



User Manual / Warranty



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### Preface

This manual contains the operation, assembly methods, and and simple faults solutions.X-6

Please read the user manual carefully before using this product.

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The manual applies to our model:

- This manual contains wheelchair maintenance information and self checking methods. Please be sure to keep this manual in a safe location for future reference.
- The annotations and illustrations in this manual may vary slightly from your actual model because we continuously improve and upgrade our components and design.
- Please provide this manual to all users of this wheelchair and make sure all users understand how to operate this wheelchair.
- Please contact with your dealer if there is any ambiguity or questions about this produce or manual.
- Improper use of any vehicle may lead to injury. Unsafe driving could harm yourselves and others.
- The electric wheelchair is intended to comfortably transport those with walking difficulties or those with limited or no walking abilities.
- This electric wheelchair is designed to transport only one person.



Follow the instructions next to his symbol closely.

Please pay attention to these instructions, otherwise, it may result in physical harm or damage to the user, wheelchair, or the environment.



### 1. Product Performance

- This series of electric wheelchairs is powered by a Li-Ion battery that supplies power to a DC drive motor(s). Users control the direction and adjust the speed by using an analog joystick controller. This wheelchair is suitable for use at low speeds, on good road conditions, and moderate slopes.

Performance Parameters and Technical Specs, X-6

Overall size 40" x 24.5" x 38" (1010x625x970mm) Fold size 28.5" x 18" x 30" (725x455x765mm)

Seat size\* 17.5" x 17" (450x430mm)

Net Weight 53 lbs (24 kg) without battery

Net Weight 59.5 lbs (27 kg) with battery

Speed (0.62 mph - 3.7 mph (1 - 6km/h) Max 4 mph

Seat height 20" (510mm)

Armrest height 9" (230mm), from cushion

Backrest height 15.5" (395mm)
Max loading weight 286 lbs (130 kg)
Front wheel diameter 8 inch (200 mm)
Rear wheel diameter 12 inch (300 mm)

Battery 12AH Li-ion / 20 AH Li-ion Motor x 2 PCs DC 24V / 250W X 2 pcs

Battery charge AC 220 (110V) ±10% 50-60HZ, 1.5 - 5A

Control 24V 35A

Max distance\*\* 10 miles (15 km) / 16 miles (25 km)

Degree of protection IPX3 Max safe slope 10°

Turning radius ≤47 inches (≤1.2m)

Static stability 10°

Reversing width ≤59 inches (≤1.5m)

Climbing angle 10°

Tire pressure 2 kg f/m<sup>2</sup>

Obstacle climbing 2 inches (50mm)

<sup>\*\*</sup> varies based on weight, incline, speed factors



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<sup>\*</sup> seat width is the distance between armrests

### 1. Product Performance

#### Main Structure

This series of electric wheelchairs is composed of two main parts:

- 1) The Frame: Frame, Wheels, Footrest, Armrests, Backrest, etc.
- 2) The Electrical: Controller, Motor, Battery Electrical Wires, etc.

#### Application Range

This electric wheelchair is designed for individuals who have physical disabilities that limits their mobility. This wheelchair is designed to carry individuals weighing less than 130 kg (286 lbs). This wheelchair is intended to be used as substitution to walking only and is not intended to be used a substitution of a motorized vehicle. This wheelchair is intended to be used indoors and outdoors in a safe and suitable location.





People with the following conditions should not operate this wheelchair:

- Unresponsive upper limbs
- Suffering from senility or dementia
- Unable to take care of themselves
- Use restricted by a medical professional



#### 2.1 Main Security Features

- Classified based on the type of protection: Against electric shock, Internal power.
- Classified based on the type of protection: Against electric shock, Type B application.
- Classified based on the degree of inlet liquid protection: IPX3
- Classified based on the safe use of in a flammable anesthetic mixture with air or gas mixed with oxygen or nitrous oxide flammable a esthetic gases occurs: Non-AP/APG type.
- Classified based on operation mode: Continuous operation.
- Rating voltage: DC 24V.
- Have no protective effect on the application of defibrillator discharge section.
- No signal output or input part.
- Safety of any non-permanent equipment installed.

