

MOON POWER CHAIR

USER MANUAL



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INTRODUCTION

Thank you and congratulations on purchasing your new Movo Power Chair. It is designed to provide you with transportation ability indoors and outdoors.

We pride ourselves on providing safe and comfortable products. Our goal is to ensure your complete satisfaction with our product. We are certain that you will enjoy your Movo Power Chair.

Please read and observe all warning and instruction provided in the owner's manual before operating this scooter. Also, retain this booklet for future reference.

In case of a serious incident with the product, you should inform the Canadian distributor and your local retail distributor.

If you have any questions, you can contact:

Information of national Canadian distributor:



MOVO EVOLUTION INC.

Granby, QC J2G 9M6

Tel : 1-886-480-MOVO (6686)

www.movo-go.com

Information of local retail distributor:

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IMPORTANT PRECAUTIONS

- Only one person at a time can ride this Power Chair.
- Maximum load is 115 kg / 255 lbs.
- Turn off the power before getting on or off your power chair.
- Always drive carefully with your feet on the footplate and be aware of others in your area.
- Always use pedestrian crossings where possible. Take extreme care crossing roads.
- Do not drive on slopes exceeding 6 degrees, and take extreme care when turning on slopes.
- Do not use full power when turning sharp corners.
- Take great care and use low speeds for backing up, riding downhill, over uneven surfaces and curb climbing.
- The power chair may not operate well in high humidity.
- Never put your power chair in neutral on slopes.
- Follow all traffic laws when you ride in the vicinity of public roads.

ELECTROMAGNETIC INTERFERENCE AND WARNINGS

CAUTION: It is very important that you read this information regarding the possible effects of Electromagnetic Interference on your power chair.

Powered wheelchairs and motorized scooters may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones. The interference (from radio wave sources) can cause the power chair to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the power chair control system. The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each power chair can resist EMI up to a certain intensity. This is called its "immunity level." The higher the immunity level, the greater the protection will be. At this time, current technology is capable of achieving at least a 20 V/m immunity level, which would provide useful protection from the more common sources of radiated EMI. The immunity level of this product is 20 (V/m).

There are a number of sources of relatively intense electromagnetic fields in the everyday environment. Some of these sources are obvious and easy to avoid. Others are not apparent and exposure is unavoidable. However, we believe that by following the warnings listed below, your risk to EMI will be minimized.

Electromagnetic Interference and Warnings :

The sources of radiated EMI can be broadly classified into three types:

1. Hand-held portable transceivers (transmitters-receivers) with the antenna mounted directly on the transmitting unit. Examples include: citizens band (CB) radios, "walkie talkie," security, fire, and police transceivers, cellular telephones, and other personal communication devices.



Some cellular telephones and similar devices transmit signals while they are ON, even when not being used.

2. Medium-range mobile transceivers, such as those used in police cars, fire trucks, ambulances, and taxis. These usually have the antenna mounted on the outside of the vehicle.
3. Long-range transmitters and transceivers such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.



Other types of hand-held devices, such as cordless phones, laptop computers, AM/FM radios, TV sets, CD players, and cassette players, and small appliances, such as electric shavers and hair dryers, so far as we know, are not likely to cause EMI problems to your power chair.

Power Chair Electromagnetic Interference :

Because EM energy rapidly becomes more intense as one moves closer to the transmitting antenna (source), the EM fields from hand-held radio wave sources (transceivers) are of special concern. It is possible to unintentionally bring high levels of EM energy very close to the power chair control system while using these devices. This can affect power chair movement and braking. Therefore, the warnings listed below are recommended to prevent possible interference with the control system of the power chair.

Electromagnetic Interference and Warnings :

Warnings

Electromagnetic interference (EMI) from sources such as radio and TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones can affect the power chair. Following the warnings listed below should reduce the chance of unintended brake release or power chair movement, which could result in serious injury.

1. Do not operate hand-held transceivers (transmitters-receivers), such as citizens band (CB) radios, or turn ON personal communication devices, such as cellular phones, while the power chair is turned ON;
2. Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them;
3. If unintended movement or brake release occurs, turn the power chair OFF as soon as it is safe;
4. Be aware that adding accessories or components, or modifying the power chair, may make it more susceptible to EMI; and
5. Report all incidents of unintended movement or brake release to the distributor listed on the inside front cover of this manual. Note whether there is a source of EMI nearby.

