

# Rascal Rialto Powerchair

Owners Manual & Service Record



Rascal Rialto





Rascal Rialto

Electric Mobility Euro Ltd offers the Rascal Rialto Powerchair for convenient indoor and outdoor use. This mid-wheel drive Powerchair is a highly manoeuvrable vehicle that provides a comfortable ride for people with disabilities who need a substantial Powerchair with a good range which can also be used as a seat in a vehicle provided that the correct restraints are used and the user guide is closely followed.

Provided that this Powerchair is maintained and operated in accordance with this manual it should last for many years, and provide you with freedom and independence.

Please read this manual thoroughly before using this Powerchair. If you have any doubts about warnings or instructions, ask your dealer for an explanation. If at any time you feel you may not be able to control the vehicle safely, do not drive, but consult your dealer for a solution.

If you think the Powerchair may be damaged, do not drive it but contact your dealer for advice.

We suggest that you keep this manual in a safe place. It contains essential information on the operation of the Powerchair and also includes the maintenance records.

### **Notice**

All Electric Mobility Vehicles are sold through authorised dealers. Make sure your dealer demonstrates all the features of the product prior to, or when, it is delivered.



### **Warning!**

This manual contains important safety notices. Please take time to read and understand them. Ignoring them may endanger you and/or others.

---

# Contents

Dealer Information	4	Using your Powerchair as a Seat in a Vehicle	16
Features and Layout	4	General Safety Information	17
Safety Information	5	Securing the Powerchair to the Vehicle	18
Intended Use	5	Powerchair Positioning in the Vehicle	18
Safety Information - General Warnings	6	Front Attachment	19
Controls - Joystick	8	Rear Attachment	20
Controls - Driving Controls & Accelerator	9	Positioning and Security of the Occupant	20
Freewheel Device	10	Battery Charging	22
Brakes	10	Battery Care	23
Armrest Adjustments	11	User Maintenance	24
Joystick Controller Adjustment	11	Servicing & Maintenance	24
Seat Back Angle and Tension Adjustment	12	Additional Safety Information	25
Seat Tilt Angle Adjustment	12	Engineer's Checklist	26
Swivel Seat	12	Troubleshooting Guide	27
Seat Height Adjustment	12	Diagnostic Table	28
Seat Removal	13	Frequently Asked Questions	29
Swing-Away Legrests	13	Additional Information	29
Optional Centre Footplate	14	Guarantees	30
Transferring	14	Technical Information Regarding EMI	31
Driving The Vehicle	14	Technical Specification	32
Driving The Vehicle - Hazards	15	Brochure Request / Guarantee Card	33
Transporting your Powerchair	16	Service Log	35

## Dealer Information

**This is your contact number  
for service and support**

Dealer Stamp

Telephone:

Email:

Product Model Number

Serial Number

Date of Purchase

Owner

For product information see serial number plate under the joystick controller

### Manufacturer

**ELECTRIC  
MOBILITY**

Electric Mobility Euro Limited  
Canal Way, Ilminster, Somerset TA19 9DL  
Company Registration in England No. 2419231

## Features and Layout

Photo shows the Rascal Rialto Powerchair. See the specification for detailed weights and performance.



\* Footplate option cannot be used together with legrest option.

---

## Safety Information



### Read this manual thoroughly before driving or operating the vehicle.

If you have any doubt about the content of this manual, contact your dealer to resolve the problem. Please read this manual, and ensure your Powerchair is serviced regularly.



Within this manual there are important safety notices. They are clearly marked with the sign (left) Make sure that you understand all these notices. If you have any doubt, contact your dealer.



Book symbol: This symbol appears on the product. Please read this product manual before assembling or operating the Powerchair.



Pinchpoint symbol: Wherever you see this sign there is a nearby risk of injury owing to a pinch or crushing point.



Tip symbol: This sign indicates advice on how to get the most from your Powerchair.



Hook Symbol: This denotes an attachment / tie-down point to be used in conjunction with appropriate restraints for securing the Powerchair in a vehicle for transportation and / or use as a seat. (ISO 7176-19 compliant)

© 2015 Electric Mobility Euro Ltd.

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

---

## Intended use of the vehicle

This vehicle is designed for use by adults with a disability (up to the maximum recommended weight – see Technical Specification) whom require a compact, comfortable Powerchair with a good range. Mid-wheel drive with puncture-proof tyres makes the Rascal Rialto Powerchair a capable, manoeuvrable indoor and outdoor machine.

The Rascal Rialto Powerchair is intended for use in the home, for use in shopping precincts and trips on paved or other smooth hard surfaces. Kerbs should be avoided, but the Rascal Rialto Powerchair can mount kerbs and small obstacles up to that specified in the Technical Specification.

Users could endanger themselves and others if they are not capable of driving this Powerchair safely. Dealers will advise on the most suitable vehicle from the Electric Mobility range, but it is the user's responsibility to ensure that they have the manual dexterity to drive the vehicle, adequate sight and hearing to perceive danger in time, and can at all times operate the Powerchair safely in the expected conditions. If in doubt we suggest you consult a healthcare professional or your nearest dealer for advice on the most suitable Powerchair for your particular condition. Users should also regularly assess their ability to operate their vehicle safely.

This Powerchair has relatively small front and rear castor wheels and so should not be used on uneven, pot-holed, rutted or slippery surfaces such as grass and similar.



# Safety Information

## General Warnings

**Warning !** The operation of Powerchairs can endanger the life of the driver or third parties. Any driver should **always** be fully capable of operating this vehicle safely.

**Warning !** Sitting for long periods may increase the chance of thromboses or pressure sores. Users prone to such conditions are advised to take medical advice.

**Warning !** These Powerchairs have been designed and tested for drivers up to the maximum user weight recorded in the Technical Specification. This weight should **never** be exceeded.

**Warning !** Do not exceed the specification; do not modify this Powerchair or use it other than as a Powerchair.

**Warning !** Passengers, even children, should never be carried.

**Warning !** Electromagnetic interference may affect the performance of this Powerchair:

- Do not operate devices such as CB radios or mobile phones while the vehicle is switched on.
- Avoid getting close to transmitter masts, such as television and radio stations.

If your vehicle ever starts to operate by itself switch it off and report this to your Dealer.

**Warning !** The operation of any Powerchair may affect sensitive electronic circuits such as alarm systems, garage door closing mechanisms, or automatic doors in shops.

## Driving Before you drive refer also to “Driving Your Vehicle” ...later in this manual

**Warning ! Freewheel device** Before getting on the Powerchair, always check that both the freewheel levers are in the “Drive” Position on **both** the motors. When the levers are in the freewheel position there is **no** braking and the Powerchair could run down a slope and cause injury or even death.

**NEVER SIT ON THE POWERCHAIR WHEN IN FREEWHEEL.**

**Warning ! Transferring On and Off** Do not attempt to get on or off your Powerchair unless it is switched off, at rest, and on a stable, level surface. Never get on or off on a hill.

**Warning ! Damage** Before driving off check the Powerchair for damage, particularly that which might affect the controls, wheels and drive motors.

**Warning ! Footrest** Before switching on your Powerchair, always put the footrest down and place your feet firmly on it. If you drive forward with your feet still on the ground, your feet could become trapped under the Powerchair and serious injury could result. When getting on or off your Powerchair we recommend putting the footrest in the vertical position.

**Warning ! Armrests** Do not use armrests as a support when getting in or out of your Powerchair. Make sure they are secure before you start off otherwise you might fall out.

**Warning ! Use as a seat in a motor- vehicle** The proper safety restraint system complying with ISO 10542-1:2012 **MUST** be used when using the Powerchair as a seat in a motor-vehicle. (WTORS). This Powerchair may be used as a forward facing seat in a motor-vehicle provided that the proper procedures and restraint systems are used. This Powerchair has been tested in accordance with ISO 7176-19. Refer to the “Use as Seat in a Vehicle” section of this manual.



