

# Power Wheelchair

# User Manual

OS-R-M01S



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## Content

|                                                   |    |
|---------------------------------------------------|----|
| 1. INTRODUCTION .....                             | 3  |
| 2. Safety Precautions .....                       | 3  |
| 3. PERFORMANCE AND STRUCTURE .....                | 13 |
| 4. Assembly and adjustment.....                   | 15 |
| 5. Operating Instructions.....                    | 17 |
| 6. Cyber security .....                           | 31 |
| 7. Wireless technology and related settings ..... | 31 |
| 8. Report serious event to FDA .....              | 33 |
| 9. Fault Diagnosis and Troubleshooting.....       | 33 |
| 10. Maintenance and Transportation.....           | 34 |
| 11. Storage .....                                 | 35 |
| 12. Disclaimer.....                               | 36 |
| 13. Packing list .....                            | 36 |
| 14. Labels,packing Logo design .....              | 36 |
| 15. Contact information.....                      | 37 |
| 16. Disclosure information.....                   | 38 |

## 1. INTRODUCTION

### **【Product name】**

Power Wheelchair

### **【Product Model】**

OS-R-M01S

### **【Indication for use】**

The intended use of the powered wheelchair is to provide outdoor and indoor mobility to persons limited to mobility impairment that are capable of operating a powered wheelchair.

### **【Expected Population】**

People with mobility impairments who have difficulty walking long distances that are capable of operating a power wheelchair.

### **【Expected use environment】**

Indoor&outdoor

### **【Contraindications】**

- Have slow reaction of upper limbs
- Have mental problems, including patients who temporarily or permanently lose attention or judgment
- Have impaired cognitive status or conditions that impair judgement
- Have medical or physiological conditions that prevent the user from controlling the wheelchair by themselves independently; or are advised by a physician not to use this product

## 2. Safety Precautions

### 2.1 Symbol description



#### **Warning**

Indicates critical instructions to prevent an imminently hazardous situation that may result in death or serious injury



### Attention

Injury may occur if the information associated with this symbol is ignored.



MR Unsafe items should not enter the MRI scanner room. Patients with MR Unsafe devices should not be scanned.

## 2.2 Precautions for electrical safety



### Attention

This Power Wheelchair has passed the test in accordance with ISO 7176-9 Climatic Test.

This test ensures that the users or escorts of the Electric Wheelchair have enough time to move the Electric Wheelchair from the rain to a safe place;

Do not operate the Power Wheelchair in thunderstorms;

Do not place this Power Wheelchair under a rainstorm;

Do not place this Power Wheelchair in a wet place for a long time;

Do not spray or wash the Power wheelchair with an automatic car wash.

If it is directly exposed to rain, smog, or wet air, the Power Wheelchair may experience electrical and mechanical faults or rust.

## 2.3 Product Operating Conditions

- Temperature: 0-40°C
- Relative humidity: 10-90%
- Atmospheric pressure: 78.9~106kPa

## 2.4 Instruction before use

- Do not operate the wheelchair without thoroughly reading and understanding this

user manual.

- Please refer to the technical specifications for the maximum load capacity. Overloading is strictly prohibited. This product is intended for single-person use only—do not carry passengers.
- Do not operate under the influence of alcohol or when fatigued.
- Do not drive at night or in low-visibility conditions.
- Individuals with visual impairments must not operate the wheelchair alone, as this may result in personal injury.
- Before use, inspect the product for any abnormalities, including the battery, tires, joystick, and other components.
- This product offers a certain level of water resistance (IPX4 rating), but it must not be stored or operated in rainy or snowy weather.
- Turn off the device power when getting in and out of the device.

## 2.5 Attention in use

- The power wheelchair is intended for use on flat, even surfaces. Do not operate it for extended periods on muddy, wet, uneven, or otherwise unsuitable terrain.
- Avoid driving on poor or hazardous road conditions (e.g., grass, gravel, uneven surfaces, or decks without guardrails). Always operate with caution and prioritize safety. When going uphill or downhill, reduce speed and proceed slowly.
- This wheelchair is capable of climbing inclines up to 8°. Do not exceed this limit.
- Avoid crowded areas with heavy pedestrian or vehicle traffic whenever possible.
- Always wear the safety belt while driving.
- When boarding from the front, do not step directly on the foot platform
- Instead, step onto a stable surface or flip up the foot platform before boarding to avoid accidents caused by instability.
- Reduce speed when turning on slopes to avoid tipping.
- Always ascend and descend slopes straight-on. Do not drive sideways across an incline.
- Stopping distance on slopes can be significantly greater than on level ground;
- In narrow spaces, reduce speed to prevent collisions.
- When crossing small obstacles (less than 4 cm (1.57 ") in height), proceed slowly. Do not attempt to jump curbs or perform dangerous maneuvers at high speed.
- When the wheelchair is in Manual mode, do not park it on slopes or sit in it.
- Do not switch from Drive mode to Manual mode while the wheelchair is in motion.
- Always check the battery level before use to prevent the wheelchair from stopping due to low power.
- If the wheelchair does not operate normally, stop using it immediately.

- Do not use the wheelchair on escalators. Use elevators instead.
- While operating the wheelchair, keep both feet securely on the foot platform to avoid the risk of foot entrapment in the wheels.
- Do not connect any electrical or mechanical devices to the wheelchair unless they are officially approved. Use of unauthorized accessories may void the warranty and pose safety risks.
- Be extra cautious when wearing loose-fitting or long garments with dangling belts, as these may get caught in the wheels.
- When storing or transporting the wheelchair, be aware of its weight. Never lift the device by any movable parts.
- The maximum load capacity is 136 kg (300 pounds) . Overloading is strictly prohibited.
- Do not modify the wheelchair in ways that may compromise its safety.
- Do not drive in the middle of the roadway. Use caution when crossing streets and be aware of pedestrians and vehicles.
- It is strictly prohibited for users to stay in wheelchairs while the vehicle is in motion. Please transfer the user to the vehicle's original seat and use the vehicle's seat belt.

## 2.6 Safety Warnings and Risk Protection

- **Anti-Tip and Obstacle Crossing**

**Static stability:** Do not park, board, disembark, or remain stationary on slopes exceeding 23.8°

**Dynamic use:** Avoid operating on slopes greater than 8° when turning, accelerating, or braking. Sudden sharp turns or rapid acceleration/deceleration on slopes are strictly prohibited.

**Obstacle crossing:** For single steps or thresholds higher than 4.0 cm (1.57") , direct crossing is prohibited. Detour or use auxiliary facilities.

**Turning space:** A minimum turning radius of approximately 0.84 m (32.6") is required. Do not turn around in narrow spaces near edges (steps, pits, etc.).

Always keep the anti-tip devices/rear anti-roll wheels in proper condition. Adjusting the seat or carrying heavy objects shifts the center of gravity; reduce speed and proceed with extra caution.

- **Speed and Seat Belt**

Fasten the seat belt before powering on and driving; it is mandatory on slopes, slippery roads, obstacles, turns, and in crowded environments. Use low-speed mode indoors, in crowded or complex environments, and accelerate gently. Prolonged high-speed driving is prohibited. At any sign of instability (pitching, tilting, skidding), slow down immediately and stop for inspection.

- **Mechanical Strength and Load Capacity**

Do not exceed the rated load (including the user and personal belongings). Avoid

high-speed impacts with obstacles or walls. It is prohibited to use the wheelchair body for climbing, jumping curbs, or bearing concentrated point loads (e.g., standing only on the footrest or armrest). During handling or when crossing slopes/thresholds, caregivers must assist from a stable position to prevent structural damage caused by torsional stress.

- **Temperature Risks**

High temperature: Prolonged exposure to sunlight, proximity to heat sources, or continuous high current operation may cause overheating. If the housing or motor becomes excessively hot, stop use immediately and allow cooling before inspection. Low temperature: Low temperatures reduce battery and braking performance. Before starting or charging in cold conditions, restore the wheelchair to room temperature in a dry, ventilated environment. Any abnormal conditions (burnt odor, unusual noise, sudden performance drop) require immediate power-off and contacting a service provider.

- **Electromagnetic Compatibility (EMC)**

This product complies with relevant EMC requirements. However, strong electromagnetic fields (e.g., walkie-talkies, industrial transmitters, substations, MRI, RF therapy devices) may cause malfunctions or performance degradation. Maintain a safe distance from strong emitters. If unexpected movement, braking anomalies, or loss of control occurs near such sources, release the joystick/power off immediately and move the wheelchair to a safe distance before resuming use. Do not modify the product or use unapproved electrical accessories, as this may increase emissions or reduce immunity.

- **Cleaning and Infection Control**

Follow the cleaning procedures in this manual to regularly clean and, if necessary, disinfect parts in contact with the human body (seat cushion, armrest, joystick). Keep the wheelchair dry and ventilated. High-pressure water, steam cleaning, or immersion is prohibited. Avoid liquid entering electronic components or connectors. In case of contamination with bodily fluids, follow medical cleaning protocols promptly and wear appropriate personal protective equipment.

