

# MOBILITY SCOOTER



## YL-07 USER MANUAL

For any after-sales inquiries, please send an email to:  
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# 1. INTRODUCTION

1.1 This manual is designed to provide you with a comprehensive guide in getting started with your Mobility Scooter and answer any questions you might have about its operation and regular maintenance. If there is any information in this manual that is confusing, or if you require additional assistance for setup or operation, please contact customer support or our dealer. Contact information is provided at the end of this manual.

1.2 The manual version is V1. 0.

1.3 The date issued in Oct 1st 2023.

1.4 Welcome any questions, comments, and suggestions you may have about your Mobility Scooter, especially those related to performance, safety, and reliability.

1.5 Make sure to read all of the instructions, warnings, and notes in this manual before attempting to operate your Mobility Scooter for the first time. Your safety depends on how well you follow the contents of this manual. As such, is not liable for any damage and/or injuries that may occur as a result of unsafe operation, improper use, or failure to follow the instructions, warnings, notes, and other contents of this manual.

1.6 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.

1.7 Operational contexts of use

Patient is not suitable for the indications for use of the product, mental patient or any other unsuitable condition.

1.8 Use environment and conditions

The device is intended to be used in home, or around house.

Temperature range: 18°F-122°F;

Humidity: not greater than 93%.

1.9 Training for use

There are certain situations, including some medical conditions, where the user will need to practice operating the YL-09B in the presence of a trained attendant. A trained attendant can be defined as a family member or a professional specially trained in assisting a user in various daily living activities.

## **2. PRECAUTIONS FOR SAFE USE**

The example notices shown below are used throughout this manual to identify warnings and notices important to the safe, ongoing operation of your Mobility Scooter. It is strongly recommended that you read and understand their usage completely before continuing.

### **2.1 Expiration Date**

This mobility scooter is energy, antisepsis and reusable product.

The safe and period of validity for scooter on the clinical use not only depends on its structural strength, but also on the user usage and use of the product environment, user habits, whether in accordance with the periodic maintenance, and other factors.

Our products are valid from the date of production for 1 years.

### **2.2 Instructions before use**

2.2.1 If not completely read and understand this user manual, please do not drive.

2.2.2 The maximum loading capacity is shown in the parameter table for technical features. Please do not overload driving. Please do not carry passengers.

2.2.3 Please do not drive after drunk or too tired.

2.2.4 Please do not drive at night or in the case of an unclear line of sight.

2.2.5 Please self-check before driving and refer to the manual section "adjusting" and "Practice before operation " if driving for the first time.

2.2.6 This scooter is not waterproof, do not expose in rain and snow as well as driving in rain or snow.

### **2.3 Attention in use**

2.3.1 This mobility scooter can drive on a good flat surface; do not drive on muddy, rugged, soft, narrow, icy road, bad roads such as dangerous roads without guardrails or waterways.

2.3.2 This mobility scooter has the certain ability of groove obstacle, at this time you should reduce the speed and travel slowly.

2.3.3 This mobility scooter has the certain climbing ability, the climbing angle is  $\geq 6^\circ$ , but no more than  $12^\circ$ .

2.3.4 Please avoid driving in the crowds, traffic flows and other places with heavy traffic.

2.3.5 Please ensure that the control system is firmly installed, the joystick is vertical, correctly positioned. Keep your head as back as possible, lean against the backrest in case out of control due to the dump.

2.3.6 Turn the power key on, firstly check if the current fastest speed setting is appropriate for yourself operating proficiency, or it should be adjusted for safety; We recommend to drive slowly at the beginning for each use, and gradually accelerate.

## 2.4 Electromagnetic interference (EMI)

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 mobility scooter. Some interference may lead to the brake failure, power on automatically, or steering failure, also may lead to the permanent damages to the control systems.

Below cables information are provided for EMC reference.

Cable	Max. cable length, Shielded/unshielded		Number	Cable classification
AC Power Line	0. 9m	shielded	1 Set	AC Power
DC Power Line	0. 9m	shielded	1 Set	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 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 and healthcare environment.

**ESSENTIAL PERFORMANCE:**

The mobility scooter can work normally without moving out of control, and the speed change is not more than  $\pm 20\%$ .

**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!** Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30cm (12 inches) to any part of the YL-07, 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.

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.

Following degradation caused by Electrostatic Discharge or Electrical fast transients/burst 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:

During all immunity tests, a digital tachometer was used to monitor the rotating speed of wheel and a clamp meter was used to monitor the output current of battery charger to verify the performance of EUT.

#### 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 61000-3-3 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	±8 kV contact ±2kV, ±4kV, ±8kV, ±15kV air
Radiated RF EM field	IEC 61000-4-3	20V/m 26MHz-2. 5GHz 80% AM at 1kHz  10V/m 80MHz-2. 7GHz 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 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, ±5kHz 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	±2 kV 100kHz repetition frequency
Surges Line-to-line	IEC 61000-4-5	±0.5 kV, ±1 kV
Conducted disturbances induced by RF fields	IEC 61000-4-6	3V, 0.15MHz-80MHz 6V in ISM bands and amateur radio bands between 0.15MHz and 80MHz 80%AM at 1kHz
Voltage dips	IEC 61000-4-11	0% U <sub>T</sub> ; 0. 5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°
		0% U <sub>T</sub> ; 1 cycle and 70% U <sub>T</sub> ; 25/30 cycles Single phase: at 0°
Voltage interruptions	IEC 61000-4-11	0% U <sub>T</sub> ; 250/300 cycles

Table 5 – Signal input/output parts Port

Phenomenon	Basic EMC standard	Immunity test levels
		Home healthcare environment
Conducted disturbances induced by RF fields	IEC 61000-4-6	3V, 0.15MHz-80MHz 6V in ISM bands and amateur radio bands between 0. 15MHz and 80MHz 80%AM at 1kHz

## 2. 5 More information

**WARNING!** Never try a new manoeuvre on your own, out of the manual stated.

**WARNING!** Do not use the scooter other than for its original purpose. Avoid any use, such as weight training, sports and athletics, hauling, moving or towing anything, that may lead to safety hazards and undue stress on the scooter.

