

# Instructions for Use



**EP1C wheelchair**

EN

**GreenCare**<sup>®</sup>

by  **ortho**  
europe<sup>®</sup>

**Please read this document carefully before using the product and observe the safety notices.**

**Please instruct the user on the safe use of this product.**

**Please contact the manufacturer if you have any questions or issues with the product.**

**Please keep this document for your records.**

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# Labels

Ep1c Powered Wheelchair	
 by 	Ability Matters Group Ltd. Ability House, Nuffield Way, Abingdon, Oxfordshire, United Kingdom, OX14 1RL
UDI  (01) 5056130600332 MD  (10) 951440221 (11) 210228	 2021.10  5056130600288

REF XXXXX/03/21	SN XXXXXXXXXXXXX		
 160kg	 120kg	 6km/h	 7°
ISO 7176-19			 ortho-europe.com 



Serial number



Warning



CE marking



Date of manufacture



Online instructions

ortho-europe.com



Lot or batch number



Manufacturer address



Max load



Maximum safe slope



User weight



Unique device identifier



Medical device



Catalogue No



Single use



Wheelchair depth



Max speed



Wheelchair width

## Using the manual

This user manual contains important information about the handling of the product. To ensure safety when using the product, read the user manual carefully and follow the safety instructions.

Note that there may be sections in this document, which are not relevant to your product, since this document applies to all available models (on the date of printing). If not otherwise stated, each section in this document refers to all models of the product.

The models and configurations available in your country can be found in the country-specific price lists. Greencare reserves the right to alter product specifications without further notice.

Before reading this document, make sure you have the latest version. You find the latest version as a PDF on the Greencare website. If you find that the font size in the printed document is difficult to read, you can download the PDF version from the website. The PDF can then be scaled on screen to a font size that is more comfortable for you.

For more information about the product, for example product safety notices and product recalls, contact your Greencare representative. See addresses at the end of this document.

In case of a serious incident with the product, you should inform the manufacturer and the competent authority in your country.

## INTENDED PURPOSE

This mobility device was designed for persons whose ability to walk is impaired, but who are still in terms of their eyesight and physically and mentally able to operate an electric mobility device.



## INDICATIONS

The use of this power wheelchair is recommended for the following indications:

- The inability or a greatly restricted ability to walk within the scope of the basic requirement to be able to move within one's own four walls.
- The need to leave the dwelling place in order to get some fresh air during a short walk or to reach those places generally to be found at close distance to the dwelling and where everyday business is carried out.

Provision of power wheelchairs for interior and exterior areas is advisable if the use of hand-operated wheelchairs is no longer possible on account of the disability, yet proper operation of an electromotive drive unit is still practicable.

## CONTRAINDICATIONS

There are no contraindications known.

## TYPE CLASSIFICATION



Fig. 1.

The mobility device with a maximum speed of 5 km/h has been classified according to EN 12184 as a class A mobility product (for indoor areas only). This means it is a compact, manoeuvrable vehicle mainly for internal use and not necessarily capable of negotiating outdoor obstacles.

The class A product can be identified by a 3 km/h label on the remote. The mobility device with a maximum speed higher than 3 km/h has been classified according to EN 12184 as a class B mobility product (for indoor and outdoor areas). It is therefore compact and agile enough for indoor areas, but also able to overcome many obstacles in outdoor areas.

## USABILITY

Only use a mobility device when it is in perfect working order. Otherwise, you might put yourself and others at risk.

The following list does not claim to be exhaustive. It is only intended to show some of the situations that could affect the usability of your mobility device.

In certain situations, you should immediately stop using your mobility device. Other situations allow you to use the mobility device to get to your provider.

You should immediately stop using your mobility device if its usability is restricted due to:

- Unexpected driving behaviour
- brake failure

You should immediately contact an authorised Greencare provider if the usability of your mobility device is restricted due to:

- the lighting system (if fitted) failing or being defective
- reflectors falling off
- worn thread or insufficient tire pressure
- damage to the armrests (e.g. torn armrest padding)
- damage to the leg rest hangers (e.g. missing or torn heel straps)
- damage to the postural belt
- damage to the joystick (joystick cannot be moved into the neutral position)
- cables that are damaged, kinked, pinched or have come loose from the fixation
- the mobility device drifting when braking
- the mobility device pulling to one side when moving
- unusual sounds developing or occurring

Or if you have the feeling that something is wrong with your mobility device.

## WARRANTY INFORMATION

We provide a manufacturer's warranty for the product in accordance with our General Terms and Conditions of Business in the respective countries.

Warranty claims can only be made through the provider from whom the product was obtained.

## SERVICE LIFE

We estimate a service life of five years for this product, provided it is used in strict accordance with the intended use as set out in this document and all maintenance and service requirements are met. The estimated service life can be exceeded if the product is carefully used and properly maintained, and provided technical and scientific advances do not result in technical limitations. The service life can also be considerably reduced by extreme or incorrect usage. The fact that we estimate a service life for this product does not constitute an additional warranty.

## LIMITATION OF LIABILITY

Greencare accepts no liability for damage arising from:

- Non-compliance with the user manual
- Incorrect use
- Natural wear and tear
- Incorrect assembly or set-up by the purchaser or a third party
- Technical modifications
- Unauthorised modifications and/or use of unsuitable spare parts

## Safe use of your chair

### GENERAL SAFETY NOTES



#### **DANGER!**

#### **Risk of Death, Serious Injury, or Damage**

Lighted cigarettes dropped onto an upholstered seating system can cause a fire resulting in death, serious injury, or damage. Mobility device occupants are at particular risk of death or serious injury from these fires and resulting fumes because they may not have the ability to move away from the mobility device.

- DO NOT smoke while using this mobility device.



#### **WARNING!**

#### **Risk of Injury, Damage or Death**

Improper monitoring or maintenance may cause injury, damage or death due to ingestion or choking on parts or materials.

- Closely supervise children, pets, or people with physical/mental disabilities.



**WARNING!**

**Risk of Death, Serious Injury, or Damage**

Improper routing of cables may cause a tripping entanglement or strangulation hazard that may result in death, serious injury or damage.

- Ensure all cables are routed and secured properly.
- Ensure there are no loops of excess cable extending away from the wheelchair.



**WARNING!**

**Risk of injury if mobility device is used in any other way than the purpose described in this manual**

- Only ever use the mobility device in accordance with the instructions in this user manual.
- Pay strict attention to the safety information.



**WARNING!**

**Risk of injury if the mobility device is driven when ability to operate a vehicle is impaired by medication or alcohol**

- Never drive the mobility device under the influence of medication or alcohol. If necessary, the mobility device must be operated by an attendant who is physically and mentally able.



**WARNING!**

**Risk of damage or injury if mobility device is accidentally set into motion**

- Switch the mobility device off before you get in, get out or handle unwieldy objects.
- When the drive is disengaged, the brake inside the drive is deactivated. For this reason, pushing the mobility device by an attendant
- is only recommended on flat surfaces, never on gradients. Never leave your mobility device on a gradient with its motors disengaged.
- Always re-engage the motors immediately after pushing the mobility device (refer to Pushing the mobility device in freewheel mode).



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### **WARNING!**

#### **Risk of injury if the mobility device is switched off while driving, for example by pressing the On/Off Button or disconnecting a cable, due to it coming to an abrupt, sharp stop**

- If you have to brake in an emergency, simply release the joystick which will bring you to a halt (refer to the remote user manual for more information).



