

# TREK Mobility Scooters

## Owners Manual



EVOLUTION



EVOLUTION 4



BRAVO



SUN RIDER MINI



SUN RIDER RIO



SUN RIDER



NIPPY



TITAN



Bravo Sport

Korean Quality



# Electromagnetic Interference ( EMI )

It is very important that you read this manual before using the scooter for the first time including the following information regarding the possible effects of Electromagnetic Interference ( EMI ) on the scooter.

This motorized scooter has an immunity of 20V/m which should protect it from Electromagnetic Interference from Radio Wave Sources. These EM waves are invisible and their strength increases as one approaches the source. All electrical conductors act as antennas to the EM signals and to varying degrees, all power wheelchairs and scooters are susceptible to electromagnetic interference. This EMI could result in unintentional movement and or erratic control of the vehicle. Motorized scooters may be susceptible to EMI emitted from sources such as radio and TV stations, amateur radio transmitters, two-way radios and mobile phones. The interference can cause the scooters brake to release or move by itself.

Each motorized scooter can resist EMI up to a certain intensity called its "immunity level." The higher this level the greater the protection. Current technology is capable of achieving at least 20V/m immunity level which will provide suitable protection from the more common sources of radiated EMI.

Because EM energy rapidly becomes more intense as one moves closer to the source the EM fields from hand-held radio wave sources are of special concern. It is possible to bring high levels of EM energy very close to the scooter control system while using these devices.

## WARNING

Do not operate hand-held personal communication devices such as CB radios or mobile phones while the scooter is turned on.

## User Manual

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TREK Mobility Products  
trekmobility.com.au

## Preface

### Dear Customer:

Congratulations on the purchase of your new mobility scooter.

Your scooter design combines the most advanced state-of-the-art components with modern, attractive styling. We are certain that the design features and trouble-free operation of your scooter will add convenience to your daily living and ensure complete satisfaction.

Before using the mobility scooter please make sure you have read this user' s manual carefully. This manual explains the features and safe operation of your scooter. Your understanding of these instructions are essential for the safe operation of your new scooter.

### Intended Use

This vehicle is designed to help any adult ( up to the maximum recommended weight ) who requires personal transport as a consequence of walking or other health related issues.

The scooter is intended for footpath and shopping area use only and is not intended for use on dirt, gravel or grass areas.

### Disclaimer

No liability is assumed with respect to the use of any information contained in this publication. Whilst every precaution has been taken in preparation of this publication the importer assumes no responsibility for errors or omissions nor is any liability assumed for damages resulting from the use of information contained in this publication. This publication as well as the operational details described herein, is subject to change without notice.

## Safety Rules

- 01- Do not ride the scooter without reading this instruction manual
- 02- Do not exceed the safe maximum climbing angle of the scooter
- 03- Do not exceed the maximum user weight at any time
- 04- Do not mount or dismount the scooter when the key is turned on
- 05- Do not operate or sit on the scooter if it is in free wheel mode
- 06- Do not turn suddenly at high speed
- 07- Do not drive your scooter where you cannot safely or legally walk
- 08- Do not drive your scooter unless the seat is locked in the driving position
- 09- Do not drive the scooter over soft terrain. (e.g. soft dirt, deep grass, loose gravel )
- 10- Do not attempt to drive over curbs that exceed the safe climbing angle for your scooter
- 11- Always approach curbs etc at a 90 degree angle and at low speed
- 12- Always stop fully before changing direction ( forward and reverse )
- 13- Always proceed carefully as you approach the downgrade of a ramp or hill
- 14- Always proceed carefully while driving on rough or uneven surfaces
- 15- Always consult your physician about your ability to safely operate a scooter
- 16- Do not use an escalator to move a scooter between floors. Serious injury could occur
- 17- Do not use the scooter in the rain or drive through deep water
- 18- Do not wash the scooter with a hose. Use a damp soft cloth only
- 19- Always ensure that the tires are correctly inflated
- 20- If any malfunction or abnormal noises arising while riding the scooter, please turn off the scooter and contact your dealer.
- 21- Before using the scooter for the first time practice in a safe open area until you are fully confident with the controls and safe operation of your scooter



