

# User Manual

Omeo Evolution 1



**Your Omeo Evolution (Omeo) is operated by Omeo's patented Active Seat Control system (ASC) and is powered by the safest and most reliable self-balancing technology available, the Segway PT.**

**The Segway PT User Manual is referenced here and throughout this Omeo User Manual.**

**Segway and Segway PT are registered trademarks of Segway Inc.**

# Warnings/Cautions and Notices

## Codes used for safety

In this manual, the code used for prioritising information relative to safety is as follows:

 <b>WARNING</b>	Warns about actions that could result in serious injury or death.
 <b>CAUTION</b>	Warns you about action that could result in minor or moderate injury.
<b>NOTICE</b>	Highlights information that is important but not related to injury. Examples include usage tips and damage to the Omeo or property.

The Omeo Evolution (Omeo) is a Personal Mobility Device.

### NOTICE

The Omeo is not designed or intended for use as a medical device or health product, and is not intended or designed, and should not be used as a substitute for a medical device or health product.

### CAUTION

Before raising the legs to ride, you must always check that the Omeo is powered on and the Balance Indicator lights on the Control Panel are green.

### CAUTION

When sitting on the Omeo, you must never attempt to raise the Stabilising Legs if the Omeo is powered off.

### WARNING

Whenever you ride the Omeo you risk serious injury from loss of control, collisions, and falls.

### WARNING

The Omeo is not for everybody. It is critical that the User is able to react quickly in the case of an emergency, device errors and warnings to complete Safety Shutdown Mode within 10 seconds.

### WARNING

Do not attempt to ride the Omeo without proper training.

### WARNING

It is your responsibility to always safely ride the Omeo to reduce the risk of injury or harm to yourself and others.

### NOTICE

You must always use your Omeo within the laws of the jurisdiction in which you are using it.

### NOTICE

You must follow all instructions in the User Materials, including the Omeo User Manual and Safety Video and the Segway User Materials. These Omeo materials will be available on the Omeo Technology website ([omeotechnology.com](http://omeotechnology.com)).

### WARNING

It is **recommended that the rider always wears** an approved bicycle or skateboard helmet while operating the Omeo in accordance with local laws, regulations, bylaws, standards and conventions. (All Omeo Technology media presented without the use of a helmet is conducted under controlled conditions by Omeo professionals and is not to be considered as standard practise.)

### WARNING

Avoid obstacles and slippery surfaces that could result in a loss of balance or traction and cause a fall.

### WARNING

Hold onto the handles when riding the Omeo over rough terrain. Do not attempt to do this hands-free.

# Warnings/Cautions and Notices (cont.)

## NOTICE

Do not submerge the Batteries in water.

## ! CAUTION

Slow down when crossing puddles, avoid use in heavy rainfall.

## ! WARNING

Pay attention to all Safety Warnings and Alerts. They may indicate unsafe operating conditions. You must learn about and understand the Omeo Safety Alerts described in the Omeo & Segway User Materials and subsequent updates and respond as instructed.

## ! CAUTION

Do not get back on or start up the Omeo after a Safety Shutdown until the condition that caused the Safety Shutdown has been identified and corrected.

## NOTICE

Practice Safety Shutdown Mode until the method becomes second nature to you.

## NOTICE

All auditory safety cues are accompanied by a shake or rumble

## ! CAUTION

Never restart and ride your Omeo after it has indicated an empty battery condition or performed a Safety Shutdown due to low battery. The Omeo may not have enough power to keep you balanced, especially if you demand a lot of power at once.

If you restart and continue riding, you risk falling. Also, you risk damaging your batteries, resulting in reduced battery life and capacity.

## ! WARNING

While the Omeo is designed to keep you upright under a variety of conditions, you can overpower the balancing capability of your Omeo by aggressively leaning into and ignoring the Speed Limiter. You should avoid doing this for your own and others' safety.

## ! CAUTION

Always be prepared to stop.

## ! WARNING

Do not attempt to get off the Omeo while it is still moving.

## ! CAUTION

Do not attempt to dismount the Omeo until the Stabilising Legs are down and the Omeo is powered off. Keep feet and hands on the Omeo regardless of any riding conditions until the Omeo comes to a complete stop. i.e. safety shutdown, loss of control, etc.

## ! WARNING

Do not insert the power cord if the Omeo Charge Port is wet.

## NOTICE

Use a surge protector when charging the Omeo to help protect it from damage due to power surges and voltage spikes.

## ! WARNING

Always power off your Omeo and unplug all Charging cords before performing any maintenance or installing any part or accessory.

## ! WARNING

All Omeo & Segway parts must be properly installed. Using your Omeo without all parts properly installed could damage your Omeo and result in serious injury from loss of control, collision, and/or falls.

## ! WARNING

Use only Omeo & Segway approved parts and accessories. Do not modify the Omeo. Modifications to the Omeo that are not performed by Omeo Technology or Certified Omeo Service Technicians, could interfere with the operation of the Omeo. This has the potential to result in serious injury and/or damage and could void the Omeo Worldwide Limited Warranty and Segway Limited Warranty.

## ! WARNING

Theft detection systems, such as the type used in some libraries and retail stores can interfere with the Omeo's ability to balance and/or cause the Omeo to perform a Safety Shutdown. Do not ride within 1.5m (5 ft.) of any theft detection system.

# Warnings/Cautions and Notices (cont.)

## NOTICE

Whilst extremely rare, some security scanners could interfere with the electronics\* and cause the Omeo to go into Shutdown Mode (*refer to Safety Shutdown, Pg. 40*). If you are going to be near a security scanner it is recommended you do a controlled test to make sure that you can operate safely from day to day, otherwise you must stay at least 1.5m (5ft) away from the security scanners in all buildings. Alternatively, you can make arrangements with the manager of the premises to turn off the scanner temporarily.

## NOTICE

The Omeo can be used by children aged from 12 years and above and persons with reduced physical, sensory or cognitive capabilities, or lack of experience and knowledge if they have been given supervision or instruction concerning use of the Omeo in a safe way and understand the hazards involved.

## NOTICE

Children should not play with the Omeo.

## NOTICE

Cleaning and user maintenance should not be made by children without supervision.

## WARNING

Both of the Omeo's charging systems automatically prevent overcharging. It is critical that you leave your Omeo plugged into AC power when it is not in use to avoid damaging both battery systems.

## WARNING

You must keep your feet within the Footplate when in use to prevent injury.

## NOTICE

Annual servicing by a Certified Omeo Service Technician at the recommended intervals is designed to make sure that you get the best out of your Omeo and is a requirement to keep your Warranty valid.

\* The Omeo complies with international emissions and immunity standards. (*Refer to Compliance & Warnings, Pg. 102*)

# Copyright, Trademark, Patent and Contact Information

Copyright 2019 Omeo Technology Limited. All Rights reserved.

## Trademarks

Omeo Holdings Limited owns numerous trademarks including the name 'Omeo' and the 'Omeo man' logo (**Figure 1**) that have been registered in New Zealand and other countries. Those trademarks followed by ® are registered Trademarks of Omeo Holdings Limited. Omeo Holdings Limited reserves all rights in its trademarks.

All other trademarks on the device are the property of respective suppliers.

## Omeo Holdings Limited

### Patent Information

The Active Seat Control system of the Omeo is covered by patents in numerous countries and jurisdictions. For more information go to [omeotechnology.com/patents](http://omeotechnology.com/patents).

## Contact Information

For support, please contact your Authorised Omeo Agent or Omeo Technology direct. For a listing of Authorised Omeo Agents, visit the Omeo Technology website at [omeotechnology.com](http://omeotechnology.com)

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**Figure 1:** 'Omeo man' logo.

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# Section 1: Contents and Layout

## Introduction

Welcome to your new self-balancing personal mobility device, the Omeo Evolution (Omeo).

The Omeo described in this manual has been designed and manufactured according to relevant safety regulations and standards.

### WARNING

**Your Omeo must be regularly used and maintained plus handled safely. You must always adhere to the instructions laid out in this manual and comply with all relevant local laws, regulations, bylaws, standards and conventions for the locality or jurisdiction in which it is being used.**

**Your Omeo must only be serviced by a Certified Omeo Service Technician or in consultation with Omeo Technology.**

## About this manual

This manual contains guidelines for operation of the Omeo and is to be used in conjunction with the Segway Personal Transporter (PT) User Manual.

Omeo Technology have applied best practice in writing this manual to make sure that it is correct for the device described. Discrepancies, errors and omissions, however, may be found from time to time. Should you encounter any we would welcome your feedback. Please contact Omeo Technology.

Users of the Omeo are expected to apply good judgment at all times. This User Manual is to be kept with the Omeo at all times including if ownership or custody is transferred.

Check the website regularly for Omeo user updates and for the most up to date online copy of the manual at [omeotechnology.com](http://omeotechnology.com).

## Significance of this manual

- This Manual and the Segway Personal Transporter (PT) User Manual are components of the Omeo and are necessary for safe and responsible use and care of your Omeo.
- These are to be accessible throughout the Omeo's useful life.

## Using this manual

This manual is relevant only for the Omeo model purchased and is to be used in conjunction with the Segway PT User Manual. The manual has been written by Omeo Technology for the use by any persons authorised to use and maintain the Omeo.

No part of this Manual is to be copied, reproduced or transmitted to third parties without written permission from Omeo Technology. All products and registered brands that appear in this document belong to the rightful owners.

The Manual provides information that will guide the owner and authorised parties in the safe use and care of the Omeo.

### WARNING

**When riding the Omeo, the user risks death or serious injury from loss of control, collisions and /or falls. To reduce the risk of injury the user must read and follow all the instructions and warnings contained in this manual. Contact your nearest Omeo agent if you have any questions or concerns.**

# Section 2: Introduction to your Omeo

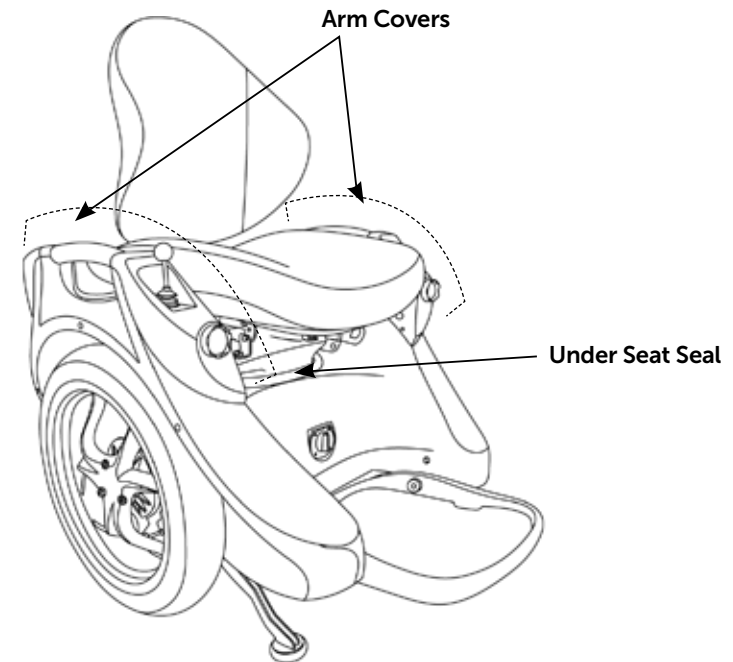
This section introduces the Omeo, and includes:

- How to locate and record the Omeo master Serial Number
- Omeo model, descriptions and specifications
- The operating limits of the Omeo.

## NOTICE

**Voiding of warranty – unauthorised opening and breaking of the Seat Seal or the Arm Covers (Figure 2), or the Power Base unit or other components will void the Omeo Worldwide Limited Warranty.**

These areas contain critical components that must only be serviced and adjusted by Authorised Omeo Agents or Certified Omeo Service Technicians.



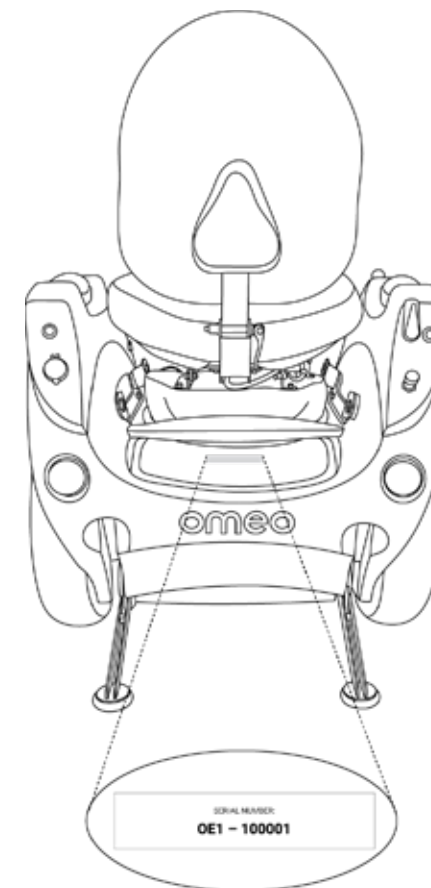
**Figure 2:** Under Seat Seal and Arm Covers.

# Recording the Serial Number for your Omeo

The Omeo has a master Serial Number in the rear storage hatch which is unique to each device. This will allow service, maintenance, parts, ownership and warranty to be tracked appropriately by Omeo Technology. It is recommended that the serial number be kept recorded in a safe place separate from the device in case you need to contact Omeo Technology to order a replacement InfoKey™ Controller, Batteries or for other parts and support.

To record the Omeo master Serial Number:

1. Place the Omeo in a secure upright position with the Stabilising Legs down
2. Lift the lid of the rear storage hatch to locate the serial number (as shown in **Figure 3**)
3. Record your unique Omeo master Serial Number in the "My Omeo" section of this User Manual or some other secure place
4. Re-secure the lid of the rear storage hatch.



**Figure 3:** Location of Omeo master Serial Number.

# The Warning Labels on your Omeo

You must take notice of the warning labels on the Omeo.

The warning labels on your Omeo are located:

- On the right Arm Cover (**Figure 4**)
- Under the Seat Pan (on the under-seat cover) (**Figure 5**).



**Figure 4:** Warning Label located on the Arm Cover.



**Figure 5:** Under the Seat Pan on the under-seat cover.



# Using your Omeo

Your Omeo is a self-balancing multi-purpose personal mobility device with a patented Active Seat Control system. It is designed for recreational and off-road use.

## NOTICE

**The principle use of the Omeo is:**

- **As a personal mobility device only**

**The rider (you) must:**

- **Always be in control of speed, direction, braking and traction**
- **Act responsibly and safely, always with consideration to self and others, and the environment**
- **Operate within all applicable laws, regulations, bylaws, standards and conventions for the locality and jurisdiction in which the Omeo is being used and within the guidelines of this manual.**

Refer to *Section 4: How the Omeo Works, (Pg. 24)* for information on how the Omeo works and how to identify parts.

# Omeo Specifications

**Table 1: Omeo Specifications**

Model	Omeo Standard	Omeo with Off-Road Kit
<b>Rider Weight and Cargo Limits*</b>		
Maximum Payload ( <i>Rider and Cargo</i> )	110kg (243lbs)	110kg (243lbs)
Minimum Rider Weight	40kg (88lbs)	40kg (88lbs)
<b>Performance</b>		
Maximum Speed ** & ****	20kph (12.5mph) ( <i>Depends upon conditions</i> )	Up to 20kph (12.5mph) ( <i>Depends upon conditions</i> )
Energy – to Drive/Power Base ( <i>Rechargeable Batteries</i> )	2 x Lithium-ion (Li-ion) 11.4 Ah, 73.6V	2 x Lithium-ion (Li-ion) 11.4Ah, 73.6V
Energy – to Stabilising Legs, Lights, USB ( <i>Rechargeable Batteries</i> )	2 x Lead Acid 2.2Ah, 12V	2 x Lead Acid 2.2Ah, 12V
Range of Drive batteries on a full charge***	30–50km (19–31mi) ( <i>Depends upon conditions</i> )	16–25km (10–15.5mi) ( <i>Depends upon conditions</i> )
Power Requirements ( <i>Worldwide</i> )	100–240V @ 50 or 60Hz	100–240V @ 50 or 60Hz
Turning Radius	The wheels can rotate in opposite directions, enabling the Omeo to turn on its own axis.	
Tyre Type	Standard	All-Terrain

## NOTICE

**Users must comply with all local and government regulations regarding the use of personal mobility devices.**

Model	Omeo Standard	Omeo with Off Road Kit
Tyre Diameter	483mm (19in)	483mm (19in)
Tyre Inflation Pressure – Road	15psi (1.03 bar)	5psi (0.344 bar)
<b>Dimensions</b>		
Device Weight without Batteries	65kg (143lbs)	75kg (165lbs)
Battery Weight <i>(pair)</i>	10.3kg (22.7lbs)	10.3kg (22.7lbs)
Ground Clearance <i>(Unloaded)</i>	85mm (3.3in)	85mm (3.3in)
Length <i>(Footrest up)</i>	740mm (29in)	750mm (29.52in)
Length <i>(Footrest down)</i>	900mm (35in)	900mm (35in)
Width	670mm (25in)	890 mm (35in)
Height	990mm (39in)	1020 mm (40.2in)
Height <i>(Backrest off)</i>	650mm (25in)	650 mm (25in)
<b>InfoKey™ Controller</b>		
Battery	CR2430 replacement batteries are available at electronics stores.	

The weights, performance speeds and Battery range are a guideline for optimal device performance and user safety. Variables will affect actual performance levels.

#### NOTICE

- \* **See *Weight Limit (Pg. 20)* for rider and cargo limits.**
- \*\* **The speed is the capability of the device in optimal conditions.**

\*\*\* **See *Maximising Range (Pg. 20)* for factors that increase or decrease the user range on the Omeo.**

\*\*\*\* **Speed limited by factory to suit geographical locations**

# Operating Limits

The Omeo is a dynamic device that is designed to perform safely, within limits. An increased risk of damage to the device, its components and injury to the rider and others may occur when the recommended limits are exceeded.

## Weight Limit

**The maximum weight limit of 110kg (243lbs)** for rider and cargo (payload) is calculated to ensure reliability, safety, functionality and undue stress on componentry.

Exceeding the weight limit will void the Omeo Worldwide Limited Warranty.

### WARNING

**Exceeding weight limits could compromise safety, reliability, functionality and durability especially when operated:**

- **At higher speed**
- **Inappropriately to conditions**
- **By aggressive and abrupt riding**
- **On irregular surfaces**
- **On incline/steep slope**
- **With uneven weight distribution.**

## Minimum Rider Weight

The rider's weight should not be less than 40kg (88lbs).

## Cargo Weight

Add the weight of the cargo and the rider to determine the total weight to make sure you are operating within the weight limits.

Cargo carried on the front, back or sides of your Omeo will likely require a change in the position on the seat to re-establish the central or Neutral Balance point.

### WARNING

**Cargo (e.g. children, animals, shopping) placed on your lap or hung from the back rest will interfere with the Omeo's centre of balance and affect the braking ability of the machine. This can compromise safety and may result in serious injury to yourself and others.**

## Transferring Weight

Effective performance of your Omeo requires weight transference over the central balance point. Weight transference generates forward and back drive and stopping and slowing down by the same actions in opposite directions. For example, transferring weight to the right will cause your Omeo to move to the right and transferring weight to the rear will cause your Omeo to slow down and stop then go backwards.

## Maximising Range

The range of your Omeo is affected by many variables, such as off-road use, climbing hills, operating continuously at high speed.

Maximum range distances are provided in the [Segway PT User Manual \(Pg. 16\)](#).

## Alerts

Your Omeo has a range of alerts that will activate when some limits are being exceeded. You must learn to recognise and manage these alerts and adapt your riding style accordingly. For example, the Seat will tilt backwards when approaching maximum speed. For further information about these alerts, refer to *Section 6: Safety Alerts (Pg.40)*.

# Section 3: Setting up the Omeo

## Unpacking your Omeo

The following parts are included in your box upon delivery:

- Seat Back
- Omeo – complete with Seat, Wheels, Power Base unit
- Power cord for charging the Lithium-ion Batteries
- InfoKey™ Controller x2
- User Manual and User Video (USB drive)
- Auxiliary Battery Charger\*
- Omeo Worldwide Limited Warranty
- Tools:
  - 1x 3mm Allen key (for Segway Batteries)
  - 1x 4mm Allen key
  - 1 x 10mm spanner.

Separately:

- 2 x Segway Lithium-ion Batteries for the Power Base unit (in a separate box)  
*(In some instances these may come already fixed to the Omeo)*
- (If ordered) Off-Road Kit comprising of; 2 x All-Terrain Tyres, Wheel Guards and 6 screws.

\* USA/Canada – XP Power Model ACM 240US24  
Rest of the world – Sunny Billion Model SBP 240100

# Assembling your Omeo

## **⚠ WARNING**

**Always power off your Omeo and unplug the AC Power Cords before performing any maintenance or installing any part or accessory.**

## **NOTICE**

**The Omeo Auxiliary Batteries are pre-installed.**

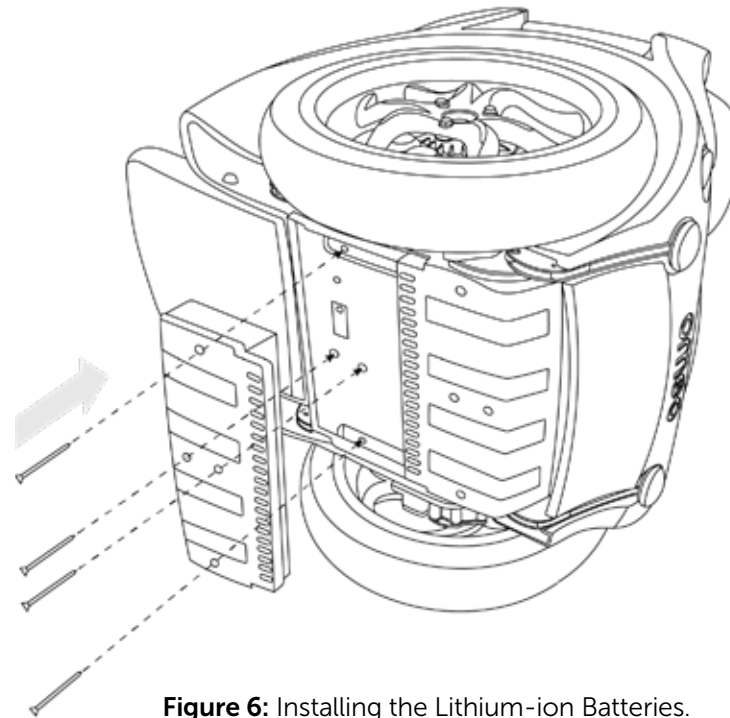
### **Installing the Segway Lithium-ion (Li-ion) Batteries (if not pre-installed)**

Fasten the Batteries onto the chassis of the machine and once installed do not remove them unless under service conditions.

Refer to the [Segway PT User Manual \(Pg. 22\)](#) for installation, charging and safety precautions.

Additional instructions:

1. Make sure that your Omeo is powered off
2. The Stabilising Legs can be either lowered or raised
3. Find a soft area (e.g. soft carpeted area) and gently tip the Omeo onto its side.



**Figure 6:** Installing the Lithium-ion Batteries.

## Assembling your Omeo (cont.)

Attach the Seat Back and lock into place by turning the knob in a clockwise direction (As shown in **Figure 7**).

### Seat and Footplate

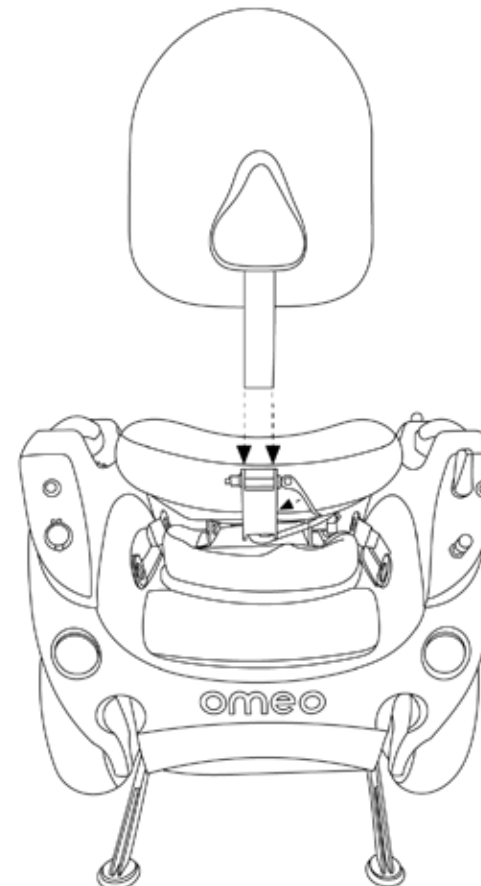
Your Omeo Seat and Footplate will be factory set in accordance with the information provided by you to Omeo Technology on your order form.

Customisation should be minimal to start, however as you progress through initial training you may want to adjust the Seat and or Footplate. Refer to *Section 11: Customisations (Pg. 87)*.

Now you are ready to understand how your Omeo works.

### **WARNING**

**Do not attempt to ride your Omeo before you receive formal training from a Certified Trainer or an Authorised Omeo Agent.**



**Figure 7:** Attaching the Seat Back.

# Section 4: How the Omeo Works

Your Omeo works by the rider transferring their weight on the seat over a central point creating electronic signals to control balance, drive and direction. Alternatively, the steering can be operated by the Joystick.

The Omeo uses self-balancing technology to maintain balance and movement forward and backward when the rider changes their centre of gravity.

The Omeo's patented 'Active Seat Control' system (ASC) incorporates the forward, backwards and steering control with the Power Base unit, to provide a "go in the direction you are leaning" system.

When the rider holds their weight in the centre, the device will stay still, or in Neutral Position.

## ⚠ WARNING

**The Omeo will only self-balance on a forward and back axis. It will not self-balance on a side to side axis. This means that your Omeo can tip over sideways when forced over its natural balance point. You must stay in control to maintain side to side stability.**



Figure 8: Forward and back movement across a central point.