### **CAUTION!**

#### **Risk of injury when transferring mobility device to a vehicle for transport with the occupant seated in it**

- It is always better to transfer the mobility device to a vehicle without the occupant seated in it.
- If the mobility device needs to be loaded up a ramp together with its driver, ensure that the ramp does not exceed the rated slope
- If the mobility device does need to be loaded using a ramp which exceeds the rated slope (refer to 12 Technical Data, page 83), then you must use a winch. An attendant can safely monitor and assist the loading process.
- As an alternative you can use a platform lift. Ensure that the total weight of the mobility device including the user does not exceed the maximum permissible weight for the platform lift or winch if you are using.



## **WARNING!**

### **Risk of falling out of the mobility device**

- Do not slide forward on the seat, do not lean forward between your knees, and do not lean backwards out over the top of the backrest, for example to reach an object.
- If a posture belt is installed, it should be correctly adjusted and used each time you use the mobility device.
- When transferring to a different seat, position the mobility device as close as possible to the new seat.



## **WARNING!**

### **Risk of Serious Injury or Damage**

Storing or using the mobility device near open flame or combustible products can result in serious injury or damage.

- Avoid storing or using the mobility device near open flame or combustible products.



## **CAUTION!**

### **Risk of injury if maximum permissible load is exceeded**

- Do not exceed the maximum permissible load (refer to 12 Technical Data, page 83).
- The mobility device is only designed for use by a single occupant whose maximum weight does not exceed the maximum permissible load of the device. Never use the mobility device to transport more than one person.



## **CAUTION!**

### **Risk of injury due to wrong lifting or dropping of heavy components**

- When maintaining, servicing or lifting any part of your mobility device, take into account the weight of the individual components especially the batteries. Be sure at all times to adopt the correct lifting posture and ask for assistance if necessary.



**CAUTION!**

**Risk of injury by moving parts**

- Make sure that no injury is incurred by moving parts of the mobility device, like wheels or one of the lifter modules (if fitted), especially when children are around.



**CAUTION!**

**Risk of injury from hot surfaces**

- Do not leave the mobility device in direct sunlight for prolonged periods. Metal parts and surfaces such as the seat and armrests can become very hot.



**CAUTION!**

**Risk of fire or breaking down due to electric devices being connected**

- Do not connect any electric devices to your mobility device that are not expressly certified Greencare for this purpose. Have all electrical installations done by your authorized Greencare provider.

**SAFETY INFORMATION ON THE ELECTRICAL SYSTEM**



**WARNING!**

**Risk of death, serious injury or damage**

Misuse of the mobility device may cause the mobility device to start smoking, sparking, or burning. Death, serious injury, or damage may occur due to fire.

- DO NOT use the mobility device other than its intended purpose.
- If the mobility device starts smoking, sparking, or burning, discontinue using the mobility device and seek service IMMEDIATELY.



**WARNING!**

**Risk of death, serious injury or damage when carrying along oxygen systems**

Textiles and other materials that normally would not burn are easily ignited and burn with great intensity in oxygen enriched air.

- Check the oxygen tubing daily, from the cylinder to the delivery site, for leaks and hold away from electrical sparks and any source of ignition.



**WARNING!**

**Risk of injury or damage due to electrical shorts**

Connector pins on cables connected to the power module can still be live even when the system is off.

- Cables with live pins should be connected, restrained or covered (with non-conductive materials) so that they are not exposed to human contact or materials that could cause electrical shorts.
- When cables with live pins have to be disconnected, for example, when removing the bus cable from the remote for safety reasons, make sure to restrain or cover the pins (with non-conductive materials).



**WARNING!**

**Risk of death, serious injury, or damage**

Corroded electrical components due to water or liquid exposure can result in death, serious injury, or damage.

- Minimize exposure of electrical components to water and/or liquids.
- Electrical components damaged by corrosion **MUST** be replaced immediately.
- Mobility devices that are frequently exposed to water/liquids may require replacement of electrical components more frequently.



## **WARNING!**

### **Risk of death or serious injury**

Failure to observe these warnings can cause an electrical short resulting in death, serious injury, or damage to the electrical system.

- The POSITIVE (+) RED battery cable MUST connect to the POSITIVE (+) battery terminal(s)/post(s). The NEGATIVE (-) BLACK battery cable MUST connect to the NEGATIVE (-) battery terminal(s)/post(s).
- NEVER allow any of your tools and/or battery cable(s) to contact BOTH battery post(s) at the same time. An electrical short may occur and serious injury or damage may occur.
- Install protective caps on positive and negative battery terminals.
- Replace cable(s) immediately if cable(s) insulation becomes damaged.
- DO NOT remove fuse or mounting hardware from POSITIVE (+) red battery cable mounting screw.



## **WARNING!**

### **Risk of death or serious injury**

Electric shock can cause death or serious injury

- To avoid electric shock, inspect plug and cord for cuts and/or frayed wires. Replace cut cords or frayed wires immediately.



## **WARNING!**

### **Risk of damage to the mobility device**

A failure in the electric system can lead to unusual behaviour such as continuous light, no light, or noises from the magnetic brakes.

- If a failure exists, switch off the remote and switch it on again.
- If a failure still exists, then disconnect or remove the power source. Depending on the mobility device model, you can either remove the battery packs or disconnect the batteries from the power module. If in doubt which cable to disconnect, contact your provider.
- In any case, contact your provider.

## SAFETY INFORMATION ON THE ELECTROMAGNETIC INTERFERENCE

This powered mobility device was successfully tested in accordance with International standards as to its compliance with Electromagnetic Interference (EMI) regulations.

However, electromagnetic fields, such as those generated by radio and television transmitters, and cellular phones can influence the functions of powered mobility devices. Also, the electronics used in our mobility devices can generate a low level of electromagnetic interference, which however will remain within the tolerance permitted by law. For these reasons we ask you to please observe the following precautions:



### WARNING!

#### Risk of malfunction due to electromagnetic interference

- Do not switch on or operate portable transceivers or communication devices (such as radio transceivers or cellular phones) when the mobility device is switched on.
- Avoid getting near strong radio and television transmitters.
- In case the mobility device should be set in motion unintentionally or the brakes are released, switch it off immediately.
- Adding electrical accessories and other components or modifying the mobility device in any way can make it susceptible to electromagnetic interference. Keep in mind that there is no sure way to determine the effect such modifications will have on the overall immunity of the electronic system.
- Report all occurrences of unintentional movement of the mobility device, or release of the electric brakes to the manufacturer.

## SAFETY INFORMATION ON DRIVING AND FREEWHEEL MODE



### DANGER!

#### Risk of death, serious injury, or damage

Malfunctioning joystick could cause unintended/erratic movement resulting in death, serious injury, or damage.

- If unintended/erratic movement occurs, stop using the wheelchair immediately and contact a qualified technician.



## **WARNING!**

### **Risk of injury if the mobility device tips over**

- Inclines and declines can only be travelled up to the maximum safe slope
- Always return the backrest of your seat or the seat tilt to an upright position before ascending slopes. We recommend that you position the seat backrest and the seat tilt (if fitted) slightly to the rear before descending slopes.
- Only ever drive downhill at a maximum of 2/3 of the top speed. Avoid abrupt braking or accelerating on gradients.
- If at all possible, avoid driving on wet, slippery, icy, or oily surfaces (such as snow, gravel, ice etc.) where there is a risk of you losing control over the vehicle, especially on a gradient.
- This may include certain painted or otherwise treated wood surfaces. If driving on such a surface is inevitable, and then always drive slowly and with the utmost caution.
- Never attempt to overcome an obstacle when on an uphill or downhill gradient.
- Never attempt to drive up or down a flight of steps with your mobility device.
- Avoid shifting your centre of gravity as well as abrupt joystick movements and changes of direction when the mobility device is in motion.
- Never use the mobility device to transport more than one person.
- Do not exceed the overall maximum permissible load or the maximum load per axle
- Note that the mobility device will brake or accelerate if you change the driving mode whilst the mobility device is in motion.
- To assure stability and proper operation of your mobility device, you must at all times maintain proper balance. Your power wheelchair has been designed to remain upright and stable during normal daily activities as long as you DO NOT move beyond the centre of gravity.
- DO NOT lean forward out of the mobility device any further than the length of the armrests.
- DO NOT attempt to reach objects if you have to move forward in the seat or pick them up from the floor by reaching down between your knees.



