

Folding Power Chair

OWNER'S MANUAL



Preface

Please read the user manual carefully before taking the product into use.

- This manual contains operations, assembly methods, and simple faults solutions.
- This manual contains wheelchair maintenance and self checking methods, please put it in proper place.
- Please provide this manual for reference when other people are going to use this wheelchair.
- The annotations and illustrations in this manual might be slightly different with the real parts due to quality improvement or changing design.
- Contact with your dealer if there is any ambiguity or question.
- Improper use of any vehicle may lead to injury. Unsafe driving could harm yourselves and others.

- The electric wheelchair is intended to comfortably transport persons with walking difficulties or no walking abilities.
- This electric wheelchair is designed to transport 1 person only.

Symbols used in this manual



Warning symbol

Follow the instructions next to this symbol closely. Not paying careful attention to these instructions could result in physical injury or damage to the wheelchair or the environment.

Construction



Max Speed: 18 km/h

Travel Mileage: 20 km
(per charge range)

Net Weight: 42 kg
(without battery box)

Gross Weight: 66 kg
(with battery box)

Specifications

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Frame	Steel
Controller	PG-50A
Motor	LINIX (2)
Battery	Lead acid 2x12V
Charger	HP 24V
Max speed	8 km/h
Travel mileage	20 km
Gradeability	8°
Casters	2" x 8" solid
Rear Wheels	12.5" solid
Armrests	Flip-back
Footrests	Swing-away
Seat	JAY® BasicPRO®
Optional	Anti-tips

Product Performance

This series of electric wheelchairs are battery powered and motor driven. Users control direction and adjust speed via joystick controller. It is suitable for use at low speed on smooth surfaces and small slopes.

Application Range

The Felix power chair is for disabled and elderly people (less than 120kg) and used as a mobility device. Suitable for outdoor middle distance use. Do not use on roads.

Safety

General Driving Precautions

- Keep your hands on the armrest to control the wheelchair.
- Practice driving in a safe place, to master principle of moving forward, stopping and turning circles.
- Before driving near the road, please be accompanied by caregivers and confirm it is safe.
- Follow pedestrian traffic rules. Do not regard yourself as vehicle driver.
- Please drive on the sidewalk and crosswalk. Do not drive on vehicle lane.
- Avoid driving in zig-zags and sharp turns
- Maintain pneumatic tire pressure properly. Abnormal tire pressure may cause unsteady driving.

Avoid Driving in These Conditions

- Bad weather, such as rain, heavy fog, strong wind, snow, etc.
- If wheelchair is used in wet conditions, wipe off the water immediately.

- Rough surface conditions, such as mud, dirt, sand road, gravel, etc.
- Crowded areas.
- Near ditches, ponds, etc.
- Railroad crossings
- The Felix power chair is only for personal use. Do not carry people or goods

Precautions for Hills and Slopes

- Avoid steep hills, slopes, high steps, channels etc.
- Avoid slopes steeper than 9 degrees. Use care when operating on any slope.
- Avoid stopping while moving uphill or downhill.
- Slow down during downhill
- Avoid driving across the slope.
- Avoid stairs and high curbs.



Do not set the wheelchair to manual mode during uphill or downhill

If the wheelchair malfunctions at a traffic crossing, immediately ask a passerby for help. Set wheelchair to manual mode to get to a safe place immediately.

Precautions for Caregivers

- Caregivers should confirm that the user's feet are on the footrests' proper position and ensure clothes do not make contact with the wheels.
- Caregivers should push the wheelchair to stay safe on a steep or long slope.

Repair and Modifications

If repair or modification is necessary, please contact your dealer. Do not modify by yourself, it may lead to accident or malfunction.

Protect Environment

In order to protect environment, do not discard battery. Please contact your local dealer for replacement of new battery.

Storage

Do not store wheelchair in a damp environment. If wheelchair gets wet in the rain, wipe the water immediately.



Do not replace parts with random materials.

Do not add weight in case to cause imbalance.

Do not use other vehicle to pull or push the wheelchair with someone in the wheelchair.

If there is an abnormal sound, contact service immediately.

Protection from Electromagnetic Interference

Keep wheelchair away from strong magnetic fields and heavy electrical equipment, such as radio, TV and cell towers. Pay attention to sources of electromagnetic interference nearby, and stay far away from those sources to avoid electromagnetic interference.

Adjustment

Folding the Wheelchair

First step: Take off the battery and unplug the red plug (figure 1.a);
Second step: Lift up the cushion strongly by hands, fold wheelchair (figure 1.b).



Figure 1.a



Figure 1.b

Connect Wire Line

Connect the battery box's plug to controller's plug (figure 2).



