

Owner's Manual - EasyFold Scooter



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## **WELCOME**

#### Dear Users.

First and foremost, thank you very much for choosing an EasyFold Scooter! You will not be disappointed. With this scooter, you will receive the high quality of customer service that you have come to expect from EasyFold Canada.

This manual is to assist you in operating and maintaining your EasyFold Scooter. Please read it entirely, prior to operation.

Please fully read and understand all sections of this manual before operating your EasyFold Scooter. After reading the manual, if you have any questions or concerns, please feel free to contact us.

Do not attempt to charge or operate this vehicle until you have attained adequate knowledge of its features and controls. Failure to operate unit safely could result in serious injury or death and/or damage to the vehicle and/or denial of warranty coverage.

In our constant efforts to improve and upgrade our products, your EasyFold Scooter may incorporate updated components and/or features that are not specifically covered by this version of the Owner's Manual. If you are not clear on how to operate or make use of any components or features, contact EasyFold Canada for clarification. Product design, features, and specifications are subject to change without notice.

We strongly believe that your new EasyFold Scooter will provide with the independence and convenience that you have been looking for!

#### EasyFold Canada

Located in London, Ontario 1-855-444-8488 cs@easyfold.ca

## How to Read this Manual:

A "WARNING!" label indicates that failure to abide by the following instructions may result in serious personal injury or death to the rider or others, as well as damage to equipment.

A "CAUTION!" label indicates that failure to abide by the following instructions may result in damage to your EasyFold and related equipment and/or legal consequences and/or fines and/or denial of warranty coverage.

A "Note:" label indicates information that is especially useful but does not have safety consequences.

# **SCOOTER COMPONENTS**



- A Digital Display
- B Telescopic Handle
- C Tiller Height Adjustment Lock
- Angle Adjustable Tiller
- Foot Rest
- F Front Wheel x2
- G Front Frame

- H Folding Handrail
- Seat Cushion
- J Backrest
- K Seat Support Frame
- L Key Ignition
- M Anti-tip Wheel x2
- N Rear Wheel x2

- Lithium Battery x2
- P Charging Port
- Q Electric Switch
- R Support Wheel

# **SHIPPING CONTENTS**

Upon receipt of your EasyFold Scooter, please open the packaging to ensure the following is included:













# **SPECIFICATIONS**

Size (Unfolded) 38.5" × 19.3" × 31.5" (L 980 W 490 H 800 mm)

Size (Folded) 15.3" × 19.2" × 28.3" (L 390 W 490 H 720 mm)

**Front Wheel** 6.5" × 2" (163 x 50 mm)

**Rear Wheel**  $7.5" \times 2.15" (190 \times 54 mm)$ 

**Maximum Speed** 3.7 mph (6 kph)

0~12° Gradient

**Battery Weight** 

**Maximum Carrying Capacity** 

472.4" (1200 mm) **Turning Radius** 

61 lbs (without battery) Weight

3 lbs

**Brake System** Intelligent, Regenerative and Electromagnetic

12.5 miles or 20 km (on a single charge) **Endurance Range** 

**Drive System** S-drive 45 A, PG

275 lbs

17" (43 mm) **Seat Width** 

22" (56 mm) from ground **Seat Height** 

Motor 24 V 120 W

24 V 2 A **Battery Charger** 

## MAIN OPERATIONAL FUNCTIONS

#### Handlebar

The handlebar includes a control panel (with LCD display of battery, speedometer, total driving distance and temperature), key switch, speed control knob, horn, delta handle, and a directional control lever.



### **Digital Display**



**CAUTION!** A humid environment can significantly affect the operational function of the EasyFold Scooter. Staying in low moisture areas before operating or during operating is strongly recommended.

### **Power Switch**

- a. The power is on after the key is inserted and turned clockwise.
- b. Power is off when key is turned counterclockwise. Always turn the power off when stationary.

**WARNING!** Sudden stop of scooters occur when power is switched off during operation.



#### **Speed Controller**



Driving speed is adjusted using the speed control knob, from 0 km/h to 6 km/h. Turn the knob to very left for 0 km/h and to the very right to reach the maximum speed.