**WARNING!**

**Risk of breaking down in adverse weather conditions, i.e. extreme cold, in an isolated area**

- If you are a user with severely limited mobility, we advise that in the case of adverse weather conditions DO NOT attempt a journey without an accompanying attendant.



**WARNING!**

**Risk of injury if your foot slides off the footrest and gets caught underneath the mobility device when it is in motion**

- Make sure each time before you drive the mobility device that your feet are squarely and securely in place on the footplates, and that both leg rests are properly locked into place.



**WARNING!**

**Risk of injury if you collide with an obstacle when driving through narrow passages such as doorways and entrances**

- Drive through narrow passages in the lowest driving mode and with due caution.



**WARNING!**

**Risk of injury**

If your mobility device has been fitted with elevating leg rests, there is a risk of personal injury and damage to the mobility device if you drive the mobility device with the leg rests raised.

- To avoid unwanted displacement of the mobility device centre of gravity to the front (especially when travelling downhill) and in order to avoid damage to the mobility device, elevating leg rests must always be lowered during.



### **WARNING!**

#### **Tipping hazard if anti-tippers are removed, damaged or changed to a position different to the factory settings**

- Anti-tippers should only ever be removed for dismantling the mobility device for transport in a vehicle or for storage.
- The anti-tippers must always be fitted if the mobility device is being used.



### **WARNING!**

#### **Risk of tipping**

Anti-tippers (stabilizers) are only effective on firm ground. They sink in on soft ground such as grass, snow or mud if the mobility device rests itself on them. They lose their effect and the mobility device can tip over.

- Only drive with extreme care on soft ground, especially during uphill and downhill journeys. In the process pay increased attention to the tip stability of the mobility device.

## **SAFETY INFORMATION WITH REGARD TO CARE AND MAINTENANCE**



### **WARNING!**

#### **Risk of death, serious injury, or damage**

Incorrect repair and/or servicing of this mobility device performed by users/ caregivers or unqualified technicians can result in death, serious injury, or damage.

- DO NOT attempt to carry out maintenance work that is not described in this user manual. Such repair and/or service MUST be performed by a qualified technician. Contact a provider or technician.



## **CAUTION!**

### **Risk of accident and loss of warranty if maintenance is insufficient**

- For reasons of safety and in order to avoid accidents which result from unnoticed wear, it is important that this mobility device undergoes an inspection once every year under normal operating conditions (see inspection plan contained in service instructions).
- Under difficult operating conditions such as daily travel on steep slopes, or in the case of use in medical care cases with frequently changing mobility device users, it would be expedient to carry out intermediate checks on the brakes, accessories and running gear.
- If the mobility device is to be operated on public roads, the vehicle driver is responsible for ensuring that it is in an operationally reliable condition. Inadequate or neglected care and maintenance of the mobility device will result in a limitation of the manufacturer's liability.

## **SAFETY INFORMATION REGARDING CHANGES AND MODIFICATIONS TO THE MOBILITY DEVICE**



## **WARNING!**

### **Risk of serious injury or damage**

Use of incorrect or improper replacement (service) parts may cause injury or damage

- Replacement parts **MUST** match original Greencare parts.
- Always provide the wheelchair serial number to assist in ordering the correct replacement parts.



## **CAUTION!**

### **Risk of injuries and damage to mobility device due to unapproved components and accessory parts**

Seating systems, additions and accessory parts which have not been approved by for use with this mobility device can affect the tipping stability and increase tipping hazards.

- Only ever use seating systems, additions and accessory parts which have been approved by Greencare for this mobility device.
- Seating systems which are not approved for use with this mobility device do not, under certain circumstances, comply with the valid standards and could increase the flammability and the risk of skin irritation.
- Only use seating systems that have been approved by Greencare for this mobility device.
- Electrical and electronic components which have not been approved by Greencare for use with this mobility device can cause fire hazards and lead to electromagnetic damage.
- Only ever use electrical and electronic components which have been approved by Greencare for this mobility device.
- Batteries which have not been approved for use with this mobility device can cause chemical burns.
- Only ever use batteries which have been approved by Greencare for this mobility device.



## **CAUTION!**

### **Risk of injuries, and damage to the mobility device, if unapproved backrests are used**

A retrofitted backrest which is not approved by Greencare for use with this mobility device may overload the backrest tube and thus increase the risk of injuries and of damage to the mobility device.

- Please contact your Greencare specialist provider who will perform risk analyses, calculations, stability checks etc. to ensure that the backrest can be used safely.



## **IMPORTANT INFORMATION ABOUT MAINTENANCE WORK TOOLS**

Some maintenance work which is described in this manual and can be carried out by the user without problems require the correct tools for proper work. If you do not have the correct tool available we do not recommend that you try to carry out the relevant work. In this case, we urgently recommend that you contact an authorized specialist workshop.

## **FURTHER IMPORTANT INFORMATION**

Before using this wheelchair you should be proficient in using a powered wheelchair and training will be given by the wheelchair provider service prior to use. Adjustment to the powered controllers may be necessary to meet your individual needs. The LiNX controller on this wheelchair is programmable by an experienced technician.

Take care that information provided with the wheelchair is kept safe for future reference.

The wheelchair description code and batch date are on a label on the rear cross brace. This can be read from the back of the chair. Each wheelchair has its own specific identification code serial number. This number is stored by Greencare for 15 years.

The serial number is a unique identification reference and is important in the provision of spares, and for advice regarding your specific wheelchair. A copy of the Serial number can be found on the inside cover of this booklet.

Other important information can be found on labels secured to the wheelchair, or provided with accessory items. Labels should not be removed. Users are responsible for ensuring that this product is maintained and used safely and correctly.

Users requiring more specific advice about the wheelchair, or who need further information about additional available products and services from Greencare, can contact the Greencare website: [www.greencaremobility.com](http://www.greencaremobility.com).

For technical service or repair users should contact their Approved Distributor or Wheelchair Service Centre.

Please dispose of packaging responsibly.

## PLEASE READ ALL THE FOLLOWING INFORMATION BEFORE ATTEMPTING TO USE YOUR CHAIR

Models covered:

EPIC 15  
EPIC 17  
EPIC 18  
EPIC 20

(The number relates to the chair width)

This information in this booklet is for Greencare EPIC wheelchair users, occupants and carers. It is a useful reference for professionals prescribing or handing over a wheelchair to a user. User Guides are issued with serial numbers when supplied with a chair, and where appropriate with an accessory.

Wheelchairs are intended to provide mobility for people who are unable to walk. The information provided is intended to help users understand the wheelchair, and get the best performance out of it in safety. Different users have specific requirements relating to them individually and the usage environment, both indoors and in the case of this chair type occasionally outdoors.

Wheelchair service staff responsible for handing over a wheelchair to a user should explain its operation and compatibility with other equipment as necessary. They should satisfy themselves as to the competence in use of the chair in the environment in which it will be used. Occupant driving skills and transfers in and out of the wheelchair, and accessibility within the intended environment should be trialled before final hand over.

Greencare staff are available to assist with assessments and handovers. Users should take time to read and understand this wheelchair information. They should understand how the wheelchair is intended to function for them and their responsibilities for its safe use and maintenance. A wheelchair used and maintained correctly should easily last 3 years or more.

