



**S160 Mobility Scooter
Operating Instruction**

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I.INTRODUCTION

Read and follow all instructions, warnings, and notes in this manual before attempting to operate your mobility scooter for the first time. If there is any information in this manual which you do not understand, or if you require additional assistance for assembly or operation, please contact with your authorized local provider.

Whether to use your product safely is up to whether you follow instructions, caution and warning in this manual. We are not liable for any damage or injuries resulted from individual unsafe operation or failure to follow instructions, cautions and warnings in this manual.

These symbols below in this manual are used to identify warnings and important information. All of them are very important to your safety. It is strongly recommended that you should read and understand them completely.

WARNING! Failure to heed the warnings in the manual may result in personal injury.

ATTENTION! Failure to heed the cautions in the manual may result in damage to the mobility scooter.

I. Introduction

To your safety, Please be sure to read all the operating instructions of the manual and follow them strictly when you use the mobility scooter for the first time. These instructions are fully for your vital interests.

Comprehending the instructions is the basic protection for operating the wheelchair safely.

Once you really comprehend how to operate and maintain the wheelchair, we believe this product will bring you the service without worry and endless fun for year.

We will be appreciated to hear your suggestions for this manual and the evaluation to the safety, reliability of this product and the dealers authorized of this company.

II.STRUCTURE AND PERFORMANCE

This scooter mainly consists of four parts: front body, rear body, seat unit. (See fig. 1)

Front body consists of controller, handlebar and footrest.

Rear body consists of drive motor, electric controller unit.

Seat unit consists of backrest, armrest and cushion.



Fig.1

II.STRUCTURE AND PERFORMANCE

1. TILLER CONTROL

- A. Battery Condition Indicator
- B. Speed Adjustment Knob
- C. Key switch
- D. Throttle Control Lever
- E. Buzzer
- F. Light

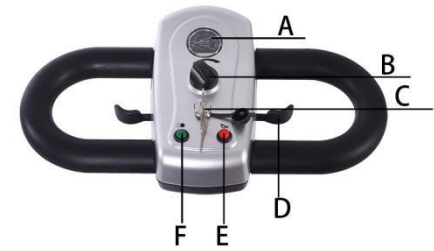


Fig.2

2. CHARGING AND ELECTRIC CONTROL SYSTEM

- a. 3-pin charger socket
- b. Over load protector

SEAT UNIT

(refer to the section IV. COMFORT ADJUSTMENTS)

- a. Seat back
- b. Backrest
- c. Armrests
- d. Seat lock lever



Overload protector



3-pin charger socket

Fig.3

II.STRUCTURE AND PERFORMANCE

SPECIFICATIONS	
Overall Dimension	1100(L)*500(W)*850(H)mm
Overall weight(Include battery)	40KG
Gross Weight	45KG
Turning Radius	1200mm
Max speed	7.8kmh
Max degree of climbing	15
Max Range	20KM
Max Load	150KG
Motor	24V 250W
Lead Acid Battery Capacity	12V 12AH X 2
Ground clearance	90mm
Charger	2.0A / 24V
Wheel size	Front 8", rear 8"solid tire
Brake system	Magnetic brake
Packing size	109 * 51 * 50 cm
Seat height	520 mm
Seat width	440 mm
Seat depth	380 mm
Armrest height	190 mm
Backrest height	310 mm
Battery weight	9 kg

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III.ASSEMBLY

For convenience of transportation and reduction of possible damage, the batteries and the seat unit are separately packaged. So you need assemble them onto the main frame of your scooter.

OPENING THE PACKING BOX

Open the packing box of your new scooter, and take off all protective liner, and then take off the scooter that has folded from the box.

ADJUSTING ANGLE OF TILLER

Loose the lock-nut (see fig. 4)

Lift the tiller up until a proper angle for yourself. Tighten the lock-nuts to fix the tiller.

ASSEMBLE THE SEAT

Insert the seat into the seat tube located on the rear body.



