

# AEROLITE CARBON FIBRE POWER WHEELCHAIR

**USER MANUAL** 



Congratulations and thank you for choosing this Aspire AeroLite Carbon Fibre Power Wheelchair.

This user manual contains a description of the product and important guidelines to ensure correct and safe use. It is important to read this manual carefully prior to use. It is especially important to read and follow the safety requirements.

Aidacare continuously improves products and reserves the right to change the specifications and functions of products without notice.

If you have any queries, please contact your dealer or Aidacare directly. Contact information is located on the last page of this manual.



This product features the CE mark, in compliance with the Medical Devices Regulation 2002 (as amended) Class 1, and the Medical Device Regulation 2017/745



**UK** This product Features the UKCA mark, in compliance with Part II UK MDR 2002 (as amended) Class 1.

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Due care has been taken to ensure all the information contained in this user manual is correct at the time of printing. All measurements, pictures, colours and weight capacities are to be used as a guide only. We reserve the right to modify the design or appearance of any product displayed in this user manual without prior notice.

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# 1. INTENDED USE

The Aspire AeroLite is a motor driven transportation device specifically designed for individuals who, due to a wide variety of reasons, have limited mobility or are unable to walk. This product should be used as a tool to assist with mobility or walking difficulties. This product is developed for indoor and limited outdoor use. When used outdoors, the power wheelchair should remain on sealed, level terrain (examples include, but are not limited to, shopping centres, medical centres, flat and level footpaths, and environments with accessibility-focused layouts). Any other use outside of the intended purpose is not advised.

# 2. PRODUCT DESCRIPTION

The Aspire AeroLite is a four wheeled power assisted wheelchair with a cross folding frame. The product is made from carbon fibre, so it is light and easy to store or transport. This power wheelchair offers great maneuverability and stability, which features innovative swing up armrests to allow for easier user ingress and egress and patient transfers. It has a padded mesh seat and backrest, 12 inch rear wheels, and flip up legrests. This chair is powered by two motors fitted to the rear wheels.

# 3. SYMBOLS USED IN THIS USER MANUAL

The symbols below are used throughout this user manual and on the product to identify warnings and important information. It is very important for you to read them and understand them completely.



**WARNING!** Indicates a potentially hazardous condition/situation. Failure to follow designated procedures can cause either personal injury, component damage or malfunction. On the product, this icon is represented as a black symbol on a white triangle with a black border.



**ALWAYS!** These actions should be performed as specified. Failure to perform mandatory actions can cause personal injury and/or equipment damage. On the product, this icon is represented as a white infinity symbol on a black dot with a white border.



**DO NOT!** These actions are prohibited. These actions should not be performed at any time or in any circumstances. Performing a prohibited action can cause personal injury and/or equipment damage. On the product, this icon is represented as a white symbol with a black circle and black slash.

# 4. SYMBOLS USED ON THE PRODUCT

The manufacturer's sticker shown below is a sample sticker only.



#

**Product Code** 



UKCA Mark



Serial Number



Read User Manual



Manufacturer



Caution



**Importer** 



Medical Device



Country of Manufacture



Safe Working Load



Not Crash Tested



Authorised Representative



CE Mark

## Safe Working Load (SWL)





**DO NOT** exceed the safe working load on the Aspire AeroLite Carbon Fibre Power Wheelchair.

This power wheelchair is designed for use on flat, level surfaces. If you encounter sloped or uneven terrain, please seek an alternative route.

**WARNING!** Please observe the following warnings to avoid any damage or injury resulting from improper use of your power wheelchair. The wheelchair user is responsible for taking appropriate safety measures. Aidacare will not be liable for personal injury or product damage resulting from improper use of the power wheelchair.

- DO NOT operate the power wheelchair until you have read the instructions.
- DO NOT exceed the maximum climbing angle of 9°.
- DO NOT drive on slippery or soft surfaces, such as wet tiles, mud, sand, grass, etc.
- DO NOT drive on slopes without guardrails.
- · **DO NOT** drive on the road.
- **DO NOT** turn, drive laterally or reverse on ramps.
- DO NOT climb above the maximum obstacle height of 25mm.
- · Please fasten your seat belt when using the power wheelchair.
- · Keep your feet and hands on the pedals and armrests at all times.
- · Please use the designated crossings when crossing the street.
- **DO NOT** cross the road when the power is low, so as not to run out of power halfway.
- When the wheelchair is not in use, it should be folded and stored in a dry and ventilated place with batteries removed. The power wheelchair should not be stored in high temperature and humidity.
- · All wheels MUST be in contact with the ground at ALL TIMES during use.

