

*-- Version 01, Effected on 03/10/2024 --*



# ***Mobility Scooter YL-985S***

## ***User Manual***

***Before operating the scooter,  
please read the user manual carefully and keep it for future reference.***

**MANUFACTURED BY**

**YONGKANG YILE VEHICLE CO., LTD.**

No.46 Zerong Road, Dahou Industrial Zone, Tangxian Town, Yongkang City,  
Zhejiang Province, China.

**WARNING**

Read the User Manual carefully before operating ***Mobility scooter YL-985S***.  
If you do not fully understand any part of this manual, please contact your dealer or  
any of our Service Centres.  
Read this manual step by step, as injury or damage may occur from misuse!

**WARNING**

Electromagnetic Interference (“EMI”) can cause powered vehicles to behave  
erratically, which could be dangerous to the user.  
For your safety and protection, it is IMPERATIVE that you take time to read Chapter  
10 (“EMI WARNING”) before operating ***Mobility scooter YL-985S***.

Serial Number and Manufacturer’s data are fixed at the front, on the plastic mud  
guard cover on the metal label of the ***Mobility scooter YL-985S***.  
**(See Fig 1, page 18)**

**WARRANTY**

**YONGKANG YILE VEHICLE CO., LTD.** strives continuously to improve its  
products, their quality and reliability, in constant effort to ensure its customers’  
satisfaction as well as its place in the market.  
Warranty for ***Mobility scooter YL-985S*** is subject to your local distributor's  
warranty.

**INFORMATION**

Only licensed distributors of **AFIKIM ELECTRIC VEHICLE** are qualified to  
distribute technical information regarding the ***Mobility scooter YL-985S***  
Further information than what is mentioned in this user manual i.e. technical  
updates, safety notices and others will be communicated by local distributor's that  
has up-to-date contact information with **YONGKANG YILE VEHICLE CO., LTD.**  
In case you identify faulty information, please contact your Local distributor.

# CONTENTS

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<b>CHAPTER 1 – OVERVIEW</b>	<b>4</b>
<b>CHAPTER 2 – SAFETY SYMBOLS</b>	<b>5</b>
<b>CHAPTER 3 – SAFETY INSTRUCTIONS</b>	<b>10</b>
<b>CHAPTER 4 – GENERAL DESCRIPTION</b>	<b>18</b>
<b>CHAPTER 5 – ADJUSTMENT INSTRUCTIONS</b>	<b>19</b>
<b>CHAPTER 6 – OPERATING INSTRUCTIONS</b>	<b>21</b>
<b>6.1 GENERAL</b>	<b>21</b>
<b>6.2 POWER SUPPLY SYSTEM</b>	<b>21</b>
<b>6.3 BATTERY BOX INSTALLATION AND DISCONNECTION</b>	<b>24</b>
<b>6.4 SCOOTER DISPOSITION AND INSTALLATION</b>	<b>25</b>
<b>6.5 DRIVING AND GENERAL USE</b>	<b>26</b>
<b>CHAPTER 7 – CHARGING</b>	<b>27</b>
<b>CHAPTER 8 – MAINTENANCE</b>	<b>28</b>
<b>CHAPTER 9 – STORAGE</b>	<b>31</b>
<b>CHAPTER 10 – TROUBLESHOOTING AND REPAIR</b>	<b>32</b>
<b>CHAPTER 11 – EMI WARNING</b>	<b>34</b>
<b>Appendix A – Specification Sheet</b>	<b>3838</b>

## CHAPTER 1 – OVERVIEW

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Congratulations on choosing the **Mobility scooter YL-985S** as your electrically powered scooter.

**Indications for Use: The mobility scooter is intended for providing assistance to people restricted to a sitting position.**

Before using the mobility scooter, please be sure to thoroughly read this manual.

If you do not fully understand the content or need assistance, please contact your dealer or agent. This manual contains instructions on operating various parts of the vehicle, assembly instructions, and procedures for handling accidents.

**Mobility scooter YL-985S** is designed for a maximum occupant mass of up to 120kg (265 lbs).

**Mobility scooter YL-985S** is designed for **people restricted to a sitting position**. There is a certain level of motoric capability, visual ability and cognitive ability required in order to operate the scooter. It is recommended to consult with your physician to evaluate your ability to operate the scooter.

**Mobility scooter YL-985S** is an indoor & outdoor scooter designed to work in normal environmental conditions from very cold temperatures (-20°C/-4°F) to very hot temperatures (+40°C/+104°F).

**Mobility scooter YL-985S** will operate in light rain showers, but extended use is not recommended in heavy rain or snow.

**Mobility scooter YL-985S** is easy to operate. The relatively large wheels allow the user to drive on unpaved roads, over moderately rough terrain and over obstacles as high as 4cm.

**Mobility scooter YL-985S** maximum safe slope is: 9° (16%). Do not attempt to climb and/or descend slopes that steeper than the scooters limitation.

The braking system stops the vehicle smoothly and within a short distance after the throttle control lever is released.

Under normal conditions, **Mobility scooter YL-985S** can travel approximately 16 km (10 miles) before the batteries require recharging. The distance will be reduced if the scooter is used frequently on slopes, rough ground or to climb kerbs etc.

After reading through this entire manual and before using **Mobility scooter YL-985S**, please perform a brief visual check of the scooter to make sure that there is no visible damage. If you have any questions or concerns, contact your dealer.

**Mobility scooter YL-985S** complied with the following standards to ensure its safety:

- ISO 7176-8 (static, impact, and fatigue strengths)
- ISO 7176-14 (power and control systems),
- ISO 7176-9 (climatic test)
- ISO 7176-16 (ignition resistance).

## CHAPTER 2 – SAFETY SYMBOLS

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**WARNING!** An authorized supplier or qualified technician must perform the initial setup of this scooter, and must perform all of the procedures in this manual.

The symbols below are used throughout this user's manual and on the scooter to identify warnings and important information. It is very important for you to read them and understand them completely.



**WARNING!** Indicates a potentially hazardous condition/situation. Failure to follow designated procedures can cause either personal injury, component damage, or malfunction. On the scooter, this is a triangular black symbol.



**MANDATORY!** These actions must be performed as specified. Failure to perform mandatory actions can cause personal injury and/or equipment damage. On the scooter, this is a white square on a dark background.



**PROHIBITED!** These actions are prohibited. These actions must not be performed at any time or under any circumstances. Performing a prohibited action can cause personal injury and/or equipment damage. On the scooter, this is a black symbol with a circle and slash.



Please note and strictly adhere to the following Safety Instructions. Additional Warnings and Notices are printed in this user manual; it is imperative that you read carefully all chapters of this manual before operating the **Mobility scooter YL-985S**. It is also advisable to refresh your memory by re-reading this manual periodically.



Get acquainted with **Mobility scooter YL-985S** and its operational features before driving it. Drive slowly (speed limit dial set to MIN) until you get used to **Mobility scooter YL-985S**, its various functions, safety features and its braking capabilities and limitations.



Watch carefully for pedestrians and drive your **Mobility scooter YL-985S** accordingly. In crowded areas, always drive in half speed mode. Drive only where permitted according to all applicable local laws and ordinances. **Mobility scooter YL-985S** is 51cm wide (without armrest). Take great care not to hit persons or any objects around the vehicle.



**Never remove any of the Mobility scooter YL-985S safety parts** such as fenders, plastic covers or emergency brake lever. **Never remove any of the Warning labels.** If any of the Warning labels is removed, gets worn off or painted over, etc. ask your dealer to supply you with a new label.



**Never put** your hands, fingers, or legs into any moving parts or under any protective cover, since moving parts and hot surfaces are under those covers.



**Never load *Mobility scooter YL-985S*** with more than 120 kg (265 lbs), depending on the model) total load (user weight and all other loads combined, including baskets).

The load in the rear basket must not exceed 4 kg (8.8 lbs).

***Mobility scooter YL-985S*** is designed to carry ONE person only on the Single Seat model. Never operate it with an additional person on board, including a child.



Never use ***Mobility scooter YL-985S*** on stairs.

Never try to go over an obstacle that is more than the maximum recommended slope angle and obstacle height given in the specification sheet. When driving over an obstacle, always drive so that the front of ***Mobility scooter YL-985S*** is facing the obstacle.



If for any reason ***Mobility scooter YL-985S*** does not stop when you release the throttle control lever, or takes longer to stop than it should (3 meters on a level surface), immediately use the handbrake to stop ***Mobility scooter YL-985S***, turn the main power switch to OFF, and contact your dealer.



