

CASWE C30

Electric Wheelchair User Manual

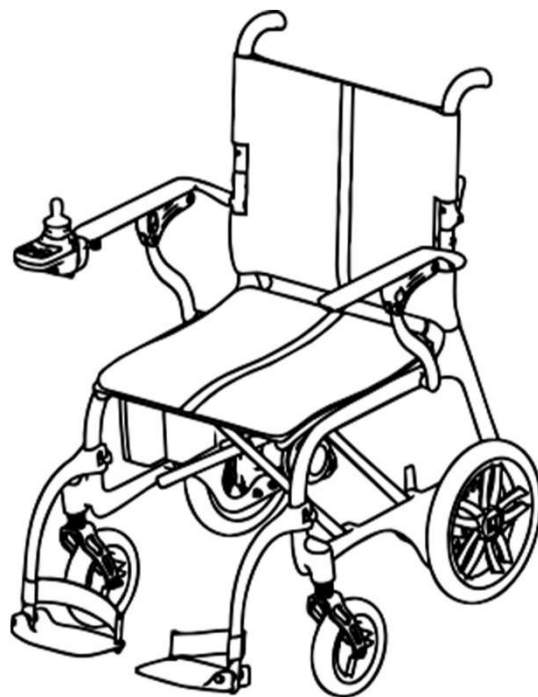


Table of Contents

Table of Contents

1. Preface	2
2. Precautions	2
3. Components of the Electric Wheelchairrecautions	4
4. Components of the Electric Wheelchairrecautions	4
5. Transportation and Storage Conditions	7
6. Electromagnetic Compatibility (EMC) Instructions	7
Test	9
7. Fault Diagnosis and Handling	9
Alarm 11 / EB	11
8. Product Maintenance	11
9. After-Sales Service	12
10. Supplementary Notes	13

1. Preface

Thank you for purchasing our product. Before using the electric wheelchair for the first time, please be sure to read the user manual and follow the instructions. If you have any questions or do not understand any part of the manual, please contact an authorized local distributor or our after-sales service department.

This manual is part of the medical electric device.

The following symbols are used to identify warnings and precautions throughout the manual. Please read and follow them carefully.



Warning: Failure to heed the warnings in this manual may cause physical injury.



Caution: Failure to heed the precautions in this manual may cause damage to the electric wheelchair.

The user of the wheelchair must carefully read this manual to avoid damage to the product or personal injury due to improper operation. We are not responsible for any personal injury or product damage caused by improper use.

The graphics in this manual are for reference only. Please refer to the actual product during use.

2. Precautions



Warning: Failure to heed the warnings in the instruction manual may result in bodily injury. Please strictly adhere to the following instructions.

- Never operate the electric wheelchair before reading and fully understanding this manual, especially for first-time users.
- The electric wheelchair is part of the ME (Medical Electrical) system when connected with the adapter during charging.
- Do not operate the electric wheelchair before assembly and inspection are completed.
- Do not use the manual mode without assistance, as this may cause personal injury.
- It is recommended that individuals with mental health issues, slow reflexes, or difficulty operating the wheelchair avoid using it.
- Never attempt to mount or dismount the electric wheelchair when the controller power is on, or when the wheelchair is in manual mode without securing it with assistance.
- Do not use the electric wheelchair if the anti-tip wheels are not installed or are malfunctioning.
- Never stand on the footrest to avoid tipping the electric wheelchair. Avoid pushing your body against the armrests, as this may lead to tipping.
- First-time users should contact the manufacturer for installation, use, or maintenance assistance. It is recommended to drive at low speed to avoid accidents due to unfamiliar operation.
- Before turning, reduce the speed of the electric wheelchair to 2 km/h or lower.
- When going downhill, drive slowly in the lowest gear; when going uphill, drive carefully, with your body slightly leaning forward, and at low speed. Avoid turning or steering on slopes.

- Do not allow users to ride the electric wheelchair when it is being transported.
- If the wheelchair controller malfunctions or the brakes fail, immediately release the joystick and press the power switch to turn off the power.
- Do not operate the wheelchair while under the influence of alcohol, as it may impair your ability to control the wheelchair safely.
- We strongly recommend that you do not smoke while sitting in the wheelchair. If you decide to smoke while sitting in the wheelchair, please follow the safety rules: Keep the cigarette ash at a safe distance from the wheelchair seat. Make sure the cigarette is fully extinguished when disposing of it.
- To prevent the wheelchair from losing control and moving by itself, do not leave the wheelchair in manual mode on any inclined surface.
- If you plan to sit in a fixed position for a long period, please turn off the power to prevent the wheelchair from moving accidentally.
- Avoid using any accessories that may interfere with the joystick operation, as they may cause the wheelchair to move accidentally.
- While driving, please keep yourself, your clothing, and other objects away from the wheels. Do not drag anything behind the wheelchair while driving.
- Do not use the wheelchair to go over stairs or escalators.
- Before moving, make sure the power is off and ensure that the brakes are locked.
- Once the wheelchair enters the elevator, turn off the power, sit securely, and ensure that the wheelchair does not move.
- Do not use the wheelchair for any other purposes, such as weight training, sports, or activities like fieldwork, towing, moving, or dragging, as these may pose safety risks and cause excessive strain on the wheelchair.
- When the electric wheelchair is on, never turn on personal communication devices such as CB radios or mobile phones. Be cautious of nearby transmitters, such as radio or television stations, and avoid getting too close to them.
- Be especially cautious when using oxygen near electrical circuits or flammable materials. Contact your oxygen supplier for safety instructions on using oxygen.
- Keep all charger power connectors clean, dry, and away from sources of moisture to prevent damage to the electrical system and avoid personal injury.
- Do not ride the wheelchair along small streams, lakes, or the edges of the sea. Do not cross waterways with the wheelchair. Do not expose the wheelchair to open flames.