Figure 2

Adjustment of Joystick

Adjust the controller to perfect position by screwing the nut counterclockwise (figure 3). Screw tight the nut when adjustment is done.



Figure 3

Adjustment of Anti-tips

Adjust anti-tip angle by unscrewing the nut (figure 5).



Figure 5

Assemble/Disassemble the Footrest

Install the footrest into the frame tube, and move from outside to medial to the fixed position; For disassemble, push the plastic part to outside then lift up footrest (figure 4).



Figure 4

Switch between Manual / Electric



When changing from manual mode to electric mode, please confirm both side clutches are inside the grooves. Any side clutch is not fully into groove, may cause danger of rollover.

Manual mode: turn off power and stop the wheelchair, spin the adjusting levers, make it point to the yellow label. (figure 6.a)

Electric mode: spin the adjusting levers, and make it point to the green label. (figure 6.b)



Figure 6.a



Figure 6.b



Do not put wheelchair into manual mode when driving on slopes.

Battery & Charger

How to assemble the battery box

Step one: Put the battery in the battery box and fix the bolts (figure 7). Fix bolts labeled with "A" from the top down (figure 8.a) and bolts labeled with "B" from the bottom up (figure 8.b).

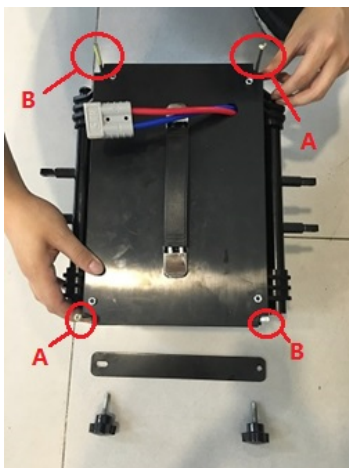


Figure 8.a

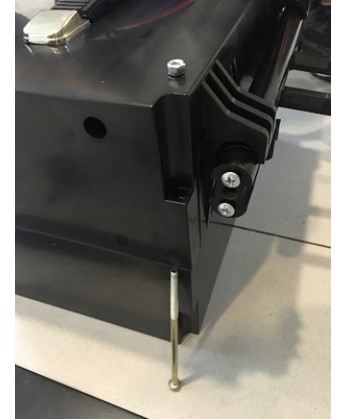


Figure 8.b

Step two: fix the battery box into the frame. Attach battery box bracket via thumbscrews (figure 9.a) and connect battery box to motor (figure 9.b)



Figure 9.a



Figure 9.b

Charger Requirements

Do not use wheelchair while charging.

Input voltage: AC220V $\pm 10\%$

Output voltage: 24V/DC

Output current: 4A

Using the Charger

Step 1: Make sure the charger groove is not blocked.

Step 2: Make sure the electric wheelchair is off.

Step 3: Disconnect the battery box and controller.

Step 4: Connect the charger's output plug to the battery box's power plug.

Step 5: Connect the charger's main plug to the power supply and the red light will light. Fully charging needs 8 to 10 hours, do not charge more than 24 hours.

Step 6: To prevent cutting battery life short, please charge the battery at least once per month when the wheelchair is not being used.



When the battery is fully charged, the power indicator will turn green. Do not stop charging before fully charged. Using the battery when not fully charged will shorten the battery life.

After charging, turn off the power supply, otherwise the battery will discharge slowly. Do not charge more than 24 hours. Over-charging is dangerous.



Users should follow the following rules to avoid charging dangers:

The electric wheelchair doesn't include the charger, please use national standard charger with the output voltage of 24V, 4A.

It should be well ventilated when charging. Do not expose the wheelchair to sunlight or humid environment.

The charging environment temperature should range from 10° to 50° C. If it is out of the temperature range, the battery is unable to function, and can damage the battery.

It's normal for the fan making a sound during charging.

Prevent liquid from going into the charger during charging.

Do not place charger on flammable items, such as fuel, footrest or seat cushion.

Battery Maintenance

Incorrect replacement of the battery may cause explosion. Only the same or recommended type of battery is suitable for replacement. Make sure the battery poles are correct. Charge frequently to maintain battery life.



Keep battery away from flames when charging the battery. Flames may cause battery fire or explosion.

Charging yields hydrogen gas, do not smoke while charging.

Do not unplug the power supply with wet hands. It may cause electric shock.

Do not use or sit on the electric wheelchair when charging.

System Diagnostics

When the indicator LED lights are blinking, it means the wheelchair is experiencing errors. The errors may occur in motors, brakes, battery, wire connections, etc.

The condition of the error can be detected by audio signal. No other service tools are needed.

