



eFOLDi User Manual

Model: Powerchair HBLD3-D



The power chair should NOT be used by people:

- A person who has an intellectual or developmental disabilities;
- With slow reaction and who have difficulty in handling power mobility devices;
- Who cannot operate all controls fully and as intended; *
- Who cannot steer competently and appropriately at all times and in all conditions;
- Who cannot maintain appropriate awareness of all relevant circumstances for each journey and take appropriate action as may be required to avoid mishap;
- Who cannot lift it in whole or in part as may be required dependent upon the user's needs*.

* Unless accompanied by a person sufficiently able and competent to carry out that task.

Product compliance:

| | |
|-------------------------------|--------------------------|
| Safety: | EN12184 |
| EMC: | ISO7176-21 |
| Risk management: | ISO14971 |
| The European Medical Devices: | Directive of 2017/745/EU |
| Product class: | Class A |

Shipping and delivery:

By checking against your sales order or invoice, make sure your delivery is complete, as some components may be individually packaged. If you do not receive a complete delivery, please contact us immediately. Where damage has occurred during transport, either to the packaging or the contents, please contact the company responsible.

Product overview

Thank you for purchasing our eFOLDi power chair. This ultra-light electric wheelchair has been carefully researched and developed to be light, energy efficient and easy to operate. Please read this manual carefully before use, so that you are familiar with all the various functions, and understand the required maintenance. This will ensure that the power chair remains in good condition and is safe to use.



(a) Power chair mode



(b) Storage mode

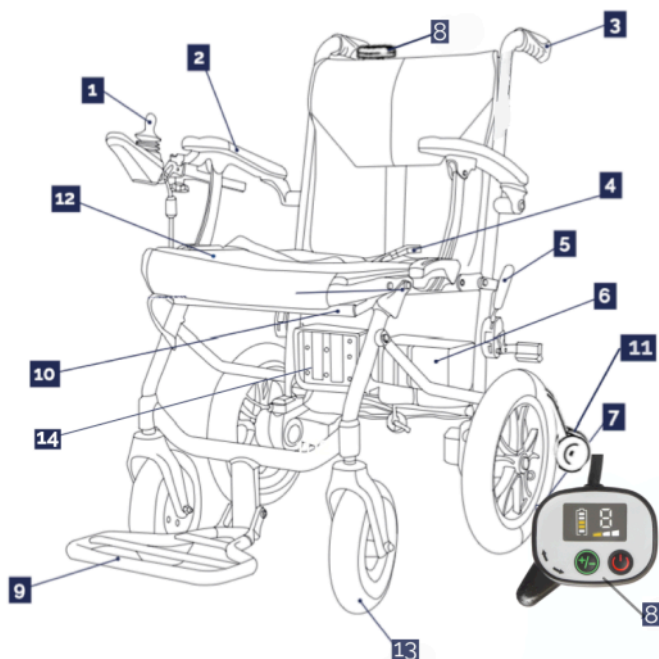
Model: Power chair HBLD3-D

Intended for use:

This Class A Power Chair is designed for indoor and limited outdoor use on smooth, level surfaces such as:

- Homes, apartments, and assisted living facilities;
- Shopping malls, offices, and hospitals;
- Paved walkways and smooth sidewalks (without significant inclines or rough terrain).

Components



| | | | |
|----|-------------------------|----|-----------------------|
| 1 | Joystick control | 2 | Armrest |
| 3 | Push handle | 4 | Seatbelt |
| 5 | Handbrakes (both sides) | 6 | Batteries |
| 7 | Rear wheel 12 inch | 8 | Attendant control |
| 9 | Footrest | 10 | Folding mechanism bar |
| 11 | Anti-tip wheels | 12 | Seat cover |
| 13 | Front wheel | 14 | Control box |

Table 1: Model HBLD3-D Components

Control components



| | | | |
|---|------------------------|----|---------------------------|
| 1 | Joystick control | 2 | Speed adjustment (slower) |
| 3 | Battery power display | 4 | Power switch |
| 5 | Horn | 6 | Speed adjustment (faster) |
| 7 | Speed indicator | 8* | Attendant control |
| 9 | Reversing sound on/off | | |

Table 2: Power chair HBLD3-D controls

* Attendant control only works when the main power switch (4) is turned on. Push any buttons on the attendant control to sync it with the Joystick before moving off.

| Speed** | Joystick | Attendant control |
|---------|----------|-------------------|
| 1 | 2 km/h | 2 km/h |
| 2 | 3 km/h | 3 km/h |
| 3 | 4 km/h | 4 km/h |
| 4 | 5 km/h | NA |
| 5 | 6 km/h | NA |