- 
- Warning ! Lap-Belt** It is advisable to use the integrated lap-belt whenever you use your powerchair (not supplied on all vehicles).
- Warning ! Battery Charge** Before driving off always check the battery indicator. If you are in any doubt, ensure all the batteries are fully charged before starting on a journey.
- Warning ! Castoring** Be aware that, if you set off when the castors are not straight, the initial movement could be sideways.
- Warning ! Power** Unless there is an emergency, do not switch the power off when moving. The Powerchair will stop very suddenly. Centre the joystick and your Powerchair will come to a controlled stop.
- Warning ! Slopes** On steep slopes the Powerchair could topple over. Always try to avoid crossing a slope. If you have to cross a slope, take great care to avoid tipping. Never make sharp turns on slopes. Never drive on slippery or icy slopes. Never back down a slope as your Powerchair could tip over backwards. If you are not comfortable with the hill gradient, consider an alternative route. See Driving Your Vehicle – Hazards for more advice.
- Warning ! Kerbs** You should try to avoid driving up or down kerbs as this may cause the Powerchair to topple. Use access ramps wherever possible. Ensure that the backrest is upright before tackling a slope or a kerb. **Never** attempt kerbs greater than that in the Technical Specification. If you have to climb or descend a low kerb, always tackle it straight on. Lean forward when climbing a kerb and back when descending a kerb. See Driving Your Vehicle – Hazards for more advice.
- Warning ! Speed** Turning at maximum speed might cause the Powerchair to topple over. Always slow down for turns. Always slow down when amongst pedestrians and ensure you do not run into them.
- Warning ! Stopping** If the Powerchair stops suddenly when turning, the Powerchair might topple. Take care when turning.
- Warning ! Leaning Over** Do not lean sideways, as this could cause the Powerchair to topple.
- Warning ! Escalators** Never drive this Powerchair onto an escalator as this could result in severe injury.
- Warning ! Driving in poor visibility** Powerchairs are not easily seen. Consider wearing a high visibility jacket to warn others of your presence. Avoid driving in bad weather conditions.
- Warning ! Roads** This Powerchair is not for use on roads, apart from crossing roads at designated places.
- Warning ! If the vehicle is left out in the sun,** surfaces could become extremely hot. Always try to park the vehicle in the shade.
- Warning ! Entanglement.** Do not wear clothing or carry items on the Powerchair that could become entangled in wheels or other moving parts whilst operating the Powerchair. Severe injury may result.
- Warning ! Hot Surfaces.** If the Powerchair is left out in the sun, surfaces could become extremely hot. Always try to park the vehicle in the shade.
- Warning ! Reversing.** Always take particular care when reversing the Powerchair as injury to other people may occur if safe distances are not maintained.
- Warning! Immersion:** Never enter large puddles or areas of water where the depth and/or current is unknown. Immersion or partial immersion of the powerchair may damage it and could leave you stranded.

# Controls - Joystick Assembly

Before driving your vehicle it is important to familiarise yourself with the controls. Do not attempt to drive the vehicle before reading the rest of this Handbook.



## Description of controls

- 1. Battery Indicator:** These lights show the level of charge in the batteries. When in the green lights show the batteries are fully charged. When in the yellow and red lights show the batteries need recharging and when only the red lights show the batteries **urgently** need recharging. Note: When the vehicle is climbing an incline or starting off, the level may drop momentarily; this is normal.
- 2. On Off Button:** Switch the power on and off using the power button. Remember to switch off when not in use. Do not leave the power on **when not in use**, especially when charging the vehicle. Note that this switch can also be used to “lock” the Powerchair to prevent it being used, or stolen. (see unlocking and locking on page 9)
- 3. Maximum Speed Indicator:** This shows what speed setting has been selected by the controls 5 and 6. The more lights that show, the higher the maximum speed. It is advisable to set the maximum speed at the slowest setting until you are familiar with controlling your Rialto Powerchair.

- 4. Horn:** Press the button and the horn will sound. Release and the horn will cease.

**5/6. Speed Controls: (tortoise and hare)** These controls enable you to increase or decrease the top speed of your Powerchair. When the speed increase button hare (6) is pressed the maximum speed the Powerchair can achieve is increased; when the decrease button tortoise (5) is pressed the maximum achievable speed is reduced. The speed indicator shows a number of lamps to indicate the maximum speed set. Set the maximum speed to low until you are confident of driving your Powerchair safely. Do not adjust the speed when the vehicle is moving, but reset it when you are stationary. If you become alarmed at your speed, release the joystick and the vehicle will slow down immediately.

- 7. Joystick:** The more you move the joystick forward, the faster you will go forwards. Move the joystick back and you will go back. Move the joystick to the right and you will turn to the right; move it to the left and you will turn left.

- 8. Spanner icon/lamp:** If there is a fault, this lamp will repeatedly flash a given number of flashes. Use the diagnostic table later in this manual to help your dealer decode the particular fault.



**Tip:** If the lights (1) are flashing red, the batteries must be recharged urgently.

**Charging Point:** The charging point is situated beneath the joystick controller at the front.



---

# Controls - Driving Controls/Accelerator

## **Joystick control - To operate, turn on the On/Off button.**

Firstly make sure your wrist is supported on the armrests. If it is not supported, a jolt may cause a movement of the joystick and an involuntary change in direction or speed. Find an open level area with no obstructions to practice controlling the vehicle until you are confident that you can drive safely. Note. The controls can be changed to the other arm for customers with a left-hand bias. Please contact your local dealer for information.

**Going Forward or Backwards:** Gently push the joystick away from you and your Powerchair will move forward, pull it backwards and it will move backwards. Release pressure on the stick and the vehicle will stop. The further you move the joystick the faster you will go.

**Turning Left or Right:** Push the joystick to the right and your Powerchair will move right, move the joystick to the left and the Powerchair will go left. Practice turning while in gentle forward motion to familiarise yourself with driving the vehicle.

**Braking:** Whenever the joystick is in the central position, the automatic brake will operate. Practice stopping on level ground to ensure that you know how quickly you can expect your Powerchair will come to a stop.

**Sleep Mode:** With the power on, if you do not operate the joystick for a while, then the controller will go into "sleep mode" to preserve the batteries. Any button press or joystick movement will re-activate the controller and you can then drive normally.

**Joystick Disabling during Start-Up:** To prevent sudden unexpected movements, the joystick is disabled during start-up. If the joystick is operated when the power button is pressed, the lamps will flash slowly. By centring the joystick this indication will stop and the joystick will operate normally.

**Tip:** The controller has a diagnostic mode. The "spanner" icon/lamp will flash to indicate that the controller has detected an error or fault. If this happens refer to the diagnostic table at the back of this manual, unless it is simply the result of the joystick not being central at start up, which can be cleared as above.



**Locking Your Vehicle for Security.** To prevent unauthorised use the controller of your Powerchair can be locked.

### **To Lock**

- With the power on, press and hold the power button for 4 seconds.
- The display will turn off immediately. After 2 seconds all LEDs will flash briefly and the horn will sound a short beep.
- The Powerchair will then turn off.

### **To Unlock**

- While locked, press the power button to turn on.
- All LEDs will flash briefly, then perform a slow right-to-left countdown.
- Press the horn button twice before countdown is completed (approximately 10 seconds).
- The current state-of-charge will then be displayed and the controller may be operated normally.

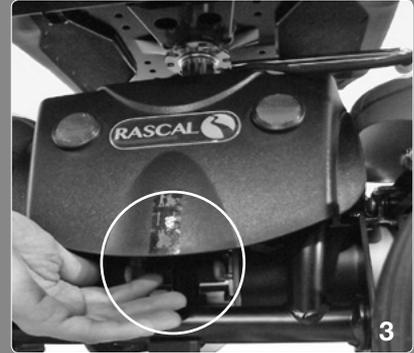
If the user does not press the horn button twice before the countdown is complete, the horn will sound a short beep and the controller will turn itself off. The unlock sequence must be completed successfully before the controller will operate again normally.

Ask your dealer to demonstrate all these functions and make sure you can operate all the modes of the controller before you take your vehicle home.



## Freewheel Device

When the vehicle is switched off the brakes are automatically engaged. This is called “Failsafe Braking”. Also, if the batteries are flat, the brakes are applied. There may be occasions where you may wish to move the vehicle without power. To do this there is a Freewheel Device fitted on each motor. The Freewheel device allows the vehicle to be pushed without power. To activate, first locate the levers on the end of each drive motor. - See Illustration.



- Make sure the power is switched off.
- Move **both** the levers into the freewheel position. The vehicle can now be pushed in Freewheel. Note that if the levers are too stiff to move a small movement of the chair back or forward will make it easier to operate the levers. Get your dealer to show you.
- Move **both** the levers to engage drive. The vehicle is now braked. This is the normal operating position.

