



# V53 Electric Wheelchair

## USER MANUAL



✉ [support@vocic.com](mailto:support@vocic.com)

BEFORE using the product, read this manual carefully and save for future reference.

## Preface

This manual will familiarize you with the features and functions of the electric wheelchair. It contains operations, assembly method, and simple faults solutions. This manual contains wheelchair maintenance and self checking methods, please put it in a proper place of the wheelchair.

Your electric wheelchair has been strictly inspected before leaving the factory and has met your requirements. According to the maintenance cycle, the powered wheelchair will maintain its optimum condition and give you full reliability and satisfaction.

### **Intended Use/Indications for use:**

It is a motor driven, indoor and outdoor transportation vehicle with the intended use to provide mobility to a disabled or elderly person limited to a seated position.

**If you have any other questions or valuable suggestions,  
please send to: [support@vodic.com](mailto:support@vodic.com), we look forward to hearing from you,  
thank you!**



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## 1. Introduction

Welcome aboard your new power wheelchair.

This model has been designed with your practical needs in mind, equipped with modern high-tech electronics and special features for the most comfortable ride.

This manual contains important information regarding the safe use of the power wheelchair.

Please read it carefully and ensure you understand all the instructions before attempting to use the vehicle.



- |                  |                        |                |
|------------------|------------------------|----------------|
| 1. Footrest      | 4. Joystick controller | 7. Rear wheel  |
| 2. Battery       | 5. Armrest             | 8. Motor       |
| 3. Charging port | 6. Handlebar           | 9. Front wheel |

If you have any questions, please contact us: [support@vocic.com](mailto:support@vocic.com).

## 2. Quick reference Guide

1. Remove the wheelchair and spare parts from its packaging.



2. Install the controller to the right or left hand armrest of the driver.



3. Grasp the handlebar and pull the seat cushion frame outwards with your other hand.



4. Sit on the seat and lie down, or push the handle to ground. Confirm the fold button is locked.



If you have any questions, please contact us: [support@vocic.com](mailto:support@vocic.com).

### 3. Specification

|                               |                                   |
|-------------------------------|-----------------------------------|
| Model name                    | XFGW25-203                        |
| Whole product size (unfolded) | 1070*640*960mm                    |
| Net weight (with battery)     | 28kgs                             |
| Front wheel                   | 8inch                             |
| Rear wheel                    | 12inch                            |
| Weight capacity               | 120kgs                            |
| Forward speed                 | 0-6km/h(adjustable)               |
| Range per charge              | 15km                              |
| Motor                         | 24V/250W×2                        |
| Turning radius                | 1200mm                            |
| Battery (Lithium)             | 24V12AH                           |
| Brake                         | Intelligent Electromagnetic brake |

|                  |                                    |
|------------------|------------------------------------|
| Anti-tip wheel   | 50mm×15mm                          |
| Climbing ability | ≥6°                                |
| Charger          | AC100-240V50/60HZ<br>Output:24V-2A |

Failure to follow the instructions below may result in serious injury or damage to the electric wheelchair.

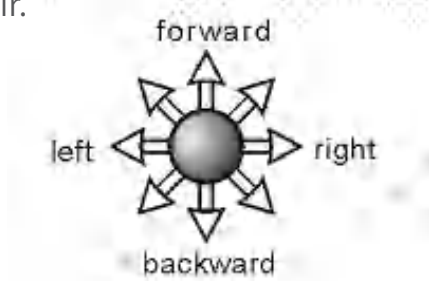
If you have any questions, please contact us: [support@vocic.com](mailto:support@vocic.com).

#### 4. Practice before operation

Before venturing onto the roads, find an open area such as a park and ask a friend to accompany you until you have mastered the power chair's operation.

The power button should always be off before you get on or off the seat. Set the speed control button appropriate for the vicinity in which you are travelling.

We recommend keeping to a slow speed until you are familiar with handling the wheelchair.



##### ■ Stop, forward, and reverse operations.

Simply push the joystick gently in the direction you wish to move in.

- First, practice moving forward. Be sure to set the speed to the lowest shift.

- After you have accomplished moving forwards, practise an "S" turn.

- When you can confidently perform these man-oeuvres, try reversing. Pay particular attention to check for obstacles when moving backwards.



In the event of one of the following errors, immediately turn off the electric wheelchair's power supply:

1. Sudden movement
2. Operation direction is not controlled
3. Brake failure

If you have any questions, please contact us: [support@vocic.com](mailto:support@vocic.com).

