



Foldawheel

PW-4x4Q User Manual



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INTRODUCTION

Safety

The electric wheelchair you have purchased combines the high technology of optics electronics and machine. Our patented gyro system will adjust your body centre of gravity to the same level as the terrain. Our electric wheelchair also can climb up to 30 degree. It's safe, comfort, and styling. We are confident that our electric wheelchair will offer you the most convenience indoor, public location, open space ect.

Read and follow all instructions, and notes in this manual before attempting to operate your power wheelchair for the initial driving. Failure to follow the instructions in this manual can lead to personal injury or damage to the power chair including voiding the warranty.

Purchaser's Agreement

By accepting delivery of this product, you promise that you will not change, alter, or modify this product or remove or render inoperable or unsafe any guards, or other safety features of this product: fail, reuse, or neglect to install any retrofit kits from time to time provided by PW-4x4Q to enhance or preserve the safe use of this product.

Feedback

We would like to hear your comments, and suggestions about our product. We would also like to know your opinion about the safety and reliability of our power wheelchair and the service you received from our authorized agent. Please send us E-mail and tell us your feedbacks.

OPERATION

The basic requirement of user:

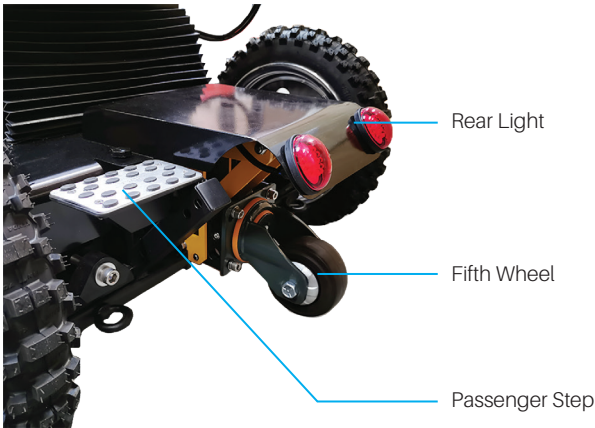
1. The user must have ability of both physical and mental to use the power chair safely. User who have vision or mental retardation, please consult the doctor before using the wheelchair
2. Users should maintain their balance and be able to withstand bumpy caves and raised driveways. When the strength of the torso muscles is insufficient, they should consider carrying a seat belt or using a suitable body to receive the system, such as back-packed sheets, body wrapping paper, etc.
3. User with neck pain or stiff neck, that unable to turn their head back to when attempting to drive backward, should install a rearview mirror.
4. Users must have sufficient knowledge of electric wheelchair, and have the confidence to drive by themselves, to cross and overcome rough roads, before using the electric wheelchair to move indoors by themselves.

Safety Instructions:

1. Before exempting, please read and follow all instructions and precautions in this manual before operating the power wheelchair
2. This electric wheelchair is a monopoly product, please do not renovate other usage.
3. Before formally use, please practice and open the space to familiarize yourself with all features.
4. In case of danger, please do not use your mobile phone, laptops or other radio transmitters while driving an electric wheelchair
5. Do not drive your wheelchair outdoor under any bad weather (rain, snow, thick fog, strong wind, etc.)
6. While going up or going down stairs or slope, please operated at slow speed for safety purpose.
7. When doing a 360° rotation, the wheelchair has to be drive in low speed to protect the motor, reduce noise and prevent component damage
8. The controller or electric wheelchair is a key part of the whole body. Please do not try to open it for repair, or try other operations to change it, otherwise it will damage the controller and invalidate the maintenance. The surface of the controller should be cleaned with a soft dry cloth. It is absolutely forbidden to use the controller under the conditions of overheating, overload and extreme humidity.