Important Information

1. 20 volts per meter (V/m) is a generally achievable and useful immunity level against EMI (as of May 1994). The higher the level, the greater the protection.
2. The immunity level of this product is 20 (V/m).

SAFETY WARNING AND INSTRUCTION



1	Warning Sticker 1. Please read the instruction Booklet carefully before using your power chair. 2. Keep the power chair properly maintained. 3. Do not drive the power chair on slippery surfaces or on slopes over 6°. 4. Do not drive on highways, crowded roads, or unfamiliar areas. 5. Do not turn at high speed in either forward or reverse. 6. Do not wash with water or leave power chair in a humid environment since water can damage the electronic parts. 7. Always re-engage the emergency freewheel device after use.		
2	Transaxle test ok label	6	SN Serial Number REF Model Number Date of Manufacture Manufacturer Warning WEEE Conformity EC REP EU Authorized representative MD Medical Device CE European Conformity Consult Instructions for Use Max: Maximum weight capacity
3	Wiring diagram Label	7	Battery electrode label
4	Insulation label	8	N-D Lever adjustment label which instructs freewheel mode operation.
5	Left side of motor Right side of motor		

PRODUCT OVERVIEW

Before attempting to drive this scooter on your own, it is important that you familiarize yourself with the controls, and how to operate them.

Intended use : The Movo Power Chair provide a means by which a disabled occupant i.e. a disabled person or a person not having the full capacity to walk unaided to have mobility and the freedom to travel.

Indication : The occupant is a person who requires a power chair due to current or anticipated mobility limitations. The Movo power chair are intended to be applicable to at least 50% of adult users, based upon the body size of adult users within the range 50th percentile adult female to 50th percentile adult male the abilities and with vary in weight.

Contra-indications : None known.

