



# EZee Fold 2G User Manual

Models: CH4053 - Black Frame

CH4054 - Silver Frame



EZee Life™ Products
34 Futurity Gate, Unit 15, Concord, Ontario L4K 1S6



Thank you for purchasing the EZee Fold portable folding wheelchair. Before operating the electric wheelchair for the first time, please read this manual for users carefully. These instructions will help you to understand the performance, the mode of operation and appropriate maintenance. When you use this electric wheelchair, if you cannot control it safely or need advice and help on its use, please contact your dealer for help.

#### Contents

Safety Symbols	3
Specifications	4
Wheelchair Structure	5
Electromagnetic Interference	7
Safety	8
Seat Belt Information	17
Joystick Installation & Info	18
Brakes	20
Batteries & Charging	21
Folding & Unfolding	25
Troubleshooting	27
Warranty	29

#### Caution:

Please don't use and operate the electric wheelchair until you are familiar with this wheelchair and have read and understood the entire manual. If you don't understand the warnings and instructions, please contact the dealer for professional technical guidance and help. Harm or injury may occur due to misuse. You can also learn how to operate this wheelchair with the aid of a medical professional.

# Safety Symbols

The symbols below can help you identify warnings, mandatory operation and prohibited operation of the electric wheelchair. Identifying and understanding them completely is very important.

	Read and follow the guidance of this manual.
$\triangle$	The safety warning sign or an indicator of a dangerous operation that may hurt you or others.
	The second class (auxiliary) equipment
<b>*</b>	The main application part
<b>(</b> )	When using the wheelchair please don't use mobile phones, walkie-talkies, laptops, tablets or other radio transmitters.
	Easy extrusion/grinding points
	Avoid the rain, snow, ice, salt and storage in damp areas, it should be maintained in a clean and dry condition.
	The product has passed the test of the electromagnetic/RF resistance to 20 V/M.
	The battery contains corrosive chemicals.
	Explosive
	Use only batteries that are identical in properties and specified for use in this wheelchair.
	Keep tools and other metal objects far away from positive and negative terminals to avoid short circuits.
	Flammable material: do not expose to flame or spark and other heat sources.
	Disposal and recycling: Dispose and recycle as required in your area.



# Specifications

Ci O	00 5 61 02 5
Size: Opened	98.5 x 61 x 93.5 cm
Size: Folded	61 x 29 x 81 cm
Weight Capacity	120 kgs (265 lbs)
Motor Type	Brushless DC Motor
Rated Power	180 W x 2 pcs
Input Power	24 VDC
Brake System	Intelligent Electromagnetic Brake
Battery Type	Lithium
Battery Capacity	6 AH x 2 pcs
Charging Time	6 to 8 hours
Battery Number	2
Input Power	AC 100-220 V, 50-60Hz
Output Power	24 DCV, 2 Amp
Caster Size	7" x 1.77" (180 mm x 45 mm)
Caster Type	PU Solid Tires
Wheel Size	10" x 1.96" (255 mm x 50 mm)
Wheel Type	PU Solid Tires
Weight (w/o batteries)	23.5 Kg (53 lbs)
Weight (with batteries)	26.5 Kg (58.5 lbs.)
Driving Range*	25 Km
Max Speed*	6 Km/h (3.75 mph)
Turning Radius	85 cm (33.5")
Highest Barrier Height	30 mm (1.2")

<sup>\*</sup>Range & Speed dependent on user weight, terrain, battery condition etc.

#### Wheelchair Structure



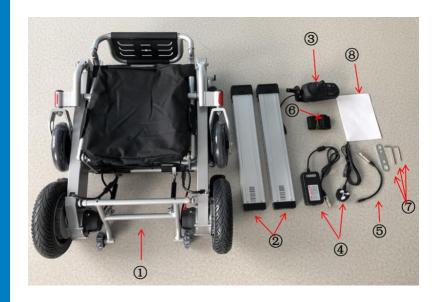
- 1) Backrest
- 2) Armrest
- 3) Joystick
- 4) Seat Cushion
- 5) Lithium Battery
- 6) Carry Bag
- 7) Footrest
- 8) Caster
- 9) Caster Fork
- 10) Rear Wheel
- 11) Fender
- 12) Controller





#### Wheelchair Parts List

Below is a list of the parts that wre included with your wheelchair.