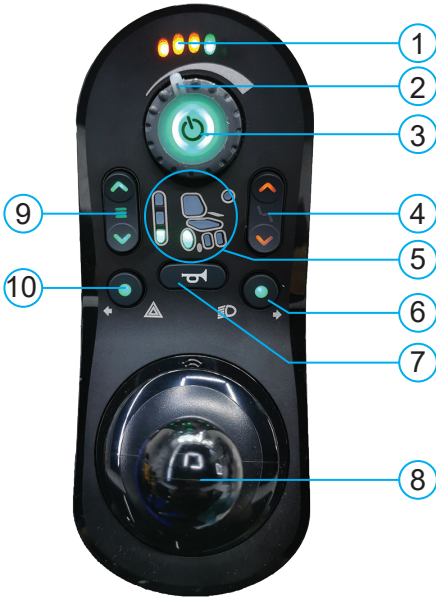
9. Do not try to open, repair or replace the motor, otherwise it will damage the motor and invalidate the maintenance. It is absolutely forbidden to enter the water. When the electric wheelchair crosses 100 mm, the motor can be soaked; it will cause permanent damage to the motor.

Parts Introduction



Controller Introduction

Main Controller



1. Battery Gauge
2. Speed Indicator
3. Power Button
4. Fifth Wheel Selection Button
5. Mode Indicator LED
6. Light / Right Signal Light Button
7. Horn Button
8. Joystick
9. Driving Mode Selection Button
10. Hazard Light/ Left Signal Light Button

Speed Adjustment



Min. Speed

Max. Speed

Increase speed : Turn the Power Button to the right to increase the speed.

Decrease speed : Turn the Power Button to the left to decrease the speed.

Controlling The Fifth Wheel



Normal Mode

Controlling Fifth Wheel

Press the orange arrow button (up/down) the LED light in the middle will change to orange color, indicate that you are controlling the fifth wheel.

Tilt the joystick backward to lower down the fifth wheel. When the motor sounds stop, meaning the wheel is fully lowered down.

Tilt the joystick forward to raise the fifth wheel. Once the motor sounds is stop, the wheel is back to the normal position.



P1

Hazard Lights



To switch on the hazard lights, press Hazard Light Button once, both Hazard Lights Button & Light Button will start flashing, indicate that the hazard light is on.

To switch off the hazard lights, press Hazard Lights Button or Light Button once.(P1)



P2

Lights



Press and hold the Light Button, green light will appear on the the button indicate that the front & rear light is on, press the same button again to turn the light off.(P2)



P3

Signal Lights



Press and hold the Left or Right Signal Button, the button will flash accordingly with the signal light for 8 times, then it will turn off automatically. (P2,P3)

Using the Joystick



Direction Control- Driving

By default, when the joystick is deflected from the neutral position, the wheelchair will move in the same direction as the joystick.

Speed Control

The speed of the drive is proportional to the joystick deflection, so that the further the joystick is moved from the neutral position, the faster the drive will travel.

Stopping

To stop driving, either pull the joystick back to the neutral position, or release the joystick and it will automatically return to the neutral position.

The Status Indicator



The status indicator is located underneath the power button. When the system is not powered up, the status indicator is not lit.



When the system is powered up, and there are no faults with the system, the status indicator will be lit green.



If, when powered up, there is a fault with the system, then the status indicator will flash red. The number of flashes will indicate the type of error.



Battery Gauge

The battery gauge comprises five different LEDs (1x red, 2x amber, 2x green), situated above the remote module's horn button. The number of LEDs lit depends on the status of the battery. The battery gauge LEDs are also used to display charging information.



High Voltage Warning

A high voltage warning is indicated by all LEDs on, and the green LEDs flashing. This occurs when the battery voltage level has risen above the high voltage warning set-point.



Low Voltage Warning






A low voltage warning is indicated with the left-most LED flashing. This occurs when the battery voltage level has decreased below its low voltage warning set-point.



Cut-off Voltage

When the battery voltage decreases below the battery cut-off voltage:

- The status indicator will flash
- The first (red) LED will flash on the battery gauge
- The horn will sound once every 10 seconds

Battery Gauge	Battery Level	Notes
	Fully charged	This level is set by the Batt Gauge Maximum parameter.
		