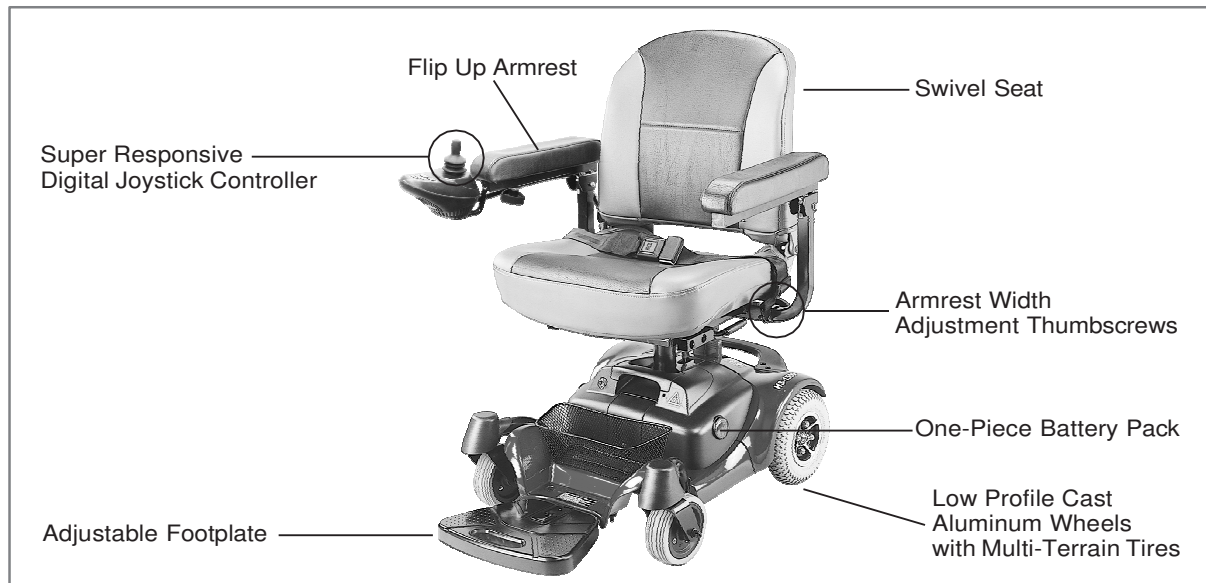


Figure 1 - MOON Power Chair Front View

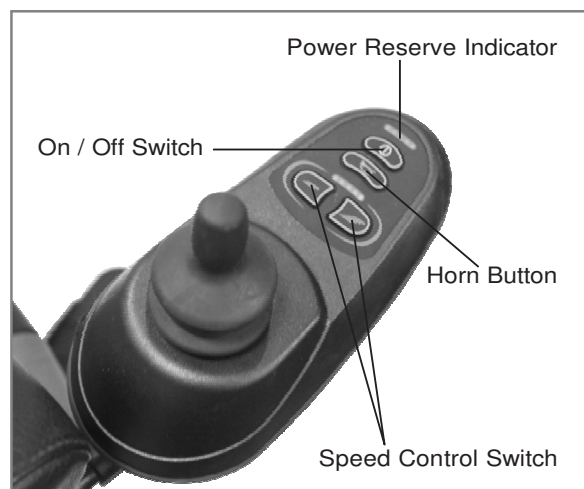


Figure 2 - MOON Joystick

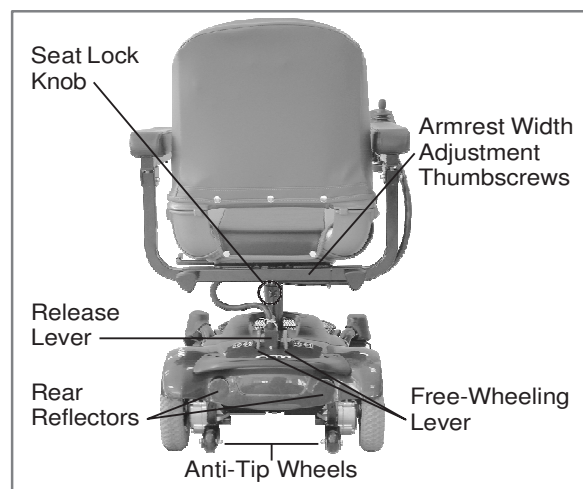


Figure 3 - MOON Power Chair Rear View

Joystick :

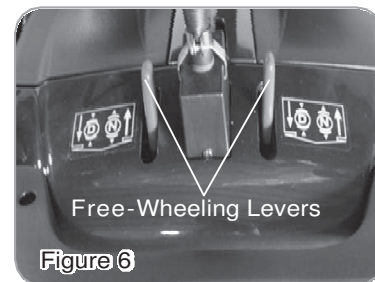
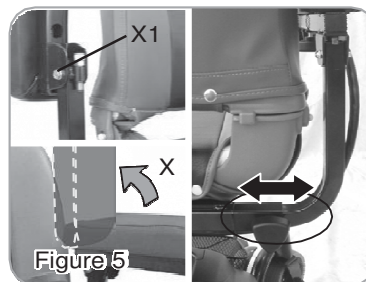
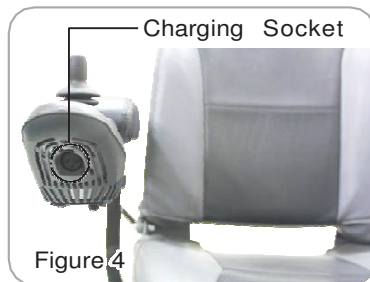
- **Speed Control Switch**
By pressing the right switch, you can increase the speed. Pressing the left switch will decrease the speed.
- **Power Reserve Indicator**
There are LED Power Reserve lights on the joystick. When all LED lights are on, the batteries are fully charged. When a few of the lights are lit, the batteries need to be recharged.
These lights also act as Self Diagnostic Warning Lights. When they flash, there is a problem with the power chair. See page 16 for more information.
- **Joystick Length Extension Knob**
Loosen the knob to adjust the joystick length.
- **Charging Socket**
When charging your power chair, use the power cord provided. To correctly charge your power chair, connect one end to the power chair charging socket and the other end to a wall outlet. See Charging the Batteries, page 13 for further instructions.