- 1) Main Frame Assembly
- 2) Batteries
- 3) Joystick
- 4) Charger
- 5) Secondary Charger Cable
- 6) Seat Belt
- 7) Adjustment Tools
- 8) User Manual



Serial Number Location:

Bottom of the bar under the seat.

# Information

#### Electromagnetic Interference Information



Electromagnetic interference may cause impact on the electric wheelchair, so reading and understanding this manual is very important.

This chapter will describe the problems caused by the electromagnetic interference, so as to help the users to understand and take corresponding protective measures to avoid or minimize the risk. Some contents are about the accidents involved in some particular environment or conditions.

#### **Electromagnetic interference from radio waves**

Electric wheelchair is susceptible to electromagnetic interference, the electromagnetic energy usually is emitted from radio, television, radio transmitters, two-way radios, and mobile devices. This electromagnetic interference may cause the brakes out of control, and move itself, losing control; also, it could bring the control system of electric wheelchair permanent damage. So the ability of one product to resist electromagnetic interference is particularly important. Our electric wheelchair has passed the resistance strength of 20 V/m electromagnetic interference test, so, it has high anti-interference ability, and can resist some common radiation electromagnetic interference in the daily life.





# Caution

Although this electric wheelchair has anti-interference ability, the users should still abide by the following rules when using:

- 1. When power supply is connected, do not operate the radio such as transmitter, a receiver, citizens band (CB), and better not turn on the personal communication devices such as mobile phone, etc.
- 2. Try to avoid getting close to the radio source, such as radio, television, etc.
- 3. In the event of uncontrolled movement or stopping, the user should turn off the power supply immediately, then contact the manufacturer. Do not change any part of this electric wheelchair, including increasing or decreasing any accessories, in case of reducing its anti-jamming ability.

#### Safety Guidelines



#### Caution



Before using this electric wheelchair, please fasten the seat-belts you should keep tools and other metal objects from the positive or negative of the battery, if exposed to both ends, it will cause a short circuit and electric shock.

# **User Safety**

- 1. Health nursing staff should have been trained and have obtained the professional guidance of using.
- Before you use this electric wheelchair, please make sure you 2. have learned how to operate it.
- 3. Practice some operations with the help of nursing staff or caregiver, such as turning, surmounting obstacles, and brake, until you are independent and skilled in performing these operations.

- 4. Please don't try new activities if you are not able to confirm the safety.
- 5. See to it that you know the area where you are going, and check whether there is danger or not and master the method to avoid any potential risk.

#### **Cargiver Safety Information**

- 1. Cooperate with user, and listen to the opinions of user's doctors, nurses or physical therapists and make a plan which is most suitable for user's ability.
- 2. When pushing the electric wheelchair with hands, you have to open the electromagnetic brake switch, to ensure that the wheelchair has been put in a manual mode.
- 3. When pushing this wheelchair, you must use the push handle in the back. It can provide a safe and reliable force to prevent the wheelchair from overturning backwards when pushing.
- 4. Check the push handle, make it sure that it is secure.
  - 4.1 To prevent injuring the user's back, you should ensure the user is sitting correctly. When lifting or support the user, or the tilting the electric wheelchair, bend your knees a bit and keep your back straight.
  - 4.2 Before each use, tell the user what you would like to do, explain the reason, and what you want him to do at the same time. This will let the user make preparations and reduce the risk of accidental injury.
  - 4.3 When encountering slopes ensure the user goes up and down the slope and never across the slope. The chair can tip over sideways if crossing too steep a slope.
- 5. The electric wheelchair should go down slopes slowly to prevent accidents that may injure to the user or damage to the electric wheelchair.





#### Joystick Use

You need to install the controller as per picture (A1) to reduce the risk of collision or dropping off.



- A1
- 1. Check and adjust the settings every six months or more often if needed.
- 2. If you find any setting that has changed some functions, please contact the supplier.
  - Control the joystick carefully
  - Keep your body upright
  - Avoid hitting any objects during the operation
- 1. When the wheelchair stops, even in a short period time, please ensure that the power is off. This can prevent:
- You or others causing unexpected movement by accidentally touching the joystick.
- Unexpected sources of electromagnetic interference affecting the wheelchair.