Fig.4

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III.ASSEMBLY

BATTERY ASSEMBLY

This new model's battery is inside of the body of scooter, so don't need assembly by customers.(fig.5)

If you need to fix the battery, please open the body like the picture.(fig.6)

SEAT ASSEMBLY

1. Put the seat onto the seat post (fig.7) .
2. Unlock the seat lock level, adjust the seat toward the front and the lock level will automatically lock the seat.
3. Assemble the left/right armrests respectively into the square tubes below the seat.
4. Adjust the seat width between the armrests suitable for you, tighten the knob.

BASKET ASSEMBLE

1. Assemble the basket into the holder. (fig.8)



Fig.5



Fig.6



Fig.7



Fig.8

IV. COMFORT ADJUSTMENTS

WARNING! Pull out the power key before adjustment, never do it when driving.

SEAT ROTATION

Pull up the seat lock lever to release the seat.

Rotate the seat to your desired direction (see fig. 9) .

Release the seat lock lever, then it will lock the seat automatically.

ARMREST WIDTH

Find the fixing screws on the armrest adjusting frame (see fig. 10) .

Release the screws.

Move the armrests outward or inward according to your favorite width.

Refasten the screws.



Fig.9

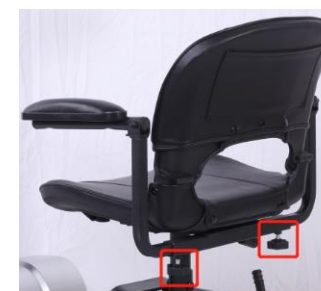


Fig.10

V.OPERATION

1. CHARGING BATTERIES

The battery charger is important to the batteries. This off-board charger can charge your scooter's batteries safely, quickly and easily. **WARNING!** Your scooter's batteries must be charged with the off-board battery charger. Do not use any automotive-type battery charger.

Lift the cover on the tiller. Ensure the scooter is off power. Plug the output connector of the off-board charger into the 3-pin charger socket of the scooter.

Plug the input connector of charger into the wall outlet. The red light on the charger turns on that indicates charging on.

When charging is nearly finished, the green light turns on. You should continue to charge the batteries for one or two hours.

It is recommended that your batteries are charged for 8 to 10 hours.

New Battery's Usage

To break-in new batteries for maximum efficiency, please follow the notes here below:

1. Fully charge any new battery prior to its initial use. This brings the battery up to about 90% of its peak performance level.
2. Operate your scooter throughout house and yard. Move slowly at first, and do not stay too far until you can skillfully driving your scooter and know how to control the driving distance from the battery condition.
3. Give the batteries another full charge of 10 to 12 hours and operate your scooter again. The batteries will now perform at over 90%of their potential.
4. After four or five charging cycles, the batteries will top off at 100%charge and last for an extended period.

If the batteries of your scooter need to be replaced, please purchasing the deep-cycle batteries refer to the follow specifications :

V.OPERATION

type	deep-cycle lead acid batteries
voltage	12 V (single battery)
capacity	12 Ah (single battery)

2. TILLER CONSOLE

The tiller console houses all of the controls required for driving your scooter, including the key switch, the speed adjustment knob, throttle control lever, battery condition indicator, horn button and headlight button. With all of controls on the console you can control various motions of your scooter.

Key Switch (see fig. 2)

Plug the key into the key switch.

The light on the battery indicator illuminates. The light is off when the key is plugged out.

WARNING! Do not use the key switch to stop your scooter unless an urgent event has happened.

WARNING! If your scooter has stopped for a long period, power down it to prevent unintended motion

Throttle Control Lever (see fig. 2)

This lever, which locates on the left & right sides of the tiller console, allows you to control the forward or reverse speed of your scooter up to the maximum speed you preset with the speed adjustment knob. Push the throttle control lever forward to disengage the brakes and make the scooter start moving backward. Conversely, the scooter starts moving forward if pulling the lever backward.

