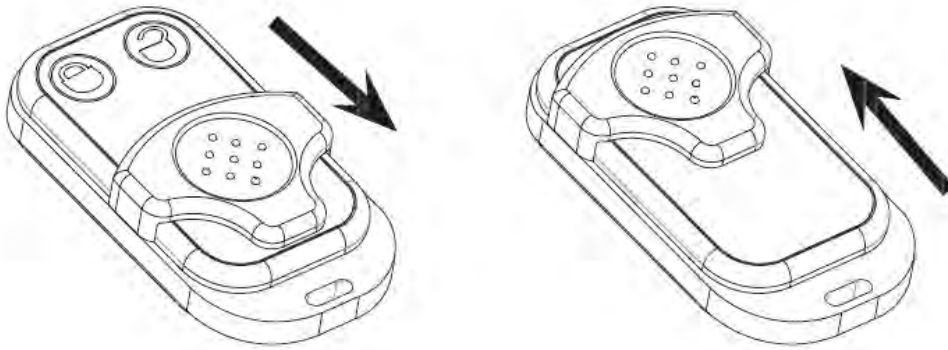
Hold down the key of  on the controller for unfolding the wheelchair and the key of  for folding. Get the wheelchair stand upright and push it to move forward.



2. Side the slip cover when the controller is

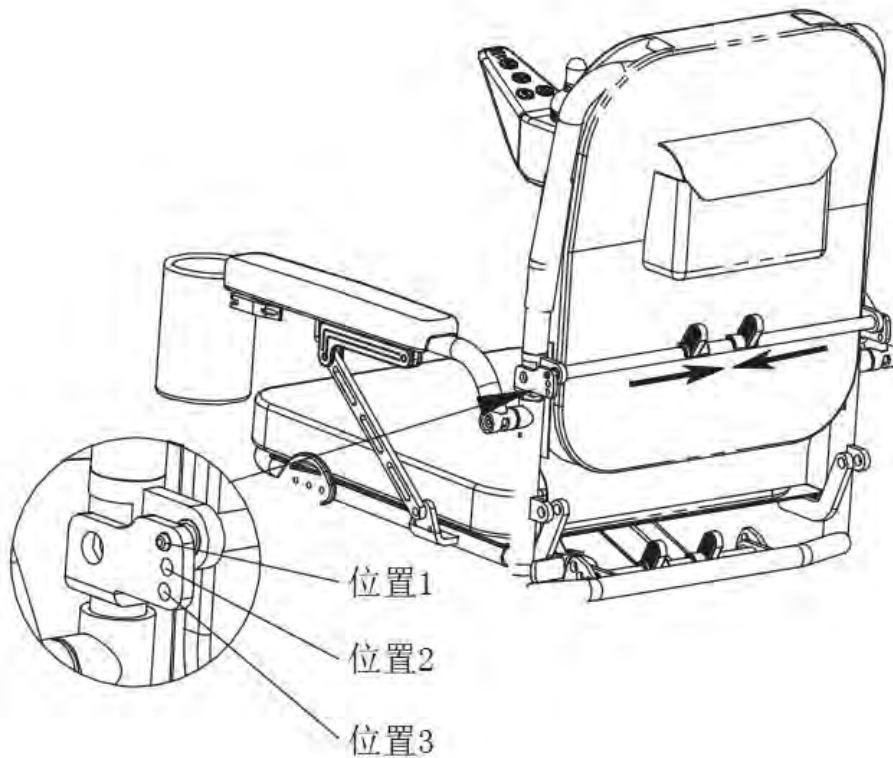
not in use so as to protect 2 keys on the controller and avoid the unnecessary hurt by touching the key accidentally.

3. Replace the battery as long as LED indicator on the controller is not bright enough and folding or unfolding the wheelchair becomes difficult. Specification of battery: 27A 12V.



### ● Backrest adjustment

The backrest can be adjusted by the button in three different positions as below.



## ● **Operation of Power Wheelchair**

- 1.Operator is well seated on the power wheelchair.
- 2.Switch on the on/off button until 5 leds on power meter lit after a second.
- 3.Push the joystick slowly forwards until you hear the solenoid brakes operate, the power wheelchair may start move. In the same way, pushing the joystick slowly backwards, left and right, the power wheelchair shall move backwards and turn left/right.
- 4.Adjust the travelling speed according to road conditions and personal preference by pressing the speed/mode button
- 5.Release the joystick and make it return back to the central for parking purpose. You may hear the voice from solenoid brakes when parking properly.
- 6.Mind the surrounding when drive backwards. Deflect the joystick slowly in reverse until the controller bleeps, then the power wheelchair move backwards.