**WARNING!** We strongly recommend that you do not smoke cigarettes while seated on you scooter. You must adhere to the following safety guidelines if you decide to do so: Keep ashtrays a safe distance from the seat cushions. Always make sure cigarettes are completely extinguished before disposal.

**WARNING!** Before getting on/off the scooter, you should sit behind as far possible to avoid injury caused by overturning.

**WARNING!** Avoid concentrating your weight on the footrest. Otherwise, it will cause to overturn and personal injury.

**WARNING!** Do not use the scooter in manual mode without accompanying person, which may cause personal injury.

**WARNING!** Do not make any alterations to the scooter without permission. Adding accessories may change some of the scooter specifications such as total weight, size, or center of gravity. Please note that some changes may damage things around you.

**WARNING!** Please does not change your seat specification. Do not place any cushions or pillows on the seat, which will result in the user falling out from the scooter caused by instability of seat.

**WARNING!** Be extremely careful when using oxygen near electrical circuits or combustible materials. Please contact with your oxygen supplier for information on the safe use of oxygen.

**WARNING!** Do not change the controller settings. Please ask your service provider to check it if you notice any changes in your ability to control the scooter.

**WARNING!** During the operation, the scooter may suddenly stop at any time. Do not operate the scooter if it is abnormal or irregular.

**WARNING!** To prevents the scooter from losing control and moving on its own, do not place the scooter in manual mode on any inclined plane.

**WARNING!** If you expect to sit in a fixed position for a long time, turn off the power to prevent accidental movement of the scooter.

**WARNING!** Avoid any accessories that may interfere with the operation of the joystick. Otherwise, it will cause the scooter to move unexpectedly.

**WARNING!** Keep yourself, clothing and other objects away from the wheel while the scooter is moving. Do not drag anything behind the scooter while driving.

**WARNING!** Do not connect any other devices to the electronic system or turn on any other device with the scooter battery.

**WARNING!** When disconnecting wiring harness, please hold the grip in case damage to it. Do not pull the wiring harness directly.

**WARNING!** Keep all charger connector terminal clean and dry,



away from damp to prevent damage to electrical system and personal injury.

**WARNING!** The storage temperature of scooter is 18°F-122°F. Long term storage in low or high temperature environment will damage its function.

**WARNING!** Always check electrical components for corrosion. Check all brakes for looseness, wear or damage. Check wiring harnesses and terminal posts for breakage. If necessary, please do the replacement.

**WARNING!** Please ensures the safety of scooters and batteries during transportation. Never transport scooters or batteries with combustible materials.

**WARNING!** Do not connect the cable directly to the battery terminal/clip for charging.

**WARNING!** Do not remove the fuse from the battery harness. If the fuse is damaged, please contact with your supplier for replacement.

**WARNING!** Do not operate the scooter with a drained battery. You might get trapped.

**WARNING!** Please slow down when turning, don't make sharp turns, keep the center of gravity stable when turning. To prevent rollover, do not move the center of gravity in the opposite direction when turning.

**WARNING!** Drive straight up the slope when climbing. Both front wheels should land at the same time. To reduce the possibility of overturning, do not make an angle with the slope; do not make the wheel on one side or the side of the scooter to go up the slope first. Be particularly careful when climbing any slopes.

**WARNING!** Do not drive on potentially dangerous roads or slopes, including but not limited to roads covered with snow, ice, cut grass, or wet leaves.

**WARNING!** Please drives down a slope at the minimum speed. If the descent speed is faster than expected, release the joystick lever to stop the scooter, and then press the lever lightly to control the descent speed.

**WARNING!** Do not place the scooter in the front seat of vehicle during transportation. Otherwise, it may move and disturb the driver.

**WARNING!** Please contact your service provider if any accessories of seat unit become loose; Please replace the worn or damaged parts immediately.

**WARNING!** The recommended maximum climbing angle was

tested in a controlled environment. The climbing ability of your scooter is affected by factors such as your weight, the speed of your scooter, and the angle at which you approach the slope.

**WARNING!** Reversing is only possible on flat roads. When reversing, please operate smoothly at low speed. Please stop frequently and check to make sure there are no obstacles on the road. To prevent rollover, do not tilt down or backward along the slope.

**WARNING!** When sitting in a scooter, avoid any position or movement that can change your center of gravity. This may cause the scooter to tilt.

**WARNING!** Do not put all the weight on one side of the scooter armrest, such use may cause the scooter to tilt.

**WARNING!** Do not put your hands above the seat or tilt your body. This may damage the backrest and cause you to fall down.

**WARNING!** Even if your scooter can cross high obstacles, we recommend that you do not try to cross the specified height. Such operations may cause the scooter to be unstable, even rollover and cause severe personal injury. If you have any concerns about safely crossing obstacles, please ask for help. Please pay attention to your operating skills and personal restrictions. You may need to remove or cover the sills and install ramps at exits and entrances.