- **DO NOT** expose your power wheelchair to extreme conditions, such as excessive heat, cold, or moisture, for prolonged periods.
- WARNING! Inspect all electrical connections, including charger cables and connectors. Ensure they are always tight and secure.
- DO NOT attempt to lubricate the wheel bearings; they are already pre-lubricated and sealed.



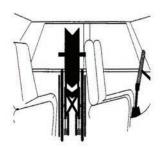
**NOTE:** Fingers or other body parts can be trapped between the power wheelchair's parts during folding, unfolding or adjustment. Be extremely careful when adjusting the power wheelchair. Observe the dimensions of gaps between the power wheelchair's elements to avoid trapping your fingers or other body parts.



**WARNING!** This power wheelchair is intended to bear the weight of an occupant through its wheels during propulsion and when stationary. It is **NOT** designed to be lifted/carried with an occupant in the seat and doing so may cause serious injury or death.



WARNING! Transportation in a Vehicle This power wheelchair is NOT designed or tested to carry an occupant for transportation in a motor vehicle. When travelling in a motor vehicle the occupant should sit in the vehicle seat with seat belt fastened and the power wheelchair be folded and securely stored in the luggage compartment.





Please be careful when driving in crowds, traffic flows and other places with heavy traffic. Obey all local pedestrian traffic rules. It may be difficult for others to see you when you are seated on your power wheelchair.



**WARNING!** Avoid supporting your full body weight on the armrest when getting in and out of the chair as they are not weight-bearing. If the user does not have enough leg/trunk stability, support by a carer or transport aid should be sought.



**WARNING!** This chair does not have a weight bearing footrest, avoid standing on the footrest when getting in and out of the chair. Otherwise, it may cause overturning and personal injury.



**WARNING! DO NOT** use the power wheelchair in neutral mode without a carer, it may result in personal injury.



**WARNING! DO NOT** modify the joystick. Please ask your service provider to check it if you notice any changes in your ability to control the power wheelchair.



**WARNING!** To prevent the power wheelchair from losing control and moving on its own, **DO NOT** place the power wheelchair in neutral mode on any incline or decline.



**WARNING!** Keep yourself, clothing and other objects away from the wheels and castors while the power wheelchair is moving. **DO NOT** drag anything behind the power wheelchair while driving.



**WARNING! DO NOT** connect any devices to the electronic system or charge the battery with any other charger other than the one supplied with the power wheelchair.



**WARNING!** Keep all charger terminals/ports clean, dry, and away from damp sources to prevent damage and potential personal injury.



**WARNING!** Always check electrical components for corrosion. Check all brakes for looseness, wear or damage. Check wiring harnesses and terminal posts for breakage. If necessary, please contact Aidacare for replacement.



**WARNING! DO NOT** remove the fuse from the battery harness. If the fuse is damaged, please contact Aidacare for replacement.



**WARNING!** Please slow down when turning, don't make sharp turns, keep the centre of gravity stable when turning. To prevent rollover, **DO NOT** move the centre of gravity in the opposite direction when turning.



**WARNING!** When sitting in a power wheelchair, avoid any position or movement that can change your centre of gravity. This may cause the power wheelchair to overturn which may cause injury.



**WARNING! DO NOT** expose the power wheelchair to naked flames



**WARNING!** Keep your power wheelchair in a dry and clean environment. **DO NOT** use the power chair in wet environments.



**WARNING! DO NOT** climb stairs or escalators with the power wheelchair.



**WARNING! DO NOT** operate the wheelchair while connected to mains power and charging. **DO NOT** use any other battery with this wheelchair other than what is supplied by Aidacare.



**WARNING!** Store charging or unused batteries away from hot/cold temperatures and wet areas.



# WARNING! Maintaining stationary position

For added safety, the power wheelchair should be turned off when not in use to prevent any unintended movements, ensuring a secure environment for both the user and those around them.