## ● **Move, carry and storage the power wheelchair**

1. This power wheelchair features as light weight, suitable for travel use.
2. Whole power wheelchair can be put into trunk after folding.
3. Anti-tipping wheels can be dragged when moving the power wheelchair.
4. Foldable and self-standing design to conserve space.

### **Notes before operation:**

1. Acquaint with the local traffic laws and regulations.
- 2.Power wheelchair are non-motor vehicles, designed for elders and physical disables. According to the traffic law, driver's license is not required but must abide the same traffic laws and regulations as pass-by's.
  - A. Know very well about every traffic signs for pedestrians.
  - B. Never make a turn and cross the road unawares.
- 3.Operation Practice: Please acquaint with all functions of power wheelchair before your first ride. Practice at where there are few people but in good and safe road condition about how to move forwards, accelerate, decelerate, stop, move backward, go uphill, go downhill, make a turn etc.
- 4.If possible, please be accompanied by someone well known this power wheelchair for your first ride to guarantee the safety.
- 5.For your safety, never drive the power wheelchair under the influence of alcohol, fatigue and obnubilation.

- 6.Ensure the operator has no mental illness and other potential disease that may occur or may lose the operation ability when driving the power wheelchair.
- 7.Once taking medicines, please check with doctor whether the medicine will have an adverse effect on your safe operation of power wheelchair.
- 8.Check the condition of power wheelchair, for example, whether the brake is sensitive, the performance is in proper condition, each part is in right place after unfolding, and the power is in the state of loss or not.
- 9.Do not remove the anti-tipping wheels.
- 10.Never modify the power wheelchair without Hi-Fortune's permission and authorization.

**Warning:**

1. Do not attempt to expose the electric system of your power wheelchair into wet environment such as raining, snowing, fogging etc. Never rinse your power wheelchair, which may damage the electric system. If wet, please dry and use it until no faults.
- 2.Never drive the power wheelchair under bad weather condition, such as raining, snowing, foggy, strong wind, and temperature less than  $-20^{\circ}\text{C}$  or higher than  $40^{\circ}\text{C}$  etc. To drive the power wheelchair in such condition may damage the electric system, resulting in failure of control.
- 3.Do not drive in the desert, sand, mud, puddle or any icy, smooth and salty road so that not to affect the performance of power wheelchair, avoiding the accident and physical injury.

**EMI/RFI**

Hi-Fortune's HP358E power wheelchair is certified with CE. However all electrically powered vehicles, including power wheelchairs are susceptible to EMI and RFI, this interference could result in abnormal, unintended movement of a power wheelchair, so keep your power wheelchair stay far away from those high frequency equipments and emission and receiving devices. This power wheelchair can also produce electromagnetic interference to the other products, do not use several equipments or devices at the same time.



## 6. TROUBLE SHOOTING

### Trouble shooting for PG controller

Controller contains procedures for identifying the problems and trouble shooting.

As soon as the diagnostic program detects problems or errors,

5 leds lit and rapidly flashes on the power meter of controller.

Owner can try the following method to address the problem.

If the problem persists, please contact us or our authorized agency.

Flash Code	Description	Trouble Shooting
Flash once	Flash once and stop for 3 seconds, then repeat	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.
Flash twice	Flash twice and stop for 3 seconds, then repeat	The left hand motor has a bad connection. Check the connections to the left hand motor.
Flash 3 times	Flash 3 times and stop for 3 seconds, then repeat	The left hand motor has a short circuit to battery connection. Contact your service agent.
Flash 4 times	Flash 4 times and stop for 3 seconds, then repeat	The right hand motor has a bad connection. Check the connections to the right hand motor.
Flash 5 times	Flash 5 times and stop for 3 seconds, then repeat	The right hand motor has a short circuit to battery connection. Contact your service agent.
Flash 6 times	Flash 6 times and stop for 3 seconds, then repeat	Overcurrent protection.
Flash 7 times	Flash 7 times and stop for 3 seconds, then repeat	A joystick fault is indicated. Make sure that the joystick is in the center position before switching on the controller.