A service checklist is available on line for user reference. Recommended frequency of service checks by a wheelchair technician depends upon an assessment of usage and environmental factors are also available. For heavy and frequent use a check every 3 months is recommended. If in doubt users should contact their local wheelchair service or approved distributor.

Our website **[www.greencaremobility.com](http://www.greencaremobility.com)** has downloadable copies of User Guides, Assessment Guidance notes and other technical Information as well as a list of accessories. There is also help for approved repairers on the website.

When using your indoor power chair always consider potential hazards. Beware of the fact that many of the places where you are likely to use your power chair may not have been designed with powered wheelchair use in mind. You should therefore have an awareness for safety when encountering the likes of narrow doorways, steps, high surfaces, protruding wall fittings and every day household items such as children's toys, electrical appliances etc. Take extra care in kitchen environments. Consider also fire evacuation procedures for buildings.

## **SOME USEFUL TIPS:**

- Before you venture off on your first use,
- Ensure that everything is adjusted to your specific needs,
- Read this manual to familiarise yourself with the product and its functions.
- Do not attempt to drive without an attendant on hand until you are fully proficient in using and manoeuvring your powered wheelchair.
- Ensure power is switched off before transferring to or leaving your powered wheelchair.
- Before switching on, check that both motors are engaged and tyres are in good condition.
- When on the move do not attempt turns at full speed, especially if traveling down a slope.
- Before changing from forward to reverse, and vice versa, you must stop. Failure to do so will cause severe damage to the electronics.
- Do not use your powered wheelchair
- When entering or leaving your powered wheelchair, do not stand on the footplates.
- If you have to brake in an emergency, release the joystick.
- Do not switch off power while the powered wheelchair is moving, it would cause an abrupt, sharp stop.
- Do not use your powered wheelchair beyond the limitations set out in this manual concerning obstacle height, gradients, etc.
- Never put yourself at risk and ensure that you can be easily evacuated in the event of an emergency.
- Power-chairs drive very quietly, generally travel faster than the average walking pace and are low to the ground.

## Unfolding and folding your wheelchair

### OPENING THE WHEELCHAIR

Grip the armrests and push them apart as far as possible.



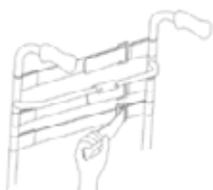
Put hands on the seat canvas with fingers pointing into the middle of seat. Push down and out, with the flat of the hand on the two sides of the seat, until the chair is completely open.

The Greencare frame is positively located in the open position. Press down on the seat rails and you will feel the frame going into the final open position. This positive open lock makes the frame rigid, the seat position comfortable.

When fitted with a folding backrest, the upper push handle section will be folded down at the back of the wheelchair frame. To raise the backrest, lift the push handles. Backrest latches on each sidewall click into position when the push handle is fully up, provided that the back brace tension is released. When the backrest catches locate, pushdown on the back brace to tension chair back.

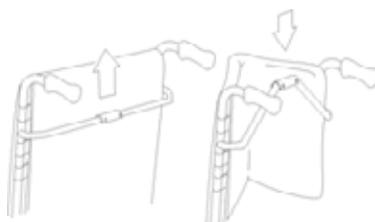


The Greencare range has the option of integral lightweight easy folding cushion support backrest or tension adjustable cushion support backrest upholstery. The type provided will be based upon the assessment of your need.



For occupant comfort and support the backrest has an additional folding comfort brace. This unit operates on the over the over centre lock principle. It will need to be pressed down in the centre, to lock out, before the occupant sits in the wheelchair.

Carers should take care when closing this brace, keeping fingers away from the closing surfaces, because it locates quickly to lock out.



The tension adjustable backrest has a support back cushion supplied separately. When the chair is packed in its carton. This cushion should be attached to the inner tension strap support frame by Velcro.

The tension back support requires to be set up to conform to the required shape. This should be set up for you at handover, when the chair frame has been opened.

If a separate seat cushion is provided, as part of the final specification it should now be placed in position on the seat.

## CLOSING THE WHEELCHAIR

For transit and storage, foot plates should be swivelled upright, or detached. The footplate has an inbuilt friction grip which retains the upright position when folded.

The thicker more supportive tension adjustable back cushion (if fitted) is attached by Velcro to inner adjustable support frame straps and can be removed for transporting.

The comfort locking brace assembly keeps the backrest tubes in line when the tension straps are set. This reduces backrest deflection, under tension pressure and occupant load. This brace has a central folding feature, which should be lifted to release when folding.

On folding backrest models, press down the latch lever at the back of the hinge. This releases the backrest locking pin.

To fold the frame, grasp the middle of the seat canvas at the front and back, and give a sharp pull upwards. The frame will release from its location, and the two sides will start to come together.

Press the armrests inwards until the chair is closed.



Make sure that the folded wheelchair and detached components are stored securely and available for next use.

Note: Not all of the components within this manual will necessarily be available with your power wheelchair. Any references not applicable to your product should be ignored.

The wheelchair has been designed to be used either by a seated user or carer/attendant, primarily for use in indoor environments, refer to “Limitations of Use”.

The wheelchair has, in its standard format, been designed to accommodate users who have all limbs intact and have sufficient upper body strength to maintain a safe position within the wheelchair without the addition of supporting aids.

Adaptations from the standard wheelchair format are available to accommodate users who do not meet these criteria; these will only be considered after a suitable risk assessment has been carried out by the product prescriber. When prescribing wheelchairs for use by full or partial amputees (above or below knee, single or double) it is important to recognise that lower limb amputation will affect the sitting centre of balance of the wheelchair.

The impossibility of generalising the individual ability of a wheelchair user means it is imperative that the product prescriber carries out a full stability evaluation to ensure that the user is safe in the use of the wheelchair and the risk of the wheelchair tipping is minimised.

The wheelchair should only be used in accordance with the safety advice given within this user guide. Failure to follow the recommended advice within this user guide could lead to personal injury.

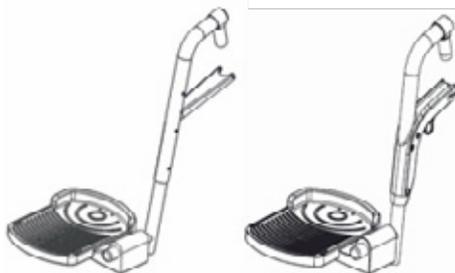
Your powered wheelchair is a Class A – compact, manoeuvrable wheelchair not necessarily capable of negotiating outdoor obstacles (EN12184) with a speed of 4 Kph for use primarily in an indoor environment, refer to “Limitations of Use”.

Under no circumstance must the top speed of the powered wheelchair be increased beyond what has been set at time of issue.

## Setting up footrests

The chair that you have been supplied with will have a footrest specification configured to meet your assessed needs. Environment of use and functional operation determine the final specification required.

In addition to the configurable foot support plates, shown above, Greencare DB1 has a choice of detachable footrest brackets, and footrest support options including an angle adjustable type a rigid foot bar and a dynamic foot support for use in tight spaces



The lift and swing type bracket features a double locking action for increased security. The frame location stud for this is also smaller when footrests are removed for transfer. The swing type bracket swivels into position and releases with a single touch, these are easier for the occupant.

To attach the footrest brackets, locate the upper pivot spigot in the top of the front frame tube, press down or swivel to locate in the forward facing position. To release depress the trigger on the underside of the mounting support feature.

Footrest brackets should be swivelled away or removed for occupant transfer. It is possible to pivot the footrest bracket inwards or outwards depending on the user requirement. Footrest brackets should normally be removed for storage.

For complete footrest bracket removal, continue to lift so that the upper pivot clears the front tube location. When removed, place the footrests carefully in a safe position ready for the next use.

