



4N1 Ultra Lite Multifunctional Electric Wheelchair Owner's Manual



Model #
MM-4N1WW-W4



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Welcome

Thank you for choosing the Miracle Mobility 4N1 Ultra Lite Multifunctional Electric Wheelchair. Miracle Mobility is leading the industry with innovative medical mobility aids. Your 4N1 Electric Wheelchair is designed to provide years of use. You have taken an essential step to regain mobility, independence, and freedom.

Please read this owner's manual before attempting to operate your device. The safety and operating instructions will help you to understand the performance and limitations of your new power mobility aid.

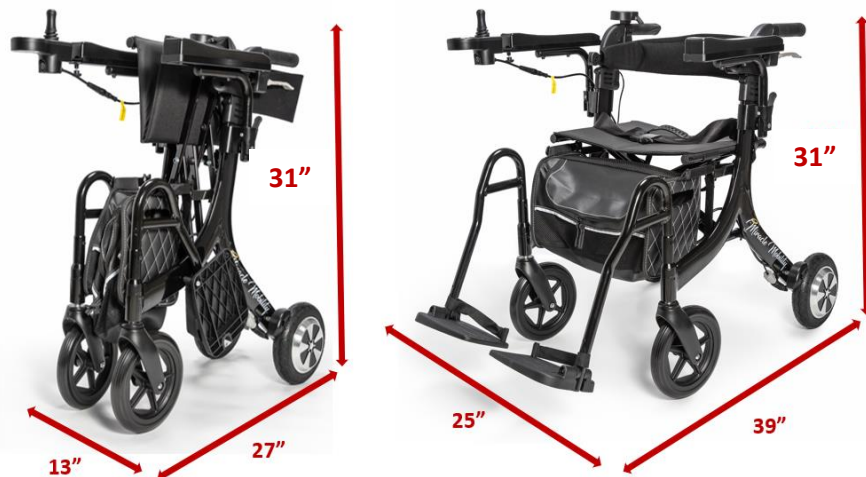
Thank you for your purchase!

Miracle Mobility Development Team



Chair Specifications

Seat Size: 17.75" W x 11.75" D



Folded

Unfolded

Easily navigate through standard doors and narrow hallways.

Folds in less than 3 seconds and fits in the trunk of most small cars.

Color Options	Black
Model #	MM-4N1WW-W4
UPC Code	8-50012-19856-7
Motor Type	Magnetic Brushless DC Motor
Motor Power Rating	250 Watts x 2 (500 Watts Total)
Weight Capacity	220 LBS
Chair Weight w/o Battery	38 LBS
Chair Weight w/Battery	41 LBS
Maximum Speed	2.5 MPH
Speed Settings	5 Speeds
Driving Distance	Up to 10 miles
Incline Grade Capacity	15 degrees
Battery Type	Lithium Ion Battery
Battery Capacity	24V/10Ah
Batteries Per Unit	1 Battery
Charge Time	4-6 hours
Joystick Controller	DC24V/2A
Charger	Class 2 AC110-240V 50-60Hz 24V/2A
Brakes	Intelligent Electromagnetic
Seat Size	17.75" W x 11.5" D
Unfolded Dimensions	39" L x 31" H x 25" W
Folded Dimensions	27" L x 31" H x 13"W
Tire Material	Solid Polyurethane & Rubber
Front Tire Size	8"
Rear Tire Size	8"
Frame Construction	Aluminum Alloy
Gross Shipping Weight	51 lbs
Carton Dimensions	32" x 13" x 28"
Carton Cube	6.7
Warranty	2 yrs (frame), 1 yrs (motor), 1 yr (parts)
Dual Controllers	(2) LCD Multifunctional



Load Capacity
220 lbs



Wheelchair Weight
(w/o Batteries)