		
	Consider charging battery	
	Battery needs charging	This level is set by the Batt Gauge Minimum parameter. See the LiNX System Manual for more information.

Using The Lock Function

The Lock Function is used, primarily to restrict who can use the system, but also can help prevent unintentional use of the controls for when the system is not required for any length of time.

When a system is locked (see below). The system is powered down, and the user controls are not responsive. If the power button is pressed when the system is locked, the locked status is displayed to the user by the battery gauge.



P4

To unlock the system, and unlock sequence must be performed by the user within a specific time frame. If the sequence is not performed correctly, within the ime frame, the system will remain locked and the system will power down again.



P5

To power down and lock the system, press and hold the power button for 4 seconds.(P4)

When the entering the locked state, the battery gauge will indicate the transition by flashing LEDs 1, 3, and 5 (Far left, middle, and far right) 3 times.(P5)



P6

To power up and unlock the system, press the power button once, and then, press the horn button twice(P6)- the horn button must be pressed twice within 10 seconds of pressing the power button. If the user implements the unlock sequence incorrectly, or the power button is pressed again before the unlock sequence is complete, the system will return to the locked state.

During an unlock attempt, the battery gauge will indicate the system is in a locked state by flashing LEDs 1, 3 and 5 (far left, middle , and far right) until either the system is powered off, unlocked, or the Sequence Timeout is reached.

Gyro System Controller Introduction



P7

OFF

The gyro system is offline, do not turn ON the gyro system when driving on a horizontal level. (P7)



P8

ON

Press the "ON" button, green light will appear. Gyro system will automatically adjust to horizontal level when climbing up stairs or slopes.(P8)



P9

RST

During ascending or descending from the slopes or stairs, when the seat has reach the maximum angle, it will stop adjusting the angle and green light will went out. Press the button to "OFF" and wait for 2 seconds, then click on the "RST" button. Red light will appear indicate that the gyro system will be reset, the seat will operate normally. (P9)



P10

Manual Dial

Press the "ON" button, and then press the red button, turn the dial at the bottom to adjust the seat angle manually. Only adjust the angle when the wheelchair is static, adjusting the angle during dynamic will endanger the user of falling from the wheelchair.(P10,11)

The black line on the dial facing downward indicate the seat is in neutral angle.



P11

Adjustment

Headrest Height Adjustment



P12



P13

To adjust the height of the headrest, push the button located on the bottom left of the headrest and adjust the desired height.

Then release the button to secure the headrest. (P12,13)

Armrest Height & Width Adjustment



P14



P15

Turn the knob anti-clockwise and pull to loosen the armrest and adjust the height. Once adjusted, release the dial and turn the knob clockwise to secure the armrest. (P14,15)



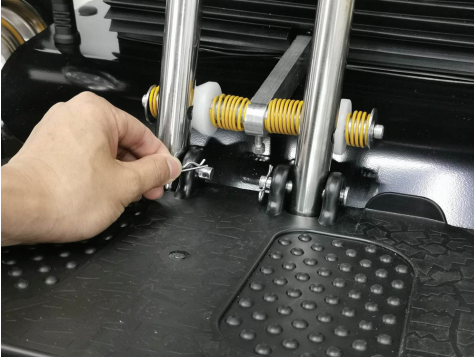
P16



P17

The armrest width adjustment knob located behind the backrest. Turn anti-clockwise to loosen it, then pull the armrest outwards to the desired width and turn the knob clockwise to tighten it. (P16,17)