**WARNING! DO NOT** travel down kerbs or single steps without an attendant carer.

**NEVER** attempt to transit down multiple steps with or without an attendant carer.



**WARNING!** The Aerolite powerchair comes equipped with anti-tip wheels as a standard safety feature. It's essential that the powerchair is never used without these wheels, as they play a crucial role in maintaining stability and preventing accidents.



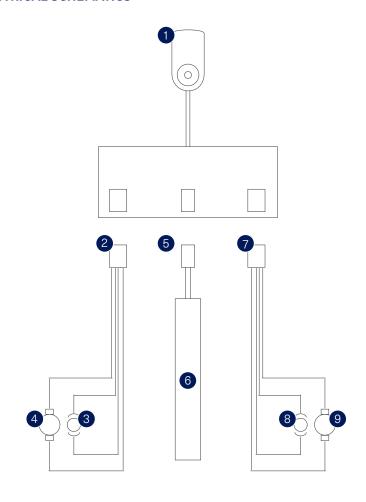
# 6. LIST OF COMPONENTS

- 1 Backrest
- 2 Armrest
- 3 Joystick
- 4 Seat

- Motor with release lever
- 12" Transit Wheel
- 7 Main Battery
- 8 Front Castor

- 9 Footplate
- Secondary battery (not hard wired)
- 11 Control Box
- Main power switch

### **6.1 ELECTRICAL SCHEMATICS**



- Joystick
- Connectors for Left Motor
- 3 Brake (L)

- Motor (L)
- Connectors for Battery
- 24V Lithium Battery 9
- Connectors for Right Motor
- Brake (R)
  - Motor (R)

# 7. PRODUCT SPECIFICATIONS

Overall Dimensions (L x W x H) 960 x 630 x 895 Folded Dimensions (L x W x H) 960 x 315 x 800 Net Weight (without battery and footrest) 13.2kg Seat Depth 400 Seat Width 450 Anterior Seat Height 480 Posterior Seat Height 440 **Backrest Angle** 7° Backrest Height 420 Backrest Width 425 Armrest Height 235 Armrest Length 350 Max Obstacle Height 25 <6km/h Maximum Speed Minimum Turning Radius 900 Safe Working Load 120kg **Driving Distance** 20km Maximum Climbing Angle 90 24V/150W\*2 Motor Model (Electromagnetic Brake) Lithium Battery Specification 2 x 6Ah

All measurements are in millimeters unless otherwise specified. The safe working load capacity is tested with a dummy or personnel of the same weight. Maximum speed is tested on a flat road at an average speed, but it may vary due to the driving surface, operating habits, and other factors.

2Ah

7"

12"

# 8. ASSEMBLY INSTRUCTIONS



When opening the carton, ensure it is done safely and carefully. **DO NOT** use a box cutter or sharp implement, as this may damage the product. For WH&S purposes, lay the carton on its side with the top open and slide the plastic bag containing the wheelchair out.

1 Place the wheelchair on levelled ground. Then push down on the side rails of the seat until flat.



2 Flip up and click backrest into place.

# **IMPORTANT:**

Ensure your fingers are kept clear from the pivoting mechanism.



Maximum Output Current of Charger

Front Castor Size

Rear Wheel Size

- 3 Wheelchairs come with a left and right legrest.
  - a. Insert the legrest into the corresponding receiver and fasten in place with the locking pin.
  - b. Repeat on both sides, ensuring footplates swing in towards the users leg space.



4 Remove the battery from the packaging and insert it to the battery cradle A





Follow the the same procedure on the left hand side to install the secondary spare battery to the chair.

The Aspire AeroLite is supplied with 2 x batteries. 1 x battery is mounted in the battery cradle (A) and the other sits in a plastic bracket on the other side of the chair. The additional battery is not connected to the wheelchair motors and must be swapped across to the main battery cradle when required.

To remove the battery, lift up the locking latch B and rotate the battery assembly outwards and pull up from the battery cradle A





- 6 To turn the power wheelchair **ON/OFF**:
  - Flick the switch to I to turn it **ON**
  - Flick the switch to 0 to turn it OFF



# 9. USE AND OPERATION

All the electric components for controlling the power wheelchair are integrated into the joystick, including the ON/OFF switch, speed indicator, battery gauge, speed down button, speed up button, and directional joystick. You can control all movements of the power wheelchair using these buttons.





