



**Aerolite Carbon Fibre Wheelchair  
overview and safe-use guidance for new purchasers**



This is a lightweight, foldable powered wheelchair with an aerospace-grade carbon fibre frame. It is designed for people with limited mobility, prioritising portability (easy to fold and lift into a car boot or for travel), indoor use, and limited outdoor use on sealed, level surfaces.

It combines dual brushless motors, a lithium battery, joystick control, and safety features such as automatic braking and anti-tip wheels.

## **Key Features**

- Ultra-lightweight carbon fibre construction (net weight typically around 11–18 kg depending on configuration and whether the battery is included; often cited as one of the lighter power chairs).
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- Quick-fold design for storage and transport (including potential airline suitability—confirm with the carrier regarding lithium batteries and Australian aviation rules).
- Dual brushless motors with precise 360° joystick control, adjustable speed, and intelligent control panel (some versions offer optional Bluetooth/app features).
- Customisable/adjustable seating, armrests, and backrest; advanced suspension for smoother rides; solid puncture-proof tyres; weather-resistant elements; automatic braking, anti-tip wheels, and lights.
- Suitable for indoor spaces with tight turning and limited outdoor sealed/level paths.

## **Main Specifications**

- Max load capacity (Safe Working Load / SWL): Typically 100–120 kg (do not exceed the stated SWL on your unit).
- Speed: Up to ~8 km/h (adjustable; practice at low speeds first). Note: For use on Australian footpaths/road-related areas as a pedestrian, do not exceed 10 km/h.
- Battery: 24V lithium (e.g., ~10 Ah range; extended range on a full charge—exact distance depends on user weight, terrain, and conditions). Lithium-ion systems should meet relevant safety requirements (e.g., AS/NZS 7176.31 where applicable).
- Motors: Dual brushless (examples include 200 W × 2).
- Seat size: Approximately 44 × 40 cm (check your unit).
- Dimensions (unfolded): Roughly 94 × 58.5 × 98 cm.
- Dimensions (folded): Roughly 78 × 28 × 70 cm.
- Wheels: Front ~6.5" solid; rear ~11" solid.

- Other notes: Minimum turning radius and chassis height support manoeuvrability indoors; includes joystick with light/USB on some versions.

## **Intended Use**

This is a motor-driven mobility aid for individuals with limited walking ability or mobility challenges. It is intended primarily for indoor use and limited outdoor use on sealed, level terrain (e.g., shopping centres, medical facilities, flat footpaths).

Under Australian Road Rules (as applied in each state/territory), powered wheelchairs/mobility devices that cannot exceed 10 km/h on level ground are generally treated as pedestrians when used on footpaths or road-related areas.

## **Users must:**

- Have a reasonable need due to physical disability or limited mobility.
- Follow pedestrian road rules (use footpaths/nature strips where available and safe; cross by the shortest safe route; do not cause a traffic hazard or obstruct others).
- Not exceed 10 km/h on paths.
- Check state/territory rules (e.g., registration requirements in Queensland; mass/speed limits that can vary slightly by jurisdiction such as unladen mass thresholds around 110–170 kg in some places).

It is not designed for roads with traffic (except where specifically permitted under local rules), soft/uneven surfaces, steep slopes, stairs, escalators, or as an occupant restraint in a motor vehicle (fold and store the chair; the user must transfer to a vehicle seat and use the vehicle seatbelt). The chair is not crash-tested for vehicle transport of an occupant (refer to AS/NZS 3696.19 / ISO 7176-19 where relevant for other devices).

**Safe Working Load (SWL):** Do not exceed the stated maximum (commonly 120 kg / ~19 stone on matching models). Exceeding it risks instability, damage, or injury.

## **Critical Safety Warnings and Precautions**

Read the full manufacturer's instructions before first use. Practice in a safe, open, flat area with assistance until confident. Consult a healthcare professional (e.g., occupational therapist) for suitability, transfers, seating setup, and any personal limitations (vision, dexterity, cognition, medication effects, etc.).

This guidance is consistent with performance and safety expectations under Australian Standard AS 3695.2:2019 (Wheelchairs, Part 2: Requirements and test methods for electrically powered wheelchairs including mobility scooters) and related ISO 7176 series standards adopted in Australia. Always follow your specific unit's manual, which takes precedence.

**Key “DO NOT” points** (aligned with typical manufacturer guidance and Australian expectations):

- Do not exceed the maximum climbing/rated slope (commonly 6° for dynamic stability on Class B indoor/outdoor devices under AS 3695.2; some related guidance notes up to ~9° under ideal static conditions—always check your manual and reduce speed/weight effects).
- Do not drive on slippery, soft, or uneven surfaces (wet tiles, mud, sand, grass, gravel, ice, etc.).
- Do not drive on slopes without guardrails, turn/reverse/drive sideways on ramps, climb obstacles taller than ~25 mm, or use on roads (except as permitted under local pedestrian rules).
- Do not operate until fully unfolded, batteries secured, and all systems checked.
- Do not put full body weight on the armrests or footrests (risk of tipping or damage); they are not weight-bearing.
- Do not reach far outside the chair (shifts centre of gravity and can cause tipping).
- Do not use freewheel/neutral mode on inclines/declines or without a carer nearby.
- Do not climb kerbs/steps without an attendant (never multiple steps); do not remove anti-tip wheels.
- Do not operate while charging, use non-supplied chargers/batteries, or expose to extreme heat/cold/moisture/naked flames.
- Fasten the seat belt (if fitted) at all times when seated. Keep hands and feet on armrests/footplates. Turn the power off when stationary or transferring.