The larger the angle the lever is pushed, the faster the speed of your scooter.

When you release the lever completely, it automatically return to the primary position, i.e. the stop position, and engages your scooter's brakes to slow the scooter until it comes to completely stop.

V.OPERATION

WARNING! If your scooter occurs unintended motion, please release the throttle control lever immediately. The scooter will automatically come to stop unless this lever is out of order.

Speed Adjustment Knob(see fig.2)

This knob allows you to preset and limit your scooter's top speed. The maximum forward speed is 6 km/h and the maximum reverse speed 3.5 km/h.

CAUTION! Before you are master of operating, please preset this speed adjustment knob to the lowest position.

Battery Condition Indicator (see fig. 2)

When your scooter is powered up, this indicator shows the remaining capacity of the batteries by 3 color ranges on it: red, yellow and green. When pointing to green, it indicates that the batteries are fully charged. When pointing to yellow, it indicates that the batteries remain half of capacity, and they need to be recharged. When pointing to red, it indicates that the batteries have been fully discharged, and they need to be recharged immediately.

3. OFF-BOARD CHARGER (see fig. 3)

Open the hasp on the tiller, you can find a 3-pin charger socket. Through it you can use the off-board charger to charge your scooter's batteries. See Charging Batteries in this section.

V.OPERATION

Overload Protector (see fig. 3)

The overload protector is a safety device. When the overload occurs, this protector automatically trips to protect the motor and other electric devices. When the protector trips, your scooter will be powered down immediately. And then you should wait a minute at least before you can press the button on the protector, which is under the cover at rear body of scooter, to resume it. After that you can power up again and drive normally.

4. 3-PIN CHARGER SOCKET (see fig.3)

This socket is used to connect to the charger. When the batteries are charged, this socket makes your scooter out of work.

WARNING!

A wrong connection may cause damages to the charger and the mobility scooter.

VI.MAINTENANCE

GENERAL GUIDELINES

Avoid knocking or bumping the tiller console and consoles.

Avoid prolonged exposure of your scooter to extreme conditions, such as overheat, cold or moisture. Keep the tiller console clean. Check all connectors to ensure that they are tight and secured properly. Check all electrical connectors including the charger's connectors. Make sure they are all tight and are not corroded. Batteries must sit flat in the battery tray with the battery terminals facing backward and forward each other and with 3-pin charger socket backward. When you finished everyday usage, please pull out the key to reduce unnecessary consumption of the power. This product has the power saving facility, when you stop using it up to 20 minutes, the power will shut off automatically. When need drive again, please re-plug the key. The body shroud has been sprayed with a clear sealant coating, and you can apply a light coat of car wax to help it retain its high-gloss appearance. All wheel bearings are pre-lubricated and sealed. They require no subsequent lubrication. For keeping your scooter in a better condition, it should be checked before using. It is suggested that your scooter should be checked once per week and half a year as the following table 2.

Table 2

Checklist

Check Items	At any	Weekly	Monthly	Six
All parts			☉	
Turning. Driving. Devices		☉		
Brakes	☉			
Connections		☉		
Battery Charge	☉			
Tire wear			☉	
Motors				☉
Console devices		☉		
Clean	☉			

VII.SAFETY

1.PRE-RIDE SAFETY CHECK

Check all electrical connections. Make sure they are tight and not corroded.

Check the brakes. Make sure they are sensitive and reliable. Check the battery charge. See V Operation.

2.WEIGHT LIMITATIONS

Your scooter is rated for a 150 kg weight capacity.

WARNING! Exceeding the weight limit voids your warranty and may result in personal injury and damage to your scooter.

3. INCLINE INFORMATION

WARNING! When climbing an incline, do not zigzag or drive at an angle up the face of the incline. Drive your scooter straight up the incline. This greatly reduces the possibility of a tip or a fall. Always exercise extreme caution when negotiating an incline.