#### 2.2 Driving Notice

General Riding Cautions

- Please keep your arms and hands on the armrests at all times to properly control the wheelchair.
- To avoid injury, first practice using this wheelchair in a safe and open environment, such as a park. Practice moving forward, backward, stopping, and turning. As you gain skill and become comfortable with the controls, you can begin to use this wheelchair in other suitable environments.
- Before riding on any roads, be sure to have a caregiver with you and be sure to ride safely at all times.
- Please follow all pedestrian traffic rules, the wheelchair is not considered an automobile.
- Please ride on the sidewalk and the zebra crossings only. Do not ride on vehicle lanes.
- Ride at steady speeds and avoid sharp turns or zig zagging.
- Please fasten the seat belt while in use.
- Please maintain proper tire pressure. The lower or higher than recommended pressures may cause unsafe conditions or excessive lost of power.



Avoid Riding in These Conditions Unless Accompanied by a Caretaker

- Riding in inclement weather such as rain, heavy fog, strong winds, snow, etc. If your wheelchair gets wet, electronic functions may be damaged so please wipe off all water immediately.
- Riding in sub optimal conditions such as muddy areas, trails, sand, gravel, etc.
- Riding in crowded areas, riding on unfenced roads, near ditches, near bodies of water, or near any other dangerous areas.
- Riding over railroad tracks. If you must cross a railroad track, inspect the tracks to confirm it is safe to cross. Turn the wheelchair off and disengage the wheels from the motor so that your caregiver can freely push the wheelchair across the tracks. Cross at an angle that ensures your tires will not get stuck in the track.
- Carrying people or cargo. This electric wheelchair is designed to be used by only one person. It is not designed to carry additional people or cargo.

Precautions for Uphill and Downhill

- -Avoid riding on steep hills, uneven surfaces, high steps, channels or any other steep areas.
- Avoid riding on steep slopes, the slope range should be less than 9 degrees.
- If possible, please keep the wheelchair moving forward during uphill climbs. It may be difficult to restart an uphill climb if you are at a stand still.
- Use slow speeds during downhill descent.
- Avoid driving sideways on steep areas.
- Avoid riding on or nearby stairs.
- Avoid crossing ditches.
- If you must cross a ditch, try to cross at a 90° angle.



Do not set the wheelchair to manual mode during uphill or downhill use. If the wheelchair malfunctions at traffic crossing, please immediately ask passersby for help. Set wheelchair to manual mode by disengaging the wheels from the motor, then push wheelchair to a safe location.



#### Precautions for Caregivers

- Caregivers should confirm that the users' feet are in the proper position on the footrest.
- Caregivers should make sure the user is in the seat properly and that the user is properly secured
- Caregivers should confirm that there are no loose clothing articles that can get tangled by the wheels or drive motor.
- Caregivers should use caution while pushing the wheelchair and be mindful of the surrounding environment at all times to avoid injury.

# 2.3 Other Important Notices Repair and Refit Repair and Reform:

If a repair or modification is necessary, please contact your dealer. Do not modify this wheelchair yourself, it may lead to injury or malfunction.

Protect Environment: In order to protect environment, do not casual-ly discard the wheelchair and/or scrap the battery. If necessary, please contact your local dealer for replacement battery.

Keep the Storage Environment Dry: Do not storage wheelchair in damp conditions, such as near a bathroom. If wheelchair gets wet, wipe the water off immediately.

Pushing Someone Else in the Wheelchair: When user is sitting on the wheelchair, make sure the wheelchair is set to manual mode by disengaging the motors. Do not push the wheelchair if the motors are engaged.

Do not replace parts or material randomly.

Do not add weight randomly, as it may cause an imbalance. Do not use other vehicles to pull or push the wheelchair when somebody is sitting on the wheelchair.

If there are abnormal sounds coming from the wheelchair, contact service immediately.

#### 2.4 Service Lifetime

- The service lifetime is 5 years from date of manufacture. To avoid injury or accidents, users should not use this wheelchair for more than the service lifetime.



#### 2.5 Electromagnetic Compatibility

- The wheelchair should away from strong magnetic fields and large inductive electrical equipment, such as radio station, TV stations, underground radio stations, or cell phone transmitting radio stations. Please avoid any strong electromagnetic fields. The electric wheelchair should avoid electromagnetic interference at all times.