## Specification

Model	250E Nippy	270E Zippy	420E-2 Evolution	420E-2S Sun Rider Mini	500E-4 Evolution4	500E-4S Sun Rider Rio	700E Bravo	700ES Sun Rider	700E Bravo Sport	900E 900ES Titan	
Motor	250W	270W	450W 2 Pole		600W 4 Pole		700W 4 Pole			950W 4 Poles	
Controller	PG S-Drive 70A		PG S-Drive 90A		PG S-Drive 120A		PG S-Drive 140A			PG S-Drive 200A	
Length (mm)	1010mm	1095mm	1280mm	1350mm	1330mm	1430mm	1450mm	1570mm	1490mm	1600mm	
Width (mm)	478mm	520mm	620mm		660mm		700mm			950mm	
Height (mm)	915mm	940mm	1300mm	1500mm	1320mm	1570mm	1370mm	1600mm	1370mm	1375mm	
Weights	No Battery	37kg	45kg	63kg	75kg	70kg	80kg	105kg	115kg	105kg	160kg
	With Battery	47kg	55kg	92kg	104kg	103kg	113kg	135kg	145kg	135kg	190kg
Wheel Size	Front	203mm	229mm	260mm		307mm		330mm			381mm
	Rear	8in	9in	10in		12in		13in			15in
Suspension	Rear	NO	No		Front & Rear		Front & Rear			Front & Rear	
Seat Suspension	NO	NO	Yes		Yes		Yes			NO	
Factory Forward Speed Setting	6km/h	8km/h	10km/h								
Programmable up to	6km/h	8km/h	10km/h		12km/h		15km/h			10km/h	
Max Reverse Speed	3km/h	4km/h	5km/h								
Turning Radius (mm)	1260mm	1190mm	1470mm		1470mm		1600mm		2200mm		
Max Climbing Angle	8	8	10 degrees		12 degrees		12 degrees		12degrees		
Allowed Barrier Height	30mm	30mm	50mm				60mm		60mm		
Brake Style	Auto Electric Magnetic Brake										
Battery Charger	Input	2amp	5amp	24V, 6amp, 50-60Hz				8amp	8amp		
	Battery Capacity	12ah	24ah	36ah		45ah		55ah		75ah	75ah
**Max Load Capacity (kg)	80kg	100kg	150kg		160kg		185kg		250kg		
***Max Riding Range (km)	20km	25km	40km								

\* Specifications subject to change without notice

\*\* The max load capacity rating is for level roads. Capacity reduces when climbing inclines.

\*\*\* The Max riding range is tested under ideal conditions with new batteries, temperature of 25 C, straight road, no wind, carrying a load of 75 kg. The actual driving distance may vary due to uncertain factors such as road condition, tire pressure, weather and the load.

## Features



Nippy



Zippy



420E-2 (Evolution)

## Features



420-2S (Sun Rider Mini)



500E-4 (Evolution 4)



500E-4S (Sun Rider Rio)

## Features



700E (Bravo)

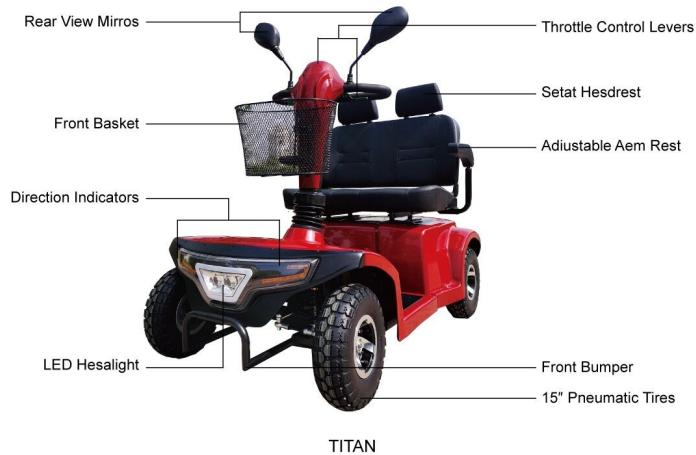


700ES (Sun Rider)