WARNING! Don't driving up or down a potentially hazardous incline (Areas covered with snow, ice, cut grass, or wet leaves etc.).

WARNING! Never drive down an incline backward. This could cause personal injury.

The maximum safe slope of an incline is of 12°for your scooter. If a slope is less than this angle, it is safety for your scooter whenever climb or descent.

WARNING! Any attempt to climb or descent a slope steeper than 12°may have your scooter unstable and cause it to tip, resulting in personal injury and/or damage to your scooter.

VII.SAFETY

4. OUTDOOR DRIVING SURFACES

You scooter is designed to provide optimum stability under normal driving conditions-dry, level surfaces composed of concrete, blacktop, asphalt, or hard dirt. But you should avoid driving on the following roads: Surface that you feel unsure about or soft pavement. Tall grass that can become tangled in the running gear. Loosely packed gravel and sand beach.

6. ELECTROMAGNETIC INTERFERENCE

Electrical devices may be affected by Electromagnetic Interference (EMI) or Radio Frequency Interference (RFI) that are produced by radio waves from radio stations, TV stations and other radio transmitters.

Like any electrical devices, your scooter may be affected by EMI/RFI. Especially, when your scooter is driven in the interference influence range of these radio transmitters. In this case your scooter may be out of order due to their interference.



Fig.11

VII.SAFETY

WARNING! If unintended motion occurs due to EMI/RFI. please immediately turn your scooter off and contact your authorized provider.

7. Inclement Weather Precautions

WARNING! Do not operate your scooter on slippery roads with ice or snow. Failure to do so may cause you injury and affect the performances of your scooter.

WARNING! Do not expose your scooter to any type of moisture at any time (rain, snow, mist or wash). Such exposure will damage your scooter. Never operate your scooter if it has been exposed to moisture until it has been dried thoroughly.

WARNING! Before transferring, position yourself as far back as possible in the scooter seat to prevent the scooter from tipping and causing injury.

WARNING! Avoid putting all of your weight on the armrests. Failure to do so may cause your scooter to tip, resulting in your injury.

WARNING! Avoid putting all of your weight on the footplate. Such use may cause your scooter to tip, resulting in your injury.

VII.WARRANTY

All of design and production processes are managed in accordance with ISO 9001 to guarantee their quality.

Warranty service will be performed by the authorized provider in cooperation with the after-service department.

WARRANTY INCLUDES:

1. One year warranty on the front and the rear main frames from the date of purchase.
2. One-year warranty on the following parts from the date of purchase from the date of purchase:
 - Electric control system and the controller.
 - Motor/gearbox assembly.
3. Six-month limited warranty on batteries from the date of purchase.

WARRANTY EXCLUDES:

- ABS Shroud worn out.
- Tires.
- Upholstery and seat.
- Damage caused due to abuse miss operation, accident and negligence.
- Damage caused due to improper operation, maintenance and storage.
- For commercial use or other non-normal use.

Contact Information - Australia

Email: info@tdrmoto.com.au

Address: 14 Hammer Court Hoppers Crossing VIC 3029

Ph: 03 9931 1626

VIII. Error Code

Times of buzzer	Fault description	Solution
1	Scooter is in low voltage situation. Battery power is not enough.	Use the charge packed in the carton to charge the scooter.
2	Motor cable connectors may be loose.	Check and connect the motor cable tightly.
3	Motor short circuit fault	Check the connection between motor and controller if there is short circuit.
4	Electromagnetic brake is pushed to unlock position	Electromagnetic brake should be pushed in LOCK position.
5	---	---
6	Accelerator or speed limiter may have problem.	You have to check which one has problem and then change it.
7	Controller fault	Change the controller.
8	Motor brake fault	Check the wire connection of motor brake. If it doesn't help, change this motor brake.
9	Battery voltage doesn't match with scooter. It means that the new battery is not 12V.	Change to battery of 12V.