#### 2.6 Compatibility with Other Devices

- Electric wheelchairs should not be used together in conjunction with any other devices. If you need to connect a device to it, please contact ComfyGO Mobility, so that we may confirm that the wheelchair will not be adversely affected.



# 3.1 Wheelchair Adjustments Folding Your Wheelchair

Step 1: Take off the battery and unplug the red plug. (Picture 1).

Step 2: Pull the joint switch backward and pull back on the handle (Picture 2 and 3).

Step 3: Pull the cushion up by hand and fold the wheelchair (Picture 4).









Picture 1

Picture 2

Picture 3

Picture 4

#### Unfolding Your Wheelchair

When the wheelchair is partially apart, lift up both side handles until you hear a clicking sound, and check handle to make sure it's secured in place.

Connect Wire Line

Connect the battery box plug into the control plug (Picture 5).

Adjustment of Joystick

Loosen the quick release spanner which is under the armrest (Picture 6). Adjust the controller to the proper position, rotate the spanner clockwise then secure it in place. After securing the controller, place the control wire into the groove.



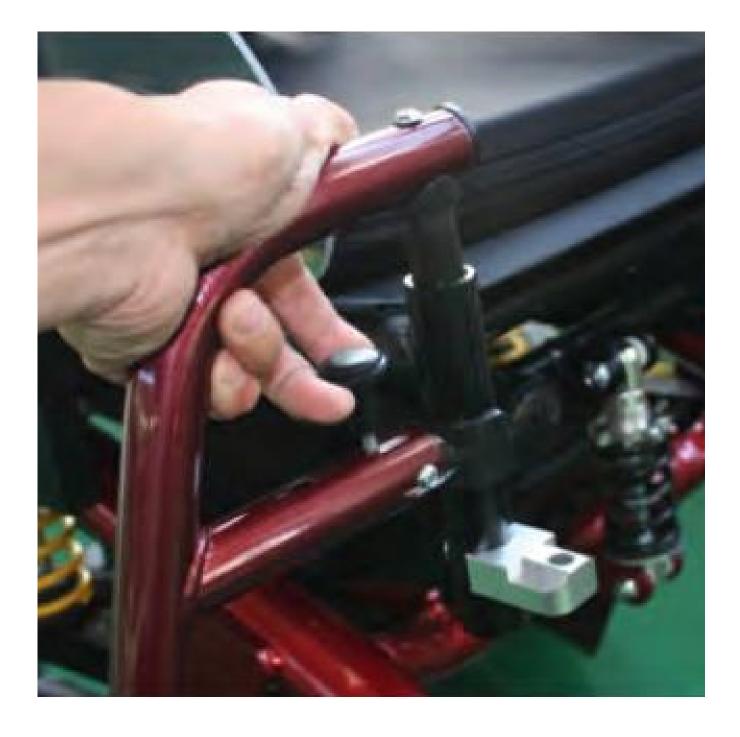
Picture 5



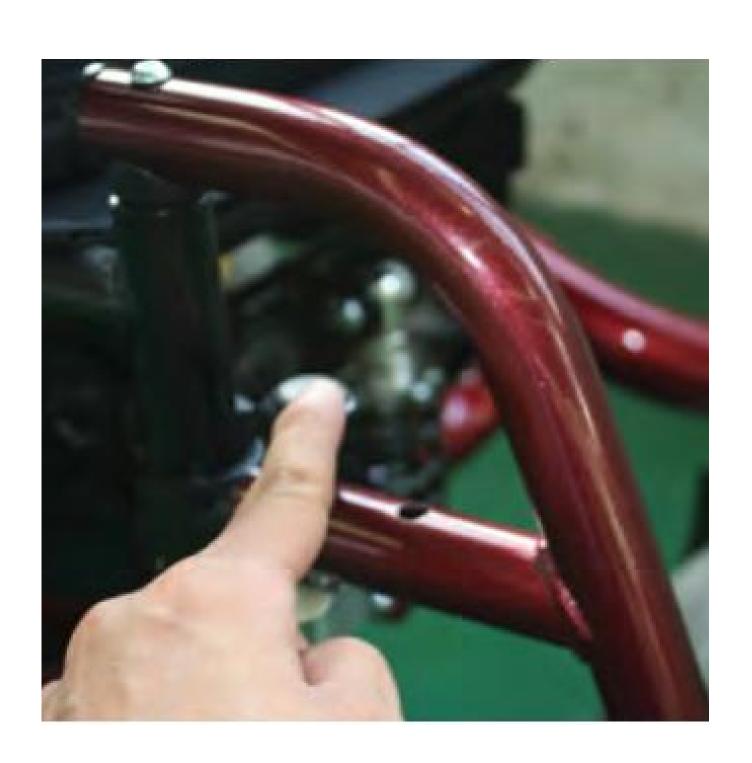
Picture 6



Assemble and Dissemble the Footrest Install the footrest into the frame tube, and push the footrest into the fixed position. For disassemble, push the plastic part then lift up footrest (Picture 7 and 8)



Picture 7



Picture 8



Install and Dismantle the Anti-tipper Press the button to install/dismantle the anti-tipper (Picture 11 and 12).







Picture 11

Raising and Lowering the Armrest

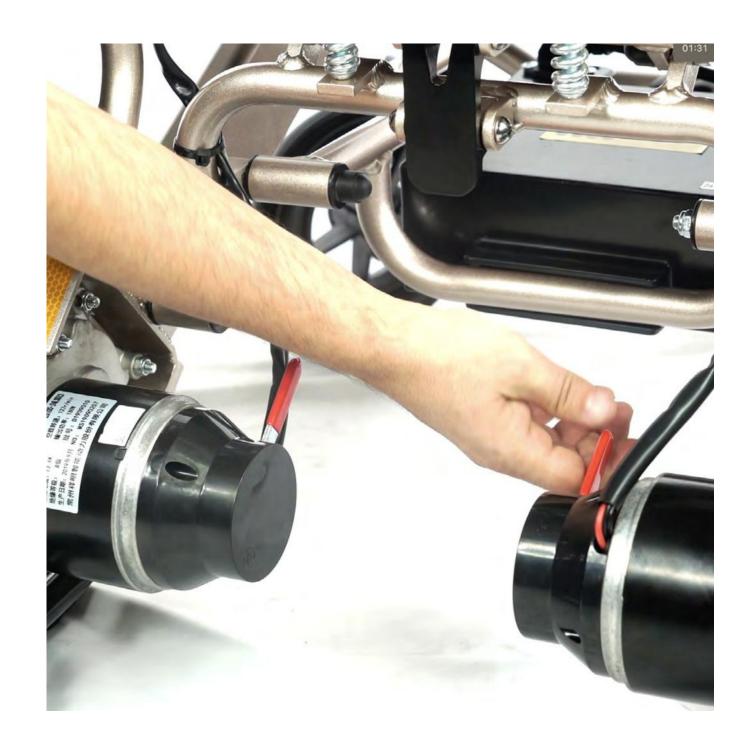
To raise the armrest, press the armrest button near the armrest frame and lift the armrest (Picture 13). To lock the armrest simply push the armrest down until you hear a it click into place.