700E (Bravo Sport)

## Features

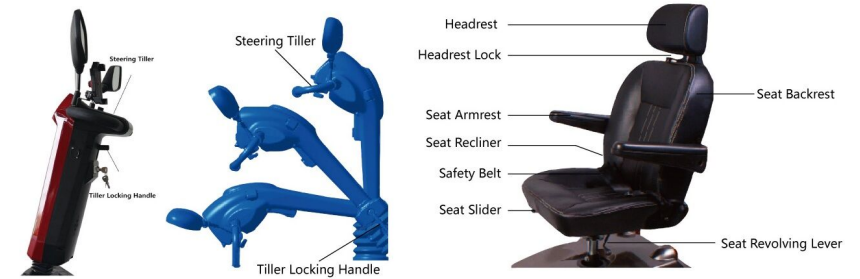


## Tiller and Seat Adjustments

### Tiller

The tiller position of this scooter can be adjusted to your needs to maintain a comfortable riding position.

To adjust the tiller, hold the tiller in one hand tightly, and release the locking handle in other hand. Adjust the tiller to your required position and fasten the locking handle tightly.



### Seat

**1) Depth:** The seat is equipped with slider, as shown in the Fig above. Pulling up the slider bar allows the seat to move forward or back to adjust the distance from the tiller or to provide more leg room.

**2) Rotating:** Hold the Seat Rotation Lever, then turn the seat around to your required position, release the Seat Rotation Lever to lock the seat.

**3) Reclining:** Pull up the Recliner Handle and adjust the Seat Backrest to the required angle and release the Recliner Handle to lock the backrest.

**4) Armrest Width Adjustment:** At the rear of the seat, there are two bolts each side on the Armrest Fixing Pipe. Loosen these bolts and pull the Armrest Pipe out to the required position and tighten the bolts back to lock the armrest.

**5) Headrest Height Adjustment:** Release the Headrest Locking Pin and Pull Up or Press Down the Headrest and then release the Locking Pin to lock the headrest.

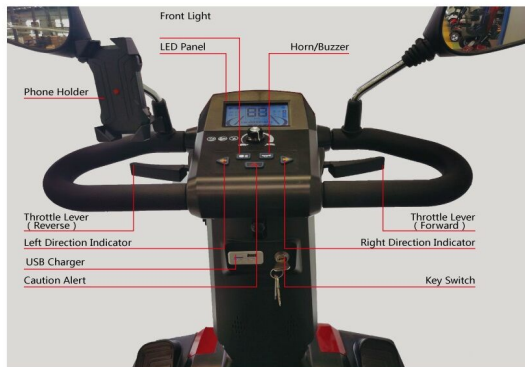


## Control Panel Operation

Before riding your scooter, please make sure you have a full understanding of all the functions and how to operate the controls correctly.



Tiller Control Panel Face



- Key Switch:** Turn the key clockwise to operate the scooter. OFF is anti-clockwise.
- LH/RH Direction Indicator Button** Press the left or right button to indicate the scooters turning direction. Press again to switch off the indicator.
- Horn/Buzzer:** Pressing this button activates the horn.
- Caution Alert:** Activates front and rear hazard lights.
- Front Light:** Press to turn on the front LED headlight.
- Battery Volume Meter:** Indicates the remaining battery level. If the meter goes into the Red area, please charge the scooter as soon as possible to protect the battery and scooter.
- Speed Adjustment Knob:** Adjusts the Minimum and Maximum scooter speed. Fig Turtle indicates low speed while the Rabbit indicates high speed.

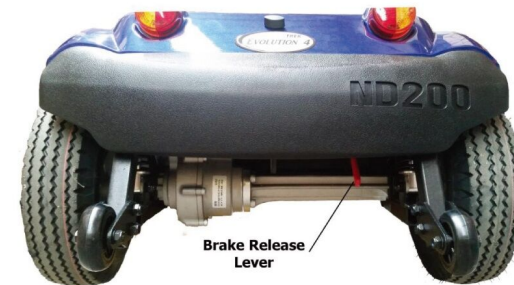
## Brake

Keep speed as low as possible when starting

**Power-On Indicator/Malfunction Indicator:** When the key is turned on this indicator light will be stable, if there is any malfunction this indicator will blink repeatedly. The number of times the light blinks indicates the fault. SEE FAULT CODES on page 11.