Speed – 3.75 mph



Travel Distance
10 Miles



Power - 500 Watts



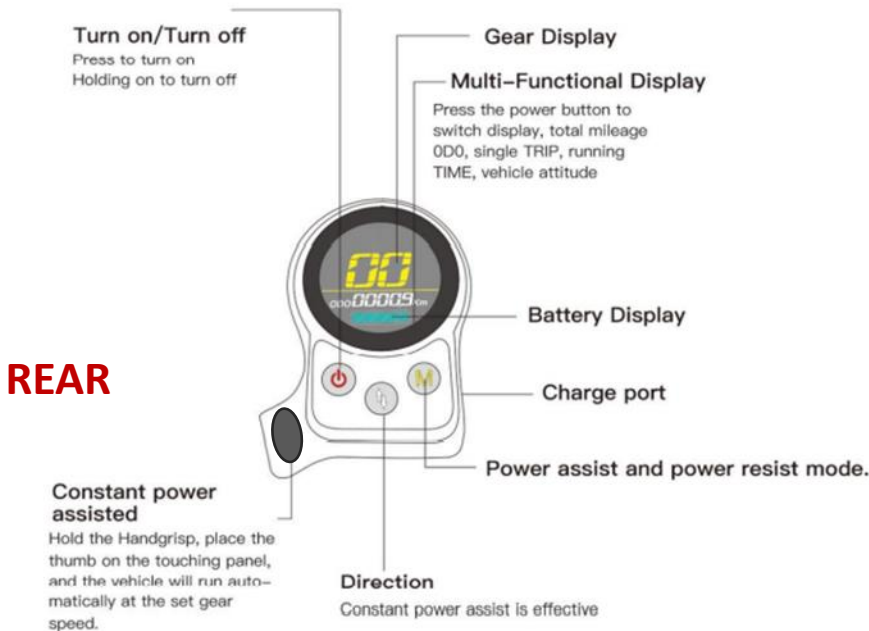
LCD Joystick Controller & Rear Caregiver Controller



Front Controller LCD - Gear Indicator Display

The Front Joystick Controller will display the speed level from Level 1 (slowest) to Level 5 (fastest)

The Front Joystick Controller will provide the user the ability to safely navigate the 4N1 as a power wheelchair with simple controls.



The Rear LCD Controller will provide the user or caregiver power assisted movement while walking behind or pushing the 4N1 in walker mode with 2 gear/speed settings (see pages 19-21 for more details)

The 4N1 Features & Uses



The 4N1 Ultra Lite Multifunctional Electric Wheelchair is designed for those needing assistance with mobility and endurance.



Manual Walker Rollator

The 5N1 can be used as a manual walker to help with balance, stability, and endurance



Manual Wheelchair

The 5N1 can be used as a traditional manual wheelchair with a caregiver pushing



Electric Scooter/Wheelchair

The 5N1 has 500 Watts of power available making it a power electric wheelchair with a joystick controller.



Power Assist Walker

The 5N1 has a large capacity storage compartment allowing it to be used on shopping trips and transporting up to 200 lbs w/power assistance.

Unpacking and Setting Up

1. Begin by taking out the 4N1 Ultra Lite Electric Wheelchair from the carton along with the spare parts and battery. Remove packing wrap then stand the 4N1 wheelchair upright.
2. Lift the armrests as shown (see image 1)
3. Install the joystick controller on the armrest. Adjust to the desired distance and then tighten. (see image 2)
4. There may be a screw located on the underneath of the joystick extension arm. (see image 3) Use an alien wrench to remove the screw then insert the joystick arm into the armrest.
5. Once the armrest is installed reinsert the screw under the joystick arm if, you wish to have a second fastener holding the joystick in place. Note: the screw will need to be loosened each time you wish to adjust or remove the joystick. Some prefer to not reinstall the second screw under the armrest. This is personal preference. (see image 4)

Images 1



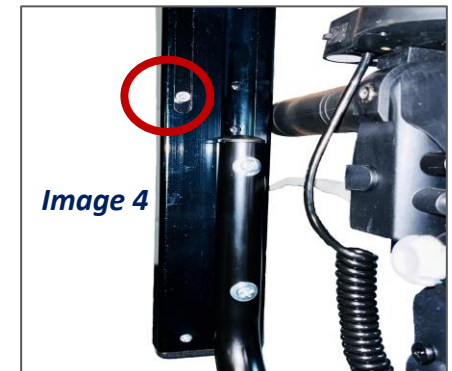
Images 2



Image 3



Image 4



Unpacking and Setting UP

1. Install the rear controller on the right handlebar (see image 5)
2. You will notice a sliding notch under the rear controller. (see image 6) Slide the controller notch into the handlebar glide with the thumb pad placed on the inside mount as shown. (see image 7)
3. To unfold the leg rests, lift the leg rest (it is spring activated) and spin/rotate the leg rests to the front. Flip the footrest down (see image 8)
4. To fold the leg rest back, lift the leg rest and spin/rotate the leg rests to the back position. Flip up the footrest (see image 8)



How To Unfold

6. On the top of the seat is a safety release handle (see images 9). Lift the safety release handle up and the 4N1 will release the safety lock located under the seat allowing you to unfold the 4N1. (see image 10)
7. Once the safety release handle is lifted the chair should separate slightly. You can let go of the safety release handle and to unfold the chair press down on either side of the seat bars. (see images 11)
8. You can ensure the safety lock is secure by lifting the chair and it does not fold.
9. The backrest can be flipped to face forward or flipped to face in reverse (See images 12)



How To Fold

4. To fold the 4N1 grasp the safety release handle on the seat and lift. This will release the safety lock located under the seat. (see images 13 & 14)
5. Once lifted the chair arms can be pushed together to the folded position (see Image 15)
6. You will hear the safety clip lock in place when the chair is folded correctly and completely.