Table 3: Power chair speed settings

** Speed may vary due to manufacturing tolerances.

Safety guidance



Attention

- It is the user's responsibility to read the manual and supplied documents before using the eFOLDi and to follow all of the recommendations contained within, to fully comply with all local laws of their countries and localities and to use the eFOLDi with due diligence and regard to other road users and pedestrians.
- The eFOLDi is simple to use, but its folding mechanism can cause significant injury if used inappropriately and handled without due care and diligence. To avoid any risk of injury ensure hands, fingers, jewellery, clothing and other objects are not allowed to interfere with the folding mechanism or moving parts of the eFOLDi and study the manual carefully before you start operating your eFOLDi.
- Fully charge the battery(ies) before first use and follow the guidelines in this manual for prolonging the life of your battery.

Caution:



Do not get on or off the eFOLDi power chair when the power is on, or when the power chair is in freewheel mode or with the hand-brakes disengaged, or there is no carer to provide assistance.

Please try to avoid riding over rough, cobbled, muddy or loose gravel surfaces. Your eFOLDi is designed for smooth, flat surfaces and may struggle with uneven pavement, gravel, or grass.

The stopping distance on slopes can be significantly greater than on level ground; The power chair surface temperatures can increase when exposed to external sources of heat (e.g. sunlight)

Cannot be driven on the road.

Be sure to slow down before turning. Do not make sharp turns at high speed. Do not park the eFOLDi power chair on a ramp. Never make turns on a slope.

Any vehicle can be dangerous to its rider/driver and other road users and pedestrians. Always ride/drive responsibly, respectfully and with due care to others.

Your eFOLDi power chair is NOT a toy and is not recommended for people under the age of 14. Do not allow children to play with or on the power chair. The internal folding mechanism can cause injury to small hands.

Do not operate your eFOLDi power chair until you have read and fully understood this manual.

Do not operate your eFOLDi power chair until assembly and inspection is complete. A person who has an intellectual or developmental disabilities, slow reactions and difficulty in handling powered devices should not use the eFOLDi power chair on their own.

Do not drive your eFOLDi power chair in violation of national and local traffic regulations.

Do NOT rush when folding or unfolding the eFOLDi power chair.

Do not use the eFOLDi power chair on sandy or soft ground. Avoid driving on slopes greater than 6 degrees or over obstacles greater than 4 cm in height.

Do NOT disassemble or change parts of the eFOLDi power chair or replace parts not manufactured by the manufacturer without the manufacturer's permission.

Never operate the power chair without the anti-tip wheels securely in place.

Do NOT for any reason put your hands into the mainframe of the power chair. This is because your hands and fingers can get trapped in the levers and pivots and serious injuries can be caused.



When unfolding/folding your power chair ensure:

- The eFOLDi is positioned on a level floor or ground.
- Main switch is switched off.
- All latch pins are properly secured in place, as stated on the instructions and shown on the illustrations.
- Handbrake is disengaged.



Safety check before use:

It is highly recommended that you perform a safety check before each use to make sure your eFOLDi operates smoothly and safely.

- This power chair is not designed for use as a seat in motor vehicles. Always transfer to a proper vehicle seat and secure the chair separately.
- Check for correct tyre inflation. Maintain but do not exceed the manufacturer recommended tyre pressure rating indicated on the pneumatic tyres;
- Check all electrical connections. Make sure they are secure and not corroded;
- Check and test the brake system;
- Check frequently for any loose fasteners, fixings and other components.
- Check Anti-tip wheels are securely attached.



EMC warning statement

The interference from radio wave sources such as radio stations, TV stations, two way radios or cellular phones can cause the mobility product to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the mobility power chair control system.

The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each mobility product can resist EMI up to a certain intensity. This is called the "EMI immunity level". The higher the EMI immunity level, the greater the protection from EMI. Currently the eFOLDi power chair has an immunity level of at least 20V/m, which provides useful protection from the common sources of EMI.

The sources of radiated EMI can be broadly classified into three types: 1) Hand-held portable transceivers. (normally with antenna mounted on the device) 2) Medium-range mobile transceivers, such as those used in police cars, fire trucks, ambulances and taxis. (normally with antenna mounted on the vehicle) 3) Long-range transmitters and transceivers, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.

Other types of hand-held devices, such as cordless phones, laptop computers, AM/FM radios, TV sets and small appliances such as electric shavers and hair dryers are usually not likely to cause EMI problems.