**IF YOU ARE NOT COMPLETELY SURE OF THIS FEATURE CONTACT YOUR DEALER BEFORE OPERATING THE POWERCHAIR.**

- Pull both levers **UP** to enable the vehicle to be moved without power. Braking is disabled. **NEVER** sit on the vehicle with the lever in this position.
- Push both levers **DOWN** This is the normal operating position. The brakes are enabled, and the vehicle can only operate with the lever in this position

## Brakes

There are 2 braking systems. The first works with the joystick. When the joystick is released the Powerchair will automatically brake. When the Powerchair stops the automatic brake will engage. This will stop the vehicle rolling forward or backward. When you start the brake will automatically disengage.

If the battery should go flat the brakes automatically engage. Note that even when freewheel is selected, a secondary braking system is applied automatically to limit the maximum speed. You may notice this system when moving the Powerchair in freewheel.



**Warning!** If the freewheel devices are in “freewheel” the braking is disabled. Never select the freewheel devices if the Powerchair is on a slope or could be pushed onto a slope.

**Never** leave one motor in Drive and the other in Freewheel. You could damage your Powerchair or cause injury.

# Armrest Adjustments

## Armrest Width Adjustment

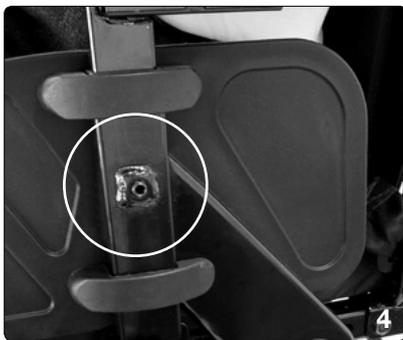
Armrest Width Adjustment is effected by adjusting the seat width. - This is a dealer only function for safety reasons and will be configured for you.

## Armrest Height Adjustment

The armrest height can be adjusted by loosening the hex bolt shown in Fig.4. Adjust to the desired height and then fully re-tighten the bolt.

## Swing Away Armrests

For convenience, the arms on this power chair can be released and swung backward to allow side access. To do this, pull knob A in Fig.5 with one hand and raise the arm until it is in the fully rearward position (Fig.6). Always ensure the arms are locked in the horizontal position before driving by reversing this procedure.



**Warning !** Never drive with the armrest up or with the armrest knob 'A' disengaged.

**Warning!** Do **not** use the armrest as a support when getting in and out of your Powerchair – Armrests are not designed to fully support your weight.

**Warning !** Always check that the knobs are engaged and the armrests are secure before driving the Powerchair.



## Joystick Controller Adjustment

The joystick controller position can be adjusted by moving the joystick gently to the side and back, Fig.7.

In addition the joystick controller can be moved forward and back by loosening the grub screw shown in Fig.8, and setting to your preferred position. Always ensure the grub screw is secure and tight before using your Powerchair.

Ask your dealer if you wish to have the joystick on the left hand armrest and they will make this change for you.



## Seat Back Angle and Tension Adjustment

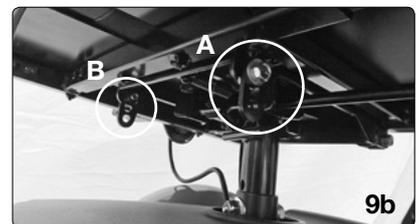
**Back Angle:** The seat back angle can be preset using the holes shown in Fig.9. Adjustment is made by removing the supporting bolts on each side of the seat, selecting the required angle and then reinserting and tightening the bolts with their corresponding nuts. When using your powerchair as a seat in a vehicle, the seat back **MUST** be in the most upright position as shown in Fig.9.



**Tension Adjustment:** The seat back tension can be adjusted using the strap system as shown (Fig.9a) To access the strap system first peel the seat back open to expose the straps. Each strap can then be adjusted individually to suit individual needs. When all adjustments have been made, just close up the back panel. For safety reasons, all straps **MUST** be attached to their counterparts.



**Seat Tilt Angle Adjustment:** The seat tilt angle can be pre-set using the bolt hole options under the front edge of the seat - Adjustment is made by removing the bolts shown in A and B of fig 9 B, selecting the required setting and then replacing the bolts securely. The normal setting is 3 degrees as this allows for the seat to be used as a seat in a vehicle. Selecting a higher tilt angle **MUST** not be done if you intend to use use your powerchair as a seat in a vehicle. (see B of Fig.18)



**Warning!** The seat back recline angle must never be adjusted to either of the 2 reclined positions (shown as unused in Fig.9), if / when the Powerchair is used as a seat in a motor vehicle.

**Warning!** When using the Powerchair as a seat in a vehicle, **ONLY** the first adjustment hole as shown in Fig.9 may be used.

**Warning!** When using the powerchair as a seat in a vehicle, only use the seat tilt angle adjustment as shown in B of Fig.18 - This is a dealer operation.

## Swivel Seat

The swivel seat allows the seat to be turned for convenience and / or side access.

1. **To operate**, locate the release lever under the seat (Fig.10).
2. **Pull the lever up** and the seat will release allowing it to rotate.
3. **Release the lever** and the seat should lock automatically, but always check it has.



**Warning!** Do not use this device if the vehicle is on a slope. Always check the seat is locked in the forward position before driving the vehicle or when being used as a seat in a motor vehicle.

## Seat Height Adjustment

You are advised to ask your dealer to set the seat height in the most comfortable driving position.

## Seat Removal

The seat can be removed for storage and to allow for easier transportation of the Powerchair, however we strongly advise users not to remove the seat as it is extremely heavy. To remove the seat follow the following procedure:

- 1. Disconnect the cable from the joystick** by pinching and pulling the grey grip (Fig.11).
- 2. Release the Joystick cable** from the clips and or straps securing it in position.
- 3. Raise the seat arms** to make lifting the seat away as easy as possible. Remember that the seat is a heavy part and caution to avoid a lifting injury must be taken. If in doubt seek assistance.\
- 4. Unlock the seat from the seat post** by pulling/compressing the seat swivel lever (Fig.12).
- 5. The seat can now be lifted away** from the Powerchair and stored safely.



**Warning!** Dismantling the Powerchair involves lifting and handling heavy parts. Weights are given in the Technical Specification; consider if you need help in handling parts before you try to lift them. Your Powerchair is not designed for unassisted loading into and out of a car or similar vehicle. Specialist ramps and hoists are available for transferring the Powerchair into and out of a vehicle. Contact your dealer for advice on how best to transport your Powerchair in your particular vehicle.

**Warning!** Pinching or Crushing. Be careful to avoid being pinched or having your hands crushed when lifting or handling parts. Wear gloves whenever possible. Special attention should be paid when raising and lowering armrests or rotating/handling the wheels when dismantling or during re-assembly.

**Warning!** This Powerchair may only be used as a seat in a motor vehicle provided that the "Use as Seat in a Vehicle" section of this manual is followed.

**Warning!** Do not attempt to lift the power base / chassis un-assisted - back or other injury may result!



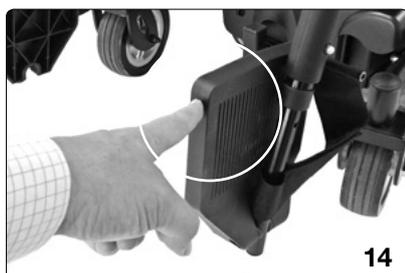
## Swing-Away Legrests

For comfort and to achieve correct posture, the footrest height can be adjusted. Please ask your dealer to make these adjustments to ensure your legs are in a comfortable position. The legrests can be easily swung away to one side or completely removed and the foot-plates may be tilted vertically for convenience.

**To swing a legrest away:** Push the button (Fig.13), this will allow the legrest to rotate away outwards to enable easier transferring in and out of the Powerchair.

**To remove the legrest:** Press the button (Fig.13) and lift the legrest away.

**To move the foot-plates into the vertical position:** Simply grip the footplate and pull gently upwards (Fig.14). Fig.15 shows the legrest swung away with the foot-plate in the vertical position.