- **Misuse and Operational Boundaries**

Do not use the wheelchair in environments outside its rated range (e.g., motor vehicle roads, deep gravel pits, soft soil, icy surfaces, steep slopes, stairs/escalators, prohibited elevators). Do not allow others to pull or tow the wheelchair, and do not use it as a towing device. Standing on the footrest, standing up while driving, leaning out, or carrying oversized/imbalanced items is prohibited. Before first use, setup and training must be carried out by an authorized dealer or qualified personnel. Users must have the ability to operate the wheelchair safely. If any abnormal conditions occur (alarm, noise, vibration, unstable steering), immediately slow down, pull over, stop, power off, and perform a safety check.

- **Information Sufficiency and Traceability**

This manual provides operating instructions, limitations, warnings, and

maintenance information in accordance with ISO 7176-15. Please read, follow, and keep this manual for reference.

If product configuration, accessories, or software updates differ from this manual, contact an authorized dealer for the latest information. The latest revision shall prevail.

## 2.7 Safety Symbols on the power wheelchair

The following symbols are used on the power wheelchair to indicate warnings, mandatory actions, and prohibitions. It is very important that you read and fully understand them.



**Pinch Point Warning:** Do not place hands into moving mechanical parts to avoid injury.



**Foot platform Warning Label:** Do not stand on the foot platform, as this may cause tipping or injury.



**Drive/Manual Symbols:** When switching between drive mode and manual mode, place the wheelchair on a level surface and stand to one side during the operation.



Power wheelchairs are not rated for occupied transit.

## 2.8 Excerpts from EMC-related guidelines and statements

Electromagnetic interference is from external electromagnetic wave energy (like radios, TV transmission stations, CB radio waves, and garage door starters, radio phones, etc.). Electromagnetic interference may affect the control system of the power wheelchair. Some interference may lead to brake failure, power on automatically, or steering failure, also may lead to the permanent damages to the control systems.

Below cables information is provided for EMC reference.

| Cable         | Max. cable length,<br>Shielded/unshielded |          | Number | Cable classification |
|---------------|-------------------------------------------|----------|--------|----------------------|
| AC Power Line | 1.8m                                      | shielded | 1Set   | AC Power             |
| DC Power Line | 1.2m                                      | shielded | 1Set   | DC Power             |

### Important information regarding Electro Magnetic Compatibility (EMC)

This electrical medical equipment needs special precautions regarding EMC and put into service according to the EMC information provided in the user manual; The equipment conforms to this IEC 60601-1-2:2014/AMD1:2020 standard for both immunity and emissions. Nevertheless, special precautions need to be observed: The equipment with ESSENTIAL PERFORMANCE/Following ESSENTIAL PERFORMANCE is intended used in Home healthcare environment.

#### ESSENTIAL PERFORMANCE:

**WARNING:** Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally”.

The use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

**WARNING:** If the use location is near (e.g. less than 1.5 km from) AM, FM or TV

broadcast antennas , before using this equipment , it should be observed to verify that it is operating normally to assure that the equipment remains safe with regard to electromagnetic disturbances throughout the expected service life.

**WARNING:** Common RF emitters nearby (radio-frequency identification (RFID)) readers, electronic security systems (e.g., metal detectors, electronic article surveillance), near-field communications (NFC) systems, wireless power transfer (WPT) and unique medical emitters such as electrocautery, MRI, electrosurgical units, and diathermy equipment) may produce EMI, please stay away from these devices as much as possible during use.

When the AC input voltage is interrupted, the equipment will stop battery charging and if the power supply restored , it could 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 1)

Table 1 - Emission

| Phenomenon                       | Compliance                | Electromagnetic environment |
|----------------------------------|---------------------------|-----------------------------|
| RF emissions                     | CISPR 11 Group 1, Class B | Home healthcare environment |
| Harmonic distortion              | IEC 61000-3-2 Class A     | Home healthcare environment |
| Voltage fluctuations and flicker | IEC 61000-3-3Compliance   | Home healthcare environment |

EMS Compliance Table (Table 2-5)

Table 2 - Enclosure Port

| Phenomenon              | Basic EMC standard | Immunity test levels                                                               |
|-------------------------|--------------------|------------------------------------------------------------------------------------|
|                         |                    | Home healthcare environment                                                        |
| Electrostatic Discharge | IEC 61000-4-2      | ±8kV contact<br>±2kV, ±4kV, ±8kV, ±15kV air                                        |
| Radiated RF EM field    | IEC 61000-4-3      | 20V/m<br>26MHz-2.5GHz<br>80% AM at 1kHz<br>10V/m<br>80MHz-2.7GHz<br>80% AM at 1kHz |

|                                                            |               |                       |
|------------------------------------------------------------|---------------|-----------------------|
| Proximity fields from RF wireless communications equipment | IEC 61000-4-3 | Refer to table 3      |
| Rated power frequency magnetic fields                      | IEC 61000-4-8 | 30A/m<br>50Hz or 60Hz |

Table 3 – Proximity fields from RF wireless communications equipment

| Test frequency (MHz) | Band (MHz) | Immunity test levels                           |
|----------------------|------------|------------------------------------------------|
|                      |            | Home healthcare environment                    |
| 385                  | 380-390    | Pulse modulation 18Hz, 27V/m                   |
| 450                  | 430-470    | FM , $\pm 5$ kHz deviation , 1kHz sine , 28V/m |
| 710                  | 704-787    | Pulse modulation 217Hz, 9V/m                   |
| 745                  |            |                                                |
| 780                  |            |                                                |
| 810                  | 800-960    | Pulse modulation 18Hz, 28V/m                   |
| 870                  |            |                                                |
| 930                  |            |                                                |
| 1720                 | 1700- 1990 | Pulse modulation 217Hz, 28V/m                  |
| 1845                 |            |                                                |
| 1970                 |            |                                                |
| 2450                 | 2400-2570  | Pulse modulation 217Hz, 28V/m                  |
| 5240                 | 5100-5800  | Pulse modulation 217Hz, 9V/m                   |
| 5500                 |            |                                                |
| 5785                 |            |                                                |

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      | $\pm 2\text{kV}$<br>100kHz repetition frequency                                                         |
| Surges<br>Line-to- line                     | IEC 61000-4-5      | $\pm 0.5\text{kV}$ , $\pm 1\text{kV}$                                                                   |
| Conducted disturbances induced by RF fields | IEC 61000-4-6      | 3V, 0.15MHz-80MHz<br>6V in ISM bands and amateur radio bands between 0.15MHz and 80MHz<br>80%AM at 1kHz |
| Voltage dips                                | IEC 61000-4- 11    | 0% UT; 0 .5cycle<br>At 0° , 45° , 90° , 135° , 180° , 225° , 270° and 315°                              |
|                                             |                    | 0% UT; 1 cycle<br>and 70% UT; 25/30 cycles<br>Single phase: at 0°                                       |
| Voltage interruptions                       | IEC 61000-4- 11    | 0% UT; 250/300 cycles<br>UT=rated input voltage                                                         |

Table 5 – Signal input/output parts Port

| Phenomenon              | Basic EMC standard | Immunity test levels                                                                                       |
|-------------------------|--------------------|------------------------------------------------------------------------------------------------------------|
|                         |                    | Home healthcare environment                                                                                |
| Electrostatic Discharge | IEC 61000-4-2      | $\pm 8\text{kV}$ contact<br>$\pm 2\text{kV}$ , $\pm 4\text{kV}$ , $\pm 8\text{kV}$ , $\pm 15\text{kV}$ air |

Table 6 – IEC 60601-1-2:2014+A1:2020 section 8.11

| Test mode | Frequency | Test level (A/m) | Modulation | Dwell time(s) | Result |
|-----------|-----------|------------------|------------|---------------|--------|
|-----------|-----------|------------------|------------|---------------|--------|

|       |          |     |                               |   |      |
|-------|----------|-----|-------------------------------|---|------|
| Mode1 | 30kHz    | 8   | CW                            | 3 | PASS |
| Mode2 | 134.2kHz | 65  | Pulse<br>Modulation<br>2.1kHz | 3 | PASS |
|       | 13.56kHz | 7.5 | Pulse<br>Modulation<br>50kHz  | 3 | PASS |

During test,the EUT meets the requirements of IEC 60601-1-2:2014+A1:2020 section 8.11

### 3. PERFORMANCE AND STRUCTURE

#### 3.1 Main structure of the product



#### 3.2 TECHNICAL FEATU

The main Performance Parameter of Power Wheelchair

|                           |                                             |
|---------------------------|---------------------------------------------|
| Model                     | OS-R-M01S                                   |
| Overall dimensions(L*W*H) | 1020*630*914mm                              |
| Folded dimensions(L*W*H)  | 460*630*781mm                               |
| Total mass                | 19.5Kg (LH-26V7S4P),<br>20.4Kg (LH-35V7S6P) |

|                                                       |                                                        |
|-------------------------------------------------------|--------------------------------------------------------|
|                                                       |                                                        |
| Mass of the heaviest part                             | OS-R-M01S, 17.2Kg                                      |
| Seat plane angle                                      | 5°                                                     |
| Effective Seat Depth                                  | 470mm                                                  |
| Seat Width                                            | 450mm                                                  |
| Effective Seat Width                                  | 450mm                                                  |
| Front Seat Surface Height                             | 500mm                                                  |
| Backrest Angle                                        | 15°                                                    |
| Backrest Height                                       | 470mm                                                  |
| Backrest Width                                        | 445mm                                                  |
| Armrest-to-seat distance                              | 220mm                                                  |
| Front location of armrest structure                   | Lift 450mm,<br>Right 540mm                             |
| Armrest Length                                        | Left 430mm,<br>Right 520mm                             |
| Armrest Width                                         | 60-80mm                                                |
| Obstacle climbing                                     | 40mm                                                   |
| Maximum Speed                                         | 6 km/h                                                 |
| Minimum Braking Distance from max speed on Horizontal | ≤0.93m                                                 |
| Minimum Turning Radius                                | 840mm                                                  |
| Maximum Load Capacity                                 | 136kg                                                  |
| Driving Distance                                      | 8.49miles/13.6 km (10Ah)<br>16.47 miles/26.5 km (20Ah) |