**WARNING!** Do not attempt to climb over obstacles on slopes. Do not rely on a wheel to get over obstacles.

**WARNING!** Never operate the scooter near railroad tracks or crossings.

**WARNING!** Do not drive the scooter along the edge of a stream, lake or sea. Please do not drive the scooter across the water.

**WARNING!** Do not expose scooter to open flames.

**WARNING!** Keep your scooter in a dry and clean environment. Do not take the scooter to shower, bath, pool or sauna. Rain, snow, salt, fog/spray conditions and frozen/smooth surfaces can cause scooter screws and some fixtures to rust untimely.

**WARNING!** Avoid prolonged exposure to excessively hot and cold environments; it may damage the cushioned and non-cushioned parts of the scooter as well as the battery and battery components.

**WARNING!** Do not drag the scooter. Dragging may exceed its own speed threshold, causing damage to key parts of the scooter.

**WARNING!** Be extremely careful when moving an idle scooter

up and down the stairs. Requiring the participation of physically capable people.

**WARNING!** Do not cross stairs or escalators with the scooter.

**WARNING!** Do not sit on a scooter while it is any transport vehicles.

**WARNING!** For safer handling: Always keep the power off before moving. Failure to do so may result in touching the joystick and causing the scooter to move unexpectedly. Make sure the brakes are locked so to prevent the scooter from moving during handling. This scooter could be driven into the elevator, while you must turn off the power and sit firmly to ensure that the scooter will not move after entering the elevator.

**WARNING!** Please consults your healthcare professionals routinely to ensure there are no health or physical conditions that may limit or impair you ability to safely operate your scooter. Consult your physician if you are taking prescription or over-the-counter medication or if you have any physical limitations. Some medications and physical limitations may impair your ability to safely operate your scooter.

**WARNING!** Do not operate your scooter while you are under the influence of alcohol, as this can impair your ability to safely operate your scooter.

**WARNING!** Every scooter is different. Take the time to learn it before your driving.

**WARNING!** Be aware that becoming a capable and safe scooter operator will take time and practice.

**WARNING!** To ensures your safety, please read and understand this manual. You must be on high alertness when driving any scooter to ensure safety.

**WARNING!** Radio wave sources, such as radio stations, television stations, amateur radio transmissions, two-way radios and mobile phones can affect scooter controller.

**WARNING!** Should reduce the possibility of severe injury due to accidental braking or movement of the mobility scooter: 1. Do not turns on portable personal communication devices, such as citizen band(CB) radios and mobile phones when the mobility scooter is powered on; 2. Pay attention to nearby transmitters, such as radio or television stations, and try to avoid approaching them. 3. In the event of unexpected movement or brake release, the mobility scooter should be turned off as soon as possible under safe conditions; 4. Please notes that adding accessories or parts, or modifying mobility scooter may make it more susceptible

to interference from radio wave sources(note: there is no easy way to assess the influences of above modifications on the scooter`s overall immunity from radio wave sources); and report to the mobility scooter manufacturer of all accidents of unexpected movement or brake release, and pay attention to nearby radio sources and other important information.

**WARNING!** Please return the discarded batteries, controllers, motors, etc. to the supplier or manufacturer for disposal to avoid environment pollution.

## **3. PERFORMANCE、ADJUSTING AND USE**

### **3.1Product Structure**

The scooter is mainly composed of front wheel, drive wheel, frame, controller, motor and drive devices, armrest, push-handle, backrest, seat cushion, pedal, battery case and charger. The structural diagram is as below(see fig1):

- |                     |                     |
|---------------------|---------------------|
| ① Armrests Frame    | ⑤ Charger           |
| ② Battery component | ⑥ Seat and backrest |
| ③ Frame             |                     |
| ④ Basket            |                     |



fig1

#### **3.1.1 Front Section - Tiller Console**

The Tiller Console is the primary means of operating many functions of the Mobility Scooter. It includes the following elements(see fig2):

- ① Front Light Switch
- ② Speed Adjustment Dial
- ③ Horn
- ④ Power Indicator
- ⑤ Joystick
- ⑥ Key Switch

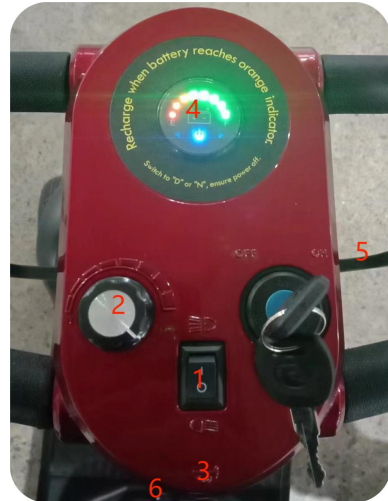


Fig 2

### 3.1.2 Battery

The Battery case comes with a lift handle for easy handling and installation(see fig4).

- ① 3-Pin Charger Socket
- ② Overload Protector
- ③ Battery box
- ④ Battery handle



Fig 3

### 3.1.3 Seat Unit

The Seat Unit has various components to provide a secure and comfortable base during operation. It includes the following elements(see fig4):

- ① Backrest
- ② Seat
- ③ Seat pin
- ④ Armrests
- ⑤ Armrest bar



Fig 4

**3.2 In order to protect your Mobility Scooter from potential damage during transportation, the Seat Unit and Battery are separately packaged. They will need to be assembled prior to use.**

3.2.1 Open the box of your new Mobility Scooter, remove all protective packaging, and take all components out of the box.