Do not use ***Mobility scooter YL-985S*** in heavy rain or extreme humidity, or at temperatures below -20°C (-4°F) or above +40°C (+113°F).



**WARNING**, surface temperatures may be high

The seat weighs 19.7 kg (43.4 lbs). Each battery weighs a minimum of 1.7 kg (3.7 lbs).



Be careful when lifting the seat and the batteries.

See instruction for lifting the seat and the batteries in Chapter 6: Operation Instructions, Chapter 7: Charging, and Chapter 8: Maintenance



If the ***Mobility scooter YL-985S*** is involved in any kind of an accident in which parts are damaged, you must get a qualified technician to examine it before continuing to use it.



The battery contains lithium cobalt oxide, graphite, lithium hexafluorophosphate, and copper foil. Batteries must be handled and disposed of in accordance with proper procedures.



When driving, always make sure that the backrest is in its fully upright position.



Use Lithium maintenance-free sealed batteries only.



**WARNING!!!** Special care must be taken to prevent children from operating the **Mobility scooter YL-985S**. Do not allow unsupervised children to play near the **Mobility scooter YL-985S** while the batteries are charging.



Always drive carefully. Adjust your speed according to road conditions. When turning at high speed, the **Mobility scooter YL-985S** can become unstable. Before making sharp turns, reduce speed to minimum, to prevent roll-over.



The **Mobility scooter YL-985S** **SHOULD NOT** go up slopes higher than the recommended safe slope. However, do not drive on slopes whose incline you do not know. Always drive very slowly and do not drive on the side of such slopes.

Before starting to drive, make sure your emergency brake operates properly.



Do not release either the manual or the manual release lever of the electromagnetic brake (EMB) when the **Mobility scooter YL-985S** is on a slope. When on any sort of an incline, never place the **Mobility scooter YL-985S** in freewheel mode while seated on it or standing next to it.



The lights of **Mobility scooter YL-985S** should be on when visibility is reduced, day or night.



When removing the battery cover, watch out for hot parts. The motor, axle, EMB, electronic cards and electronic controller might be hot, Do not touch them until you have checked their temperature.



Make sure your fingers are not squeezed between the levers and the rubber grip.



Do not use a cell phone, walkie-talkie, laptop, or other radio transmitter while operating **Mobility scooter YL-985S**.



Removal of the grounding prong can create electrical hazard. If it is necessary to use a 3-pronged electrical outlet, properly install an approved 2-pronged adapter.



Do not connect an extension cord to the AC/DC converter or to the battery charger.



Keep tools and other metal objects away from the battery terminals. Contact with tools can cause electrical shock. Do not sit on the **Mobility scooter YL-985S** when it is on any type of lift/elevation product.



Explosive conditions exist



Disposal and recycling: The **Mobility scooter YL-985S** consists of Recyclable materials (Plastic parts, batteries, electronics etc.). For information on proper disposal of your **Mobility scooter YL-985S**, its parts and packaging, contact your authorized dealer.



Wear safety glasses.



Contains lithium cobalt oxides.



The battery charger is for indoor use only.



Flammable material. Do not expose to open flame.



At the rear of the **Mobility scooter YL-985S** is the manual release lever of the EMB. When using this lever, be careful not to touch the surface of the motor, as it could be very hot and cause injury. See the warning label at the rear of the scooter near the lever.



The mobility scooter is MR Unsafe, it might present a projectile hazard.



Before using the scooter, it is important to consult with professionals if you have any specific physical or mental issues.



Please maintain a proper body posture when driving the scooter.



Maintain your focus on driving and avoid distractions caused by others.

## CHAPTER 3 – SAFETY INSTRUCTIONS

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### GENERAL



**MANDATORY!** Do not operate your new **Mobility scooter YL-985S** for the first time without reading and understanding this user manual completely. Your **Mobility scooter YL-985S** is a state-of-the-art life-enhancement device designed to increase mobility. We provide an extensive range of products to best fit the individual needs of the user. Please be aware that the final selection and purchasing decision regarding the type of **Mobility scooter YL-985S** to be used is the responsibility of a user who is capable of making such a decision and of his or her healthcare professional (i.e., medical doctor, physical therapist, etc.).

The contents of this manual are based on the expectation that a mobility device expert has properly fitted **Mobility scooter YL-985S** to the user and has assisted the prescribing healthcare professional and/or the authorized dealer to give instructions for the use of the product.

There are certain situations, including some medical conditions, where the user will need to practice operating the **Mobility scooter YL-985S** 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.

As you begin using your **Mobility scooter YL-985S** during daily activities, you will probably encounter situations in which you will need some practice. Simply take your time and you will soon be in full and confident control as you manoeuvre through doorways, on and off elevators, up and down ramps, and over moderately rough terrain.

Below are some precautions, tips, and other safety considerations that will help you operate the **Mobility scooter YL-985S** safely.

### MODIFICATIONS



We have designed and engineered your **Mobility scooter YL-985S** to provide maximum mobility and utility. Under no circumstances should you modify, add, remove, or disable any feature, part, or function of your **Mobility scooter YL-985S**.

**WARNING!** Do not modify your **Mobility scooter YL-985S** in any way not authorized by the manufacturer. Do not use accessories if they have not been tested or approved by the manufacturer.

### REMOVABLE PARTS



**WARNING!** Do not attempt to lift or move your **Mobility scooter YL-985S** by any of its removable parts, including the armrests, seat, or shroud.

## PINCHING POINTS



In the **Mobility scooter YL-985S** there are some points that have potential to be pinching points. These refers mainly to moving parts such parts such as wheels, brake level etc. Never put your hands, fingers, or legs into any moving parts.

## PRE-RIDE SAFETY CHECK



Get to know the feel of your **Mobility scooter YL-985S** and its capabilities. We recommend that you perform a safety check before each use to make sure your **Mobility scooter YL-985S** operates smoothly and safely.

Perform the following inspections prior to using your scooter:

- ✓ Check for proper tyre inflation. Maintain but do not exceed the psi/bar/kPa air pressure rating indicated on each tyre.
- ✓ Check all electrical connections. Make sure they are secure and not corroded.
- ✓ Check all harness connections. Make sure they are secured properly.
- ✓ Check the brakes.
- ✓ Check the battery charge.
- ✓ If you discover a problem, contact your authorized **Mobility scooter YL-985S** dealer for assistance.

## WEIGHT LIMITATIONS



Your scooter is rated for a maximum weight capacity. Refer to Appendix A – Specification Sheet for details.

**MANDATORY!** Stay within the specified weight capacity for your **Mobility scooter YL-985S**. Exceeding the weight capacity voids your warranty. We will not be held responsible for injuries and/or property damage resulting from failure to observe weight limitations.

**WARNING!** Do not carry passengers on your scooter. Carrying passengers on your **Mobility scooter YL-985S** may result in instability.

## INCLINE INFORMATION



More and more buildings have ramps with specified degrees of inclination, designed for easy and safe access. Some ramps may have turning switchbacks (180-degree turns) that require you to have good cornering skills on your **Mobility scooter YL-985S**.

- ✓ Proceed with extreme caution as you approach the downgrade of a ramp or incline.
- ✓ Take wide turns with your **Mobility scooter YL-985S** around any tight corners. If you do that, the scooter's rear wheels will follow a wide arc. Do not cut the corner short, and do not bump into or get hung up on any railing corners.
- ✓ When driving down a ramp, keep the **Mobility scooter YL-985S**'s speed adjustment set to the slowest speed setting to ensure a safely controlled descent.
- ✓ Avoid sudden stops and starts.

When driving up an incline, try to keep your **Mobility scooter YL-985S** moving. If you must stop, start up again slowly, and then accelerate cautiously. When driving down an incline, set the speed switch to MIN and drive forward only. If your **Mobility scooter YL-985S** starts to move down the incline faster than you want, allow it to come to a complete stop by releasing the throttle control lever, then push the throttle control lever forward slightly to ensure a safely controlled descent.

**WARNING!** When on any incline, never place the **Mobility scooter YL-985S** in freewheel mode while seated on it or standing next to it.

**WARNING!** Do not drive your **Mobility scooter YL-985S** across an incline or diagonally up or down an incline; if possible, do not stop while driving up or down an incline.

**WARNING!** Do not drive up or down a potentially hazardous incline (e.g., areas covered with snow, ice, cut grass, or wet leaves).