Always make sure the power is off while unfolding and folding the wheelchair

Image 13



Image 14



Image 15



Make The Electrical Connections

4. To connect the joystick to the battery, look for the connection sockets located on the joystick as shown and tighten in place. (see images 16 & 17)
5. To connect the rear controller to the battery, look for the connection sockets located on the rear controller and the cable under the seat. The cable should have a yellow labeled called rear connection and connect the male and female sockets and secure together. (see images 16 & 18)
6. Make sure the motor wheel connections are secure for both right & left wheels (see image 18) Line up the arrows to insure a correct connection. (see image 19)

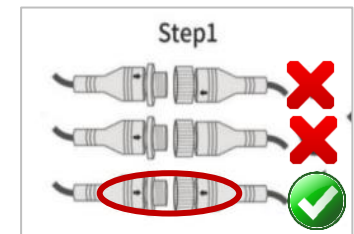


Image 17

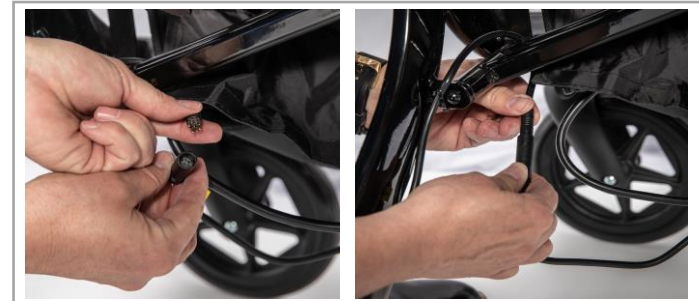


Image 18



Be careful not to bend any of the connection prongs as this will affect the use of the chair.

Make The Electrical Connections

4. Make the battery connections. The battery connection is a 3-prong connector. (see image 20) The battery has a pocket on the inside left corner of the storage bag. The 4N1 computer “brain” is located on the right inside pocket of the storage bag.
5. The battery will be housed in the storage bag under the seat on the left side.
6. There is a hole on the rear left side of the storage bag that the cables will pass thru allowing you to connect the 3-Prong battery cable.
7. Tuck the cables nicely away with the Velcro pocket found on the outside back of the storage bag (see image 21)