3.2.2 The Tiller comes folded down on the Front Section. It will need to be lifted, adjusted, and secured before operation(see fig5-fig6).



Fig 5



Fig 6

- Loosen the Locking Knob near the base of the Tiller.

- Lift the Tiller up to a desirable angle that can be comfortably reached while seated on the Scooter.
- Tighten the Locking Knob near the base of the Tiller to lock the Tiller into place.
- The angle of the Tiller can be adjusted later simply by loosening the Locking Knob, repositioning the Tiller angle and re-tightening the Knob.

**WARNING!** Make sure that the Locking Knob is securely tightened prior to operation. Failure to do so may result in personal injury or damage to the equipment.

### **3.3 Check the electrodes on the Rear Unit and the Battery and clean of any contaminants that may prevent adequate electrical contact.**

3.3.1 Load the Battery into the Battery Tray on the rear Section of the Scooter, making sure to align both of the electrodes correctly(see fig7).



Fig 7

### **3.4 Find the Seat Unit. Make sure the Seat Post is locked into place and connected to the bottom of the Seat Unit(see fig 8).**







Fig 8



Fig9

3.4.1 Insert the Seat and Seat Post into the socket on the Rear Section of the scooter(see fig9).

3.4.2 Align the holes on the side of the Seat Post with the unthreaded holes on the socket, and fit the Seat Pin through to set the seat height. Make sure the pin fits all the way through the socket(see fig 10).



Fig 12

Fig 10

**3.5 Assemble the left and right Armrests respectively into the square tubes on the underside of the Seat. Adjust the width of the Armrests to a comfortable spacing, and insert the two (2) adjustment knobs on the underside of the Seat to secure each Armrest in place(see fig11-fig12).**





Fig11



Fig12

**3.6 Mount the Basket onto the Basket Holder by securely sliding it down onto the Holder(see fig 13).**



Fig 13

### **3.7 To adjust the height of the Seat**

3.7.1 Loosen the nut and remove the screw under the seat to raise or lower the seat to the desired height.

3.7.2 Align the seat post and socket holes with the desired height. Push the screw through the hole and tighten the nut again.

### **3.8 To rotate the Seat (for easy transfer onto or off of the Mobility Scooter).**

3.8.1 Lift and hold up the Seat Lock Lever under the Seat on the right side to unlock the seat(see fig14).



Fig 14

3.8.2 Rotate the seat to the desired orientation and release the Seat Lock Lever to lock it in place automatically.

3.8.3 Once set into place, confirm the seat is locked by trying to gently rotate the seat from a sitting position. The seat should only slightly shift when locked, and will not rotate.

### 3.9 To adjust the width of the Armrests

3.9.1 Loosen the Screw Knob that holds down each Armrest.

3.9.2 Slide the Armrest in or out of the socket to the desired width.

3.9.3 Re-tighten the Screw Knob.

### 3.10 Charging the Battery(see fig15)

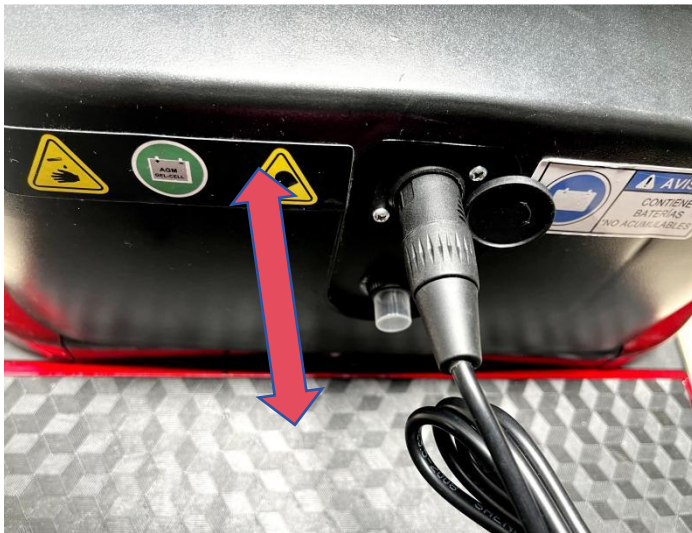


Fig 15

3.10.1 The 4-Wheel Mobility Scooter is designed to allow for safe, quick, and easy battery charging using the Off-Board Charger Assembly. Follow these instructions to Charge your battery safely, guaranteeing a long running life for your Scooter.

**CAUTION!** Always charge the Scooter Battery using the Off-Board Charger Assembly provided with your Scooter. Do not use any other type of battery charger. Failure to do so will void your

warranty and cause damage to the equipment.

Each new Battery needs to be "conditioned" in order to operate at maximum efficiency. Follow the tips below with each new Battery.

Fully charge any new Battery prior to its initial use. Charging details are explained below:

- Operate your Scooter throughout house and yard as usual. Move slowly at first, and stay close to home until you become better acquainted with your safe driving distance by reading the Battery Condition Indicator.

- Charge the Battery for ten (10) to twelve (12) hours for a full charge, then continue to operate the Scooter as usual

- With each charging cycle, the Battery efficiency will increase, reaching its peak performance level after four (4) or five (5) charging cycles.

- If your Scooter Battery ever needs to be replaced, please purchase new Batteries according to the following specifications:

Battery Type	Deep-cycle, lead-acid
Dimensions	151mm x 98mm x 100mm
Voltage	12V
Capacity	12Ah

- If you do not use the scooter frequently, fully charge the battery every two (2) weeks to prevent it from failing.