A2

2. Ensure that others, including someone helping you (For example, the shop assistant) know how to use the joystick, and know that electric wheelchair can't be touched.

#### **Operating Environment**

This wheelchair should not be used and placed in heavy rain, snow or ice conditions.

Contact with water or excessive moisture can cause electrical failure.
 Frame, motor and other electric wheelchair parts are not waterproof-designed, it may develop internal rust or corrosion.

# In order to prevent the malfunction of electric wheelchair, the following operations are strictly prohibited.

- Try to avoid water (such as heavy rain) or placed and used in very wet environments.
- Don't use this wheelchair in the bath, sauna or during swimming.
- Don't use the wheelchair too close to water such as rivers, lakes, etc.
- Please make sure that the battery cover is closed.
- If the joystick is broken, please replace it as soon as you can.
- Make sure that all the electrical connections are secure.
- Spraying water on the wheelchair is prohibited. If the wheelchair has been wet, take out the battery as soon as possible, try to dry the chair and ensure that the battery is dry before being used again.
- 2. If you must use it on wet or slippery surface, please take care and move forward slowly.
- You must make sure that it is safe to do so.
- If one or two main wheels lose traction, you must stop immediately to prevent losing control of the wheelchair.
- If there is snow, ice, water or oil on the slope or ramp, avoid the area and find another way.
- If you don't know whether it is safe to move or not, please ask for help.
- 3. Please turn off power supply when not using, store it in a dry and clean place after fully charged.





#### **Applicable Terrains**

- The electric wheelchair is only suitable for solid surfaces such as concrete, asphalt, hard pack and indoor floor surfaces.
- Don't use in the sand or coarse dirt of rugged terrains.
   Damage to wheels, bearings, shaft or motor parts may occur and fasteners may loosen.

#### **Road Driving**



#### Caution

In most countries and regions, power wheelchair on public roads is illegal. People in wheelchairs are pedestrians.

The user must realize that driving wheelchairs on the road or in the parking lots is dangerous.

For easy recognition in the night, a reflective sticker is pasted on the electric wheelchair (figure A3).

The user also can wear the reflective function clothes and add a bicycle flag to the wheelchair.



Sticker A3

When confronting other vehicles, please ensure that the driver has noticed you. Before you continue to operate your wheelchair, make eye contact with the driver, and let the driver know your intention. Wait until you are sure that it is safe to proceed.

#### **Balance While Driving**

When driving, the electric wheelchair should be kept in balance and have a stable of the centre of gravity in order to avoid being tipped over.

The factors that influence the balance and the centre of gravity are:

- 1. The height and angle of the seat.
- 2. The position and posture of the user or change of weight distribution.
- 3. The ramp or slope gradient.
- 4. Use of a backpack or other items that change the weight distribution.
- 5. If you need to modify or adjust the electric wheelchair's frame the centre of gravity may be affected. **Modification, without the manufacturer's approval, will void the warranty.**

# Getting Off and On the Wheelchair



# Caution

Careful attention must be observed when accessing the electric wheelchair. It requires a certain amount of balance and flexibility to do so unaided.

When you are ready to seat yourself on the wheelchair, you must turn off the power supply. Otherwise, when you touch the joystick, it may lead to the unexpected movement.

Ensure that the motor is locked, and the wheelchair won't move on its own.

Learn the safest way of moving your body from your healthcare professional and know how to locate your body and how to support yourself in the process of transferring.





Let others help you until you are certain that you can transfer to and from the wheelchair safely by yourself.

- 1. Move your electric wheelchair as close as possible to the place where you can seat yourself stably.
- 2. Rotate the front wheels that make them as front as possible.
- 3. Be careful of the pedal, and fold it up as far as possible (as shown in figure B2)



Flip up Armrest



**B1** 

B<sub>2</sub>

Don't stand on the footrest, otherwise it will be damaged.

Be careful not to scratch your leg or trip over footplate.

4. Ensure that the armrest and footrest will not block the user during transfer to the wheelchair (B1)

#### Leaning and Reaching

Reaching out with hands or leaning the body will affect the centre of gravity of the wheelchair. If not done correctly, it may cause you to fall or tip over.