Position, height of footrest support plates on the Greencare wheelchair is configurable. This is set by means of three fixing screws on the underside of each unit. Each DB1 footrest has a choice of alignment positions. This will normally be set to meet user need, with the central gap between footrests minimized.

A jacking screw at the end of the footrest bracket stem adjusts the sideways angle of the footplate. When unloaded this will be slightly upward facing. It is normal for this to deflect under foot pressure, and it can be adjusted to be horizontal by this screw.

The foot support plate height is adjustable by a range of fixing screw positions, and a series of threaded holes in the inner stem. Using this combination of holes, the footrest can be aligned and tightened in its location.

Footrest height settings are important. A correctly set footrest height will help to spread the load of the occupant weight, easing pressure, and improving the comfort.

The most comfortable seating position is usually obtained when the occupant thighs are horizontal and the hips and knees are at right angles. Footrest adjustments should be explained and completed at the handover.

### Multi adjustable footrest

These swivel on a special mounting stem, and are fixed at the required angle support position by a screw on the underside. Each footplate is separately adjustable.

### Footboard

As an alternative to separate foot support plates it is possible to fit a foot bar. This is a frame locating on the chair frame as previously described. This option increases frame rigidity and provides the occupant with freedom to change foot position whilst seated.

Single piece footboards are also available. A rigidly mounted adaptable footboard for small size wheelchairs and a dynamic footboard for use in a compact indoor environment. These are modular options that can be fitted, removed and adjusted as and when required.

### Dynamic Footboard

The dynamic footboard is suspended by cables set to measurements from the assessment. A dynamic footboard helps with manoeuvrability in confined spaces, not possible with fixed footrests.



The dynamic footboard comes in one size but is able to fit most foot sizes comfortably. The height is set to length by the suspension cables and will be made to suit the user of the wheelchair. The footrest angle can also be adjusted by fixing the cable length shorter or longer, front to rear, and this can be held with a grub screw.



## Setting up armrests and backrests

### Armrests

Armrests are available in a range of heights and shapes, with a choice of arm pads depending on user need. These are all interchangeable.

Armrests are secured towards the front of the side frame, in socket locations, and pivoted at the rear of the backrest location. They are released by a front catch and pivoted upwards and backwards to allow occupant side transfer.

When not in use for transfer, armrests should be fully located in the front socket at all times. An armrest that is not fully located is prone to accidental damage.

The front armrest socket has a quarter turn hand release feature the armrest can be swivelled back into the front socket, where it will latch into position automatically.

Armrest side panels may be produced in a semi-transparent grade of structural plastic, which has some flexibility or rigid aluminium as determined by the assessment. When chairs are built for narrow access, the rigid side panel reduces sideways flexing.

Side panels should be kept clean using a soft damp cloth, and mild detergent. They should not be rubbed with an abrasive pad.

The armrest should be secured in position at all times. It is not recommended that the armrests are grasped by the attendants to lift the chair and occupant. Heavy lifting operations should be avoided.

### Backrests

As a general guide, a seated occupant should be in contact with the back support all the way up to within a hands width of the top of the upholstery.

Backrests may be foldable, with a hinged push-handle which automatically locks into place when the back is lifted to the occupant supporting position. A folding back will allow storage in a small space.

If the wheelchair is to be used in transport, accessibility to this should be checked at assessment and handover to ensure equipment compatibility.

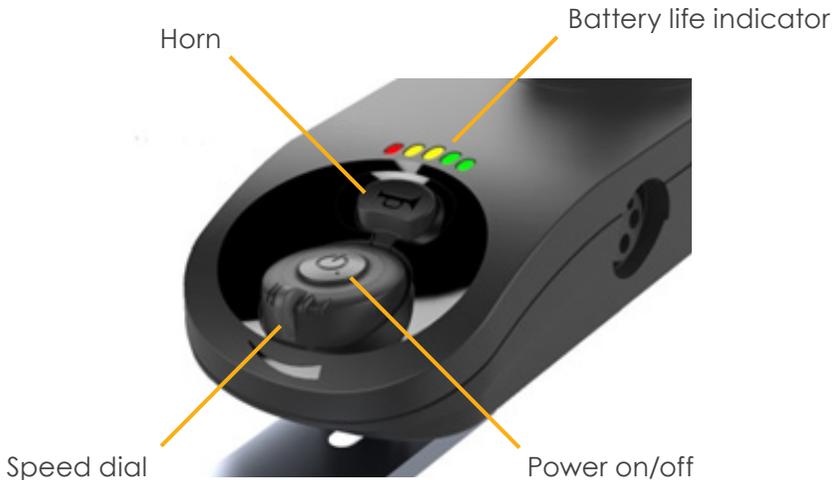
## Setting up the joystick remote

### Turning on the power

Ensuring that the speed knob is turned fully to the left (around the 7 o'clock position) which is the slowest speed setting, press the green button in the centre of the knob. The button will light green and the battery power indicator (5 LED lights, 2 red, 1 amber and 2 green) will light up indicating the amount of power available in the batteries.

Movement of the chair is now possible by gentle adjustment of the joystick. In the direction you want to travel.

Speed can be regulated by moving the knob around the central button in an anti-clockwise direction through 6 o'clock to 5 o'clock where maximum speed of the chair is achieved. Care should be taken before raising the speed of the chair to ensure sufficient competence and experience before travelling faster. It must be remembered that everything happens faster at speed so extreme caution must be exercised to avoid injury to yourself or others.



## The controller

Setup of the LiNX joystick remote controller is easily achieved (even from mobile telephones) by fully trained technicians who have completed training with the LiNX manufacturer or Greencare.

Tuning of the chair by unauthorised operatives will invalidate any warranty and **COULD BE DANGEROUS** and harm the wheelchair user.

Performance adjustments will be made by wheelchair provider professionals or fully trained persons to take account of the driver's capabilities and the environment in which the chair will be operated. Incorrect settings could cause injury to the driver, to bystanders or damage the chair and to surrounding property.



## Limitations of use

The EPIC wheelchair:

- Is not designed for extensive out- door use. It is an indoor chair with outdoor capability.
- Should never be used in wintery condition such as snow and ice.
- Never be used in a wet environment.
- Should not attempt kerbs, steps or thresholds over 5cm (2").
- Should not be allowed to drop under power off kerbs or steps of any height.
- Should not be used for sport of any kind.
- Should not attempt slopes over 6 degrees.
- Is not designed to carry more than one seated occupant.
- Should not pull or carry loads such.
  - As a second person hanging on.
- Should not be used if your driving ability is impaired by medication or alcohol.
- Should never be used on stairs or escalators.

## Disengaging motors

To disengage the motors to allow for the chair to be moved without the use of power you must operate the red lever on the side of each motor unit. This disengagement removes the motor lock on each motor. This should only be attempted when a carer or attendant is present. Care should be taken as effectively the chair is in a free roll state when the motors are disengaged.

Do not engage or disengage motor locks until the power switch on the controller is in the OFF position.

Before transporting your wheelchair, make sure the motors are engaged and that the Joysticks control is switched off. The EPIC wheelchair with batteries attached is heavy about the weight of two packed suitcases without an occupant and if it is to be transported it should be fastened within the vehicle. If you are unable to secure the chair in transit we recommend that you do not transport it.

## General advice and routine maintenance

The purpose of a wheelchair is to provide mobility for people who cannot, or find it difficult to walk. For safety, wheelchairs should not be used for any other purpose.

Greencare modular wheelchairs can be set up or finely adjusted to suit user and carer needs. Build options cover active occupant use through to attendant controlled use. Users should contact their approved distributor or local service centre if they are having problems. An adjustment or alternative build configuration may help to improve operation or accessibility.