Armrest :

- **Armrest Width Adjustment Thumbscrews**
Loosen the two thumbscrews to adjust the armrest width; tighten again to lock in the desired position.
- **Armrest Height Adjustment Screw**
By adjust screw (X1) to a comfortable position.

Power Base :

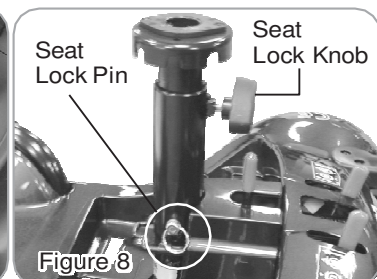
- **Free-Wheeling Lever**
When the lever is in the N (Neutral) position, the power chair can be moved without power. When the lever is in the D (Drive) position, the power chair can be driven. Normal position is D.



- **Circuit Breaker**
This is to protect your power chair from any excess current within the electrical parts. If the power chair suddenly stops, pushing the circuit breaker back in will help resolve this problem.
- **Anti-Tip Wheels**
Added safety feature to keep chair from tipping over.

Below Seat :

- **Seat Rotation Lever**
Pull the seat rotation lever up to adjust seat's turning angle, also can lift up the seat. Do not turn the seat more the 180 degree due to length of joystick cable.
- **Seat Lock Knob & Pin**
Turn seat lock knob counterclockwise to loose. Turn it clockwise to lock seat in position. Remove the battery pack to locate the seat lock pin. There are three holes on seat post to adjust seat height. Be sure lock pin is fully inserted at its new height and knob is tightened if adjusted.



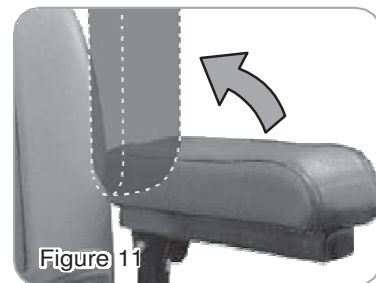
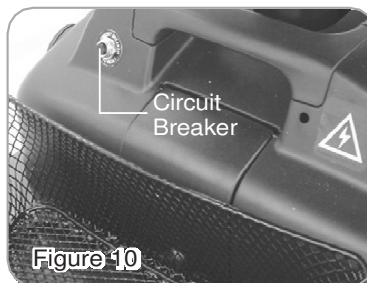
OPERATING YOUR POWER CHAIR

Before beginning your journey with your new power chair, make sure that the power chair is on a level surface and clear of any obstacles. Although your power chair is able to climb slopes it is safer to practice on a level surface.

1. Before operating your power chair, check the following:
 - freewheeling lever is on D.
 - speed control switch is at the lowest speed (repeatedly pressed left switch).
2. Sit on the chair and fasten the seatbelt.
3. When turning on the button on the joystick, all power reserve LED lights should be lit. All power reserve lights should not be flashing.
4. While resting your arms on the armrests, the joystick should be within reach. By pushing the joystick slightly forward, the power chair will move forward slowly. Pushing the joystick fully forward, it will move at normal speed. Adjusting the speed control switch will also decrease and increase the speed. Also, with the joystick you are able to turn the chair 360°. When the joystick is released and back in the neutral position, the chair will stop.
5. Practice driving where there are no obstacles. Start at the slowest speed and move forward and backward; make some turns. As you get more comfortable you can increase the speed by pressing the speed control switch repeatedly.
6. When the power reserve Indicator is lit in only a few sections, you should plan to recharge the batteries very soon.
7. If the power chair suddenly stops and does not function, locate the circuit breaker at the rear of the power chair. Push it in and try the power chair again.
8. When you are finished driving your power chair, turn the power off before getting out. It is recommended that you lift the armrest and get out to the side, for safety.

Caution: While standing up, avoiding standing on the footplate as it may cause injury.

9. If you are finished riding for the day, immediately recharge the batteries.
See **CHARGING THE BATTERIES** on page 11.