- Recharge the battery as soon as possible after it is depleted. Completely discharging the batteries can shorten the effectiveness and life span of the battery.

3.10.2 Following these steps to charge your Battery using the Off-Board Charger Assembly:

Position your Scooter near a standard wall outlet. Make sure that the Scooter is off by removing the Key Switch from the Tiller Console.

NOTE: The Battery can also be removed from the Scooter itself and charged separately if necessary. Simply follow the installation instructions to remove the Battery from the Scooter and follow these instructions to charge it. The scooter won't run while it's charging.

- Lift the rubber plug cover on the front of the Battery to reveal the 3-Pin Charger Socket and Overload Protector.

- Insert the output connector of the Off-Board Charger Assembly into the 3-Pin Charger Socket of the Battery, making sure to align the pins properly(see fig15).

- Plug the input connector of the Off-Board Charger Assembly

into the wall outlet. The red light on the Charger Assembly will illuminate indicating that the unit is charging.

- When the Battery charging is nearly finished, the green light on the Charger Assembly will turn on. It is recommended that you continue charging the Battery for one (1) to two (2) more hours to ensure maximum charge (full charging should take ten (10) to twelve (12) hours).

- Once the Battery is fully charged, unplug the input connector of the Charger Assembly from the wall outlet. Remove the output connector of the Charger Assembly from the 3-Pin Charger Socket on the front of the Battery and replace the cover. Your Scooter is now ready for use.

### **3.11 Overload Protector**

The Overload Protector is a safety device built into your Battery to protect the motor and other electric components of your Scooter in the case of an overload. When an overload occurs, the Scooter will be powered down immediately. Wait at least one (1) minute before attempting to reset the Protector and resume operation.

To reset the Overload Protector, lift the cover on the front of the Battery and press the button on the Protector. At that point, you should be able to start the Scooter again and operate normally.

### **3.12 Tiller Console Controls(see fig2)**

The Tiller Console contains all of the controls necessary for operating your Mobility Scooter. Here you can turn on the Scooter, adjust speed, check the status of your Battery, and drive it. Refer to the different sections below for steps on how to use each component of the controls.

#### **3.12.1 Key Switch**

When you need to use the scooter, insert the key into the power switch, turn the key to turn on the power, when you do not need to use the scooter, turn the key in the opposite direction, turn off the power, and remove the key from the power switch.

**CAUTION!** Do not remove the Key Switch as a means of braking/stopping your Scooter unless in case of emergency. Failure to do so can result in damage to the equipment.

#### **3.12.2 Speed Adjustment Dial**

This Dial allows you to set the top speed for your Scooter during operation. The maximum forward speed is 3.7 mph(6km/h), and the maximum reverse speed 2.1 mph(3.5km/h). Adjusting the

dial higher or lower will set the maximum speed that the Scooter will reach during operation.

**WARNING!** Before you become well-acquainted with how to operate your Mobility Scooter, it is recommended that you preset the speed limit to its lowest setting and adjust as necessary based on regular operation. Failure to do so can result in personal injury or damage to the equipment.

#### 3.12.3 Power Indicator

When your scooter is turned on, the LCD will show you how much power is left in the battery. A total of 10 grids, when the power is only 1-2 grids, it needs to be charged in time.

#### 3.12.4 Horn

This button activates a warning horn whenever pressed.

#### 3.12.5 Front Light Switch

This switch toggles the Front Light on and off whenever pressed.

#### 3.12.6 Drive joystick

This joystick, located on the rear side of the Tiller Console, allows you to control the forward or reverse speeds of your Scooter up to the maximum speed set by the Speed Adjustment Dial.

Push the right side of the Drive Lever forward to disengage the brake and move the Scooter forward. Inversely, push the left side of the Drive Lever forward to disengage the brake and move the Scooter backward. The harder you press or pull the Lever, the faster the Scooter will move.

Releasing the lever completely will cause it to return to the primary (stop) position automatically, engaging the Scooter's brakes to slow it until it comes to a complete stop.

### **3.13 Manual Free-Wheel Operation(see fig16)**

Your Mobility Scooter is equipped with a Manual Free-Wheel Lever that allows the Scooter to be pushed manually by an attendant. The Lever is located on the Rear Section, above the right rear wheel.



Fig 16

**WARNING!** Do not operate the Scooter in Manual Free-Wheel mode without an attendant present. Do not operate the Scooter in Manual Free-Wheel mode while seated on it. Do not attempt to operate the Scooter in Manual Free-Wheel mode while on an incline. Failure to follow these warnings could result in personal injury or damage to the equipment.

Push the Manual Free-Wheel Lever forward to disengage the drive motor and allow the Scooter to be pushed manually. Pull the Lever backward to re-engage the drive motor for regular operation.

**3.14 The 4-Wheel Mobility Scooter is designed to be easily disassembled and reassembled without tools for easy transport and storage. The Scooter can be disassembled into its five (5) main parts, as outlined above.**

3.14.1 Turn off all power to the Mobility Scooter.

3.14.2 Remove the nut on the socket to release the Seat Post, and lift up on the Seat Unit to remove it.

3.14.3 Lift the Battery out of the Battery Tray.

3.14.4 Lift the basket from the basket holder.

3.14.5 Loosen the Locking Knob near the base of the Tiller. Adjust tiller Angle to minimum (near battery mounting position).