Failure to heed the precautions in this manual may result in damage to the electric

wheelchair. The following precautions must be strictly followed:

- Please check the wheel connections to ensure they are secure and reliable.
- Do not drag the wheelchair. Dragging may exceed the speed threshold of the wheelchair, leading to damage to critical components.
- Operate the controller joystick gently, and avoid moving it back and forth quickly.
- The controller is the core component of the wheelchair. Never leave the electric wheelchair exposed to the elements for long periods or operate it outdoors in the rain, as this could lead to moisture damage.
- This wheelchair is designed for indoor use and is suitable for use in courtyards.
- When the battery level drops to 10%, do not continue operating the wheelchair. Recharge immediately to avoid being stranded outside without the ability to return.
- When not in use for extended periods, the battery will naturally discharge. Therefore, please recharge it every three months if not used for a long time. Additionally, before reusing the wheelchair, ensure the battery is fully charged (approximately 4-6 hours for a full charge). Irregular charging during prolonged non-use will affect battery life and capacity.
- The patient is the intended operator. Any part of the wheelchair that the operator may come into contact with includes the seat, backrest, footrest, armrests, controller, etc.
- Battery replacement must be done by a professional technician. Attempting to replace it yourself could result in energy hazards.
- Do not connect any other devices to the wheelchair's electrical system or use the wheelchair's battery to power any other device. When disconnecting the wiring harness, hold the terminal to avoid damage to the harness. Do not pull the wiring harness directly.
- Regularly check for corrosion of electrical components, ensure that all brakes are secure, and inspect the wiring and connectors for damage. Replace them if necessary.
- Please keep the wheelchair in a dry and clean environment. Do not take the wheelchair into showers, bathtubs, swimming pools, or saunas. Rain, snow, salt, mist/spray conditions, and frozen/slippery surfaces can cause the wheelchair's screws or some fasteners to rust prematurely.

- Avoid prolonged exposure to extremely hot or cold environments, as it may affect the wheelchair's soft padding and non-soft parts, as well as damage the battery and electrical components.
- When moving an idle wheelchair up and down stairs, extra caution is required. The wheelchair must be folded and needs assistance from a strong person to do so.



Warning: Do not modify this device. Unauthorized modifications may change the wheelchair's performance and, in severe cases, may pose a life-threatening risk.

- Contraindications: None.
- Do not alter your seat specifications. Do not place any padding or pillows on the seat, as this may cause instability of the seat position.
- If the wheelchair is not in use for an extended period, disconnect the battery and remove it.
- Loss of power will result in unacceptable risks. The wheelchair must be connected to an appropriate power source.
- The electric wheelchair is expected to receive power from the charger, and the internal power source is only for powering the electric wheelchair.
- Do not place the wheelchair in an area where it is difficult to operate the disconnect mechanism.
- Children or individuals who cannot understand the operation should not use the wheelchair alone to avoid damage or injury.
- To avoid neck strangulation risks caused by prolonged exposure, check that the soft cables are not loose. If they are loose, secure them promptly.
- Regularly check the screws and small parts on the wheelchair to ensure they are tight to prevent loosening or accidental swallowing.
- During its service life, the ME system's assembly must comply with the GB9706.1-2020 standard.
- If the wheelchair performance changes, stop using it.
- Do not touch the battery connection terminals or charger terminals.
- If an inexperienced operator or responsible party needs assistance, they should contact the manufacturer or its representative for help regarding the installation, use, or maintenance of the ME device or ME system, or to report any abnormal operation or incidents.

- Safety Use Special Instructions: This medical device can be used by the consumer personally.
- This product has no basic performance.

3. Components of the Electric Wheelchairrecautions

The electric wheelchair consists of a footrest, detachable footplates, frame, battery, seat cushion, controller, armrests, push handles, backrest, motor, rear wheels, crossbar, front wheels, etc. It can be operated by the user or a caregiver and is driven by one or more motors. The wheelchair has seat support, and its structure is illustrated in the diagram below (see Figure 1).

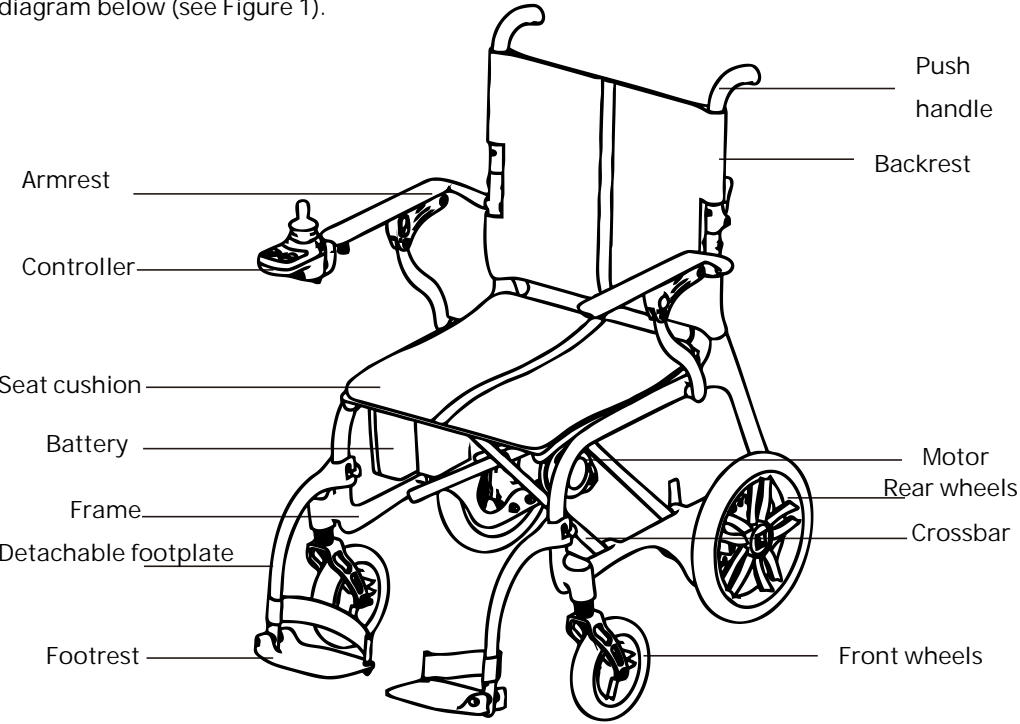


Figure 1

3.2 Structural Features

- Energy-efficient motor.
- Foldable frame for easy assembly and disassembly.
- Intelligent controller: power button, battery indicator, omnidirectional joystick, horn.