WARNING: Use of this electric wheelchair adjacent to or stacked with other electrical equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

The use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

WARNING: Portable RF communications equipment (including pe-

ipherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the electric wheelchair, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

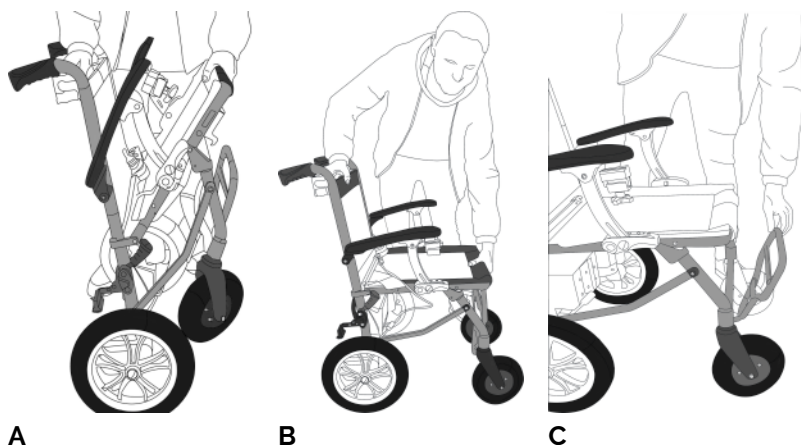
WARNING: If the use location is near (e.g. less than 1.5 km from) AM, FM or TV broadcast antennas, before using this equipment, it should be observed to verify that it is operating normally to assure that the equipment remains safe with regard to electromagnetic disturbances throughout the expected service life.

Folding instructions

To a Power chair mode



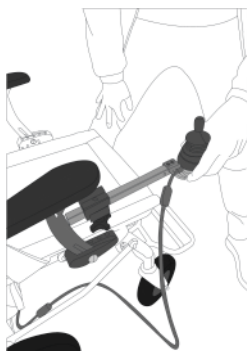
Please study the instructions and image illumination to familiarise yourself with the folding procedures and please only operate one moving part at the same time.



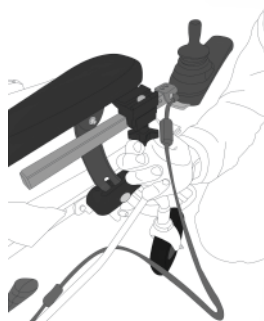
A Once removed from the packaging place the wheelchair on a stable surface. Place one hand on the top of the backrest and the other hand on the folding mechanism bar underneath the seat, in the front part of the folded power chair.

B Finally push your two hands apart until the seat is open at 90° degrees and you hear a distinct "click" sound.

C Unfold the footrest, from a vertical position to a 90° degrees horizontal position.



D



E

D Slot the joystick arm inside the frame and push it into a comfortable horizontal position, where it is easy for your hand to reach the joystick.

E Once you are happy with the horizontal position of the joystick arm, lock it by tightening the clamp. Finally attach Anti-tip wheels securely on the back of the power chair before driving off.

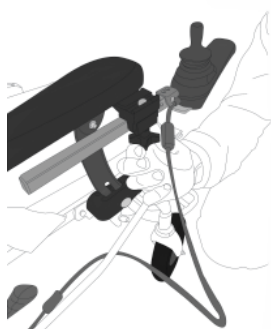


Power chair mode

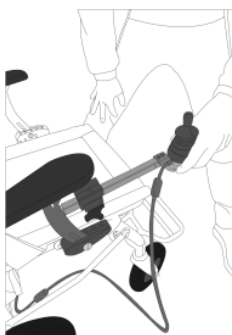
To a Storage mode



Please study the instructions and image illumination to familiarise yourself with the folding procedures and please only operate one moving part at the same time.



A



B



C

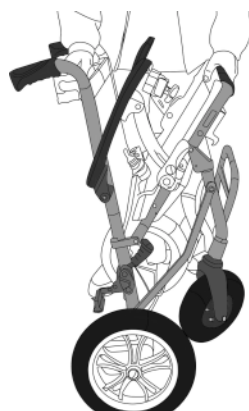
A Loosen the tightening clamp, to release the joystick arm.

B Take out the joystick arm and place it on the power chair seat.

C Fold the footrest, at 90° degrees position vertically.



E



F

E Then place one hand at the top on the backrest bar and the other on the folding mechanism bar underneath the seat.