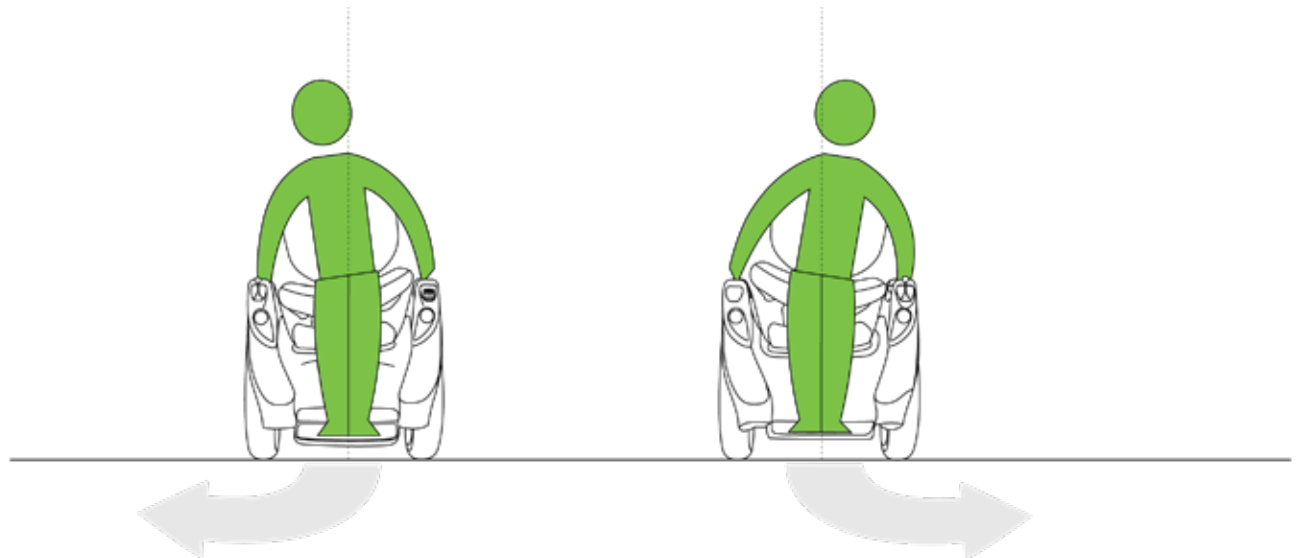


Figure 9: Seat steer left and right movement across a central point.

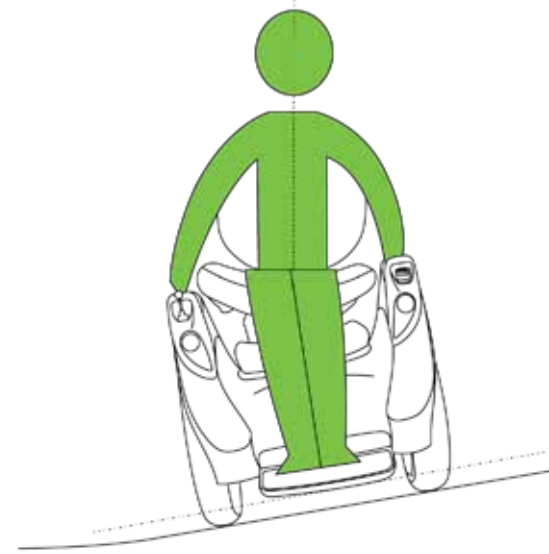


# Roll Compensation

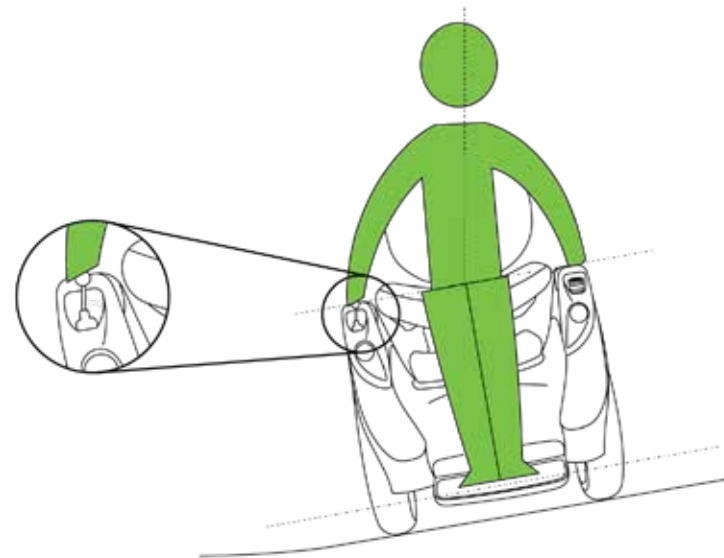
The Omeo utilises the Segway PT feature called Slow Speed Roll Compensation ([Refer to the Segway PT User Manual Pg. 26](#)) that separates steering input from terrain changes. This allows you to ride in a straight line over uneven terrain by keeping the Active Seat Control (ASC) straight up and down.

Your Omeo manages steering input and balance by either the seating position or Joystick control.

Your Omeo is a live platform, moving in response to your weight distribution on the seat, generating drive and steering.



**Figure 10:** Seat steer – Roll compensation across a slope.



**Figure 11:** Joystick control – Roll compensation across a slope.

# Omeo Parts and Subsystems

## WARNING

**All of your Omeo's parts are approved by Omeo Technology and have been properly installed.**

**As the owner of this Omeo you must make sure that all user adjustable parts are installed and adjusted correctly in accordance with the directions contained within this manual.**

**Using your Omeo without following these instructions may result in you losing control resulting in serious injury or death, or damage to you, your Omeo and/or property.**

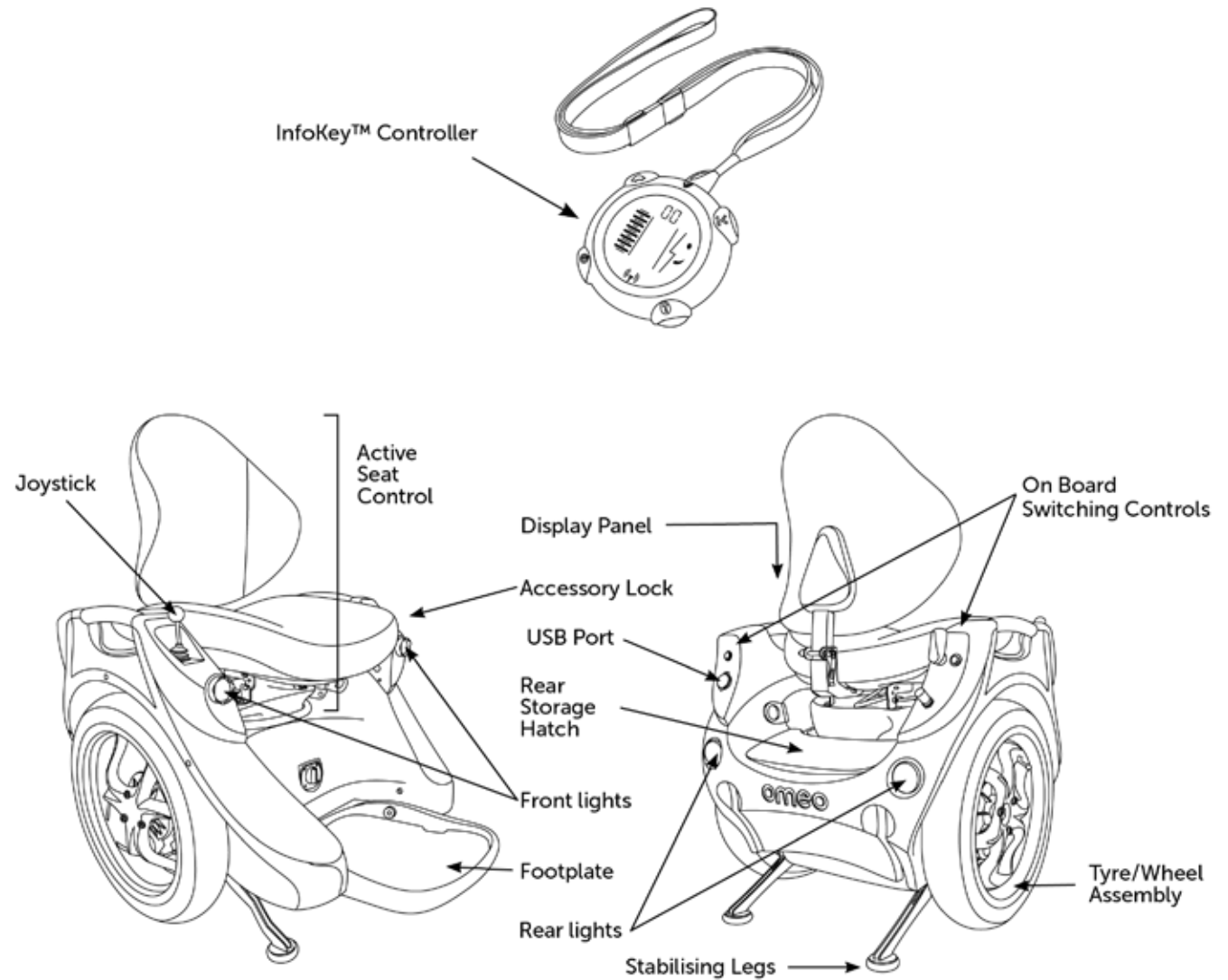
## WARNING

**Do not modify your Omeo. Modifications may alter the operation of your Omeo and cause serious injury or damage. Modifications may also void the Omeo Worldwide Limited Warranty.**

## Omeo Parts and Subsystems (cont.)

The Omeo has the following parts and subsystems:

- Power Base unit and Body
- InfoKey™ Controller
- Tyres/Wheel Assembly and Guards (fenders)
- Active Seat Control (adjustable Seat Pan, Back Rest, Cushions and Covers)
- On Board Switching Controls
- Stabilising Legs
- Front and Rear Running Lights
- Joystick
- Footplate
- Rear Storage Hatch
- Display Panel (with Indicator and Warning Lights)
- USB Port
- Accessory Lock
- Batteries; 2x Li-ion (main-drive) and 2x Lead Acid (Auxiliary).



**Figure 12:** Omeo Parts and Subsystems.

# Omeo Parts and Subsystems (cont.)

## Redundancy/Safety

Omeo's redundancy and safety features set it apart from any other self-balancing device. In-built redundancies provide for a backup to take over from a particular part in the unlikely event of failure, minimising the possibility of an accident.

Omeo has multiple redundancy subsystems:

- Controller Boards
- Motors
- Batteries
- The Balance Sensor Assembly
- Automatic Safety Shutdown

## Active Seat Control and Joystick

The Active Seat Control (ASC) is a dynamic system that allows you to pivot the seat using your weight on all lateral axes. This in turn controls the switching for drive, steering and braking.

The ASC also ensures your sitting position is maintained level on slopes so that the device can be controlled as if it was on a flat surface.

### The Joystick working in conjunction with the ASC.

When the Joystick is engaged (see *Steering Selection Lever (Pg. 31)* for details on Seat control and Joystick control settings) the steering control is transferred to the Joystick. The side-to-side movement of the ASC is locked and inoperable.

The drive and braking system of the Omeo is still controlled by the forward and back movement of the seat and not the Joystick.

### CAUTION

**The Joystick does not provide any forward drive or braking. The steering only is controlled by the Joystick.**

## Standard and Off-Road Wheel and Tyre Kits

Your Omeo uses either the Standard Kit or the Off-Road Kit for more extreme terrain.

### WARNING

**Do not use the Omeo without Wheel Guards (Fenders) at any time. Using the Omeo without Wheel Guards/Fenders could result in injury or damage to the device or rider.**

### NOTICE

**Use of non-approved wheels and tyres may void the Omeo Worldwide Limited Warranty.**

### NOTICE

**Always run and maintain both the Standard and All-Terrain Tyres with the proper tyre inflation as noted in Table 1 (Pg. 18).**

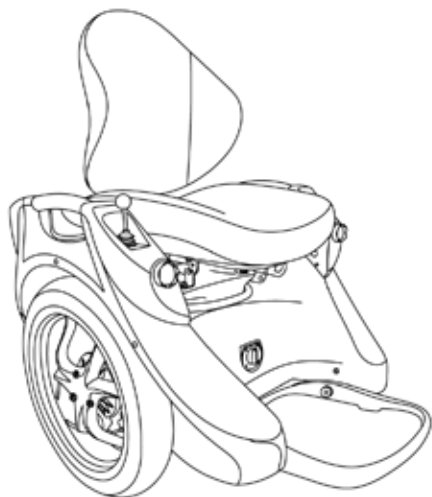


Figure 13: Omeo Standard Kit.

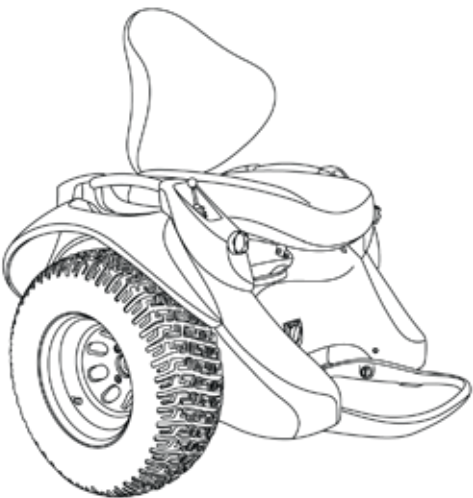
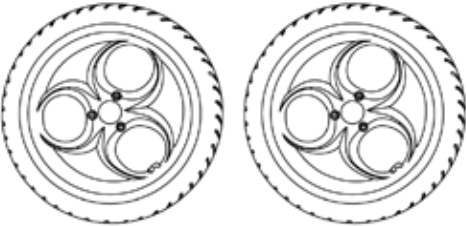
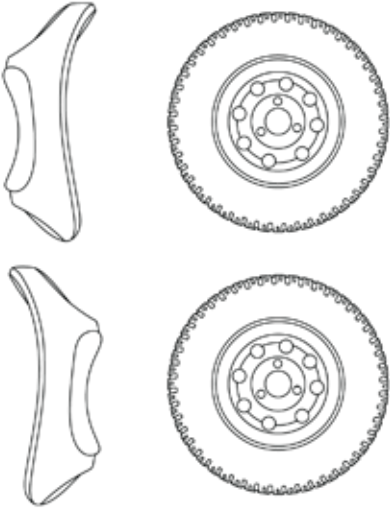


Figure 14: Omeo with the Off-Road Kit.

**! WARNING**

**Never ride an Omeo without the wheels covered by the Wheel Guards. Doing so could result in equipment damage and/or serious injury.**

Table 2: Omeo Kits available.

Omeo Standard Kit	
	<p>The Omeo Standard Kit will fit through most doorways (650mm/25in). It is best suited to indoors and firm outdoor surfaces like formed tracks and pathways.</p> <p>The wheel guards for the Standard Kit are built into the body.</p>
Omeo Off-Road Kit	
	<p>The Omeo Off-Road Kit comprises the All-Terrain Tyres and Wheel Guards (Fenders). It is suitable for outdoor use and a wide range of surfaces.</p> <p>The wide flared guards and bigger tyres increase the width (890 mm/35in.), traction and scope of your Omeo. The Omeo is not suitable for close or indoors use in this configuration.</p> <p>The Off-Road Guards, which are attached by screws to the body, are designed to give some protection from excess ground water, mud and loose debris. The Guards also protect you from making contact with the moving wheel when leaning into turns.</p> <p>Because the All-Terrain Tyres have no crown and operate at low pressure, they provide a smooth ride; great traction (including on soft sand, gravel and dirt), and are gentle on delicate surfaces (particularly in a straight line), such as lawns and other fragile flora and substrates.</p>

# Omeo Parts and Subsystems (cont.)

## On Board Control Panels

**NOTE:** Panels A and B can be set up on either the left or right side, depending on the preference indicated on the Omeo order form. Panel A will always contain the Steering Selection Lever, Main Control Switch and Seat Steering Dampening Control, whereas Panel B will always contain the Light Switch and USB Port (**Figure 15**).

### Main Control Switch

The Main Control Switch is located at the top of Panel A (see **Figure 15**). To access the Main Control Switch function, ensure your Omeo is in Joystick Mode, that is, the Steering Selection Lever is in a vertical position.

The function of the Main Control Switch is to simultaneously raise/lower the Stabilising Legs and enter/exit Balance Mode.

**When in Standby Mode:** (The Omeo is powered on and the Centre indicator light is green):

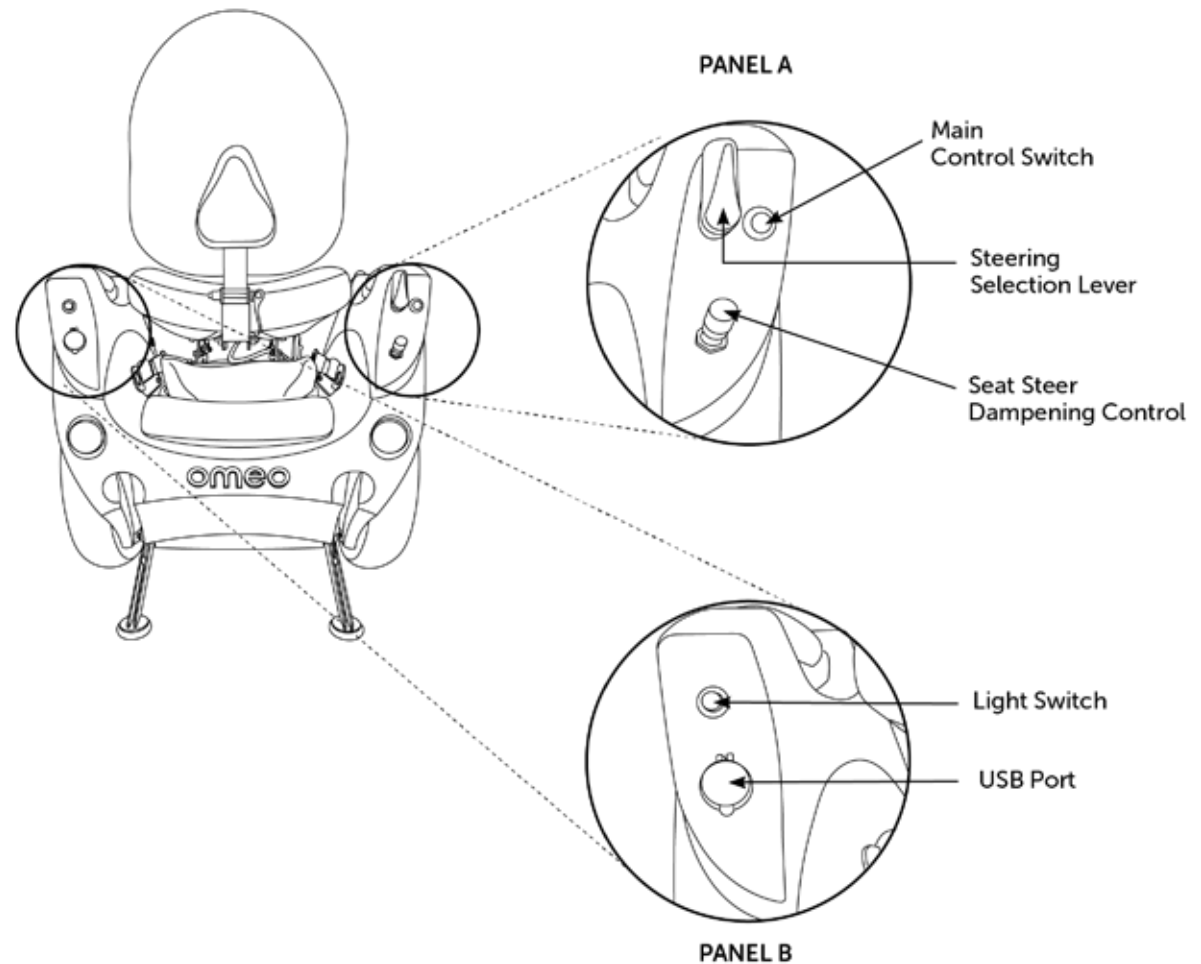
- Press the Main Control switch once to raise the Stabilising Legs and enter Balance Mode
- Press the Main Control Switch only once to then lower the Stabilising legs and exit Balance Mode.

### NOTICE

**Do not press the Main Control Switch more than once to lower the Stabilising Legs.**

### NOTICE

**Your Omeo must be in Joystick Mode to expose and therefore use the Main Control Switch.**



**Figure 15:** On-Board Control Panels (A & B).

## Steering Selection Lever

The Steering Selection Lever is beside the Main Control Switch (*Figure 15: On-Board Control Panels (A & B) Pg. 30*). Use the Steering Selection Lever to switch the Omeo between Joystick and full ASC Mode.

When the Steering Selection Lever is in a vertical position and the Main Control Switch is exposed, the Omeo is in Joystick Mode and the side to side movement (ASC) of the seat is locked.

When the Steering Selection Lever is in a horizontal position, covering the Main Control Switch, the Omeo is in full ASC Mode with the side to side movement of the seat enabled.

## Seat Steer Dampening Control

The Seat Steer Dampening Control knob (*Figure 15: On-Board Control Panels (A & B) Pg. 30*) controls the steering sensitivity (side to side movement) of the ASC. The Seat Dampening Control can be adjusted at any time, even while the Omeo is in ASC Balance Mode and moving.

Turn the knob clockwise to decrease steering sensitivity.

Turn the knob anti-clockwise to increase steering sensitivity.

For more information refer to the User video in the User Materials provided (or on the Omeo Technology website ([omeotechnology.com](http://omeotechnology.com)) and *Section 11: Customisations (Pg. 87)*.

## Light Switch

The Light Switch (on/off) is located on Panel B (*Figure 15: On-Board Control Panels (A & B) Pg. 30*). It controls both the LED headlights and tail lights (See *Running Lights Pg. 36*).

## Operational Modes

Your Omeo has several Modes of operation:

- Standby Mode
- Active Standby Mode
- Balance Modes
  - Joystick Mode
  - ASC Mode
- Riderless Modes
  - Walker Balance Mode
  - Free Wheel Mode.

### Standby Mode

When you sit on the seat of the Omeo and turn the power on with the InfoKey™ Controller your Omeo will be in Standby Mode with the Stabilising Legs down.

Before you can ride your Omeo you need to switch to Balance Mode.

### Active Standby Mode

This is when you have been riding your Omeo and you come to a stop and put the stabilising legs down.

In this mode, the Omeo is still powered on and has the potential to move when the Joystick is moved.

To change from Active Standby Mode to Standby Mode, quickly press the Power button on the InfoKey™ Controller once. The Omeo will beep to confirm that you have entered Standby Mode.

To enter Balance Mode from Active Standby Mode, press the Main Control Switch once to raise the stabilising Legs.

You cannot enter Active Standby Mode when you first power on your Omeo. You need to have been in Balance Mode before you can enter Active Balance Mode.

E.g. Power On, Standby Mode, Balance Mode, Active Standby Mode, Standby Mode

### WARNING

**Always make sure that you are in Standby Mode before attempting move on your Omeo. If you are in Active Standby Mode and attempt to move or dismount your Omeo, you risk damage and/or injury.**

### Balance Mode

You need to be in Balance Mode to ride your Omeo.

Balance Mode engages the drive and self-balancing platform.

Balance Mode has two options: Joystick Mode or ASC Mode.

Before entering Balance Mode, the Steering Selection Lever must be vertical, so you have access to the Main Control Switch (This is Joystick Mode.)

Enter Balance Mode by fully depressing the Main Control Switch for 1 second. This will raise the Stabilising Legs and activate the self-balancing platform, releasing the forward and backward movement of the seat.

You are now ready to ride your Omeo with weight transfer and Joystick steering.



# Omeo Parts and Subsystems (cont.)

## WARNING

**Cargo (e.g. children, animals, shopping) placed on your lap or hung from the back rest will interfere with the Omeo's centre of balance and affect the braking ability of the machine. This can compromise safety and may result in serious injury to yourself and others.**

## NOTICE

**Be prepared for your Omeo to move immediately after the Stabilising Legs start raising. It is important that you are seated comfortably and have found your neutral/centre point of balance, so the Omeo does not move unexpectedly.**

### Joystick Mode

Use Joystick Mode when learning to ride your Omeo, or in tight confines where micro movements may be required.

Joystick Mode locks out the side-to-side movement of the seat. You still need to lean forward to move your Omeo forwards, and back to brake or reverse.

### Active Seat Control Mode (ASC)

In ASC mode your Seat is fully alive to you transferring or distributing your weight by moving forward, backward and side to side; to move your Omeo forward, reverse, brake or steer.

ASC can be operated hands-free by shifting weight through your hips, or you can grip the handles and leverage your torso through your arms and shoulders.

See also *Section 7: Learning to ride your Omeo (Pg. 42)*.

## Riderless Modes

Your Omeo also has two Riderless Modes:

- Walker Balance Mode, which is power assisted (when the Omeo is still turned on),
- Free Wheel Mode, which is non-power assisted (when the Omeo is powered off).

Both Riderless Modes allow you to move the Omeo when it is not being ridden.

### Walker Balance Mode

## NOTICE

**Walker Balance Mode is best suited for situations where it is difficult to manage the weight of your Omeo, for example, moving your Omeo up a ramp and into a vehicle.**

To activate Walker Balance Mode, dismount your Omeo and power it on.

With your Omeo now in Standby Mode, push the Main Control Switch 5 times within 3 seconds.

The Stabilising Legs will rise to allow you to easily move your Omeo for walking up slopes and around obstacles.

In this mode your Omeo is best controlled in Joystick Mode as you will easily be able to push the Joystick for left and right movements.

When you have manoeuvred your Omeo to the desired location, push the Main Control Switch once to lower the Stabilising Legs and power off the Omeo using the InfoKey™ Controller.

You will know your Omeo is in Balance Mode or Walker Balance Mode when the Balance Indicator Lights are pulsing or rotating green and your InfoKey™ Controller displays a happy face.

For more information on how to put your Omeo into Balance Mode, see *Turning on and riding your Omeo (Pg. 52)*.

### Free Wheel Mode

## NOTICE

**Free Wheel Mode is possible when the Omeo is powered off completely. It offers no power to assist (i.e. when pushing the Omeo up a slope) so you will need to manage the entire weight of the device. You may need another person to assist with this.**

Free Wheel Mode (non-power assisted) is best suited for simply moving your Omeo from one place to another where there is no resistance.

To activate Free Wheel Mode, make sure your Omeo is powered off and there is no rider on the Seat. Push the Main Control Switch 3 times within 3 seconds. The Stabilising Legs will rise to allow you to easily move your Omeo around manually.



## NOTICE

**The Omeo can go into error mode if tilted beyond 30° either side while in Walker Balance Mode.**

### Timeout Function

After a period of inactivity in Standby Mode, your Omeo will power off/shut down. This is called the Timeout function.

The Timeout Function will not activate when the Omeo is in Active Standby Mode, it only occurs in Standby Mode.

The factory default time that the Omeo will remain powered on in Standby Mode is set to 15 minutes but can be adjusted manually with the Info Key Controller. For more information on how to adjust the Timeout function, refer to [Segway PT User Manual \(Pg. 47\)](#).