Headrest Height Adjustment



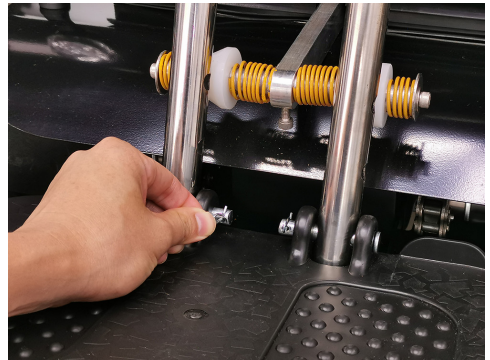
P18



P19



P20



P21

1. Pull out the pins out from the iron stick.(P18)
2. Take out the iron stick, and the footrest can be taken out.(P19)
3. There are 3 level to adjust, choose the desire height and put back the iron stick.(P20)
4. Put back the pins to secure the iron stick from slipping out. (P21)

Seat Belt Adjustment



P22



P23



P24



P25



P26

1. Fasten the seat belt. (P22)
2. Loosen the straps on the shoulder, then pull to tighten the strap. (P23,24)
3. Same with the waist straps, loosen it and then pull to tighten it.(P.25,26)

WARNING! Do not over tighten the straps, make sure that after tightening the belt, user still able to breath smoothly

Charging The Battery



P27



P28

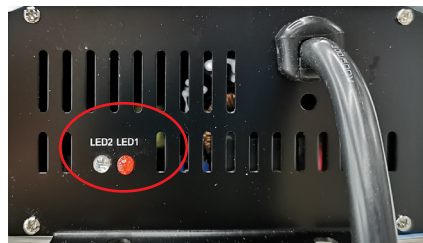


P29

1. There is an arrow on the connector, make sure it is always facing upwards when you are connecting to the controller (P27,28)
2. After connected, switch on the power socket and the wheelchair will start charging

LED Indication

State	LED 1 (red)	LED 2
Stand by	Off	Red
Precharge	On	Red(flashing)
Constant Current Charge	On	Red
Constant Voltage Current Limiting	On	Red
Trickle Charge	On	Red
Float Charge	On	Green
Charge Completion (stand by)	Off	Green



The input voltage of the charger will be pre-adjusted to suit user's country voltage before it is sent to customer. User can switch the input voltage to 110V by using a long thin stick.



Care and Maintenance

The electric wheelchair is a sophisticated mobility vehicle. Like any motorized vehicle, it requires routine maintenance checks.

You can perform some of these checks, but others require assistance from an authorized provider. Preventive maintenance is very important. If you follow the maintenance checks in this section as scheduled, you can help ensure that your wheelchair gives you years of trouble-free operation. If you have any doubt as to your wheelchair's care or operation, contact an authorized provider.

WARNING! Direct or prolonged exposure to water or dampness could cause the electric wheelchair to malfunction electronically and mechanically. Water can cause electrical components to corrode and the chair's frame to rust. Electric wheelchair should be examined periodically for signs of corrosion caused by water exposure, bodily fluids exposure, or incontinence. Damaged components should be replaced or treated immediately.

What should you do when your electric wheelchair touched water?

1. Dry your electric wheelchair as thoroughly as possible with towel.
2. Allow your electric wheelchair to sit in a warm, dry place for 12 hours to allow unseen water to evaporate.
3. Check the joystick operation and the brakes before using your electric wheelchair again
4. If any inconsistencies are found, take your electric wheelchair to your authorized provider. Electric wheelchair that is frequently exposed to sources of water, such as incontinence, should be inspected often for corrosion and electronic components may need to be replaced frequently.

Temperature

Some of the parts of your electric wheelchair are susceptible to extreme changes in temperature. Always keep your electric wheelchair between the temperatures of -20°C and 50°C.

In extremely cold temperatures the batteries may freeze. The specific temperature at which they freeze depends on a number of factors, such as battery change, usage, and composition of the batteries.

Temperature about 50°C may cause your electric wheelchair to operate at a reduced speed. This reduced speed is a safety feature built into the controller that helps prevent damage to the motor and other electrical components.

General Guidelines

Avoid knocking or bumping the controller, especially the joystick. Avoid prolonged exposure of your chair to extreme conditions, such as heat, cold, or moisture.