- Flip-back armrests, anti-tip device.
- Shock-absorbing front wheels.
- Two operating modes: self-propelled electric mode and assisted push mode.

3.3 Scope of Application

- The electric wheelchair produced by our company is suitable for disabled individuals or those with complete inability to walk (excluding obesity) for personal mobility.
- Ambient temperature: +5° C ~ +40° C
- Relative humidity: 25% ~ 95%
- Atmospheric pressure: 70 kPa ~ 106 kPa

3.4 Performance Parameters of the Electric Wheelchair

4. Components of the Electric Wheelchairrecautions

Unpack the electric wheelchair, remove the footplate assembly, charger, and other accessories. Check against the packing list for any missing or damaged parts.

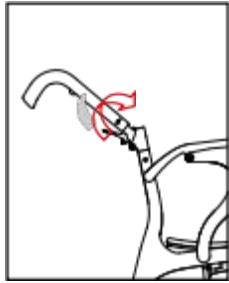
Product type: Indoor type	Load capacity: ≤ 136 kg	Maximum speed: ≤ 6 km/h
Range per charge: ≥ 15 km		Maximum safe slope braking: ≤ 1.6 m (3°)
Obstacle height: ≥ 25 mm	Trench width: 100 mm	Horizontal braking distance: ≤ 1.0 m
Climbing ability: ≥ 3°	Parking slope stability: 6°	Static stability: ≥ 6°
Turning diameter: ≤ 1800 mm		Dynamic stability: ≥ 3° (without tilting)
The above parameters may vary depending on the user's weight, environment, and battery condition.		
Internal power supply: DC 24V ± 5V		Electrical shock protection classification: internally powered equipment
Applied part protection type: Type B		Operation mode classification: continuous operation Noise level: < 65 dB
Liquid ingress protection: not waterproof		Motor power: 200W each side
Dimensions: 860 × 600 × 900 mm		Seat width: 410 mm Seat height: 490 mm Seat depth: 400 mm
Folded width: 260 mm		Backrest height: 400 mm
Net weight: 11.5 kg		Battery: Lithium battery
Front wheel size: 6.5 inch		Rear wheel size: 12 inch
Optional: LED lights, wireless remote control		
The company reserves the right to make technical and appearance changes to this product without prior notice. Thank you for your understanding.		

4.1 Installation

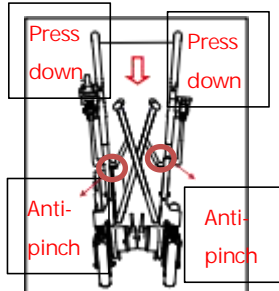
4.1.1 Place the electric wheelchair on a flat floor. Lift the folded backrest upward. Open both palms and place them on the upper parts of the left and right seat tubes, then

press down on the seat tubes. The tubes are highly elastic and can pinch your fingers, so do not place your fingers between the seat tube and the frame. Slowly open the wheelchair until the seat and backrest are fully unfolded (see Figures 2, 3, 4).

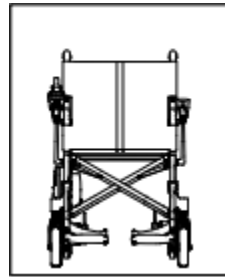
⚠ Caution: Do not insert fingers into the backrest folding mechanism to avoid injury. Do not hold the seat tubes with your hands while pressing down on the seat cushion, to prevent finger pinching.



Figures 2



Figures 3



Figures 4

4.1.2 Installation and Removal of the Footrest Assembly

- Remove the detachable footrest assembly from the accessory box. Align the footrest with the pin on the wheelchair frame tube, insert it onto the frame pin, and then align the knob on the frame tube with the threaded hole on the footrest. Tighten the knob to secure it (see Figure 5).
- To remove the footrest, loosen the knob, lift the footrest assembly upward, and pull it out (see Figure 6).

Tip: Before getting on or off the wheelchair, please flip up the left and right footplates to facilitate boarding and dismounting.

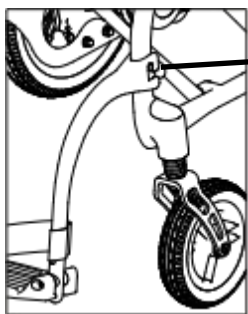


Figure 5

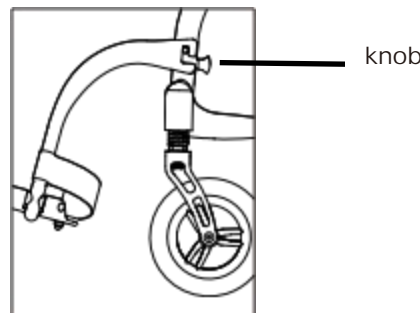


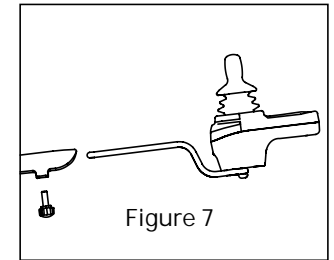
Figure 6

4.1.3 Installation and Adjustment of the Controller

Loosen the knob on the armrest tube first, then insert the controller mounting rod into the armrest tube. Sit on the electric wheelchair and adjust the controller forward or backward to a suitable position. After adjustment, tighten the knob to secure it.