---

## Optional Centre Footplate

Your Powerchair can be supplied with a centre footplate (Fig.15a) as opposed to the Swing-Away Legrest configuration. If this option is fitted then the swing-away legrests may not be used concurrently.



---

## Transferring In And Out Of Your Powerchair

If you feel at all uncertain about getting in or out of your Powerchair get assistance.

### Transferring into your Powerchair

- Make sure that your Powerchair is on a level surface, and it is not in Freewheel.
- To make sure the brakes are engaged try and push the Powerchair before getting in.
- Ensure that the controller is turned off before you try to get into your Powerchair
- We recommend moving the foot plates to the vertical position or swinging them to one side. If the optional centre footplate option is fitted, put it in the down or horizontal position. If the optional centre footplate (Fig.15a) is fitted, put it in the down or horizontal position, and place your feet either side of it before lowering yourself into the seat. Once you are comfortable, place your feet safely on the footplate or footrests, depending on which version you are using.
- With your back to the chair, steady yourself with the armrests and lower yourself gently into the seat. Do not put undue weight on the armrests !

### Getting out of your Powerchair

When getting out be sure that your Powerchair is on a level surface, is not in freewheel and the power is off before you try to get out. Position your feet either side of the footplate and raise the footplate to the vertical position before getting off. If you feel uncertain about getting out, get assistance. If using the swing-away leg-rest configuration, remove your feet from the legrest.

---

## Driving The Vehicle



**Warning!** Whether or not this is your first mobility vehicle, please read these guidelines as all vehicles differ. Failure to do this may cause damage to you, a third party or the vehicle.

1. **Before you set out**, do check the weather forecast. We suggest that you make sure you are wearing suitable clothing, whether your journey is long or short.
2. **If you are taking medication** check with your doctor or physician that your ability to control the vehicle will not be impaired and do not drink alcohol and drive.
3. **Only use the vehicle for the purpose its intended for.** Do not drive through water or on slippery surfaces; do not transport more than one person; do not tow other vehicles or carry excess weight.
4. **Before sitting in your Powerchair**, check both the freewheel levers are **not** in the Freewheel position
5. **Check that the seat is locked in the forward position and not free to rotate/swivel.**
6. **Check the battery charger is disconnected.**
7. **Check the backrest is upright**
8. **Ensure your feet are securely on the footrests/centre footplate.**
9. **Check you have adjusted the seat** as instructed in this manual – get comfortable and secure your seat belt (not fitted to all models).
10. **Make sure the way ahead is clear.**
11. **Switch on the power.** Check the battery level indicator is in the green area.

- 
- 12. Speed Control.** Set the speed control to a low setting.
  - 13. Gently push the joystick in the direction** you wish to go. The vehicle will now move off. The further you push the joystick the faster the vehicle will go.
  - 14. To brake, return the joystick to the neutral position.** If you become unsure or feel unsafe release the joystick immediately.
  - 15. As you get accustomed to the power** you can increase the speed.
  - 16. Switch off when not in use.** To conserve your batteries and prevent the vehicle accidentally moving, always turn off the power when your Powerchair is not in use.
- 

## Driving The Vehicle – Hazards

Before driving the Powerchair you should be aware that, under certain circumstances it could become unstable and tip over. Your Powerchair has been designed to operate on paved, even surfaces and should not be used on rough, rutted, soft or slippery terrain.

**Getting on and off the vehicle:** When getting on make sure that the vehicle is on level ground, and not in freewheel mode. Ensure that the armrests are secure. When getting off, park on level, stable ground, and switch off the Powerchair before leaving your seat. Make sure you get off the vehicle in a safe area.

**Seat Back Position:** Always drive with the seat back in an upright position.

**Kerbs and Obstacles:** Always try to avoid kerbs and obstacles. Never ride up or down kerbs or obstructions higher than that in the Technical Specification Sheets. Use ramps wherever possible. Always tackle obstacles head on. Never drive or turn across a slope.

**Hills & Slopes: Going Up Hill. Lean slightly forward when going up.** Remember that the seat back should be in the upright position. Make sure you have enough speed to climb the slope. **Do not stop or turn the vehicle around.** If you have to turn while climbing an incline, keep going until you reach a level area. If you have to start on an incline, lean forward and apply power slowly – do not start and stop. If you are not comfortable about tackling a gradient, consider an alternative route. Note: Always check that the battery level is high; going up hill takes a lot of energy. If the level drops too low the vehicle will cut out leaving you stranded.

**Hills & Slopes: Going Down Hill. Lean back in the seat when going down,** Turn the speed control to low. If you are not comfortable about tackling a gradient, consider an alternative route.

**Try to avoid crossing slopes – always try to drive straight up and down the slope NEVER BACK DOWN A SLOPE!**

**Turning:** Always **slow down** before a turn; turning at speed can cause the Powerchair to topple. Look in the direction you are travelling – If there is a blind corner sound the horn.

**Turning Circle:** So you can judge the turning circle, practice manoeuvring your Powerchair. This is important to avoid tipping off kerbs, and when going into and out of lifts or entrances.

**Bad Weather:** If it is snowing or icy stay at home! Remember that ice, snow and slippery surfaces such as manhole covers, wet grass and drains could affect braking and steering. Use caution at all times.

**Shower Rooms or Washing:** Never take your Powerchair into a shower or steam room, and never hose it down. Its sensitive electronics could malfunction if they get wet or damp.

**Tyres/Wheels:** The castor and main drive wheels are puncture proof. Should they become damaged, they must be repaired or replaced by your dealer as they are not user-serviceable.

**Ambient Operating Temperature:** Do not operate your Powerchair outside of the ambient operating temperature limits stated in the Technical Specification.

---

## Transporting your Powerchair

Contact your dealer for advice on how best to transport your Powerchair in your vehicle. You may prefer to use ramps rather than lifting the components.



**Warning!** Dismantling the Powerchair involves lifting and handling heavy parts. Although your Powerchair can be dismantled, we suggest that you contact your dealer for advice on how best to transport your Powerchair in your particular vehicle. This may involve using ramps.



**Warning!** Pinching or Crushing. Be careful to avoid being pinched or having your hands crushed when lifting or handling parts. Wear gloves whenever possible.

**Warning!** This Powerchair may only be used as a seat in a motor vehicle provided that the “Use as Seat in a Vehicle” section of this manual is followed.

### After Using Ramps to Unload Your Powerchair

- Position the Powerchair on level, solid ground
- Check parts for any sign of damage.
- Select power on and ensure that the battery level indicator shows green. If not charge the Powerchair before use.
- Check the freewheel levers are in the “drive” position and not in the “freewheel” position
- Get on the Powerchair and test the operation of the joystick, speed control and on off switch before using the Powerchair to go anywhere. If there is any malfunction, check that the joystick connection has been correctly put together and locked. You are now ready to drive the Powerchair away.

---

## Using your Powerchair as a Seat in a Vehicle



If you wish to use your Powerchair as a seat in a vehicle, then the following guide **MUST** be observed - Failure to do so may result in serious injury or death! Electric Mobility Euro Ltd recommends that when in transport a wheelchair user should, whenever possible, transfer to a vehicle seat and be restrained using the vehicle provided occupant restraint system.

It is understood that there are circumstances and situations where such a transfer to a standard vehicle seat may not be possible and that the Rascal Rialto must be used as a seat within a vehicle.

### Qualification

In qualification for use as a seat in a vehicle, Electric Mobility Euro Ltd has subjected the Rascal Rialto wheelchair to the dynamic test requirements of ISO 7176-19:2008 as amended by EN12184:2014 and satisfied the performance requirements thereof.

### Requirements

The Rascal Rialto may only be used as a seat in a motor-vehicle in the **forward facing mode** in the vehicle, be secured using a **4 point tie-down system** and a **3 point occupant restraint system** used to restrain the wheelchair user. A four point wheelchair tie-down and occupant restraint system in compliance with ISO 10542-1:2012 (“Technical systems and aids for disabled or handicapped persons - Wheelchair tie-down and occupant-restraint system systems”) is suitable.



## Testing & Components

The Rascal Rialto was successfully dynamically tested using a **Koller EXCEL 120™** combined restraint system - The system was tested to and in compliance with ISO 10542 with a wheelchair mass/weight of up to 120kg.