Keep the controller clean

Check all connectors to ensure that they are all tight and secured properly. **WARNING!** Even though the electric wheelchair has passed the necessary testing requirements for ingress of liquids, you should keep electrical connections away from sources of dampness, including direct exposure to water or bodily fluids and incontinence. Check electrical components frequently for signs of corrosion and replace as necessary.

Daily Checks

With the controller turned off, check the joystick. Make sure it is not bent or damaged and that it returns to the neutral position when you release it. Check the rubber boot around the base of the joystick for damage. Visually inspect the boot. Do not handle or try to repair it. See an authorized provider if there is a problem.

Visually inspect the controller cable. Make sure that it is not frayed, cut, or has any wires exposed. See an authorized provider if there is a problem.

Check for flat spots on solid tires. Flat spots could adversely affect stability.

Weekly Checks

Disconnect and inspect the controller from the power base. If there is any corrosion, contact an authorized provider if necessary.

Ensure that all parts of the controller system are securely fastened to your electric wheelchair.

Calibrate the joystick if a noticeable difference in performance is detected or if the joystick does not operate properly.

To calibrate the joystick, power off the unit, place the joystick in the neutral position, and power the unit back on. If a problem still exists with your joystick's performance, contact an authorized provider.

Check the brakes. This test should be carried out on a level surface with at least 3 feet (1 meter) of clearance around your Z-Chair.

Check the brakes.

1. Turn on the controller and turn down the speed level of your electric wheelchair.
2. After one second, check the battery condition meter. Make sure that it remains on.
3. Slowly push the joystick forward until you hear the electric brakes click. Immediately release the joystick. You must be able to hear each electrical brake operating within a few seconds of joystick movement. Repeat this test three times, pushing the joystick backwards, then left, and then right.

Monthly Checks

Check for drive tire wear. See an authorized provider to repair. Keep your electric wheelchair clean and free of foreign material, such as mud, dirt, hair, food, drink etc.

Yearly Checks

Take your electric wheelchair to an authorized provider for yearly maintenance, especially if you use your chair on a regular basis. This helps ensure that your electric wheelchair is functioning properly and helps prevent future complications.

Storage

Your electric wheelchair should be stored in a dry place, free from temperature extremes. When storing, disconnect the batteries from the wheelchair.

WARNING! If you fail to store the electric wheelchair properly, the frame can rust and the electronics can be damaged.

Batteries that are regularly an deeply discharged, infrequently charged, stored in extreme temperatures or stored without a full charge may be permanently damaged, causing unreliable performance and limited service life. It is recommended that you charge the batteries periodically throughout periods of prolonged storage to ensure proper performance.

You may wish to place several boards under the frame of your electric wheelchair to raise it off of the ground during periods of prolonged storage. This take the weigh off of the tires and reduces the possibility of flat spots developing on the areas of the tires contacting the ground.

Cleaning and Disinfection

Use a damp cloth and mild, non-abrasive cleanse to clean the plastic and metal parts of your electric wheelchair. Avoid using products that may scratch the surface of your electric wheelchair. If necessary, clean your product with and approved disinfectant. Make sure the disinfectant is safe for use on your product before application.

WARNING! Never use any chemicals to clean a seat, as they may cause the seat to become crack, Use soapy water and dry the seat thoroughly.

Wheelchair Replacement

If your Wheelchair is equipped with a solid tire insert, then you must replace the whole wheel assembly; If your wheelchair is equipped with a beach tire, which maximum charge pressure or pressure range is 2Kpa. When you replace the beach tire to solid tire, you must exchange the whole wheel assembly. Replacement wheel assemblies are readily available through an authorized provider.

WARNING! Be sure that the controller's power is turned off and the electric wheelchair is not in freewheel mode before performing this procedure.

WARNING! When changing a tire, remove only the center lug nut and washer then remove the wheel.