**Additional notes:** All wheels must stay in contact with the ground. Be highly visible and cautious in crowds or near traffic (use horn/lights). Visibility of the user can be low. Obey all local Australian road rules applicable to pedestrians/motorised mobility devices.

### **Safe Mounting, Dismounting, and Transfers**

1. Ensure the chair is powered off, on level ground, and motors locked (not in freewheel).
2. Flip up armrests and footplates as needed.
3. Transfer carefully (side transfers are aided by flip-up armrests). Seek professional guidance or carer assistance until confident. Never stand fully on the footrests.
4. Once seated, lower footplates, secure the seat belt, check posture, and only then power on.

### **Operating / Driving Safely**

1. Controls are integrated into the joystick (on/off, speed up/down, battery gauge,

horn, directional stick). Start at the lowest speed setting. Push the joystick gently in the desired direction; releasing it centres it and engages the electromagnetic brakes.

2. Drive only on appropriate surfaces. Reduce speed for turns; avoid sharp manoeuvres that shift the centre of gravity. On Australian footpaths, never exceed 10 km/h.

3. Monitor the battery gauge and recharge before it is critically low. Do not drive with insufficient charge, especially near roads or crossings.

4. Use designated pedestrian crossings. Obey local Australian road rules and state/territory requirements.

## **Folding, Transport, and Storage**

The cross-fold design allows compact folding (often stands upright when folded). Follow the exact sequence in your manual (typically involves releasing levers, folding the backrest, and securing). Keep fingers clear of pinch points. Remove batteries for lighter lifting and long-term storage. Store in a dry, ventilated place away from extremes of temperature or humidity.

## **Charging and Battery Care**

Use only the supplied charger. Charge indoors. New batteries may need several cycles to reach full capacity. Charge regularly; many models support onboard or offboard charging and spare batteries for extended range. Lithium batteries should comply with relevant Australian requirements (e.g., AS/NZS 7176.31 for lithium-ion systems where applicable). For air travel, lithium batteries are subject to IATA rules and Australian aviation requirements—confirm exact rules, airline policy, and any TGA/aviation approvals in advance and plan battery removal/storage as required. Never use damaged cables or non-approved adapters.

## **Maintenance and Care**

- Regularly inspect tyres, brakes, wiring, connections, frame, and anti-tippers for wear, damage, or looseness.
- Keep the chair clean and dry (do not hose it down). Wipe surfaces as needed.
- Do not lubricate sealed wheel bearings. Recommended: periodic professional service (e.g., annually via an authorised agent).
- Check tyre condition frequently. Store batteries charged if unused for long periods.

## **Australian Regulatory and Standards Notes for Purchasers/Sellers**

- Powered wheelchairs are generally regulated as medical devices by the Therapeutic Goods Administration (TGA). Ensure the product is appropriately included in the Australian Register of Therapeutic Goods (ARTG) or meets

any applicable exemptions before supply in Australia. Sponsors must meet Essential Principles for safety and performance.

- Relevant standards include AS 3695.2:2019 (requirements and test methods for electrically powered wheelchairs including mobility scooters) and the ISO 7176 series (adopted as AS/NZS ISO 7176 parts covering dimensions, dynamic stability, maximum speed, brakes, batteries, etc.). SA TS 3695.3 provides designation requirements for public transport/road-related area use (White/Blue labels in some contexts).
- Compliance with these supports safety, performance, and durability expectations in Australia. Confirm exact classification (e.g., indoor or indoor/outdoor) and any labelling with the manufacturer.
- NDIS funding (if applicable) may require evidence of suitability and compliance.

## Recommendations for New Purchasers

- Thoroughly read and keep the manufacturer's user manual and any labels that arrive with the chair—these take precedence over general summaries.
- Practice transfers and low-speed control with a carer or therapist in a safe environment.
- Confirm exact weight capacity, dimensions, battery range, speed settings (ensuring  $\leq 10$  km/h capability for path use), and any optional accessories for your specific unit.
- Contact the seller (Mobility Independence) or an authorised service provider for the official manual, warranty details, spare parts, training, or confirmation of Australian standards/TGA status if needed.
- If you have specific medical conditions, get professional assessment for suitability and setup (seat height, cushioning, joystick positioning, etc.).
- Check your state or territory road rules for any local requirements on use, registration, or insurance of motorised mobility devices.

This chair aims to support independence through its light weight and portability, but safe operation depends on following the weight limits, terrain restrictions, Australian road rules for pedestrians/mobility devices, and all precautions. If anything feels unsafe or the chair behaves unexpectedly, stop use and seek assistance or service. Enjoy the increased mobility, and prioritise safety at every step.

Regards

The Team @ [MobilityIndependence.com.au](https://mobilityindependence.com.au)

**Note:** *This updated guidance incorporates Australian standards (particularly AS 3695.2:2019 and related ISO 7176 series), TGA medical device considerations, and Australian Road Rules treatment of motorised mobility devices. Always verify the specific product's compliance documentation, ARTG status, and the latest state/territory rules, as standards and regulations can be updated. The manufacturer's manual remains the primary reference.*