Image 20

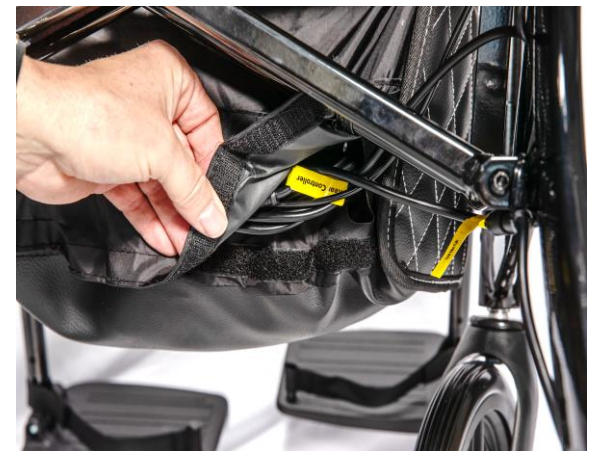
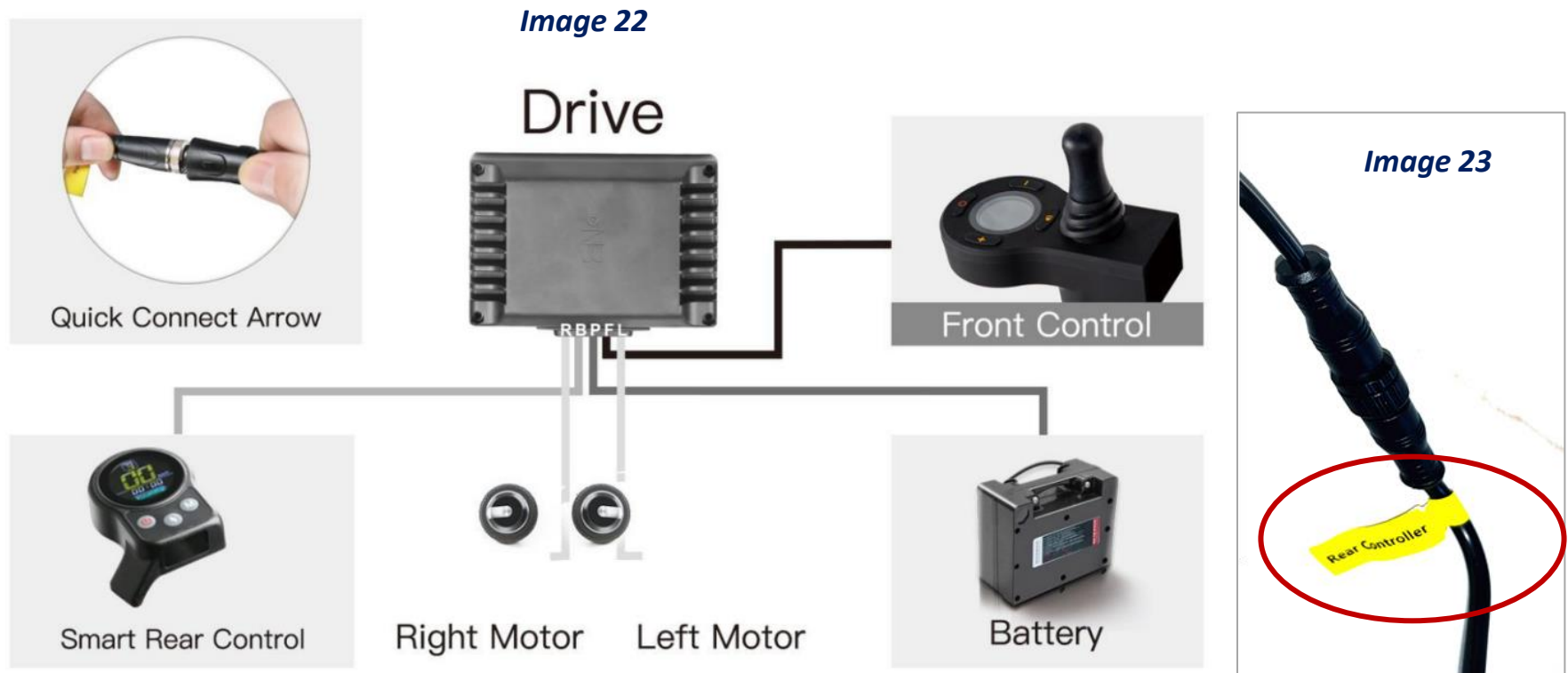


Image 21

Circuit Diagram for Wiring

4. The below diagram is the electronic connections for the 4N1 Ultra Lite Multifunctional Electric Wheelchair. This diagram will be helpful to ensuring all the correct connections are made. (see image 22)
5. Cables have been identified with yellow tape showing each cable's purpose (see image 23)



Transporting the Wheelchair in a Car

15. The 4N1 Ultra Lite Multifunctional Electric Wheelchair can fold to the size of a large suitcase. (see image 25) and is light weight to lift (see image 24)
16. When folded it measures in at (13" W x 30" H x 27" L) and can fit in the trunk of a small vehicle. (see image 25, 26, 27)
17. The vehicle shown has a trunk that is 17" height and 36" wide and is 46" deep. (see Images 26 & 27)

Image 24



Image 25

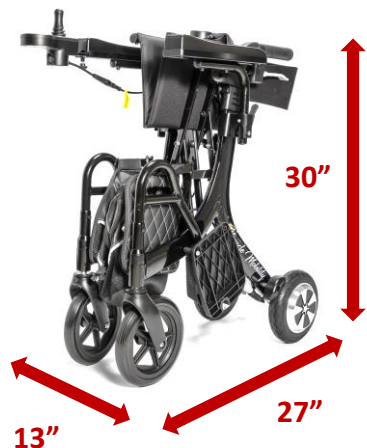


Image 26



Image 27



Lifting The Armrest

20. Notice the armrest release button on the outside of each armrest (see image 28)
21. This lever is in the locked position when the armrests are down. You will not be able to lift the armrest when the armrest lever is in the locked position
22. Press the armrest release lever and then lift the armrest up vertically (see image 28)
23. The armrest will lift out of the way and allow you to get close to a table

Image 28



Lifting The Handlebars & Back Rest

20. The handlebar grip release button is on the back of each armrest (see image 29)
21. Press the release button and you will be able to lift each handlebar grip independently. (see image 30)
22. The handlebar/back rest can raise 5 notches. It adjusts up or down and locks in place
23. You can also adjust the back rest band up or down to your preference by using the adjustment knobs located on the side of the handlebar grip. Allowing you to slide the backrest band up or down. (see image 31)