- **ON/OFF Switch:** This switch supplies power to the control system. Press the ON/OFF switch to turn on the power; the power indicator, speed light, and battery gauge will illuminate. Press it again to turn off the power.
- 2 Battery Gauge: This displays the battery's charge level. If all bars are lit, power is sufficient. If 3-4 bars are displayed, the power is acceptable. However, if there are fewer than 2 bars, it indicates low power, and the battery needs to be charged.
- 3 Speed Gauge: The more bars that are lit, the higher the speed.
- 4 Speed Up Button: After turning on the power, the speed light displays the current minimum driving speed. Each press of the button increases the speed by one bar. The number of displayed bars represents the current maximum speed, which can be adjusted by the user.
- **Speed Down Button:** After turning on the power, the speed light displays the current maximum driving speed. Each press of the button decreases the speed by one bar. The number of displayed bars represents the current maximum speed, which can be adjusted by the user.
- **6 Horn Button:** Produces an audible sound to alert nearby pedestrians or vehicles.
- **Joystick:** The joystick is primarily used to control the movement of the power wheelchair, including its speed and direction (forward, backward, left, or right). The further you push the joystick from its central position, the faster the power wheelchair will move. When you release the joystick, it will automatically return to the center, engaging the brake to stop the wheelchair.
- 8 Charging Socket: This socket is exclusively for the power wheelchair. Do not use it to supply power to any other electrical equipment, as this may damage the power wheelchair's control system or its electromagnetic compatibility (EMC) performance.

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### 9.1 BATTERY OPERATION/CHARGING

9.1.1 Charge your new battery fully before initial use. This will allow the battery to perform at up to 90% of its capacity. After the first use, charge the battery for another 4-6 hours to full charge and use the wheelchair again. After 4-6 charging cycles to full charge (post-use), the AeroLite battery will top out and maximise 100% of its capacity.

**9.1.2** Only use the battery charger supplied with the AeroLite Power Wheelchair, **DO NOT** use after market chargers. There are 2 options to charge the battery:

- a. **Onboard:** Connect the charging cable to the terminal located at the end of the joystick and leave it plugged in until fully charged.
- b. **Offboard:** Disconnect the battery (see page 15) and connect the charging cable directly to the battery. Leave it plugged in until fully charged.

### 9.2 SAFETY BELT

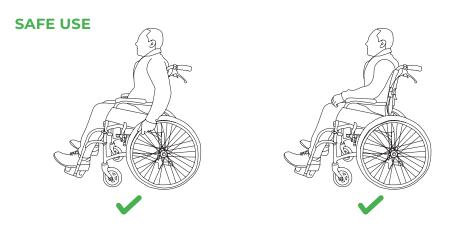
For your safety, always fasten the safety belt whenever you sit in the wheelchair. Make sure to snap the belt buckle until you hear a click.



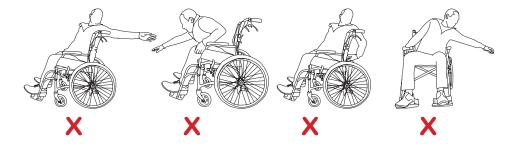




### 9.3 SAFE USE OF YOUR POWER WHEELCHAIR



### **UNSAFE USE**



Note: The images shown are illustrative purposes only, actual product may different from these images.



WARNING! Avoid reaching from within the power wheelchair To ensure the upright stability of the power wheelchair, never reach for objects as this changes the centre of mass and may cause the chair to tip over in the direction of reaching. This warning relates to reaching in any direction outside the perimeter of the power wheelchair.

# 10. TROUBLESHOOTING

For your convenience, this wheelchair is equipped with an automatic fault warning device. If a fault occurs, the joystick panel will display a pattern, and the horn will sound. You can identify the issue using the table below. If the fault persists after checking, please contact your nearest Aidacare branch to arrange a service.

Beep 2+1	Communication failure	Check cable connection on the joystick.
Beep 2+2	Right motor failure	Check right motor or wire connection.
Beep 2+3	Right brake error cable connection poor	Check that the brake lever is in place and ensure that the brake is not damaged.
Beep 2+4	Left motor failure	Check left motor or wire connection.
Beep 2+5	Left brake error cable connection poor	Check that the brake lever is in place and ensure that the brake is not damaged.
Beep 2+6	Over current	Check for a locked motor, a short circuit, or any damage to the joystick.
Beep 2+7	Joystick lever failure	Check if the joystick lever is functioning normally and ensure that the internal connections are not loose.
Beep 2+8	Joystick failure	Contact Aidacare immediately.
Beep 2+9	Battery failure	Charge the battery.  If no response, contact Aidacare immediately.