**WARNING!** During turning or reversing, it is recommended to keep speed at a lower level to ensure safety.

# MAIN OPERATIONAL FUNCTIONS

#### **LCD Display**

Battery Power, Voltage, Mileage, Speed and Climate are shown on LCD screen while power is turned on.



#### **Direction Control Lever**



Forward and backward control is under Control Lever.

- a. Gently hold delta handle with both hands.
- EasyFold Scooter will move forward by pulling lever on the right with fingers.
- c. EasyFold Scooter will reverse by pulling lever on the left with fingers.
- d. During reversal, there will be a beeping noise.
- e. When released and brake is engaged, the control lever will move automatically to center position.



#### Horn

By pressing the horn button, a beep noise will occur.

**Note:** Using the horn during operation will alert others of your presence and can help ensure your own safety and the safety of others.



#### **Telescopic Handle**

Release tiller height adjustment lock to adjust length of handle, push back the lock when desired length is reached.





# MAIN OPERATIONAL FUNCTIONS

#### Controller

Located under rear cover which transfers the signal from control panel to motor, brake and hub.

**CAUTION!** Keep controller in a low moisture environment and make sure it is dry before operation.

#### **Brake Release Lever**

Move the lever to switch between freewheel or electric mode.

#### **Electric Control Mode**

Pull back the brake lever to **OFF** for electric control.

#### Freewheel Mode

Push forward the brake lever to **ON** for freewheel model.

#### **Remote Control**





## **FOLDING AND UNFOLDING**

The EasyFold Scooter is designed with three different ways of folding and unfolding depending on the preference of its user. These three options are Automatic, Electric Switch and Manual. Prior to attempting, please read through instructions for all three ways to decide which is right for you.

#### Automatic:

#### **Automatic Fold**

- A. Ensure EasyFold Scooter is turned off and will not be impacted by any person, or object during folding process.
- B. Hold button of remote control and do not let go.
- C. Automatic fold will be completed by EasyFold Scooter.

#### **Automatic Unfold**

- A. Ensure EasyFold Scooter is turned off and will not be impacted by any person, or object during unfolding process.
- B. Hold **b** button of remote control and do not let go.
- C. Automatic unfold will be completed by EasyFold Scooter.
- D. Release button when EasyFold Scooter is completely unfolded.







#### **Electric Switch:**

The location of this switch is on the back of EasyFold Scooter. Switch up (-) to fold scooter, down (=) to unfold scooter, and put switch in middle position (o) to pause either process. Switch will remain in middle position at all times, if not folding or unfolding.



- Fold
- Pause
- = Unfold







# **FOLDING AND UNFOLDING**

#### Manual:

#### Manual Fold:

- A. Ensure EasyFold Scooter is turned off and will not be impacted by any person or object during folding process.
- B. Grab the red folding handrail located in the middle of the deck, in between the footrest and the battery.
- C. Pull forward to unlock the scooter.
- D. Once unlocked, continue to collapse the scooter inward by grabbing the front of the scooter with one hand and placing the other hand behind the seat or at the rear support wheels.
- E. Push together until the scooter locks together.

#### **Manual Unfold:**

- A. Ensure EasyFold Scooter is turned off and will not be impacted by any person or object during unfolding process.
- B. Grab the red folding handrail located between the base of the seat and the tiller.
- C. Pull forward to unlock the scooter.
- D. Pull the scooter apart from the tiller and the seat.
- E. Push downwards on the middle of the deck until the scooter locks into place.

WARNING! If any body parts or objects stay in joints of scooter during folding and unfolding this will cause bodily harm and possible damage to the EasyFold Scooter.

WARNING! Do not directly try to fold and unfold EasyFold Scooter without opening the release lever.







## **BATTERY AND CHARGING**

Your EasyFold Scooter is designed to be low maintenance with long-term use of the Lithium Ion Battery. A 29.4 V 2 A charger should be used with the lithium ion battery.

For optimal battery use:

- Fully charge the battery for more than 12 hours.
- Charge the battery at least once every three months.
- If your EasyFold Scooter will not be used for a longer period of time, charge the battery until full and remove from scooter.
- You will still need to charge your scooter, even if you aren't using it regularly.

#### **Charging Steps:**

- 1. Power off the scooter.
- 2. Open the cover of charger cap.
- 3. Line up pins to ensure there is no damage to the port.
- 4. Then insert the charger plug into the charge port of scooter.