F By pressing the folding mechanism bar and bringing your hand together to close and fold the eFOLDi Power chair. Your power chair is ready to be stored or transported.

Front wheel should face backwards for proper folding.



Storage mode

Drive your power chair



Safety check before use - see Safety Guidance

eFOLDi power chair is suitable to use indoors and is designed to drive on smooth even surfaces. When driving your eFOLDi, choose a route with good road conditions. Unevenly paved roads or paths, potholes and other hazards will reduce the life of the power chair and impact on your safety.

Any deviation from level/horizontal surfaces should not exceed a gradient of 1:20 (3 degrees). For any climbing there are many factors that need to be considered. Such as: the tyre pressure and condition, the surface condition (if wet, icy or slippery, and this includes leaf cover and/or other debris, we advise against driving the slope), battery charge and the weight of the user, all of these will affect performance.

Caution:

The stopping distance on slopes can be significantly greater than on level ground; The power chair surface temperatures can increase when exposed to external sources of heat (e.g. sunlight)

We recommend for safety purposes on any significant incline up to 6 degrees, a minimum speed of 3 (lights) out of 5 is used, to avoid a lack of Power Chair momentum when climbing the slope to avoid stopping or reducing the chance of tipping backwards. This is all subject to variables such as the condition of slope, gradient of slope, length of slope and weight of user.

ALWAYS APPLY MANUAL BRAKES BEFORE GETTING IN TO OR OUT OF THE POWER CHAIR

Joystick controller



 **Perform the safety check before each use**
- see Safety Guidance section.

Operate the power chair

- To Start - Switch on the main power switch (4) and press the power button on the joystick to switch on the power chair.
- To Stop - Switch off the power switch (4) on the joystick and apply manual brakes, which are located on both sides of the chair. When parking on a ramp/slope, the electric brake may not always be strong enough. Always use the manual brake in conjunction with the electric brake.
- Adjust the speed - Use speed adjustment button to reduce (2) or increase (6) the speed.
- Drive forward - Push the Joystick controller stick (1) forward.
- Turn left/right - Push the Joystick controller stick (1) left/right.

- Drive backward - Push the Joystick controller stick (1) backward.
- Use attendant control - Power on the attendant control (8) and push the lever forward to go forward, push back the lever to go backward.

When Attendant Control (8) is in use, the chair no longer responds to the Joystick controller (4).

- Joystick controller (1) controls the direction and speed at the same time, slowly push the joystick towards the driving direction, then the eFOLDi Power chair will start to move, push the joystick further and you will notice greater acceleration.
- Speed adjustment - slower (2) It is positioned just above the control handle on the left hand side, and it decreases the speed (from 5 to 1) to make the eFOLDi power chair easier to control.
- Power display (3) Shows the battery charge remaining.
- Power button (4) Switches the power on and off by pressing the button (Make sure the main power switch is on).
- Horn (5) Positioned right in the middle of the control panel, use this to warn other pedestrians of your presence.
- Speed adjustment - faster (6) It is positioned just above the control handle on the right hand side, and by pressing the button it increases the speed level (from 1 to 5) of the power chair to go faster. Always be aware of your speed.
- Speed display (7) Indicates what speed is currently selected, between 1 to 5.
- Attendant control (8) Allows an assistant to power the chair for easy handling. Also it has its own power on/off button.
- Reversing sound on/off button (9) Allows you to turn the reversing beep on or off.

Freewheel/motor bypass mode

Switch off the power switch from joystick control on the flat ground for 2 seconds or lift the rear wheels off the ground for a couple of seconds, it will give you freewheel/motor bypass mode, but you will still feel some resistance.

Braking mode

Do not use the power chair on a ramp/slope if the battery is out of power without applying manual brakes, it does not have any electric brake without power.

If there is NO charge within the batteries (or the batteries have been removed from the Power Chair), the Power Chair will free wheel at any time, provided the manual handbrakes are released.

The Attendant Control has no impact on the braking system of the Power Chair.



Manual handbrakes

When on a slope, when coming to a stop. Do NOT turn the power off until the manual brakes are applied. If the power is turned off prior to applying the manual brakes, the electric brake will hold the chair up for to 15 minutes (provided there is charge within the batteries). After 15 minutes, the Power Chair will start to roll forward, though there will be some friction slowing this movement provided there is still some charge within the batteries. Apply manual brakes immediately to stop the forward movement.