Users are responsible for keeping the wheelchair clean, day to day care, and using their wheelchair according to information provided in this guide.

Professional guidance and skills training should also be provided through the wheelchair-issuing centre. Users are recommended to ensure that they are confident in wheelchair use, within their environment. Users and carers, who are unfamiliar with wheelchair use, should pay particular attention to safety advice when transferring in and out of the wheelchair.

Users should understand what regular maintenance routines are required of them to keep the wheelchair in a serviceable condition. These are mainly based upon cleaning, general function checks and care of the wheelchair, and do not require the use of workshop tools. The Greencare website includes a checklist of routine maintenance checks, which may be carried out by the occupant or carer or both as is practical. We recommend that, occupants and carers take an active interest in the wheelchair condition and its satisfactory operation.

If the wheelchair is to be used for transportation with the seated occupant, the specified wheelchair and occupant restraint system and fixing points should be used. Users, carers and vehicle operators should understand the use of the recommended wheelchair four-point tie down and occupant restraint method, as advised in this guide.



Preventive maintenance and consumable worn part replacement, through regular checks by service centre qualified staff, are recommended for wheelchairs where the occupant has an active lifestyle, or is dependent on the wheelchair as the only means of mobility. Users should ensure that wheelchairs made available to service personnel are thoroughly cleaned.

Our website [www.greencaremobility.com](http://www.greencaremobility.com) has reference information for users, therapist's rehabilitation engineers and technicians, responsible for provision and ongoing service support of wheelchairs.

## Using your wheelchair safely

### GETTING IN AND OUT

For maximum safety, these operations should be carried out with the help, or co-operation of an attendant, even if this is only to keep the wheelchair in position whilst the occupant is carrying out the transfer operations.

It will be usual for the occupant to transfer in and out of the wheelchair into another chair or supporting surface.



The wheelchair should be positioned so that the distance from one support to the other is minimal, and can be achieved in a single assisted movement.

The occupant should always try to assist the attendant wherever possible to share the total effort. Wheelchair occupants may be heavier than they look, and handling operations are often carried out several times in a day, so getting organised is important in the long term. Carers should not attempt to lift a wheelchair occupant without help. If this is not possible a hoist maybe required for these operations.

### GETTING IN OCCUPANT STANDING FORWARDS

Making sure that the power to the motors is off; flip up the foot support plates to open the standing space in front of the chair. Footrests may be detached or swivelled away inwards or outwards for easier access.

The occupant may be able to help by pushing on the armrests to provide some body support whilst being lowered into the seat.

When the occupant is seated in the chair, the footrest plates may be pushed back down to locate the feet at the required position. At this point it may be necessary to set the footrest height and position.

### **GETTING OUT OCCUPANT STANDING FORWARDS.**

Making sure that the power to the motors is off; flip up the foot support plates to open the standing space in front of the chair. Footrests may be detached or swivelled away inwards or outwards for easier access.

The occupant should place a hand on each armrest, bend slightly forward and place both feet well back and firmly on the ground, and then push upwards to a standing position to assist the carer.

### **OCCUPANT SIDE TRANSFER**

The occupant normally controls this operation, with the carer available for assistance as required. Side transfer should not be attempted on slopes, or on slippery surfaces. If there is a gap between the two seat surfaces, it may help to slide along a smooth transfer board.

When the wheelchair armrest is swivelled back, it will allow sideways entry to the chair and vice versa, from another chair or car seat. Some physically active independent users with upper body and arm strength may develop skill to carry out this manoeuvre without help.

We advise for safety reasons that an attendant should be available, to keep the next intended seating surface in the required location, near to the wheelchair, or to provide assistance if this becomes necessary during transfer. This is important for amputees who side transfer.

Making sure the chair is stable and the motor control is set to 'OFF', the occupant should use arm strength to shift position. The effort and movement for side transfer needs good coordination and balance. When transferring in and out of the car an additional lever point such as a handle above the car access door is useful.

Side transfer is an instant operation when done by the skilled occupant. Transfer is easier when footrest assemblies are swung back out of the way, or removed so as not to interfere with the legs. Where possible feet should be firmly on the ground. The safest way to side transfer is to bend slightly forward when shifting the balance position.

## **OUTDOOR VISIBILITY**

This wheelchair is not designed to be used outdoors but if a user is out at night, or in poor visibility conditions, users should ensure that they and the wheelchair are visible to other road users and pedestrians, considering both clothing, and light reflective trim features.

## **URBAN ENVIRONMENT**

Greencare build wheelchairs to an assessed specification, which includes environmental access considerations. Users should understand that they have a responsibility to ensure that the environment is suitable for the wheelchair.

A relatively simple obstacle removal, may allow a door to open more fully or provide turning space that will allow wheelchair operation. General safety is improved when there is less clutter around on the floor.

Optional footrest mounting points will be covered by a protective plug to prevent incorrect location when footrests are removed. Wheelchair users should not attempt to change footrest positions without consultation with the wheelchair service.

Building Regulations recognise the requirement for wheelchair access. Users have a responsibility to bring concerns about this to the attention of those responsible for public access.

## **ACCESSORIES AND ADDITIONAL EQUIPMENT**

When accessories are fitted, using the wheelchair is more complex, and safe routines should be practiced. Additions such as an elevating leg support or a carry bag hanging from the push handles may have an adverse effect on stability. Shopping bags or other additional heavy loads should not be carried in a wheelchair. This particularly applies to hanging items over the push handles, which can overload the chair.

The installation of postural support or seating system will inevitably change the position of the occupant centre of gravity.

## **SAFE SLOPE** (up to 6 degrees)

A combination of slope and camber is common in many areas. For new users, trying the chair out on typical surface conditions nearby is recommended; having friends along is also a good idea, before venturing on a longer trip.

The Greencare EP1C chair has not been designed for outdoor use; its principle function is for indoor use in the home or educational or care environment. Before taking an EP1C wheelchair outside, routine user safety checks on the main components, and occupant security, should be carried out.

Where applicable, detachable features should be checked for security, before setting out on a journey. The carer should make sure that the occupant is comfortable and that clothes, rugs, covers, seat belt etc. do not catch in the wheels or moving parts.

Uneven or soft ground effects the weight distribution and control of the wheelchair and should be avoided.

## **Moving safely and environmental features**

### **KERBS AND ACTIVE OCCUPANT CONTROL**

These chairs should have anti tippers fitted, and are always supplied.

Generally kerbs must be avoided, access ramps to be used wherever available.

Accessibility factors in the intended usage environment such as doors, kerbs or ramps may demand additional handling equipment, teamwork or other mobility solutions.

### **FIRE PRECAUTIONS**

Carelessness causes Fire. Greencare wheelchairs use FR material. This is not a solution. Prevention and safety is key. Smoking can cause fires, a wheelchair occupant who smokes increases fire risk.

Never underestimate the speed at which a fire can take hold. Disabled persons are at greater risk than others in the event of a fire. The environment in which wheelchairs are used should incorporate safety precautions to minimise fire related risks. In buildings check that fire exits and emergency evacuation procedures are understood. Do not park the chair against an open fire or intense heat source. The local fire brigade are available for advice on fire prevention.

## **USE OF SEATBELTS** (also posture belts)

Seat belts can be positioned to locate correctly across the lap of the seated occupant. They are released and fixed with a buckle.

Seat belts and harnesses are a precaution for an occupant who needs to be positioned correctly.

Occupants who are unaware of their surroundings are more at risk of falling out during use, compared to those who see or react to a dynamic environment, with expected changes of speed and direction. Carers should understand that a seat belt does not allow driving of the wheelchair over uneven ground.