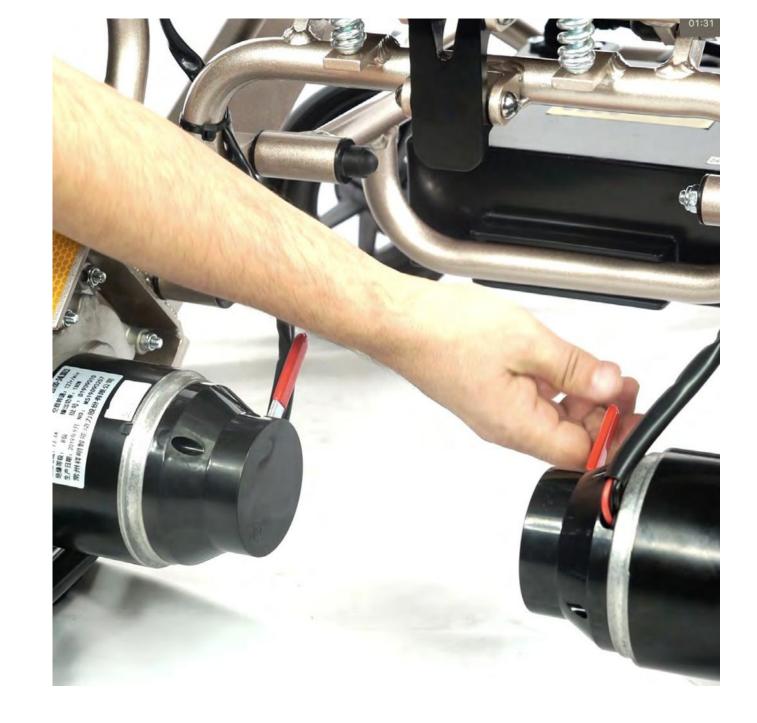


Picture 13



Switching Between Manual Mode and Electric Mode Manual mode: Pull the levers up on the left and right motors (Picture 14 and 15).

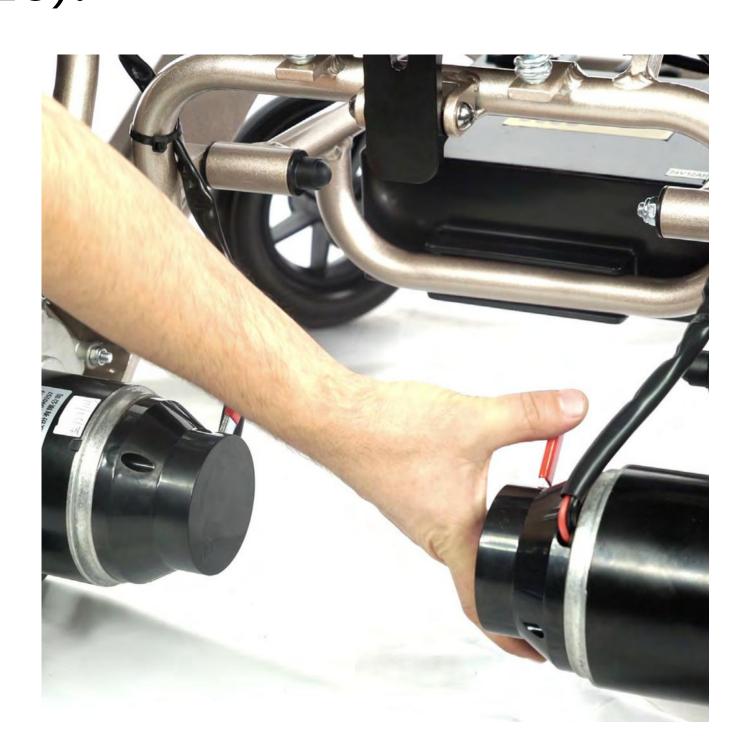




Picture 14

Picture 15

Electric mode: Pull the lever down on the left and right motors (Picture 16).



Picture 16

When changing wheelchair from manual mode to electric mode, please make sure both left and right switches are in same mode. If not, it may cause a rollover.



## 4. Battery and Charger

#### 4.1 Charger Requirements

The charger is used to charge the battery. When the electric wheel-chair is charging, do not attempt to use the wheelchair. Wheelchair must be disconnected from the charger before using.

Charger Technical Data

- Input voltage: AC 220V (110V) ±10%

Output voltage: 24V/DCOutput current: 2A/4A

4.2 Charger Use and Care

#### **IMPORTANT:**

- Do not stop charging until charge process is finished. Repeated use of a battery that is not fully charged will shorten the battery life. The battery should be fully charged before use.
- When battery is fully charged, the power indicator will turn to green.
- Do not interrupt or stop the charging process until the battery is fully charged.
- When charging is complete, turn off the power supply by unplugging the charger. Failure to unplug the unit after a full charge will cause the battery to slowly discharge. DO NOT charge more than 24 hours. Over charging the battery is dangerous.
- Users should follow the following rules to avoid charging dangers: If the electric wheelchair does not include the charger, please use a national standard charger with the output voltage of 24V/DC 4A. It should be well ventilated when charging. Do not expose the wheelchair to sunlight and humid environment.
- The charging environment temperature range is from 10°C to 50°C (50°F to 122°F). If the unit is outside of this environment temperature range, the battery may become unstable and may not function as intended and the battery might be damaged.
- Fan noise from the charger is normal. The fan cools the charging unit.
- Prevent liquid from getting into the charging unit during charging. And do not place the charger near flammable items, such as: fuel, flammable liquids, or flammable materials such as the seat cushion or footrest.