(If the controller is installed on the left side, the adjustment method is the same.)

(See Figure 7)



4.1.4 Controller Wiring

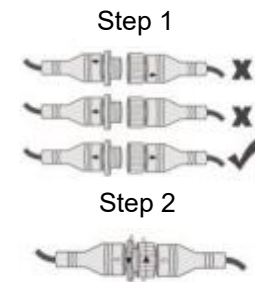
The controller is installed on the right side by default. If installation on the left side is required, remove the fixing screws of the aluminum clamp and reinstall it on the left side. Connect the controller cable to the corresponding connector on the drive unit and tighten the nut. Ensure that the grooves are properly aligned and that the black arrows on both connectors match. Do not force the connection, as this may damage the connectors. (See Figures 8, 9, and 10)



Figures 8



Figures 9



Figures 10

4.1.5 Flip-Up Armrest Operation

Press and hold the armrest button to release the locking mechanism, then flip the armrest backward to facilitate getting on and off the wheelchair. (See Figure 11)

4.1.6 Battery Connection

Connect the battery cable to the corresponding connector on the drive unit and tighten the nut. Ensure proper groove alignment and that the black arrows on both connectors correspond. Do not force the connection to avoid damage. The battery connector is located at the lower rear side behind the backrest cushion. (See Figure 12)

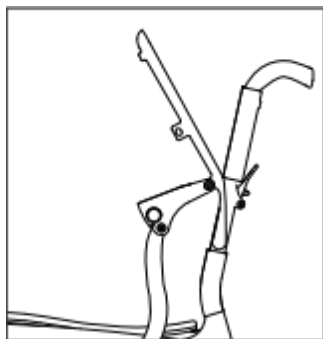


Figure 11

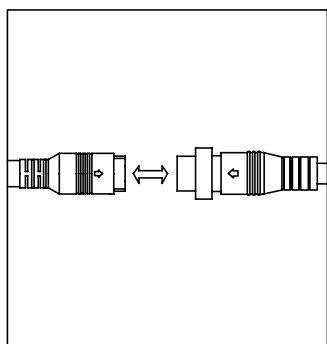


Figure 12

4.1.7 Switching Between Electric Drive and Manual Push Mode

When electric driving is not required and manual pushing is needed, rotate the levers on the left and right motors. As shown in Figure 13: Push the lever forward for electric mode, Push the lever backward for manual mode (See Figure 13)

4.1.8 Quick-Release Battery Operation

Press the button on the battery and lift upward to remove the battery box. (See Figure 14)

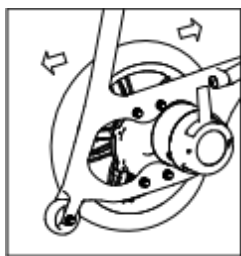


Figure 13

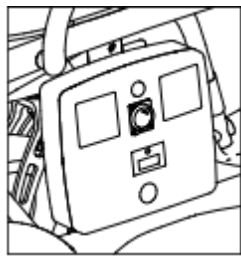


Figure 14



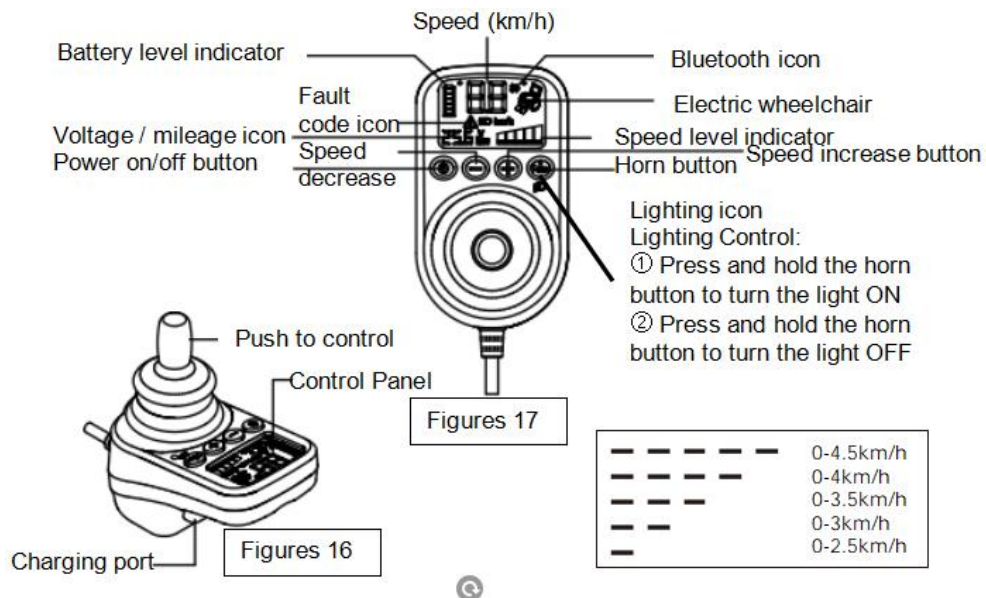
Figure 15

4.1.9 Folding Operation

Turn off the controller power. Flip up the footplates. Hold the front and rear ends of the seat cushion and lift upward firmly to bring the left and right frames together. When both motors are close together, press the backrest folding button and push the handle tube backward to fold the backrest into position. (See Figure 15)

4.2 Operation of the Electric Wheelchair

4.2.1 Controller Function Description (See Figures 16 and 17)



- Joystick: Controls wheelchair direction and speed
- Power switch: Press to turn on (beep sound). Press and hold for 3 seconds to turn off (long beep)
- Speed control: Press “-” to reduce maximum speed; press “+” to increase maximum speed
- Horn: Sounds when pressed, stops when released

4.2.2 Use of the Controller

1. After the user is seated securely, turn on the controller. A beep indicates startup. The system uses a safe-start function. Release the joystick during startup, otherwise a system fault warning will appear and the wheelchair will not start.
2. The wheelchair has five speed levels. Use low speed when starting. Speed levels must not be changed while driving. First-time users should always use low speed to avoid accidents.
3. Gently move the joystick to start: Forward: move forward, Left: turn left, Right: turn right, Backward: reverse, Once familiar, the wheelchair can be operated smoothly.
4. Press the horn button when an audible warning is needed.
5. When fully charged, all battery indicators are lit. When only one indicator is lit, battery power is low—recharge promptly.
6. To power off, press and hold the power button until a beep confirms shutdown.