These tests were conducted with the **Mobility scooter YL-985S** seat in the highest position and in its farthest rearward position. Use this information as a guideline. Your **Mobility scooter YL-985S** ability to travel up inclines is affected by your weight, scooter speed, your angle of approach to the incline, and your **Mobility scooter YL-985S** setup.



Figure A. Normal Driving Position



Figure B. Increased Stability Drive

When you approach an incline, it is best to lean forward. **See Figures A and B.** This shifts the centre of gravity of you and your **Mobility scooter YL-985S** towards the front of the **Mobility scooter YL-985S** for improved stability.

**NOTE: If the throttle control lever is released while you are moving forward up a ramp, the Mobility scooter YL-985S may roll back approximately 6 cm before the brake engages.**

## CORNERING INFORMATION

Excessively high cornering speeds can result in tipping. Factors that affect the possibility of tipping include, but are not limited to, cornering speed, steering angle (how sharply you are turning), uneven road surfaces, inclined road surfaces, riding from an area of low traction to

an area of high traction (such as passing from a grassy area to a paved area – especially at high speed while turning), and abrupt changes of direction. High cornering speeds are not recommended. If you feel that you may tip over in a corner, reduce your speed and steering angle (i.e., lessen the sharpness of the turn) to prevent your **Mobility scooter YL-985S** from tipping.

**WARNING!** When cornering sharply, reduce your speed and maintain a stable centre of gravity. When using your **Mobility scooter YL-985S** at higher speeds, do not corner sharply. This greatly reduces the possibility of a tip or fall. Always exercise your common sense when cornering.

### OUTDOOR DRIVING SURFACES

- ✓ Your **Mobility scooter YL-985S** is designed to provide optimum stability under normal driving conditions, on dry, level surfaces of concrete, tarmac, or asphalt. However, we recognize that there will be times when you will encounter other surfaces. For this reason, your **Mobility scooter YL-985S** is designed to perform well on packed soil, grass, and gravel. Feel free to use your **Mobility scooter YL-985S** safely on lawns and in parks.
- ✓ Reduce your **Mobility scooter YL-985S** speed when driving on uneven terrain and/or soft surfaces.
- ✓ Avoid tall grass that can become tangled in the running gear.
- ✓ Avoid loosely packed gravel and sand.
- ✓ If you feel unsure about a driving surface, avoid it.

### PUBLIC STREETS AND ROADWAYS

**WARNING!** Do not operate your **Mobility scooter YL-985S** on public streets or roadways. It may be difficult for traffic to see you when you are seated on your **Mobility scooter YL-985S**. Obey all local pedestrian traffic rules. Wait until your path is clear of traffic, and then proceed with extreme caution.

### STATIONARY OBSTACLES (STEPS, CURBS, ETC.)



**WARNING!** Do not drive near raised surfaces, unprotected ledges, and/or drop-offs (curbs, porches, stairs, etc.).

**WARNING!** Do not try to go up or down an obstacle that is too high.

**WARNING!** Do not try to go backward down any step, curb, or other obstacle. This may cause the **Mobility scooter YL-985S** to tip.

**WARNING!** Be sure your **Mobility scooter YL-985S** is travelling perpendicular to any curb you may be required to go up or down.

**WARNING!** Do not attempt to climb a curb that is higher than 4 cm (1.6").

### PRECAUTIONS DURING INCLEMENT WEATHER

Avoid exposing your **Mobility scooter YL-985S** to inclement weather.

If you are suddenly caught up in rain, snow, severe cold or heat while operating your **Mobility scooter YL-985S**, proceed to shelter at the earliest opportunity. Thoroughly dry your **Mobility scooter YL-985S** before storing, charging, or operating it.

**PROHIBITED!** Operating in rain, snow, salt, mist/spray conditions, and on icy slippery surfaces can have an adverse affect on the electrical system.

**WARNING!** Prolonged exposure to extreme hot or cold weather may affect the temperature **Mobility scooter YL-985S** parts, possibly resulting in skin irritation. Exercise caution when using your **Mobility scooter YL-985S** in extremely hot or cold conditions or when exposing your **Mobility scooter YL-985S** to direct sunlight for prolonged periods of time.



**WARNING** Surface temperatures can increase when exposed to external sources of heat (e.g. sunlight).

## FREEWHEEL MODE



Your **Mobility scooter YL-985S** is equipped with a manual freewheel lever that, when pushed forward, allows the **Mobility scooter YL-985S** to be pushed. For more information about how to place your **Mobility scooter YL-985S** in and out of freewheel mode, see Chapter 6: Operation instructions. **WARNING!** When your **Mobility scooter YL-985S** is in freewheel mode, the parking system is disengaged.

- ✓ Disengage the drive motors only on a level surface.
- ✓ Ensure the key is removed from the power switch.
- ✓ Stand beside the **Mobility scooter YL-985S** to engage or disengage freewheel mode. Never do this while sitting on the **Mobility scooter YL-985S**.
- ✓ After you have finished pushing your **Mobility scooter YL-985S**, always return it to the drive mode to lock the brakes (pull the manual freewheel lever backward).
- ✓ An added feature built into the **Mobility scooter YL-985S** is “push-too-fast” protection, which safeguards it against gaining excessive speed while in freewheel mode.

**Push-too-fast** operates in two different modes:

- ✓ If the key is in the OFF position while the **Mobility scooter YL-985S** is in freewheel mode, the **Mobility scooter YL-985S**'s controller activates regenerative braking when it is pushed faster than the pre-programmed maximum threshold. In this case, the controller is acting as a speed governor.
- ✓ If the key is in the ON position while the **Mobility scooter YL-985S** is in freewheel mode, you will encounter considerable resistance at any speed. This prevents the **Mobility scooter YL-985S** from gaining unwanted momentum should the freewheel lever be raised inadvertently while you are driving the **Mobility scooter YL-985S**.
- ✓ When using this lever, be careful not to touch the internal surface of the motor, as it could be very hot and cause injury. See the warning label at the rear of the scooter near the lever.

## STAIRS AND ESCALATORS

**Mobility scooter YL-985S** are not designed to travel up or down stairs or escalators. Always use an elevator.

**WARNING!** Do not use your **Mobility scooter YL-985S** to negotiate steps or escalators.

## DOORS

- ✓ Determine whether the door opens toward or away from you.
- ✓ Use your hand to turn the knob or to push the handle or push-bar.
- ✓ If the door opens away from you, drive your **Mobility scooter YL-985S** gently and slowly forward to push the door open.
- ✓ If the door opens towards you, drive your **Mobility scooter YL-985S** gently and slowly backwards to pull the door open.

## ELEVATORS

Modern elevators have a safety mechanism on the edge of the door that, when pushed, reopens the door(s).

- ✓ If you are in the doorway of an elevator when the door(s) begin to close, push on the rubber door edge or allow the rubber door edge to contact the **Mobility scooter YL-985S**; and the door will reopen.
- ✓ Take care that handbags, packages, or **Mobility scooter YL-985S** accessories do not become caught in elevator doors.

**NOTE:** Sometimes manoeuvring your **Mobility scooter YL-985S** may be difficult in elevators and building entrances. Use caution when attempting to manoeuvre your **Mobility scooter YL-985S** in small spaces, and avoid areas that might pose a problem.

## LIFTS/ELEVATION PRODUCTS

If you travel with your **Mobility scooter YL-985S**, you may find it necessary to use a lift or elevation product to aid in transportation. We recommend that you closely review the manufacturer's instructions, specifications, and safety information before using the lift/elevation product.

**WARNING!** Never sit on your **Mobility scooter YL-985S** when it is being used with any type of lift/elevation product. Your **Mobility scooter YL-985S** was not designed for such use, and any damage or injury resulting from such use is your responsibility only.

## BATTERIES



In addition to the following warnings below, be sure to comply with all other battery handling information.

**WARNING!** Always protect the batteries from freezing and never charge a frozen battery.

**WARNING!** Connect the battery cables correctly.

**NOTE:** If the battery is damaged or cracked, immediately enclose it in a plastic bag and contact your local waste disposal agency or authorized **Mobility scooter YL-985S** dealer for instructions for recycling.

## MOTOR VEHICLE TRANSPORTATION

The manufacturer recommends that you do not remain seated in your **Mobility scooter YL-985S** while travelling in a motor vehicle. The **Mobility scooter YL-985S** should be stowed in the boot of a car or in the back of a truck or van with the batteries removed and properly secured. In addition, all removable **Mobility scooter YL-985S** parts, including the armrests, seat, and shroud, should be removed and/or properly secured during transportation.