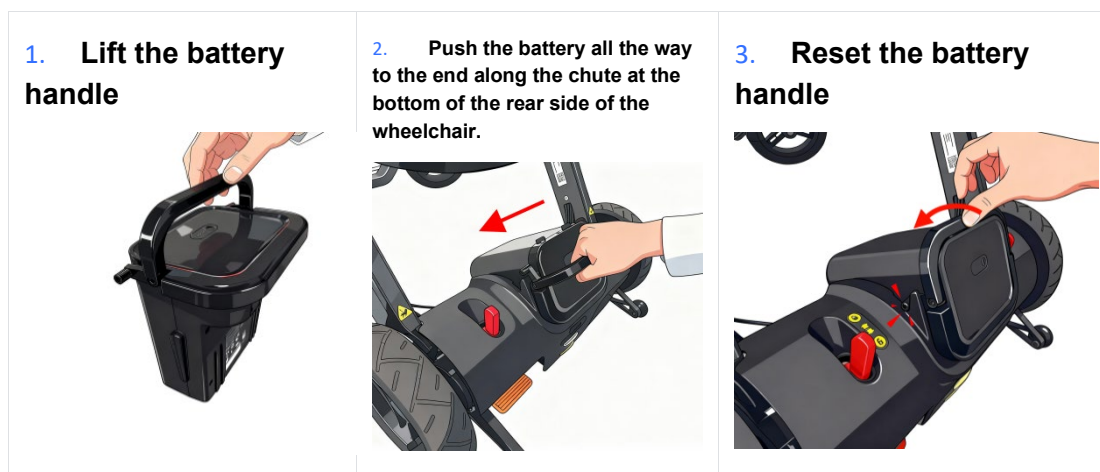
|                                      |                                                                 |
|--------------------------------------|-----------------------------------------------------------------|
| Motor Model                          | Motor Power (Model: SYM17-F1-1-L-025-651, SYM17-F1-1-R-025-651) |
| Lithium Battery Specification        | 10Ah/20Ah                                                       |
| Maximum Output Current of Controller | 30A                                                             |
| Maximum Output Current of Charger    | 4A                                                              |
| Front Wheel Diameter                 | 7.7" (196mm)                                                    |
| Rear Wheel Diameter                  | 10" (254mm)                                                     |

Note:

- 1)The weight capacity is tested with a dummy or personnel of same weight.
- 2)Maximum Potential Range is tested on flat road with average speed,it will vary due to drive surface,operation habit,etc.

## 4. Assembly and adjustment

### 4.1 Install the battery



### 4.2 Folding and unfolding of power wheelchair

#### 4.2.1 Unfolding

|                                                        |                  |
|--------------------------------------------------------|------------------|
| 1. Step on the Folding Mechanism and lift this handle. | 2. Open backrest |
|--------------------------------------------------------|------------------|

Release it after hearing a click.



3. Lift the armrest up



4. Put down the Foot Platform



#### 4.2.2 Fold

1. Press and hold the lock release button to lower the armrests on both sides



2. Put away the Foot Platform



3. Folding backrest

4. Step on the Folding Mechanism,



NOTE: Please pay attention to the pinch point on the wheelchair and be careful not to pinch your fingers.

## 5. Operating Instructions

### 5.1 Mode Switching

#### **Drive Mode:**

The red mode switch lever on the two motors at the rear of the wheelchair is set to the locked icon position. After powering on, the joystick can control the wheelchair's movement. The wheelchair cannot be pushed manually, and it will automatically engage the brake and stop when powered off.

#### **Manual Mode(freewheel mode):**

The red mode switch lever on the two motors at the rear of the wheelchair is set to the unlocked icon position. When powered off, the wheelchair can be pushed manually. If the mode switch lever is set to the unlocked icon position while the wheelchair is powered on, the wheelchair will enter a fault state and the joystick will not be able to control movement.

Mode switching is illustrated in the figure below: pushing the mode switch lever upward switches to Drive Mode, while pushing it downward switches to Manual Mode. Both motors on either side of the wheelchair must be set to the same mode simultaneously to successfully switch modes. Otherwise, the wheelchair will enter a fault state and the functions of each mode will not be available.



## 5.2 Operating Instructions on Drive Mode

### 5.2.1 Controller

#### 5.2.1.1 Introduction to the controller



#### 5.2.1.2 Function description of the controller

##### 1. Direction joystick

Pushing the controller joystick can control the speed and direction of the Electric Wheelchair.

##### 2. Power On/Off and Brake/Park/Sleep mode

###### • How to power on:

Press the power button to turn on the power wheelchair. The screen of the controller will light up.

###### • How to stop during movement:

1) Park mode; Release the joystick or the APP control, the wheelchair will slow down and then stop.

2) Brake mode: Pressing the power button once performs an emergency stop: the wheelchair decelerates smoothly and comes to a stop; In Brake mode, the physical joystick is locked, remote control is disabled.

- **How to exit Brake mode**

Pressing the power button, the physical joystick lock is released and can operate the wheelchair normally, while Bluetooth control remain disabled.

- **How to enter Sleep mode:**

When the wheelchair is powered on and stationary, you can press the power button shortly to activate Sleep mode.

- **How to power off**

When the device is powered on, press and hold the power button for 5 seconds and the wheelchair will shut down.

### 3. **SOS**

- Press and hold the **【SOS】** button for 3 seconds to trigger the SOS alarm.
- The SOS icon will appear on the screen, accompanied by an SOS alarm tone.
- Press the **【SOS】** button again to turn off the alarm.

### 4. **Horn**

- Press the horn button once, and the horn will sound once.
- While holding down the Horn button, press **【+】** or **【-】** to adjust the horn volume.

### 5. **Voice Interaction**

- Press the **【Voice】** button to trigger the voice conversation function via Bluetooth and mobile app

### 6. **【-】**

- Press "-" to reduce one gear (minimum 1 gear).

### 7. **【+】**

- Press "+" to add a gear (Up to 5 gears).

### 8. **Menu**

- Press the **【menu】** key to open the menu. Use the **【-】** and **【+】** keys to scroll left and right.
- Close the menu by pressing the **【-】** key to scroll all the way to the left. Press the **【menu】** key to exit.

### 5.2.1.3 Display screen menu description

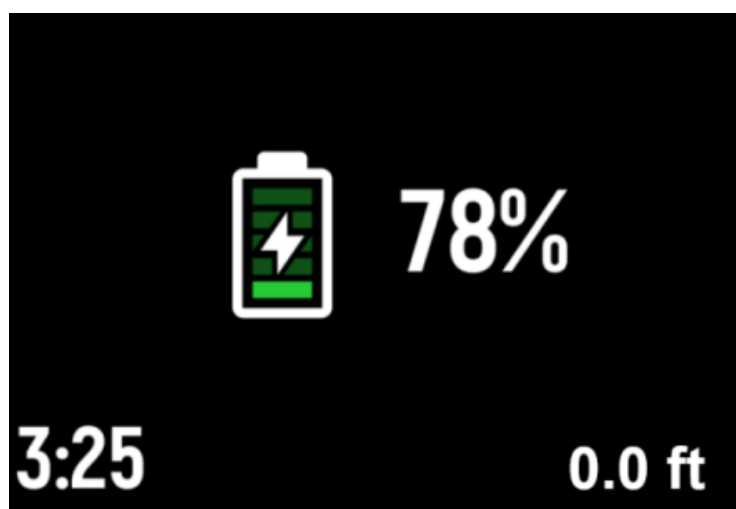


In the normal operating state, the display is divided into three sections:

- Middle Content Area: Main display Speed / Vehicle Lock status、 Left side Gear position、 Right side Battery level
- Bottom Display Area: Left side Driving time since the current power-on、 Right side Driving distance since the current power-on

### 5.2.1.4 Charging and End Charging

- When charging is detected, the screen will display a charging status prompt.



### 5.2.1.5 Voice prompts

| Voice prompts      | Corresponding scene description                           |
|--------------------|-----------------------------------------------------------|
| SOS                | Long press the [SOS] key to trigger the SOS alarm         |
| Horn               | Press the Horn button                                     |
| Voice conversation | Press the [Voice] key to start/end the voice conversation |

## 5.3 App Function and Operation Guide

Your power wheelchair is equipped with the option of utilizing a phone app to operate the unit, adjust settings, and other various functions. Before installing and using the App. Read and adhere to the following instructions and warnings.

#### **Attention**

We recommend that the user creates strong password for their mobile device, to avoid illegal intrusion of equipment.