Several points below can reduce the risk of injury or the damage to the electric wheelchair.

- 1. When leaning do not lean far enough to lose contact with the backrest and cushion with your body.
- 2. When reaching do not lean off the seat of the wheelchair. Move the chair closer to the object reaching or use a reacher.
- 3. Do not reach forward to the floor between the knees.
- 4. Do not lean on backrest.
- 5. Always position the wheelchair as close as possible to the object reaching for.
- 6. Rotating the casters to the forward position will increase forward stability.





#### **Obstacles**

Obstacles such as door thresholds, small curbs and ridges can be a problem for wheelchairs. Always approach an obstacle straight on at low speed. Both casters should contact the obstacle at the same time.





#### Ramps and Slopes

Always drive straight up and down a ramp. Crossing a slope will throw the center of gravity off and could cause the chair to tip over sideways.

When travelling down a slope or ramp the user should try to lean their weight backwards and when climbing a slope or ramp they should lean forward a bit.

- 1. When the gradient is more than 12°, please do not use the wheelchair.
- 2. Do not use on slippery slopes with ice, snow, oil, etc.

#### **Driving Backwards**

The wheelchair can be driven backwards but its speed will be reduced.

Ensure the area around the wheelchair is clear of obstacles, people and pets before driving moving and be extra careful.

#### **Load Capacity**

Do not exceed the maximum load of 120 kg (256 LBS).

The backrest's load capacity is less than 75 kg.

In any case, please don't do any weight training on this wheelchair, and make sure the loaded total weight is below the wheelchair maximum load capacity.

When the load exceeds the maximum load capacity, damages may be caused to the seat, frame, fasteners, folding, etc. or otherwise damage the wheelchair.

Damage caused by overloading are not covered under the warranty.

#### Stairs and Steps

This wheelchair is not designed to be used on stairways, steps or escalators.

Do not try to negotiate steps while driving the wheelchair.

Do not try to carry the wheelchair up or down stairs with the user in the seat.

To traverse a stairway or escalator, the user must be removed from the wheelchair and assisted up the stairs separately from the wheelchair which should be folded and carried.

In all cases, use an elevator rather than a stairway or escalator, if available.

#### Seat Belt Use

The seat belt is designed to hold the user securely in the seat while driving or sitting still. It is not designed to protect the user in a vehicle in the case of an accident.

The seat belt should be adjusted to secure the user back in the seat. With slide the seat belt strap through the adjustment bracket until it is the proper length to fit snugly on the user when sitting back in the seat.

If any damage is noticed to the belt or clasp discontinue use of the wheelchair until it can be repaired or replaced as needed.

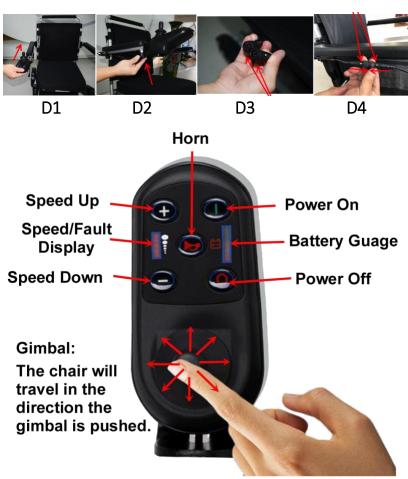




#### **Joystick Installation**

The joystick can be mounted on either the right or left armrest.

- Insert the joystick into the armrest tube hole. D1
- 2. Tighten the knob located under the armrest to secure the joystick in place. D2
- 3. Align the white dots on the socket and plug, insert the plug ensuring the pins line up with the holes in the socket. D3
- 4. Secure the socket and plug by twisting the locking ring. D4



The further the gimbal is pushed the faster the wheelchair will respond. A very gentle touch will allow the wheelchair to move very slowly.

#### **Driving Tips**

Do not turn quickly at high speed and try to avoid stopping quickly to avoid the wheelchair tipping over.

The wheelchair will drive smoothly if the joystick gimbal is handled gently.

Push the gimbal in the direction you wish to travel and the chair will move proportionally to the distance you push the gimbal.