**WARNING!** Do not sit on your **Mobility scooter YL-985S** while it is in a moving vehicle.

**WARNING!** Always be sure your **Mobility scooter YL-985S** and its batteries are properly secured when it is being transported. Batteries must not be transported with any flammable or combustible items.

## PREVENTING UNINTENDED TRAVEL

**WARNING!** If you anticipate being stationary for an extended period of time, turn off the power. This will prevent unexpected travel caused by accidentally touching the throttle control lever.

## GETTING ONTO AND OFF



Getting onto and off your **Mobility scooter YL-985S** requires a good sense of balance. Please observe the following safety tips when getting on and off your **Mobility scooter YL-985S**:

- ✓ Remove the key from the power switch.
- ✓ Ensure that your **Mobility scooter YL-985S** is not in freewheel mode (see Chapter 4 - General description).
- ✓ Ensure that the seat is secured in place.
- ✓ Pivot the armrests up

**WARNING!** Position yourself as far back as possible in the seat to prevent the **Mobility scooter YL-985S** from tipping and causing injury.

**WARNING!** Avoid putting all of your weight on the **Mobility scooter YL-985S** armrests, and do not make the armrests bear weight, such as during transfers. Such use may cause the **Mobility scooter YL-985S** to tip, resulting in a fall from the **Mobility scooter YL-985S** and/or personal injury.

**WARNING!** Avoid putting all of your weight on the floorboard. Such use may cause the **Mobility scooter YL-985S** to tip.

### REACHING AND BENDING

Avoid reaching or bending while driving your **Mobility scooter YL-985S**. Bending forward creates the risk of accidentally contacting the throttle control lever. Bending to the side while seated creates the risk of tipping. It is important to maintain a stable centre of gravity to keep the **Mobility scooter YL-985S** from tipping. We recommend that you determine your personal limitations and practice bending and reaching in the presence of a qualified attendant.

**WARNING!** Do not bend, lean, or reach for objects if you have to pick them up from the **Mobility scooter YL-985S** deck or from either side of the **Mobility scooter YL-985S** such as these may change your centre of gravity and the weight distribution of the **Mobility scooter YL-985S**, causing it to tip.

**PROHIBITED!** Keep your hands away from the tyres and wheels when driving. Be aware that loose-fitting clothing can be caught in tyres and wheels.

### PRESCRIPTION DRUGS/PHYSICAL LIMITATIONS

The **Mobility scooter YL-985S** user must exercise care and common sense when operating the **Mobility scooter YL-985S**. This includes awareness of safety issues when taking prescription/

over-the-counter drugs or when the user has specific physical limitations.

**WARNING!** Consult with your physician if you are taking prescription or over-the-counter medication or if you have certain physical limitations. Some medications and limitations may impair your ability to operate your **Mobility scooter YL-985S** in a safe manner.

### ALCOHOL/SMOKING



The **Mobility scooter YL-985S** user must exercise care and common sense when operating the **Mobility scooter YL-985S**. This includes awareness of safety issues while under the influence of alcohol, or while smoking.

**WARNING!** Do not operate your **Mobility scooter YL-985S** while you are under the influence of alcohol, as this may impair your ability to operate the **Mobility scooter YL-985S** in a safe manner.

**WARNING!** The manufacturer strongly recommends that you do not smoke while seated on your **Mobility scooter YL-985S**. You must adhere to the following safety guidelines if you decide to smoke cigarettes while seated on your **Mobility scooter YL-985S**.

- ✓ Do not leave lit cigarettes unattended.
- ✓ Keep ashtrays a safe distance from the seat cushions.
- ✓ Always make sure cigarettes are completely extinguished before disposal.

## ELECTROMAGNETIC AND RADIO FREQUENCY INTERFERENCE (EMI/RFI)



**WARNING!** Laboratory tests have shown that electromagnetic and radio frequency waves can have an adverse affect on the performance of electrically powered mobility vehicles.

EMI/RFI can come from sources such as cellular phones, mobile two-way radios (such as walkie-talkies), radio stations, TV stations, amateur radio (HAM) transmitters, wireless computer links, microwave signals, paging transmitters and medium-range mobile transceivers used by emergency vehicles. In some cases, they can cause unintended movement or damage to the control system. Every electrically powered mobility vehicle has an immunity (or resistance) to EMI.

The higher the immunity level, the greater the protection against EMI. This product has been tested and has passed at an immunity level of 20 V/M.

**WARNING!** Be aware that cell phones, two-way radios, laptops, and other types of radio transmitters may cause unintended movement of your electrically powered **Mobility scooter YL-985S** due to EMI. Exercise caution when using any of these items while operating your **Mobility scooter YL-985S** and avoid coming into close proximity of radio and TV stations.

**WARNING!** The addition of accessories or components to an electrically powered mobility vehicle can increase its susceptibility to EMI. Do not modify your **Mobility scooter YL-985S** in any way not authorized by the manufacturer.

**WARNING!** The **Mobility scooter YL-985S** itself can interfere with other electrical devices located nearby, such as alarm systems.

**NOTE:** For further information on EMI/RFI refer to chapter 10 or ask your authorized dealer.

**WARNING!** Keep this medical device 6 inches (15 cm) away from magnetically susceptible medical devices such as cochlear implants, neurostimulators, stents and shunts.

## CHAPTER 4 – GENERAL DESCRIPTION



Fig 1. Overview of the scooter

01. Control console	It is equipped with switches, a power display, a speed adjustment switch (speed controller), a front light switch, a horn button assembly, and a forward-reverse control lever.
02. Seating washer	As a storage container, it can hold items
03. Locking joint	Adjust the angle of the tiller
04. Folding handle	Switch to fold the scooter
05. Battery box	Provide power for the mobility vehicle to ensure normal operation
06. Head light	Provide illumination when driving at night or in dim environments
07. Front wheel	Steering the vehicle
08. Storage basket	As a storage container, it can hold items
09. Rear wheel	Drive the vehicle, support the body, and help maintain balance
10. Anti-tip wheel	Safety wheel, enhance safety and prevent accidents
11. Rear taillight	Warn approaching vehicles from behind, improve visibility, and enhance recognition

12. Backrest	Provide support to alleviate pressure on the waist and back
13. Armrest	Provide elbow support to maintain balance and stability
14. Adjustable stem	Adjust the height of the control console



Fig 2. Overview of control console

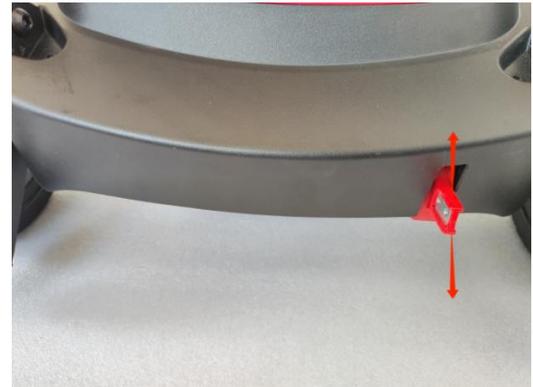


Fig 3. Overview of brake control lever

## CHAPTER 5 – ADJUSTMENT INSTRUCTIONS

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(refer to Fig 1)

Adjusting the handlebar height	Follow the steps below to adjust the height of the adjustable stem: Open the locking joint. Move the stem up or down to the desired height. Close the locking joint to secure the position.
Seating in the Scooter	Before attempting to drive <b>Mobility scooter YL-985S</b> , make sure the plug is disconnected from the charging socket. <b>Note: While the plug is in the charging socket, Mobility scooter YL-985S cannot be operated.</b> Raising the armrest(13) allows you to easily access the seat (if you purchased the armrest).
Handlebars	When driving always keep your hands on the handlebars.
Adjusting the brake control lever	Before driving, ensure that the brake control lever is in electrical control mode.

## CHAPTER 6 – OPERATING INSTRUCTIONS

### 6.1 GENERAL



Fig 2. Overview of control console

Components	General functions
Power Switch	When the power is turned off, the scooter cannot be driven electrically. Turn the key clockwise to turn on the power, allowing for electric driving.
Battery Display	When the power switch is turned on, the battery level meter will display the battery status. The green section indicates a strong charge, while the red section indicates low charge that requires immediate recharging.
Speed controller	The speed controller can be adjusted to set the maximum forward speed within the range of 2 to 7 km/h. Turning the knob to the far left sets the slowest speed, while turning it to the far right sets the fastest speed.
Front and Rear Light Switch	Turn on the headlights when driving at night or in dim environments.
Horn Button	Pressing the button will emit a warning sound. To prevent accidents and ensure safe driving, use it promptly.
Forward and Backward Joystick	Push the right joystick forward to move the scooter forward; push the left joystick forward to move the scooter backward. Releasing the joystick will automatically return it to the "center" position, activating the electromagnetic brake to stop the vehicle, thus halting the scooter.
Handbar	Keep both hands firmly on the handlebar while riding the scooter.