Download the App by scanning the QR code in the manual at any time.

Only update the App through Google Play (for Android phone) at any time.

Do not install Apps on hacked, jailbroken, or tampered phones.

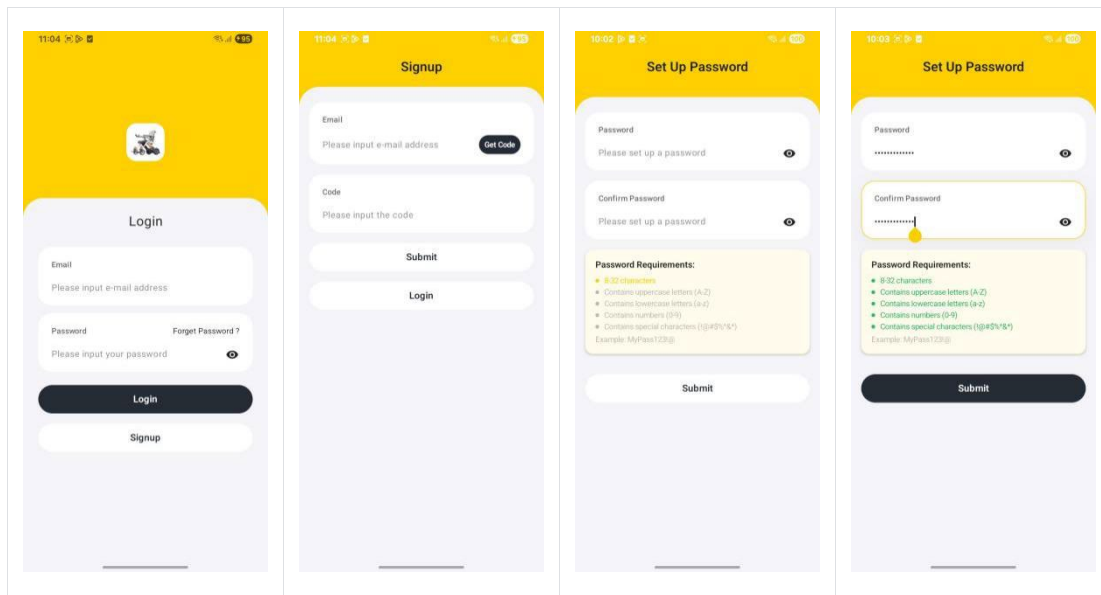
If the mobile device cannot control the wheelchair correctly, please stop use of the mobile device and use the joystick on the wheelchair immediately. Please remove other wireless devices from the environment, and connect the mobile device to the wheelchair again. Try controlling the wheelchair with a mobile device. Do not use the mobile device until it can control the unit correctly.

#### **5.3.1 Scan the QR code to download Mobile Application**



#### **5.3.2 User Registration and Login**

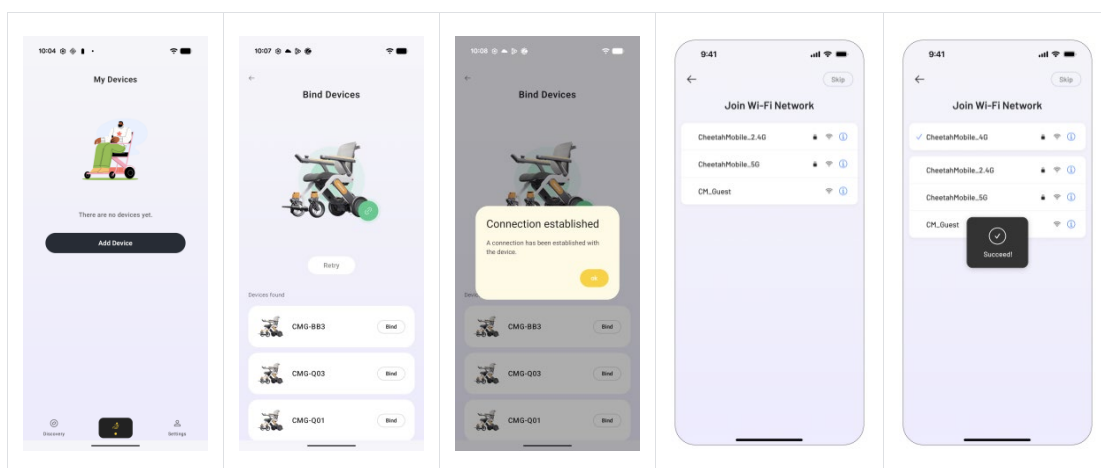
- Users need to first verify their email and set a password to register an account.
- The password rule is 8-32 characters and must contain uppercase letters, lowercase letters, numbers, and special symbols.
- After successfully registering the account, you can log in to the app to bind and connect the wheelchair.



## Bluetooth Pairing/Binding

- After the user logs into the account, click [Add Device] to add a bound device.
- The app will search for Bluetooth hotspots for wheelchairs around the phone and display them in the list
- After the user selects the device to be bound, the Bluetooth pairing connection is started.
- After successful pairing, the user can configure the Wi-Fi network for the device
- The network configuration is completed and the binding is successful.

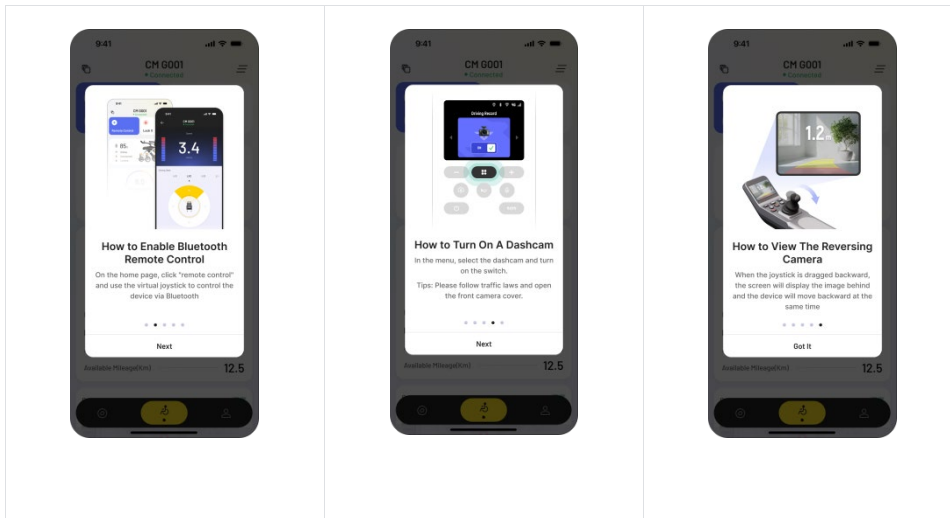
**Note:** When binding for the first time, the wheelchair distribution network needs to be activated. If you click "Skip" without connecting to the Internet, the binding will fail. After successful activation, the wheelchair does not need to be connected to the Internet when connecting to the app for the second time.



## User's guide

- After the account is registered and logged in and the device is bound, the APP displays novice guidance cards and videos;
- Supports [Next Page] browsing and left and right switching; after completion, click [Complete Newbie Guide] to close the pop-up window

- The APP displays a novice guide card: how to enable Bluetooth remote control, how to turn on a dash cam, how to view the reversing camera;



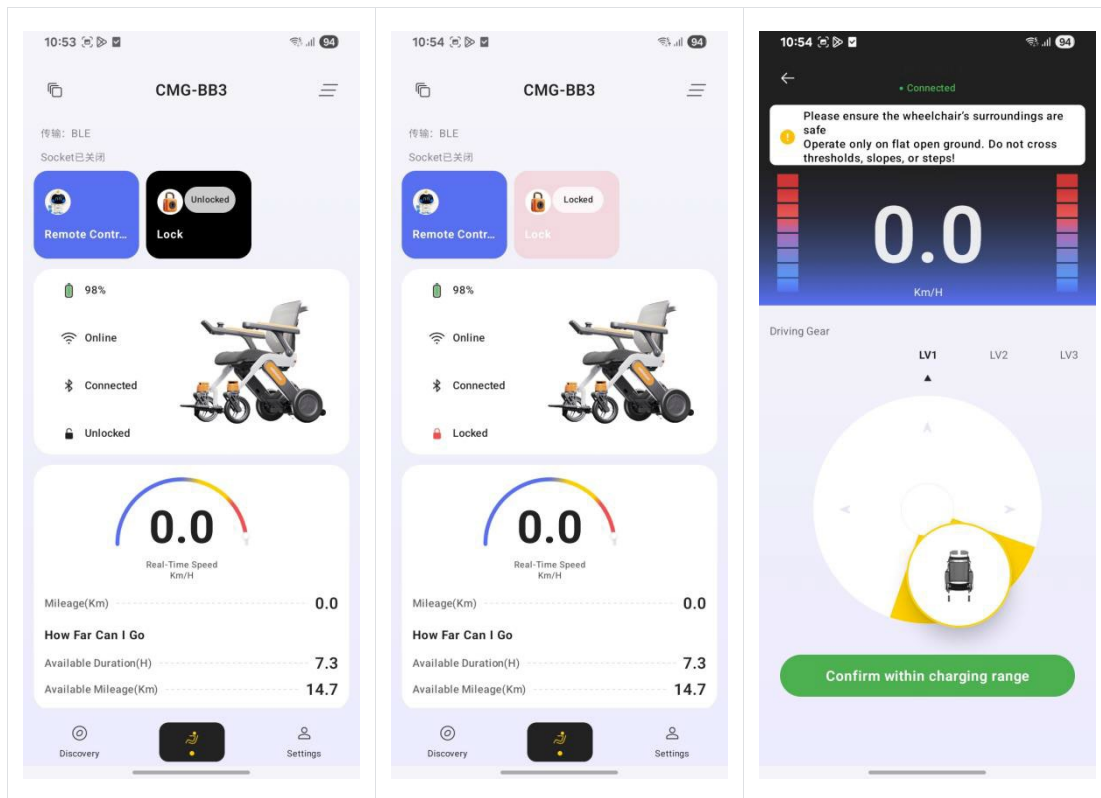
### 5.3.3 Functions with APP

#### 5.3.3.1 Remote Control

- Users can move the wheelchair at low speed over short distances (forward/backward/left/right fine adjustments) through the APP.
- During Bluetooth operation, the APP will provide feedback and reminders indicating Bluetooth control is active.