Image 29



Image 30



Image 31



Hand Brakes

4. The 4N1 is equipped with hand brakes that can be used while using the 4N1 as a walker or manual wheelchair. (see image 32)
5. Handbrakes will be located just below the left and right handlebar grips and can be used while walking to help maintain balance (see image 33)
6. The brakes can also be locked in place by pressing down on the handbrake lever until it locks in place. This is recommended for transferring on and off of the 4N1 Electric Wheelchair Walker. (see image 34)



Image 32



Image 33



Image 34



Locking the hand brake while making transfers on and off of the wheelchair is highly recommended

Front Joystick Controller

The front joystick is designed to provide all the information you need to safely operate your 4N1 in electric wheelchair mode. (see image 35)

Image 35



The 4N1 Electric Wheelchair is designed to operate the chair with a 360-degree front joystick controller



To stop the chair simply let go of the joystick and the chair will come to a controlled stop.

Practice using the joystick to move forward and in reverse. Practice making left and right turns.



Always use slow smooth movements and avoid jerky movements with the joystick

The front joystick controller has 5 speed settings and will travel at a speed up to 3.75 mph

The Liquid Crystal Display (LCD) will let you know what speed setting you are in and let you know how much battery life is remaining.

Front Joystick Controller

35. It takes about a week to get use to the joystick operations to become proficient. You will need to get a “feel” for the joystick’s responsiveness and drive accordingly.
36. Practice operation in a safe and controlled environment to learn the operation of your 360-degree joystick along with the different speeds and the maneuverability of the 4N1. (see image 36)
37. When turning, reduce your speed, which will help you avoid any potential tilting or tipping of the wheelchair and adjust the speed depending on your needs.



Image 36

Recommendations:



Operate the wheelchair slowly and at an even controlled speeds



Avoid sharp jerky movements of the Joystick. Make smooth movements for better responsiveness of the joystick

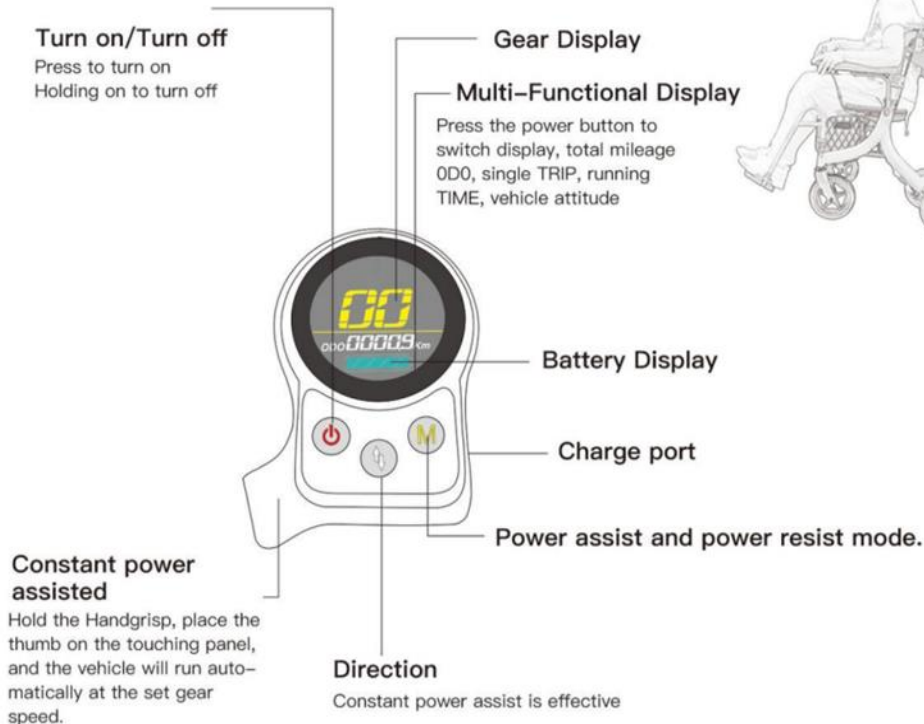


Avoid turning on slopes or driving parallel with slopes. The 4n1 is designed for flat terrains. The wheels could spin if attempting to navigate on slopes

Rear Controller

The rear controller is designed to provide additional information a caregiver would need to safely operate your 4N1 Electric Wheelchair from the walking position. (see image 37)

Image 37



The rear controller is equipped with a support **Power Mode**: It will be used for the support of those using the 4N1 as a power assisted Wheelchair or walker. The rear controller has 2 speeds (see image 38)



The rear controller is in Lock Mode when the rear controller display “LL”. Wait for the rear controller to recalibrate and the “Lock Mode” will disengage.



Rear Controller

Power Assisted Mode

This feature is used when assistance is needed to carry objects or help transporting individuals with a caregiver pushing from behind the 4N1. The 4N1 provides automatic power assistance to ease the burden of pushing for caregivers.