The featured restraint system can be purchased from **Koller Engineering Ltd (UK)** Tel: 01935 426695 Fax: 01935 433766 Email: enquiries@koller.co.uk Web: www.koller.co.uk

Reference part numbers:

**KFP0023/FRK/EMERLT** (Karabiner front & rear, Universal TITUS harness)

**3PTSTRP** (3-point belt with rail clip for Universal TITUS harness)



## General Safety Information

**Warning!** The Powerchair occupant **MUST** sit upright when in transport, (Fig.17) ensuring that the lap belt lays as low as possible on the pelvis to avoid harmful loading of the abdomen, and that the upper section lays midway on the shoulder.

**Warning!** The seat back angle and seat base tilt settings **MUST** be adjusted as shown in Fig.18 A & B below, when the Powerchair is being used as a seat in a motor vehicle. Setting A must be 5 degrees (most upright seat position) and setting B must be 3 degrees (most horizontal). Your dealer will configure this for you. **DO NOT** attempt to configure this setting yourself.

**Warning!** Support Devices such as a pelvic belt, integrated lap-belt or an H-type harness **MUST** not be relied on as a restraint system when in transport.

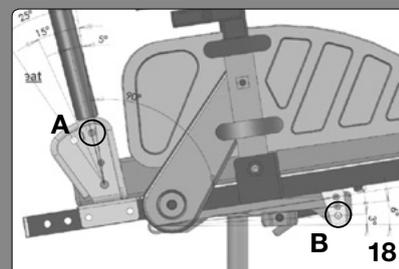
**Warning!** The restraint system equipment manufacturer's installation guide **MUST** be followed in conjunction with this guide. Do not confuse the restraint system lapbelt with the Powerchair lapbelt which is built into the Powerchair.

**Warning!** When used as a seat in a motor vehicle, this Powerchair **MUST** be installed in a forward facing orientation.

**Warning!** An area (safe zone) around the Powerchair must be provided to ensure that the occupant cannot contact solid parts of the vehicle in the event of an accident.

**Warning!** Items attached to the wheelchair in front of the wheelchair occupant, other than footrests, should be removed whenever possible and secured safely in the vehicle during transport in order to reduce the potential for injury to the wheelchair occupant and others in the vehicle.

**Warning!** Auxiliary (non-standard/OEM) wheelchair equipment should be removed and secured safely in the vehicle during transport so as not to break free and cause injury to vehicle occupants in an impact /accident situation cannot contact solid parts of the vehicle in the event of an accident.



---

## Restraint System Specific Warnings



**Warning!** The Restraint system is for **FORWARD FACING** wheelchair/Powerchair applications only.

**Warning!** Restraint system components including anchorages, should be replaced if they are suspected to have been in use during a prior accident/vehicle impact. All Restraint system webbing and components should be inspected, cleaned and maintained regularly.

**Warning!** Care should be taken to prevent contamination of the webbing with polishes, oils, chemicals and particularly battery acid.

**Warning!** Frayed, contaminated or damaged webbing and broken or worn parts should be replaced. Webbing should be protected from contacting sharp edges and corners.

**Warning!** Postural support belts **MUST NOT** be used as occupant restraint systems

**Warning!** The system was tested to and in compliance with ISO 10542 with a wheelchair mass/weight of up to 120kg – **NEVER** exceed the 120kg maximum wheelchair/Powerchair weight/mass rating.

---

## Securing the Powerchair to the Vehicle:



The Rascal Rialto Powerchair is equipped with four vehicle attachment points marked with the hook symbol. These attachment points are designed to safely anchor the Powerchair to the vehicle whilst it is being transported with or without an occupant seated in the Powerchair. The vehicle must be equipped with approved anchor points and the restraint systems used must meet the criteria discussed earlier in this section. (ISO 10542-1:2012)

**If you are in any doubt about how to either safely secure the Powerchair to the vehicle and / or safely secure the Powerchair occupant in position for transport, DO NOT Proceed and contact your dealer for further information.**

**Please note that our images simulate the vehicle floor and third point passenger restraint system mounting point for clarity. Vehicles and attachment systems vary and so this guide may not be considered exhaustive in terms of possible configurations.**

---

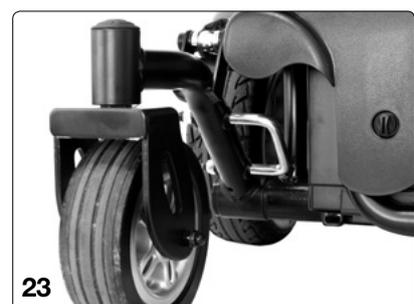
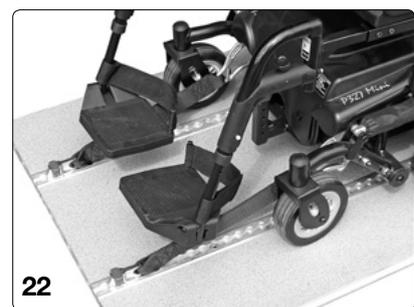
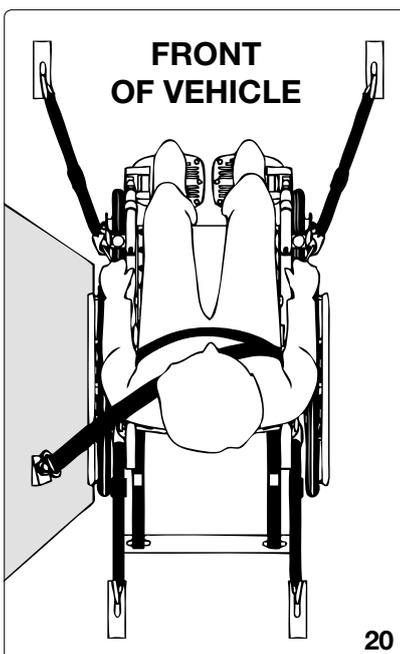
## Powerchair Positioning in the Vehicle:

In the event of an accident it is extremely important to minimise the risk of fixed parts of the vehicle coming into contact with the Powerchair occupant. For this reason a safety zone around the Powerchair must be observed. Details of this are given with the information accompanying the passenger restraint system that you purchase.

Failure to provide / observe the safe zone can lead to serious injury and even death. If you are in any doubt, consult your dealer and / or restraint system supplier. **Please refer to the restraint system supplier's documentation for full details.**

## Front Attachment

- 1. Ensure the seat is in the most upright position** - make sure it matches Fig.19 and that all parts of the Powerchair are secure and have not worked loose over time. Tighten any loose parts. The seat base tilt angle must not be set at more than 3 degrees. Your dealer will check/configure this for you. (See figure 18) Check that the seat swivel is locked in the forward facing position, armrests are locked in the horizontal position (down) and that the swing-away leg-rests are also locked in position. Remember that any loose parts can become very dangerous in a crash situation.
- 2. Load the Powerchair into the vehicle in the forward facing orientation.** (Fig.20). **Never load the chair in any other orientation. If there is no occupant present then please ignore any references to “securing the occupant”.** **Note:** Shoulder strap position will depend on which side of the vehicle the third point restraint (shoulder belt) is fixed to.
- 3. Attach the 2 front karabiner straps to the vehicle floor securing system** (follow the restraint system manufacturer’s instructions for doing this) and to the corresponding front (chrome) attachment points on the Powerchair – Figs. 21, 22 & 23
- 4. Slowly reverse the Powerchair (under power)** until both front straps are taught. If for any reason you engage freewheel mode, make **ABSOLUTELY** sure that free-wheel mode is disengaged once you have completed this stage. (See “Freewheel Device” on page 10 of this manual.)
- 5. Make sure that the floor attachment point to karabiner fixing angle is not less than 30 degrees** – refer to restraint manufacturer’s guide.



# Rear Attachment

To secure the Powerchair rear section to the vehicle

1. **Insert the left and right hand rear floor mounting restraint system units** into the floor rail system (follow the restraint system manufacturer's instructions for doing this).
2. **Now attach the Karabiners to the left and right hand attachment points on the Powerchair respectively** (Fig.24).
3. **Now tighten the two straps by first pulling the slack through the buckles** and then by adding final tension by closing the buckle assembly.
4. **The power chair should now be secured as shown** - Figs. 25, 26, 27 & 28
5. **Make sure that freewheel mode is not enabled.**
6. **Make sure that the floor attachment point to karabiner fixing angle is not less than 30 degrees** – refer to restraint manufacturer's guide.