WARNING! Make sure the charger plug is fully plugged in the charging port of scooter.

5. Connect the A/C power plug of charger to outlet.

**Note** Check the light on charger; orange means charging in progress, green means battery is fully charged.

6. Turn off power charger when battery is fully charged. Disconnect AC power source before disconnecting the charging plug from scooter.

**Note** Disconnecting AC power source after full charge of battery will increase life expectancy of Lithium Ion Battery.

Note Full charge time is approximately 8-14 hours.

### **Charge Battery Directly**

The battery can be charged directly with house outlet; simple connect the terminal of battery with power source to charge.





# **BATTERY AND CHARGING**

#### **General Battery and Charging Information**

There is a large input of current from charge to battery at a low voltage level, and a small current given from charger when battery is nearly full. Almost zero or little current given to battery and continuously charging would not cause over charge, however, it is suggested that you do not charge your battery for over 24 hours.

#### **Charger Indicator Lights**

Two LED lights are on charger. Red stands for power connection, and the other light is a charging status indicator, when charging it will be orange and when it is fully charged, it will be green. If the red light continues after the power source is disconnected, there could be something wrong.

#### Can I use any kind of charger?

The charger provided to you from EasyFold Canada is designed for the battery of the scooter.

**CAUTION!** It is strongly suggested to use only this charger from the original manufacturer. Other chargers can void warranty and cause irreparable damage to unit.

### Frequency of Charging

The frequency of charging depends on how often you operate your EasyFold Scooter.

Charge scooter once battery indicators are on last 25%. If scooter is used infrequently (once per week), charge scooter once per week. For optimal battery life, charge battery every 2 to 3 weeks when not in use.

### **How to Achieve Maximum Driving Distance**

- A. Ensure the EasyFold Scooter is fully charged before driving.
- B. When possible, refrain from going up hills or over soft terrain.
- C. Carry only necessities in order to reduce weight.
- D. Drive smoothly without intermittent braking.
- E. Do no exceed weight capacity.

**WARNING!** Do NOT take apart battery. **WARNING!** Do NOT get battery wet.

**CAUTION!** Misuse of battery can cause damage and result in a voided warranty.

# **BATTERY SAFETY**

High temperature can cause battery power loss while low temperature can lead to a longer charging duration. Once returned to a regular environment, it may take a few days for the battery to adapt.

When you first receive your EasyFold Scooter, you will have to 'train' the battery in order to achieve optimal battery performance. Follow the steps outlined below to do so.

- 1. Once you have received your EasyFold Scooter, drive unit until battery is low, then charge to full.
- 2. Repeat 4 to 5 times.
- 3. After 4-5 times of driving with a full charge, the battery performance will reach 100%.

**CAUTION!** Maintain a low speed if you are a first-time user.

#### **Battery Life**

A fully charged battery will ensure your EasyFold Scooter is performing well and will provide you with optimal battery life. Overcharging, or conversely, seldomly charging the battery will decrease battery life and could lead to damage.

### Storage of EasyFold Scooter and Battery

If you will not be using the EasyFold Scooter for a longer period of time, follow these instructions for storage:

- A. Charge battery to 100%.
- B. Disconnect battery from EasyFold Scooter.
- C. Keep scooter and battery separate and under dry and suitable temperature.
- D. Avoid dramatic temperature variations during storage.

**WARNING!** If battery becomes frozen, keep under warmer conditions for 2-4 days until thawed. Do not charge during this time. If batteries do become frozen, damage is extremely likely to have occurred.

# **OPERATIONAL INSTRUCTIONS**

#### **Prior to Operating:**

- A. Familiarize yourself with the route you are planning on taking. Including the possible crowd size, terrain, and potential obstacles.
- B. Make sure the battery is fully charged.
- C. Ensure key is fully inserted and the brake lever switch is pushed.
- D. Sound the horn to ensure it is in working order.
- E. Always keep away from uneven and sloppy terrain.
- F. Always steer with both hands on the handlebar.