Keep in mind these rules :

- Use your power chair only where it would be safe to walk.
- Use low speeds for reverse, downhill, ramps, curbs, or uneven surfaces.

Other Operating Information :

Hill climbing: You may need to use a higher speed. For a higher speed, press the right speed control switch repeatedly.

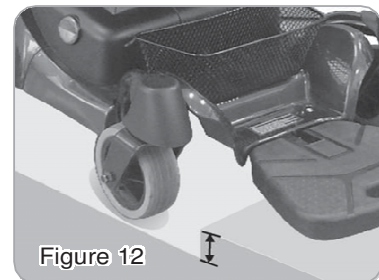
Down slopes: To proceed down steep slopes slowly, press the left speed control switch. This enables driver control when the speed is set at a slower motion. However, your power chair will not self accelerate down hills due to the automatic braking taking effect should you attempt to drive too fast.

Curb climbing: Approach slowly at right angles to the curb. A direct approach is needed. Do not attempt curb climbing greater than a 0.9" curb.

If the Self-Diagnostic Warning Lights start to flash, identify the problem from the chart on page 16 and take action.

If the power chair breaks down and must be moved aside, please follow these directions:

1. Get off the power chair.
2. Push the free-wheeling lever to N.
3. Move the power chair slowly to a safe location.
4. Put the free-wheeling lever back to D.



DISASSEMBLING / RE-ASSEMBLING YOUR POWER

Taking apart your power chair enables you to save space when keeping it in storage or to carry it along in your vehicle when going away from home. Having the power chair disassembled is easier than ever since no tools are required. To ensure your safety, please have the freewheeling lever to D to engage the motor.

Disassembling :

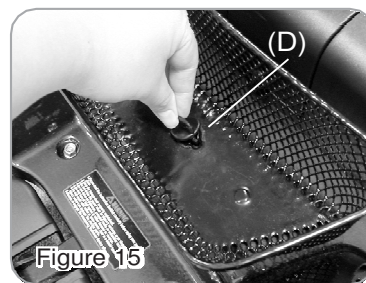
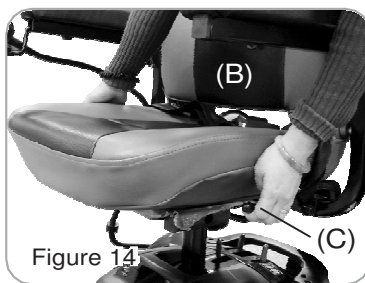
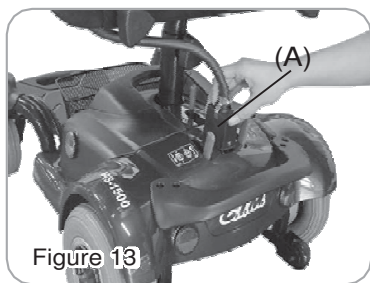
Unplug the Joystick Cable Connector (A) at the rear of the power chair. (See Fig. 11)

Pull the Seat Rotation Lever (B) underneath the front part of the seat to unlock. Lift Seat (C) up to remove. (See Fig. 12)

Remove the Basket by turning and removing the center Rivet (D). (See Fig. 13)

Remove the Battery Pack (E) by holding the Battery Pack with one hand and the other hand pushing the Release Lever (F) to the rear of the chair. (See Fig. 14)

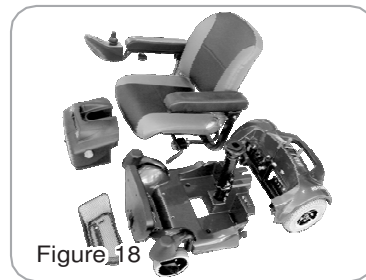
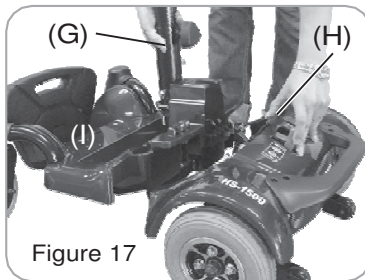
Detach the chair frame by holding the Seat Post (G) with one hand, the other hand pushing the Release Lever to the rear of the chair Lift the seat post to separate the Front Frame Assembly (H) from the Rear Frame Assembly (I). (See Fig. 15)



Once all the parts have been disassembled, you are now able to put the pieces in storage or in a vehicle for transportation. (See Fig. 16)

Re-assemble :

To re-assemble your power chair, you can repeat the disassembly directions in reverse.