- Ensure the surrounding environment is safe; use only on open and flat ground.
- Priority: Physical joystick has the highest priority. Once it is engaged, Bluetooth control will be immediately interrupted. Upon disconnection, the wheelchair will decelerate smoothly to a safe stop.

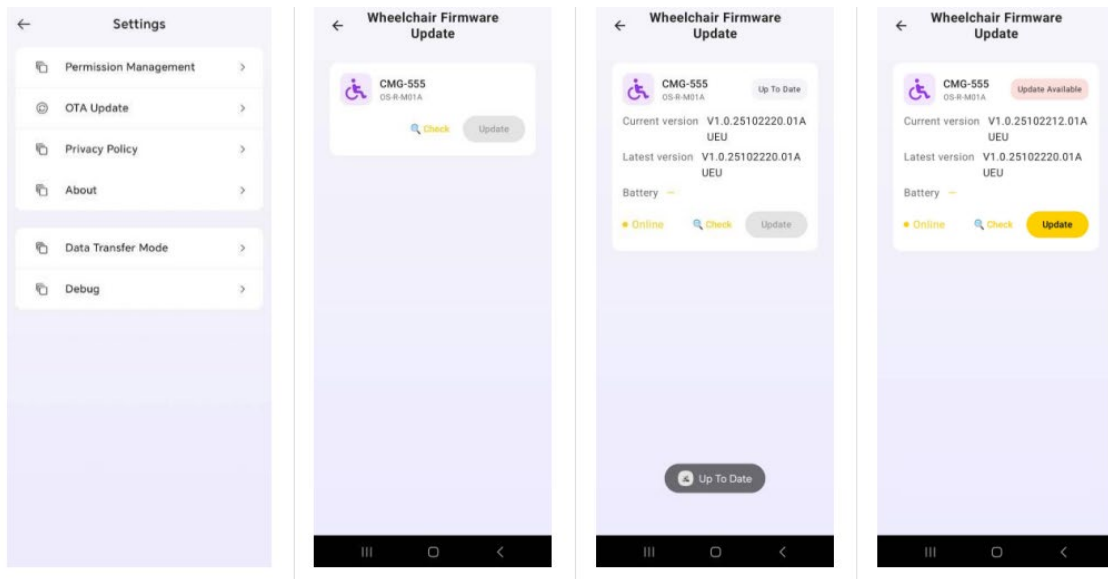


### 5.3.3.2 OTA

- On the [My] page of the APP, select [Settings], then select [OTA Update].
- Click the [Check] button to check if there is a firmware update version for the wheelchair.
- When the wheelchair is online, the card will display the current version of the wheelchair firmware and the latest version received. When there is a new version available for update, the [Update] button will be highlighted and clickable; otherwise, it will be grayed out.
- Click [Update], and the wheelchair will start downloading the update package and then begin the update.



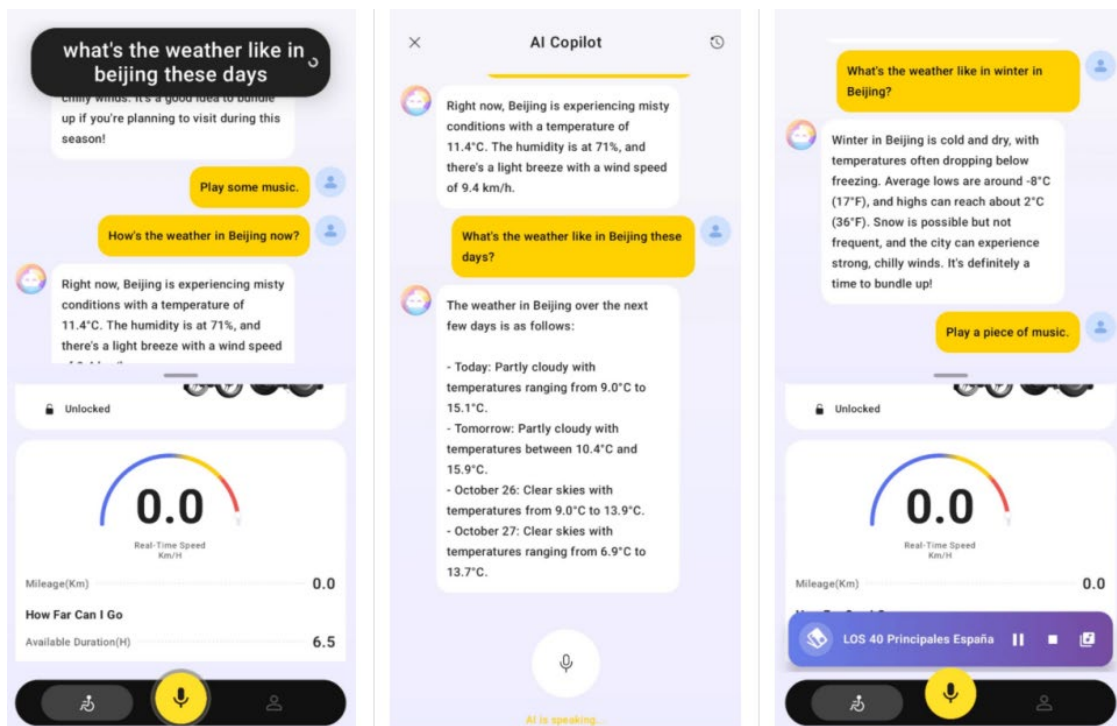
- During the update process, the wheelchair needs to remain connected to the network and stationary, and the battery level should be greater than 50%.
- The app needs to stay in the foreground, and the page will display the update progress in real - time.



### 5.3.3.3 Voice interaction

After the mobile phone and wheelchair are connected via Bluetooth and the APP is opened

- When the user clicks the [Voice] button on the vehicle, it triggers the start of recording. At this time, the vehicle emits a "beep" sound to indicate the start of recording.
- The user starts speaking, and the mobile app will display the recognized user question.
- When the user clicks the [Voice] button on the vehicle again or the 1 - minute timeout occurs, the recording ends. At this time, the vehicle emits a "beep - beep" sound to indicate the end of recording.
- The app pops up a half - screen dialogue window to display the user's question and the reply.
- The user can pull down the half - screen window to expand it to full - screen to view the dialogue information.
- Click the cross in the top - left corner to close the dialogue window.



### 5.3.4 APP Control Priority



- Physical joystick has the highest priority.
- When the wheelchair is stationary, the user can enter the Bluetooth control page in the APP to remotely move the wheelchair at low speed.
- Once the physical joystick is activated, the APP Bluetooth control is immediately interrupted. The APP will be locked for the control about 20s the user can request the APP control again.

## 5.4 Rear view Camera

When the joystick is pushed backward (reverse operation), the wheelchair screen will display the rear view video.