# 11. CARE, MAINTENANCE & CUSTOMISATION

### 11.1 MAINTENANCE SCHEDULE

Weekly	Check brakes are functioning properly  Check all fastenings such as nuts, bolts and hinges are fastened correctly and functioning normally  Check all electrical cables are secure and intact
Periodically	Check for signs of wear on front castors Check for signs of wear on rear tyres
Yearly	Service to be completed by authorised Aspire service agent
Serviceable Components	Wheels & castors Joystick & control box Axles Armrests Seat and back upholstery Footplates Drive motors

# 12. WARRANTY

### 11.2 CARE FOR YOUR POWER WHEELCHAIR

- · Check tyre condition at least twice per month.
- · Charge your battery regularly.
- If the power wheelchair is not being used for a prolonged period, both batteries must be removed from the powerchair and stored separately with full charge.

### 11.3 CLEANING INSTRUCTIONS

- · Clean the power wheelchair regularly with a damp cloth.
- · Use a mild washing agent and warm water for excess dirt build up.
- **DO NOT** use harsh abrasive or bleach based agents which may cause damage or discolouration.
- DO NOT use the power wheelchair if damages are found on the seat or backrest upholstery.
- · Dry with a soft cloth.
- Should you have any doubts about the correct functioning of the power wheelchair or any of its components, please contact Aidacare.

### 11.4 SPARE PARTS

Aidacare stocks replacement parts for the Aspire power wheelchair range. All part replacements should be performed by Aidacare or an authorised Aspire service technician. The term 'parts' includes, but is not limited to, motor, joystick, tires, armrests, footplates, and upholstery. A complete parts list is available upon request.

### 11.5 CUSTOMISATION

All customisations, modifications, or alterations made to this power wheelchair are considered custom changes. Such modifications may cause the product to no longer meet safety standards and should be carefully considered before proceeding.

**NOTE:** Any custom modifications made to the power wheelchair are not covered by Aidacare and will void the warranty.

# 2 YEARS WARRANTY Frame



The Aspire AeroLite Carbon Fibre Power Wheelchair comes with a 2 year warranty for the frame and a 1 year warranty for components.

Please keep your purchase invoice as proof of warranty commencement. This product features a warranty that varies by component part: the frame and cross frame have a 2 year warranty, while all other components—except for consumables (tires, castors, and upholstery)—are covered by a 1 year warranty.

Consumable parts carry a 1 year warranty against manufacturer defects only and do not cover wear and tear from use.

For further information, please contact Aidacare.

# 13. COMPLIANCE

This range of power wheelchairs are manufactured in ISO compliant production facilities in P.R. China, adhering to strict quality control standards.

Aspire power wheelchairs are manufactured and independently tested to meet relevant market compliance standards.

Labels on the power wheelchair address compliance requirements, and users should familiarise themselves with these before use.

# 14. RECYCLING INFORMATION

This product is fitted with electronic components and should not be mixed with general household waste. Please follow the diagram below to identify the materials on the product. Old batteries and electronics are to be taken to your nearest recycling centre for recycling or contact your retailer.



- Lithium Ion Battery
- Waste of Electrical and Electronic Equipment (WEEE)
- Carbon Fibre Frame and Nylon Upholstery

# 15. MANUFACTURER, IMPORTER & FU REPRESENTATIVE

If you have any questions, you can contact:



### Manufacturer:

**Aidacare Pty Ltd** ABN 40 134 398 833

Building 3A, 1 Moorebank Avenue, Moorebank NSW 2170 Australia

1300 133 120 | product@aidacare.com.au



### **EU Representative:**

European Heathcare & Device Solutions (Ireland)Ltd.

Stratton House, Bishopstown Road, Cork T12 Y9TC Ireland

info@europeandevicesolutions.eu



# Importer:

Aidacare Ltd Registration 13785408

Arcadia House, Maritime Walk, Ocean Village, Southampton SO14 3TL United Kingdom

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# NOTES

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