## 6.2 POWER SUPPLY SYSTEM

### Battery charging procedure and indication



Fig 4. Charging connection and light indication

The battery charger should be connected to the charging port on the surface of battery box. The charger has a fool-proof connector which cannot be plugged into the charging port in wrong directions.

When the charger is on service, the red light is on to indicate the charging status. When the battery is fully charged, the green light is on to indicate the charging finish.

**WARNING! Never connect the charger with the charging port in a wrong direction, as this will damage the charging port.**

### Overload protector and Fuse system

An overload protector is designed in the battery box (See Fig. 5). It is a crucial safety component that prevents damage to batteries by controlling excessive current flow during the charging process.

The fuse is integrated with the overload protector. When a short circuit occurs, the fuse blows, serving to protect the entire circuit's safety.

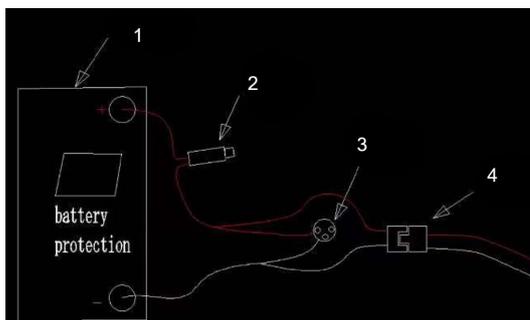


Fig 5. Electrical diagram of the battery box



Fig 6. Overload protector

### Manually and automatically switch the brake control lever

The clutch and separation of the brake control lever can switch between “electric drive” and

“manual push”.



Fig 7. Manually and automatically switch the brake control lever

The clutch and separation of the brake can switch between (electric drive) and (manual push). In electric mode, shift down to D gear; in manual push mode, shift up to N gear.

**Electric drive:** Press the brake lever to the D position, which is in a closed state, relying on the motor for driving. **Manual push:** Push the brake lever to the N position, which is in an unlocked state, allowing the vehicle to be moved manually.

If you are preparing to start the vehicle but it cannot move and only an alarm sounds, please check whether the brake lever is in the closed state at the D position.

**WARNING: Do not leave the brake lever in the unlocked state when going downhill, as there will be no braking effect in the unlocked state.**

Note: During use, only use the power from the left battery.

## 6.3 BATTERY BOX INSTALLATION AND DISCONNECTION

Removal: As shown in the Fig 8, hold the battery handle; since there are hook-and-loop fasteners at the bottom of the battery box, gently shake the battery box back and forth, left and right, before lifting it upwards.

Installation: Align the battery box with the slot at the bottom and insert it.

**Warning: Always ensure that your YL-985S mobility scooter and its battery are securely fastened during transport. The battery must be secured in an upright position and must not be transported with any flammable or combustible materials.**

Note: To prevent power disconnection due to bumps while driving, the battery box of this product is fixed in a special way. Please press down firmly when placing it in. This ensures that the hook-and-loop fasteners underneath are fully adhered.

Note: Due to the hook-and-loop fasteners on the bottom of the battery box, it needs to be pulled upward with force to remove it (as shown in Fig9).

Note: Ensure the battery cables are connected correctly.

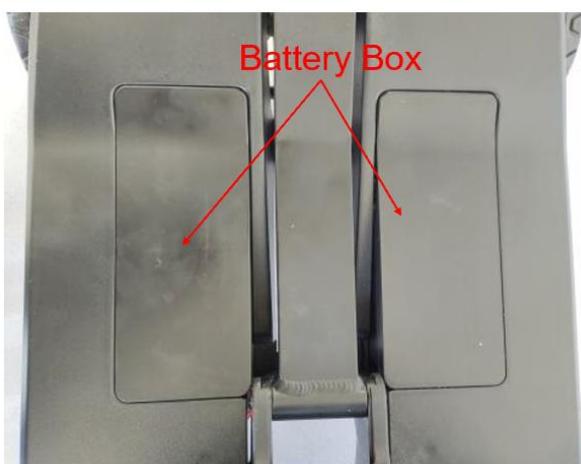


Fig 8. Overview of battery box position



Fig 9. Battery box removal

## 6.4 SCOOTER DISPOSITION AND INSTALLATION

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The removable battery box scooter is divided into four main parts: the frame, battery box, seat and basket. Please follow the disassembly procedure for the scooter carefully and handle it with care.

### DISPOSITION

1. Open the locking joint, lower the adjustable stem to its lowest position, and press the locking joint to secure it.
2. Fold the backrest and pull up the folding handle.



Fig 10. Disposition steps of scooter

## INSTALLATION

1. Folding the seat: Stand beside the seat, hook one hand onto the seating washer, and use the other hand to assist in unfolding the scooter.
2. Adjusting the backrest: Flip the backrest to the desired position.

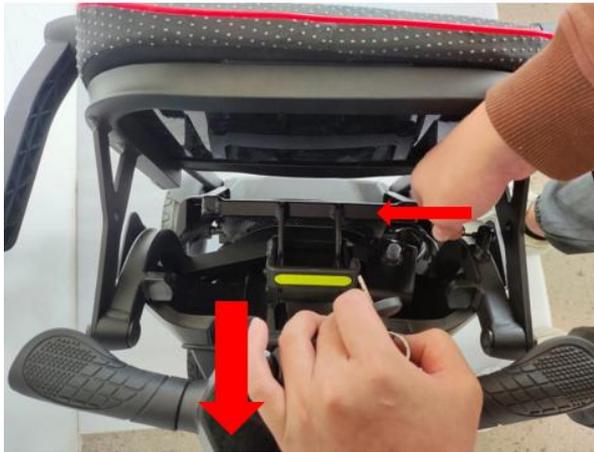


Fig 11. Steps of installing the scooter

## 6.5 DRIVING AND GENERAL USE

Climbing an obstacle	To climb an Obstacle, drive the <b>Mobility scooter YL-985S</b> forward toward the obstacle until the front wheel touches the obstacle, then, maintaining your direction, increase speed.
Driving on slopes and turns	Before making sharp turns, particularly on inclines, reduce speed to minimum, to prevent side roll-over. <b>Mobility scooter YL-985S SHOULD NOT</b> go up slopes' steeper than the recommended safe slope. Do not drive on inclines where you are not sure about the slope degree. However, drive very slowly and avoid side angles higher than 18% (10°).
Prior to use	After reading through this entire manual and before using <b>Mobility scooter YL-985S</b> , do a visual check of all the parts of the vehicle, to make sure that there is no visible damage. If you have any questions or concerns, contact your dealer.
Controller programming	Several parameters of <b>Mobility scooter YL-985S</b> controller can be programmed. Programming must be done by trained authorized technician only. Incorrect programming can cause abnormal operation of <b>Mobility scooter YL-985S</b> and may result in damage and personal injury.
Performance check	A performance check is highly recommended when you first receive your <b>Mobility scooter YL-985S</b> or after a period of not using the <b>Mobility scooter YL-985SS</b> , as follows: <ol style="list-style-type: none"> <li>1. Turn on the power switch.</li> <li>2. Verify that both the green ON LED and the battery status indicator are lit.</li> <li>3. Slowly squeeze the drive control lever and verify that the <b>Mobility scooter YL-985S</b> travels at a speed that corresponds to the degree to which you are squeezing the lever.</li> <li>4. Release the throttle control lever and verify that the <b>Mobility scooter YL-985S</b> stops smoothly, and that you hear the click of the EMB engaging.</li> <li>5. Check that all the buttons on the handlebar work correctly.</li> <li>6. Switch off the power switch.</li> </ol> Your <b>Mobility scooter YL-985S</b> is now ready to drive.
Prior to use	Before using the Mobility scooter YL-985S, be sure you know your own weight and the weight of any items you will be carrying on it. The maximum total load is 120 kg (265 lbs) 4 WHEELS.
Precautions Before Transporting Mobility Scooters	To transport the <b>Mobility scooter YL-985S</b> in a motor vehicle, it must be secured. <b>Warning: When transporting the Mobility scooter YL-985S, never let anyone sit on it.</b>
Transportation	To reduce the space occupied by the YL-985S Mobility Scooter during transport, follow the disassembly and assembly steps in Chapter 6 and lower the adjustable stem to its lowest position.