## Positioning and Security of the Occupant:



**The restraint system manufacturer's instructions MUST be followed in conjunction with this guide.** It is vital for the safety of the Powerchair occupant and that of any other persons travelling in the same vehicle that the Powerchair occupant is properly seated and restrained in case of an accident.

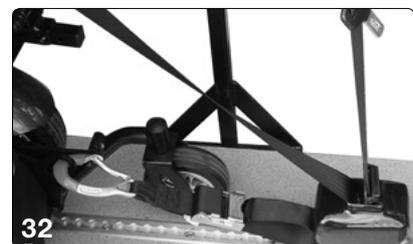
1. **With the Powerchair correctly positioned and secured to the vehicle the occupant should be sat as shown** in Fig.29 – Please note the horizontal rail above the occupant's head. This is to simulate the third point fixing rail in a vehicle. The vertical strap is the 3rd point anchorage strap.



2. **Take the black lap belt and pass it around the occupant's waist** as low as possible across the pelvis (Fig.30).
3. **Now feed the black lap belt between the seat back angle adjustment bracket and the seatback frame** (Fig.31).
4. **Insert the buckle into the receptacle** until a positive "click" is heard (Fig.31).
5. **Now grip the blue (3rd point/shoulder belt) and extend it upwards** to meet the 3rd point fixing belt upper anchorage (Fig.32).
6. **Insert the metal tongue into the 3rd point upper anchorage** (Fig.33) (This can be adjusted to suit the shoulder height of the occupant)
7. **Now extend the blue shoulder belt forwards** across the occupant's shoulder (Fig.34)
8. **Lead the belt across the chest of the occupant diagonally** and insert the metal tongue in the receptacle (Figs.35 & 36).
9. **Check that your configuration** follows that of Fig.37.

**Please note that it is of utmost importance to follow the user guide issued by the restraint system manufacturer as this will contain important additional information.- If you are in any doubt regarding the proper installation and use of your Powerchair as a seat in a motor vehicle, DO NOT use it in this mode until your dealer/restraint system supplier has confirmed correct installation**

Fig.17 (page 16) shows the Rascal Rialto being used as a seat in a public service vehicle.



# Battery Charging



**Warning!** When charging batteries **NEVER** smoke or charge batteries in a place where there are naked flames such as gas-fired heaters as, under exceptional circumstances, batteries may give off gases that could ignite and explode. If the Powerchair has been damaged, it is possible that the batteries have been affected. In this case do not charge the Powerchair and refer to your dealer for assistance. Never charge the Powerchair outside as the charger is not designed to get wet. If the charger appears damaged in any way do not use it and contact your dealer for a replacement.

**Warning!** Always charge in a dry, well ventilated area.

**Warning!** It is strongly recommended that the mains socket used for charging the Powerchair is protected by a 30 m/A RCD (residual current device). Many buildings have sockets protected by a system based RCD. If you are in doubt as to the level of protection in your charging location then either purchase a plug in RCD or consult a qualified electrician to verify that your charging location mains sockets are protected.

**Warning!** If batteries are damaged or frozen they could heat up during charging and in an extreme case, explode.

**Warning!** Do not attempt to open the battery enclosure, there are no user serviceable parts inside. It may be necessary for some carriers such as airlines to physically disconnect the batteries for transit. If this is the case the battery cover can be removed without the use of tools once the seat has been removed. This should only be done by appropriately skilled/qualified personnel.

**Warning!** Never use a different battery charger to that supplied by your dealer. Damage or injury may occur if you do!

**Warning!** When charging batteries **NEVER** connect or disconnect the charger from the Powerchair while it is still connected to the mains. Remove the charger mains plug from the wall socket having first switched off the mains socket switch if one is provided.

The charging socket is located below the front of the joystick assembly. With the charger disconnected from the mains, push the charger plug into the socket. When the vehicle is charged always remove the plug.



The battery charger has a red "Power on" indicating lamp.

When the charger is connected and switched on the "Power" lamp will show red. The second charging light shows:

- Red when charging
- Green shows full charge
- Off indicates that no battery is connected or that there is a battery fault

Note: the charger contains a fan and will emit a slight humming noise when in use.

---

## Connection Instructions

1. **Place you machine in an area that is dry and well ventilated.** Make sure a power point is nearby.
  2. **Check the vehicle is switched off.**
  3. **Check the mains switch is off.** Never connect or disconnect the charger with the mains on.
  4. **Connect the charger plug in to socket as above.**
  5. **Connect the mains plug and switch on at the mains.** Check the charger power light shows red.
  6. **The second charger lamp shows red** and then changes to green when the battery is fully charged.
  7. **Switch off the mains and remove the plug from the socket when fully charged.** Do not leave the charger plugged in with the power off. This will gradually discharge your battery
- 

## Battery Care

The batteries are the lifeblood of your vehicle. Their characteristics can change depending on charging, temperature, usage and other factors. Listed below are guidelines to prolong battery life.

- After using your vehicle always charge it at the end of the day - even after a short journey.
- If you do not use your vehicle for a prolonged period, place it on charge once a week, overnight.
- Always use the correct charger with the correct batteries.
- If the batteries have been flat for a long time (about 2 months) it is recommended you contact your dealer before charging:
- Do not charge the vehicle in the open – it may rain and the battery charger is not waterproof.
- Keep the vehicle in a well-ventilated area and away from any naked flame.
- Do not part-charge the batteries. Allow the charger to complete its cycle for every battery fitted.

Batteries are expensive to replace – it is wise to look after them. Batteries are heavy – make sure you always lift them correctly.

**Warning!** If batteries are damaged or frozen they could heat up when charging and, in an extreme case, explode.



**Warning!** Never disconnect a battery or the charger while the charger is connected to the mains

**Warning!** If one or both batteries are damaged they could heat up when charging and, in an extreme case, explode.

**Note:** Your batteries are built-into the Powerchair and are not user-serviceable. Your dealer will replace them when they are exhausted and dispose of them in line with environmental regulations applicable at the time.

---

## User Maintenance

It is important for safety that you carry out the following checks

### Daily or Before Use

- Visually check the machine for damage.
- Visually check the tyres for damage.
- Check that the seat is secure.
- Check the armrests are secure and the knobs and levers are tight.
- The battery should be fully charged.
- Check the operation of the brakes and if you have any concerns, contact your dealer.
- Keep your vehicle clean by using a damp cloth and soapy water – **never** use a hose or pressure washer and **never** use solvent based cleaning agents.

### Important – Possible faults

As you get used to your vehicle you will get a feel for how it behaves. If something feels unusual, for instance the vehicle does not accelerate or brake smoothly; the vehicle tries to turn to one side, the brakes are not holding on a slope or the controller operates strangely, contact your dealer immediately and explain to the engineer exactly what the problem is.

### Disposal

Contact your dealer for advice before you consider disposing of your Powerchair. They will be aware of the environmental regulations in force at the time and will assist you to meet the applicable environmental legislation.

---

## Servicing and Maintenance

- 1. This vehicle is designed for minimum maintenance.** However it is recommended that a competent engineer service the vehicle at least once a year. If the vehicle is used constantly we recommend a twice yearly maintenance.
- 2. Ensure the engineer stamps the Service Log** (page 35) on completion for all servicing carried out on this vehicle. Keep all receipts for servicing and repairs with this handbook. This may add value when selling the vehicle.
- 3. When the vehicle is due for its service make sure you report any concerns you have,** preferably when you book the service (See points to look out for below).
- 4. On completion of the service, always test the vehicle** before the engineer leaves and make sure you are satisfied with the work carried out.

### Points to look out for:

- Are there any strange noises from the wheels or does the frame creak?
- Is the battery charging up correctly – is the “full” charge green light on after charging?
- When turning, does the Powerchair respond equally to left and right movements of the joystick ?
- Does the Powerchair stop smoothly when the joystick is centred ?
- Does the Powerchair tend to pull to one side ?
- Does the speed control work ?
- Has anything come loose?
- Are there noises or rattles that were not there before?
- Are there any signs of damage, corrosion or cracking?

---

## Additional Safety Information

### Carrying Weight on the Vehicle

**Bags or Luggage:** Never carry bags (unless they are an approved accessory) behind the seat as this could result in tipping over backwards. Only carry small bags on your lap and ensure it does not prevent you from controlling your vehicle.