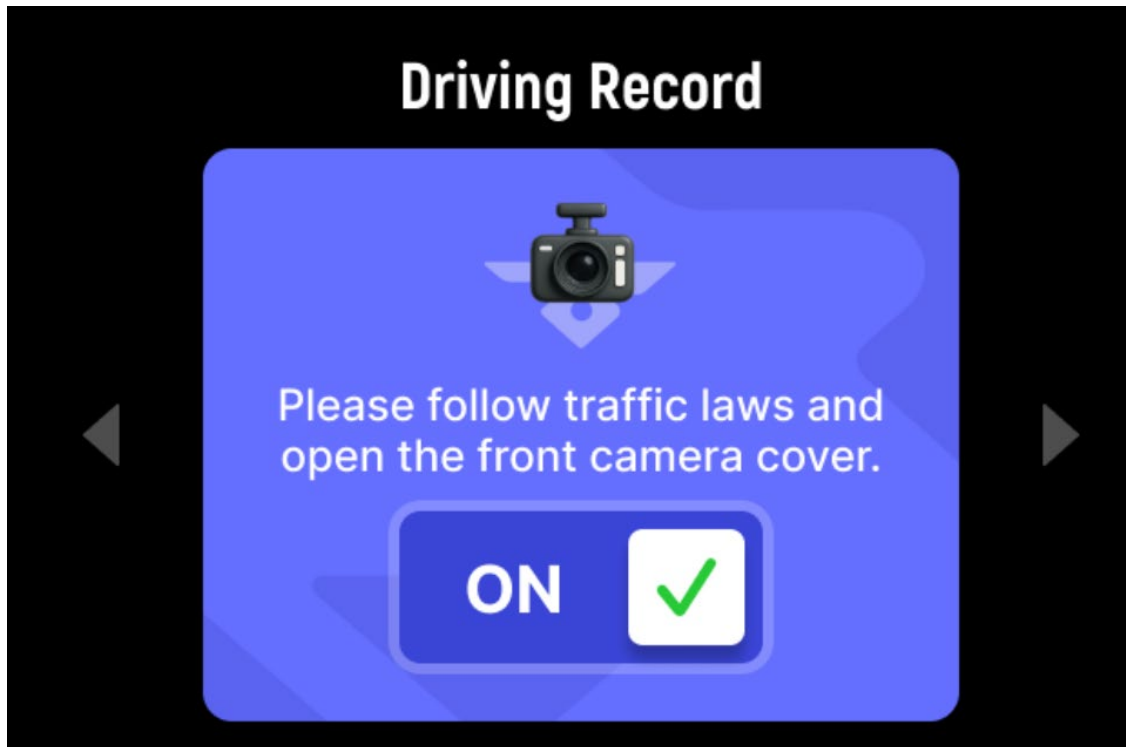
Please make sure the lens cover is open before using this function.

Note: Users should be reminded not to rely entirely on the reversing image when backing up, as there is a risk of blind spots.

## 5.5 Driving Recorder

Function Default Settings, The front camera cover is closed by default and sealed with a sticker. After inserting an SD card, the user can enable the function through the menu. A reminder will be displayed to comply with regulations and to open the front

camera cover before use. The front camera records in a local loop, storing data to the internal memory or the inserted SD card. To view recordings, please take out the SD card.



## 5.6 Battery & battery charger

Charge the battery before using it for the first time. Ensure the battery is charged before use if the device has not been used for a long period of time. The maximum driving range of this device 8.49miles/13.6 km (10Ah) and 16.47 miles/26.5 km (20Ah) were measured under ideal conditions; however, the actual range may vary depending on the driving conditions such as hills, curves, steps, terrain, driving habits, load, and temperature. If the device is going to be driven for an extended period of time or a longer distance, we recommend the following suggestions:

- Fully charge the battery before use.
- Keep weight of storage items to a minimum.
- Plan your route to avoid hills and obstacles.
- Maintain consistent speed and avoid sudden and frequent stops.



### Warning

- **Carefully read the explanations in this manual regarding the battery and charger, and follow the instructions.**

There is a risk of fire or battery explosion when disassembling the battery or charger. Do not allow flames near the battery or charger, avoid getting the battery and charger wet or subjecting them to impact (dropping, penetration

with nails, or standing on them), etc.

- **Device batteries should be charged in a well-ventilated space that is free of flammable gases and that is at least twice the size of the device.**

There is a risk of explosion or other accidents if the space is filled with flammable gas or if ventilation is insufficient.

- **If the battery has external damage or you notice an abnormality in its functioning, immediately discontinue use or charging, and contact your dealer.**

There is a risk of electric shock, short circuit, and fire.



#### **Attention**

- If the device is not used for a long period, ensure the battery is fully charged before storing. Charge the battery at least once a month.
- There is a risk that the battery may get excessively depleted and cannot be charged.
- There is a risk of a short circuit caused by foreign objects.
- Not to operate the wheelchair with depleted batteries, since the occupant could be stranded;

### **5.6.1 User manual for battery & battery charger**



### Attention

- Users should read the instructions before attempting to use the battery charger.
- The battery charger is intended for indoor use and is not to be exposed to rain or other sources of moisture (unless the environmental protection rating of the battery charger is at least IPX4).
- Explosive gasses can be generated while charging, so the wheelchair and battery charger are to be kept away from sources of ignition, such as flames and sparks.
- Only batteries of the specified type and capacity are to be charged.
- Off-board battery chargers are not to be carried on wheelchairs.
- Do not charge the battery while the brakes are released. There is a risk that the device may move, causing an accident.
- Do not use the charger and AC connector cord other than those provided with the device. Using a charger or AC connector cord other than the one supplied may result in electric shock, or in burns caused by charger overheating. In addition, do not use the charger and AC connector cord included with the device in any other device.

## 5.6.2 Basic information of battery & battery charger

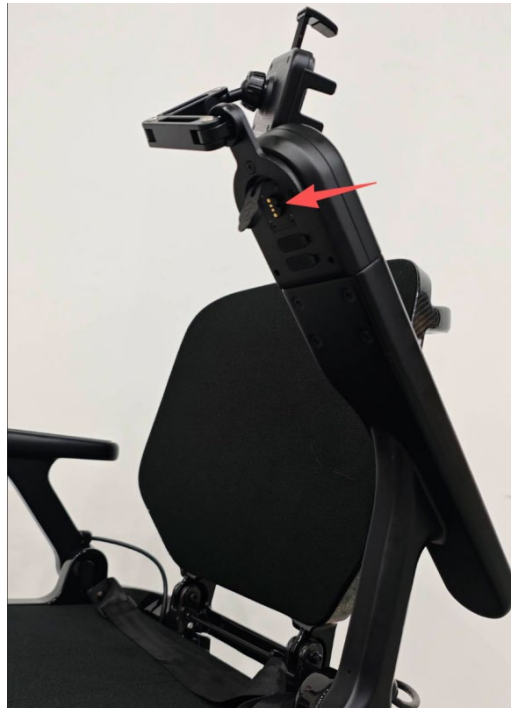
|                                                |                                                                     |
|------------------------------------------------|---------------------------------------------------------------------|
| Battery Rated output voltage                   | 25.2V                                                               |
| Operating Temperature Range                    | -25°-50°C                                                           |
| Battery charger environmental protection class | IPX5                                                                |
| Battery Rated Capacity                         | 10AH/20AH                                                           |
| Battery charger                                | AC 100-240 V, 50-60 Hz, 1.9-0.5 A, Class II<br>Output: DC 24 V, 4 A |

## 5.6.3 Charging Methods

### 1) Charging with the battery installed in the device

- Connect the power adapter to the power supply.

- Connect the charger port to the charging port at the bottom of the left armrest.
- The charging indicator light on the adapter will turn red.
- It will turn green when the device is fully charged.



## 2) Charging with the battery removed

- Take off the battery from the power wheelchair, then open the soft rubber plug at the bottom, connect the charger port to the charging port.
- The indicator light on the battery will flash alternately and stay on when fully charged.





### **Attention**

- The device cannot be used while the battery is being charged.
- The approximate charging time is 6 hours.
- The charger is designed to prevent overcharging. However, for safety reasons, avoid leaving the charger plugged into the wall outlet for a long time.
- Immediately disconnect the DC connector from the battery after charging is completed.
- If the usable time after charging has become abnormally short and the battery must be replaced, contact your distributor or customer support.

#### **5.6.4 Phone Charging**

The armrest is equipped with Type-A and Type-C ports, compatible with different types of charging cables. Simply insert the charging cable plug into the corresponding Type-A or Type-C port to charge your mobile phone.



## **6. Cyber security**

We recommend the user creates strong password for Mobile phone and App user account, to avoid illegal intrusion of equipment.

Please download the App by scanning the QR code in the manual.

Please only update the App through google play (for Android phone) or App store (for iphone) .

Please do not install apps on jailbroken phones.

## **7. Wireless technology and related settings**

### **7.1 Wireless functions description**

The wheelchair can be controlled by mobile phone via Bluetooth 5.4 (IEEE 802.15.4

Bluetooth).

## 7.2 Operating characteristics of Bluetooth wireless technology

- Protocol: Bluetooth 5.4 (IEEE 802.15.4 Bluetooth) technology.
- Frequency band: 2.4 GHz ISM frequency band
- Frequency: 2.400 GHz ~ 2.4835 GHz
- Modulation technology: GFSK、 $\pi/4$ -DQPSK、8-DPSK
- Spread spectrum technology: Frequency-Hopping
- Output power: (-8dBm~10dBm)
- Sensitivity: -89dBm (BLE mode)
- Distance:<10 m

## 7.3 Wireless security measures

At the application layer, interactive data is protected by hardware and cannot be read directly. If there are multiple instances of data errors or illegal content verification, the connection will be interrupted and the [offending party] will be added to a blacklist until the coverage scope allows for its removal. This ensures that signals are transmitted as intended.

## 7.4 Information addressing wireless issues

If mobile phone cannot control the wheelchair correctly, please stop use mobile phone and use the button on wheelchair immediately.

Please remove other wireless devices from the environment, and connect mobile phone to wheelchair again, try controlling wheelchair with mobile phone. Do not use remote control function until the mobile phone can control the wheelchair correctly.

## 7.5 Information about any wireless coexistence issues and mitigations

When using the mobile phone, try to keep other wireless devices away from the wheelchair, at least 2m away.

## 7.6 RF wireless communications information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

## 8. Report serious event to FDA

MedWatch is the Food and Drug Administration's (FDA) program for reporting serious reactions, product quality problems, therapeutic inequivalence/failure, and product use errors with human medical products, including drugs, biologic products, medical devices, dietary supplements, infant formula, and cosmetics.