To stop the wheelchair simply let go of the gimbal and the chair will automatically stop moving.

Speed can be adjusted with pressure on the gimbal.

Maximum speed can be limited with the speed up and speed down buttons.

#### Driving

- To drive the wheelchair ensure the wheelchair is fully unfolded and you are seated properly with your seat belt on.
- 2) Turn on power with the "Power On" button.
- 3) Adjust the speed to the lowest setting.
- 4) Push the joystick gimbal in the direction you want to go.
- 5) Release the gimbal to stop.



Drive slowly when first used and gradually increase your speed as you are more accustomed to how the wheelchair handles.

#### Horn button

Press thee horn button to sound the horn.





#### **Brake Instructions**



#### Caution

After any adjustment, repair or maintenance, please make sure all accessories parts are installed securely before using, otherwise injury or damage may occur.

#### **Electromagnetic Brakes**

Please do not engage or disengage the electromagnetic brakes when the power is on.

The chair can be pushed manually when the electromagnetic brakes are disengaged but cannot be driven.

When the electromagnetic brakes are engaged the wheelchair can be driven but not pushed manually. The brakes are controlled electronically by the gimbal when they are engaged.

To engage or disengage the brakes the red lever on both motors needs to be set. Forward for engaged, backwards for disengaged.





Left brake lever (similar lever on the right motor)

#### **Battery Instructions**





Don't use the batteries with different capacity or and different types. Replace the both batteries together if equipped with two; don't mix up the old and new batteries.



Do not allow the battery terminals to be shorted out or connected in any way.



Don't store batteries close to flammable materials. Don't expose to heat sources such as fires or sparks, etc. Don't transport the battery with flammable or combustible materials together.



There are corrosive chemicals inside batteries, disassembling the battery is prohibited.



To avoid explosion do not short circuit batteries or expose batteries to fire.



#### **Cautions**

- Don't use pliers or cable wire to connect the ends of battery directly.
- Don't use wheelchair when it is charging.
- Don't use non-standard power supply (for example: generator or inverter), even if the voltage and frequency seem to meet the requirements.





- Take measures to protect the power cords from damage.
- Keep the children and pets away from the power wire and don't let them bite and chew it. When unplugging the power cord, please hold the plug.
- If the breaker or fuse repeatedly trips when charging, please unplug the charger immediately and contact the dealer or a professional technical personnel.
- In this guide, all the warranty and performance are referring to lithium batteries.
- Don't smoke or ignite flames near the battery.
- Do not use the battery in extreme hot or cold environments.

#### **Battery Charging Tips**

- Before the new battery packs are first used, they must be fully charged (about 24 hours), make sure the battery is fully activated.
- 2. After the initial charge let the battery run down completely before recharging.
- 3. Check battery charge before using the wheelchair. Should recharging be required it will take 6 to 8 hours to fully recharge. The charger light will turn green when full.
- 4. Charge the battery(s) after each use. If the chair is unused for long periods recharge once every 2 months to maintain the batteries.
- Using improper batteries (incorrect voltage, capacity, etc.) may damage the wheelchair or charger and void the warranty.

## Charging the Battery

- Use available standard alternating current (AC 110-220 V, 50-60 Hz) for charging, the charging socket is in front/lower section of the joystick.
- Make sure that the power is off before charging.
- Insert the charging plug of the charger into the charging port in the lower front of the joystick to charge on the chair. To charge the batteries off-chair plug the charger directly into the battery.
- Plug the charge into the wall socket and the red light will glow to show it's charging.
- After the charger indicator light change from red to green, keep charging for 30 minutes, so as to ensure a full charge.
   Unplug the external power supply socket of the charger first, then unplug the socket out of the joystick.
- When two batteries are installed, they are connected, they output power at same time and run out at same time. When charged through the joystick they will charge at the same time.
- Do not use the battery in extreme hot or cold environments.











#### **Over Discharge Protection**

When the battery charge has run down, the over discharge protection device will protect the battery from excessive discharge. When the over discharge protection device is activated, the maximum speed of the chair will be reduced.

#### **Over Current Protection**

The electric wheelchair is also equipped with an over-current protection device. If the motor is drawing too much current, the electronic fuse will close the current to prevent the motor from damage.