**Throttle Lever:** the throttle lever is used to control the forward and reverse direction, speed and acceleration of the scooter. Pull the right side to go forward and the left side to reverse. The speed will increase in proportion to the distance the bar is pulled.

The auto braking system works automatically when the hands are released from the throttle lever. The scooter will slow down and stop automatically then the brake will activate.



To free wheel the scooter the magnetic brake must be disengaged as follows.

Reach under the right hand side of the scooter and disengage the brake lever which is located on the end of the motor.

## Fault Codes

**Warning:** When the Brake is disengaged, the AUTO BRAKE SYSTEM WILL NOT WORK

**Note:** The key must be turned off before engaging the brake lever

Fault Codes: ( Battery display flashes repeatedly when a fault occurs )

See .... [www.support.pgdt.com](http://www.support.pgdt.com) Menu: Online diagnostics S-Drive Flash Codes

- |                           |                                       |
|---------------------------|---------------------------------------|
| 1 Bar Low Battery Voltage | 2 Bars Motor Disconnected             |
| 3 Bars Motor Wiring Trip  | 4 Bars Check Manual Brake             |
| 6 Bars Charger Connected  | 7 Bars Throttle Lever Out Of Position |
| 8 Bars Control System     | 9 Bars Check Brake/Motor Connections  |
- \*10 Bars High Battery Voltage

\* This can happen when driving downhill after the batteries have just been fully charged because the motor is acting as a generator and this increase in voltage can cause a fault status. Reduce speed to solve this problem.

## Battery Charging

**IMPORTANT:** Charge the scooter after every use regardless of the travel distance.

Switch OFF the scooter before charging the battery

Open the charger socket cover on the scooter and plug in the charger lead then plug in the 240v plug to a power socket.

The charging light will be orange when charging and change to green when 90% charged.

Leave the charger turned on for 4 hours after the green light has come on.

## Battery Use

New batteries should be fully charged before using for the first time.

In normal circumstances, it will take about 12 hours to make a full charge of the batteries. If they are not fully charged after 12 hours charging, stop immediately and contact your dealer for assistance.

It will not damage the batteries if they are left on charge all the time unless there is a faulty battery or charger. If still charging after 12 hours contact your dealer.

If the scooter is in storage, please charge the scooter once every 2 months.

## Operation

Make sure the batteries are fully charged.

Please make sure all the tires are inflated.

Sit on the seat and adjust the tiller and seat so you are in a comfortable position.

Insert the key into the Key Switch and turn to the ON position.

Turn the Speed Knob to "Turtle" position and pull back the right side of the Joystick Bar back to drive forward. While driving, adjust the Speed Knob to a comfortable speed.

To stop simply release the Bar and the scooter will slow down automatically and stop.

To reverse simply use your left hand on the Bar and the scooter will drive in reverse.

**Note:** Reverse speed is automatically slower.

**Note:** Press the hazard button if you want a warning sound when reversing.

Use the LOW SPEED switch when indoors and in confined areas.

## Maintenance

### Brake System Inspection

Check that there is space at the front and rear of the scooter.

Switch on the Scooter and turn the Speed Knob to the slowest (Turtle side)

Pull and Release the Throttle Lever to release and lock the Auto Brake System, a 'Clicking' sound indicates the brake is working normally.

### Routine Inspection Before Use

Turn the key to the OFF position and check the Throttle Lever position & status. If there is a crack or break, stop using the scooter and call your dealer to replace.

Switch on the Scooter and turn the Speed Knob to the slowest (Turtle side), and pull and release the Throttle Lever. The Throttle Lever shall come back to the normal position.

Check the tiller locking handle is tightened; check that the seat is secure.

### Monthly Routine Inspection

Inspect the Tyre air Pressure . This should be in the range of 28-32 PSI

Test run the scooter as above.

Inspect the brake system.

Check the tyre status. If any tyres are torn, please call you dealer to replace.

Test run your scooter as above.