## ! WARNING

**ALWAYS REMEMBER – When you are on your Omeo in Standby Mode, you must check that your Omeo is still powered on and the Balance Indicator Lights are green before raising the Stabilising Legs.**

## Display Panel

The Display Panel is located on the left Arm Cover of your Omeo (**Figure 16**). It consists of 8 Indicator Lights of the Power Base, Lithium-ion and Auxiliary signal systems. There are three sets of lights on the Display Panel:

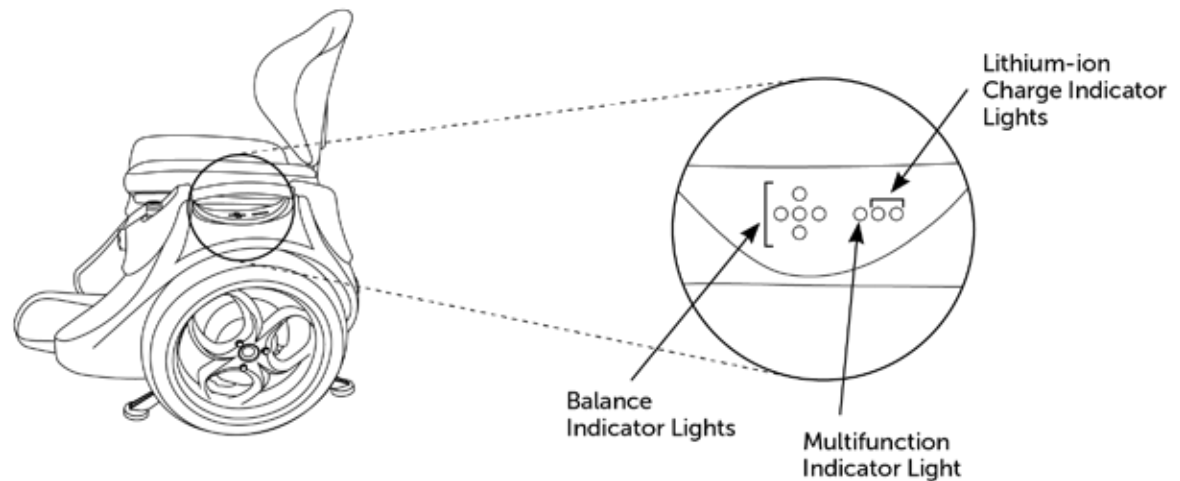
- **Balance Indicator lights** that provide visual information as to the Omeo being in either Balance Mode, or not
- **Lithium-ion Charge Indicator lights** are active when the Omeo is plugged into the AC power and indicates the charge status of the Lithium-ion drive batteries.
- **Multifunction Indicator Light** that provide information about the charge level of the Auxiliary Batteries.

## Balance Indicator Lights

The Display Panel has 5 Balance Indicator Lights. These lights indicate the balancing status of the Omeo and helps the rider determine when it is safe to raise the Stabilising Legs and enter Balance Mode.

When the Omeo is powered on the Indicator Lights must display a green pattern before the rider pushes the Main Control Switch to raise the Stabilising Legs, activate Balance Mode and begin to ride the Omeo.

**Table 3** (*Balance Indicator Light Patterns, Pg.34*): describes the light pattern on the Display Panel and the relevant balance status of the Omeo.



**Figure 16:** Display Panel with Indicator & Warning Lights.

Red Balance Indicator Lights indicate that the steering is not centred and the Omeo is not ready to engage into Balance Mode:

- **One red left or right Balance Indicator Light**  
Ensure the Steering Selection Lever is set to Joystick Mode. Check the Joystick to make sure there is nothing pushing or obstructing it in anyway. Gently shift and centre the Joystick until the Red Balance Indicator lights are replaced by one green Balance Indicator Light in the centre.

Green Balance Indicator Lights indicate that the Omeo is ready to enter Balance Mode and is safe for riding:

- **One green Balance Indicator Light in the centre** The Omeo is in Standby Mode, ready for the rider to raise the Stabilising Legs and enter Balance Mode
- **Five green Balance Indicator Lights pulsing**  
The Omeo is in Walker Balance Mode with no rider on the seat and ready for power assisted relocation
- **Four green Balance Indicator Lights rotating**  
The Omeo is in Balance Mode with the rider on, ready to go.

### Lithium-ion Charge Indicator Lights

The two rear Indicator Lights are the Segway battery (Lithium-ion) Charge Indicator Lights. They should be solid green when the Omeo is plugged into AC power, then start flashing when fully charged. If either or both of the lights flash red, it means there is a fault with either or both of the Batteries and the Omeo will go into error Shutdown. For more information, refer to the [Segway PT User Manual \(Pg. 89\)](#).

### Multifunction Indicator Light

The third light is the Multifunction Indicator Light. It should be solid green when the Auxiliary Batteries are charging, then will start flashing when fully charged. For more information refer to *Balance Mode Error Conditions (Pg. 98)*.

**Table 3: Balance Indicator Light Patterns.**

Omeo Status	Light Pattern
Not ready. Do not raise the Stabilising Legs and enter Balance Mode.	Off: No Balance Indicator Lights are illuminated.  Red: One or more Balance Indicator Lights are red.
Ready. Raise the Stabilising Legs to enter Balance Mode or Walker Balance Mode.	Green: Only the centre Balance Indicator Light is green. All four other lights are not illuminated.  Green: All five Balance Indicator Lights are pulsing green.

# Omeo Parts and Subsystems (cont.)

## Controller Boards

There are two sets of Controller Boards in the Omeo – the Segway Power Base Controller Board and the Auxiliary Controller Board.

### Segway Power Base Controller Boards

Refer to [Segway PT User Manual \(Pg. 34\)](#)

Replacements required in the Segway User Manual:

- Where there are references to Lean Steer Sensors replace with **Seat Steer Sensors**.
- Where there are references to Tilt Sensors replace with **Seat Steer Sensors**.

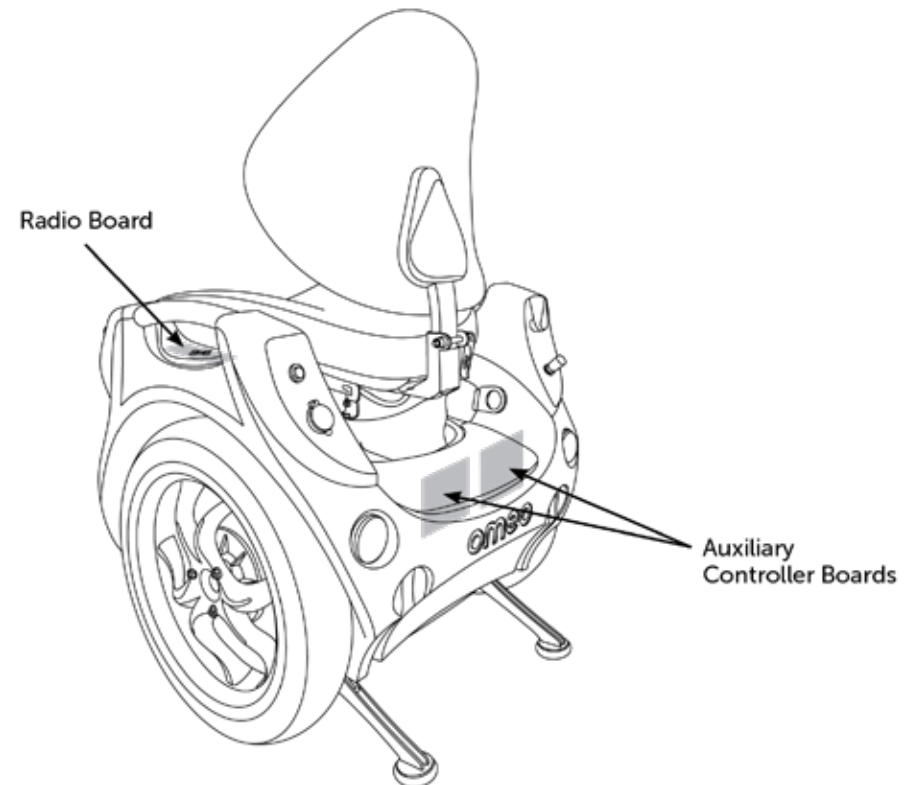
### Auxiliary Controller Boards

The Auxiliary Controller Boards receive input from the Control Panel and manage the power level of the Auxiliary Batteries.

They also manage the Omeo's Balance and Walker Modes and are the electronic control system for the Stabilising Legs.

### Radio Board

This is located in the left Arm Cover of the Omeo (**Figure 17**). It contains the LEDs for the Display Panel and is responsible for receiving and sending signals from the InfoKey™ Controller.



**Figure 17:** Location of the Omeo Auxiliary Controller and Radio Boards.

# Omeo Parts and Subsystems (cont.)

## Motors

Refer to [Segway PT User Manual \(Pg. 35\)](#).

## Balance Sensor Assembly

Refer to [Segway PT User Manual \(Pg. 36\)](#).

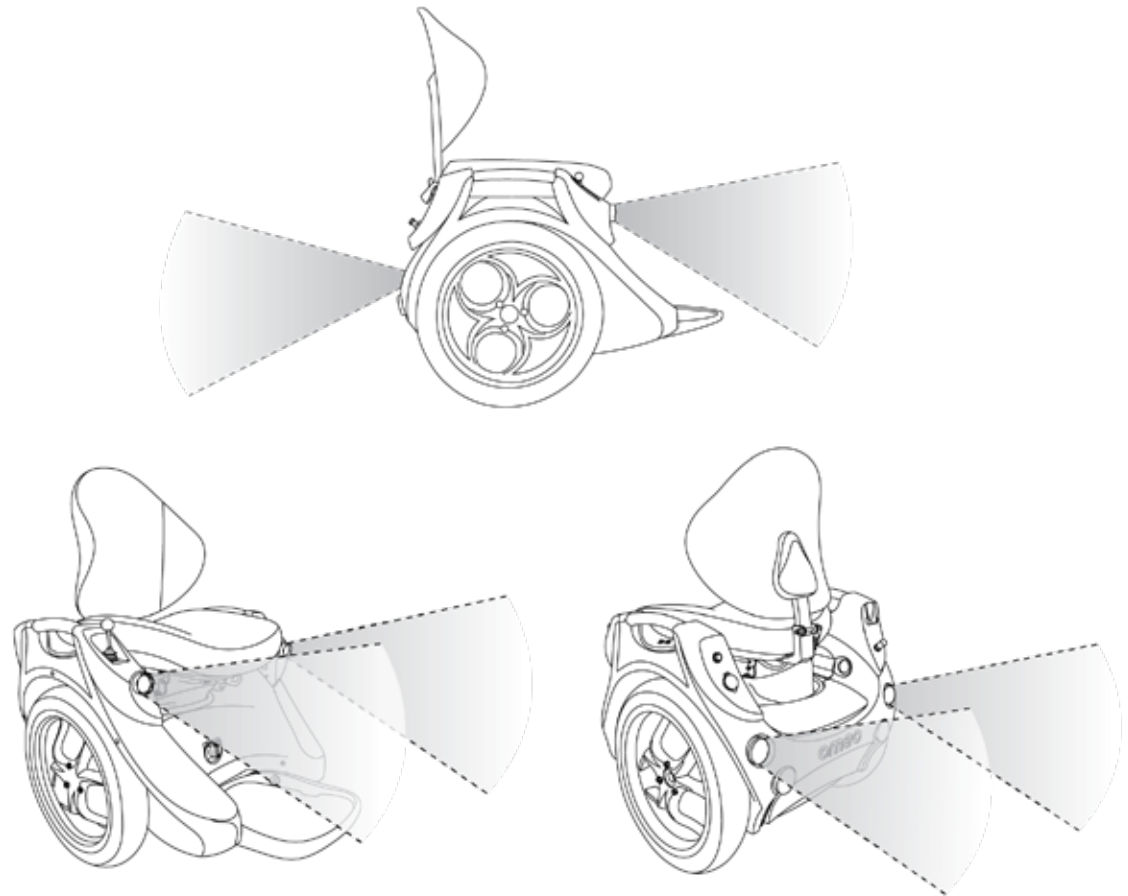
## Running Lights

Your Omeo has front and rear LED running lights powered by the Auxiliary Batteries. The lights are activated by the Light Switch. This is located above the USB Port on the Control Panel B (*Figure 15: On-Board Control Panels (A & B) Pg. 30*).

If the lights go off unexpectedly, this will be because the Auxiliary Battery levels are discharged below 50%. The Multifunction Indicator Light (*Figure 16: Display Panel with Indicator & Warning Lights Pg. 33*) will flash yellow to show low Auxiliary Battery levels. (See the *Auxiliary Batteries, Pg. 37*).

### WARNING

**To ride safely, you must be able to clearly see what is in front of you and you must be clearly visible to others.**



**Figure 18:** Omeo front and rear lights.

# Omeo Parts and Subsystems (cont.)

## Batteries

Your Omeo operates with two battery systems:

- The Segway Power Base (the self-balancing platform and drive) is powered by two Lithium-ion Batteries
- The Stabilising Legs, Lights and USB power supply port are powered by two 12 Volt Lead Acid Batteries (Auxiliary Batteries).

Refer *Section 8: Batteries and Charging (Pg. 67)*.

## The Auxiliary Batteries

The Auxiliary Batteries are 2x 12V Lead Acid Sealed Batteries.

They are factory affixed inside the body to the chassis, are interchangeable and can be removed/replaced by a Certified Omeo Service Technician only.

The Batteries operate the Stabilising Legs, USB Port and Lights.

If the Lights and USB Port shut down and the Multifunction Indicator Light flashes yellow once, the Batteries have run to below 50% of charge.

The Multifunction Indicator Light will flash red and the Stabilising Legs will not raise when the Batteries are discharged to below 20%.

For safety reasons, there will always be enough charge to lower the Stabilising Legs for you to dismount the Omeo.

Charging the batteries is then required to resume normal operation.

Refer to *Charging Your Batteries – Omeo Auxiliary Batteries (Pg. 69)*.

## NOTICE

**Extreme use of the head/tail lights or USB Port may cause the lights to turn off and the USB Port to de-activate. The Auxiliary Batteries will then need re-charging.**

## Segway Lithium-ion (Li-ion) Batteries

Refer to *Segway PT User Manual (Pg. 38)*.

## NOTICE

**For more information on these two battery systems, Refer to Section 8: Batteries and Charging (Pg. 67).**

## Lithium-ion Charge Indicator Lights

Two Battery Charge Indicator lights on the Display Panel indicate the charge status of the Lithium-ion Batteries when the Omeo is plugged in to AC power. The front Battery Charge Indicator light corresponds to the front Battery and the rear Battery Charge Indicator light corresponds to the rear Battery (*See Figure 16: Display Panel with Indicator & Warning Lights, Pg. 33*).

For more information, refer to *Segway PT User Manual (Pg. 89)*.

For more information about Auxiliary Battery Lights refer to *Battery Management Indicators for the Auxiliary Batteries (Pg. 70)*.

## Stabilising Legs

The Stabilising Legs are used to provide a stable platform for you to transfer on and off your Omeo or to rest when not in Balance Mode.

### CAUTION

**Only operate the Stabilising Legs when your Omeo is stationary.**

You can raise the Stabilising Legs to free wheel or power walk the Omeo around without a rider or lower the Stabilising Legs to keep the Omeo upright and stable when stationary.

The Stabilising Legs are electrically operated by the Auxiliary Batteries. They do not require the main drive or Power Base to be switched on.

Each Stabilising Leg operates independently of the other and stops when it touches the ground, so that the Omeo is level and stable on uneven ground or slopes.

Sensors are built into your Omeo so that in the event of a Stabilising Leg becoming jammed, the Multifunction Indicator Light will emit a light flash pattern: alternate white-blue, yellow-blue, or red-blue.

### WARNING

**Blue light will flash. (Refer to Section 12: Troubleshooting, Pg. 94).**

### WARNING

**In the event of a Safety Shutdown, the rider has approximately 8 to 10 seconds from the start of the Safety Shutdown to come to a controlled stop in a safe location. Refer to Safety Shutdown (Pg. 40).**

### WARNING

**Do not attempt to lower the Stabilising Legs whilst moving. The Omeo must be stationary to lower the Stabilising Legs.**

### WARNING

**Your Omeo cannot be used as a self-drive platform seat in a motor vehicle.**

### WARNING

**After a period of inactivity while in 'standby mode', the Omeo will power off/Shutdown. This is called the Time-out function.**

**When you are on the Omeo, you must always ensure it is powered on and the Balance Indicator Lights are green before raising the Stabilising Legs.**

## Seating Attitude

The Active Seat Control (ASC), along with the self-balancing system of your Omeo, keeps you in a level seating position at all times, including when on slopes. This helps you to secure in the seat and able to operate your Omeo efficiently and safely.

### NOTICE

**Your Omeo is not a medical device or health product. Your Omeo's ASC is fundamentally different to the static seats found on manual or electric chairs. Accordingly, the usual methods a seating specialist may use to determine seat attitude, seat back angle and height may not apply to your Omeo.**

Please trial a flat and upright seat setting prior to making further adjustments. (See Section 11: Customisations, Pg. 87).

# Section 5: The InfoKey™ Controller

## NOTICE

**The Battery levels indicated on the InfoKey™ Controller display apply to the Segway Lithium-ion Batteries only. They do not apply to the Omeo's Lead Acid Auxiliary Batteries.**

This chapter in the [Segway PT User Manual \(Pg. 39\)](#) describes how the InfoKey™ Controller works. It includes a description of the InfoKey™ Controller and its display, buttons and icons plus functionality.

## InfoKey™ Controller

Use the InfoKey™ Controller to operate and monitor your Omeo. The InfoKey™ Controller has four buttons around the outer edge and a display in the centre.

The InfoKey™ Controller must be within 5m (16 ft) in order to communicate with your Omeo.

## InfoKey™ Controller Buttons

The InfoKey™ buttons allow you to select the Omeo's Segway Power Base and Battery functions and scroll through various information.

## WARNING

**The buttons on the InfoKey™ Controller are quite sensitive, so only a light touch is needed. If at any time you find that a button isn't working, it is important not to push it any harder. Instead we recommend that you check the batteries in the InfoKey™ Controller and change if required. (Refer to Replacing the InfoKey™ Controller Battery Pg. 86.)**

## NOTICE

**It is vitally important you become very familiar with the InfoKey™ Controller functions, buttons and icons. Replace in the Segway User Manual:**

- Where it references PT replace with **Omeo**
- Where it references Stand replace with **Sit**
- Where it references Step On replace with **Raise Stabilising Legs**
- Where it references Step Off replace with **Lower Stabilising Legs/Coming away from**
- Where it references Mat replace with **Seat**.

**Rider Detect Error:** Applies to Segway. It does not apply to the Omeo.

## NOTICE

**The Omeo will only accept commands from the InfoKey™ Controller when the Stabilising Legs are down.**



# Section 6: Safety Alerts

In addition to safety alerts contained elsewhere in this manual, this chapter describes some other Omeo safety alerts and refers to the [Segway PT User Manual \(Pg. 51\)](#).

The safety alerts include:

- Speed Limiter
- Shake Warning
- Safety Shutdown.

It is important that you recognise these alerts and know how to respond appropriately before you ride your Omeo.

## WARNING

**Read and follow all the instructions in the User Manuals and watch the User Video for important safety information about the Speed Limiter, Shake Warning, and Safety Shutdown alerts.**

## NOTICE

**Not every safety issue triggers an alert. For additional safety tips and guidelines, see [Segway PT User Manual \(Pg. 62\)](#).**

## Speed Limiter

Refer to [Segway PT User Manual \(Pg. 52\)](#).

## Shake Warning

Refer to [Segway PT User Manual \(Pg. 54\)](#).

## Safety Shutdown

Refer to [Segway PT User Manual \(Pg. 57\)](#).

If the Omeo detects a critical fault, or if the battery is too low it will perform a Safety Shutdown.

You will know this is happening when your Omeo automatically reduces its speed, gives a shake warning, emits a warning tone and the InfoKey™ controller displays an unhappy face.

You then have approximately 8 to 10 seconds from the start of the safety shutdown to come to a controlled stop in a safe location. In this mode the legs should automatically lower before the machine powers down, but it is good practice to come to a complete stop.

## NOTICE

**After going through a Safety Shutdown sequence it is important that you re-centre the seat and put the steering selection lever to joystick before restarting your machine.**

## WARNING

**Do not restart your Omeo until you have identified and fixed the fault that caused the Shutdown.**

## WARNING

**Whilst in balance mode, if you are separated from the seat for longer than 3 second, then sit back down (re-engaging the pressure plates) your Omeo will NOT enter the Safety Shutdown sequence and the legs will NOT automatically deploy. If the pressure plates are not re-engaged then the Riderless Shutdown sequence will complete, the legs WILL deploy and your Omeo will Shut down.**

## Riderless Shutdown

If you are separated from your seat the Omeo will automatically go into the Riderless Shutdown sequence and power down.

The Riderless Shutdown sequence takes approximately 10 seconds – reducing speed, giving a shake warning, emitting a warning tone and finally powering down. In this mode the legs will deploy.

You will need to make sure the Omeo is level before powering it back on. To do that you need to get off the machine, raise the stabilising legs, level the machine, lower the stabilising legs and engage the seat lock by gently tilting the seat back until you hear a mechanical click.

## WARNING

**If the Omeo is on uneven ground and goes through the Riderless Shutdown sequence it is important that you re-centre the seat and switch the Omeo to joystick mode before restarting your machine.**



### **WARNING**

**Do not restart your Omeo until you have identified and fixed the fault that caused the safety shutdown.**

### **WARNING**

**In a Safety shutdown, pressing the Main Control Switch more than once could raise the Stabilising Legs back up. This may result in injury from tipping as the Omeo powers off at the end of a Safety shutdown**

### **WARNING**

**Do not raise the Stabilising Legs after a Safety Shutdown until the condition that caused the Safety Shutdown has been identified and corrected.**

Replace in Segway User Manual:

- References to Handlebar replace with **Seat Back**
- References to Stick Shake Warning replace with **Shake Warning**
- References to Step off replace with **Lower the Stabilising Legs**
- References to Standing replace with **Sitting**
- References to Powerbase replace with **Seat**
- References to Riderless replace with **Walker**. Empty Battery Condition (Lithium-ion Batteries)

Refer to Segway PT User Manual (Pg. 59).

## **Omeo Auxiliary Batteries (Lead Acid)**

The Stabilising Legs, Lights and USB Port are powered by two 12V Lead Acid Batteries secured inside the Omeo chassis. They are charged separately to the Lithium-ion Batteries with their own Charger and cord with a pin plug (Refer to *Charging your Batteries – Omeo Auxiliary Batteries, Pg. 69*).

It is essential that there is always power to lower the Stabilising Legs. The Omeo has redundancies that will turn off the USB and Lights once a single Auxiliary Battery is less than 50% charge, leaving sufficient charge to activate the Stabilising Legs for multiple activations (raise or lower).

### **NOTICE**

#### **Things that will drain the Lead Acid Batteries:**

- **Excessive raising and lowering of the Stabilising Legs between normal charges**
- **Running the head/tail lights for more than one hour at a time**
- **Excessive use of the USB Port for example charging your Smart Phone.**

## **Auxiliary Charger\***

We have provided an Auxiliary Battery Charger to charge the Omeo's Auxiliary Batteries. Plug in for 12 hours from minimum charge or keep topped up to ensure there is always charge in the Lead Acid Batteries to use all functions. You cannot overcharge these Batteries.

## **Management of the Omeo Auxiliary Battery System**

Use and enjoy your Omeo more with careful management of the Battery system.

Regularly monitor the charge in the Batteries by checking your running lights are working. If they have stopped working, your Auxiliary Batteries are less than 50% charged and need recharging / topping up. (Refer to *Charging your Batteries – Omeo Auxiliary Batteries, Pg. 69*).

### **NOTICE**

**The Omeo is not intended for use at elevations greater than 2,000 metres (6,500ft) above sea level. Use above these heights will adversely affect the performance of the Omeo.**

\* USA/Canada – XP Power Model ACM 240US24 (100-240VAC, 0.5A; 24VDC, 1.0A)  
Rest of the world – Sunny Billion Model SBP 240100 (100-240VAC; 50/60Hz)

# Section 7: Learning to ride your Omeo

This section gives you guidelines to help you learn to ride your Omeo.

Learning to ride your Omeo is different to learning to use any new device, for example a bicycle, car or other new technology. Simply, the more time and effort you put into learning about and riding your Omeo the more confident and skilled you will become.

At first your Omeo will be unfamiliar and you may lack confidence - this is not unusual. Your confidence and ability will grow with practise. For many it takes only 5 minutes to feel in control. For others, it can take 30-90 minutes.

It is important that you develop your riding skills in a progressive manner as outlined by the learning exercises in this manual.

It is essential that all learning and practise is undertaken in a controlled, familiar environment free of obstacles, until you are comfortable and confident in the use of your Omeo and its InfoKey™ Controller.

Before using, it is important to make sure that your Omeo is assembled and charged correctly.

See *Assembling your Omeo* (Pg. 22) and *Charging your Batteries* (Pg. 67).

## WARNING

**Your Omeo is a dynamic device with forward, back and steering motion controlled by your body movement. There is risk of personal injury, or damage to the device and/or environment if you are not in control.**

## WARNING

**Beware of the behaviour of pets, small children and machinery around your Omeo.**

## WARNING

**It is recommended that you wear an approved bicycle or skateboard helmet while operating your Omeo. Ensure you are not wearing loose clothing or carrying anything else (e.g. bags) that could get caught in moving parts such as wheels.**

## WARNING

**It is recommended to not allow pets or children on your lap whilst operating the Omeo**

## NOTICE

**All Omeo Technology media presented without the use of a helmet is conducted under controlled conditions by Omeo professionals and is not to be considered as standard practise.**

## NOTICE

**Operate within the laws of the jurisdiction you are riding. For example, some jurisdictions restrict use on footpaths (sidewalks), or have speed limits.**

Inspect your Omeo before each use (see *Pre-ride Checks*, Pg. 105). Do not ride if any part is loose, damaged, or if the tyres are not properly inflated. Refer to [Segway PT User Manual](#) (Pg. 98).

# Riding Behaviour and Method

See also [Segway PT User Manual \(Pg. 79\)](#).

## Control

It is critical that you are in control of your balance when using the Omeo. Controlling direction (unless in Joystick Mode) and speed is by way of body movement. You must maintain coordination in all aspects of riding including when stationary, accelerating, moving, turning and stopping.