4.2.3 Electronic Brake

This electric wheelchair is equipped with an electronic braking system. Releasing the joystick immediately stops the wheelchair, ensuring safe operation. (Ensure the motor lever is set to electric mode when powered on.)

4.2.4 Switching Between Electric and Manual Modes

The wheelchair uses brushless motors with an electromagnetic brake system. In electric mode, releasing the joystick stops the wheelchair immediately.

Lever set to “Electric” : Electric drive mode, Lever set to “Manual” : Manual push mode, Before turning on the wheelchair, ensure the lever is set to Electric mode.

Otherwise, the controller will display an error alarm.

4.3 Charger Usage

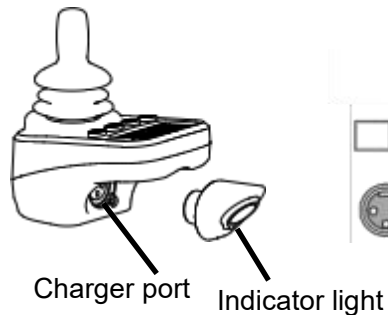
4.3.1 Only use the original charger supplied with the wheelchair to ensure safety.

Remove the lighting plug from the controller to expose the three-pin charging port.

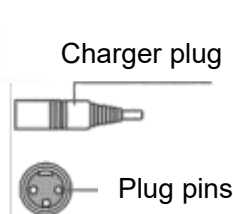
Insert the charger's three-pin metal plug into the controller port, paying attention to the correct orientation. For convenience, the battery box may be removed for charging.

When charging the battery separately, an additional charging adapter cable is required.

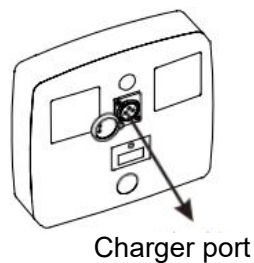
(See Figures 18, 19, and 20)



Figures 18



Figures 19



Figures 20

4.3.2 Plug the other end of the charger into a standard power outlet.

4.3.3 During charging, the charger indicator light is orange. When it turns green, the battery is fully charged. Unplug the charger from both the power outlet and the wheelchair. Store the charger in a safe place. Turn off the controller when the wheelchair is not in use to reduce battery consumption. (Charging time depends on remaining battery capacity. A new battery requires approximately 4 - 6 hours for the first full charge.)

4.3.4 When the wheelchair is charging, it will not respond to operation. After unplugging the charger and turning the controller back on, normal operation will resume.

4.3.5 When the battery reaches the end of its service life, replace it with a compliant new battery. Used batteries must be disposed of through qualified battery recyclers or returned to the dealer for proper handling.

5. Transportation and Storage Conditions

5.1 Transportation Handle with care during transportation. Do not throw, roll, or apply heavy pressure to the product.

5.2 Storage Store the product in a dry, well-ventilated environment. Avoid high temperatures and sudden temperature changes. Keep away from acids, alkalis, or corrosive chemicals.

5.3 Environmental Limits for Transportation and Storage

- Ambient temperature: -25°C to $+55^{\circ}\text{C}$
- Relative humidity: 25% to 95%
- Atmospheric pressure: 70 kPa to 106 kPa

6. Electromagnetic Compatibility (EMC) Instructions

6.1 Electromagnetic Interference (EMI)

Electromagnetic interference originates from external electromagnetic energy sources, such as wireless radios, television transmitters, CB radios, garage door openers, cordless phones, etc. EMI may affect the control system of the electric wheelchair. Some interference could cause brake failure, unintended movement, or loss of directional control, and in severe cases, may cause permanent damage to the control system.

6.2 Types of Electromagnetic Interference

- Handheld short-range wireless transceivers: These devices have antennas, such as city-band radios, walkie-talkies, mobile network devices, and signal transmission devices.
- Medium-range mobile wireless transceivers: Typically installed on buildings or vehicles, such as police, fire, tax, or medical emergency wireless radios.
- Long-range wireless transmitters: Usually mounted on broadcast towers, such as commercial radio and television transmission systems.

6.3 EMI Prevention

- Do not use handheld wireless transceivers such as mobile phones or radios when the wheelchair is powered on.
- If the electric wheelchair becomes uncontrollable or the brakes fail, contact our company or your dealer immediately.

 Note:

- The electric wheelchair complies with YY 9706.102, YY 9706.111, and GB/T 18029.21 standards for electromagnetic compatibility.
- Users should install and operate the wheelchair according to the EMC information provided in the accompanying documents.
- Portable and mobile RF communication devices may affect wheelchair performance; avoid strong electromagnetic interference, such as from mobile phones or microwave ovens.
- Refer to the manufacturer's guidelines and statements in the attachments for details.

 Warning:

- Devices or systems should not be used in close proximity or stacked together. If close placement is necessary, verify that the system functions properly in that configuration.
- Using unauthorized accessories or cables may increase emissions or reduce immunity, except for cables supplied as spare parts by the device manufacturer.
- During special diagnostics or medical procedures, interference between devices may pose serious risks.