See page 11 for audio signal indicator table.

LED Description	Meaning	Explanation / Solution
All LED lights are unlit with no sound	The power is off, wheelchair in standby or sleep mode. Power is poorly contacted. Fuse is tripping or burned out.	
All LED lights are lit	The power is turned on, and self diagnose is passed, the electric wheelchair is working	Fewer LED lights lit, less battery power remaining
The leftmost red LED light is lit	The battery power is extremely inadequate	Charge immediately or battery is malfunctioning and is not able to charge
2 short beeps and 5 indicator lights blink 2x	The left side motor is malfunctioning	The left side motor is poorly connected or the wire is disconnected
4 short beeps and 5 indicator lights blink 4x	The right side motor is malfunctioning	The right side motor is poorly connected or the wire is disconnected.
6 short beeps and 5 indicator lights blink 6x	Controller is in over-current protection status	Check the brakes, and check for stuck motor drive mechanism. Check the current by ammeter. If insufficient, the controller is malfunctioning
7 short beeps and 5 indicator lights blink 7x	Joystick is malfunctioning	Reset joystick or the connection is loose
8 short beeps and 5 indicator lights blink 8x	Controller is malfunctioning	Please consult your dealer for maintenance
9 short beeps and 5 indicator lights blink 9x	Controller is malfunctioning	Please consult service center for maintenance

Controller



Power switch - Press this button and the battery power gauge lights will turn on from left to right. Press again and all the LED lights will turn off.



In an emergency, you can directly turn off the power by pressing the power button.

Sleep Mode - If the joystick has no operation more than 20 minutes, the power will turn off automatically, and the system will be in sleep mode. Wake up from sleep mode by pressing the power button.



Speed adjustment -

According to user's habits and the circumstances, the wheelchair driving speed is adjustable. Adjust speed by pressing the decrease button or increase button.

Speed is divided into five sections, ranged by 20%, 40%, 60%, 80%, 100% of the max speed.



Horn Button - Press the horn button, the horn will sounds until you release the button.



Battery Power Gauge - After turning on the power, the battery power gauge is working. It also shows the battery remaining power capacity.

When there is only the red or yellow LED light lit, the battery should be charged. For long distance driving, the battery should be fully charged. If only the red LED light is lit, the battery power is extremely inadequate.



Joystick - The wheelchair movement direction is controlled by the joystick. Speed can also be controlled by how far the joystick is moved in any direction.



Turn on / off the power when the joystick is in the middle position, otherwise the controller will send incorrect operation signals.

Maintenance

Maintenance of the wheelchair includes cleaning the wheelchair, checking wheels and batteries, and charging the batteries. For further maintenance please contact your dealer.

Cleaning

Clean the parts which are frequently touched with user's body (such as seat cushion, armrest, controller, etc.) regularly using a clean, damp cloth. Do not use solvents to clean.

Wheels

Check the tires' air pressure and their wear condition regularly. When the tire tread depth reduces to 1mm, replace tire.

Battery

Make sure that the battery is fully charged frequently. In order to prolong battery life, we strongly recommend users do not to charge until battery runs out of power totally.

Malfunction check

If a malfunction occurs during toperation, turn off the power before checking.

Step 1:

Check if the controller's plug is loose

Step 2:

Check if the controller's plug and battery box connection is loose. Reinsert the plug connector. After checking, if the wheelchair is still not able to restore the power, contact your dealer.



The controller has a diagnosing system to monitor the controller and motor. Any malfunction of these parts is indicated by the controller. For more details, refer to pages 10-11.

Maintenance Schedule

The wheelchair should be regularly checked according to our suggestion.

Daily:

Before use, please check if following parts are correct:

- 1.Backrest
- 2.Armrest
- 3.Controller position
- 4.Footrest
- 5.battery power
- 6.Clutch / adjusting lever for manual and electric mode

Monthly:

Check the following parts monthly, to avoid original parts losing or wearing

- 1.Screws
- 2.Brakes
- 3.Clutch / adjusting lever for manual and electric mode
- 4.The front and rear wheels and their tread
- 5.Controller and charger connector

Semiannually:

For safety, semiannual overall maintenance is needed.

Transport & Storage

While transporting, avoid moisture, sunlight, and heat sources.

Avoid storing the wheelchair in rain and moisture to reduce risk of electrical damage.

Storage conditions:

Temperature -40°C+55°C

Humidity ≤ 80%

Air Pressure 86kPa - 106kPa

Warranty

- 1 year warranty on the frame and parts (excluding batteries)
- 6 month warranty on batteries

For warranty claims, please contact your local Loh Medical representative.

www.lohmedical.com/contact/contact-form