## 5. Safety instructions

- Do not carry passengers.
- Do not drive across a slope.
- Do not drive under the influence of alcohol.
- Do not tailgate another vehicle.
- Do not operate hand-held communication devices such as radios or mobile phones.
- Do not exceed the safe climbing maximum angle.
- Do not use the joystick in an erratic manner when going up or downhill.
- Do not exceed the maximum user weight.
- Do not press the power button of the controller whilst moving as this could damage the electromagnetic brakes or the joystick controller.
- Do not travel on soft terrain.
- Do not attempt to climb stairs over two inches tall unless a ramp is installed.
- Do not disassemble the power wheelchair unless the electromagnetic brakes are engaged and the joystick controller is turned off.
- Do not operate the power wheelchair without a driver.
- Do not drive the power wheelchair on the main roads – the footpath must be used.
- Do not change driving direction or reverse before the power wheelchair has completely stopped.
- Always engage a slow speed when going down gradients (move the joystick to the central position)
- Always use the safety belt.
- Always keep feet on the footrest while travelling.
- Always make sure the batteries are fully charged before setting out on a journey.
- Always charge the power wheelchair in a well-ventilated area.
- Always replace a loose screw from the centre of the wheel with a wrench.



**Reminder!** When using an electric wheelchair, the driver must follow all the rules and regulations of the road.

If you have any questions, please contact us: [support@vocic.com](mailto:support@vocic.com).

**NO!**



Make sure there are no obstacles behind when braking; We recommend that the speed is the lowest when reversing.

**NO!**



Avoid emergency braking, irregular shaking or emergency turning.

**NO!**



Keep your arms on or inside the armrest and keep your feet on the footrest.

**NO!**



Do not climb curbs that are more than 4 cm high.

**NO!**



Do not cross a gap that is more than 10 cm wide.

### ■ Precautions when driving on slopes:

Driving on a slope is much more dangerous than driving on a flat surface. Please note the following as falling or losing control will result in serious harm to users and others.



Do not climb slopes that exceed 6°.



When climbing a slope, do not reverse slope as you may cause a rollover.



Do not drive on the side 3° above the ground.



Do not drive on soft, uneven or unprotected roads such as grass and gravel.

**NO!**



Slow your speed when going downhill. It takes longer to stop the wheelchair when braking downhill.

**NO!**



Do not exit the wheelchair if facing up or down a slope. Stop the wheelchair before getting on and off.

If you have any questions, please contact us: [support@vocic.com](mailto:support@vocic.com).

## 6. Terminology

**Joystick:** The device used to "move" the power chair.

**Controller:** The device that allows the joystick to function.

**Armrests:** Where arms can rest during time spent on power chair

**Footrest:** Where feet can rest during time spent on the power chair.

**Anti-tip wheels:** Wheels that allow slight tipping, or prevent tipping while driving.

**Drive wheel:** The main wheels that move the power chair.

**Caster wheels:** The front wheels.

### ■ WARNING



Do not disassemble the motor as this may result in severe damage or malfunction.

## 7. Joystick controller operation

### ■ Assemble the controller

1. Install the controller on the controller connection.

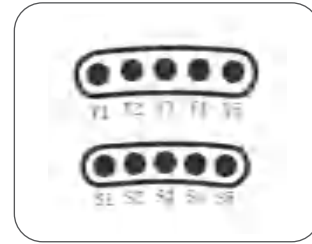
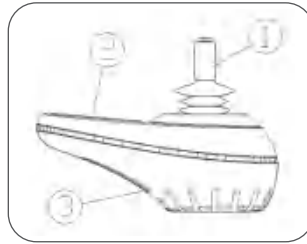
2. Adjust the controller connection tube to the appropriate length, then tighten the plum nut.

3. Put the plug into the left and right motor and battery;

① Joystick

② Front control panel

③ Charging Port



### ■ The operation of the controller

Try to avoid knocking the controller, especially the joystick. Do not beat the controller and the joystick while traveling. Do not hit the controller.

When operating the wheelchair, ensure that the control system is safe and reliable.

### ■ Operating environment

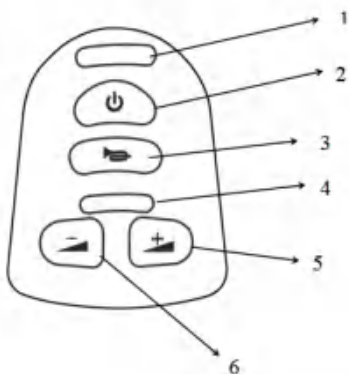
Do not keep the control system and its components in a humid environment for long periods of time. If food or drink is spilled on the control system, it should be cleaned immediately.

### ■ Cleaning

Use a soft cloth to gently wipe the control system and the joystick.

Do not use abrasives and similar cleaners.

### ■ Control button



1: Battery indicator

2: On/off button

3: Horn

4: Speed indicator

5: Acceleration button

6: Deceleration button

### ■ On/off button and power display

The on/off button provides power to the electronic components of the control system to provide power to the wheelchair motor. In an emergency, you can use the on/off button to stop the wheelchair.