### NOTICE

**If you cannot control the Omeo independently you will need to practise with a Spotter or reconsider whether the Omeo is appropriate for you.**

You must select the path, speed and device settings with a view to staying in control of your Omeo always with total regard to the safety of both yourself and others. Your Omeo responds directly to the terrain and surface conditions in which you choose to ride. It is up to you to use good judgment in selecting safe and manageable terrain and environments in which to operate your Omeo.

There are numerous factors to understand for safe operation of your Omeo:

- Remain centred: both axes, forward and back and side to side. This is your "Neutral" Position
- Aim for calm and controlled movement
- While leaning, use hands or body to maintain balance
- Stabilise your feet and legs
- Be alert and aware of your surroundings
- Ride within your capabilities: test yourself with controlled acceleration and stops
- Practise accurate and purposeful steering
- Avoid obstacles
- Be familiar with all controls; firstly, in Joystick Mode, gently move forward and back
- Then in Active Seat Control (ASC) gently forward and back and steering using weight transfer through your hips onto the seat
- Understand other controls: Dampening Control for seat resistance, Lights, Stabilising Legs
- Control settings: set the variable controls available on the InfoKey™ Controller to the appropriate level for your riding environment and skill level. Refer to [Segway PT User Manual \(Pg. 43\)](#)
- Make sure that the seat geometry is right for you; aspect, centre setting and Footplate to Seat height – see *Section 11: Customisations (Pg. 87)* for Seat setting
- Operate with care, respect and awareness for other people in your environment, for example, at walking pace among pedestrians
- Operate within the laws of the jurisdiction you are riding, for example, some jurisdictions restrict use on footpaths (sidewalks), or have speed limits
- Do not wear loose clothing or jewellery or carry or hang anything that could become entangled in the wheels
- We strongly recommend you wear a good safety helmet.

# Avoiding Hazards

Your Omeo is a two-wheeled self-balancing device with a dynamic steering system designed to keep you in an upright seated position when powered on. It will not tip over when operated properly.

Proper use includes being aware of and avoiding hazards:

- **Traction** – Your Omeo's Tyres must have traction at all times to avoid slipping. Traction and control can be lost where your weight or payload reaches a point where the motors can no longer keep the device upright, for example down or across very steep slopes. See also factors that influence traction (*Pg. 46*)
- **Tripping** – Your Omeo can trip if it hits a low obstacle with force, coming to a sudden stop. This action could catapult your Omeo and you forward or backward.
- **Tipping** – Your Omeo may tip if the sideways weight transfer is too excessive.
- **Skidding** – Your Omeo may skid with Stabilising Legs down if you lean forward too much.

See also [Segway PT User Manual \(Pg. 62\)](#).

## Avoiding Loss of Traction

Your Tyres must be able to grip the ground to stay upright. Slipping happens when the tyres lose traction. This can cause a loss of control and potentially a fall. Aggressive riding and riding over loose or slippery surfaces may result in slips.

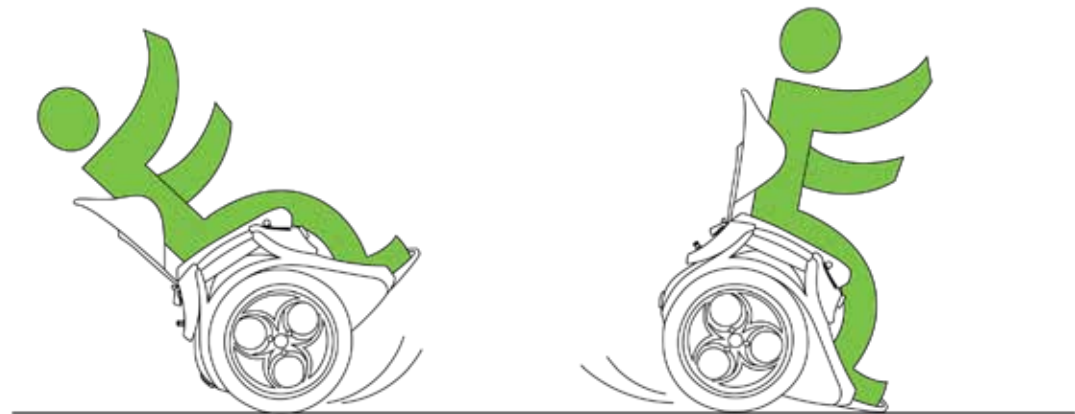
### **⚠ WARNING**

**Riding your Omeo on a slope, wet or loose surface increases the risk of losing traction and slipping and may result in serious injury or damage.**

### **NOTICE**

**Alerts will activate when significant loss of traction occurs. You will hear an alarm sound which is also accompanied by a shake and rumble. This is known as a Safety Shake Warning – refer to Shake Warning (Pg. 40).**

**Sustained loss of traction will result in a Safety Shutdown (Refer to Safety Shutdown Pg. 40).**



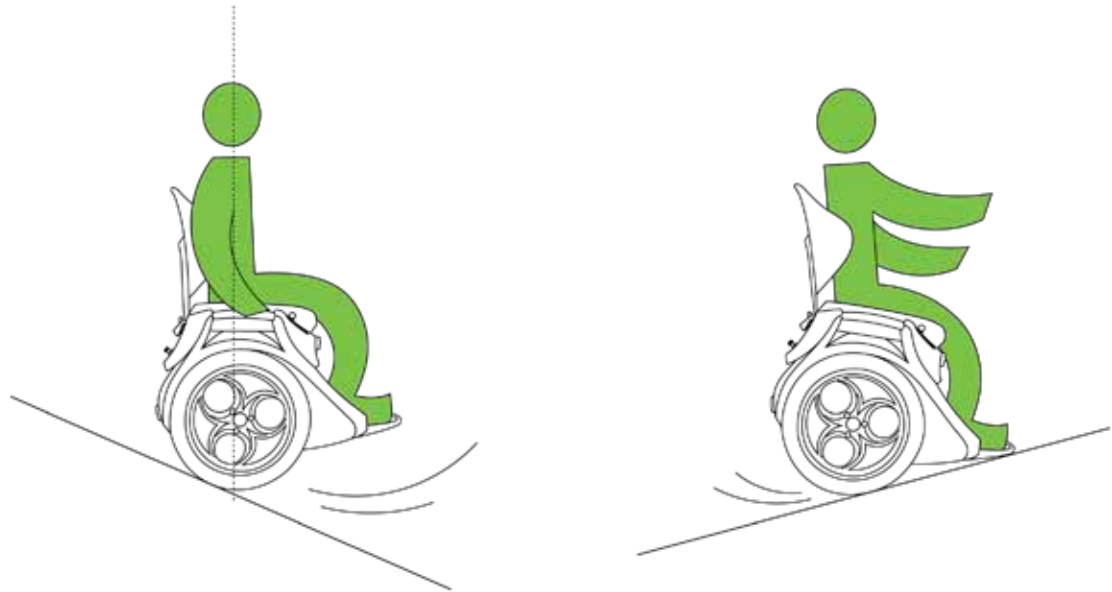
**Figure 19:** Loss of traction on a flat surface.

## Avoiding Loss of Traction (cont)

Factors that influence traction are, but not limited to:

- Slope/pitch
- Speed
- Weight
- Loose surface
- Wet grass and vegetation
- Sand
- Gravel
- Snow
- Ice
- Polished concrete
- Wet wood.

Your Omeo will perform on these surfaces. User confidence and performance improves with experience and common sense. Take care.



**Figure 20:** Loss of traction on an incline.

## Avoiding Tripping

Your Omeo will trip if it encounters an obstacle that it can't get over. It will come to a sudden stop; the alerts will sound, and the device will rumble and shake. This is known as a Safety Shake Warning (Refer to *Shake Warning Pg. 40*).

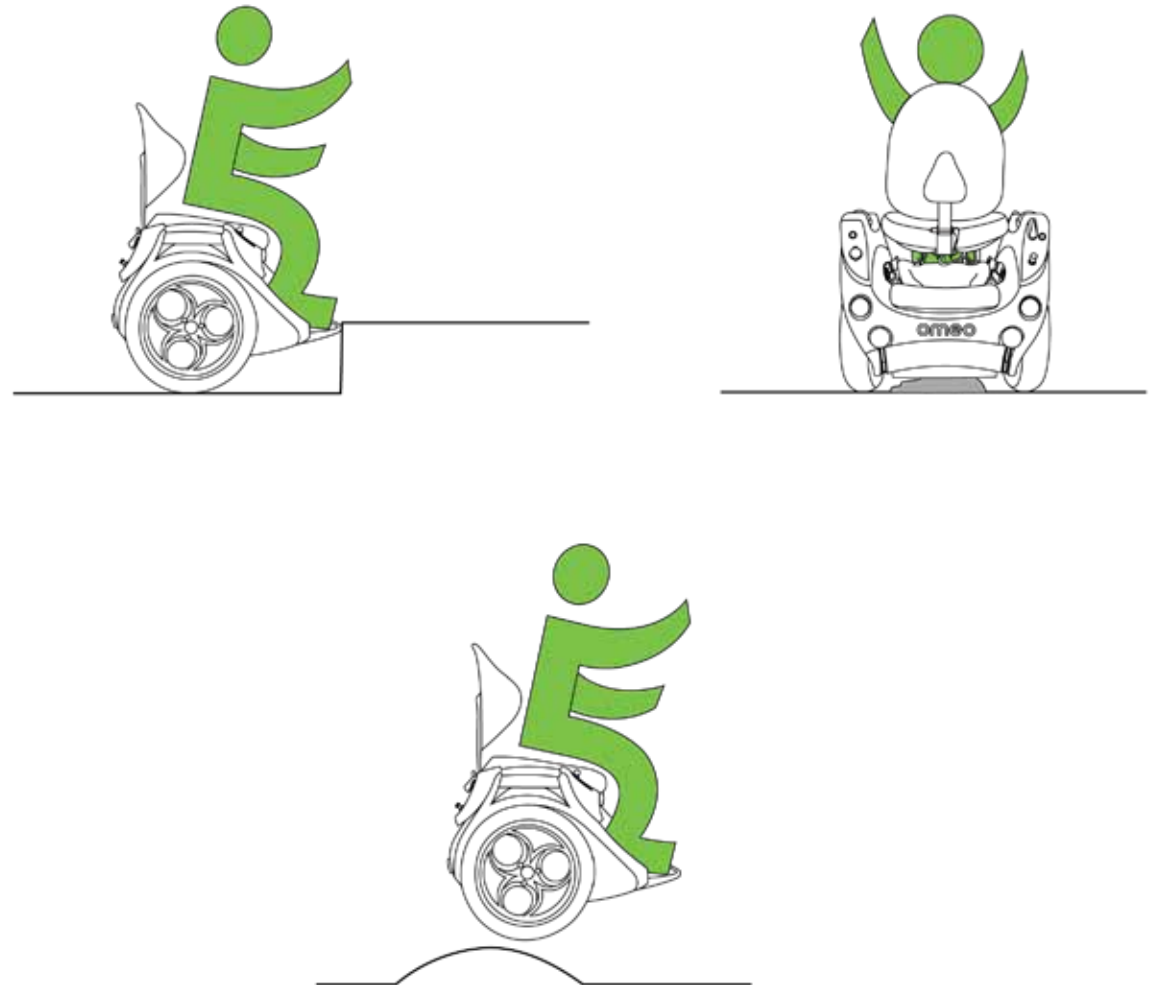
A sudden stop against an obstacle could overpower the balance motors, throw you off and potentially damage the device.

To avoid tripping, you must be aware of the riding environment and use the device within its capabilities.

Avoid:

- Obstacles that the wheels cannot roll over with ease (greater than 40 mm/1.5 inches), for example, steps, curbs and potholes
- Surfaces where the body of the Omeo may get caught up due to contact
- Becoming airborne, as a change in orientation of your Omeo at speed could cause tripping.

See also [Segway PT User Manual \(Pg. 63\)](#).



**Figure 21:** Avoid Tripping.

## Avoiding Tipping

Tipping the Omeo is possible on excessively steep slopes, a slope beyond the recommended limits of the device, or when being ridden over an object that drops away quickly.

Riding at speed on a firm surface and making a sudden change of direction can also cause tipping.

To avoid tipping make sure you are fully in control at all times.

Avoid:

- Sudden changes of direction at speed
- Riding across slopes greater than 20 degrees
- Riding into or onto changeable surfaces at speed where one wheel will rise above the other
- Dropping one wheel down a slope or hole.

## Avoiding Skidding

Your Omeo may skid when the Stabilising Legs are lowered on some slippery or unstable surfaces on slopes, or if you lean forward too much while the Omeo is still powered on.

Avoid:

- Slippery or unstable surfaces on slopes
- Leaning forward too much whilst powered on.



Figure 22: Avoid Tipping.



# Learning to Ride your Omeo

Your Omeo can be ridden by users with a wide range of physical capabilities. The performance level of the device will vary according to your physical capability.

The learning sequence contained in this Manual has been developed from years of practice among numerous riders of varying levels of ability. It covers your initial ride through to a level of competence. It is important to always ride within your capabilities and develop your riding skills in a progressive manner.

## NOTICE

### SPOTTER TO BE IN ATTENDANCE.

**When you are learning to ride your Omeo, you must have an able-bodied assistant, or "Spotter" who is alert, physically able to keep up with and react quickly enough to stop the Omeo by pulling back on the Seat at any time.**

**They must be able to keep up with your Omeo set to Turtle Mode -10 kph/6 mph. (Refer to Turtle Mode Pg. 52).**

Your Spotter should only touch the moving Omeo/Seat when required, as it is important for you to learn uninterrupted and at your own pace.

Your Spotter must understand how your Omeo works and be able to activate the Stabilising Legs in both Joystick Mode and ASC Mode; and manage a Safety Shutdown competently.

It would be an advantage for the spotter to be a competent user.

## WARNING

**Before learning to ride, your Omeo must be set up and fitted for your height. Your Omeo should arrive at the correct height setting if you advised Omeo when ordering. Otherwise adjustments should be done under the guidance of your Authorised Omeo Agent or by reference to customisations in this Manual. (See Section 11: Customisations, Pg. 87).**

## NOTICE

**The environment you select for learning should be free of distractions for both you and your Spotter so that you can both focus on learning.**

# Learning Sequence

## 1. Select your environment

### NOTICE

**When you are learning to ride the Omeo, it is very important that you are in an appropriate environment where you are least likely to harm yourself, others or property in the event of loss of control.**

Start on firm, smooth and level ground, for example short dry grass, compacted earth, concrete, asphalt and non-slippery flooring.

Make sure that you have adequate clear space to practise. Clear space also means no obstructions at head or waist height, (such as low branches and signs), and free from vehicles, bicycles, pets and small children. It is recommended that you have an area of at least 100 sqm (1000 sqft) initially, expanding the area as confidence and skill level develops.

Site selection in summary when learning to ride:

- Have a spotter in attendance
- Clear space, at least 100sqm (1000 sqft)
- Flat, level and firm ground
- Not slippery
- No overhanging obstructions
- No pets or small children about
- No other vehicles
- Expand area and type of terrain as skill level develops and include lumpy surface and minor obstacles.



**Figure 23:** When learning to ride, it is strongly recommended that you have an able-bodied assistant (Spotter).

## Learning to Ride (cont.)

### 2. Set up the Omeo for learning and transferring onto the Seat

1. You may require assistance with lifting, using a transfer board or crutches

#### NOTICE

**This is your responsibility. Omeo Agents are not trained or authorised to assist with transferring or lifting**

2. Orientate your Omeo in the direction that you want to ride, make sure the Omeo is level and lower the Stabilising Legs
3. Ensure that there are no obstacles on the Seat or in the way of your transfer path
4. Ensure the power is off
5. You may find it easier to transfer with the Footplate up to get you closer to the Seat
6. Switch to Joystick Mode. This will lock the Seat so that it won't move in a lateral motion when you transfer onto your Omeo
7. Transfer onto your Omeo according to your preference and capability
8. If transferring from another device, make sure that device and any assistive equipment such as transfer boards and crutches are removed from the immediate riding zone after use
9. Find a comfortable and balanced seating position, hold onto the Hand Grips and rock gently forward and back to get your sense of balance (**Figure 24**)
10. It is important to familiarise yourself with this new sensation.



**Figure 24:** Getting your sense of balance.

# Learning to Ride (cont.)

## 3. Turning on and riding your Omeo

Turning on the Omeo is a two-stage process:

1. The first stage is to switch on the Omeo by using the InfoKey™ Controller by pressing the Power button, to engage Standby Mode
2. The second stage is to push the Main Control Switch on the Control Panel which raises the Stabilising Legs and puts the Omeo into Balance Mode.

You are now on a live platform ready to ride.

When learning to ride, have your Spotter stand at the rear quarter of the device ready to hold the Seat Back to stabilise it. This is the 'Ready to Help' position.

### NOTICE

**Always complete a pre-ride check for centre of balance/control, environment, obstructions, Battery charge, Tyre pressure and dress before turning your Omeo on.**

## Turtle Mode

### NOTICE

**Your Omeo arrives pre-set in Turtle Mode to 6 kph/3.7 mph.**

This is so that you begin to ride your Omeo with caution, before progressing to Standard Mode as your skill level develops.

To unlock this setting for the first time, you must press the Turtle Button on the Infokey™ Controller and the Information Display Button for 10 seconds.

Once unlocked you can simply revert to or from Turtle Mode by pressing the Turtle Button once.

When in Turtle Mode your Omeo is more stable and less aggressive when moving.

Before learning to ride your Omeo, you must make sure that you are familiar with the InfoKey™ Controller codes and operation, and all other operational procedures and warnings.

# Learning to Ride (cont.)

## NOTICE

**Neutral Balance, referred to below, is where you have centred your body mass on the Seat, such that you can maintain balance whilst keeping your Omeo stationary.**

### Steps to Riding Your Omeo

1. Power on the machine by pressing the Power/ Standby Button on the InfoKey™ Controller (as shown in Figure 25) and confirm that your Omeo is in 'Turtle Mode' (Refer to the [Segway PT User Manual Pg. 41-42](#))
2. Make sure that the Balance Indicator Lights are green. These indicate the Omeo is balanced (for further information refer to *Balance Indicator Lights, Pg. 33*)
3. While sitting in Neutral Balance, familiarise yourself with all the control switches.
4. Test that you can reach each one while keeping Neutral Balance
5. Maintain Joystick Mode initially whilst learning
6. Hold the Hand Grips initially whilst learning, until you are confident with balance and weight transfer
7. Maintain Neutral Balance to ensure your Omeo does not rotate while the Stabilising Legs are still down. Moving while Stabilising Legs are down may cause damage to your Omeo
8. Raise the Stabilising Legs and activate Balance Mode by pushing the Main Control Switch
9. Whilst in Joystick Mode gently rock forward and back – approximately 30cm, (12in.) to familiarise yourself and establish control with basic drive operation
10. Expand and speed up the forward and back movement to 100cm (40in.) as you develop confidence. This process will teach you how to brake
11. You can brake or stop the forward motion of your Omeo by rapidly leaning backward or thrusting your body into the back of seat. Immediately after braking adjust your balance to Neutral Balance, otherwise you will continue to reverse.

## NOTICE

**Be mindful that pressing the Main Control Switch activates the Power Base to Balance Mode, unlocks/activates the seat (forward and back only) and lifts the Stabilising Legs in one action. Be prepared to immediately find your centre of balance/neutral to prevent unexpected forward or back movement.**

## ⚠ WARNING

**When you are sitting on the Omeo preparing to power on and ride, make sure that you push the Main Control Switch only once.**

## ⚠ WARNING

**If you push the switch 5 times within 3 seconds of each activation, then the Stabilising Legs will raise and the Omeo will be in 'Walker Balance Mode'. Walker Balance Mode is an assistive mode and does not deliver enough power to maintain balance with a rider on board. The Omeo could fall over potentially causing serious harm. Walker Balance mode is a riderless mode only.**



Power/Standby button

Figure 25: InfoKey™ controller indicating Turtle Mode is activated.

# Learning to Ride (cont.)

## Directional riding

When you can control moving and stopping, you can ride in your chosen direction using the Joystick or the ASC (leaning) to steer.

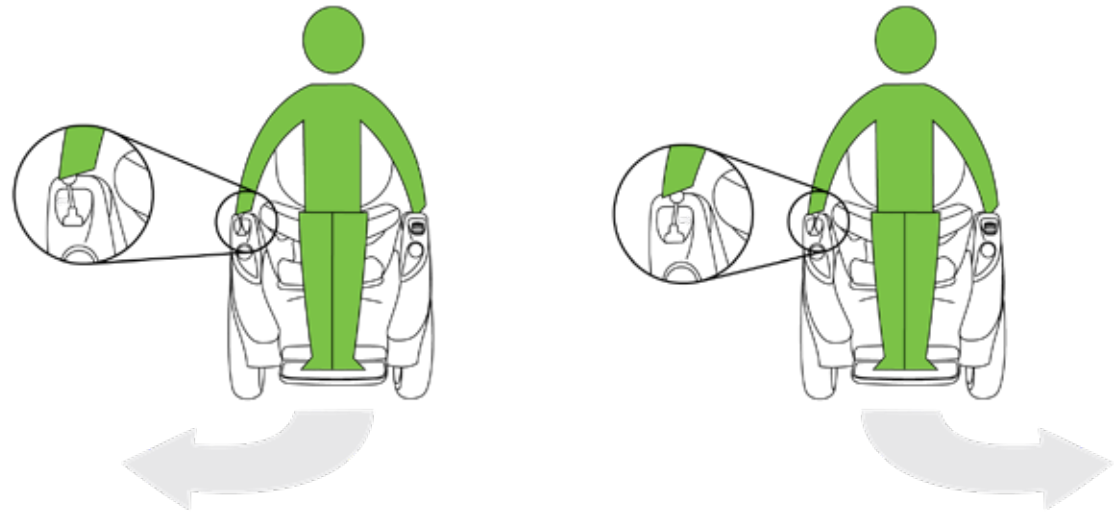
### NOTICE

**The Joystick only controls directional steering and not forward and backward movement. The forward and backward (and therefore braking) motion is always controlled by moving your weight forward and backward whilst sitting on your Omeo.**

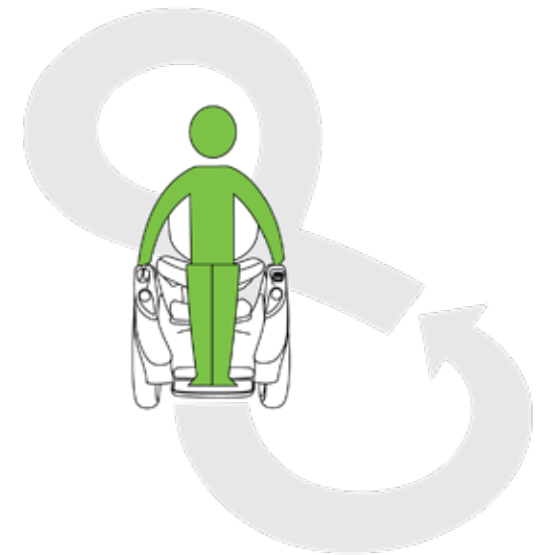
### Joystick

1. Hold the Joystick firmly by bracing your hand on the Body of your Omeo
2. Move the Joystick left and right while stationary until familiar with the sensitivity, action and response
3. Now lean/ride forward and turn a quarter of a circle and stop. Repeat this until you have completed a circle
4. Now ride a circle in the opposite direction in a start and stop manner
5. Ride in circles and then figure 8 patterns of approximately 2m (6.5ft) in a controlled and purposeful manner. (Figure 27)

6. Both yourself and your spotter must use your best judgement as to when you are in control and that you feel and look safe and are independent of physical help in balance, motion, steering and stopping
7. Practise stopping and lowering the Stabilising Legs by choosing a specific spot and orientation to bring the Omeo to a complete stop
8. Whilst stationary reach around and push the Main Control Switch once. The Stabilising Legs will lower and the Omeo will go into 'Active Standby Mode' which is indicated by a single beep
9. Press the Power button on the InfoKey™ Controller once to enter Standby Mode which will be indicated by another single beep.



**Figure 26:** Directional riding using the Joystick.



**Figure 27:** Directional riding with the Joystick in figure 8 patterns.

# Learning to Ride (cont.)

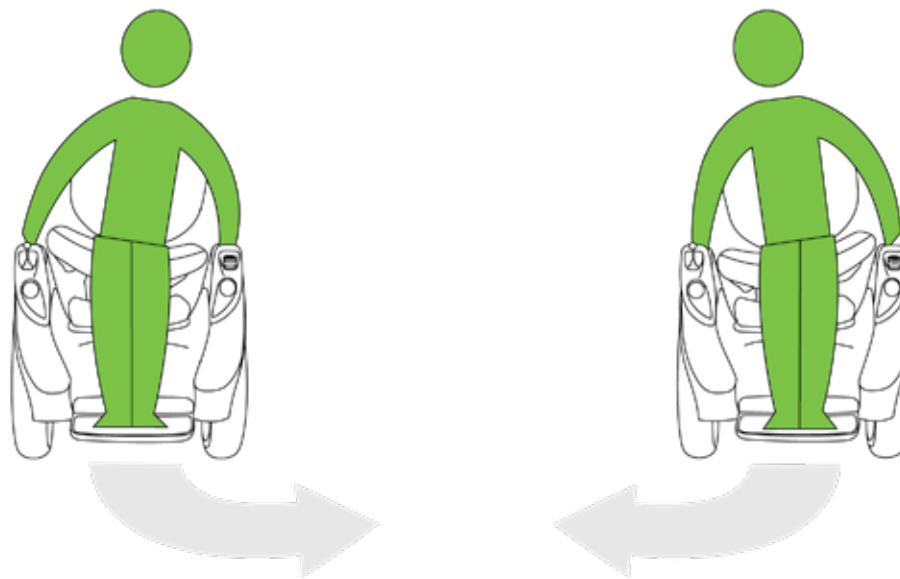
## Activate Seat Control (ASC)

ASC allows you to steer by applying downward pressure from either side of your hips. This can be done hands-free or by leveraging your torso using your arms through the Hand Grips.

To activate ASC, you first need to be in Balance Mode, then turn the Steering Selection Lever to a horizontal position (covering the Main Control Switch).