## CHAPTER 7 – CHARGING

Read the charger manual before using it.

**Warning: If you use a charger other than the one supplied with your *Mobility scooter YL-985S*, ask your dealer for instructions.**

### **CHARGING BATTERIES** (See Fig 12)

1. Insert the charger plug (8) in the charging socket (10) located on the right side of the tiller column.
2. Plug the charger power cord (9) into a wall socket.
3. When charging is complete, remove the charger power cord (9) from the wall socket and then remove the charger plug (8) from the charging socket (10).
4. Under ideal storage conditions, batteries that were charged to full capacity and were not used should be recharged every 20 days.
  - If you expect not to use your ***Mobility scooter YL-985S*** for an extended period of time, we recommend charging it for two days and then disconnecting the batteries.
5. If you have not used your ***Mobility scooter YL-985S*** for an extended period of time, charge the batteries for at least 24 hours before driving.

### **Recommended Charging routine**

1. Use the scooter along the day as needed or until charging is low , according to the LCD battery indicator.
2. At the end of the day, recharge the scooter batteries along the night.
3. No need to disconnect the batteries at the end of the charging. The charger is Automatic and stops itself.
4. No need to recharge the scooter batteries at the end of every drive, unless you are not intending to use the scooter any more on that day.
5. In case of recharge the scooter along the day, you should perform full charging.
6. It is not recommended to leave the batteries uncharged for a few days as it can reduce the travel distance and battery's life.

- **As long as the charging plug is in the charging socket, the electronic control of the *Mobility scooter YL-985S* automatically cuts all power to the electric system and it cannot be driven.**
- **The charger supplied is suitable for charging Lithium batteries. Use only the defined type of charger. Before using any other type of charger, check with your dealer.**

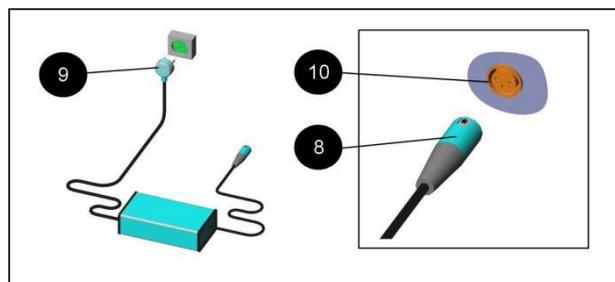


Fig 12

## CHAPTER 8 – MAINTENANCE

### Note:

Maintenance Manual is available for trained technicians.

Although the **Mobility scooter YL-985S** requires very little maintenance, do not neglect it.

The expected service life is of the **Mobility scooter YL-985S** is **1 years** and it will extend much longer provided care and maintenance procedures are carefully followed.

When performing maintenance procedures on the **Mobility scooter YL-985S**, make sure that it stands on a level surface and that the key is not inserted.

### Periodic Maintenance Procedures

**Note:** For periodic maintenance, no special tools are needed.

No.	Type of Service	Frequency
1	Check if handlebar has any looseness, and turns smoothly from side to side	Every week
2	Check if speed controller turns smoothly	Every week
3	Check if pushing forward/backwards joystick down make it move, and returning to the neutral position make it stop.	Every week
4	Check if battery display indicator lit and if battery sufficiently charged.	Every day
5	Check if pressing horn button make it sound normally.	Every day
6	Check if emergency electromagnetic brakes separate normally	Every week
7	Check normal driving and stopping	Every Month
8	Check tyre wear	Every Month
9	Check for missing and damaged parts	When first receiving <b>Mobility scooter YL-985S</b> or after a long time without using it.
10	Check that all screws and parts are secure	Once a year by a technician.
11	Replace batteries	<ul style="list-style-type: none"> <li>When the distance you can travel on a single charge becomes short, or</li> <li>After a technician recommends replacing it.</li> </ul>
  <b>Used batteries should not be disposed of with the regular garbage. For information on proper disposal of your batteries contact your authorized dealer</b>		
12	Cleaning	External – when needed. Internal – Once a year by technician.

## Recommended periodic Performance checks

### Slow or Sluggish Movement

If the scooter does not travel at full speed and the battery condition is good, check the position of the speed limiting control. If adjusting the speed limiting control does not remedy the problem then there may be a non-hazardous fault. Contact your service agent.

### User Daily Checks

Throttle: With the scooter switched off, check that the throttle mechanism is not bent or damaged and that it returns to the position when you push and release it. If there is a problem do not continue with the safety checks and contact your service agent.

### User Weekly Checks

Throttle: Put the throttle to the full speed forward position and switch the scooter on. The scooter should not move. show you that you have switched the scooter on with the throttle already pushed.

If the scooter does move, contact your service agent.

Parking brake: This test should be carried out on a level surface with at least one meter clear space around the scooter.

Switch the scooter on.

Check that the status indicator remains on, or flashes slowly, after half a second.

Go to drive the scooter slowly in the forwards direction until you hear the parking brake operate. The scooter may start to move.

Immediately release the throttle. You must be able to hear the parking brake operate within a few seconds.

Repeat the test in the reverse direction.

Cables and connectors:

Check that all connectors on the scooter are securely mated, and ensure that all cables are free from damage.

## As-required Detailed Maintenance Procedures

Type of Service	Frequency
Cleaning	<p>Use only a damp cloth with clear water and commercial mild detergents for a single cleaning before the first use or reuse. Then use another damp cloth with clear water for rinses to remove any residual detergents. The cleaning process will continue until the user verifies that the surface has been cleansed without visual contamination. Finally, use a dry cloth to thoroughly wipe the surface.</p> <p>Only clean in an environment with a temperature above 0°C to ensure that the water does not freeze on surfaces.</p> <p>Never use a water hose, as it may severely damage the power and electronic components.</p>
Replace batteries	<p><b>Note!</b> Batteries must be replaced by trained professionals only.</p> <p><b>Warning!</b> Batteries contain high energy and can spark, resulting in a possible fire hazard.</p> <p><b>Warning!</b> Working with batteries can cause damage and Injury if not done properly.</p> <p>In this procedure, refer to Chapter 6, Fig 8 and Fig 9.</p>

## CHAPTER 9 – STORAGE

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In Case of Long-term storage e.g. longer than four months, it is recommended to store the **Mobility scooter YL-985S** in a dry, clean and secure space, ideally with an access to electricity socket so you can charge it.

During storage it is recommended that the **Mobility scooter YL-985S** is covered and a closed Always. When the scooter is not in regular use, recharge the battery at least every 20 days until normal use is resumed.

We do not recommend storing your **Mobility scooter YL-985S** in extremely cold conditions. Storing in temperatures below 10° Celsius diminishes runtime and battery capacity.

**WARNING: DO NOT ALLOW TO FREEZE, DO NOT STORE BELOW 0°C'** this could permanently damage your battery.

## CHAPTER 10 – TROUBLESHOOTING AND REPAIR



The following table provides troubleshooting and repair instructions for problems that may be encountered when operating the *Mobility scooter YL-985S* as well as the best way to correct the problem. The table contains three columns:

Symptom	Probable Cause	Remedy
The problem you are experiencing	The most likely causes, in order of probability (most likely first)	Recommended action to correct each probable cause