CHARGING THE BATTERIES

Your Movo power chair is equipped with two, service free 12V 14Ah rechargeable batteries and one 24V/2A on-board charger. Batteries must be charged before using the power chair for the first time and recommended to be charged up to 8 - 14 hours after each day's use. Be sure the power switch is in the OFF position and the free-wheeling lever is in the "D" position.

1. Insert the battery charger cord into the charging socket on the joystick.
2. Plug the other end of the power cable into a standard electrical wall outlet.
3. Once the batteries are fully charged, the light on the charger will change to green, please unplug the power cord from the wall outlet and the power chair. The power cord should be stored in a safe and dry location until it will be used again.
4. If after charging your power chair over 8 - 14 hours and it does not function, please check:
 - fuse is not burned out
 - the power chair is turned off
 - circuit breaker is pushed in
 - if none of these is a problem, contact your authorized dealer.



Figure 19



The time needed to recharge will vary depending on the depletion of the batteries. Charging for longer than necessary will not harm the batteries. They cannot be overcharged.

For safety, please follow the guidelines below :

1. DO NOT use the charger if the power cord is damaged.
2. DO NOT use an extension cord when charging your batteries.
A risk of fire and/or electric shock could be encountered.
3. DO NOT take apart the charger, as this will void the warranty.

Keep in mind these rules :

- Fully charge batteries at least once a month, or more if you use power chair regularly. Charge after each trip exceeding 3 kilometers.
- If storing your power chair for some time (1 month or more), make sure that batteries are fully charged, and on returning, charge them again before using power chair.
- Batteries will only give maximum performance after power chair has been used, and batteries have been recharged up to 10 times.

Please be aware that the travelling range of your power chair is impacted by how fast the batteries are discharged. This will depend on many circumstances, such as ambient temperature, condition of the surface of the road, tyre pressure, weight of the user, driving environment (inclines etc.) and utilisation of your lighting system if fitted. We recommend that you test your local ride with a family member to ensure a safe journey.

CARE AND MAINTENANCE

Taking care of your power chair will keep it in top-notch condition. It is recommended that you have your dealer provide preventative maintenance service of your power chair on a regularly basis. Here are a few maintenance guidelines:

BODY COVER :

If your power chair is dirty, use a damp or lightly soapy cloth to wipe it down. Do not use running water to wash or rinse the power chair in order to protect the electrical parts. Polish with an automotive liquid polish.

SEAT AND ARMRESTS :

The seat material is of high quality and will remain in good condition for many years if treated responsibly. Using a damp cloth helps clean the upholstery greatly. Please note that using power chair outdoors could lead to sun damage to upholstery material, and normal wearing and tearing is not covered under warranty.

SEAT BELT :

A damp cloth with mild soapsuds should only be used to clean seat belts. Wipe seat belts gently and remove residue. Do not use any chemical products to clean seat belts as fabric will be weakened.



An authorized dealer should handle all maintenance and repair associating with electronics, batteries, motor parts, and tires. Here are the guidelines that can be followed by authorized dealer.

FLAT SPOT (for solid tires only) :

During storage period, a flat spot may occur to solid tires. Weather conditions and storage period determine the condition of flat spots. By driving power chair 20 to 30 minutes, flat spots could be eliminated.

TIRE PRESSURE (for air-filled tires only) :

The condition of tires and maintenance of specified tire pressures not only influence tire life, but also effect road safety to a very considerable extent. Incorrect pressure is often a cause of tire problems and could result in an accident. The recommended tire pressure is 35 psi.

TIRE TREAD :

Inspect the tires frequently for any signs of damage, such as unusual wearing or insufficient tread depth. Tread depth should not be allowed to drop below 1 mm.

ELECTRICAL CONNECTIONS :

Make sure battery terminals and all plug connectors are secured and firmly attached. If battery terminals are corroded, please contact your dealer for replacement.