### While Operating:

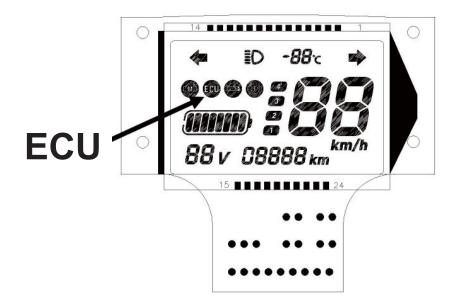
- A. Ensure EasyFold Scooter is fully unfolded.
- B. Check that the seat is at the right position and adjust tiller based on comfort level.
- C. Turn on power after sitting properly and with hands on handlebar.
- D. Gently push directional control lever with right thumb.
- E. The brake will release automatically, and the EasyFold Scooter will move forward.

  WARNING! Do not push control lever or speed knob too fast as a gradual increase is recommended to ensure safety.
- F. To turn left, turn the handlebar to the left. To turn right, turn handlebar to the right.
- G. Scooter will move straight forward by keeping handle in the center position.
- H. The brake is automatically engaged when both the control lever is in the center position and when the scooter has stopped.

### **After Operating:**

- A. Make sure scooter is fully stopped.
- B. Turn power off with key or turn the rocker switch to "O" position.
- C. Carefully get off the scooter. Do not use tiller to support yourself.
- D. Fold scooter with your preferred method of folding.

# TROUBLESHOOTING AND MAINTENANCE



The control module contains programs for identifying problem points and troubleshooting.

When the diagnostic controls detect a problem or error, the ECU on the LCD will illuminate. The fault display shows that the ECU shines continuously in the form of a flash until the fault is eliminated. Example: The number of flashes is "1-9". Users can try to solve their problem as follows.

If the problem persists, please contact EasyFold Canada.

Number of flashes	Fault description	Possible reason
1	Low battery voltage or battery connection problem	Check the battery connection.  If there is no problem with the connection, try charging the battery.
2	There is a problem with the motor connection	Check all connections between the motor and the controller
7	Joystick failure	Before turning on the power of the scooter, make sure the joystick is in the parking position.
9	Brake lever failure	Check the connection between the brake lever and the motor to ensure that the controller is securely connected.

# TROUBLESHOOTING AND MAINTENANCE

### **Insufficient Battery or Decreased Battery Performance**

The decline issue of battery capacity or performance can usually be fixed with the following:

- A. Inspect whether key is fully inserted and at the ON position.
- B. Make sure the battery is fully charged.
- C. Increase the charging cycle and time when battery capacity is dropped.
- D. After going through the above steps without any improvement, a capacity test on battery is required.

Though the EasyFold Scooter is designed to be service free, the following must be checked and maintained.

### **Connection of Battery**

- A. Check if there is any corrosion and the connection is sound.
- B. Make sure the battery is kept flat inside battery holder.
- C. Any damaged connections must be repaired or replaced with new parts.

### Bearings, Motor and Transmission

Always keep electric component in dry condition, especially control panel, and battery charger.

Dry any components which get moist before driving the scooter.

# WARRANTY INFORMATION

Please notify us immediately if you are having trouble with your EasyFold Scooter, or if the wheelchair has stopped functioning completely. We will provide technical assistance to help you troubleshoot the issue. If we cannot resolve the issue through technical support, we will ship you any required replacement parts still under warranty. We will notify you if a part needed to fix the issue is no longer covered under warranty.

Replacement parts will be shipped out through Canada Post Courier.

Any service and labor fees to replace parts under warranty must be paid by the user.

Due to its innovative design, most warranty parts can be easily replaced by the customer, a family member, relative or friend using the tool kit that comes with your chair.

The customer is responsible for any fees or charges (both labour and/or service) occurring from having replacement parts swapped out on the EasyFold Scooter. Each EasyFold Scooter comes with a tool kit. Most replacement parts can easily be swapped out using the tool kit by the EasyFold customer, or their friend or family members.

The warranty only covers NON-DELIBERATE Damage. Any damage caused by improper usage, or normal wear and tear is not covered. Warranty is non-transferable.

#### 3 Year Warranty

Main Frame

#### 1 Year Warranty

Motor Control System (CPU) 6 Months Warranty Battery/Cables

#### 90 Day Limited Warranty

On the wearing parts, such as the tires, tiller controls, plastic shrouds, footrest, anti-tip wheels.

#### **30 Day Limited Warranty**

Soft goods, such as seat cushion and backrest padding.