**Seat Arms:** Do not carry or attach anything to the seat arms. Anything attached to the seat arms could affect stability, or interfere with the control of the vehicle.

### Other Precautions

**Joystick:** Do not touch the joystick when getting in or out of your Powerchair; always make sure the Powerchair is switched off.

**Modifications:** Unauthorised modifications could result in injury or permanent damage. Such modifications will invalidate any guarantees.

**Other Items:** Only fit approved products or accessories.

### Child Safety

This product is designed to be operated by adults. Children should not be allowed to tamper with the controls or play on the vehicle. Do not carry children as passengers. The product is designed for single person use only. Keep all packaging well away from children. They could be harmed.

---

---

# Engineer's Checklist for Powerchairs

Obtain all comments from the customer on the condition and serviceability of the Powerchair and then complete an Initial diagnostic road test. Record all defects to be corrected. Now check, test and complete the following:

- Wheel bearings for wear and lubricate
- Operation of the joystick especially to detect if there is any asymmetrical operation of the motors
- The On/Off switch for correct functioning
- The speed indicator for correct indications
- The Speed Increase and Decrease buttons for correct operation
- Wear or damage to tyres or wheels
- Bodywork fixtures for damage, corrosion or cracking
- Levers and knobs securing armrests and joystick. Do they tighten and secure properly? Do they need replacing?
- Operation of Allen key armrest attachment. Are key drives worn? Do they tighten to secure the armrests? Replace as necessary
- Joystick play, correct operation and response and carry out any necessary adjustment/replacement
- Battery contacts & signs of corrosion
- Check all cables for damage, abrasion, corrosion and that screening is intact. Replace as necessary
- Check security and integrity of the tie-down points and their labelling. Repair and or re-label as necessary.
- Seat mounting for wear or damage
- All seat fixing screw and fixings - tighten and / or replace as necessary
- Check seat back webbing and cover integrity
- Motor performance, undue noise and speed check
- Electromagnetic brake operation
- Freewheel operation on both motors independently
- Frame for damage or cracks
- Check footplate and / or legrest assemblies for damage. Replace as necessary
- General check for corrosion, repair or protect as necessary
- All operational controls work correctly
- Battery condition and charger operation
- Tighten all nuts, bolts, screws and other fixings.
- Operation of the joystick in forward, reverse, turning, and stopping smoothly
- Correct all defects found and determine if the vehicle is roadworthy
- Final road test
- Clean vehicle/customer road test

## Important Note for the Engineer

Enquire if the customer is satisfied with the product. Please report all points good or bad directly to: Electric Mobility 01460 258100 If you have any comments please include them.

---

# Troubleshooting Guide

This table is a guide to fault finding. The fault may be a simple fix. If you have any doubts phone your dealer.

Symptom	Solution
<ul style="list-style-type: none"><li>• <b>Powerchair does not move.</b> when power is switched on.</li></ul>	<ul style="list-style-type: none"><li>• Batteries flat - check level.</li><li>• Is the charger connected?</li><li>• Is either Freewheel engaged?</li><li>• Freewheel has been selected while power is on Ensure neither freewheel is selected; switch off and on</li></ul>
<ul style="list-style-type: none"><li>• <b>Vehicle pulls to one side.</b></li></ul>	<ul style="list-style-type: none"><li>• Check for tyre damage or punctures.</li><li>• Freewheel selected on one side</li><li>• Motor failure - contact dealer.</li><li>• Binding bearings – contact dealer</li></ul>
<ul style="list-style-type: none"><li>• <b>Vehicle behaves erratically when driven.</b> or judders or cuts out ?</li></ul>	<ul style="list-style-type: none"><li>• Possible electronic problems - contact dealer.</li></ul>
<ul style="list-style-type: none"><li>• <b>Short Range</b></li></ul>	<ul style="list-style-type: none"><li>• Check tyres for damage and inflation.</li><li>• Check batteries are fully charging.</li><li>• Check vehicle moves easily in Freewheel</li></ul>

Remember, to save the batteries, the Powerchair controller has a sleep mode which is activated if the joystick is not moved for a period of time. Any button press should restore operation, but, if this does not work, switch the Powerchair off and then on again. Remember also that you may have inadvertently disabled the Powerchair, by locking it. Press the power on button, and then, press it again and your Powerchair should operate normally. If it does not, repeat this process. If the Powerchair still fails to function check table above or contact your dealer.

Your dealer is there to help you but they can only do this if you give them as much information as possible. Remember correct information will get the problem fixed quicker and may save you money. Phone the dealer and explain exactly what the problem is, recounting as much detail as possible including the indicated faults.

# Diagnostic Table

Your Powerchair controller provides diagnostic information via a flashing spanner icon at the base of the controller. The number of flashes correspond to the fault as below:-

Flash Code	Description	Action
1	<b>User Fault</b>	Possible stall timeout or user error. Release the joystick to neutral and try again.
2	<b>Battery Fault</b>	Try charging the batteries, batteries may require replacing, check the batteries and cables.
3	<b>Left Motor Fault</b>	Check the left motor, connections and cabling.
4	<b>Right Motor Fault</b>	Check the right motor, connections and cabling.
5	<b>Left Park Brake Fault</b>	Check the left park brake, connections and cabling.
6	<b>Right Park Brake Fault</b>	Check the right park brake, connections and cabling.
7	<b>Remote Fault</b>	Check the communications bus connections and wiring. Replace the remote.
8	<b>Power Module Fault</b>	Check connections and wiring, replace power module.
9	<b>Communications Fault</b>	Check battery voltage is greater than 17V. Check bus cable. Replace the power module. Replace the remote.
10	<b>Unknown Fault</b>	Check all connections and wiring, consult a service agent.
11	<b>Incompatible Remote</b>	The remote is incompatible with the power module. Ensure the brand of the power module matches that of the remote.

---

## Frequently Asked Questions

### ***I want to transport my vehicle in a car.***

There are various techniques. It depends on what type of vehicle you own and your physical capability. The usual way is to use specialist ramps which can be provided by your dealer. Make sure your dealer has demonstrated the easiest way of loading your Powerchair into your car. See "Transporting your Powerchair" - page 16.

### ***Can I fit weatherproofing such as a canopy?***

No, the Rascal Powerchairs are too small to have canopies as they can adversely affect stability and handling.

### ***How long will my battery last ?***

This is a difficult question as it depends on many factors. The life of a battery depends upon the number of cycles the battery goes through, the peak loads and on the conditions of use. Some general advice about battery care:

- Keep it charged, and do not let the battery run completely flat.
- Ensure all you battery is fully charged at the end of the charging cycle
- Batteries may not perform as well in very cold weather.
- Change your battery if you find it is not performing as well as new.

Care can prolong the life of the batteries but remember that, in time, all batteries will fail to perform to specification.

### ***What range can I expect ?***

The generally expected range shown in the Technical Specification sheet. However, range can be affected by many things such as:

- Temperature. Cold weather can reduce the output of the batteries.
- Type of terrain. Obviously climbing hills takes more energy than driving on the flat.
- Weight of the person.
- The condition and charge of the batteries.
- Faulty or old batteries or a faulty charger

Important Rule: Always use the correct charger with the correct batteries and ensure all batteries are charged before you start out.

### ***How long should I keep my vehicle before I change it?***

It is important that the vehicle you have suits your needs and abilities. Your Rascal Powerchair should serve you well for many years but change it if at any time you feel it no longer meets your needs. Consult your dealer on the condition of your vehicle and remember vehicles of any type become more expensive to maintain the older they get.

---

## Additional Information

Owners Manual: Replacement copies are available from: Electric Mobility Euro Ltd. Canal Way, Ilminster, Somerset, TA19 9DL Telephone: 01460 258100.

If you are visually impaired, please contact the Company to discuss your requirements. However, you should not drive a vehicle in a public place if you cannot see well enough to ensure your own, and others safety.

**Important note on the BHTA Highway Code:** On page 3 of the Code under "Consider Investing in a mobile phone" Read the section of this manual under "Safety Information". If in doubt contact your dealer. For Information regarding other Electric Mobility products contact your dealer or log on to the Electric Mobility Website [www.electricmobility.co.uk](http://www.electricmobility.co.uk)

Each vehicle comes with a copy of the BHTA Highway Code. Please make sure you read it. Telephone BHTA on 02077 022 141 for a new copy.