The power display shows the current battery power of the wheelchair. The indicator light tells you that the wheelchair is on. At the same time, the power display also shows the status of the wheelchair.

### ■ Turn on the power



Press the power button  
Both indicators will light up.

#### ■ Turn off the power



Press the power button  
The indicator light will go off.

#### ■ Joystick

The main function of the joystick is to control the speed and direction of the wheelchair. The further the joystick is moved from a central position, the faster the wheelchair runs. When you release the joystick, the wheelchair automatically brakes.

#### ■ Horn

Press the horn to sound an alert.

#### ■ Deceleration button

This button reduces the speed setting gear and turns the corresponding speed indicator lights off. This button has no effect when driving the wheelchair.

#### ■ Acceleration button

This button can increase the speed setting gear and the corresponding speed indicator lights on. This button has no effect when driving the wheelchair.

#### ■ Self-help guidance

If a system failure occurs, check the position of the flashing lamp on the speed display and battery indicator. Below are a series of errors which could be indicated by an abnormal sound:

#### ■ Controller status indication

| Error indication                               | Malfunction                                                                                        | Solution                                                                          |
|------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| All LED lights are off, with no sound          | The power is off or in standby, and the power cord is in poor contact.                             | Check if the power plug is disconnected.                                          |
| All LED lights are on                          | The power supply is turned on and the power on self-test passes. The product can be used normally. |                                                                                   |
| The leftmost red LED is on and the voice alarm | There is an extremely low power supply                                                             | Charge the low battery or replace it.                                             |
| Three sounds                                   | The left motor has failed.                                                                         | Check whether the left motor connector is plugged in and the connection is good.  |
| Five sounds                                    | The right motor has failed.                                                                        | Check whether the right motor connector is plugged in and the connection is good. |

|                                   |                                                     |                                                                                                                                                                          |
|-----------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Six long after two short sounds   | The controlled is displaying an over-current status | Just after a heavy load, check whether the vehicle exceeds the rated load, then turn it off and restart.                                                                 |
| Seven long after two short sounds | There is a joystick problem                         | When the controller switch is turned on, whether to release the joystick and put the joystick in the center position. After turning the joystick, turn off and on again. |
| Eight long after two short sounds | The controller is faulty                            | Replace the controller                                                                                                                                                   |
| Nine long after two short sounds  | The controller is faulty                            | Replace the controller                                                                                                                                                   |

If you have any questions, please contact us: [support@vocic.com](mailto:support@vocic.com).

## 8. Rear wheel clutch fork

When the wheelchair is in the electric operation state (power mode), only the controller can be used to move the wheelchair. The wheelchair cannot be pushed by hand, and this will prevent the wheels from rolling.

Manual operation can be triggered by flicking the “motor clutch fork” switch. This means you can easily push the wheelchair, voiding all electronic functions.

Please refer to the following picture:



Motor clutch fork

- Push up -electric operation
- Push down -manual operation

### ■ ATTENTION:

It is advisable to keep the wheelchair in the electric operation state. The role of the clutch device is only to allow the wheelchair to be pushed manually in crowded places.

## 9. Fold your wheelchair

Step 1: Pull the fold button, to make the wheelchair unlock;

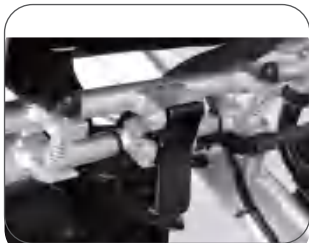


Step 2: Hold the handlebar with one hand and the seat cushion frame with the other. Use both hands to force the wheelchair until it is completely folded.



## 10. Adjust the controller and armrest

You can install the controller on the left as needed, remove the controller bracket and install it on the left.



### ■ Armrest

Press the button on the underside of the armrests to loosen them.



## 11. Remove the battery

Step 1: Pull out the power plug.

Step 2: Hold down the locking catch to disengage the battery from the frame and pull out the battery compartment.



If you have any questions, please contact us: [support@vocic.com](mailto:support@vocic.com).

## 12. Battery application

The electric wheelchair uses a 24 voltage battery. It is a good idea to carry a replacement 24V12AH battery, in case you need to charge the one in use. This is a maintenance-free sealed lithium battery. The batteries are designed to handle deep discharges. Although they are similar in performance to car batteries, they cannot be replaced. Car batteries are not safe for use in electric wheelchairs.

### ■ Battery charge and discharge

In order to maximize the efficiency of your wheelchair battery, you should:

1. Fully charge your battery during initial use.
2. Start slowly when using the wheelchair in your home or on the driveway.
3. Give your battery charge 4-6 hours, and then re-operate the wheelchair.
4. After 4-5 cycles of charging and discharging, the battery effect can reach 100%, and can continue for a long time.