ALWAYS APPLY MANUAL BRAKES WHEN THE POWER CHAIR IS

STATIONARY, ESPECIALLY IF ON A SLOPE, AND ALWAYS BEFORE GETTING IN TO OR OUT OF THE POWER CHAIR

Transporting a power chair:

To safely transport the power chair, first ensure it is powered off. Fold the chair according to the manufacturer's instructions, securing any loose parts. Lift using the designated handles or frame sections, avoiding delicate components. Place it in the vehicle with the battery properly secured. If necessary, use straps to prevent movement during transport.

Battery and Charging



The eFOLDi power chair battery has been designed and built specifically for the eFOLDi power chair. This battery must not be used for any purpose other than as stated in this manual. Any misuse or dismantling of this battery may damage it physically and/or electrically, internally and/or externally and will not be covered by warranty. The battery contains no user serviceable or replaceable components. The eFOLDi power chair battery is actually a battery pack, comprising a number of lithium ion cells, but merely termed 'battery' for ease throughout this manual. This battery is different in characteristics and charging requirements to the old and still quite common lead/acid or lead/gel type. Never use a lead type charger to charge it.

It is highly recommended to ensure the charger is placed only on heat resistant surfaces and nothing which could contribute to a fire (e.g. carpet, floorboards, wood, laminate or plastic worktops etc)- the charger will heat up during a normal charging cycle, as will the battery.

To ensure best long-term use of the battery, please observe the following safety rules at all times.

- Connection dock must be handled with care to avoid damage.
- Charge the battery ONLY with the approved charger.
- Never use a charger for lead type batteries on the eFOLDi battery.
- Never place the battery near, on or against any heat source.
- Ensure no metal parts can touch (or 'short') battery or charger terminals, connectors, pins or any other electrical conductor(s) or conducting parts.
- Avoid excessive physical impact and vibration of the battery.
- Do not attempt to dismantle, dissect or deform the battery(ies) or case(s).
- Do not immerse the battery in any liquid (including water).

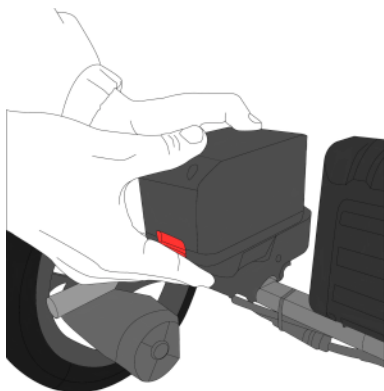
- Do not mix different types of batteries.
- Keep the battery out of reach of children.
- Do not use modified or damaged chargers.
- Do not leave the battery on charge overnight.
- Store the battery in a cool, dry, well ventilated area.
- For disposal of the battery must be in accordance with local laws and regulations, please contact your local dealer or SunTech UK Ltd (legal manufacturer) for advice.
- Batteries should not be stored for long periods without charging. It is recommended the battery to be charged monthly to prolong its life.
- Never store the battery when it is significantly discharged.
- For the benefit of international travellers, your approved eFOLDi charger can be used with any mains voltage supply from 100 to 240 Volts, with a suitable travel adaptor.

Battery power display

Switch on the power, the power display light in the front row will be on, full power will show 5 lights (2 red, 1 yellow, 2 green). When the two red lights are flashing, this indicates that the battery requires charging.



To remove the battery for charging, push the red button down, hold the battery on the outside, and release from the Power chair. To put it back, slide the battery into the battery guide slot, push it until you hear a click, then the battery is inserted securely.



Caution:

Please charge the battery once a month if not in use (Power chair batteries ideally should not be stored in the power chair).

Charger and Charging

Use only the charger originally supplied with your new eFOLDi power chair or replacement charger supplied by SunTech UK Ltd for the use with your product. The use of a non-approved charger will invalidate any warranty and may cause serious damage to the battery and/or your eFOLDi product. The charger should not be used with/or for other devices as damage caused to the charger and/or any other device by doing so will not be covered by our warranty.

Do not leave the battery on charge for more than 24 hours, as this will reduce the life and performance of the battery.

See the image below. Insert the charger into the charging port to start charging.



You can charge the battery in 2 ways:

1. Charge via Joystick - plug the charger lead into the base of the joystick controller and connect the AC plug to a power outlet. This will charge both batteries simultaneously if both batteries are on the bays.
2. Charge directly to battery - battery may be charged separately after removing it from the chair by using the short 'pigtail' adaptor which needs to be connected to the charger lead first.



Do NOT use any other cable than 24VDC eFOLDi power chair charger to charge.