### Recommended Service: To be carried out by an authorized Technician

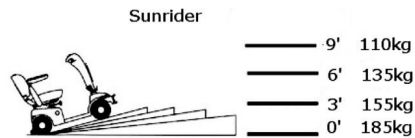
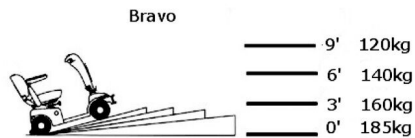
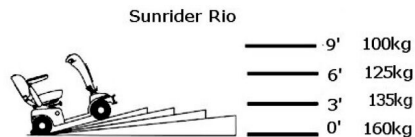
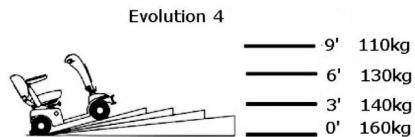
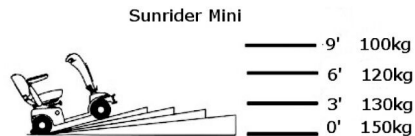
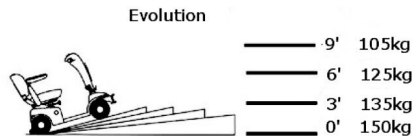
To maintain your scooter in peak condition, the scooter should be serviced every 2 years.



## Maximum User Weight Limits and Climbing Angles

Each TREK Scooter has been manufactured to have safe working limits for maximum user weight and incline angle. The maximum user weight is indicated at 0 degrees for each model.

**WARNING:** Exceeding user weight limit or incline specifications may damage your scooter and void your warranty



## FAQ & Solution

### 01. Can I wash my scooter with water?

The scooter has a water resistant system, but not water proof. Never pour water on the scooter to wash. The best way is to wipe the scooter with a soft damp cloth. Never try to clean the scooter with chemical materials, this may damage the scooter.

### 02. The key is turned on but the scooter will not move and there is no faults showing on the display.

For rider' s safety, the scooter will be switched off automatically after 10 minutes but the display will still be working. In such a case, just turn the key off and on again.

### 03. When do I need to charge the battery?

It is important to charge the battery fully after every time the scooter has been used.

### 04. My new batteries are not performing very well?

New batteries need to be cycled 5~6 times (charging/discharging) before they reach maximum capacity.

### 05. How to protect my scooter batteries if I don' t use my scooter for a longer period?

We recommend leaving the charger turned on and connected to the scooter when the scooter is not in use. The charger is automatic and will turn itself off when the batteries are fully charged. Doing this will keep your batteries in peak condition and increase their life.

## Warranty

Warranty Terms & Conditions. A copy of this page is to be supplied with any claim.

Frame - 3 Years Motor & Transaxle - 2 Years Other Parts - 12 Months Batteries-6Months

The importer warrants that the frame will be free from defects under normal use for a period of 3 years and the Transaxle & Motor for 2 years from the date of purchase by the original customer.

The importer will repair or replace, at our option free of charge any part found on examination to be defective in material and or workmanship within the warranty period.

### Exclusions

- All transportation costs associated with the submission and return of the repair or replacement under warranty as determined by the importer are the responsibility of the original customer.
- Normal wear and tear items such as brushes, tires, tubes, upholstery, seating and arm rests are not included.
- Damage caused by misuse, negligence, accident, water, improper maintenance or Commercial use.
- Warranties are not transferable and only apply to the original purchaser from the date of purchase.
- If the tested battery capacity is above 60% of its rated capacity it will not qualify for a warranty claim.

## Service Record

Model \_\_\_\_\_

Serial No. \_\_\_\_\_

1 <sup>st</sup> Service	Date

4 <sup>th</sup> Service	Date

2 <sup>nd</sup> Service	Date

5 <sup>th</sup> Service	Date

3 <sup>rd</sup> Service	Date

I acknowledge that the scooter has been received in good condition, I have read the warranty and have been instructed in the care, maintenance, safe operation and proper use of the scooter.

Signed: .....

Date .....

Name: \_\_\_\_\_

Dealer Stamp

Address: \_\_\_\_\_

Date: \_\_\_\_\_