3.14. 6 Simply reverse Steps 1-5 above to reassemble the Scooter for operation.

### 3.15 Practice before operation

Repetitive operation 3.12~3.14.

## 4. TECHNICAL PARAMETER

### 4-Wheel Mobility Scooter Specifications

Measurement items/Performance Parameter	Measured values/YL-09B
Overall dimensions(L*W*H)	1100mmX500 mmX 910mm
Stowage length	1100mm
Stowage width	500mm
Stowage height	380mm
Rising	280mm
Total mass	45kg
Mass of the heaviest part	9.6kg
Pivot width	1700mm
Reversing width	1700mm
Ground clearance	45mm
Required width of angled corridor*	1000mm
Required doorway entry depth*	1080mm
Required corridor width for side opening*	540mm
Operating force:joystick	2N
Operating force:push button	2N
Seat plane angle	2°
Effective seat depth	280mm
Seat width	400mm
Effective seat width	490mm~720mm
Seat surface height at front edge	505mm, 530mm, 555mm, 580mm
Back support angle(backrest angle)	11°
Back support height(backrest height)	310mm
Back support width(backrest width)	380mm
Footrest to seat	385mm, 410mm, 435mm, 460mm
Footrest clearance	90mm
Footrest length	280mm
Footrest to leg angle	93°
Leg to seat surface angle	93°
Armrest height	230mm

Front of armrest to back support(front of armrest to backrest)	290mm
Armrest length	260mm
Armrest width	40mm
Armrest angle	6°
Distance between armrests	465mm-695mm
Front location of armrest structure	300mm
Handrim diameter	N/A
Propelling wheel diameter	190mm
Horizontal displacement of wheel axle	10mm
Vertical displacement of wheel axle	510mm
Castor wheel diameter	190mm
Maximum over the obstacle height	40mm
Maximum speed	6km/ h
Maximum safe speed for turning	5. 5km/h
Braking distance on horizontal road	1500mm
Maximum safe slope braking	2500mm
Minimum turning radius	1650mm
Driving range	15km
Hill-holding ability	10°
Maximum climbing degree	9°
Static stability	9°
Dynamic stability	6°
Motor specification	24V/ 180W*1
Battery specification	12V12Ah*2
Maximum output current of controller	45A
Maximum output current of charger	2A

Note:

- ①Dimension tolerance  $\pm 50\text{mm}$ , Angle tolerance  $\pm 3^\circ$ , weight tolerance  $\pm 2\text{kg}$ ;
- ②The weight capacity is tested with a dummy or personnel of same weight.
- ③Maximum Potential Range is tested on flat road with average speed. It will vary according to road conditions, usage habits and so on.

## 5. GUIDELINES

Here are some general guidelines to follow in order to keep your Mobility Scooter working in top condition:

### 5.1 Avoid knocking or bumping the Tiller Console as much as possible.



**5.2 Avoid prolonged exposure to any extreme conditions, including cold, heat, and moisture.**

**5.3 If exposed to moisture, dry thoroughly and test device to make sure electronic controls are functioning normally. Do not hose off scooter or bring it into direct contact with standing or flowing water.**

**5.4 The scooter is intended to operate ideally between temperatures of 18°F and 122°F. If exposed to temperatures outside of this range, let scooter rest indoors for several hours to return to acceptable temperature.**

**5.5 Clean the Tiller Console regularly to avoid dirt and grime from getting into the controls.**

**5.6 Periodically check all electrical connectors to make sure that they are tight and secured properly. Clean battery terminal connections as well to prevent corrosion.**

**5.7 Remove the Key Switch from the Tiller Console at the end of daily usage to prevent unnecessary power consumption.**

**NOTE:** The Scooter has a power-saving function. The power will shut off automatically after twenty (20) minutes of rest. Simply remove and reinsert the Key Switch to resume operation.

**5.8 The Body Panels have been sprayed with a clear sealant coating. You can apply a light coat of car wax periodically to help it retain its high-gloss appearance.**

**5.9 All wheel bearings are pre-lubricated and sealed. No additional lubrication is required.**

**5.10 The following table can be helpful in laying when to check each component:**

Check	Every Operation	Weekly	Monthly	Six Months
Drive Devices		X		
Brakes	X			
Connections		X		
Battery Charge Level	X			
Wheel Wear			X	
Motors				X
Console Devices		X		
Cleanliness	X			











## **6. FAULT DIAGNOSIS AND**

# TROUBLESHOOTING

Any complex device like your Mobility Scooter will occasionally need troubleshooting. Most of the common issues can be solved with a bit of thought and patience, and they are based on battery issues or product age.

## 6.1 Diagnostic Beep Codes

Your Mobility Scooter will alert you to the type of issue that needs your attention with a series of beeps. We've collected the beeps and the issues they represent into a chart below for your reference. To reset the code and identify the issue, remove the key and reinsert it. The beeps will sound in sequence and blink on the Tiller Console, followed by a long pause, and then will repeat.