**Remember:** you can contact your dealer at any time for further professional support.

No.	Symptom	Probable Causes	Remedy
1	Wheel wobble or shaking	<ul style="list-style-type: none"> <li>✓ If it is the front wheel, it may be caused by a damaged bearing or worn front wheel.</li> <li>✓ If it is the rear wheel, it may be due to a cracked hub or worn rear wheel.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Replace the bearing and the front wheel.</li> <li>✓ Replace the rear wheel.</li> </ul>
2	The LEDs flash and the vehicle does not move.	<ul style="list-style-type: none"> <li>✓ (identified by the fault code)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Call for technical support</li> </ul>
3	The scooter cannot be folded or unfolded. Unusual noise occurs when folding or unfolding.	<ul style="list-style-type: none"> <li>✓ The latch pin is damaged, causing it to fail to unlock or lock.</li> <li>✓ The original lubricant has been depleted</li> </ul>	<ul style="list-style-type: none"> <li>✓ Replace the latch pin.</li> <li>✓ Apply lubricant to the areas causing the noise</li> </ul>
4	When throttle control lever is released on a level surface, the <i>Mobility scooter YL-985S</i> takes longer than 3 meters to stop.	<ul style="list-style-type: none"> <li>✓ Controller is faulty or out of adjustment</li> </ul>	<ul style="list-style-type: none"> <li>✓ Call for technical support</li> </ul>
5	Key switch is turned ON but the ON light does not come on.	<ul style="list-style-type: none"> <li>✓ Main fuse 50A popped or electrical fault.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Reset fuse</li> </ul> <p><b>Note:</b> Do not reset fuse more than twice. If the symptom still recurs, call your authorized dealer for support.</p>
6	<i>Mobility scooter YL-985S</i> does not move when you squeeze the throttle control lever.	<ul style="list-style-type: none"> <li>✓ Key switch is OFF</li> <li>✓ Charger is connected to charging socket</li> <li>✓ The release lever of the EMB is disengaged.</li> <li>✓ Other inhibitor: Panic brake.</li> <li>✓ Control system failure</li> </ul>	<ul style="list-style-type: none"> <li>✓ Turn key switch ON</li> <li>✓ Disconnect charger</li> <li>✓ Engage the EMB lever</li> <li>✓ Turn the key switch OFF and ON again</li> <li>✓ Call for technical support</li> </ul>
7	Intermittent drive.	<ul style="list-style-type: none"> <li>✓ Battery capacity is low</li> <li>✓ Faulty connections</li> <li>✓ Faulty battery</li> </ul>	<ul style="list-style-type: none"> <li>✓ Charge batteries for at least 18 hours</li> <li>✓ Remove battery cover and check battery connection. If terminals are corroded, clean them with a damp, clean cloth</li> <li>✓ If red LEDs are still on, contact your dealer for a replacement battery</li> </ul>
8	Main or rear lights or indicator lights are inoperative.	<ul style="list-style-type: none"> <li>✓ Faulty LED light board or electronics fault</li> </ul>	<ul style="list-style-type: none"> <li>✓ Call technician for assistance</li> </ul>

No.	Symptom	Probable Causes	Remedy
9	The stem cannot be adjusted or locked.	✓ The locking joint is damaged	✓ Replace the locking joint

### Controller Fault codes shown on the display:

Flash times	Reasons and required actions	Symptoms	Comments
1 flashes	Battery voltage is too low. Charge the battery or check for loose connections in the circuit.	The scooter can still be driven, but the speed will decrease.	To protect the battery from excessive discharge damage, the controller will limit battery output when the voltage is low, which also helps extend the battery's range. The user should charge the battery.
2 flashes	A motor cable disconnection. Check the connection between the motor and the controller.	The controller will immobilize the scooter and issue a warning.	Replace the motor or check the connection between the motor and the controller.
3 flashes	a motor short circuit or grounding issue. There is a short circuit in the motor wiring.	The mobility vehicle will not start.	The motor or the controller's MOS has burned out, requiring replacement of the motor or controller.
4 flashes	the speed limit signal is active (push mode signal). The controller's push mode is activated during charging or when operating the push mode.	The controller will immobilize the scooter and issue a warning.	This could be caused by a slope that is too steep, leading to excessive current, or possibly a motor short circuit or a jammed gearbox. The user must turn off the power and restart the system. If the issue persists, contact the dealer or manufacturer.
5 flashes	motor start timeout, triggering over-temperature or over-current protection.	The controller will immobilize the scooter and issue a warning.	Wait for the motor to cool down.
6 flashes	the controller cannot drive the system. Replace the controller.	The controller will immobilize the scooter and issue a warning.	The controller cannot drive due to triggering Speed Limit 2, a temporary battery disconnection (detachable type), or entering sleep mode. Restart the system and check the Speed Limit 2 wiring or electrical connections.
7 flashes	The 5K large potentiometer is faulty, or the 100K small potentiometer is faulty. Replace the potentiometer.	The controller will immobilize the scooter and issue a warning.	This could be an issue with the speed control potentiometer or the start potentiometer, or a fault with the joystick or potentiometer. Check if the joystick has returned to its neutral position, inspect the accelerator and speed limiter circuit connections, and verify whether the accelerator and speed limiter themselves are functioning properly.
8 flashes	an internal controller fault.	The controller will immobilize the scooter and issue a warning.	Contact the supplier to replace the controller.
9 flashes	The parking brake has a bad connection.	The controller will immobilize the scooter and issue a warning.	It is a brake issue, specifically a solenoid brake fault. Check the electromagnetic brake and its connection lines.

## CHAPTER 11 – EMI WARNING



All types of electrically powered vehicles, such as powered wheelchairs and motorized scooters (in this text all types will be referred to as “powered vehicles”) may be susceptible to electromagnetic interference (EMI). This is from sources such as radio and TV stations, amateur radio (HAM) transmitters, two-way radios and cellular phones. The interference (from radio wave sources) can cause the powered vehicle to release its brakes, move by itself, or move in unintended direction. It can also damage the powered vehicle’s control system. The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each powered vehicle can resist EMI interfering electromagnetic energy (EM) emitted up to a certain intensity. This is called its “immunity level”. The higher the immunity level, the greater the protection. At this time, current technology is capable of achieving an immunity level that would provide useful protection from the more common sources of radiated EMI. This vehicle as shipped, with no further modification, has an immunity level of 20 V/m.

There are a number of sources of relatively intense electromagnetic fields in the everyday environment. Some of these sources are obvious and easy to avoid. Others are not apparent and exposure is unavoidable. However, we believe that by following the warning listed below, your risk of EMI will be minimized.

The sources of radiated EMI can be broadly classified into three types:

1. Hand-held portable transceivers (transmitters-receivers) with the antenna mounted directly on the transmitting unit. Examples include: citizen band (CB) radios, “walkie talkies”, security, fire and police transceivers, cellular telephones and other personal communication devices.
2. **NOTE:** Some cellular telephones and similar devices transmit signals while they are ON, even when not being used.
3. Medium-range mobile transceivers such as those used in police cars, fire trucks, ambulances and taxis. These usually have the antenna mounted on the outside of the vehicle.
4. Long-range transmitters and transceivers such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.

**NOTE:** Other types of hand held devices, such as cordless phones, laptop computers, AM/FM radios, TV sets, CD players, cassette players and small appliances such as electric shavers and hair dryers, as far as we know, are not likely to cause EMI problems to your powered vehicle.

### **Powered Vehicle Electromagnetic Interference (EMI)**



Because EM energy rapidly becomes more intense as one moves closer to the transmitting antenna, the EM field from hand-held radio wave sources (transceivers) are of special concern. It is possible to unintentionally bring high levels of EM energy close to the powered vehicle’s control system while using these devices. This can affect powered vehicle movement and braking.

Therefore, the warnings listed below are recommended to prevent possible interference with the control system of the powered vehicle.

### **WARNINGS**

Electromagnetic interference (EMI) from sources such as radio and TV stations, amateur radio (HAM) transmitters, two-way radios and cellular phones can affect powered vehicles.

Following the warnings listed below should reduce the chance of unintended brake release or powered vehicle movement **which could result in serious injury:**

- 1) Do not operate hand-held transceivers (transmitters-receivers) such as citizen band (CB) radios, or turn ON personal communication devices such as cellular phones, while the powered vehicle is ON;
- 2) Be aware of nearby transmitters, such as radio or TV stations and try to avoid coming close to them.
- 3) On appearance of unintended movements or brake release occurrences, switch the powered vehicle OFF **as it is safe to do so.**
- 4) Be aware that adding accessories or components, or modifying the powered vehicle, may make it more susceptible to EMI (since there is no easy way to evaluate their effect on the overall immunity level of the powered vehicle).
- 5) Please report to us all incidents of unintended movement or brake release and note whether there is a source of EMI nearby.

### **Important information**

- 1) 20 volts per meter (V/m) is a generally achievable and useful immunity level against EMI (as of May 1994). The higher the level the greater the protection.

- 2) This product delivered to you has an immunity level of 20 V/m.
- 3) 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 Mobility Scooter YL-985S, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
- 4) The Mobility Scooter YL-985S can only be used in the following appropriate environments:
  - Professional healthcare facility environment, including Physician offices, dental offices, clinics, limited care facilities, freestanding surgical centers, freestanding birthing centers, multiple treatment facilities, hospitals (emergency rooms, patient rooms, intensive care, surgery rooms **EXCEPT** near HF SURGICAL EQUIPMENT, outside the RF shielded room of an ME SYSTEM for magnetic resonance imaging)
  - Home healthcare environment, including Restaurants, cafes, shops, stores, markets, schools, churches, libraries, outdoors (streets, sidewalks, parks), domiciles (residences, homes, nursing homes), vehicles (cars, buses, trains, boats, planes, helicopters), train stations, bus stations, airports, hotels, hostels, pensions, museums, theatres.
- 5) If the Mobility Scooter YL-985S's functions are lost or degraded due to EM disturbances, you should take the actions listed in the table below.