HARDWARE :

Check that all hardware is securely fastened. Replace any missing hardware by contacting your dealer for information of parts.

Additional Information STORING :

Between uses, your power chair is best stored in a dry location at room temperature.

TROUBLESHOOTING

Here are some suggestions about solving problems you may have with your power chair. There are 10 LED Self-Diagnostic Warning Lights on the Control Panel. To check the Self-Diagnostic Warning Lights, turn the power chair on and count the number of flashes.

Number of Flashes	Solution
1 bars	The battery needs charging or there is a bad connection to the battery. Check the connections to the battery. If the connections are good, try charging the battery.
2 bars	The left hand motor has a bad connection. Check the connections to the left hand motor.
3 bars	The left hand motor has a short circuit to battery connection. Contact your service agent.
4 bars	The right hand motor has a bad connection. Check the connections to the right hand motor.
5 bars	The right hand motor has a short circuit to battery connection. Contact your service agent.
6 bars	Not used.
7 bars	A joystick fault is indicated. Make sure that the joystick is in the center position before switching on the controller.
8 bars	A controller fault is indicated. Make sure that all connections are secure.
9 bars	The parking brakes have a bad connection. Check the parking brake and motor connections. Make sure the controller connections are secure.
10 bars	A excessive voltage has been applied to the controller. This is usually caused by a poor battery connection. Check the battery connections.

If the programmable parameter, Motor Swap, has been changed then left and right hand references in this table will need transposing.

Other Problems :

- Power chair will not move when the power is turned on:
 1. Check the Battery Level Indicator on the joystick. All the LED lights should be on.
 2. Check the Self-Diagnostic Warning Light. It should be steady. If it is flashing, see the chart on page 13 for the problem identification.
 3. Check all electrical connections to be sure they are tight.
 4. Verify the batteries are connected correctly.
 5. If none of these suggestions correct the problem, contact your authorized dealer.
- If charging your power chair over 14 hours and the light on the charger does not change to green, then contact your authorized dealer.

Please note that your power chair is equipped with a controller that constantly checks the drive system for a safe and enjoyable ride. If an error occurs, the Battery Level Indicator will provide you an indication of the problem by way of flashing lights.

SPECIFICATION

Overall Length	810 mm / 31.9"
Overall Width	600 mm / 23.6" (Armrest Width)
Overall Height	935 mm / 36.8"
Front Wheels	130 mm / 5"
Middle Wheels	N/A
Rear Wheels	200 mm / 8"
Weight W/ Batteries	47.8 kg / 105.4 lbs
Max. Speed	6.3 kmph / 4 mph
Weight Capacity	115 kg / 255 lbs
Ground Clearance	40 mm / 1.6"
Grade Climable	6 degree
Curb Climable	30 mm / 1.2"
Turning Radius	695 mm / 27.4"
Suspension	N/A
Brake	Electro-Mechanical
Seat Type	Swivel Light Weight Foldable, Adjustable Seat Height W/ Seat Belt
Seat Width	470 mm / 18.5"
Drive Train	2 Motor, Rear-Wheel Drive
Motor Size	150W, 2800 r.p.m
Battery Size	(2) 12V. 14Ah
Weight of Battery Pack	10.4 kg / 23 lbs
Travel Range	10.6 km / 6.6 Miles
Battery Charger	2A Off Board

*Subject to change without notice. (Rev. 7, 2023/05/05)

WARRANTY

Movo products are designed to deliver an excellent performance and are high quality. For any warranty claim on an item deemed to be defective by both parties, Movo will, at its discretion, replace, repair or refund the defective item. The warranty begins upon receipt of the product by the retailer. Any damage or defect caused by misuse of the product is not covered by the warranty.

- Frame: two-year limited warranty.
- Controller: One year limited warranty.
- Electronic components (including motor gearbox) and charger: One-year limited warranty.

Excluded From Warranty

- Engine brushes
- Tires
- Armrest
- Seat cushions
- Fuses and bulbs
- Bar cover (lining)
- Front and rear linings
- Batteries and consumables

For more information, please visit our website: www.movo-go.com



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