## 4. Battery and Charger

#### Usage of Charger

To charge the battery, connect the charger into the Wheelchair's control socket then connect the charger to a power supply.

Follow these steps to complete the charging process:

Step 1: Make sure the electric wheelchair is powered off.

Step 2: Make sure the controller socket is not blocked.

Step 3: Make sure the battery and controller unit are connected. Step

4: Connect the charger's output plug to the socket below the controller.

Step 5: Connect the charger's main plug to the power supply. Once connected, you will see a red light. This means that charging has begun. An empty battery will be fully charged in 8 to 10 hours. DO NOT charge the battery for more than 24 hours.

Step 6: To keep the battery life from being shortened, please charge the battery at least twice per month if the wheelchair is not in use.

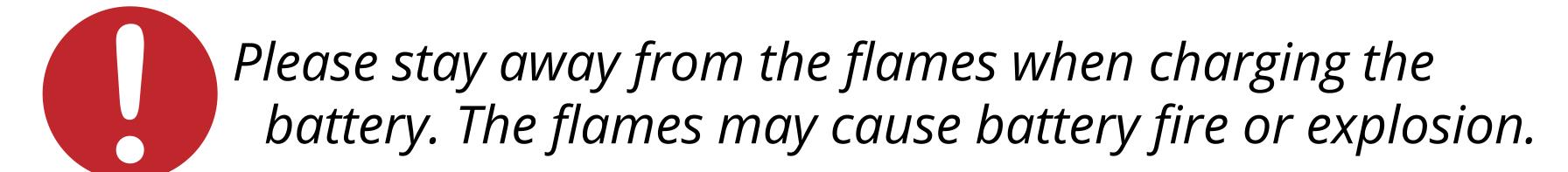




## 4. Battery and Charger

#### 4.3 Battery Use and Maintenance

- Improper replacement of the battery may cause a danger or explosion. Replace the battery only with the same battery type or one recommended by the manufacturer. Please make sure the battery poles are correct. Key points to prolong the battery life: charge frequently to keep battery power full. Fully charge the battery if the wheelchair is not being used. If the wheelchair is not in use, it's recommended to charge the battery twice per month.



- Charging makes hydrogen, do not smoke while charging.
- Do not unplug the power supply or the socket if your hands are wet as it may cause electric shock and serious injury.

  Do not use or sit on the electric wheelchair while charging.



# 5. System Diagnostics

If the indicator LED lights are blinking, it means the wheelchair has abnormalities. The abnormalities may occur in following parts: motors, brakes, battery, wire connections, etc.

Troubleshooting guide is below.

For Audio Signal Indication please check the table.



# 5. System Diagnostics

Description of LED light	The meaning of LED light	Explanation & Solution
All LED lights are unlit with no sound	The power is off, wheelchair is in standby or sleep mode.	Power is poorly contacted. Fuse is tripped or burned out.
All LED lights are lit	The power is turned on, and self diagnose is working, the electric wheelchair functioning as intended.	Less LED lights lit, less battery power remaining.
The leftmost red LED light is lit	The battery power is extremely low.	Battery is low on power. Charge immediately. Battery has malfunctioned, replace battery.
Two short beeps, LED lights blink twice	The left motor has malfunction.	The left motor is poorly connected or disconnected.
Three short beeps, LED lights blink thrice	The left magnetic brake is malfunction.	The left magnetic brake is poorly connected or disconnected
Four short beeps, LED lights blink four times	The right motor is malfunction.	The right motor is poorly connected or disconnected.
Five short beeps, LED lights blink five times	The right magnetic brake is malfunction.	The right magnetic brake is poorly connected or disconnected
, · · · · · · · · · · · · · · · · · · ·	Controller is in over-current protection status.	Check the brakes and check if the motor drive mechanism is stuck. Check the current by using an ammeter. If it is not excessive current, the controller may have malfunctioned.
Seven short beeps, LED lights blink seven times	Joystick has malfunctioned	Joystick doesn't reset to center. Joystick connector is loose.
Eight short beeps, LED lights blink eight times	Controller has malfunctioned.	Please consult your dealer for maintenance.
Nine short beeps, LED lights blink nine times	Controller has malfunctioned.	Please consult service center for maintenance.