No.	NAME	CABLE LENGTH (M)	SHIELDED	REMARKS
1	ADAPTER POWER CORD	1.2	No	/
2	ADAPTER OUTPUT CORD	1.0	No	/

Manufacturer's Guidance - Electromagnetic Emissions			
The electric wheelchair is intended for use in the electromagnetic environment specified below. Users should ensure that it is used in such environments:			
Emission Test	Compliance	Electromagnetic Environment - Guidance	
GB4824 RF Emission	Group 1	RF energy is used only for internal functions of the wheelchair. Its RF emissions are very low and unlikely to interfere with nearby electronic equipment.	
GB4824 RF Emission	Class B	Suitable for use in residential environments and connected to residential public low-voltage power networks.	

Gb17625.1 Harmonic Emission	Class A	
GB17625.2 Voltage Fluctuation/Flicker	Compliant	

Manufacturer's Guidance - Electromagnetic Immunity			
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Electrostatic Discharge (ESD) GB/T 18029.21, GB/T 17626.2	±6 kV/contact, ±8 kV air	±6 kV/contact, ±8 kV air	Floor should be wood, concrete, or tile; if covered with synthetic material, relative humidity ≥30%.
Electrical Fast Transient/Burst GB/T 18029.21, GB/T 17626.4	±2 kV/power lines, ±1 kV input/output lines	±1 kV power lines	Power supply should be typical of commercial or hospital environments.
Surge GB/T 18029.21, GB/T 17626.5	±1 kV line-to-line, ±2 kV line-to-ground	±0.5 kV line-to-line	Power supply should be typical of commercial or hospital environments.
Voltage dips, short interruptions, and voltage variations on power input lines	GB/T 18029.21, GB/T 17626.11	Various percentages and durations (see table)	Power supply should be typical of commercial or hospital environments. For uninterrupted operation during power loss, an uninterruptible power supply or battery is recommended.
Note: UT refers to the AC mains voltage before applying test voltage.			
Manufacturer's Guidance - RF Conducted and Radiated Immunity			
The electric wheelchair is intended for use in the electromagnetic environment specified below. The purchaser or user of the electric wheelchair should ensure that it is used in this electromagnetic environment:			

Test	IEC60601 Test Level	Compliance Level	Guidance
RF Conducted GB/T 18029.21 GB/T 17626.6 RF Radiated GB/T 18029.21 GB/T 17626.3	3V (rms) 150kHz~80MHz 3V/m 80MHz~2.5GHz	3V (rms) 3V/m 80MHz~1GHz (charge) 20V/m 26MHz~2.5GHz (wheelchair)	Portable and mobile RF communication devices should not be closer than the recommended separation distance from any part of the wheelchair, including cables. $d = 1.2 \cdot \sqrt{P}$ $d = 1.2 \cdot \sqrt{P}$ 80 MHz to 800 MHz $d = 2.3 \cdot \sqrt{P}$ 800MHz to 1.0GHz $d = 0.175 \cdot \sqrt{P}$ 26MHz to 800 MHz $d = 0.35 \cdot \sqrt{P}$ 800MHz to 2.5 GHz Where P is the maximum output rated power of the transmitter, provided by the transmitter manufacturer, in watts (W), and d is the recommended isolation distance, in meters (m). The field strength of fixed RF transmitters is determined by electromagnetic field surveys (a) and should be lower than the compliance level in each frequency range (b). Interference may occur near equipment marked with the following symbols. 
Note1: Use the higher frequency formula at 80MHz and 800MHz. Note2: These guidelines may not cover all situations, as electromagnetic propagation can be affected by buildings, objects, and human bodies.			
a. The field strength of fixed transmitting antennas, such as those used for wireless (cellular/cordless) telephones and land mobile radio base stations, amateur radio, AM and FM radio broadcasting, and television broadcasting, cannot be accurately predicted theoretically. To assess the electromagnetic environment of a fixed video transmitter, an electromagnetic field survey should be considered. If the measured field strength at the location of the electric wheelchair exceeds the RF compliance level for the above applications, the electric wheelchair should be observed to verify its normal operation. If abnormal performance is observed, supplementary measures may be necessary, such as reorienting or repositioning the electric wheelchair. b. The field strength should be less than 3V/m across the entire frequency range of 150kHz to 80MHz.			

Manufacturer's Guidance - RF Conducted and Radiated Immunity					
The electric wheelchair is intended for use in an electromagnetic environment where radiated RF interference is controlled. Based on the maximum output power of communication equipment, purchasers or users of the electric wheelchair can prevent electromagnetic interference by maintaining the minimum distances between portable and mobile RF communication equipment (transmitters) and the electric wheelchair as recommended below.					
Transmitter's rated maximum output power / W	Isolation distance (in meters) corresponding to different transmitter frequencies.				
	150 kHz ~ 80 MHz $d = 1.2 \cdot \sqrt{P}$	80 MHz ~ 800 MHz (charger) $d = 1.2 \cdot \sqrt{P}$	800 MHz ~ 1.0 GHz (charger) $d = 2.3 \cdot \sqrt{P}$	26 MHz ~ 800 MHz (wheelchair) $d = 0.175 \cdot \sqrt{P}$	800 MHz ~ 2.5 GHz (wheelchair) $d = 0.35 \cdot \sqrt{P}$
0.01	0.12	0.12	0.23	0.018	0.04
0.1	0.38	0.38	0.73	0.055	0.11
1	1.2	1.2	2.3	0.175	0.35
10	3.8	3.8	7.3	0.553	1.1
100	12	12	23	1.75	3.5
For transmitters not listed in the table, use the corresponding formula for the relevant frequency range. Note1: Use the higher frequency formula at 80MHz and 800MHz. Note2: These guidelines may not cover all situations, as electromagnetic propagation can be affected by buildings, objects, and human bodies.					