If you think you or someone in your family has experienced a serious reaction to a medical product, you are encouraged to take the reporting form to your doctor.

Your health care provider can provide clinical information based on your medical record that can help FDA evaluate your report.

However, we understand that for a variety of reasons, you may not wish to have the form filled out by your health care provider, or your health care provider may choose not to complete the form. Your health care provider is not required to report to the FDA. In these situations, you may complete the Online Reporting Form yourself.

You will receive an acknowledgement from FDA when your report is received. Reports are reviewed by FDA staff. You will be personally contacted only if we need additional information.

Submitting Adverse Event Reports to FDA 6 of 16 Use one of the methods below to submit voluntary adverse event reports to the FDA:

Report Online at <https://www.accessdata.fda.gov/scripts/medwatch/index.cfm?action=reporting.home>

Consumer Reporting Form FDA 3500B.

Follow the instructions on the form to either fax or mail it in for submission.

For help filling out the form, see MedWatchLearn. The form is available at [www.fda.gov/downloads/aboutFDA/reportsmanualsforms/forms/ucm349464.pdf](http://www.fda.gov/downloads/aboutFDA/reportsmanualsforms/forms/ucm349464.pdf)

Call FDA at 1-800-FDA-1088 to report by telephone.

Reporting Form FDA 3500 commonly used by health professionals. The form is available at [www.fda.gov/downloads/aboutFDA/reportmanualsforms/forms/ucm163919.pdf](http://www.fda.gov/downloads/aboutFDA/reportmanualsforms/forms/ucm163919.pdf)

## 9. Fault Diagnosis and Troubleshooting

To enhance usability, this product is equipped with an automatic fault diagnosis system. If a system error occurs during power-up, the display will show the corresponding fault information. The specific types of faults are listed in the table below.

If the issue cannot be resolved, please contact customer service for assistance.

| FAQ                                                | Solutions                                           |
|----------------------------------------------------|-----------------------------------------------------|
| The joystick does not control the wheelchair after | 1.Check if the mode is correctly set to Drive Mode. |

|                                     |                                                                                                                                                                                                 |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| powering on.                        |                                                                                                                                                                                                 |
| The wheelchair cannot be powered on | 1.Check whether the battery is properly installed.<br>2. Check the battery level.                                                                                                               |
| Failed to bind app                  | When you use the app to bind a wheelchair for the first time, you need to connect the wheelchair to the WIFI for activation. The binding can only be successful after activation is successful. |

## 10. Maintenance and Transportation

### 10.1 User maintenance

- Please regularly clean the floating dust on the surface of the sensors on the wheelchair, such as the camera under the right armrest, and the camera at the rear of the wheelchair, to ensure the normal operation of all functions of the wheelchair.
- While the power is off, check the joystick daily for any damage, and make sure it returns to the neutral position properly. If any defects are found, contact your dealer immediately. Do not attempt to repair it yourself.
- Check the seat system, armrests, and footrests daily for any loose parts, excessive wear, or damage. Contact your dealer if any issues are found.
- Regularly inspect the wheelchair tires for signs of wear.
- Periodically check all exposed wiring harnesses and connectors for signs of wear, damage, or corrosion. Any damaged wiring or connectors must be repaired or replaced by the dealer.
- Keep all electronic components (such as the charger and joystick controller) away from moisture. If they become wet, do not use them again until they are completely dry.
- Regularly check all fasteners for looseness, wear, or corrosion. If any abnormalities are found, turn off the power immediately and contact your dealer.

#### Recommended Maintenance Checks

- Tire Tread: Visually inspect the tire tread regularly. if necessary, please visit your local authorized dealer to replace the worn tires.
- Joystick Controller: Avoid exposing the joystick controller to harsh weather conditions. Moisture may damage the controller and void the wheelchair's warranty.
- Cleaning and Care: Wipe the wheelchair body with a damp cloth. Use mild soap and cold water to remove dirt and grease. Finish by drying with a clean, soft cloth.

### 10.2 Transportation

- If transporting without packaging, ensure that the controller is not under pressure to avoid damage to the controller or display screen during transit.

- If the wheelchair or its components are not properly secured during transportation, they may shift or become airborne, resulting in personal injury or property damage.

Do not sit in the wheelchair during transportation.

You can load and transport according to the shipping marks and graphics on cartons. For details.

### **10.3 Repair, maintenance, and parts replacement performed by the manufacturer or dealer**

If you need to replace or repair the product, please contact your dealer or contact the information below.

TEL: 400-898-7779

WEB: <https://www.orionstar.com>.

Email: [global\\_business@orionstar.com](mailto:global_business@orionstar.com)

### **10.4 Service life**

The battery has a lifespan of 800 charge-discharge cycles or more. Please use within the effective date. In case of expiration, do not use the product to avoid occurrence of accident.

### **10.5 Disposal**

When disposing of the device, its parts and the battery or its parts, be sure to follow the local disposal guidelines. If there is anything that is unclear, consult your dealer or customer support.

### **10.6 Warranty information**

## **11. Storage**

After packaging, the wheelchair should be stored in a room with temperature of -20°C ~ +65°C, relative humidity of no more than 90%, atmospheric pressure of 56 ~ 106kPa, no harmful gas enough to cause corrosion and good ventilation, and no piling under heavy pressure.

**【Package】** Carefully packaged in a cardboard box.



### **Warning**

- If transporting without packaging, ensure that the controller is not under pressure to avoid damage to the controller or display screen during transit.
- If the wheelchair or its components are not properly secured during transportation, they may shift or become airborne, resulting in personal injury or property damage.
- Do not sit in the wheelchair during transportation.
- Not intended to be used as a seat in a motor vehicle;

## **12. Disclaimer**

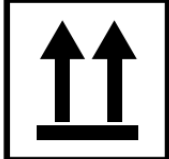
This Product Manual is the intellectual property rights of Beijing OrionStar Technology Co., Ltd. (hereinafter referred to as "the Company"); The copyright belongs to the Company. This product (including accessories and software design) is developed or produced by Beijing OrionStar Technology Co., Ltd., and the intellectual property rights and the property rights shall belong to the Company. Without the written permission of the Company, it is not allowed to copy, extract or translate any content of this manual and the content herein.

The products of the Company are improved and updated constantly. The users shall log on the official website of Beijing OrionStar Technology Co., Ltd. to inquire the operating instructions and the updating information of operating conditions, or ask the dealers for the updated Product Manual. The Company reserves the right of modifying the Product Manual without further notice.

## **13. Packing list**

| No. | Material name                         | Unit | Quantity |
|-----|---------------------------------------|------|----------|
| 1   | Power Wheelchair<br>(without battery) | Set  | 1        |
| 2   | Battery                               | Pcs  | 1        |
| 3   | User Manual                           | Pcs  | 1        |
| 4   | Charger                               | Pcs  | 1        |

## **14. Labels,packing Logo design**

| Symbol                                                                              | Introductions                                                                                                                                | Symbol                                                                              | Introductions                                                                                      |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|    | Manufacturer Name<br>Address                                                                                                                 |    | Refer to instruction manual                                                                        |
|    | Warnings and Precautions                                                                                                                     |    | Not enter the MRI scanner room                                                                     |
|    | Medical device                                                                                                                               |    | The device 's protection against splashing water from any direction without functional impairment. |
|   | Keep dry                                                                                                                                     |   | Keep away from Sunlight                                                                            |
|  | WEEE (Waste Electrical and Electronic Equipment) regulations require that waste products be disposed of in accordance with legal guidelines. |  | Unique Device Identification                                                                       |
|  | Maximum number of identical transport packages/items which may be stacked on the bottom package, where “n” is the limiting number.           |  | This is the correct upright position of the distribution packages for transport and/or storage.    |
|  | BATTERY-POWERED VEHICLE                                                                                                                      |  | FRAGILE                                                                                            |
|  | Dispose of Waste Properly                                                                                                                    |  | Recycle                                                                                            |

## 15. Contact information

Manufacturer:Beijing OrionStar Technology Co., Ltd.