Two Speed Settings Gear C1 & C2

The power assistance maximum push speed is 2.0 mph with the rear controller.

Automatic Lock Mode:

Within 5 seconds of releasing the handgrip the system will automatically lock and cannot be moved. The LCD display screen will display "LL". To release the locking feature, hold the handgrip and press any button on the rear display and the "LL" will disappear and the 4N1 is unlocked ready for use.

Power Assisted Switch:

1. To engage place your thumb on the sensor touch pad (see image 38)
2. The power generated by the motor will increase and the power assist will increase along with an increase in speed.
3. The speed of movement will be accelerated according to the 2 different gears.



Image 38
Power Assist
Sensor Touch Pad



Charging the Battery

1. Make sure the battery is installed in the storage bag and the electrical connection is made between the battery and the connection cable of the joystick. Make sure all cables are connected tightly and properly. With arrows on the male and female connectors aligned. (see image 39)
2. If the battery is installed incorrectly or if the connections are not correct it will affect the function of the 4N1 Electric Wheelchair Walker and give an error alert.
3. You can charge your battery from the joystick by connecting the 3-prong charger to the joystick as shown. (see Image 40)

Image 39

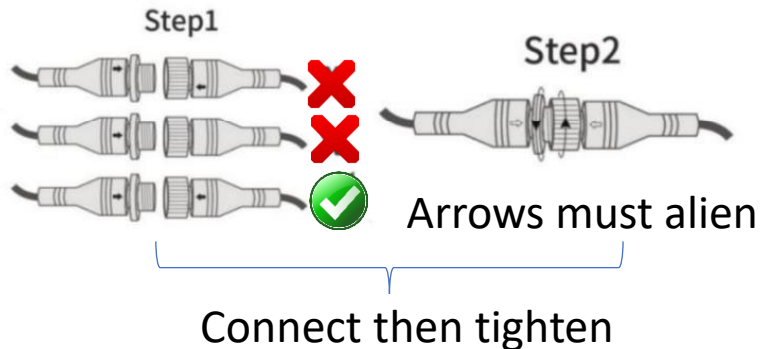
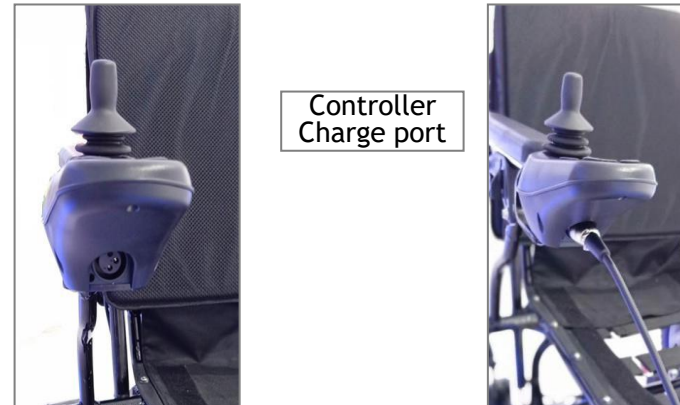


Image 40



Do not force male and female connections together. Bending prongs will cause the 5N1 to malfunction or not work at all.

Charging The Batteries

40. The 4N1 uses a 24V10ah Lithium Ion Battery. Your 4N1 will arrive with a partially charged battery.
41. The battery should allow you to drive for a distance up to 10 miles under normal operation conditions.
42. Allow your wheelchair to charge for 4-6 hours or until the light on the charger turns green (see image 41)
43. Continue to charge the wheelchair 1 hour after the light turns green to fully charge the battery.
44. Once fully charged you can remove the charging cable.
45. If the wheelchair is unused for two months, you should charge the battery to keep it full before use.



Keep the charger and joystick away from moisture and check the battery connections to ensure they are not corroded



Do Not allow your battery to freeze. If frozen it will shorten the life of the battery and never charge a frozen battery



Storage should be in a clean room with less than 80% humidity and at temperatures between 40 degrees to 105 degrees



The battery can be damaged if exposed to high or low temperatures



Do Not allow the Charger to freeze or drop below 40 degrees. This will damage your charger and your battery

Image 41



Charger Light

- RED**--battery is full drained
- ORANGE**-- battery is charging
- GREEN**-- battery is fully charged

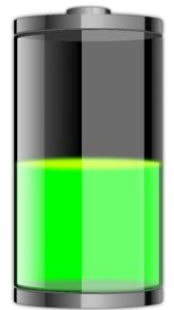
More Battery Information



53. This battery fully complies with FAA standards for passenger airline travel
54. The battery will need to be removed from the 4N1 and carried inside your carry-on luggage.
55. You are required to inform the airline in advance of your battery
56. The chair is equipped with over current protection. This added safety system is included on the wheelchair and will shut off the electrical current from the batteries if triggered, thus shutting the motor down. This will ensure that the motor and battery do not experience damage.
57. The life cycle of a lithium battery is measured in charging cycles with an average of 400 charge cycles.
58. Check the battery indicator light before each use to ensure you have the power you need.
59. Do not use a battery charger that have not been certified by Miracle Mobility.
60. If the battery is damaged, do not handle the battery without protective gloves and eyewear.
61. If the battery needs to be disposed of, locate the nearest hazardous materials disposal facility, and call for instructions.