Seat belts should not be used to restrain someone without supervision. A seat belt that is never used and left to dangle and obstruct can become a hazard. In such circumstances, removal of the belt should be agreed and noted in an assessment report.

Where additional support is part of the assessed need, a specialised belt or support adaptation may be fitted. Correct use of these should be individually assessed and separately advised.

## **Cushions and upholstery**

### **USE OF CUSHIONS AND UPHOLSTERY CARE**

Greencare upholstery is padded and comfortable for short term use. The material is strong and durable. It does not stretch in the same way as most other seating. It can be kept clean using a mild detergent and damp cloth. We recommend frequent use of anti-bacterial sprays to reduce risk of contamination.

Users who spend long periods of time sitting in a wheelchair will usually require a seat cushion. This can be an important part of the postural specification. If the wheelchair is provided with a specialised or contoured cushion of other manufacture, there will be a separate instruction for its care and use.

Greencare wheelchairs can be supplied complete with a sized comfort cushion, which will be labelled accordingly.

The Greencare cushion has internal support foams that meet UK furniture regulatory requirements. The outer cushion surface is a stretchy material that conforms to occupant shape. The underside cushion cover is a slip resistant material, which helps to maintain cushion position in the seat area.

Care should be taken when transferring with a cushion in position. It is possible the occupant may slip down into the cushion during a transfer. Additional effort may be required to reach the required seating position. Some active occupants may be able to do this by pressing down on the armrests to gain leverage. For less active users, carers may be required to assist in transfers to ensure that the occupant is correctly seated and supported by the backrest of the wheelchair.

Cushions may be adapted with an additional Velcro strip if this has been assessed as necessary. Pressure relieving cushions are often thicker than comfort cushions.

If after a period of use a different specification or a gel type cushion is fitted this may effect stability and overall weight. If the occupant feels unstable because seating position with a different cushion is higher, there may be a need to review chair configuration, to revise the occupant centre of gravity.

If a cushion is supplied to a wheelchair, the footrest height will have been set to provide the correct support including an allowance for the cushion thickness. If the occupant uses the chair set up in this way without a cushion, localised pressure on the body contact in the seating area will be increased. This could cause discomfort leading to skin damage. Different footrests can be supplied to suit different height positions.

Users and carers should check the cushion periodically. The Greencare cushion cover has a zip at the rear under side edge this allows access to the internal cushion components for service checks.

If the cushion cover becomes soiled it can be removed for washing. Normal washing temperature of 60degrees centigrade is normally adequate for domestic cleaning, but decontamination and cleaning at 80 degrees centigrade and above may be necessary in a hospital environment. Cleaning agents containing phenol or alcohol should not be used. Do not tumble dry cushion covers. Ensure the cover is fully dry before using again.

The support effectiveness of a cushion changes over a period of use. As a general guide, cushions will need replacement every two years. If the cushion becomes damaged or loses its support and feels to bottom out, it should be brought to the attention of the wheelchair service, as a replacement may be required.

## Use of anti-tippers

Anti-tippers are fitted to all Greencare EPIC wheelchairs, both occupant and attendant carer controlled configurations.

Anti-tippers fit into the lower rear frame. They can be set to allow a degree of rearwards pivotal movement for manoeuvring. Anti-tippers are not substitutes for safe and responsible use. It is possible to remove anti tippers for storage, however, for use they should be replaced in the required position.

Users should be aware that anti-tippers become less effective when the wheelchair is on an upward facing slope. We recommend that wheelchairs are not used on slopes greater than 6 degrees. Before taking your wheelchair outside, routine user safety checks on the main components, and occupant security, should be carried out.

Wheelchair skills training under the supervision of a knowledgeable person or professional is recommended for all new users. Users who are in doubt about safety and stability should contact their local wheelchair service for advice.

It is most important that the Assessment Teams are fully satisfied with user skills and acceptance of responsibility, before allowing use of an EPIC wheelchair.

An attendant controlled wheelchair and occupant should not be left unattended for long periods. When parking an occupied wheelchair, the carer should always position the chair on level ground, where access is not restricted, and so that the occupant can see and communicate as well as possible.

Power should always be TURNED OFF when an occupant is left unattended. The LINX controller fitted has a safety lock that an attendant/carers can apply to stop accidental activation of the power system.

## Transportation with occupant in a vehicle

Belts should not be used as a means of securing an uncooperative wheelchair occupant in position.

A basic security seat belt may be required after a period of use, if the environment or method of use changes, or where the occupant feels a need for greater security in the wheelchair. The wheelchair frame incorporates belt fitting points, and belts can be fitted retrospectively.

Transportation of wheelchairs and occupants in vehicles.

Users should understand that the greatest risk in transportation is when embarking and disembarking of the wheelchair occupant. A preferred initial consideration is for the wheelchair occupant to transfer to a standard vehicle seat during a journey, with the wheelchair stored separately and securely. This however is often not practical when other aspects of use are taken into account.

If transfer is possible the vehicle seat should be suitable for the occupant to sit in throughout the journey.

The occupant should also be able to carry out the transfer operation with minimal handling assistance from carers, in the restricted vehicle space. Carers should not get involved in unsafe lifting practices.

Storage areas in vehicles should be secure. A flying wheelchair or component part can cause a lot of damage and injury if it strikes anyone.

For the independent occupant who chooses to travel in a wheelchair, good accessibility into confined spaces is important when using the allocated spaces on public transport, such as low floor buses.

## **USE OF FOUR POINT TIE DOWNS AND OCCUPANT RESTRAINTS IN VEHICLES**

Greencare wheelchairs incorporate integrated attachment points for wheelchair and occupant restraints. Training is available for carers and transport providers by safety restraint manufacturers, such as Unwin Ltd.

Attention should be given to the following important safety guidelines:

- The wheelchair should be secured to the floor in a forward-facing direction.
- The wheelchair and occupant should be secured to the vehicle independently.
- The wheelchair tie down should be secured to the points indicated on the frame.
- The occupant restraint is routed through the guides on the chair frame.
- More than one person should not occupy the wheelchair.
- Upper occupant restraint should be secured to the vehicle above shoulder height.
- No component of the restraint should pass through the wheelchair wheels.

- Modifications to allow the fitting of restraints should be approved by Greencare, or an authorised specialist.
- The wheelchair back support frame should be configured to incorporate a head restraint or alternatively this should be included in the transporting vehicle equipment.
- Loose fitting wheelchair attachments such as trays should be removed from the wheelchair unless there is an overriding risk assessed functional requirement.



The driver of the vehicle carrying wheelchair users has the significant responsibility of ensuring that everyone arrives safely. Minor surface bumps on the road, such as traffic calming features can result in unsettling occupant movement, or displacement of stored items. Journey planning eliminates the need for vehicles to encounter surface hazards.

Wheelchair posture belts and lap straps are not tested to meet the crash test standards, but we advise that they should continue to be used and remain in position during a journey to provide occupant security and support. Head restraints are recommended.

Transportation crash tested tie down restraints for both wheelchair and occupant are part of the actual road vehicle equipment. The transport provider should maintain them in a safe working condition.

Greencare wheelchairs have labelled fixing points for wheelchair downs. Excessive pressure applied by the tie down has an adverse effect on wheels, as pressure downwards increases, the area supporting the load is under compression and wheel strength is reduced.

The illustrations on this page show DB1 fitted with the Unwin wheelchair tie down and occupant restraint system.

## Battery maintenance

The batteries fitted to your EP1C wheelchair are not designed to be removed frequently and therefore the following procedure should only be carried out during service or repair of the wheelchair.