Checks and maintenance



- Perform the following inspections prior to using your eFOLDi daily: For pneumatic tyres, make sure you check the correct tyre inflation and maintain without exceeding the P.S.I./BAR/kPa air pressure rating indicated on each pneumatic tyre (note: the front and rear tyres may have different pressures). Also be sure to use the correct pressure scale and according number on your inflator/pressure tester.
- Perform the following inspections weekly: Check the fastening condition of all nuts, bolts and screws to make sure all the parts are properly secured and are not missing or loose. Check all electrical connections. Make sure they are tight and not corroded. Electro-magnetic brake - is used as a driving brake. The braking distance should be less than 1.5 metres after you release the joystick to stop. Tyre pressure - See your tyres for this information.
- Cleaning and maintenance Periodic cleaning of your eFOLDi will help to maintain its appearance and will both extend the life of the vehicle and improve resale value. Metal and plastic parts can be wiped with a damp cloth using a mild detergent.
- Have your eFOLDi regularly serviced each year.

Expected Service Life: The Power Chair has an expected service life of 5 to 7 years under normal usage conditions. The actual lifespan may vary depending on factors such as frequency of use, maintenance, and environmental conditions..

Caution:

Oil and other lubricants must NOT be used on the following parts: Brake pads, brake cable, tyres.

Refurbishment



- **Refurbishment for re-use**

The product is suitable for refurbishment and re-use.

Actions to be carried out:

Cleaning and disinfection. Please see section "Checks and maintenance".

Inspection according to service plan.

Please consult with an authorised dealer for inspection, service and maintenance before re-use, or contact eFOLDi customer service if purchased directly from us.

Post-Market Surveillance

As part of our commitment to product safety and compliance, we conduct post-market surveillance (PMS) to monitor the performance and reliability of this power chair after sale.

Reporting Issues and Safety Concerns:

If you experience any issues related to performance, durability, battery life, or safety, please contact us immediately:

Customer Support Hotline:

+44 (0) 20 3143 5168

Email:

services@efoldi.com

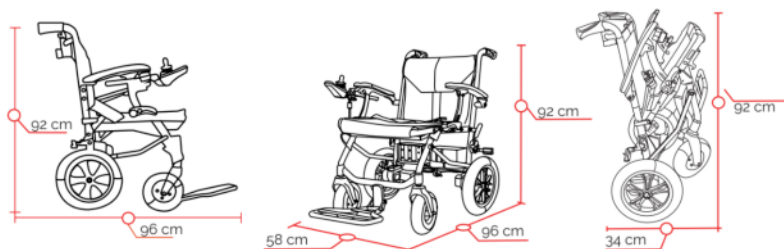
Website:

www.efoldi.com

Address:

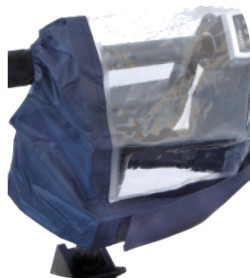
**25 Ormside Way,
Redhill, Surrey, RH1 2LW**

Technical specification



| | |
|----------------------------|--|
| Frame material | Aluminium Alloy |
| Dimension | |
| Packaging size (L/W/H): | 37x60x94cm (15x24x37inch) |
| Folded size (L/W/H): | 34x58x92cm (13x23x36inch) |
| Unfolded size (L/W/H): | 96x58x92cm (38x23x36inch) |
| Front wheel size: | 20cm (8inch) |
| Rear wheel size: | 30cm (12inch) |
| Seat height: | 48cm (19inch) |
| Weight | |
| Weight with battery: | 17kg(38lbs) |
| Weight without battery: | 15kg(33lbs) |
| Performance | |
| Place to use: | Indoor use, limited outdoor capability |
| Speed: | 4mph (6kmh) |
| Maximum range capacity: | 9miles (15km) |
| Maximum carry capacity: | 100kg (221lbs/16stone) |
| Maximum Incline: | 1:20 Gradient (3 degrees) |
| Turning radius left/right: | 102 (40inch) |
| Maximum kerb height: | 4cm (1.5inch) |
| Components capability | |
| Motor: | 2 x 150W, 24VDC |
| Battery: | 2 x 5.2Ah 24VDC Lithium Ion |
| Charger: | Input 110-220VAC, 50/60Hz, output 29.4V 2A |
| Brake: | Electric brake |
| Power switch: | Power button on joystick |
| Number of Wheels: | 4 |
| Tyre type: | Solid or pneumatic |

Table 4: Specification-Power chair HBLD3-D



(eFOLDi accessories)
www.efoldi.com/shop