### 6. Controller

#### 6.1 Controller Panel

Power On/Off Button
Speedometer

Horn Button
Speed Acceleration

Controller

### 6.2 Controller Use Power Switch

Press the power switch button, the screen will light up and the controller will be powered on. Press the power switch button, the screen goes out, and the controller is powered off.



In an emergency, you can directly turn power off by also pressing the power button.

#### Sleep Mode

If the joystick is not used for more than 20 minutes, the power will turn off automatically, and the system will enter sleep mode. System can be reactivated by pressing the power button.

#### Speed adjustment

The wheelchair riding speed can be adjusted according to the user's preference and circumstances. Adjust speed by using the decrease button and increase buttons accordingly.



### 6. Controller

Speed is divided into five sections, in the following ranges: 20%, 40%, 60%, 80%, 100% of the max speed.

First gear: 20% of max speed.

Fifth gear of speed: 100% of max speed.

Horn Button

Press the horn button to use the horn.

Battery Power Gauge

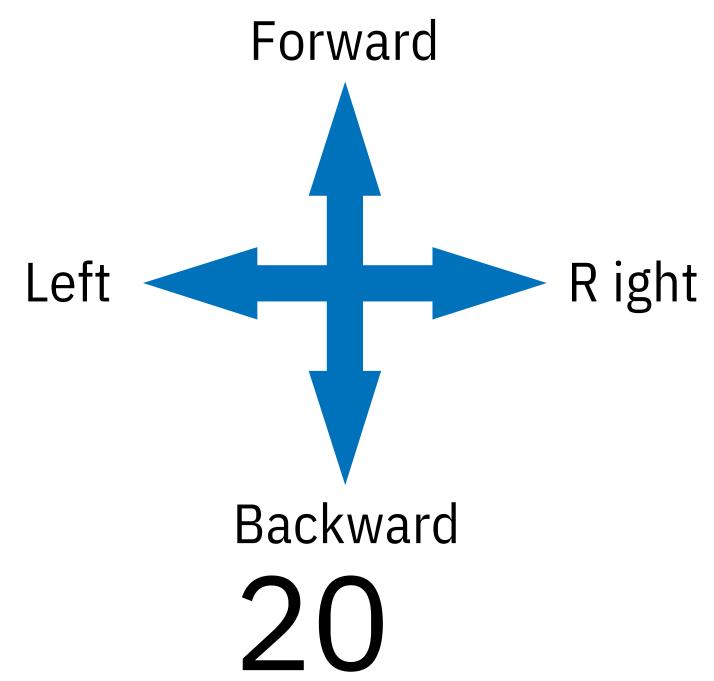
After you turn on the power, the battery power indicator will light up. The battery power gauge shows the battery remaining power capacity. In this illustration, the battery power is full. User should plan to charge the unit when the power level drops to yellow. If you are planing a long distance drive, the battery should be fully charged. If there is only a red light illuminated the battery power is extremely inadequate, users need to charge battery as soon as possible.

Using the Joystick

The wheelchair moving direction is controlled by the joystick. The speed is controlled by how far the joystick is is moved from center. Keeping the joystick closer to the center allows for slower speeds and Moving the joystick further from the center produces higher speeds.

Before turning off the unit, make sure the joystick is in the center position. Turning on the power or turning off the power when the joystick is not centered will cause the controller to sound out a wrong operation signal.

In this case, release the joystick to middle and the sound will stop. If the warning sound continues, this may indicate a malfunction. DO NOT use the wheelchair and contact with your dealer for maintenance.





### 7. Maintenance Areas

#### 7.1 Maintaining Your Wheelchair

Maintenance of wheelchair includes general cleaning of the wheelchair, checking and tightening all nuts and bolts. Checking the wheels and tire pressure. Checking the battery, battery cables, and battery connections. Check the battery charge level. For further maintenance please contact with your dealer. It's suggested to perform a general maintenance check once per month. It's also recommended to check with your dealer annually to conduct a full system check.

#### 7.2 Cleaning Your Wheelchair

Please clean the wheelchair regularly.