---

# Guarantees

## 12 Month Guarantee

Electric Mobility Euro Limited (the 'Company') guarantees its products against defects in materials and workmanship under normal use for a period of one year from the date of purchase by the original retail purchaser (the 'Guarantee Period'). If a defect arises and a valid claim is received within the Guarantee Period, at its option, the Company may either (1) repair the defect at no charge, using new or replacement parts; (2) replace the defective part with a new part or a part that is either the same as, or functionally equivalent to, the original part; (3) replace the product with a new product which is the same as, or at least functionally equivalent to, the original product; or (4) refund the purchase price of the product.

A replacement product or part assumes the time remaining on the Guarantee Period of the original product or 30 days from the date of replacement or repair, whichever provides longer coverage. When a product or part is exchanged, any replacement item becomes the property of the consumer and the replaced item becomes the Company's property. When a refund is given, the product for which the refund is provided must be returned to the company and becomes the Company's property.

## Lifetime Frame Guarantee

The Company guarantees the frame of its products against defects in materials and workmanship under normal use for the lifetime of the product. If a defect arises and a valid claim is received under the Lifetime Frame Guarantee, at its option, the Company will repair the defect at no charge, using new or replacement parts or will replace the frame.

When a frame is exchanged, the replacement frame becomes the consumer's property and the replaced frame becomes the Company's property.

The Lifetime Frame Guarantee covers the cost of parts and materials only. Services performed by the Company in replacing the parts or materials or the frame may be subject to additional charges for labour and transportation.  
Exclusions and Limitations

The 12 Month Guarantee and the Lifetime Frame Guarantee (the 'Guarantees') apply provided only that the guarantee card has been correctly filled out and returned to the Company within 15 days from delivery of the product to the original consumer.

The Guarantees do not apply to the following: (1) damage caused by accident, abuse, misuse, flood, fire, earthquake or other external cause; (2) damage caused by operating the product outside the permitted or normal use of the product; (3) damage caused to products that were not operated, maintained or serviced in accordance with the Owner's Manual; (4) to a product or part that has been modified or repaired otherwise than in accordance with the Owner's Manual or with the express written authority of the Company; or (5) to normal wear or tear, normal maintenance, service or periodic adjustments necessitated by normal use. In addition to the above, the Company shall be under no liability in respect of any defect arising from wilful damage, negligence, or misuse.

---

# Technical Information Regarding EMI

## Important Technical Information regarding Electromagnetic Interference (EMI)

The intensity of interference from electromagnetic energy is measured in volts per meter (v/m), which refers to the strength of the electrical source (voltage) as it relates to the distance away from the object being considered (in meters). Resistance of a scooter/wheelchair to certain EMI intensity is commonly called its "immunity level". 20 volts/meter is a generally achievable and useful immunity level against interference from radio wave sources (the higher the immunity level, the greater protection).

Your Powerchair has been tested and found to meet the required immunity level from Electromagnetic Interference (20v/m): the recommended density of interference from electromagnetic energy.

**Warning!** Even with the immunity level of 20 volts/meter, certain precautions must be followed to ensure your scooter/wheelchair will not be affected by outside electromagnetic sources.



- Do not operate devices such as CB radios or mobile phones while the vehicle is switched on.
  - Avoid getting close to transmitter masts, such as television and radio masts.
  - Note you may experience interference when close to ambulance or fire stations.
- If your vehicle starts to operate by itself switch it off and report this to your Dealer.

## Technical Specification - Rascal Rialto Powerchair

Wheelchair type Class	Class A, B or C	Class B
Department of Transport Class	Class 1 2 or 3	Class 2
Overall dimensions fully assembled	length x width x height mm (in)	1090 (42.9) x 624 (24.5) x 980(38.58)
Maximum carrying capacity	kg (lbs)	136 (300)
Mass (weight) including 34 Ah batteries	kg (lbs)	84 (185.2)
Mass (weight) of seat	kg (lbs)	21.8 (48)
Mass (weight) of chassis (heaviest part) with batteries	kg (lbs)	62 (136.7)
Standard battery voltage and capacity	Volts and Ampere hours	12V / 34Ah x 2
Type of seat	RHAB01	Tension adjustable back with swivel and configurable width/depth
Seat width settings	mm(in)	440 to 490.2 (17.3 to 19.3)
Seat depth settings	mm(in)	430, 445 & 480 (17, 18 & 19)
Seat tilt angles	degrees	3, 6 & 9
Seat back angle	degrees	95, 105 & 115 (90 +5, +15 & +25)
Joystick Bracket (type)	Type	Adjustable swing-away
Castor wheel dimensions	mm (in)	152.4 x 50 (6 x 2)
Drive wheel dimensions	mm (in)	260 x 85 (10.2 x 3.3)
Type of tyres/wheels	type	Solid - Puncture-proof
Maximum speed	km/h (m.p.h.)	6.4 (4)
Minimum braking distance from maximum speed	m (ft)	2.1 (6.9)
Range with standard battery option	km (miles)	Up to 35 (22.00)
The turn-around width	m (ft)	1.18 (3.87)
Turning radius	m (ft)	0.72 (2.36)
The maximum safe slope	degrees of slope	6° - Do not exceed, the Powerchair may topple
The maximum climbing ability facing upwards	degrees of slope	6°
Maximum user weight @ 6° uphill	kg (lbs)	136 (300)
Ground clearance	mm (in)	50 (2)
Maximum obstacle climbing ability	mm (in)	50 (2)
Maximum safe descendable kerb height	mm (in)	50 (2)
Force to operate Joystick control	Newtons (lbs)	1 (0.224)
Force to operate Freewheel levers	Newtons (lbs)	45 (10.1)
Ambient operating temperature range	°C (°F)	2 (35.6) to 40 (104)

This Powerchair meets the relevant requirements of ISO 7176:14 2008. Due to a policy of continual improvement, Electric Mobility Euro Ltd reserves the right to change specifications without prior notice.

---

## Brochure Request

Do you have a friend or colleague that would be interested in an Electric Mobility product?  
If so cut out this coupon and send it to the address shown on the back of the manual.

My Dealer's Company name is:	
<hr/>	
<input type="checkbox"/>	Please can I have a free no-obligation home demonstration.
<input type="checkbox"/>	Please send me a brochure of the range of products.
My friend's name is:	
<hr/>	
My friend's address is:	
<hr/>	
<hr/>	
County:	Postcode:
<hr/>	
My friend's telephone number is:	
<hr/>	

If you are visually impaired, please contact the Company to discuss your requirements. However, you should not drive a vehicle in a public place if you cannot see well enough to ensure your own, and others safety.

Postage will be paid by: Electric Mobility Euro Ltd., FREEPOST (SWBI 1045), Ilminster, Somerset, TA19 9ZA



---

## Dealer Information - Warranty Card

This section is to be filled out by the Dealer and sent to Electric Mobility Euro Ltd.

Dealer:	
<hr/>	
Product Description:	
<hr/>	
Serial No.:	Invoice No.:
<hr/>	
Customer Name & Address:	
<hr/>	
<hr/>	
County:	Postcode:
<hr/>	
Telephone No.:	
<hr/>	
Date received at Dealers:	
<hr/>	

Postage will be paid by: Electric Mobility Euro Ltd., FREEPOST (SWBI 1045), Ilminster, Somerset, TA19 9ZA



**Electric Mobility Euro Ltd.,  
FREEPOST (SWBI 1045),  
Ilminster,  
Somerset,  
TA19 9ZA**

**Electric Mobility Euro Ltd.,  
FREEPOST (SWBI 1045),  
Ilminster,  
Somerset,  
TA19 9ZA**

---

# Service Log

## Notice for the Service Engineer.

Please make sure this part is stamped and dated after each service.

**Dealer stamp - 1st Service**

**Dealer stamp - 2nd Service**

**Dealer stamp - 3rd Service**

**Dealer stamp - 4th Service**

**Dealer stamp - 5th Service**

**Dealer stamp - 6th Service**

**Dealer stamp - 7th Service**

**Dealer stamp - 8th Service**

# Rascal Rialto Powerchair

Manufactured by