<b>1 Bar</b> 	The battery needs charging or there is a bad connection to the battery. Check the connections to the battery. If the connections are good, try charging the battery.
<b>2 Bar</b> 	There is a bad connection to the motor. Check all connections between the motor and the controller.
<b>3 Bar</b> 	The motor has a short circuit to a battery connection. Contact your service agent.
<b>4 Bar</b> 	The freewheel switch is activated or the manual brake disengagement mechanism is operated. Check the position of the switch or lever.
<b>5 Bar</b> 	Not used.
<b>6 Bar</b> 	'The S-drive is being inhibited from driving. Inhibit 2 is active'. This may be because the battery charger is connected or the seat is not in the driving position.
<b>7 Bar</b> 	A throttle fault is indicated. Make sure that the throttle is in the rest position before switching on the scooter.
<b>8 Bar</b> 	A controller fault is indicated. Make sure that all connections are secure.
<b>9 Bar</b> 	The parking brakes have a bad connection. Check the parking brake and motor connections. Make sure the controller connections are secure.
<b>10 Bar</b> 	An excessive voltage has been applied to the controller. This is usually caused by a poor battery connection. Check the battery connections.

**6.2 Make sure to follow all safety guidelines to ensure that your Mobility Scooter continues functioning properly and to protect yourself and others from all harm and injury.**

6.2.1 Before riding, always perform a visual safety check of all electric connections, correcting any potentially loose or corroded connections before operating. These include all connections to the battery box.

**WARNING!** Operating the Mobility Scooter with insufficient brakes can lead to great personal injury. Do not operate if there is any suspicion regarding brake quality.

6.2.2 Perform a test of the brakes by gently engaging and releasing the forward and reverse Drive Lever to make sure that they are sensitive and reliable.

6.2.3 Check the Power Indicator on the Tiller Console before operating to ensure that you have enough battery charge for your anticipated amount of operation.

6.2.4 Do not exceed the weight limit of your Mobility Scooter; the maximum weight limit is 120 kg (265 lb. ).

6.2.5 Your Mobility Scooter is capable of navigating up to a 9° slope safely. Do not attempt to climb or descend a slope greater than this angle at any time.

6.2.6 Always operate the Mobility Scooter on safe surfaces only. The Scooter is designed for optimum stability on dry, level surfaces made of concrete, blacktop, asphalt, or hard dirt. Avoid riding on soft pavement, tall grass (which can become tangled in the running gear), loosely packed gravel, sand, or any other surface you feel unsure about.

**WARNING!** Riding the Mobility Scooter up or down a slope greater than 9° can make it unstable, causing it to tip over, resulting in personal injury and/or damage to the Scooter. Never ride down an incline backward. Do not drive up or down a potentially hazardous incline (i.e. areas covered in snow, ice, water, sand, gravel, etc.). Always ride the scooter straight up or down any incline to reduce the possibility of a tip or fall; do not ride at an angle.

**WARNING!** Riding the Mobility Scooter on any potentially unsafe surfaces can make it unstable, causing it to tip over, resulting in personal injury and/or damage to the Scooter. Avoid areas covered in snow, ice, water, sand, gravel, and any other surfaces with slip hazards.

**WARNING!** If unintended motion occurs due to EMI/RFI,

immediately turn the Scooter off and contact your authorized provider. Attempting to operate the Scooter under such conditions can result in personal injury or damage to the equipment.

**CAUTION!** Do not expose the Mobility Scooter to any type of excessive moisture, including, but not limited to rain, snow, mist, or heavy washing. Exposure to such conditions can cause damage to the Scooter, disabling safe operation. If the Scooter is exposed to excessive moisture, do not attempt to operate it until it has been thoroughly dried.

**CAUTION!** Electrical devices, like the Mobility Scooter, may be affected by Electromagnetic Interference (EMI) or Radio Frequency Interference (RFI) which can be produced by radio stations, TV stations, or other powerful telecommunication transmitters.

**6.3 If you operate the Scooter within the interference range of such transmitters, it may cease to function or move erratically.**

6.3.1 When transferring on or off of your Mobility Scooter, always follow these safety precautions:

- Remove the key from the key switch to prevent unintended movement. Do not enter or exit the scooter while the key is in place.
- Make sure that the Scooter is not in Manual Free-wheel Mode (see below).
- Flip up or move away the armrests to allow easy access to the seat.
- Reduce the distance between the Scooter and whatever object you are transferring to as much as possible to reduce the risk of falling.

**WARNING!** Always position yourself as far back in the Scooter seat as possible before transferring out. Avoid putting all of your weight on the armrests during transfer. Also avoid placing all of your weight on the footplate during transfer. Failure to follow these precautions can offset the Scooter's center of gravity, causing it to tip during transfer, resulting in personal injury or damage to the Scooter.

6.3.6 Turn the front wheel so that it is straight facing forward to improve the Scooter's stability during transfer.

6.3.7 All of the design and production processes for this equipment are managed in accordance with ISO 9001 standards to guarantee their quality and reliability.

**WARNING!** Does not recommend removing or replacing the battery inside the battery box without the help of a professional. Batteries are high voltage power sources and can be dangerous if

not properly handled. Avoid contact with the battery terminals on the underside of the battery box as this can lead to severe injury. Batteries contain lead and lead compounds. Wear proper safety attire when handling batteries. Keep metal objects away from the battery terminals, electric shock may occur.

## **7. PRODUCT WARRANTY DESCRIPTION**

**7.1 Like other motorized vehicle, your mobility scooter also requires routine maintenance. Some checks can be performed by yourself, for others you can ask for assistance from your service agent. Preventive maintenance is very important. If you follow the maintenance and checks in this section, your scooter will give you years of trouble-free operation. If you have any doubt your scooter's care or operation, please contact your service agent or our after-sale service personnel.**

### **7.1.1 Humidity**

Like most electrical and mechanical equipment, your scooter is susceptible to external conditions. In any case, the scooter should be avoided damp environment. Direct or prolonged exposure to water or dampness could cause the scooter to malfunction electronically and mechanically. Water can cause electrical components and the scooter's frame to corrode.