Clean the parts that are frequently touched by the user (seat cushions, armrests, controller, etc) by using a gentle cleaner and clean cloth. Do not use organic solvents to clean. At minimum, the wheelchair should be cleaned once per week. If the wheelchair is used by an infectious user, it should be cleaned and disinfected immediately after each use by using disinfectants.

#### 7.3 Wheels

Check the air pressure and condition of the tire regularly. If tire pressure is below recommend levels, please inflate to reduce wear and prolong battery life. If the tire tread pattern depth is less than 1mm, please replace with new tires. Regularly check and tighten the nuts and bolts on the wheel.

#### 7.4 Batteries

Make sure that the battery is fully charged frequently. To prolong the battery life, we recommend that users charge the battery fully when the battery level is near empty.



### 7. Maintenance Areas

#### 7.5 Wheelchair Malfunction and Checking

If a malfunction happen while the wheelchair is in use, turn off the power before checking.

Symptom: complete loss of power, and all the LED lights on the controller panel are off.

#### Check Step:

Step 1: Check if the controller's plug is loose.

Step 2: Check if the connection of controller's plug and battery box is loose. Please reinsert the plug connector (firmly hold the plug end connector when pulling out the plug, DO NOT pull the plug by the wire as to avoid unnecessary damage to the wire). If the wheelchair is still not able to power up, or if users has any question, please connect with your dealer.

The controller has a diagnosing system to monitor the controller and motor. Any malfunction of these parts is indicated by the controller. For more details please kindly refer to chapter of audio signal indication.

#### 7.6 Maintenance Checking

The following is a maintenance checklist. The electric wheelchair should be checked according to our suggestion. During general use of the wheelchair, some of the self checking is done automatically. For your knowledge, we have listed the self-checking items in A area. Area A: Before each use, check if following parts are functioning correctly:

- 1. Backrest
- 2. Armrest
- 3. Controller position
- 4. Footrest
- 5. Battery power
- 6. Clutch/adjusting lever for conversion between manual mode and electric mode Area B: Check the following parts monthly, to avoid loss of parts or excessive wear.
- 1. Screws
- 2. Brakes
- 3. Clutch/adjusting lever for conversion between manual mode and electric mode
- 4. Tire tread depth.
- 5. Controller and charger connectors.



# 8. Tech Support

Here are a Few Ways to Keep Your Batteries Healthy.

- Keep your batteries at room temperature. Heat is by far the largest factor when it comes to reducing battery life.
- Batteries deteriorate over time, whether they're being used or not.
- We suggest that after 30 partial charges, you allow for a complete discharge of the battery before recharging. This will allow for a recalibration of the power gauge.
- Gradual deterioration in performance will result if the battery has been left in a discharged state.



# 9. Warranty Policy

- Our goal is to ensure that you are delighted with your purchase.
- According to our warranty agreement, all new products have a limited warranty. All batteries have a six month warranty. Spare parts have a one year warranty. The limited warranty does not include: labor or device failure due to the owner's misuse or negligence, non-durable components and components subject to normal wear and tear that need replacement from time to time (for example rubber materials, accessories, wheels or brakes, and plastic parts). All warranty claims require proof of purchase and the serial number.

Note that your warranty does not cover these conditions:

- Functional problems: Issues related to normal use and aging such as surface coating and plating, natural fading of resins
- Replacement of consumable materials due to wear and tear, such as tires, fuses, plastic parts, glass parts, lubricates etc.
- Any fees for Inspection, adjustment, adding oil, cleaning, etc.
- Fees for service and maintenance performed dealers as specified by our factory
- Maintenance costs at any unauthorized service centers
- If you fail to regularly check the issues as specified in this manual section 7
- Improper or wrong maintenance
- If unauthorized maintenance has been performed
- Operating differently than what is described in our manual or if you overload the wheelchair
- Any unauthorized modifications to the wheelchair
- External factors such as: soot, pharmaceuticals, bird droppings, acid rain, flying stone, metal powder, etc.
- Natural disasters such as: typhoons, floods, fires, earthquakes etc. damaging the unit.

#### Protect the Environment

- Please do not dispose of this wheelchair or its components and especially the batteries. Instead, please return them to our service center or follow your local disposal regulation.