### Using ASC to steer:

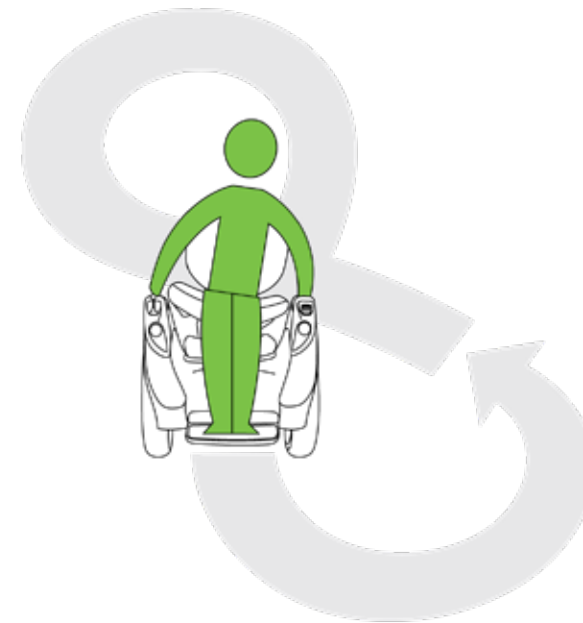
1. Your Spotter must be on standby, in the 'Ready to Help' position in case of need
2. You need to remain stationary, in Neutral Balance.
3. Hold onto the Hand Grips throughout
4. Switch the Steering Selection Lever to a horizontal position. (*Refer to Steering Selection Lever, Pg. 31*). Your Omeo will now be in ASC Mode and the Seat is a live platform and able to move in all directions
5. With both hands on the Hand Grips, lean gently from side to side to create rotational movement on the spot
6. Now ride forward and turn and centralise.. Repeat this until you have completed a circle



**Figure 28:** Directional riding using the ASC Steering.

## Learning to Ride (cont.)

7. Now ride a circle in the opposite direction in a start and stop manner
8. Ride in circles and then figure 8 patterns of approximately 2m (6.5ft) in a controlled and purposeful manner (**Figure 29**)
9. Both yourself and your Spotter must use best judgment to ascertain that you are fully in control, that you both feel and look safe, and independent of physical help in balance, motion, steering and stopping
10. Practice stopping and lowering the Stabilising Legs by choosing a specific spot and orientation to bring the Omeo to a complete stop
11. While holding stationary, reach around and switch the steering mode from ASC to Joystick by turning the Steering Selection Lever to a vertical position and then push the Main Control Switch once. It is important that you keep the Seat level when performing this action
12. The Stabilising Legs will lower and the Omeo will go into 'Active Standby Mode' which is indicated by a single beep
13. Press the Power button on the InfoKey™ Controller once to enter Standby Mode which will be indicated by another single beep.



**Figure 29:** Directional riding with ASC in figure 8 patterns.



# Learning to Ride (cont.)

## Eyes up!

### NOTICE

Keep your eyes and head up to the direction you want to go. Just as with learning to ride other devices, your body (and Omeo) will follow your eyes. Looking down at the ground directly in front of you may cause you to lose focus and balance.

Keeping your eyes up and moving will make you more aware of your surroundings and connected with other traffic/pedestrians.

## Safety Shutdown

### ! WARNING

**When learning to ride the Omeo with the Active Seat Control you must practise activating the Stabilising Legs under simulated Safety Shutdown conditions:**

- 1. Immediately come to a controlled stop in a safe location**
- 2. The Omeo will switch to Joystick Mode automatically during a Safety Shutdown**
- 3. Find your neutral balance otherwise the Omeo will tend to reverse. The Stabilising legs will come down automatically**
- 4. Make sure the seat is level/centralised and switch the Omeo into Joystick Mode**

- 5. You will need to make sure the Omeo is level before powering it back on. To do that you need to get off the machine, raise the Stabilising Legs, level the machine, lower the stabilising legs and engage the seat lock by gently tilting the seat back until you hear a mechanical click.**

## Stopping

### Going Forward

Stop the Omeo by shifting your weight away from the direction you are travelling.

When travelling forward lean back into the Seat Back, causing the Seat base to tilt.

If you are wanting to stop quickly, throw your weight back into the Seat Back.

You will not fall backwards whilst in Balance Mode unless you are using excessive force or lose traction.

Once stopped, centre your weight to find Neutral Balance in order to remain stationary.

### When Reversing

To reverse the Omeo gently lean your weight back.

To stop the Omeo when reversing, gently lean your weight forward.

**Tip:** It may be easier to ascend steeper slopes in reverse.

### NOTICE

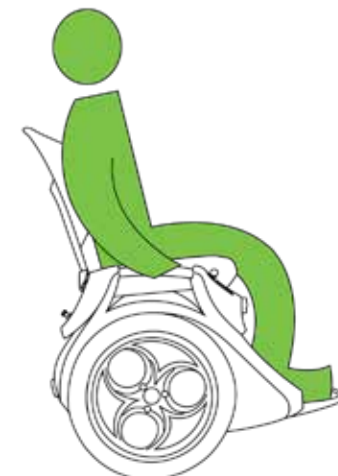
You will find that with practise, all forward, backward and steering movement can be done through your hips. Movement will become intuitive.

### NOTICE

**The Omeo limits the speed and distance of reversing by activating the Shake Warning (Refer to the Segway PT User Manual Pg. 54).**

### ! WARNING

**Always perform a controlled stop with gentle movements, avoiding slippery surfaces and potential to lose traction.**



**Figure 30:** Stop the Omeo by gently shifting your weight in the opposite direction you are travelling.

# Learning to Ride (cont.)

## Expanding Riding Skills

When you can start, steer and stop with control and accuracy on a flat smooth surface, you are ready to progress riding on varied terrain and settings.

By this stage you should be familiar with all the switching controls such as lowering and raising the Stabilising Legs, Joystick to ASC, power on and off, and Safety Shutdown Mode. You should be starting to enjoy the sensation of riding your Omeo.

### NOTICE

**Your Omeo moves in response to the nature of the surface. An uneven surface may create action that may throw you off balance, which in turn can affect your Omeo's drive and steering.**

### NOTICE

**Hold onto the handles when riding the Omeo over rough terrain. Do not attempt to do this hands-free.**

Your Omeo is a live platform. It is essential that you develop the skill to move in response, and if necessary, compensate for what your Omeo is doing. For example, hitting a bump may push you to one side, causing an unintended steering response. Be prepared to compensate to maintain your course.

Learning to ride is exciting and can be very easy so long as you progress in controlled stages through awareness, practise and progressive development

of skills. Choose riding surfaces and environments that will allow you to grow your skill set whilst also maintaining constant control.

### NOTICE

**It is important to develop good habits when learning to ride the Omeo. Good habits will form the foundation for safe and skilful use of the Omeo over time.**

## Progression - Practise Riding

(Refer also to the [Segway PT User Manual Pg. 77](#)).

Always keep within your capabilities when controlling your Omeo. Approach unfamiliar terrain with caution and start cautiously.

Refer to the Omeo Technology website for the latest video series showing ways to practise and progress your riding skills.

## Dampening Control

The Dampening Control (*Figure 15: On-Board Control Panels (A & B), Pg. 30*), allows you to loosen or tighten (dampen) the side to side movement in the seat, according to the various riding environments or terrain.

**A loose setting** (Turn knob to the left) makes your Omeo more responsive and agile, allowing you to "throw" your body weight around quickly for crisp and accurate response. A loose setting is suited for a smooth and open terrain with no hazards.

## A tightened or stiffer setting (dampened)

(Turn knob to the right) will mean you have to lean harder to turn your Omeo. It has a more stable feel. This setting is best suited for controlled riding over varied and bumpy terrain, for stability when going fast and for situations where there could be potential hazards.

To lessen unwanted steering, the Seat Dampening Control can be adjusted at any time, even while you are in control and moving.

Your Omeo is a live platform and reacts to the terrain it is traversing. With practise you will learn to anticipate and set up your seat positioning and dampening to the terrain ahead. In time riding your Omeo will seem very intuitive.

### WARNING

**Turning the knob clockwise fully will lock the seat resulting in having no steering.**

### WARNING

**It is important that you practise riding in clear open spaces away from traffic, bicycles, children, pets and natural hazards such as cliffs, water and steep slopes.**

**Tip:** When first learning to ride, it is best to start with a stiffer (or dampened) setting. Then start to loosen the dampening of the seat (by turning the knob left) progressively as your ability and confidence grows.

# Dismounting your Omeo

## **⚠ WARNING**

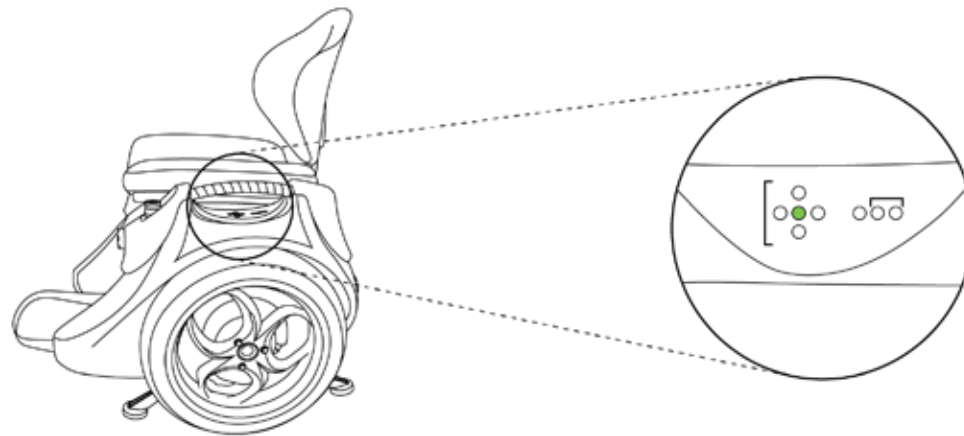
**Never try to dismount your Omeo before it comes to a complete stop and the Stabilising Legs are fully down.**

To dismount the Omeo you must:

1. Come to a complete stop, ideally on a stable and flat surface. A level surface is not critical however, as the self-levelling Stabilising Legs will level out the Omeo on uneven ground or moderate slopes
2. Switch the Steering Selection Lever to vertical (Joystick Mode) and push the Main Control Switch once to lower the Stabilising Legs. Make sure that the Seat is level throughout this action. Push the Power button on the InfoKey Controller to switch from Active Standby Mode to Standby Mode
3. The Omeo will now be in Standby Mode (**Figure 31**)
4. Power off using the InfoKey™ Controller. You may now safely dismount.

## **⚠ CAUTION**

**Before you dismount it is important that your Omeo is powered off. If dismounting in Active Standby Mode there may be some residual power which may slightly move your Omeo. This may place strain on the Stabilising Legs, potentially causing damage or a fall and injury.**



**Figure 31:** Display Panel with Indicator light showing the Omeo is Standby Mode

## NOTICE

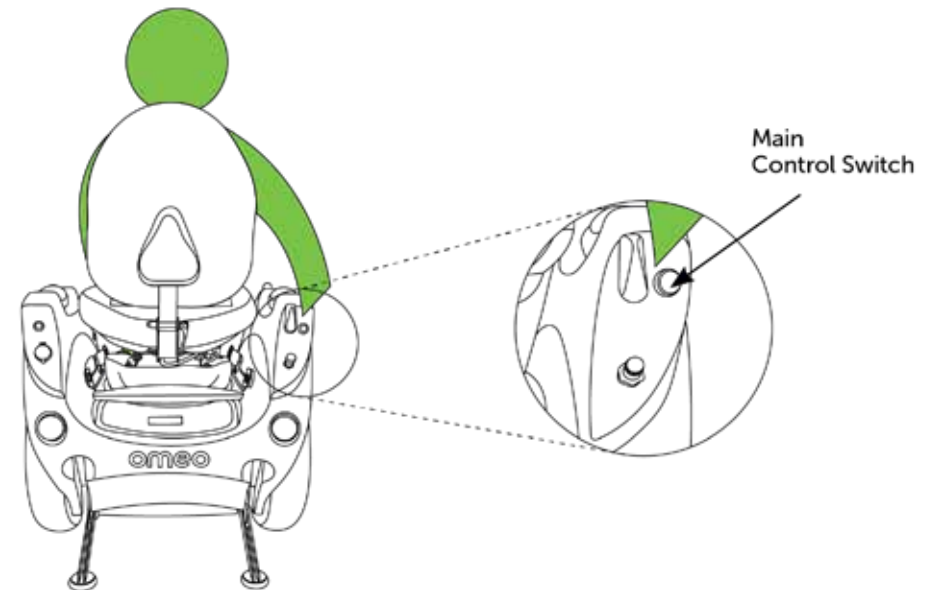
**If the Seat is angled when switching from Active Seat Control (ASC) to Joystick Mode, the Seat will lock in that position and this may cause the Omeo to go into Safety Shutdown Mode.**

If this happens and your seat is locked in an undesirable position (e.g. tilted to one side), lower the Stabilising Legs.

1. Make sure your Omeo is powered off
2. Switch the Steering Selection lever into ASC mode and manually adjust the position of the seat back to a level position.
3. Switch back to Joystick Mode.
4. Power the Omeo back on and raise the Stabilising Legs

## NOTICE

**Be careful when switching into ASC mode as the Omeo may want to move according to the position of the seat. Keep control of the Omeo at all times by firmly holding onto the seat back. It is strongly advised that you do this with the help of your Omeo Agent or a trained spotter.**



**Figure 32:** Dismounting your Omeo.

## Shutting down your Omeo

1. Power off your Omeo by pressing and holding the Power / Standby button on the InfoKey™ Controller for two seconds
2. The display on the InfoKey™ Controller will show a sleepy face and a tone will emit from the Omeo as it powers off.

### NOTICE

**Make sure the Stabilising Legs are down before you power off. Refer also to the Segway PT User Manual (Pg. 76).**

## Securing your Omeo

The Omeo uses the Segway PT security system. Refer to the Segway PT User Manual (Pg. 75).

The Security function is essential in case you need to leave your Omeo unattended. When activated, an alarm sounds and the motors are engaged making the Omeo difficult to move.

## Riding Etiquette

- Always be careful and considerate of others
- Always ride within your capabilities, in full control and at a speed that is safe for you and those around you
- Always be prepared to stop
- Yield right of way to all pedestrians
- Avoid startling pedestrians. When approaching from behind, sound a bell or announce yourself and pass with care. When approaching a pedestrian from the front, indicate your intended path, or customary passing side, and slow down
- When riding with other personal mobility devices, maintain a safe distance between each other and be mindful of the potential threat to others
- Do not park your Omeo across doorways or in the path of mainstream traffic
- Use designated crosswalks or signalled intersections to cross roads. Do not jaywalk or ride across junctions
- Your Omeo is designed for off-road use. Only travel on a road when necessary
- It should not be used on roads, except in emergency or it is unavoidable
- Do not ride your Omeo on private property (inside or outside) unless you have obtained permission to do so
- **Always abide by the rules and regulations of the jurisdiction of where you are riding your Omeo**
- **Do not impede the use or enjoyment of other Omeo or personal mobility device users by irresponsible behaviour.**

# Riding Tips and Safety Guidelines

The Omeo's unique balancing ability combined with the Active Seat Control system and ease of use may lead you, at times, becoming overconfident.

If you exceed the ability of the Omeo to balance, such as by riding over obstacles, uneven terrain, slippery surfaces, loose materials, or steep slopes, there is the possibility that you could lose control, which may result in collisions, falls and / or injury.

As with any other personal mobility device, using an Omeo exposes you to risk of injury.

By following all the instructions and warnings in the User Materials you can significantly reduce the risk, but you cannot eliminate the risk entirely.

The guidelines referred to in the [Segway PT User Manual \(Pg. 80\)](#) also apply to your Omeo.

## Replace in Segway PT User Manual:

- References to Mats replace with **Seat**
- References to Segway PT replace with **Omeo**
- References to Handlebar replace with **Seat Back**
- References to Riderless replace with **Walker, Balance, Free wheel.**

## Tips for when you are learning to ride your Omeo

- Make sure that you know how to use all Omeo controls, settings and InfoKey™ Controller readings
- Progress to the next learning stage only when you are confident and competent with the previous stage. Have confidence in operating all the control settings on the Omeo
- Start with 'Turtle Mode', switching out only when you feel you have good control and can drive your Omeo with confidence
- All new riders should have an able-bodied person spotting for them
- Start learning in Joystick Mode, switching over to ASC only when you feel you have good control and can drive your Omeo with confidence
- Progressively develop your Omeo control in confined spaces, slopes and on different types of terrain
- Practise the transition between surfaces such as concrete and grass and various types of terrain
- Practise riding 1 and 2 wheels over changes of surface levels that are less than 40mm (1.5in.) in height
- Practise going through doorways that have level entry (no lip or ramp), making sure you have clear space around the wheels and door frame and keeping your hands clear
- In tight areas and rough surfaces, or on a compound slope, you are advised to start out in Joystick Mode
- Practise using the Dampening Control so that you can anticipate when you will need to make a suitable adjustment for the type of riding ahead
- Until you can ride with precision and control on various types of surfaces you must avoid riding your Omeo near hazards, children, pets, bicycles and other vehicles
- Practise the 'Safety Shutdown' simulation, coming to a purposeful stop, orientating the Omeo, switching the Steering Selection Lever to vertical, depressing the Main Control Switch once and lowering the Stabilising Legs, all within 10 seconds. Do this in a variety of terrain in both ASC and Joystick steering modes
- Do not try to dismount your Omeo while it is still in Balance Mode or when the Omeo is moving
- Always come to a complete stop and activate the Stabilising Legs (switch the Steering Selection Lever to vertical, depressing the Main Control Switch once). Switch from Active Standby Mode to Standby Mode with the InfoKey™ Controller before dismounting your Omeo

## NOTICE

**When powering off, the Omeo may attempt to balance (though less aggressively) when the Stabilising Legs are down. The Wheels may skid if the Stabilising Legs are lowered and the rider aggressively leans while getting off.**

## WARNING

**Cargo (e.g. children, animals, shopping) placed on your lap or hung from the back rest will interfere with the Omeo's centre of balance and affect the braking ability of the machine. This can compromise safety and may result in serious injury to yourself and others.**

- Always ride within your capabilities
- Do not ride any Omeo if you suffer any impairment to balance
- Try to be relaxed when riding
- When riding, keep your torso upright, your head up and looking in the direction you want to go
- If you feel at all unsure using your Omeo hands free, use the Hand Grips
- Avoid moving backward as much as possible. Manoeuvre backward only when necessary to open a door, back away from an obstacle, or to carefully ascend a steep slope. Avoid turning while manoeuvring backward

- Your Omeo has been designed for off-road use. If you must ride on the road, be extremely careful. Ride as far away from traffic as possible and always allow plenty of time. Remember the speed limiter or an unexpected obstacle could slow your crossing
- Your Omeo, like the Segway PT, has a regenerative braking system for the Lithium-ion Batteries that recharges the batteries as you go down a slope / hill
  - The amount of charging is directly proportionally to the size and duration of the decline and as you progress down a slope you may notice the battery levels change on the InfoKey™ Controller
  - It is important to note that if your batteries are fully charged at the top of a slope / hill, when you descend, you may feel your Omeo's speed being limited to prevent from overcharging the Lithium-ion Batteries. This could cause a Safety Shutdown.

## Report All Incidents

If you or any other rider of your Omeo is involved in an accident, or if your Omeo performs in a way that you do not intend or in a way that it is not supposed to, contact your Authorised Omeo Agent or Omeo Technology directly. **It is very important we are contacted immediately.**

Omeo Technology

**Phone:** +64 6 929 6548 (New Zealand)

**Email:** [service@omeotechnology.com](mailto:service@omeotechnology.com)

**Website:** [www.omeotechnology.com](http://www.omeotechnology.com)



# Section 8: Batteries and Charging

The Omeo has two Battery systems;

1. The Segway Lithium-ion 2x Battery system for drive and balance
2. 2x Auxiliary sealed Lead Acid Batteries that run the Stabilising Legs, Lights and USB Port.

## NOTICE

**For optimal satisfaction you must maintain your Batteries according to these guidelines.**

## NOTICE

**To ride the Omeo the Auxiliary Batteries must have enough charge to operate the self-levelling Stabilising Legs.**

This section describes:

- Battery Safety
- Battery Specifications
- Charging the Batteries.

## Battery Safety

### WARNING

- **Do not use a Battery if the Battery casing is broken, or if the Battery emits an unusual odour, smoke, or excessive heat or leaks any substance. Avoid contact with any substances seeping from the Batteries.**
  - **Keep out of reach of children and pets. Exposure to Battery voltage could result in death or serious injury.**
  - **Unplug or disconnect the Omeo from AC power before removing or attaching Batteries or performing any service. Never work on any part of the Omeo when it is plugged into AC power. You risk serious bodily injury from electric shock as well as damage to the Omeo.**
  - **The cells within the Batteries contain toxic substances. Do not attempt to open the Batteries. Do not insert any object into the Batteries or use any device to pry at the Battery casing. If you insert an object into any of the Battery ports or openings you could suffer electric shock, injury, burns, or cause a fire. Attempting to open the Battery casing will damage the casing and could release toxic and harmful substances and will render the pack unusable.**
- **Observe and follow all safety information on the warning label found on the Batteries.**
  - **Failure to charge the Batteries could result in permanent damage to them. Left unplugged, the Batteries could fully discharge over time, causing permanent damage.**
  - **Use only charging devices approved by Omeo Technology or Segway and never attempt to bypass or override their charging protection circuits.**
  - **Do not wash the Omeo with a power washer or high-pressure hose. Avoid getting water into the Charge Port. Always close the Charge Port Cover after charging. Avoid exposure to heavy downpours or extended periods of heavy rain (including during riding, storage, or while being transported). Clean with soap and water and a soft cloth. Make sure that the Charge Port is dry before you plug in the Power Cord. Failure to follow these instructions could expose you to electric shock, injury, burns, or cause a fire.**



- **Do not submerge the Batteries or powerbase in water. If you suspect the Batteries or Powerbase have been submerged or experienced water intrusion, call Omeo Technology Technical Support immediately at +64 6 929 6548. Until you receive further instructions, store the Omeo upright, outdoors, and away from flammable objects. Do not attempt to remove the batteries. Do not plug the Power Cord into the Omeo. Failure to follow these instructions could expose you to electric shock, injury, burns, or cause a fire.**
- **As with all rechargeable batteries, do not charge near flammable materials.**
- **Never sit on the Omeo while charging either of the Battery systems.**

Use only charging devices approved by Omeo Technology and never attempt to bypass or override their charging protection circuits.

# Battery Specifications

## NOTICE

**If you use, charge, or store your Batteries outside the limits specified, you may void the Limited Warranty, damage or destroy your Batteries, and/or experience reduced range and ineffective Battery charging.**

## Omeo Lithium-ion/Segway PT Batteries

Refer to **Table 4:** Omeo Lithium-ion/Segway PT Battery Specifications.

**Table 4: Omeo Lithium-ion/Segway PT Battery Specifications.**

Lithium-Ion Battery Specifications	
Charging Time	
Before first use	12 hours
Recharge from empty	~ 8 hours
Temperature Ranges	
Operating	0° C – 50° C (32° F – 122° F)
Charging	10° C – 50° C (50° F – 122° F)
Storage and transport	-20° C – 50° C (-4° F – 122° F)
General	
Capacity (Ah) and Voltage	11.4Ah, 73.6V
Dimensions	357 x 190 x 82mm (14 x 7.5 x 3.2in.)
Battery weight	10.3kg (22.7lbs)

## Auxiliary Batteries

Refer to **Table 5:** Auxiliary Battery Specifications.

**Table 5: Auxiliary Battery Specifications.**

Auxiliary Battery Specifications – Sealed Lead Acid	
<b>Charging Time</b>	
Before first use	12 hours
Recharge from empty	~ 8 hours
<b>Temperature Ranges</b>	
Operating	0° C – 50° C (32° F – 122° F)
Charging	10° C – 45° C (50° F – 113° F)
Storage and transport	-20° C – 50° C (-4° F – 122° F)
<b>General</b>	
Capacity (Ah) and Voltage	2.2Ah, 12V
Dimensions	117 x 34 x 60mm (7 x 1.3 x 2.3in.)
Battery weight	0.9kg (2lbs)
<b>Auxiliary Power Supply</b>	
USA/Canada – XP Power Model ACM 24US24	100-240 VAC, 0.5A; 24VDC, 1.0A
Rest of the world – Sunny Billion Power Model SBP-240100	100-240 VAC; 50/60Hz

# Charging your Batteries

## WARNING

**Never sit on your Omeo whilst charging either of the Battery systems.**

To maintain best performance of both Battery Systems while your Omeo is in regular use, ensure that the Batteries are kept on charge for at least 12 hours once a week, or once every 12 hours of operation, whichever comes first.

The Batteries will handle all voltage. You will just need a local adaptor for the Main Charging lead/plug and Auxiliary Battery Charger lead/plug supplied.

Batteries systems 1 & 2 are charged separately:

1. The Segway Batteries use the Main Charging Lead and Plug. This is inserted into the Main Charge Port on the front of the Omeo and connected into an AC wall socket
2. The Auxiliary Batteries use a separate charger (supplied) with a pin plug. This is inserted into the Auxiliary Battery Charge Port directly adjacent to the Omeo Seat and connected into an AC wall socket.

## CAUTION

**Failure to charge the Batteries could result in damage to the Batteries. Left unplugged, the Batteries could fully discharge over time, causing permanent damage. Use only charging devices approved by Omeo Technology/Segway.**

Charging times vary depending on the following:

- Amount of charge already stored in the Batteries – the lower the Battery Charge Level is, the longer it will take to complete the charging process
- Temperature of the Batteries – Batteries that are too hot or too cold may not charge or may take much longer to charge. Batteries charge most efficiently when they are close to the centre of the recommended charging temperature range. (*Refer to Battery Specifications, Pg. 64*).
- If storage temperature is below 0°C/32°F, do not charge your batteries. Instead, bring them into a warm (above 10°C/50°F) environment for charging. Doing so will ensure optimal battery life and performance.

## WARNING

**Both of the Omeo's charging systems automatically prevent overcharging. It is critical that you leave your Omeo plugged into AC power when it is not in use to avoid damaging both battery systems.**

## Omeo Lithium-ion/Segway PT Batteries (Drive batteries)

The Main Charge Port for the Omeo Lithium-ion/Segway PT Batteries is behind the screw in plug in the front of the Omeo body above the Footplate.