Storing the Battery

53. If storing your wheelchair for an extended period, take these steps to maintain the battery:
 - ✓ Fully charge the battery before storing.
 - ✓ Remove the battery from the wheelchair.
 - ✓ Store the battery at a room temperature with a dry environment.
 - ✓ Avoid temperature extremes and do not allow the battery or charger to freeze.



Do not attempt to charge your battery if it is frozen from extreme weather conditions, instead first allow it to thaw for several hours.



Safety Precautions



Please Do Not

- ✓ Do not operate on stairs or escalators
- ✓ Do not exceed the weight capacity of 220 lbs or use to transport cargo
- ✓ Do not carry additional passengers it is for a single use passenger
- ✓ Do not drive parallel with a slope (see image 42)
- ✓ Do not attempt to turn on a slope
- ✓ Do not attempt to climb slopes greater than 15 degrees and lean forward to improve center of gravity (see image 43)
- ✓ Do not allow children to play with this device
- ✓ Do not use in heavy rain or high winds, snow, sand, or puddles
- ✓ Do not drop the 4N1 as this will damage the structure of the mobility device

Please Do

- ✓ Please turn off the 4N1 wheelchair prior to exiting the chair
- ✓ Please practice driving the 4N1 wheelchair in a controlled environment
- ✓ Please be aware of local laws regarding operating wheelchairs on public roads
- ✓ It is recommended to always use sidewalks and always allow enough stopping distance
- ✓ Please note modifying the 4N1 may void all warranties
- ✓ Always keep your feet on the footrests while driving
- ✓ Do come to a complete stop before turning off the joystick.
- ✓ Turning off joystick while in operation can cause damage to the controller

Image 42



Image 43



Safety Precautions



Always

- ✓ Always engage the slowest speed setting when going down hill
- ✓ Always make sure the batteries are fully charged before setting out on a journey
- ✓ Always charge the power wheelchair in well ventilated areas to prevent possible risk
- ✓ **Always avoid Temperature Extremes (hot and cold)**
- ✓ Always check to make sure there are no obstacles behind you when backing up
- ✓ Always keep speed at the slowest setting in reverse
- ✓ Always avoid irregular shaking or emergency turning
- ✓ Always drive at a safe and predictable manner
- ✓ Always keep arms on the armrests and feet on the footrest
- ✓ Always swing the footrest out of the way or lifting out of the way as you may step on the foot pad and tip the over (see image 44)
- ✓ Always remember to get out of the chair when reaching for an object. Leaning over the armrest could cause the chair to tip. (see image 45)

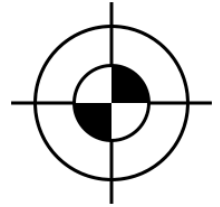


Error Codes

Please read the operation guide and precautions carefully. Each 4N1 Electric Wheelchair Walker passes strict product testing and quality assurance protocols prior to shipping. If the LCD screen error code illuminates due to a malfunction, please refer to the error code table below. Make the recommended changes. Contact Miracle Mobility if you have questions. When the symbol is flashing, enter the error code interface and the corresponding number in the interface represents the corresponding fault. (see below table)






Error Code	Failure Cause	Solution
E0002	Left Motor Malfunction	Check if the left motor outlet is damaged. If damaged replace the motor. Check if the connection port of the left motor is securely inserted and the connection tight and secure. If neither of the above are the issue the motor will need to be replaced.
E0004	Right Motor Malfunction	Check if the right motor outlet is damaged. If damaged replace the motor. Check if the connection port of the right motor is securely inserted and the connection tight and secure. If neither of the above are the issue the motor will need to be replaced.
E0008	Left Motor Current detection error	Contact Miracle Mobility to replace the driver
E0010	Right Motor Current detection error	Contact Miracle Mobility to replace the driver
E0020	Battery power detection is incorrect	Contact Miracle Mobility to replace the driver
E0040	15V Malfunction	Contact Miracle Mobility to replace the driver
E0800	Front Control Communication Failure	Contact Miracle Mobility to replace the front controller
E-021	Rear Control Communication Failure	Contact Miracle Mobility to replace the rear controller
EE	Tumble Alarm	Return to normal after shite alarm
E-023	Attitude sensor abnormal	Contact Miracle Mobility to replace the intelligent rear controller
E-024	vehicle attitude calibration	Please read the instruction book appendix 1 (initialized vehicle attitude calibration)
E-025	The grip detection sensor abnormal	Contact Miracle Mobility to replace the intelligent rear controller
E-026	The grip detection sensor uncalibrated	Contact Miracle Mobility to replace the intelligent rear controller
E027	The touch panel is abnormal	Contact Miracle Mobility to replace the intelligent rear controller