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Flash 8 times	Flash 8 times and stop for 3 seconds, then repeat	A controller fault is indicated. Make sure that all connections are secure.
Flash 9 times	Flash 9 times and stop for 3 seconds, then repeat	The parking brakes have a bad connection. Check the parking brake and motor connections. Make sure the controller connections are secure.
Flash 10 times	Flash 10 times and stop for 3 seconds, then repeat	A excessive voltage has been applied to the controller. This is usually caused by a poor battery connection. Check the battery connections.

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# 7.CARE AND MAINTENANCE

## ■ Daily Check

To ensure the performance of power wheelchair and minimize the occurrence of failures so that you are able to have a safe and comfortable drive.

Please pay attention to the following in daily use.

1. Read the contents of safety operation carefully and understand the meaning of each items.
2. Controller, just like the brain of human being, is the key part of power wheelchair. Do not disassemble ,repair or any other modifications without permission, which may damage the controller and make the warranty invalid. Wipe the controller frequently with a dry soft cloth. Never use the controller in high temperature and overwet environment.
3. Do not attempt to open, repair and modify the gear box, which may damage the gear and make the warranty invalid. Never overload and block the gear for a long time. Shall always clean the lead wire on motors. No water, water may leak into the motors when crossing a puddle more than 5cm.
4. Do not wipe any components (e.g.: shell etc) of power wheelchair with chemicals like gasoline. Wipe them with a wet but wrung cloth.

A neutral cleaner can be used if there is too much dirt. Meanwhile, do inspection and maintenance for the power wheelchair in different periods.

Daily check:

1. Check whether the joystick is deformed or damaged.
2. Check if charging is needed by switching on the on/off button.
3. Check the brake function before driving.

Weekly check:

1. Switch off the controller before checking.
2. Check the thin rubber gaiter or boot, around the base of the joystick shaft, for damage or splitting. Check visually, do not handle the gaiter.
- 3.Wipe the power wheelchair with soft and wet but wrung cloth. Do not wet the electric system.
- 4.Try to operate the joystick and make sure the joystick returns to the center when pushing and

releasing it.

Monthly check:

1. Make sure the battery is in good condition, clean the battery connector if necessary.
2. Ensure every connector on electric system is good contact.
3. Check if the fasteners are loose.
4. Ensure the front and rear wheels are not shaking.
5. Check the joystick, make sure it can return to central after releasing the joystick.

In the event of problems are found, contact us and Hi-Fortune's authorized agency.

Yearly Check:

Acquire a comprehensive and thorough inspection by technician from Hi-Fortune's authorized agency.

★ Note: Require a inspection and maintenance from Hi-Fortune and its authorized agency once you think the power wheelchair works abnormally.

### **Cleaning for battery**

Battery shall discharge easily once contaminated with water droplets, battery fluid, dust and so on. So please clean it in proper order as below

1. Switch off the power to 「OFF」
2. Have the shell open and take out the battery, removing the dirt with a clean cloth.
3. Provided that there is white powder on the terminal, please wipe it with warm water, then assemble the battery in the reverse order of battery removal.

★ Notice: Charge the power wheelchair once every month once without using it for a long time.

### **● Maintenance**

1. Check regularly for insulation condition and wire connectors connection of all cables.
2. Keep away from moisture for all electric components. Otherwise dry them thoroughly before using.
3. Get rid of dirt on power wheelchair with soft cloth, do not rinsin the power wheelchair with water.

## 8. WARRANTY

### ● Warranty

From the ex-factory date:

- (1) Main frame: 1 year repairing guarantee
- (2) Motors: 6 months free replacement and 1 year repairing guarantee
- (3) Charger and controller: 6 months free replacement and 1 year repairing guarantee.
- (4) Battery: free replacement if capacity of battery less than 60% of rated capacity within half a year.
- (5) Other parts: 1 year repairing guarantee.
- (6) Wearing part like tyres and plastic parts: warranty is not provided.

In the event of any damages when using, please contact the distributor.

- (7) Hi-Forture shall be responsible for the maintenance or recall once quality problem is addressed to the whole batch.
- (8) Paid service shall be provided after 1 year.

### ● Warranty Exclusions

1. Damage cause by improper use and maintenance.
2. Parts damaged due to spare parts from regular manufacturers are not in use.
3. Parts damaged by the accident.
4. Warranty is not provided for wearing part like tyres, plastic parts, bearings etc.
5. Never change the setting of power wheelchair without permission.
6. Damages cause by force majeure like typhoon, flood, earthquake etc.