### WARNING

**Do not insert the Main Power Cord if the Charge Port, Power Cord or AC Power outlet is wet.**

#### To charge the Lithium-ion Batteries:

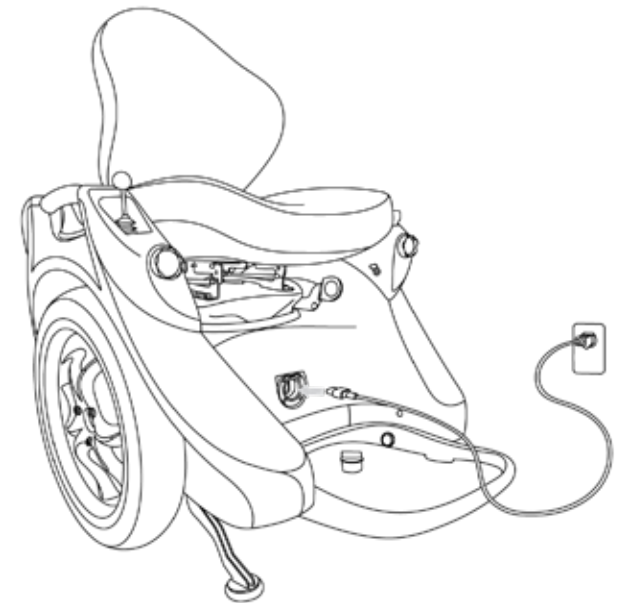
1. Put your Omeo in a clean, dry place that is within the recommended charging temperature range
2. It must be stable, in an upright position with the Stabilising Legs down
3. Open the Main Charge Port on the front of the Omeo (**see Figure 33**) and verify that the Main Charge Port, along with the Power Cord and AC Power outlet, are dry, clean, and free of any debris
4. Plug one end of the Power Cord into the Main Charge Port
5. Plug the other end of the Power Cord into a surge protected and grounded AC outlet (100V – 240V; 50Hz – 60Hz) and switch on

6. The Charge Indicator Lights on the Omeo's Display Panel should illuminate green to confirm that the Batteries are charging (*Figure 34: Indicator lights showing charging Batteries, Pg. 69*).
7. For more information on the Charge Indicator Lights, see Segway PT User Manual (Pg. 89).

#### Unplugging Your Omeo's Auxiliary Battery Charger

When you are ready to use your Omeo:

1. Unplug the Power Cord from both the AC outlet and your Omeo and store it in a safe place (for example, the rear hatch of your Omeo)
2. Close the Charge Port Cover.



**Figure 33:** Charge your Omeo's Lithium-ion Batteries through the Main Charge Port at the front of the unit.

# Charging your Batteries (cont.)

## Omeo Auxiliary Batteries

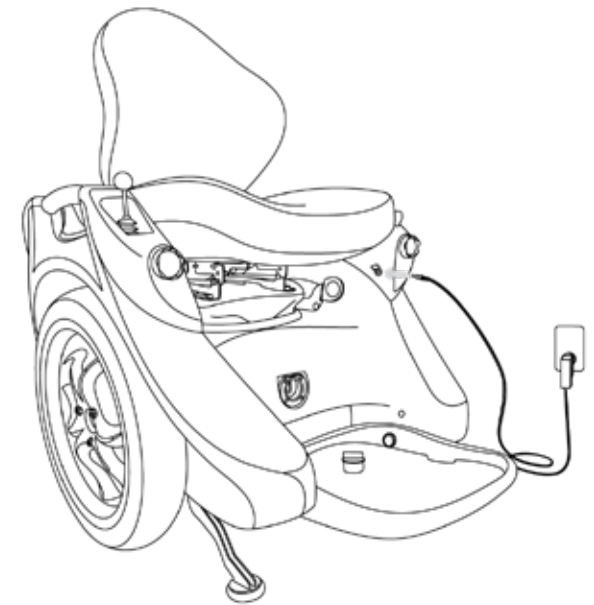
### To charge your Omeo's Auxiliary Batteries:

1. Put your Omeo in a clean, dry place that is within the recommended charging temperature range. It must be stable, in an upright position with the Stabilising Legs down
2. Open the Auxiliary Battery Charge Port on the front of the Omeo (see **Figure 34**) and verify that the Auxiliary Battery Charge Port, along with the Auxiliary Battery Charger and AC Power outlet, are dry, clean, and free of any debris
3. Plug one end of the Auxiliary Battery Charger into the Auxiliary Battery Charge Port
4. Plug the other end of the Auxiliary Battery Charger into a surge protected and grounded AC outlet (100V – 240V; 50Hz – 60Hz) and switch on
5. The Multifunction Indicator Light on the Omeo's Display Panel should illuminate green to confirm that the Auxiliary Batteries are charging (as shown in **Figure 35**)
6. When the Auxiliary Batteries are fully charged, the green light will start to flash/pulse.

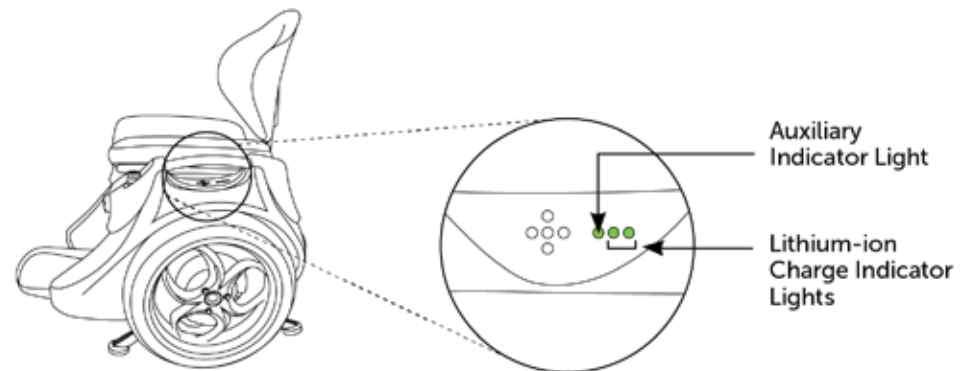
### Unplugging Your Omeo's Auxiliary Battery Charger

When you are ready to use your Omeo:

1. Unplug the Auxiliary Battery Charger from both the AC outlet and your Omeo and store it in a safe place (for example, the Rear Storage Hatch of your Omeo)
2. Close the Auxiliary Battery Charge Port Cover.



**Figure 34:** Charging your Omeo's Auxiliary Batteries.



**Figure 35:** Indicator lights showing charging Batteries.

## Battery Management Indicators for the Auxiliary Batteries

The Indicator Lights for the Auxiliary Battery system are located on the Omeo Display Panel (as shown in *Figure 35: Indicator lights showing charging Batteries*, Pg. 69).

The different indicators for the Auxiliary Battery system are outlined in **Table 6: Auxiliary Battery system Indicators when the Omeo is powered on** and *Table 7: Auxiliary Battery system Indicators when the Omeo is powered off* (Pg. 71).

### NOTICE

**It is important to note that when the Auxiliary Batteries run below 50% charge and the yellow warning light is flashing, the rider must use the remaining power to get to a safe place where they can charge the Auxiliary Batteries. Ensure you have alternative mobility solutions available.**

**Table 6: Auxiliary Battery system Indicators when the Omeo is Powered on (with InfoKey™ Controller).**

When the Omeo is powered on (Standby or Balance Mode)	
White single flash	Is only activated when the Main Control Switch is pushed to activate the Stabilising Legs to put the Omeo into Balance Mode. <b>This is a positive signal of function.</b>
Yellow flash every 3 seconds in a continuous pattern – <b>(Warning Signal)</b>	Is activated when the Auxiliary Batteries are discharged to 50%. At this level the Lights and USB charging port will shut down and not function.
Red slow flash every 1.5 seconds in a continuous pattern – <b>(Warning Signal)</b>	Is activated when the Auxiliary Batteries are discharged to 20%. In this situation the standard function of raising the Stabilising Legs by one push on the Main Control Switch is no longer available.  To raise the Stabilising Legs so that 'drive' is available, the rider must hold the Main Control Switch down for 7 seconds to override the system. This may be repeated while power remains.
Alternating white and blue flashing light – <b>(Warning Signal)</b>	Is activated when there is high voltage drain on the Auxiliary Batteries when the Stabilising Legs are activated. This is possibly caused by a jam between the Stabilising Legs and Omeo Body and may require the rider to clear the jam.

## Battery Management Indicators for the Auxiliary Batteries (cont.)

**Table 7: Auxiliary Battery system Indicators when the Omeo is powered off.**

When the Omeo is powered off	
White single flash	Is activated when the Main Control Switch is pushed for a sufficient amount of time (e.g. 1,2, 3 x) for a command to be received, no matter what status of the Omeo. <b>This is a positive signal of function.</b>
Solid green light with eventual progression to flashing green or white light	Is activated when the Auxiliary Batteries are charging and will progress to a constant flashing green or white light when fully charged. The Auxiliary Batteries take 8-12 hrs. approximately for a full charge.
Yellow flash every 3 seconds in a pattern that runs for 20 seconds only – <b>(Warning Signal)</b>	Is activated when the Main Control Switch is pressed once (or number of presses) to raise the Stabilising Legs or once to lower the Stabilising Legs and the Auxiliary Batteries have run down to less than 50% charge.
Red slow flash every 1.5 seconds in a pattern that runs for 20 seconds only – <b>(Warning Signal)</b>	Is activated when the Main Control Switch is pushed to raise or lower the Stabilising Legs and the Auxiliary Batteries have run down to less than 20% charge.
Alternating white and blue flashing light running for 20 seconds only – <b>(Warning Signal)</b>	Is activated when there is high voltage drain on the Auxiliary Batteries when the Stabilising Legs are activated. This is most likely caused by a jam between the Stabilising Legs and Omeo Body and possibly could require the rider to clear the jam.

## Battery Charge Indicator Lights (for the Segway PT Lithium-ion Batteries)

Refer to the [Segway PT User Manual \(Pg. 89\)](#).

## Charging Failures (Segway Lithium-ion Batteries)

Refer to the [Segway PT User Manual \(Pg. 89\)](#).

### Replace in the Segway User Manual:

- References to Authorised Segway Dealer replace with **Omeo Agent**.
- References to Distributor replace with **Omeo Technology**.

## Regenerative Braking

Refer to the [Segway PT User Manual \(Pg. 90\)](#).

## Reading the Battery Charge Level Display

Refer to [Segway PT User Manual \(Pg. 90\)](#).

### Replace in the Segway User Manual:

- References to Step off with stop and replace with lower the **Stabilising Legs** and dismount.

## Recalibrating the Battery Charge Level Display

Refer to [Segway PT User Manual \(Pg. 92\)](#).

### Replace in the Segway User Manual:

- Reference to WARNING!... Balance Mode leaning against the wall and replace with ...**Omeo in Standby Mode with the Stabilising Legs down**
- Reference to Riderless Balance Mode and replace with **Standby Mode**.

## How Temperature Affects Performance

Refer to [Segway PT User Manual \(Pg. 93\)](#).

# Replacing Batteries

## Lithium-ion Batteries

Refer to [Segway User Manual \(Pg. 94\)](#).

### Replace in the Segway User Manual:

- References to Authorised Segway Dealer and replace with **Omeo Agent**
- References to Distributor and replace with **Omeo Technology**.

## Auxiliary Batteries

The Auxiliary Batteries should have a useful life of 2 years but may be less depending on the nature of use.

An indication that the Batteries may need replacing would be that the Stabilising Legs slow down noticeably in their speed of operation. The Batteries should be checked by a Certified Omeo Service Technician at service intervals and replaced as required.

### NOTICE

**If a Certified Omeo Service Technician is not available please contact Omeo Technology to make alternative arrangements.**



# Battery Transportation, Shipping, and Disposal

Refer also to [Segway PT User Manual \(Pg. 95\)](#).

## Shipping Lithium-ion Batteries

Replace in the Segway User Manual:

- References to US Department of Transportation and replace with **most jurisdictions**
- References to Contact the US Department of Transportation and replace with **your local Shipping Agent or Omeo Technology**.

## Travel Advisory

When wanting to travel with your Omeo with Lithium-ion Batteries fixed, notify your travel agent, airline or shipper. Most will have guidelines for transporting wheelchairs/mobility devices with Lithium-ion batteries, but you cannot assume they will.

Airlines may allow transportation (as checked-in baggage) of the Omeo with Lithium-ion Batteries intact and ignition switch (InfoKey™ Controller) separate from the device, if it is required as a mobility aid.

Allow yourself plenty of time prior to departure to establish whether you can transport your Omeo as personal checked in baggage, if using it as a mobility aid.

**Table 8: Key information about the Omeo for Airlines and Shipping providers.**

<b>Key information about the Omeo (for airlines and shipping providers)</b>	
Make and Model	Omeo Evolution 1
Manufacturer	Omeo Technology Limited ( <a href="http://omeotechnology.com">omeotechnology.com</a> )
<b>Drive Batteries</b>	Lithium-ion
Switch	InfoKey™ Controller held with operator. Battery removed. Batteries cannot be activated if InfoKey™ Controller is more than 2m (6.5ft) away.
UN Number Land transport (ADR/RID) Inland waterway Sea Transport (IMDG) Air Transport (ICAO/IATA)	UN 3480. UN3481 when packed with or contained in the device for which the cells or batteries will provide electrical power for its operation. UN3171 for battery powered devices with installed batteries.
IATA (Dangerous Goods Regulations)	Complies with: 2.3.2.4 Wheelchairs/Mobility Aids with Lithium Batteries <b>2.3.2.4 (a);</b> “the batteries must be of a type which meets the requirements of each test in the UN Manual of Test and Criteria, Part III, subsection 38.3” <b>2.3.2.4 (c) (1)</b> - “the battery terminals are protected from short circuits, e.g. by being enclosed within a battery container” <b>2.3.2.4 (c) (2)</b> the battery is either (i.) “securely attached to the wheelchair or mobility aid and the electrical circuits are isolated following the manufacturer’s instructions”, (Yes) or (ii.) - “removed by the user.....” (No) this clause does not apply as batteries are not removed by user.
Transport Hazard Class	9
Environmental hazards	Not applicable

<b>Auxiliary Batteries</b>	2 x Sealed Lead Acid (2.2Ah and 12V) Fixed inside body to chassis No switch External/independent charger
UN number	UN 2800 Batteries, Non spillable, electric storage
Hazardous Goods	Non-hazardous. Unrestricted for transportation by any means
Switch	Button on body will turn on lights
Tare weight of Omeo	75kg (165lbs)
Size (dimensions)	H 610mm/24in x W 650mm/25.2in x L 770mm/39.4in

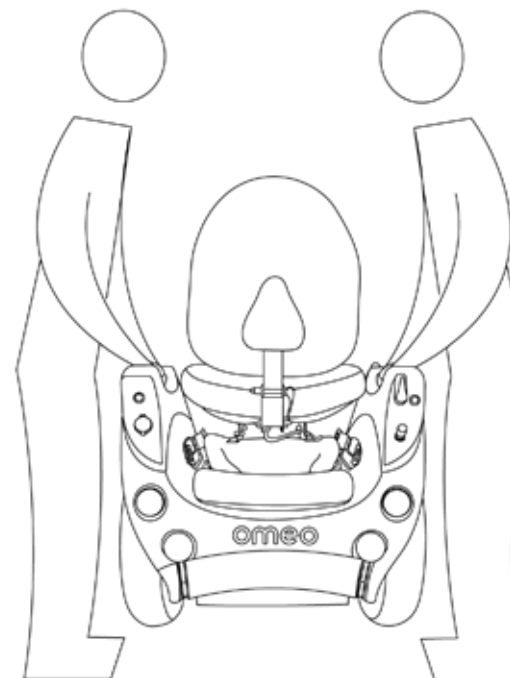
## Lifting your Omeo

### **⚠ WARNING**

**Never lift your Omeo by its Tyres, Guards/Fenders or Wheels as to doing so could cause injury by getting hand and fingers caught.**

As the Omeo weighs 75kg (165lbs), it is important to use proper techniques to safely lift and load your Omeo. Omeo Technology recommends that two people work together to lift the Omeo by the Hand Grips (See **Figure 36**).

Ideally you want to use a mechanical or electrical lift, hoist, or wheel up it and down ramps.



**Figure 36:** Lifting the Omeo.

## Handling Your Omeo When Transporting

The Batteries are contained within the device and are 'factory installed' with no moving parts or exposed wiring.

The switch for the drive Batteries (Lithium-ion) is on the InfoKey™ Controller which must be within 2m (6.5ft) of your Omeo to function.

When you remove the InfoKey™ Controller from the vicinity of your Omeo, the Omeo's drive Batteries cannot be switched on.

The Auxiliary Lead Acid Batteries remain operational so that the Stabilising Legs may be raised and lowered for secure storage.

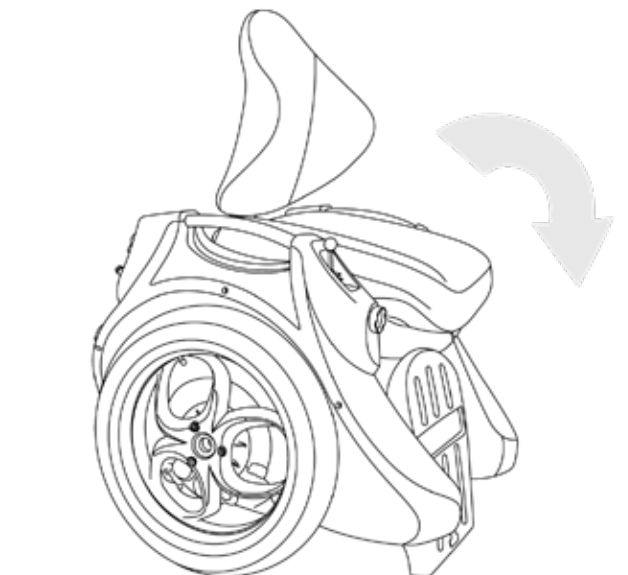
**Table 9: Best ways to Transport your Omeo using various methods**

Transportation	Best ways to handle your Omeo
Air	<p>It is recommended to transport your Omeo as checked in baggage with your airline.</p> <ul style="list-style-type: none"> <li>• Take a copy of Table 8 (Pg. 74) with you to give to the Airline upon check-in.</li> <li>• We highly recommend that you use the Omeo travel cover</li> <li>• Keep the Omeo powered off with the Stabilising Legs up. Fold the footrest up so the Omeo can be tilted forward and rest on the edge of the footplate.</li> <li>• Instruct the airlines on how to move the Omeo and advise them to tie down using the tie down points.</li> </ul> <p><b>NOTICE</b>  <b>Do not instruct the Airlines on how to lower the Stabilising Legs. In doing so you expose them to risk of damage.</b></p> <p><b>TIP:</b> we recommend that you allow plenty of time to check-in with your Omeo.</p>
Freight	<ul style="list-style-type: none"> <li>• We highly recommend that you use the Omeo travel cover</li> <li>• Put the Omeo back into its original box</li> <li>• Lower the Stabilising Legs</li> <li>• Give to Freight company with instructions about the weight and hazardous goods. (It might be helpful give the Freight company a copy of Table 8)</li> </ul> <p>Alternatively, if you no longer have your Omeo's original packaging, secure your Omeo onto a pallet with the Stabilising Legs down.</p>
Personal Transport (e.g. in your car)	<ul style="list-style-type: none"> <li>• Use a ramp or hoist to get the Omeo into position in a vehicle safely</li> <li>• The Walker Balance assist mode (Pg. 32) can help with this.</li> <li>• When using a hoist or ramp, the Stabilising Legs must be raised and lowered once the Omeo is in position</li> <li>• Secure using the tie down points and/or Handgrips</li> </ul>

## NOTICE

**The Stabilising Legs are to be raised when leaving your Omeo with third party handlers/transporters e.g. Airlines. Your Omeo can be tilted forward to rest on the back of the raised Footplate (Figure 37).**

**Leaving the Stabilising Legs lowered could result in damage by handlers or movement in the transporter.**



**Figure 37:** Your Omeo can be tilted forward to rest on the back of the raised Footplate.

## Tie Down Points

There are four Tie Down Points on the Omeo to secure it when transporting (a requirement on some public transport) (**Figure 38**).

To avoid damage to the Hand Grips, it is recommended to avoid using them as tie down points

### **⚠ WARNING**

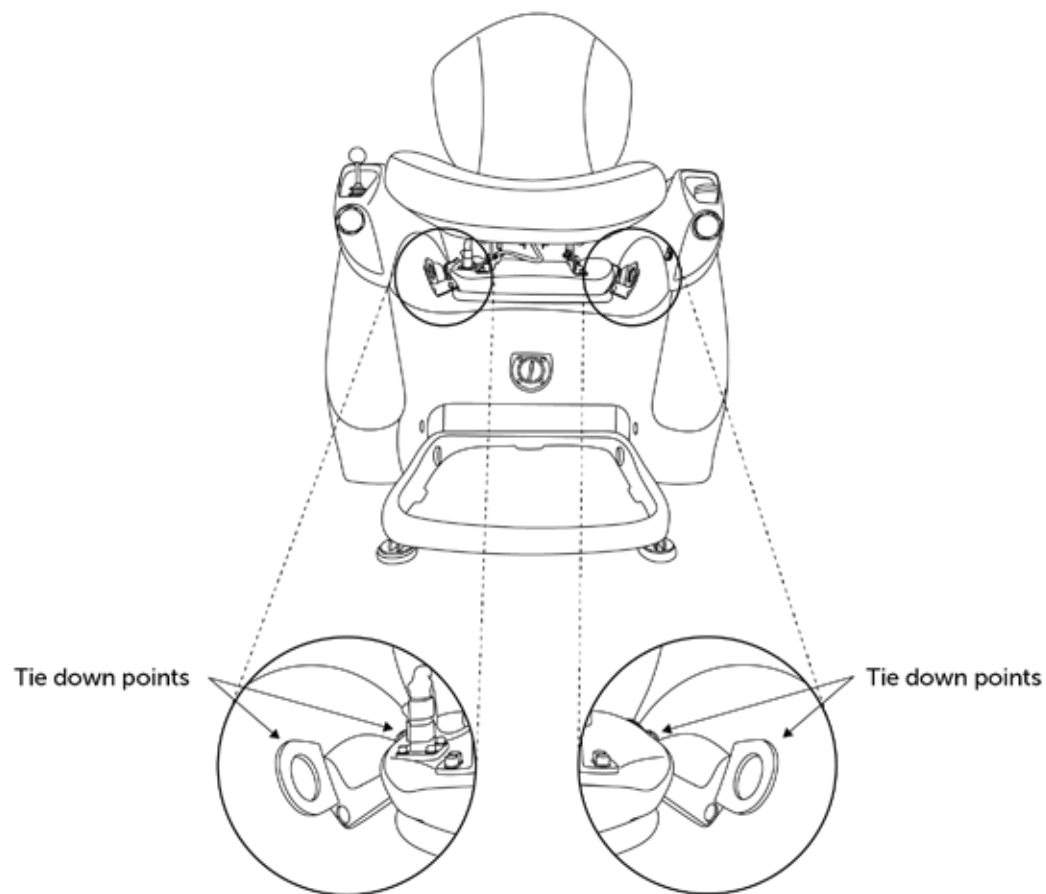
**The Omeo is not designed for a user to remain seated as a passenger or driver in a vehicle.**

## Battery Disposal

Refer to the [Segway PT User Manual \(Pg. 95\)](#).

Replace in the Segway User Manual:

- Reference to Segway contact details and replace with **Omeo Agent or Omeo Technology**.



**Figure 38:** The Omeo also has four Tie Down Points to secure it when transporting.

# Section 9: Maintaining your Omeo

Your Omeo is a low maintenance device constructed from durable, waterproof materials designed to be weather and low-impact resistant. To ensure optimal performance you need to maintain your Omeo by keeping it clean, dry and correctly assembled with Tyres inflated to correct pressures and the Batteries charged.

The Power Base, gearboxes, electrics and the ASC components are not serviceable by the user/owner.

## NOTICE

**Even though the Omeo is weather resistant and can be ridden in the light rain, it should not be stored outside in damp conditions or direct sunlight for extended periods of time. Doing so without the use of a protective covering may cause water damage to electronics and other components. The Omeo should be stored indoors when not in use.**

## WARNING

**Make sure that your Omeo is powered off and unplugged before performing any of the following procedures.**

## WARNING

**Do not immerse the Omeo in water or hose it down. Instead, use a damp cloth to clean.**

## Maintaining Tyres and Wheels

Refer to the [Segway PT User Manual \(Pg. 98\)](#).



# Cleaning your Omeo

## ⚠ WARNING

**Do not clean your Omeo's Body or Tyres with any abrasive or solvent chemicals. Use of such products may reduce traction or damage your Omeo, increasing the risk of a fall.**

Refer also to [Segway PT User Manual \(Pg. 99\)](#).

**Replace in the Segway User Manual:**

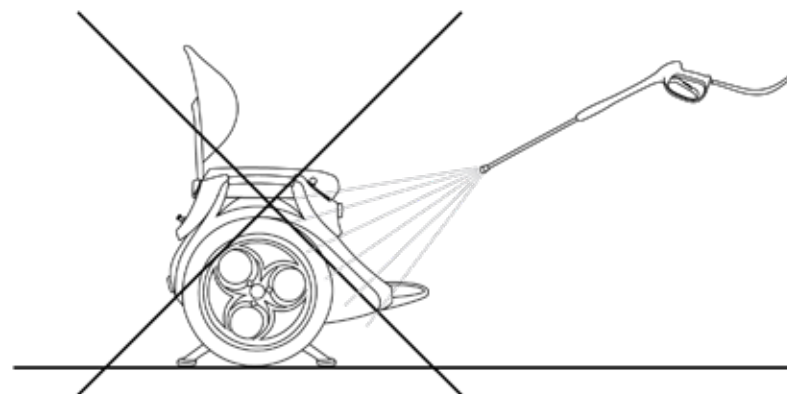
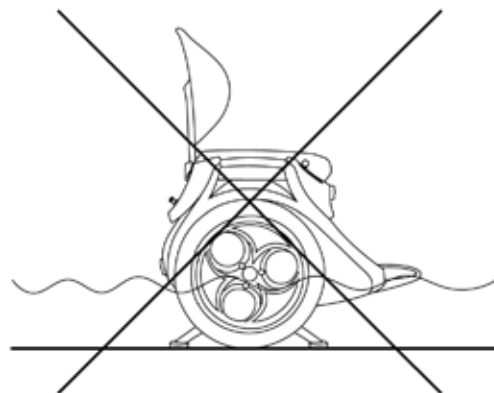
- References to Segway contact details and replace with **Omeo Agents or Omeo Technology** contact details.

## Storing your Omeo and Batteries

### NOTICE

**Prolonged exposure to UV rays, rain and the elements may damage the body materials. Store indoors when not in use.**

Refer to the [Segway PT User Manual \(Pg. 100\)](#).



**Figure 39:** Avoid submersion. Do not use a power washer.

# Section 10: Servicing your Omeo

## WARNING

**Before performing any maintenance or installing any part or accessories, you must always power off your Omeo and ensure the AC Power Cords are unplugged.**

**There are no user-serviceable parts inside the Power Base unit. You must never attempt to open it. By doing so, you not only risk electric shock and unsafe damage to your Omeo, you will also void the Omeo warranty.**

**When performing any maintenance or installations, use only Omeo approved parts, screws and accessories.**

**To decrease your risk of injury, you should wear Personal Protective Equipment when performing any service on your Omeo.**

## WARNING

**Risk of Fire-No User Serviceable Parts.**

## Replacing parts

If a part of your Omeo breaks or you have any questions regarding replacement parts, contact your nearest Authorised Omeo Agent, a Certified Omeo Service Technician or Omeo Technology.