### ■ Important information about the battery

Frequently charged batteries provide reliable performance and long battery life. If the battery is not charged often or not fully charged, it may cause damage to the battery permanently, causing unreliable operation and reduced battery life.

**If you do not often use your electric wheelchair, you must charge once a month to maintain battery life.**

If you want to ship your wheelchair, you must contact the shipping company in advance to ensure that the wheelchair meets the special requirements of the transport.

Maintenance-free fully enclosed lead-acid batteries are designed for wheelchairs and other mobile vehicles. Overall, maintenance-free, fully enclosed lead-acid batteries are safe, green and environmentally friendly, such as aircraft, buses and trains. We recommend that you contact the public transport department for packaging and shipping according to special performance.

Used batteries should be carefully discarded according to your local council's regulations.

### ■ Charger

The charger is a very important part of your wheelchair and provides energy to your wheelchair quickly and safely.

Your electric wheelchair is designed to be maintenance free, however we recommend the following checks be completed on a regular basis:

### ■ Joystick/controller:

Ensure that the controller is kept away from the damp air as this can easily damage it and void the warranty.



■ **Battery cable:**

Check the battery cables to make sure they are not corroded.

■ **Clean your wheelchair with a damp cloth:**

Do not use water to clean your wheelchair.

### 13. Guidance and Manufacturer's Declaration

Below cables information are provided for EMC reference.

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

#### Important information regarding Electromagnetic Compatibility (EMC)

This electric wheelchair 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 standard for both immunity and emissions. Nevertheless, special precautions need to be observed:

- The electric wheelchair with Following ESSENTIAL PERFORMANCE: Stability of speed and direction. It is intended used in Home healthcare environment.
- WARNING: Use of this electric wheelchair 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: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the electric wheelchair, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.”
- 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.

## ■ EMI Compliance Table (Table 1)

Table 1 - Emission

| Phenomenon                       | Compliance               | Electromagnetic environment |
|----------------------------------|--------------------------|-----------------------------|
| RF emissions                     | CISPR 11 Group 1, ClassB | Home healthcare environment |
| Harmonic distortion              | IEC 61000-3-2 Class A    | Home healthcare environment |
| Voltage fluctuations and flicker | IEC 61000-3-3 Compliance | 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      | $\pm 8$ kV contact<br>$\pm 2$ kV, $\pm 4$ kV, $\pm 8$ kV, $\pm 15$ kV air |
| Radiated RF EM field                                       | IEC 61000-4-3      | 10V/m, 80MHz-2.7GHz, 1kHz, 80% AM<br>20V/m, 26MHz~2.5GHz, 1kHz, 80% AM    |
| 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                 |           |                                             |
| 870                 | 800-960   | Pulse modulation 18Hz, 28V/m                |
| 930                 |           |                                             |
| 1720                |           |                                             |
| 1845                | 1700-1990 | Pulse modulation 217Hz, 28V/m               |
| 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      | $\pm 2$ kV<br>100kHz repetition frequency                                                         |
| Surges Line-to-line                         | IEC 61000-4-5      | $\pm 0.5$ kV, $\pm 1$ kV                                                                          |
| Conducted disturbances induced by RF fields | IEC 61000-4-6      | 3V, 0.15MHz-80MHz,<br>6V in ISM and amateur radio bands between 0.15 and 80MHz,<br>80% AM at 1kHz |
| Voltage dips                                | IEC 61000-4-11     | 0% UT; 0.5 cycle<br>At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°                              |
|                                             |                    | 0%UT/0.5T(0, 45, 90, 135, 180, 225, 270, 315);<br>0%UT/1T(0); 70%UT /25T(0);                      |
| Voltage interruptions                       | IEC 61000-4-11     | 0%UT/250T (0, 180)                                                                                |

Table 5 – Signal input/output parts Port

| Phenomenon                                  | Basic EMC standard | Immunity test levels                                                            |
|---------------------------------------------|--------------------|---------------------------------------------------------------------------------|
|                                             |                    | Home healthcare environment                                                     |
| Electrical fast transients/burst            | IEC 61000-4-4      | $\pm 1$ kV<br>100kHz repetition frequency                                       |
| Conducted disturbances induced by RF fields | IEC 61000-4-6      | 3V, 0.15MHz-80MHz<br>6V in ISM bands between 0.15MHz and 80MHz<br>80%AM at 1kHz |

## 14. After-sales Service

Once you purchase with VOCIC, you are covered by an 1-year warranty and lifetime after-sales service.

Our 24/7 after-sales service is always available to answer any questions you may have during installation and use.

### Contact

If you have any questions, please contact us: [support@vocic.com](mailto:support@vocic.com)



**Your Home  
Rehabilitation Partner**



Instagram



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