If encountered with some malfunction when driving, the overcurrent protection device will be started, the driving wheels will stop rotating. In this process, the fuse will cut off the current, prevent the motor being damaged by overheating. (See the control panel section)

#### Installing/Removing Batteries

Ensure the wheelchair power is off before removing or installing the battery(s).

To remove the battery, press the button on the battery slot and pull out of the side frame.





To install the battery, slide the battery into the battery tube ensuring the lock button engages and the battery connector connects properly.

## Folding and Unfolding

The weight of the wheelchair (with battery) is 26 kg (57 lb.), to avoid injury, lift with your legs.

#### **Folding**

- Shut off the power, loosen the lock knob, remove the joystick) and stow in the storage bag under the seat.
- 2. Remove the seat cushion.
- 3. Flip up armrests backward.
- 4. Pull steel release wire under the backrest.
- 5. Push the backrest forward to the caster tube.
- 6. Lift the connecting rod to make it parallel with the support bar and the back of motor frame.















#### **Unfolding**

- 1. Flip up both armrests forward, then lift up top handle and lock it in place.
- 2. Flip up push handle.
- 3. Grasp the footrest and back frame and pull the wheelchair frame open ensuring the locking pin engages and the frame will not fold.
- 4. Install the seat cushion and make sure that the felt is aligned and mated.
- 5. Adjust the front casters to the appropriate angle.
- 6. Install the joystick (see the joystick section).



# Troubleshooting

There is a diagnostic indicator in the joystick. When the light is green, it means the wheelchair has no problem. If there is a problem, it will begin flickering.

If the indicator light indicates, there is something wrong, turn off the power and turn on it again. If after turning on again, the malfunction is still showing, please refer to the diagnosis information to help you find the possible problems and corresponding solutions.

If the above methods still can't help you troubleshoot the problem, please contact a dealer.

#### **Diagnosis System**

When the LED light flickers, it means that there is something wrong with the wheelchair. The malfunction may come from the motor, brake, battery, a wire connection or the wheelchair itself.





The type of the problem can be classified according to the diagnosis code. When there is an error the LED will flash multiple times, pause, then flicker again. The number of flashes between pauses will indicate the nature of the problem.

Depending on the nature of the problem the wheelchair may be disabled for safety and to prevent damage.

#### Flash Codes

Diagnostic	Problem	Solutions
Code		
1 Slow flash	Hall malfunction of the left motor	-Check connections or hall component
2 Slow flashes	Hall malfunction of the right motor	-Check connections or hall component
3 Slow flashes	Malfunction of battery or	-Try to recharge
	charger	-Check for loose wires
		-Battery or charger may
		need replacing
4 Slow flashes	Malfunction of left	-Check for loose wires
	motor	
5 Slow flashes	Malfunction of right	-Check for loose wires
C CL CL L	motor	CI I C I
6 Slow flashes	Malfunction of left	-Check for loose wires
	brake	-Check left brake
7 Slow flashes	Malfunction of right	-Check for loose wires
	brake	-Check right brake
8 Slow flashes	Controller error	-Contact your dealer
9 Slow flashes	Communication error	-Check for loose wires
		& connections
4 Fast flashes	Left motor over current	-Release rocker
5 Fast flashes	Right motor over current	-Release rocker

#### **Limited Warranty**

Part Name Warranty Length

Frame 5 Years
Motor 2 Years
Battery 1 Year
Joystick 1 Year
Other items 1 Year
Wear Items Excluded

Any alterations, misuse, abuse, or accidental damage voids this warranty. EZee Life $^{\text{TM}}$  reserves the right to replace or repair any part that has become defective.

The warranty does not extend to consequential costs resulting from the fault or defect of the product: freight and travel costs, loss of earnings, or other expenses that one may incur.

Warranty is valid for the original purchaser only and the original receipt must be presented before any warranty options are considered. Please also be prepared to provide the date of purchase and serial number.

#### Imported / Distributed by:

HPU Medical Wholesale 34 Futurity Gate, Unit # 15 Concord Ontario L4K 1S6

GTA: 416-739-1267 Toll Free: 888-634-5808 Fax: 416-739-7171