## Torque Specifications

### CAUTION

**Adhere to torque specifications when tightening screws or fasteners. Over-tightening or under-tightening screws or fasteners can result in damage or malfunction.**

## Accessories

Add only Omeo approved accessories to your Omeo. Various accessories are currently being developed and will become available over time. For a range of accessories refer to the Omeo Technology website.

# Service Procedures

## Segway Components

Refer to the [Segway PT User Manual \(Pg. 104\)](#).

## Removing the Segway Lithium-ion Batteries

Refer to [Segway PT User Manual \(Pg. 106\)](#).

## Checking Tyre Inflation Pressure

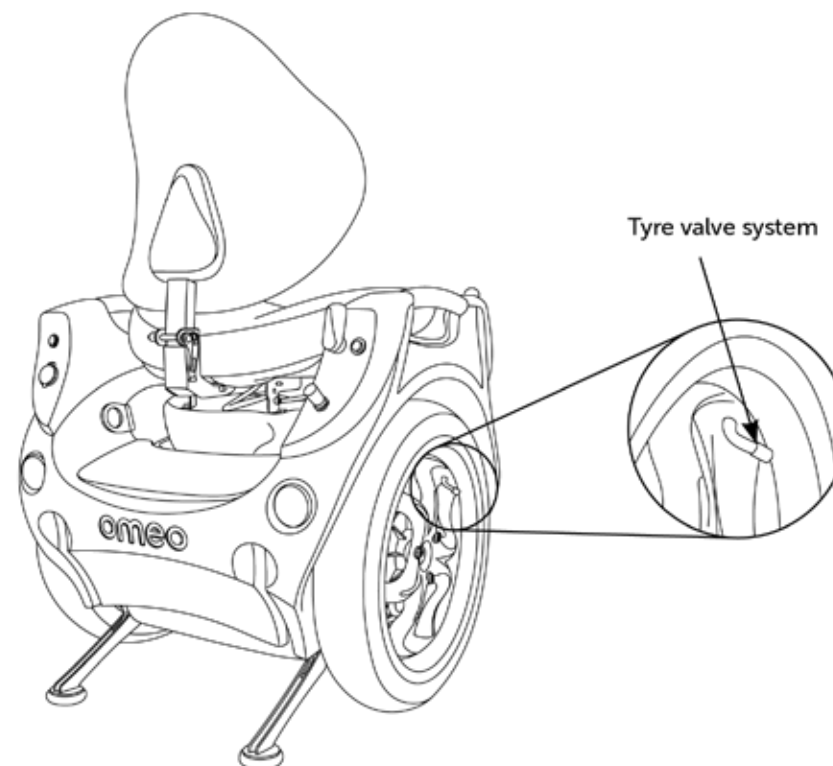
The tyre pressures for the Omeo Standard and All-Terrain are as for the Segway (Refer to [Table 1: Omeo Specifications, Pg. 18](#)).

Make sure the Omeo is powered off and in a stable upright position with the Stabilising Legs down in the first instance (see **Figure 40**).

### NOTICE

**As the valve system is visible there is no need to tip the Omeo onto its side to check the tyre inflation pressure. A slight rotation of the Wheel may be required to allow the best location/access to the valve system.**

There are no wheel caps on the Omeo wheels.

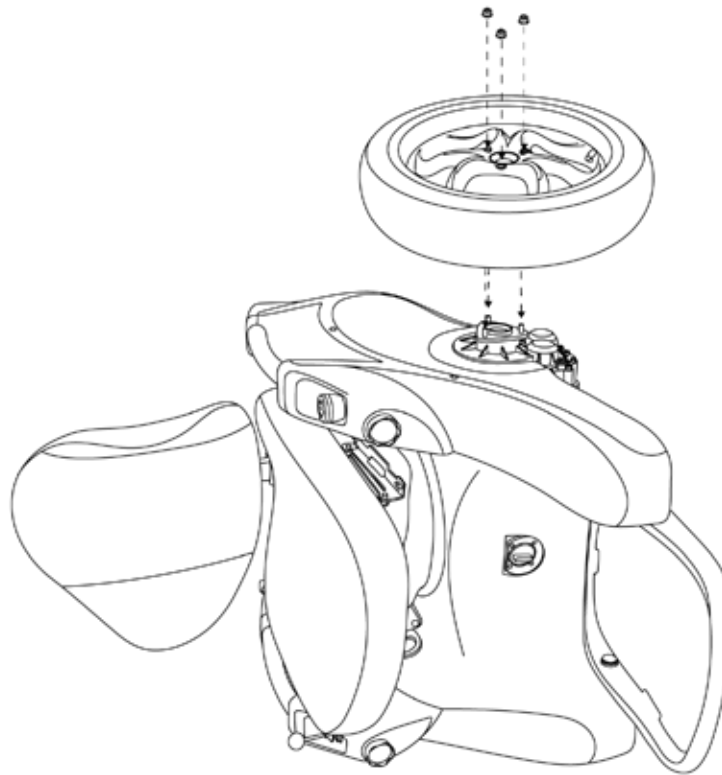


**Figure 40:** Checking the tyre inflation pressure.

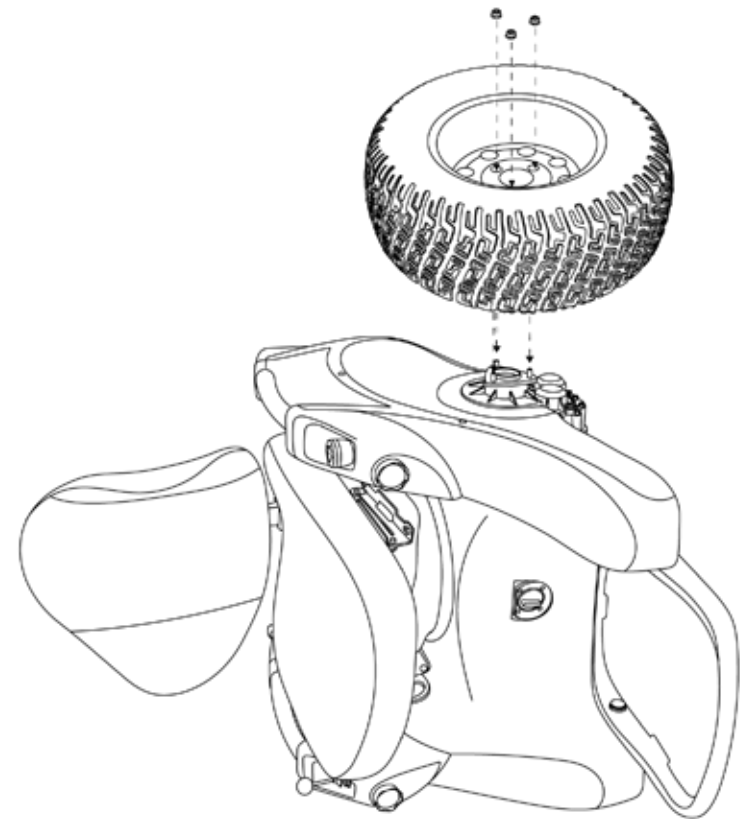
## Service Procedures (cont.)

### Install and Remove Tyre/Wheel Assembly

Refer to [Segway PT User Manual \(Pg. 108\)](#).



**Figure 41:** Install and remove standard tyres/wheels.



**Figure 42:** Install and remove All-Terrain tyres/wheels.

# Service Procedures (cont.)

## Remove/Install Off-Road Kit Wheel Guards (Fenders)

**Tools required:** Phillips screwdriver

### To remove the guards (fenders):

1. Make sure that the Omeo is unplugged and powered off

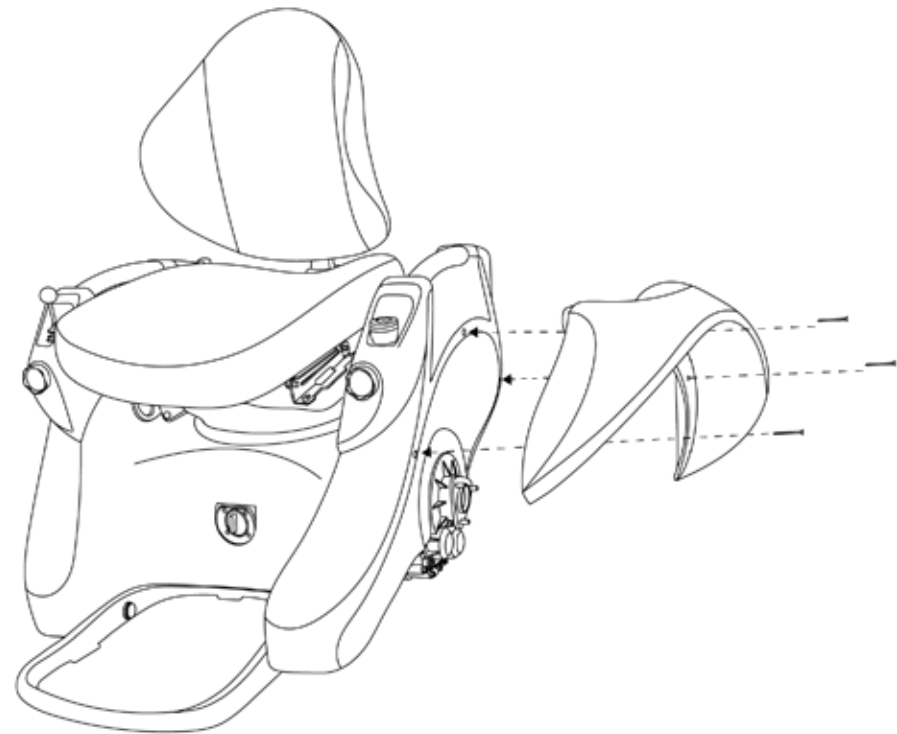
### NOTICE

The Omeo does not have to be on its side to take off the Guards. It is safe to take the Guards off whilst the Omeo is in an upright position.

2. Remove the three screws/fasteners that attach the guard to the Body of the Omeo
3. Remove the Guard and store along with the screws/fasteners in a safe location.

### To install the Guards (fenders):

1. Position the Guard so that it aligns with the three holes in the Omeo Body (as seen in **Figure 43**)
2. Insert and thread the screws, one at a time through the guard into the Omeo Body (loosely fitted until all have been inserted).
3. Tighten all the screws to 1.5N-m (13in-lbs)/hand tight.



**Figure 43:** Remove/install the Off-Road Kit Wheel Guards (Fenders).

# Replacing the InfoKey™ Controller Battery

Refer to [Segway PT User Manual \(Pg. 115\)](#).

When it comes to replacing your InfoKey™ Controller batteries it is highly recommended that you get in contact with your Omeo Agent or Omeo Technology to source high quality batteries. It is important that you use high quality batteries to maximise the useful life of your InfoKey™.

## NOTICE

**By using low quality (or cheap) batteries, you risk damage to your InfoKey's™ buttons and the potential to not being able to power on your Omeo.**

# Seat Cushion

The Seat Cushion can be removed for cleaning or replacing by unzipping the Cover.

## Seat Cover

Seat Cushion Cover can be removed for airing and professional cleaning.

The Seat Cover is made of vinyl and can be cleaned with soap and water, or water-based cleaners. **Do not use solvent based cleaners.**

# Section 11: Customisations

Your Omeo can be customised to the needs of individual riders. This can allow each rider to optimise control of the Omeo according to their abilities.

You can adjust:

- Seat Location
- Seat Height
- Footplate Height
- Seat Cushion
- Seat Cover
- Wheels
- Steering Resistance – Dampening Control
- Accessories

Adjustments should be undertaken with the support of your Authorised Omeo Agent.

# Seat Location

## Seat Pan Forward and Back

The Seat Pan on your Omeo is adjustable forward and back in 20mm (0.78in) increments. Adjustment may be necessary to help you find the centre of balance. You will know when the Seat is centred as it should require the same amount of effort to lean forward and return to centre as it does to lean back and return to centre.

### To adjust the Seat forward and back:

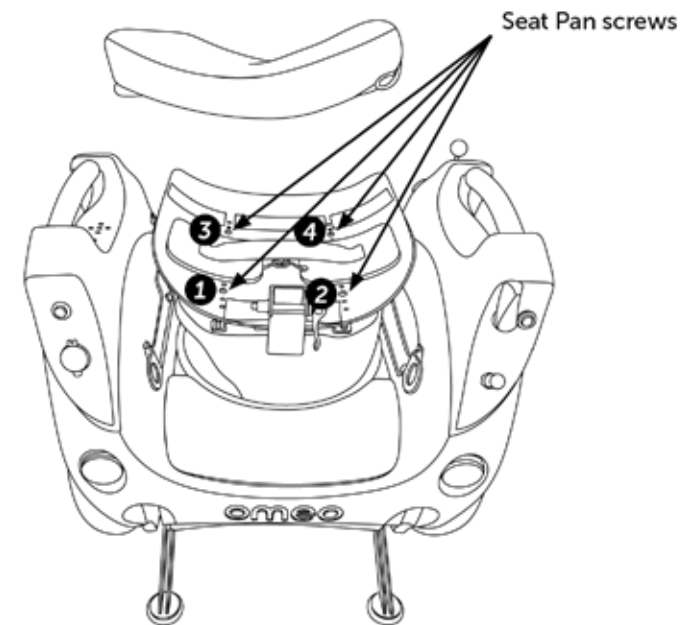
1. Sit as far back in the Seat as possible in an upright position (making contact with the Seat Back)
2. Have an assistant or Spotter hold onto the top of the Seat Back, ready to take control if required
3. Push the Main Control Switch to go to Balance Mode and test. Your goal is to be stationary in Balance Mode to identify your centre of balance in a front to rear axis
4. If you have to lean forward to maintain a stationary position, then the Seat Pan will need to be adjusted forward
5. If you have to lean back to maintain a stationary position, then the Seat Pan will need to be adjusted backward
6. Do one adjustment at a time
7. Repeat the process until you are in a comfortable upright position whilst remaining stationary.

### How to adjust the Seat Pan:

1. Remove the Seat Cushion by releasing the Velcro on the underside and rear then slide forward
2. Loosen the nuts (with 10mm Spanner) and remove the 4 screws from the top of the Seat Pan as shown in **Figure 44**
3. Move the Seat Pan forward or back as required. Align the 4 holes, insert the screws then tighten (hand tight) before reattaching the Seat Cushion.

### NOTICE

**Make sure that the number of holes between the forward and rear screws remains the same throughout the adjustment to keep the Seat height and dump (angle or rake of seat) constant.**



**Figure 44:** Adjusting the Seat Pan.



# Seat Location (cont.)

## Seat Height

The Seat height can be adjusted by 45mm (2in) at 15mm (0.6in) increments up and down to customise to leg length and transfer heights.

The Seat dump can also be adjusted in this process. (Refer to *How to adjust the Seat Dump*, Pg. 90).

### Testing for the appropriate Seat height:

1. Test the fit for Seat to Footplate by sitting on your Omeo with the Stabilising Legs down. Check to see if your feet are in contact with the Footplate and that you have no undue pressure on the Seat under your thighs
2. Have an Assistant/Spotter hold onto the top of the Seat Back, ready to take control if required
3. Rock the Seat back and forward to check that your feet stay in contact with the Footplate at all times
4. Raise / lower the Seat to suit. (Refer to *How to raise and lower the Seat height*, Pg. 90)
5. For a more level transfer, you can change the Seat height to ground height in the same way as above.

## NOTICE

**The ASC's pivoting Seat and the self-levelling function of your Omeo must be taken into account when selecting the most suitable Seat to Footplate height.**

When braking or going down-hill, the Seat will pivot back increasing the distance between the front of the Seat and the Footplate. Conversely the distance will decrease when going uphill or on initial take off.

## NOTICE

**A good guide to indicate if adjustment may be needed is if your feet lift off the Footplate when braking hard or descending a steep slope. (Refer to Riding Behaviour and Method Pg. 43).**

For maximum adjustment both Seat height and Footplate height may need adjustment in tandem (Refer to *How to raise and lower the Seat*, (Pg. 90), and *Adjust the Footplate Height*, (Pg. 91)).

## Seat Location (cont.)

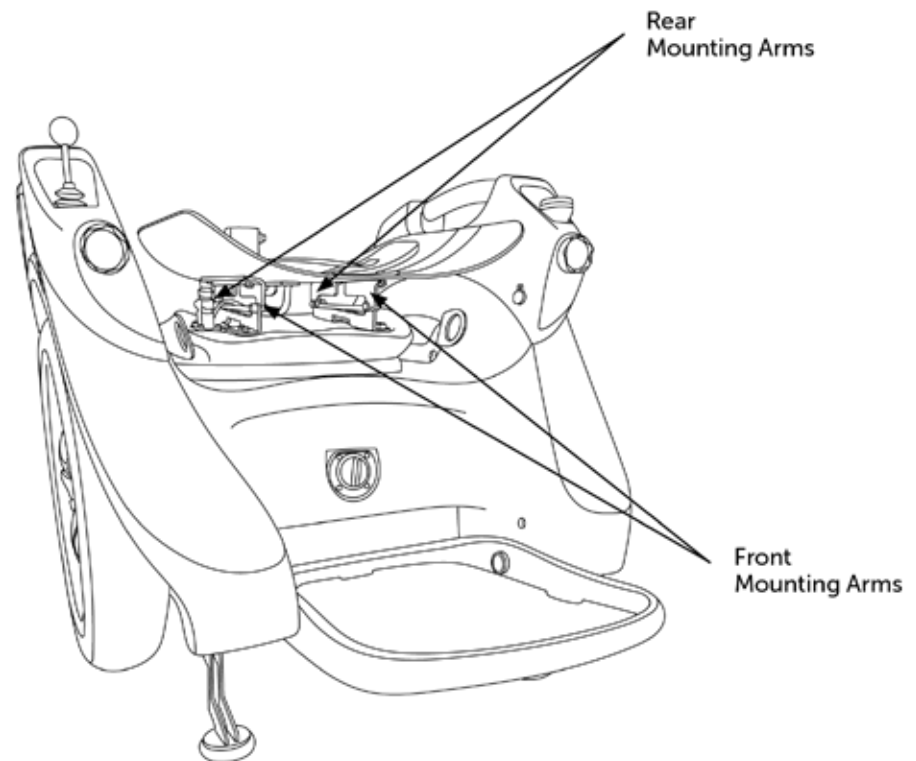
### How to raise and lower the Seat height:

1. Remove the Seat Cushion
2. Undo and remove the nuts and four mounting screws from the top of the Seat Pan (*Figure 43: Adjusting the Seat Pan, Pg. 88*)  
(Note: the nuts should be removed first)
3. Using the 5mm Allen key and 10mm Spanner provided, loosen the 4 screws on the Mounting Arms (as located in **Figure 45**). This will allow you to move the Mounting Arms (brackets) up or down to suit.

### How to adjust the Seat Dump (sometimes referred to Angle or Rake):

To adjust the dump (the rear of the seat lowered or front raised):

1. Follow the same procedure as above however you are only adjusting the front or the rear Mounting Arms
2. For a finer adjustment for dump, washers can be added between the Seat Pan and the Mounting Arm.



**Figure 45:** The Omeo Seat showing the Mounting Arms.

# Footplate Height

The Footplate has 2 adjustments of 50mm (2in.) increments in height to:

1. Increase the ground clearance
2. Allow for the Seat to Footplate height to be adjusted according to your leg length.

Your feet should sit level within the boundary of the Footplate.

## **⚠ WARNING**

**You must keep your feet within the Footplate when in use to prevent injury.**

## Adjust the Footplate Height

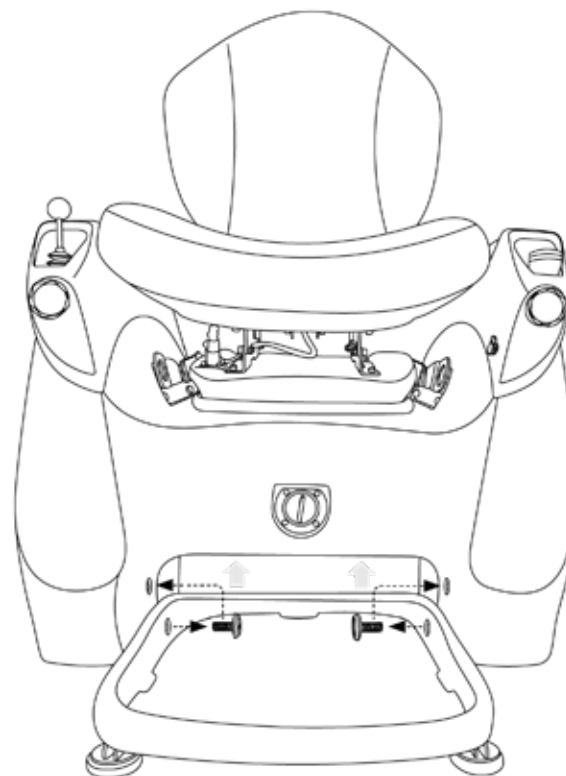
Adjusting Footplate height can be done independently of, or in conjunction with Seat height adjustment.

**Tool required:** Allen Key No.6

1. Adjust the Footplate height by using the Allen Key No.6 to undo the Footplate pivot bolts (Figure 45) and release the Footplate
2. Re-tighten the Footplate pivot bolts. Be careful not to over-tighten the bolts.

## **NOTICE**

**Whilst it is desirable that your feet are resting on the Footplate and can be used for leverage.**



**Figure 46:** Adjust the Footplate height.

## Seat Cushion

Your Omeo comes with a carefully selected Seat Cushion which seems to suit most riders. Nevertheless, each owner/rider will have their own preference for comfort.

The Seat Cushion can be easily replaced and cleaned.

### Remove and replace Seat Cushion fill:

1. To remove the Cushion from Seat Pan, pull the Cushion to separate the Velcro away from the Seat Pan
2. To remove/replace the Cushion fill, unzip the Cushion Cover
3. Insert desired fill, re-zip the Cushion Cover
4. Re-attach the Seat Cushion to the Seat Pan using the Velcro.

### NOTICE

**When customising the Cushion, it is important to keep the shape and size of the original Cushion. This will ensure that the correct clearance between the Seat and Body is maintained.**

## Seat Cover

Your Omeo comes with a standard vinyl Seat Cover which is hard-wearing and suitable for wet weather.

A breathable Seat Cover is also available as an accessory. This is more suited to hot conditions and prolonged use.

Please contact your seat specialist or Omeo Agent if you wish to change your Seat Cover.

### Changing the Seat Cover:

1. To remove the Cushion from Seat Pan, pull the Cushion to separate the Velcro away from the Seat Pan
2. Unzip the Cover
3. Fit and zip the new Cover
4. Re-attach the Seat Cushion to the Seat Pan using the Velcro.

## Wheels and Tyres

The Omeo is supplied with the Standard Wheel and Tyre kit. The Standard Kit suits many off-road situations.

The Off-Road Kit (Wheels, Tyres and Guards) are supplied as an accessory and are suitable for more extreme terrain.

Changing between the two options is easy.

*Refer to Install and Remove Tyre/Wheel Assembly (Pg. 84).*

## Steering Resistance and Dampening Control

Dampening control is integrated into the seat steering (ASC) to help you maintain control of your Omeo at speed, over bumpy terrain and/or with a variable payload.

### NOTICE

**If you are riding at speed off-road, increasing the dampening can help you to retain a straighter line.**

### To adjust the Dampening Control:

1. To increase the resistance/dampening, turn the knob clockwise
2. To decrease the resistance/dampening, turn the knob anti-clockwise

*Refer to Section 7: Learning to ride your Omeo (Pg. 42).*

### NOTICE

**Turning the Dampening Control knob fully to the right and increasing the stiffness too much will lock the seat and stop the steering function completely.**

# Accessories

## Railblaza Accessories

The Omeo is fitted with a RailBlaza Star-lock on the opposite arm to the Joystick.

There are numerous Omeo by RailBlaza accessories designed to fit the Star-lock which are available on the Omeo Technology website.

## Seat Cover

Vinyl suited to hot conditions and prolonged use.

## Protector Cover

Adjustable, for both Standard and Off-Road Kits.  
Hard wearing, shower proof material, large pocket.  
Form fitting.

## Off-Road Kit

- All-Terrain Wheels
- Wheel Guards (Fenders).

# Section 12: Troubleshooting

This section describes numerous troubleshooting techniques for identifying certain problems with your Omeo, before needing to contact a Certified Omeo Service Technician.

## NOTICE

**If you attempt to fix problems yourself that require approved Omeo Technology Service Technician you may void your Omeo Worldwide Limited Warranty.**

## NOTICE

**If you are unsure of what the problem is or if you need service assistance please contact the nearest Authorised Omeo Agent, Certified Omeo Service Technician or Omeo Technology.**

## WARNING

**Your Omeo must be unplugged and powered off prior to doing any maintenance, repairs or adding on any approved accessories.**

## Power Base, Drive-train, Tyres and Wheels

### PROBLEM:

**The Omeo will not power on.**

### RECOMMENDED ACTION:

(Refer to the [Segway PT User Manual, Pg. 120](#)).

### PROBLEM:

**The Omeo will not enter Balance Mode.**

### RECOMMENDED ACTION:

- Confirm the Omeo is powered On
- Confirm the Joystick is centred
- Confirm the Stabilising Legs are down and the Omeo is level
- If the Omeo will still not enter Balance Mode, identify the error icon on the InfoKey™ Controller, and refer to [Segway PT User Manual \(Pg. 127\)](#).

### PROBLEM:

**Tyre/Wheel Assembly is loose and/or wobbles.**

### RECOMMENDED ACTION:

(Refer to the [Segway PT User Manual, Pg. 122](#)).

### PROBLEM:

**The Omeo pulls to one side when riding.**

### RECOMMENDED ACTION:

(Refer to the [Segway PT User Manual, Pg. 123](#)).

### PROBLEM:

**Tyre is flat or will not maintain inflation pressure.**

### RECOMMENDED ACTION:

(Refer to the [Segway PT User Manual, Pg. 124](#)).

### Replace in the Segway User Manual:

- References to Authorised Segway Dealer and replace with **Certified Omeo Service Technician**
- References to Distributor and replace with **Omeo Technology**.

PROBLEM:

**Safety Shutdown occurs when entering or leaving a building.**

RECOMMENDED ACTION:

(Refer to the [Segway PT User Manual, Pg.125](#)).