### **7.1.2 Temperature**

- Some parts of your scooter are susceptible to temperature.
- At extremely low temperature, the battery may be frozen.

Special temperatures may cause a lot of factors to freeze, like the charger type, usage, battery components (such as sealed lead-acid batteries or gel batteries).

### **7.1.3 General Guidelines**

- Avoid beating the controller, especially the joystick.
- Avoid prolonged exposure of your scooter to extreme conditions, such as hot, cold or moisture environment.
- Keep the controller and the tiller console clean.
- Check all electric connections, including the cable and connectors of the charger, and ensure that they are all tight and secure.
- If the power display on the LCD display is only 1-2 bars, the battery is almost exhausted. You should charge the battery as soon as possible. We recommend charging the battery for 8-10 hours.
- The frame surface has been sprayed with a clear sealant

coating. You can apply a light coat of car wax to make the surface keep a high gloss.

- Check all cable connections. Make sure they are fastened and not corroded. The batteries must be placed at its position.
  - All wheel bearings are lubricated and sealed. Do not need to lubricate them.
  - Check if there is loose phenomenon for wheel hub, drive device, and scooter itself, if loose, please screw tightly in time.
  - The battery can be charged after taking off from the scooter.
- 7.1.4 Maintenance after use
- Turn off the power(please disconnect all the connectors if not use for long time).
  - Inhibit children and unconscious persons to use the scooter.
  - Store the scooter in normal temperature to prevent reformation so that it keeps its performances for long period.
  - Clean the scooter with a clear and soft cloth and dry it. Never use any chemicals to clean it. (to prevent deformation and discoloration).
  - Remove seat cushion and wash it if it is dirty, and then dry it for use.

#### 7.1.5 Daily Checks

In order to keep the scooter in good condition, you should check before each use. And to maintain the weekly, monthly, semi-annual investigation, see table 3 for the inspection item.

Inspection Items	At any time	Weekly	Monthly	Six monthly
Wheel hubs, driving mechanism and fasteners			○	
Joystick function	○			
Brake System	○			
Connection		○		
Battery Condition	○			
Tire Condition			○	
Inflation condition of rear wheels	○			
Frame Condition				○
Motor and driving system condition				○
Front Wheel Condition		○		
Pureness	○			

#### 7.1.6 Cleaning

Way of cleaning as below:

- Never wash your scooter with water or expose directly to

water.

- Surface of scooter frame is coated with a protective coating. Therefore, it is very easy to wipe it clean with a damp cloth. Never use any chemicals to clean the seat and armrest. You can use a damp cloth and neutral soapy water to clean them, and then dry thoroughly.

#### 7.1.7 Warranty applies

7.1.7.1 Under normal operation conditions of this product: the body frame is guaranteed for three years, the electronic control system is guaranteed for one year, and the battery is also 12 months.

7.1.7.2 Consumables (for example: seat back pads/tires/carbon brushes. . . )/improper operation and modified parts without consent are not included in the warranty scope.

### 7.2 Repairment

7.2.1 Users could repair or replace some spare parts like handle, handle cover which could be self-maintained or replaced by users under the instructions of after-sales service staff of our corporation or the dealers’.

7.2.2 Within the warranty, our corporation or the dealers will maintain or replace the faulted spare parts, like motor, battery, charger, controller, bearing, the shaft sleeve, etc., Due to material or manufacturing defects free of charge.

7.2.3 The spare parts like motor, controller, etc. Which is confirmed by the after-sale staff or our corporation or our dealers’ to be disassembled could be sent to our corporation or the dealers for maintenance.

7.2.4 Please contact with your distributor or the after-sale service personnel of our corporation for any questions regarding the maintenance of power scooters. Please refer to 12. 1 Product Warranty.

**ATTENTION!**In order to guarantee the quality of scooter, please contact us or our dealers to replace the spare parts with the same models and specifications if the consumable parts like batteries, tire, controller, motors and charger, etc. Need to be replaced. The maintenance should proceed at our corporation or the dealers’ maintenance dept.

### 7.3 Packing List

Produce Name	QTY	Product Name	QTY
Scooter vehicle	1 PCs		

(including battery)			
Charger	1 PCs		
User manual	1 PCs		

## 8. TRANSPORTATION AND STORAGE

### 8.1 Transport

8.1.1 The scooter can be loaded and transported according to the shipping marks and figures. For details, see the attachment.

















8.1.2 Mobility scooter is allowed to use general means of transportation, but must prevent severe shock, vibration and rain and snow splashing during transportation.

8.1.3 Transportation and storage conditions: temperature 18°F-122°F; relative humidity not greater than 93%.

### 8.2 Storage

When not in use for a long time, it needs to be fully charged and turned off, and be sure to charge once a month.

## 9. LABELS, PACKING LOGO DESIGN

Symbol	Introductions	Symbol	Introductions
	Manufacturer Name Address		Manufacture Date
	Batch Code		Unique Device Identification
	Warnings and Precautions		non-sterile
	medical device		Use-by date
	Keep dry		Keep away from Sunlight
	Consult instructions for use		Country of Manufacture
	Importer		Distributor
	Upper limit of Humidity		Model Number



## 10. MedWatch

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 [www.accessdata.fda.gov/scripts/medwatch/index.cfm?action=reporting.home](http://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/ucm34946.pdf](http://www.fda.gov/downloads/aboutFDA/reportsmanualsforms/forms/ucm34946.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)