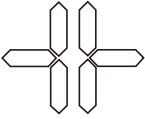
7. Fault Diagnosis and Handling

Please carefully read the above operation guidelines and precautions. The wheelchair has undergone strict product testing and is of high quality. If error codes appear on the LCD screen due to misuse, please refer to the error code instructions below and follow the suggested repair methods. For hardware issues, contact customer service promptly for repair.

- Fault Descriptions and Solutions:

No.	Error Code	Cause	Solution
1	Alarm 1 / E1	Battery voltage too low	Charge for half an hour and try again.
2	Alarm 2 / E2	Left motor wire disconnected or left motor faulty	Swap the left motor wire with the right motor; if the alarm persists, the controller may be faulty. Restart. If there are 24 beeps, motor or cable (loose connection) issue.
3	Alarm 3 / E3	Left brake wire disconnected or left brake faulty	Swap left motor wire with right; if still 3 beeps, controller fault. After restart, if 5 beeps occur, brake (or clutch not engaged) fault.
4	Alarm 4 / E4	Right motor wire disconnected or right motor faulty	Swap right motor wire with left; if still 4 beeps, controller fault. After restart, if 2 beeps, motor or cable issue.

5	Alarm 5 / E5	Right brake wire disconnected or right brake faulty	Swap right motor wire with left; if still 5 beeps, controller fault. After restart, if 3 beeps, brake (or clutch not engaged) fault.
6	Alarm 6 / E6	Upper-lower controller communication error	Communication error, please contact manufacturer.
7	Alarm 8 / E8	Controller internal fault	Controller internal fault; contact manufacturer for repair.
8	Alarm 9 / E9	Left Hall sensor wire fault (brushless controller)	Swap left motor wire with right; if still 9 beeps, controller fault. After restart, if 10 beeps, left motor Hall wire or motor problem.
9	Alarm 10 / EV	Right Hall sensor wire fault (brushless controller)	Swap right motor wire with left; if still 10 beeps, controller fault. After restart, if 9 beeps, right motor Hall wire or motor problem.

10	Alarm 11 / EB	No brake voltage output or brake short circuit	Lightly push the joystick; if wheelchair does not move, brake circuit may be damaged or shorted. Try replacing the motor for testing.
11	 Displayed code	Joystick not in neutral position	Return joystick to center. If alarm persists, recalibrate joystick; refer to the digital controller adjustment manual or contact manufacturer. Operate joystick 2 seconds after powering on.
12	 Displayed code	Three-lever wheelchair startup not reset	For standing-wheelchair type with three-lever assembly, press and hold the reset button after turning on controller to restore all functions.

8. Product Maintenance

Our electric wheelchairs are active, reusable, non-sterile products without chemical components. Safe and effective usage depends on product structure, user behavior, environment, and regular maintenance.

Replacement of Wear Parts: Maintenance personnel must be professionally trained. Perform a full safety check every six months to ensure connections are tight and all functions operate normally.

Replacement Methods:

- Front Wheels: Unscrew, remove, install new wheel, tighten and check rotation.
- Rear Wheels: Use a socket wrench to remove fixing bolts, replace wheel or contact manufacturer.
- Seat/Back Cushion: Unscrew and replace with new cushion, secure screws.
- Armrests: Unscrew, remove, install new armrest, tighten screws.
- Parts & Documentation: Authorized repairs come with circuit diagrams, component lists, annotations, and calibration guides.
- Battery: Check battery level. Replace with manufacturer-approved battery if lifespan ends.

Project	Specifications
Capacity:	12Ah
Nominal Voltage	24V
Max Charging Voltage	29.4V
Charging Mode	Constant current & constant voltage
Operating Temp	Charging 0–40°C, Discharge -25–55°C

- Cables: Inspect for damage; only qualified personnel should repair.
- Charger/Adapter: Must meet GB 9706.1 and YY 9706.102. Input: 100 – 240V, 50/60Hz, 2.5A; Output: 29.4V, 3.0A.
- Frame: Clean yearly with soft cloth; do not use lubricants. Report cracks to manufacturer.
- Controller: Clean with a neutral mild detergent; never use alcohol or abrasive materials. Check joystick for deformation; ensure it returns to center.
- Motor: Inspect for oil leakage or increased noise; contact manufacturer if abnormal.
- Fasteners: Regularly check screws and nuts.

- Seat & Back Cushion: Clean with warm, soapy water; avoid damp storage.
- Electromagnetic Brake: Test on flat asphalt at max speed, release joystick, measure stopping distance. >1m indicates repair needed.
- Fuses: Replace with the same specification.

Project	Specifications
Voltage	32V dc
Current	50A
Operating speed	0.5s
Dimensions	19×15×5 mm
Breaking capacity	1000A

- Do not perform maintenance or servicing while the wheelchair is in use by a patient.
- Patients with limited mobility should not attempt maintenance or servicing.

Note: To ensure safe use of the equipment, the user should clean and disinfect the wheelchair, its components, and any accessories before use.

Battery Usage, Maintenance, and Care

The electric wheelchair is powered by an independent battery, which is considered part of the medical electrical device.

Warning: The battery should be checked or replaced regularly.

- Pay attention to the battery indicator on the controller panel. If the green light is off, charge the battery promptly. If the red light is on, the battery is critically low and must be charged immediately to prevent damage from low voltage.
- During charging, the status can be monitored via the controller panel indicator.
- The battery has clearly marked positive and negative terminals and secure connectors to ensure proper circuit connection. Non-professionals should not tamper with the wiring.
- The battery is maintenance-free and does not require adding electrolyte. During charging, the battery temperature may rise, but must not exceed 45°C. If it does, stop charging and resume only after the temperature drops below 35°C.
- If the wheelchair is unused for an extended period, charge the battery at least once per month.