**Replace in the Segway User Manual:**

- Reference to Step off at... And replace with **Go into Safety Shutdown procedure.**

Come to a standstill, press Main Control Switch to lower Stabilising Legs, within 10 seconds. Contact building manager to deactivate detection system in order to progress through.

PROBLEM:

**The Omeo will not power off.**

RECOMMENDED ACTION:

(Refer to the [Segway PT User Manual, Pg.126](#)).

PROBLEM:

**InfoKey™ Controller Error Icons**

RECOMMENDED ACTION:

(Refer to the [Segway PT User Manual, Pg.127](#)).

## Omeo Specific

PROBLEM:

**The Seat Back moves side to side when riding**

RECOMMENDED ACTION:

1. Review Seat Back installation
2. Loosen the knob on the Seat Back Stem and remove the Seat Back
3. Check for wear and cracks in the post
4. If showing signs of any damage, contact the nearest Authorised Omeo Agent, Certified Omeo Service Technician or Omeo Technology
5. If all is in order, then reinstall the Seat Back ensuring the knob is tightly fastened.

PROBLEM:

**The seat is not level**

RECOMMENDED ACTION:

1. Lower the Stabilising Legs with the Omeo powered off
2. Switch the Steering Selection lever into ACS mode and manually adjust the position of the seat
3. Switch back into Joystick Mode.

PROBLEM:

**The Omeo turns by itself when in Joystick Mode.**

RECOMMENDED ACTION:

1. Make sure the Omeo is on level ground
2. Turn your Omeo off and make sure that the Joystick moves side to side evenly and returns to centre when let go
3. If the problem persists, contact your Authorised Omeo Agent, Certified Omeo Service Technician or Omeo Technology.

PROBLEM:

**The Seat is not level, making control and balance for steering difficult.**

RECOMMENDED ACTION:

1. Dismount your Omeo and check that the Seat is installed correctly according to the instructions in Seat set up
2. Check that each Mounting Arm (bracket) is set at the same height or numbered location as its mirror / counterpart on the Seat
3. If the adjustable Mounting Arms are set unevenly then adjust so they are even. Test the Omeo for balance and control
4. If the problem persists, contact your Authorised Omeo Agent, Certified Omeo Service Technician or Omeo Technology.

PROBLEM:

**Stabilising Leg will not raise fully. (The error code displayed will be an alternating blue and white blinking light on the Omeo Display Panel).**

RECOMMENDED ACTION:

1. Lower all Stabilising Legs and check for debris such as sticks, stones and other foreign objects caught in the housing that the legs retract into
2. Remove any debris carefully making sure not to cause damage to your Omeo
3. If the Stabilising Leg will still not fully retract, check to see if any extraordinary force from a collision or rotational movement has bent the leg. This will be noticeable if the leg is hitting the housing and stopping
4. If the Stabilising Leg is damaged, then contact your Authorised Omeo Agent or Certified Omeo Service Technician or Omeo Technology.

PROBLEM:

**Stabilising Leg will not meet the ground when lowered. (The error code displayed will be an alternating blue and white blinking light on the Omeo Display Panel).**

RECOMMENDED ACTION:

1. Check for debris caught in the housing around the Stabilising Leg
2. Clear debris carefully so as not to cause damage to the Omeo.

PROBLEM:

**ASC steering and motion is inhibited or not working at all.**

RECOMMENDED ACTION:

1. Check for foreign debris or build-up of sand, ice, mud and/or grime in, around and under the Seat
2. Clear any obstructions
3. Check the Steering Selection Lever is fully horizontal
4. If the problem still persists then contact your Authorised Omeo Agent or Omeo Technology.

PROBLEM:

**Headlights stop working**

RECOMMENDED ACTION:

1. Check on the Omeo Display Panel to see if the Multifunction Indicator Light is either flashing yellow or red
2. If the Multifunction Indicator Light is yellow or red the Batteries are discharged to less than 50%
3. Charge/top up the Auxiliary Batteries by plugging in the Auxiliary Battery Charger provided. Batteries may need replacing
4. If the problem persists after full charge, then contact your Authorised Omeo Agent or Omeo Technology.

PROBLEM:

**Stabilising Legs will not raise when the Omeo is powered on.**

RECOMMENDED ACTION:

1. Check on the Omeo Display Panel to see if the Multifunction Indicator Light is flashing red
2. If the Multifunction Indicator Light is red and flashing once every 1.5 seconds in a continuous pattern, then charge up the Omeo Auxiliary Batteries with the Auxiliary Battery Charger
3. If a pink and white light flashes, then the seat switch isn't activated.
4. If any warning lights are active and you need to be mobile, then hold down the Main Control Switch on the Omeo for 7 seconds to over-ride the system to raise the Stabilising Legs and enter Balance Mode

**NOTICE**

**You need to make sure that the Balance Indicator Lights are green before you over-ride the system (mentioned above).**

5. Ride to a safe location where you can charge the Omeo and have access to alternative mobility solutions
6. If the problem persists after full charge then contact your Authorised Omeo Agent, or Omeo Technology.



PROBLEM:

**Stabilising Legs will not raise when the Omeo is powered off.**

RECOMMENDED ACTION:

1. Check on the Omeo Display Panel after pushing the Main Control Switch to see if the Multifunction Indicator Light is flashing red
2. If the light is red and flashing once every 1.5 seconds in a continuous pattern for 20 seconds, your Batteries are discharged to less than 20%
3. Charge/top up the Omeo Auxiliary Batteries with the Auxiliary Battery Charger
4. If the red warning light is flashing and you need to raise the Stabilising Legs hold down the Main Control Switch for 7 seconds.  
The Stabilising Legs will raise
5. Push Main Control Switch once to lower the Stabilising Legs
6. If the problem persists after full charge then contact your Authorised Omeo Agent, or Omeo Technology.

PROBLEM:

**The Omeo is making unusual noise from the Gearbox area.**

RECOMMENDED ACTION:

1. Check that there is no debris caught between the wheels and body
2. If the noise is always present when the Omeo is moving, or problem persists contact your Authorised Omeo Agent or Omeo Technology.

PROBLEM:

**Stabilising Legs, Lights and USB Port do not perform as expected after a full charge.**

For example:

- Stabilising Legs raise/lower for less than 100 cycles
- Lights run for less than 1 hour
- USB charging shuts down prior to a full cell phone charge.

RECOMMENDED ACTION:

1. Indicates excessive use of USB Port and Lights or faulty Batteries
2. Try charging to full
3. If unsuccessful refer to *Section 8: Batteries and Charging (Pg. 64)*
4. If the problem persists, contact your Authorised Omeo Agent or Omeo Technology direct.

PROBLEM:

**Unexpected Safety Shutdown entering/exiting building.**

RECOMMENDED ACTION:

1. Safety Shutdown procedure: Switch Steering Selection Lever to vertical. Come to a standstill and depress the Main Control Switch once to lower the Stabilising Legs within 10 seconds
2. Try turning the power back on as you might be far enough away
3. If getting off the machine is not an option, then you may need to get in contact with
4. the building manager to have the scanner turned off
5. Make appropriate arrangements for future and ongoing access.

**NOTICE**

**Some security scanners can interfere with the base unit and cause it to go into Safety Shutdown Mode. While we understand this is very rare it is a good idea to do a controlled test when near to a security scanner to make sure that you can operate safely daily.**

**To avoid Safety Shutdown Mode being triggered it is recommended that you stay at least 1.5m/5ft away from the security scanners in all buildings.**

# Balance Mode

## Error Conditions

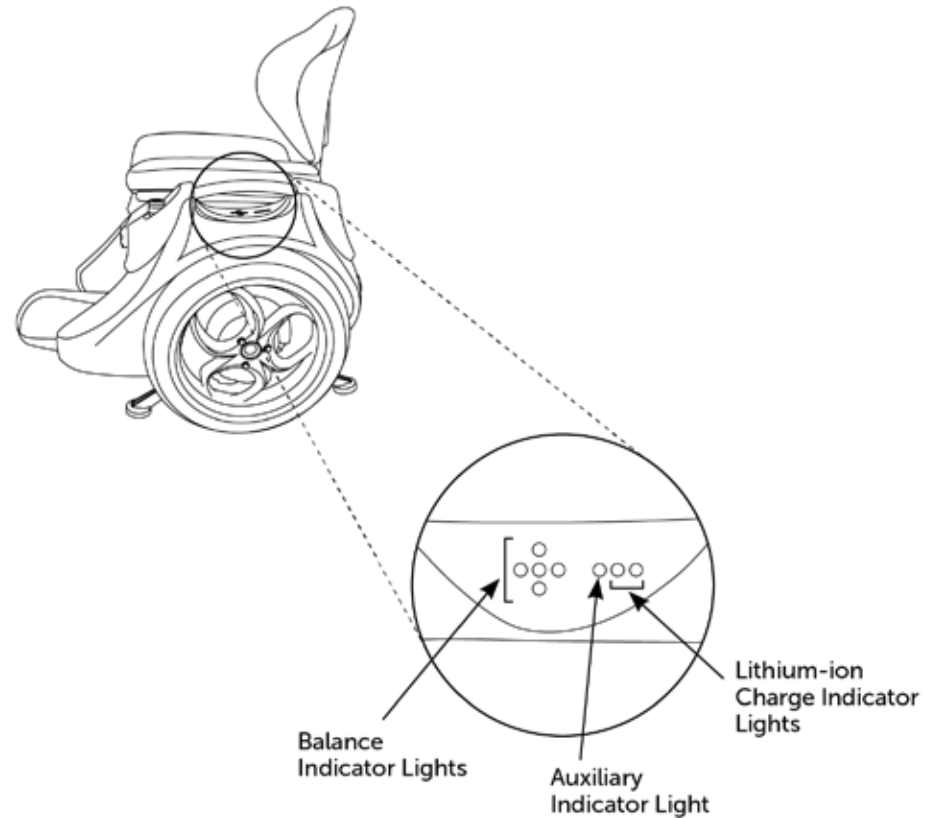
If your Omeo will not enter Balance Mode, contact your Authorised Omeo Agent or Omeo Technology to fix the system error.

## Error Codes: Related to the Omeo System Interface

Codes are displayed by the Multifunction Indicator Light on the Display Panel (**Figure 47**).

If the Multifunction Indicator Light:

- **Flashes white momentarily** when pressing the Main Control Switch = confirms normal activity
- **As above, flashes white momentarily** but the Stabilising Legs do not raise = it is likely an error is active
- **Flashes blue** = indicates critical errors (*Refer to Table 11: Multifunction Indicator Light Error Codes, (Pg. 101), and contact a Certified Omeo Service Technician or Omeo Technology*)
- **Various flashes** – white, yellow, red, singularly and alternating = indicates Non-critical errors (*Table 10: Non-critical Multifunction Indicator Light Warnings, Pg. 99*).



**Figure 47:** Display Panel with Indicator Lights.

**Table 10: Non-critical Multifunction Indicator Light warnings.**

Non-critical Multifunction Indicator Light warnings	
Green Light constantly on, or periodically flashing green	<p><b>This is not an error code.</b> It indicates the battery is charging.</p> <p>When the Auxiliary Batteries get close to full the Multifunction Indicator Light will flash green.</p> <p>However, once the Auxiliary Batteries are very close to 100% full, the Multifunction Indicator Light will once again turn off, even when plugged into AC power via the Auxiliary Battery Charger.</p>
YELLOW pulse every 3 seconds	<p>This indicates the Auxiliary Battery is discharged to less than 50%.</p> <p>The Lights and USB Port will NOT function at this point.</p> <p><b>NOTICE</b></p> <p><b>This error can show briefly immediately right after raising or lowering Stabilising Legs, as this activity briefly lowers the detected Battery capacity.</b></p>
RED pulse every 1.5 seconds	<p>This indicates the Auxiliary Battery levels are discharged to less than 20% and are too low for continuous operation.</p> <p>Charge the Auxiliary Batteries as soon as possible.</p> <p>There will be sufficient power to activate the Stabilising Legs several times immediately after the red light begins to flash. However once the Batteries are fully discharged, there is no further signal, and the Stabilising Legs will no longer function.</p> <p>Press the Main Control Switch for seven seconds to raise the Stabilising Legs if no other errors are present.</p> <p><b>NOTICE</b></p> <p><b>This error can also show briefly immediately after raising or lowering the Stabilising Legs, as this activity briefly lowers the detected Auxiliary Battery capacity.</b></p>
Flashes between white and blue, yellow and blue, or red and blue	<p>This indicates a Stabilising Leg jammed on the last attempt to raise the Stabilising Legs.</p> <p>The Multifunction Indicator Light pattern should only flash for 30 seconds after an attempt to raise the Stabilising Legs has been made.</p>

## Critical Multifunction Indicator Light Warnings

### Blue Flash

A flashing Blue Light indicates **critical errors** that likely require a Certified Omeo Service Technician to diagnose.

Diagnosing these errors will likely require some disassembly of the unit by a Certified Omeo Service Technician.

### NOTICE

**A blue Light flashing indicates the error was present in the last 60 seconds. It does not mean that the error still exists.**

This allows time for diagnosis of intermittent errors such as faulty/jammed cabling.

Therefore, the Stabilising Legs can be raised even though the blue Light is still flashing, as long as the error no longer exists.

Stabilising Legs will lower on critical errors but won't be able to raise.

The blue Multifunction Indicator Light will continue to flash beyond 60 seconds if the errors persist, and the Omeo is powered on.

If the Omeo is powered off, pressing the Main Control Switch will flash an error code for a further 60 seconds, but note that not all errors can be seen when the Omeo is powered off.

### Interpreting the flashing of the Blue Multifunction Indicator Light error signal:

The light pattern is 9 flashes long.

At the end of 9 flashes there is a brief pause, after which another 9 flashes begin.

A long pulse indicates an error.

A short pulse indicates no error.

The first flash indicates "error 1", the second "error 2", etc. as per *Table 11: Multifunction Indicator Light Error Codes (Pg. 101)*.

### For example

Error pattern: short, long, long, short, short, short, short, short, short

= no error, error, error, no error, no error, no error, no error, no error, no error

Resulting errors (see *Table 11: Multifunction Indicator Light Error codes, Pg. 101*).

2. Steering Selection Disagreement
3. Button Disagreement.

**Table 11: Multifunction Indicator Blue Light Error Codes.**

Error Number	Potential Issues	Troubleshooting if error persists
1	No communication across boards	Refer to Certified Omeo Service Technician or Omeo Technology
2	Steering Selection error	
3	Button error	
4	Power Base error	
5	Firmware error	
6	Stabilising Leg error	
7	Power off during Stabilising Leg raise	
8	No Communication to Interconnect Board	
9	Loss of communication	

# Section 13: Contact and Legal

## Report All Incidents

If you or any other user of your Omeo is involved in an accident, or if your Omeo performs in a way that you do not intend or in a way that it is not supposed to, contact your Authorised Omeo Agent or Omeo Technology immediately.

## How to reach Omeo Technology

**Telephone:** (English-Language only)  
+64 6 929 6548 (New Zealand).

**Email:** [service@omeotechnology.com](mailto:service@omeotechnology.com)

Your Authorised Omeo Agent can answer most of your questions about your Omeo. For a list of Agents, visit [omeotechnology.com](http://omeotechnology.com).

## Compliances and Warnings

### Segway

The Omeo uses the Segway PT Powerbase, Gearbox, Batteries, and self-balancing system.

Segway have posted the following warnings and advices in the [Segway PT User Manual \(Pg. 133-138\)](#).

### California Warning

[Refer to the Segway PT User Manual \(Pg. 133\).](#)

### Obey All Laws and Regulations

[Refer to the Segway PT User Manual \(Pg. 133\).](#)

### Limited Warranty

[Refer to the Segway PT User Manual \(Pg. 134\).](#)

### NOTICE

The Segway PT Limited Warranty does not apply to the Powerbase when used in the Omeo. The Warranty, however, applies to all other Segway components.

### Radio Frequency Interference

[Refer to the Segway PT User Manual \(Pg. 134\).](#)

### Miscellaneous Regulatory Compliance Information

[Refer to the Segway PT User Manual \(Pg. 135\).](#)

### Product Life and Recycling

[Refer to the Segway PT User Manual \(Pg. 138\).](#)

### Patent Information

[Refer to the Segway PT User Manual \(Pg. 138\).](#)

# Compliances and Warnings (cont.)

## Omeo

Refer to Notices at the beginning of this User Manual for Copyright, Trademark and Patent Information.

### **WARNING**

**Risk of Fire-No User Serviceable Parts.**

### **Supplier Declaration of Conformity (in accordance with ISO/IEC 1 7050-1:2004)**

This declaration of conformity is issued under the sole responsibility of the manufacturer.

**Table 12: Supplier Declaration of Conformity.**

Company / Product details	
Manufacturers Name	Omeo Technology Limited
Business Address	12 Aotaki Street, Ōtaki,5542, NEW ZEALAND
Registered Office	C/- Deloitte, L16, 10 Brandon Street, Wellington, 6011, NEW ZEALAND
NZ Company Number	6131527
Telephone	+64 6 9296548
Email	service@omeotechnology.com
Risk Level	Medium/Level 2
Product Name	Omeo Evolution 1
Classification	Personal Mobility Device
Serial Number	OE1-000001-100000

**Table 12: Supplier Declaration of Conformity continued.**

Standards complied with	
IEC 60335-1:2010	Including Amendment A1:2013; Amendment A2:2016 (Ed 5.2) in conjunction with
IEC 60335.2.114:2018	
EN CENELEC national variations	National variations based on above IEC selected testing to EN 60336.1 & EN 60335.2
ANSI/CAN/UL 2272: 2016	Electrical systems for Personal e-Mobility Devices
EN 301 489-3 v2.1.1-2017 (draft)	Part 3: Specific conditions for Short Range Devices (SRD) operating on frequencies between 9kHz and 40GHz
EN 601000-6-3:2007 + Amendment 1:2011	Electromagnetic Compatibility (EMC)
EN 601000-6	Generic Emission Standard
EN 601000-3	Emissions for Domestic & Light -Industrial Environments
EN 61000-3-2:2014	Harmonic Current Emissions
EN/IEC 61000-3-3:2013	Voltage Fluctuation and Flicker
AS/NZS 4268:2017	Radio Equipment and systems-Short Range Devices
ACMA	Radiocommunications (Short range Devices) Standard 2014
FCC 47 Code of Federal Regulations Part 15	Subpart A & B-Unintentional Radiators



# Section 14: Owner's Maintenance Schedule

## Recommended Maintenance for your Omeo

To keep your Omeo in good operable order you should carry out basic checks before each ride and a more thorough check once a month. Carrying out regular checks can help you to deal with any issues as soon as they may arise.

We recommend that you perform basic operational tests on your omeo on a weekly basis (especially if unused):

- Check that the Omeo is charging when not in use
- Successfully Powers on
- Check all the battery levels
- Ride Briefly testing all control functions
- For the latest Omeo Models, connect to the Omeo Online Portal (as set up during your training) to download any event logs and perform any firmware updates

For more comprehensive checks, please follow the schedule below:

### Pre-ride Checks

Procedure	Where/Action	Standard
Free of dirt, mud, sand, oil etc.	Body, Stabilising Legs, Undercarriage, Seat, Wheels, Tyres	Clean with damp cloth
Check the Tyre pressure	Standard	15psi
	All-Terrain	4psi
Check for Tyre wear	Standard	Centre rib is not worn flush with the tyre surface
	All-Terrain	Tyre thread depth is not less than 2.38mm (1in.)
Confirm sufficient power	Omeo Drive Train/Power Base (Lithium ion Batteries)	Battery level display 4 bars minimum on the InfoKey™ Controller
Check there is no damage to your Omeo	Visual inspection	Nothing apparent to impede safe use
Wheels	Visual inspection for obstructions, foreign objects breakages or damage. No buckling, or vibration	Free operation of wheels
Stabilising Legs	Check for proper lowering and raising of Stabilising Legs Visual inspection for objects breakages or damage Check housing around legs	Stabilising Legs move up and down freely

## Pre-ride Checks (cont.)

Procedure	Action	Standard
Wear appropriate protective clothing	Self or Spotter check for appropriate clothing before each ride	Cycle or skateboard helmet and sturdy footwear is recommended  Appropriate to conditions. Warm. Waterproof, sun protection  Nothing likely to get caught in moving parts
Seat back in place and secure	Visual and physical inspection Adjust knob for tightness as necessary	No sloppiness Suitable height for rider
Speed and Seat settings appropriate to riding conditions	Turtle Mode Adjust at InfoKey™ Controller  Standard Mode Adjust at InfoKey™ Controller  Adjust Dampening Control  Seat height and dump Adjust Seat settings	Turtle Mode: suitable for beginners and in close quarters  Standard Mode: suitable as more experienced. Gives a more responsive ride
Gearbox	Check for unusual noises	No noise, vibration Smooth ride

## Weekly Checks

Procedure	Action	Standard
Inspect Wheel Guards for cracks, obstructions, debris	Visual inspection	
Check Tyre pressure and wear	Close visual inspection	Standard :15psi All-Terrain: 4psi Wear indicated by: <ul style="list-style-type: none"> <li>Centre rib is not worn flush with the tyre surface</li> <li>Tyre thread depth is no less than 2.38mm (3.32in.)</li> </ul>
Check operational	1. Power on 2. Ride briefly checking all controls 3. Document usage hours/km/mi each month	
Check torque on screws	Batteries	1.6N-m
Check torque on wheel nuts	Wheel Nuts	30N-m
InfoKey™ Controller	Battery level Functions	
Seat seal	Inspect around dust cover for cracks, debris, wear and tear	Contact Authorised Omeo Agent for replacement
Seat mounting bolts	Check for tightness	
Batteries if not used	Check the level on the InfoKey™ Controller or the Display Panel	If necessary, charge until full

## Weekly Checks (cont.)

Procedure	Where/Action	Standard
Footplate mounting	Check mounting screws are tight	
Joystick	Check it is centred Check seal is intact and in place Check area around Joystick for obstruction, debris	
Seat	Check seat is centred	
Stabilising Legs	Check for obstructions, damage, debris Ensure all four legs are lowering and raising correctly and at similar speeds	
Recess areas	Check for obstruction, debris	
Gearbox	Check for unusual noises	

### WARNING

**Always be aware of your environment before riding your Omeo and check for any hazards.**

### NOTICE

**It is strongly advised to get your Omeo serviced annually by a certified Omeo Service Technician**

# My Omeo

My Omeo details	
Age/Date of delivery	
Serial Number	
Authorised Omeo Agent Contact	
Certified Omeo Service Technician	
Service Centre	

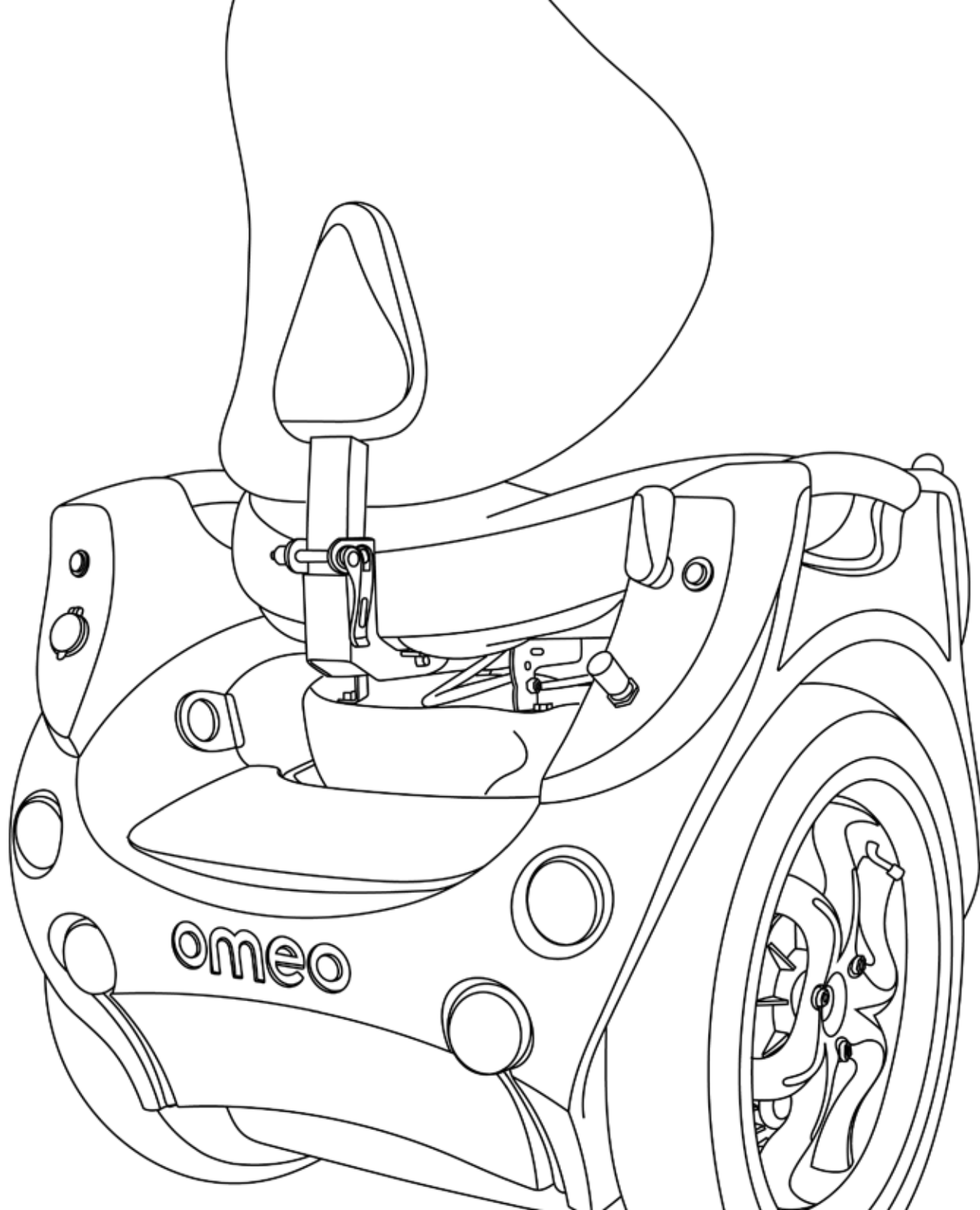
# Service Record

**IMPORTANT NOTICE**  
Owner's checks and servicing and repairs by a Certified Omeo Service Technician at the recommended intervals is designed to make sure that you get the best out of your Omeo and is a requirement to keep your Warranty valid.

Date	Notes

Date	Notes

**Grab life**  
*by the wheels!*<sup>™</sup>



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