Do as the following steps:

1. Turn off the power to the controller.
2. Set the electric wheelchair up on blocks.
3. Remove the drive wheel nut and washer from the axle.
4. Pull the wheel off the axle.
5. Side the new wheel back onto the shaft. Make sure that the key is in the axle slot.
6. Reinstall the drive wheel nut and washer onto the axle and tighten.
7. Remove the electric wheelchair from the blocks.

Battery Replacement

A battery wiring diagram is printed on a decal located on the front battery tray.

WARNING! Battery posts, terminals, and related accessories contain lead and lead compounds. Wear goggles and gloves when handling batteries and wash hands after handling.

WARNING! Do not mix or match new and old batteries. If you encounter a situation where one battery needs to be replaced, the replace both batteries.

Breakdown overhaul guide

Before the electric wheelchair is asked to maintain, please refer or check following table, in order to find possible reason caused matters. Some simple check and mix adjustment you operate can solve the problem and restore normal operation. If you have questions about some key check factors, or the repairing method showed in table cannot solve the problems, please contact an authorized provider.

Test Item	Content for checking
Handle	Are they loosened? Can they convolute from left to right?
Motor	Is the moving sound abnormal? Do the electromagnetic brakes work?
Dump Power of lead battery	Do the indicator lamps shine? Is the surplus of lead battery enough?
Horn	Do the horns sound?
Seat	Does the operating lever of seat work normally? Can it convolute from left to right smoothly?
Screws	Are they loosened?
Tire	Are they cracked or damaged? Is the light of dime of tire suitable? Is there anything such as metal sheet or rubble insert?
Others	Is there any strange voice? Are there leak-off?

Warranty

PW-4x4Q warranty start from the date of purchase, this products will be free from defects in material workmanship.

We will repair or replace this product or any component of the product found to be defective during the warranty period. Replacement will be made with a new remanufactured product or component. **DO NOT** attempt to repair or adjust any electrical or mechanical function on this product. Doing so will void this warranty.

This warranty does not cover normal wear of parts or damage resulting from any of the following : negligent use or misuse of the product, normal wear and tear, use contrary to the operating instructions, disassembly, repair or alteration representative. Further, the warranty does not cover water or fire damage.

	Frame	Motor & Controller	Battery	Charger
Period (year)	5	2	1	1

Specification

Net Weight	143 kg (314.5 lb)
Folded Size (Backrest & Footrest) (L X W X H)	107 cm x 75 cm x 91cm (42" x 29.5" x 35.8")
Opened Size (L X W X H)	120 cm x 75 cm x 106.5cm (47.2" x 29.5" x 42")
Seat Width Front and Back	50.8 cm , 46 cm (20", 18")
Seat Depth	49 cm (19.2")
Armrest to Armrest Width (adjustable)	50 cm to 59cm(19.6", 23.2")
Backrest Height w/o headrest	49cm (19.2")
Backrest Width	47cm (18.5")
Seat Height (Front & Back)	63cm (24.8") , 61cm (24")
Footrest to Seat Height(adjustable)	34 to 43cm (13"~16.9")
Armrest Length	42.5cm (16.7")
Armrest Width	7cm (2.7")
Front Wheel Diameter	39cm (15.5")
Rear Wheel Diameter	39cm (15.5")
Max Weight Capacity	150kg (330.7lb)
Turning Radius	49 cm (19.2")
Ground Clearance	6.5cm (2.5")
Slope Limitation	30°
Max Step Height Capability	12 cm (4.7")
Battery Type	50AH24V X 1 units
Charging Time	8hrs
Travel Distance (Full Charge)	20~30 km
Motor Type	Driving Motor - 750W x 2 units Level Rack Motor - 300W x 1 units
Travel Distance (Full Charge)	20~30 km
Speed Limit	7.5 km/hr (4.7miles/hr)
Travel Distance (Full Charge)	20~30 km
Speed Limit	7.5 km/hr (4.7miles/hr)



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