### REMOVING BATTERIES

1. Ensure the joystick is switched off.
2. Remove battery bag
3. Disconnect both rear batteries wiring harnesses
4. Disconnect all power, motor and joystick connectors.
5. Undo battery restraining straps.
6. Remove batteries

### BATTERIES AND CHARGING



#### WARNING!

- The battery charger supplied with your powered wheelchair is for indoor use only; it must be protected from moisture and external heat sources.
- Handle the battery charger with care, if it has been dropped or damaged, do not use it.
- Do not use an extension lead for connection from the mains to the charger unless absolutely necessary. If you do use one ensure it is in good condition.
- Only use the charger supplied with your powered wheelchair.

### CHARGING

Your powered wheelchair is equipped with GEL type batteries (acid free) which require regular charging. To ensure trouble free operation of your powered wheelchair it is imperative to monitor the battery charge condition continuously and to recharge the batteries in good time. Intervals at which the batteries may need charging will vary and depend upon the conditions in which the powered wheelchair is being used, the weight of the user and ambient operating temperature in which the powered wheelchair is being operated.

New batteries need charging before your first journey and will not perform to their peak until the first six to ten charging cycles have been completed. To ensure long battery life does not allow your batteries to become totally discharged. If your powered wheelchair is not used for any length of time the batteries must receive a full charge once a month and remain fully charged during storage. For replacement batteries contact Greencare in order to ensure that the new batteries are of the correct type and specification and are correctly installed and connected.

Pay attention to the battery charge indicator on the joystick controller as at full charge all lights will be on (from right to left: green, amber, and red). As the battery charge drops during powered wheelchair operation successive lights will extinguish until eventually only the two red lights will be on. It means that you must charge the batteries without delay. We strongly advise you, however, not to wait until this critical point has been reached but to charge the batteries as early and as often as possible after you have used your powered wheelchair. If you ignore the warning (only two red lights on), and the battery charge drops further to a level where it is no longer sufficient to allow safe driving, the controller will automatically cut the power supply to the motors, so that the powered wheelchair comes to an abrupt halt and you may find yourself stranded.

Except in emergencies, never drive on discharged batteries, this will add strain to them and reduce their life. We recommend batteries should be charged every time the powered wheelchair is used, independent of the depth of discharge. Depending on this and their capacity, a full charge on completely discharged batteries can take up to approximately eight hours.

## **CHARGING PROCEDURES**



### **IMPORTANT:**

Before you attempt charging, ensure you read and understand the instruction leaflet supplied with the battery charger.

## HOW TO CHARGE BATTERIES

- Check that the ventilation slots on the charger are clean and unobstructed.
- Plug the charger output lead into the socket on the joystick control box.
- Do not use your EP1C wheelchair while charging is in progress.
- Disconnect the charger completely before using your chair again before use.

When charging is complete switch off and disconnect from the mains. If required, the charger can be left connected to the powered wheelchair and to the mains. This will keep the batteries 100% charged and compensate for self-discharging over a long period. (You cannot overcharge your batteries).

- Connect the charger power supply cable to the mains socket and switch the power on. The 'Mains ON' and the 'Charging' lights on the charger will come-on.
- It is recommended the charger is left connected as described until the 'Full Charge' light illuminates to obtain optimum performance of the batteries...
- When the 'Charge Complete' light illuminates, the batteries are fully charged and ready for use.

## DISPOSING AND RECYCLING OF USED BATTERIES

You can help preserve our environment by returning your used rechargeable batteries to the collection and recycling location nearest to you. Batteries must always be correctly recycled. Under no circumstances should batteries be disposed of in domestic refuse.

## Permanent magnet DC EP1C MOTOR

### TECHNICAL OPERATING INSTRUCTIONS

The motor on your EP1C chair is made by Motion Tech and are CE certified, built of high quality components and assembled under strict quality system approved by ISO-9001. Before using Motion Tech's products, please read these operating instructions carefully.

1. To avoid the motor burning out, do not use voltage higher than specified.
2. To avoid the influence on rotating speed and output, do not have any magnetic parts near to the frame of the motor.
3. To avoid dangers caused by jamming, keep your hands, hair and all loose items of clothing or fabric away from the motor when it is running.
4. This product is designed according to IP44, it is resistant to dust and moisture, but cannot be immersed in water.
5. After heavy use under load the temperature of the motors might rise to 100 degrees Celsius or above. Do not touch the motor without any protection and keep fusible materials away from it.
6. Any impact on the motor, especially on the shaft, could damage the concentricity or break the magnets of the motor.
7. The motor cannot be used near flammable gases, vapours or liquids.

## EMI REGULATION CONFORMITY

The Greencare EPIC wheelchair has been successfully tested in accordance with international standards as to its compliance with Electromagnetic Interference (EMI) regulations. However, electromagnetic fields, such as those generated by radio and television transmitters, and cellular phones, can influence the functions of the electric vehicles. Also, the electronics used in our wheelchairs can generate a low level of electromagnetic interference, which however will remain within the tolerances permitted by law.



BEWARE:

- Do not switch on or operate portable transceivers or communication devices (such as radio transceivers or cellular telephones) when the vehicle is switched on.
- Avoid getting too close to strong radio and television transmitters.
- In case the wheelchair should be set in motion unintentionally switch the chair power off immediately.
- Adding electrical accessories and other components or modifying the wheelchair in any way can make it susceptible to electromagnetic interference.

## Error indications



If there is an error with the system when it is powered up, then the status Indicator will flash red; the number of flashes will indicate the type of error.

The table below describes the error indication, and a few possible actions that can be taken to rectify the problem. The actions listed are not in any particular order and are suggestions only; the intention is that one of the suggestions May help you clear the problem. If in doubt, consult your supplier.

Flash code	Error description	Possible action
1	Remote / joystick error	Check cables and connectors Replace remote
2	Network or configuration error	Check cables and connectors Check bluetooth pairing Reconfigure the system Recharge the battery Check charger Replace modules Contact supplier
3	Left motor error	Check cables and connectors Replace power module Check and/or replace left motor
3	Right motor error	Check cables and connectors Replace power module Check and/or replace right motor
5	Left park brake error	Check cables and connectors Check leftt park brake is released
6	Right park brake error	Check cables and connectors Check right park brake is released
7	Module error (other than remote)	Check cables and connectors Check modules Replace LiNX Access Key Replace Power Module Recharge battery  If the chair is stalled, reverse away or remove obstacles, or if the chair was moved while turned off, cycle the power.

The error indicator may continue to flash after an error has been rectified. To clear the error indication, cycle the system's power.

For more information about the error, and what to do about it, open the logs within one of the programming & diagnostic tools (see 10.1 The LiNX Access iOS tool and 10.2 The LiNX Access PC tool).

**Your notes on errors / flash codes:**

## **Warranty:**

Greencare guarantees the products supplied to be free from manufacturing defects, and will replace components where necessary free of charge, for a period of 12 months from the date of purchase.

This warranty is subject to the condition that the product has been used, adjusted and maintained in accordance with this User Guide and maintenance instructions as supplied by Greencare.

This does not affect your statutory rights. Greencare wheelchairs redesigned with the needs of disabled people in mind.

We hope that our wheelchairs provide their users with the reliability, comfort and independence needed for a more improved lifestyle in modern environment.

Greencare has a policy of constant product improvement and reserves the right to change specifications without prior notice.

## **Reporting a serious incident:**

In the event of a serious incident occurring as a direct consequence of using this medical device, which either directly, or indirectly caused (a) the death of the patient/user or another person, (b) the temporary or permanent serious deterioration of the patient's, user's or other person's state of health or (c) a serious public health threat, please immediately report the incident by contacting the competent authority.

## **Manufacturer:**

Ability Matters Group, Nuffield Way, Abingdon, OX14 1RL



**Ability Matters Group Ltd.**

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