Initial Vehicle Attitude Calibration




If an error code appears after powering on the 4N1, and the error code reads “E-024” the chair will need to be recalibrated one of two ways:

Method 1

- 1) *Begin by placing the 4N1 horizontally with the rear controller properly installed.*
- 2) *Press the rear controller power button  and hold the direction button  and the Power  button down at the same time.*
- 3) *Press the power button  to F4 then press the direction button to set specific parameters.*
- 4) *The setting area is continuous flickering.*
- 5) *Press the M button  to set the parameters to “1” and then a voice prompt will let you know the attitude is calibrating. It will begin automatically*
- 6) *Wait for the process to completed then return to main menu. The calibration is not complete*

Method 2

- 1) *Begin by placing the 5N1 horizontally with the rear controller properly installed.*
- 2) *Hold the power button  down on the rear controller for 10 seconds until LCD display reads “F4” and a voice prop lets you know the chair is ready to be calibrated.*
- 3) *Release the power button and the attitude calibration will automatically begin.*
- 4) *Wait for the process to complete then return to the main menu, the calibration should be completed*



Maintenance

- ✓ It is important to perform regular maintenance of your wheelchair for longevity and warranty eligibility. Even a little cleaning now and again will go a long way to keep your device looking and functioning like new. Certified repair shops with trained professionals who specialize in electric wheelchairs and scooters will be qualified to perform the service and maintenance on your Wheelchair should a technician be required.
- ✓ We recommend you inspect your Wheelchair two or three times per year
- ✓ **Frame:** Tighten loose screws, as necessary.
- ✓ **Wheels:** Make sure they rotate easily. Significant resistance may require new bearings.
- ✓ **Armrest:** Look for excessive wear or if they are loose.
- ✓ Replacement parts and major maintenance issues should be done by a professional.



Electromagnetic Interference

- ✓ Powered vehicles such as the 4N1 Electric Wheelchair Walker may be susceptible to electromagnetic interference, which is interfering electromagnetic energy emitted from sources such as radio station, TV station, amateur (two way) radio transmitters, two-way radios, and cellular phones.
- ✓ The interference (from radio wave sources) can cause the wheelchair to release its brakes to move in unintentional directions.
- ✓ If your wheelchairs experiences sudden movements due to electromagnetic interference turn off the electric wheelchair power until it is safe to resume use.
- ✓ It is recommended that you turn off mobile devices to limit the change of electromagnetic interference while driving your wheelchair.



Warranty

- ✓ The purchaser of this product is entitled to a limited warranty as offered by Miracle Mobility, and its affiliates on the following components and timeframes:
- ✓ Chair frame: 2 years, Motors: 1 years, Controller and CPU system: 1 year, Battery: 1 year
- ✓ Wearable parts not included: Includes tires, seat and back rest, armrests, and support straps are not included in the warranty.
- ✓ This warranty is valid for the replacement of dysfunctional parts only. Any parts under warranty will be replaced and shipped to your door. Any service and labor fees, if applicable, to replace parts under warranty must be paid by the user.
- ✓ Due to its straightforward design, most parts can be easily exchanged by the end user without a professional service tech required. However, it is always recommended you seek professional help for maintenance and service, to make sure the work is done properly.
- ✓ Please note modifying the wheelchair will void all warranties

The warranty does not cover:

- ✓ Products damaged by user negligence or abuse.
- ✓ Products damaged accidentally or intentionally.
- ✓ Products that have been improperly stored or mishandled.
- ✓ Products that have been improperly operated or have experienced general misuse.
- ✓ Products that have been modified in an unauthorized, unapproved way.
- ✓ Warranty is non-transferable and only valid for the original wheelchair purchaser.





24/7 CUSTOMER SERVICE AVAILABILITY

Miracle Mobility LLC
13575 58th St. N #201
Clearwater FL 33760

Google

5 Star Customer Rating



AAHOMECARE

American Association for Homecare

*Proud member of the American
Association for Homecare*



*"A" Rating for customer
satisfaction & support*



Miracle Mobility