Address: Room 1201-7, 12th Floor, Building 1, Yard 60, Heping West Road,  
Shijingshan District, Beijing, China

Tel: +86 400-898-7779

E-mail: [global\\_business@orionstar.com](mailto:global_business@orionstar.com)

## 16. Disclosure information

| Standard Ref. |        | Disclosure information                                                                                                                         | Fixed or Min         | Max |
|---------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----|
| Part          | Clause |                                                                                                                                                |                      |     |
| ISO 7176-1    | 8.2    | Test for static stability in the forward direction:<br>Wheels unlocked and the wheelchair in the least stable configuration                    | 23.8°                |     |
|               | 8.3    | Test for static stability in the forward direction:<br>Wheels locked and the wheelchair in the least stable configuration                      | N/A                  |     |
|               | 9.2    | Test for static stability in the rearward direction:<br>Wheels unlocked and the wheelchair in the least stable configuration                   | 25.3°                |     |
|               | 9.3    | Test for static stability in the rearward direction:<br>Wheels locked and the wheelchair in the least stable configuration                     | 23.7°                |     |
|               | 10.2   | Test for static stability, lateral orientation:<br>Wheelchair in the least stable configuration (Both left and right if different by more than | L: 21.4°<br>R: 23.0° |     |

|            |      |                                                                                                                            |                                       |      |
|------------|------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------|
|            |      | 1°)                                                                                                                        |                                       |      |
|            | 11.3 | Test for static stability with forward or rearward anti-tip devices: Anti-tip devices in the most effective configuration. | Rearward:2<br>14.1°<br>Forward:N<br>A |      |
|            | 11.4 | Test for static stability with forward or rearward anti-tip devices: Test for effectiveness of anti-tip device(s)          | Pass                                  |      |
| ISO 7176-2 | 8.3  | Tests for rearward dynamic stability: Starting forward                                                                     |                                       | 8°   |
|            | 8.4  | Tests for rearward dynamic stability: Braking when travelling forward on horizontal or uphill                              |                                       | 8°   |
|            | 8.5  | Tests for rearward dynamic stability: Braking when traveling backward                                                      |                                       | 8°   |
|            | 8.6  | Tests for rearward dynamic stability: Traveling forward up a step transition from a standing start                         |                                       | 25mm |
|            | 8.7  | Tests for rearward dynamic stability: Traveling forward up a step transition at maximum speed                              |                                       | 25mm |
|            | 8.8  | Tests for rearward dynamic stability: Traveling backward down a step transition from a standing start                      |                                       | 25mm |
|            | 9.3  | Tests for forward dynamic stability: Braking when traveling forward on horizontal or downhill                              |                                       | 8°   |

|            |      |                                                                                                             |      |       |
|------------|------|-------------------------------------------------------------------------------------------------------------|------|-------|
|            | 9.4  | Tests for forward dynamic stability: Traveling forward down a slope onto a horizontal surface               |      | 8°    |
|            | 9.5  | Tests for forward dynamic stability: Traveling forward up a step transition at maximum speed                |      | 25mm  |
|            | 9.6  | Tests for forward dynamic stability: Traveling forward down a step transition from a standing start         |      | 25mm  |
|            | 10.3 | Tests dynamic stability in lateral directions: Turning from a stationary start                              |      | 6°    |
|            | 10.4 | Tests for dynamic stability in lateral directions: Turning in a circle at maximum speed                     | 0.9m |       |
|            | 10.5 | Tests for dynamic stability in lateral directions:<br>Turning suddenly at maximum speed                     |      | Yes   |
|            | 10.6 | Tests for dynamic stability in lateral directions: Traveling forward at an oblique angle to a downward step |      | 25mm  |
| ISO 7176-3 | 6    | - Parking brake operating force, if it exceeds the value specified in Table 1.                              |      | 45.5N |
|            | 7.2  | Brake performance:<br>Parking brakes<br>- maximum slope uphill                                              |      | 19.5° |
|            |      | -maximum slope downhill                                                                                     |      | 17.1° |

|            |     |                                                                    |        |                                |
|------------|-----|--------------------------------------------------------------------|--------|--------------------------------|
|            | 7.3 | Brake performance:<br>Running brakes, normal operation             |        | Forward:0.92m<br>Reverse:0.36m |
|            | 7.4 | Brake performance:<br>Running brakes, operation by reverse command |        | Forward:0.89m<br>Reverse:0.30m |
|            | 7.5 | Brake performance:<br>Running brakes, emergency operation          |        | Forward:0.93m<br>Reverse:0.51m |
| ISO 7176-4 | 7.1 | Theoretical continuous driving distance range                      |        | 10Ah:10.8km<br>20Ah:20.6km     |
|            | 7.2 | Theoretical maneuvering distance range                             |        | 10Ah:3.15km<br>20Ah:5.6km      |
| ISO 7176-5 | 4.2 | The class A, B or C (for electrically powered wheelchair)          | A      |                                |
|            | 4.3 | The occupant mass group, I , II or III                             | III    |                                |
|            |     | The effective seat width                                           | 450mm  |                                |
|            | 8.2 | Full overall length                                                | 1020mm |                                |
|            | 8.3 | Overall width                                                      | 630mm  |                                |
|            | 8.5 | Stowage length                                                     | 460mm  |                                |
|            | 8.6 | Stowage width                                                      | 630mm  |                                |

|            |       |                                             |                                                   |                    |
|------------|-------|---------------------------------------------|---------------------------------------------------|--------------------|
|            | 8.7   | Stowage height                              | 790mm                                             |                    |
|            | 8.8   | Rising                                      | 168mm                                             |                    |
|            | 8.9   | Total mass                                  | 19.5Kg<br>(LH-26V7S4P),<br>20.4Kg<br>(LH-35V7S6P) |                    |
|            | 8.10  | Mass of heaviest part                       | 17.2Kg                                            |                    |
|            | 8.11  | Pivot width                                 | 1190mm                                            |                    |
|            | 8.13  | Turning diameter                            | 1638mm                                            |                    |
|            | 8.14  | Ground clearance                            | 50mm                                              |                    |
|            | 8.15  | Required width of angled corridor           | 840mm                                             |                    |
|            | 8.16  | Required doorway entry depth                | 1500mm                                            |                    |
|            | 8.17  | Required corridor width for side opening    | 1500mm                                            |                    |
| ISO 7176-6 | 6.1   | Maximum speed, forwards on horizontal plane |                                                   | 6km/h<br>(1.65m/s) |
| ISO 7176-7 | 7.3.2 | Seat plane angle                            | 5°                                                |                    |
|            | 7.3.3 | Effective seat depth                        | 470mm                                             |                    |
|            | 7.3.4 | Seat width                                  | 450mm                                             |                    |
|            | 7.3.5 | Effective seat width                        | 450mm                                             |                    |
|            | 7.3.6 | Seat surface height at front edge           | 500mm                                             |                    |

|  |        |                                     |                                     |  |
|--|--------|-------------------------------------|-------------------------------------|--|
|  | 7.3.7  | Backrest angle                      | 15°                                 |  |
|  | 7.3.8  | Backrest height                     | 470mm                               |  |
|  | 7.3.9  | Backrest width                      | 445mm                               |  |
|  | 7.3.12 | Footrest-to-seat distance           | 370mm                               |  |
|  | 7.3.13 | Footrest clearance                  | 80mm                                |  |
|  | 7.3.14 | Footrest length                     | 230mm                               |  |
|  | 7.3.15 | Footrest-leg-angle                  | 95°                                 |  |
|  | 7.3.16 | Leg-to-seat-surface angle           | 96°                                 |  |
|  | 7.3.17 | Armrest-to-seat distance            | 220mm                               |  |
|  | 7.3.18 | Front armrest-to backrest distance  | Left<br>450mm<br><br>Right<br>540mm |  |
|  | 7.3.19 | Armrest length                      | Left<br>430mm<br><br>Right<br>520mm |  |
|  | 7.3.20 | Armrest width                       | 60-80mm                             |  |
|  | 7.3.21 | Armrest angle                       | 4°                                  |  |
|  | 7.3.22 | Distance between armrests           | 465mm                               |  |
|  | 7.3.23 | Front location of armrest structure | Left<br>445mm<br><br>Right<br>535mm |  |
|  | 7.3.25 | Propelling wheel diameter           | N/A                                 |  |
|  | 7.3.26 | Horizontal location of axle         | N/A                                 |  |

|             |         |                                                              |       |      |
|-------------|---------|--------------------------------------------------------------|-------|------|
|             | 7.3.27  | Vertical displacement of wheel axle                          | N/A   |      |
|             | 7.3.28  | Castor wheel diameter                                        | 195mm |      |
| ISO 7176-8  | 8       | Test methods for static strength                             |       | Pass |
|             | 9       | Test methods for impact strength                             |       | Pass |
|             | 10      | Fatigue tests                                                |       | Pass |
| ISO 7176-9  | 8.2     | Cold operating conditions and resistance to condensation     |       | Pass |
|             | 8.3     | Hot operating conditions                                     |       | Pass |
|             | 8.4     | Cold storage conditions                                      |       | Pass |
|             | 8.5     | Hot storage conditions                                       |       | Pass |
|             | 8.6     | Protection against ingress of liquids                        |       | Pass |
| ISO 7176-10 | 7.1-7.6 | Obstacle climbing (Maximum obstacle height can be climbed)   |       | 40mm |
|             | 7.7-7.9 | Obstacle climbing (Maximum obstacle height can be descended) |       | 80mm |
| ISO 7176-14 | 17 a)   | The product met all the requirements of ISO7176-15           |       | Pass |

Note:

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

2)Maximum Potential Range is tested on flat road with average speed,it will vary due to drive surface,operation habit,etc.

In addition, the power wheelchair has been validated to conform to the following standards:

| <b>Test performed</b>                | <b>Applicable Standard</b>       | <b>Conform to?<br/>(Yes/No)</b> |
|--------------------------------------|----------------------------------|---------------------------------|
| Static, impact and fatigue strengths | ISO 7176-8:2014                  | Yes                             |
| Climatic tests                       | ISO 7176-9:2009                  | Yes                             |
| Power and control systems            | ISO 7176-14:2022                 | Yes                             |
| Resistance to ignition               | ISO 16840-10:<br>2021/Amd.1:2024 | Yes                             |
| Batteries and chargers               | ISO 7176-31:2023                 | Yes                             |



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