- The battery's typical service life is 2 years. After long-term use, if the driving range after full charge is significantly lower than the rated range, replace the battery.
- Keep the battery clean and dry. Do not strike it with hard objects. Store it out of reach of children.
- A fully charged battery can drive approximately 12 km. Monitor battery level during use.
- Avoid over-discharge, which can severely reduce battery life. When only one battery indicator light remains on the controller, charge immediately to prevent over-discharge.
- Do not perform maintenance while a patient is using the wheelchair.

Waste Disposal

Dispose of components according to local environmental regulations.

New users must properly handle potentially biohazardous discarded components, such as the battery and controller. Contact the local environmental protection authority for guidance on proper disposal.

Expected Product Lifespan: The intended service life is 5 years from the production date (see inspection certificate and product packaging).

9. After-Sales Service

Warranty Information: Within 1 week of purchase: non-human-caused defects are fully refundable, replaceable, or repairable. Within 1 year: non-human defects are repaired free of charge under normal use. After 1 year: parts are available for repair at reasonable charge with invoice. **Important Components Warranty: Refer to manufacturer.**

The warranty periods for the key components are as follows:

No.	Component	Warranty Period
1	Frame	5 years
2	Controller	1 year
3	Motor	1 year
4	Lithium Battery	1 year

Exclusions:

- Wear or puncture of wheels, seat/back cushions, armrests.
- Unauthorized disassembly, repair, or modification.

- Damage from improper use, handling, or accidental drops.
- Faults caused by failure to follow instructions.
- Damage due to unforeseeable natural disasters (fire, earthquake, flood).

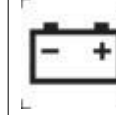
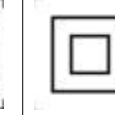
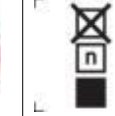
Packing List:

No.	Item	Quantity	Notes
1	Electric Wheelchair	1	
2	Battery Pack	1	
3	Footrest Assembly	1	
4	Manual	1	
5	Certificate	1	Attached to wheelchair
6	Tool Kit	1	
7	Charger	1	

If accessories are damaged, contact the manufacturer for repair or replacement.

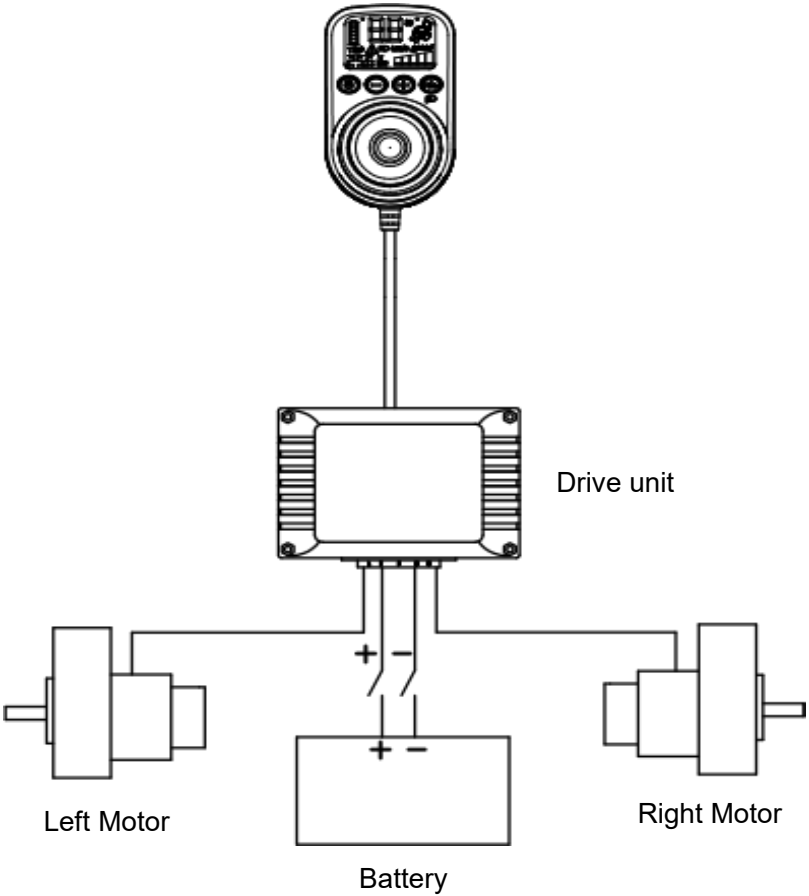
10. Supplementary Notes

10.1 Symbols Related to Safety Requirements and Their Meanings

						
Keep dry	Fragile	BF applied part	This way up	Warning	Battery	Class II equipment
						
Do not step on	Do not push	Do not sit	Manufacturer	Date of manufacture	Follow operating instructions	Non-ionizing radiation
	IP22					
Dispose of electrical and electronic equipment	Ingress protection rating	Non-professional personnel prohibited	Engage/disengage clutch	Release armrest	Do not reach hands inside	Maximum stacking limit

separately		from disassembling the battery	brake			
------------	--	--------------------------------	-------	--	--	--

10.2 Electrical Wiring Diagram of the Electric Wheelchair
(See Figure 21)



10.3 Battery and Charger Information

 **Warning:** This adapter is only to be used with the electric wheelchair. Modification of the adapter is prohibited. The electric wheelchair is intended to be connected to the adapter. The wheelchair and adapter combination is defined as a medical electrical system, and the adapter is suitable for use in the patient environment.

Cleaning and Disinfection: To clean, first prepare a damp cloth or an anti-static cloth. Use the cloth with some medical alcohol to wipe the surface of the charger and the cable. Finally, place it in a well-ventilated area to air dry. Only use after it is completely dry.

10.4 List of Main Components and Expected Service Life

No.	Component	Service Life	Storage Period
1	Frame	5 years	5 years
2	Controller	5 years	5 years
3	Motor	5 years	5 years
4	Lithium Battery	2 years	2 years

Other language versions. Video guidance.



Email: support@easwe.com