No.	Functions	Immunity performance criteria	Take actions due to functions lost or degraded
1	Drive	The device should not be driven unpredictably or come to a complete stop without control, and the average speed change is not more than $\pm 20\%$ .	<p>If you lose control of scooter driving, stay calm and immediately release the speed controller. Pull the forward and backward joystick to a neutral position to stop the scooter. Press horn button to notice the people around. Then, be sure to turn off the power switch to cut off the power supply and prevent any sudden restarts.</p> <p>If the scooter comes to a complete stop without control, stay calm and grip the control handle and/or armrest tightly to prevent falling from the seat. Again, be sure to turn off the power switch to cut off the power supply and prevent any sudden restarts.</p> <p>Please pull and/or push the brake control lever located at the back of the scooter to temporarily disable it.</p> <p>Once the scooter has been stopped, please contact the manufacturer's engineers for maintenance. DO NOT use the scooter again until the engineers have resolved the issue.</p>
2	Charge	The device charging function is normal, and adapter output current change is not more than $\pm 10\%$ .	<p>If the charging current exceeds the limit, the charge fuse will melt immediately to halt the charging process.</p> <p>Please disconnect the charging cable at once and DO NOT attempt to charge it again.</p> <p>Please contact the manufacturer's engineers for maintenance. DO NOT use the scooter again until the engineers have resolved the issue.</p>
3	Standby	The device standby is normal.	<p>If the scooter suddenly restarts while in standby mode, please quickly grab the handle and pull the handle brake to stop the scooter. Then, try turning the switch on and off to reset the scooter.</p> <p>Please pull and/or push the brake control lever located at the back of the scooter to temporarily disable it.</p>

			<p>the scooter to temporarily disable it.</p> <p>Once the scooter has been stopped, please contact the manufacturer's engineers for maintenance. DO NOT use the scooter again until the engineers have resolved the issue.</p>
4	Brake	The device stopped fully after brake start	<p>If you lose control of the brakes, stay calm and immediately use the emergency handbrake. Pull the forward and backward joystick to a neutral position to stop the scooter. Press horn button to notice the people around.</p> <p>Please pull and/or push the brake control lever located at the back of the scooter to temporarily disable it.</p> <p>Once the scooter has been stopped, please contact the manufacturer's engineers for maintenance. DO NOT use the scooter again until the engineers have resolved the issue.</p>

- 6) The Mobility Scooter YL-985S conducts electromagnetic interference (EMI) testing and electromagnetic susceptibility (EMS) testing per standards of ISO 7176-21, IEC 60601-1-2 and IEC TR 60601-4-2 **WITHOUT ANY DEVIATIONS**, as listed in the below table.

Testing requirements per ISO 7176-21:2009, IEC 60601-1-2:2014+A1:2020, EN 60601-1-2:2015+A1:2021				
Electromagnetic Interference (EMI) testing				
No.	Emission test	Test method	Parameters	Class/Severity
1	Conducted emission on mains terminals	CISPR 11	150kHz ~30MHz	Group 1, Class B
2	Radiated emissions	CISPR 11	3m	Group 1, Class B
3	Harmonics current emission	IEC 61000-3-2	100Hz ~ 2kHz, 2.5mins	Class A
4	Voltage fluctuations and Flicker emission on AC mains	IEC 61000-3-3	120mins	Class 5
Electromagnetic Susceptibility (EMS) testing				
No.	Immunity test	Test method	Parameters	Immunity Test Level
5	Electrostatic discharge (ESD)	IEC 61000-4-2	Air, Contact, VCP/HCP	2,4,6,8,15 kV
6	Radiated RF electromagnetic fields	IEC 61000-4-3	26MHz ~ 2.7GH	20 V/m for 26 MHz to 2.5 GHz  10 V/m for 80 MHz to 2.7 GHz
7	Proximity fields from RF wireless communication equipment	IEC 61000-4-3	Puls modulation, 18Hz or 217 Hz	Table 9 of IEC 60601-1-2
8	Electrical fast transient and bursts (EFT/B)	IEC 61000-4-4	100kHz, 300ms	+/- 1kV, +/-2kV on AC port

9	Surges	IEC 61000-4-5	2Ω line to line	Live to neutral: +/-0.5kV, +/-1.0kV
10	Conducted disturbance, induced by RF fields	IEC 61000-4-6	0.15MHz ~ 80MHz	60V r.m.s, 3V r.m.s on AC port and Signal port
11	Power frequency magnetic field	IEC 61000-4-8	50Hz ~ 60Hz	30A/m
12	Voltage dips, short interruptions, and voltage variations	IEC 61000-4-11	0.5T, 1T, 2T/30T and 250T/300T	0% of Ut for 0.5T, 1T and 250T/300T  70%of Ut for25T/30T
13	Proximity magnetic field	IEC 61000-4-39	30kHz, 134.2kHz, 13.56MHz	80A/m, 65A/m, 7.5A/m
Testing requirements per IEC TR 60601-4-2:2016				
Electromagnetic Susceptibility (EMS) testing				
14	Electrostatic discharge (ESD)	IEC 61000-4-2	Air, Contact, VCP/HCP	2,4,8kV
15	Radiated RF electromagnetic fields	IEC 61000-4-3	80MHz ~ 2.7GH	3V/m
16	Proximity fields from RF wireless communication equipment	IEC 61000-4-3	Puls modulation, 18Hz or 217 Hz	Table 4 of IEC TR 60601-4-2
17	Electrical fast transient and bursts (EFT/B)	IEC 61000-4-4	100Hz, 300ms	+/-1kV on AC port
18	Surges	IEC 61000-4-5	2Ω line to neutral	Live to neutral: +/-0.5kV, +/-1.0kV
19	Conducted disturbance, induced by RF fields	IEC 61000-4-6	0.15MHz ~ 80MHz	3V r.m.s on AC port and Signal port
20	Rated power frequency magnetic field	IEC 61000-4-8	50Hz, 60Hz	3V/m
21	Voltage dips, Voltage interruptions	IEC 61000-4-11	0.5T, 1T, 2T/30T and 250T/300T	0% of Ut for 0.5T, 1T and 250T/300T  70%of Ut for25T/30T

## Appendix A – Specification Sheet

Type: Mobility scooter YL-985S

Manufacturer: YONGKANG YILE VEHICLE CO.,LTD

Maximum occupant mass: 120 kg (for the tests, a 100kg (220 lbs) dummy according ISO 7176-11 was used, supplemented by 20kg(44lbs) weights distributed approximately proportional to the dummy's weight distrib.)

### (Metric table)

#### Disclosure information (ISO 7176-15)

<i>Standard reference</i>	<i>min.</i>	<i>max.</i>	<i>Standard reference</i>	<i>min.</i>	<i>max.</i>
Overall length	946 mm	-	Seat plane angle	2°	-
Overall width	510 mm	-	Effective seat depth	325 mm	-
Folded length	300 mm	-	Effective seat width	375 mm	385 mm
Folded width	510 mm	-	Seat surface height at front edge	515 mm	520 mm
Folded height	715 mm	-	Backrest angle	15°	-
Total mass	19.7 kg	-	Backrest height	300 mm	-
Mass of the heaviest part	5.6 kg	-	Foot rest to seat distance	350 mm	450 mm
Static stability downhill	9°	15°	Backrest width	380 mm	-
Static stability uphill	9°	15°	Footrest to seat distance	350 mm	-
Static stability sideways	9°	15°	Leg to seat surface angle	100°	-
Energy consumption	16 km	-	Armrest to seat distance	200 mm	-
Dynamic stability uphill	9°	-	Front location of armrest structure	178 mm	-
Obstacle climbing	-	40 mm	Handlebar diameter	22 mm	50 mm
Maximum speed forward	-	7 km/h	Horizontal location of axle	85 mm	-
Minimum braking distance from max speed	800 mm	-	Minimum turning radius	1300 mm	-
Maximum occupant mass	-	120 kg	-	-	-

#### Remarks:

\* All technical specifications are subject to change without prior notice.

\*\* The maximum speed in every country is limited according to local traffic regulations.

\*\*\* Braking distance on slopes can be significantly greater than on level ground.

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Products: **Mobility scooter YL-985S**