



ADVANCING MOBILITY.



ROVI® A3 | *User Manual*

Disclaimer

This power wheelchair is not intended to be used by individuals with physical limitations that could prevent the user from operating the power wheelchair safely. ROVI® Mobility disclaims all responsibility for any personal injury or property damage that may occur as a result of improper or unsafe use of its products.

Warranty is only valid when genuine ROVI® A3 parts are used, All modifications on the power wheelchair, unless approved and authorized by Rovi® Mobility, will automatically invalidate the warranties. Standard warranty does not extend to “wear and tear” items and parties other than the original user. Please refer to “Warranty,” in Section III for more information.

The following guidance is intended to assist you in the safe operation of this power wheelchair. If you should have any questions about the correct operation of your power wheelchair, please contact your authorized ROVI® A3 provider.

Make: ROVI® A3 Model #888WNLEA3-MPM (Multi-Power Option); 888WNLEA3-MPS (Single-Power Option)

Pihsiang Machinery Mfg. Co., LTD. Model # 888WNLE-5003

Provider Stamp

Serial No.: _____

Doc #300904-158 10.29.18-Ver.-2

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Introduction

This power wheelchair is designed for comfort, safety, stability, and maneuverability with smooth control for today's active lifestyle. The ROVI® A3 helps you regain your mobility and independence.

The following innovations are included in the ROVI® Mobility Series:

- Mid-wheel drive for maximum maneuverability
- 6-wheel design for ultimate stability
- Industry best overall width
- Active Ride Control (ARC) Suspension
- Programmable joystick controller
- Deluxe reclining captain seat (some units)
- Adjustable footplate and arm assemblies
- Flat-free tires
- Easy access batteries
- 8A off-board battery charger
- USB Charger Adapter

This manual contains important information to allow optimal use of the ROVI® A3 and to ensure the safety of the user. Please read this manual carefully and thoroughly before using your power wheelchair and make sure you understand all the instructions. If you have any questions, please contact your provider or ROVI® Mobility, see below:

ROVI® Mobility Products

1338 Storm Parkway Suite D
Torrance CA 90505

Intended Use

The intended use of the 888WNLE powered wheelchair by Pihsiang Machinery Mfg. Co., LTD is to provide mobility and positioning to individuals who are limited to a seated position.

Service Life

The expected service life is five years, presuming that the device is used daily and in accordance with the safety instructions, maintenance instructions and intended use stated in this manual.

Prescription Statement



CAUTION: Federal law restricts this device to sale by or on the order of a practitioner licensed by the law of the state in which he/she practices.

The final decision on the type of power wheelchair to be used is the responsibility of the user and his or her healthcare professional (physician, physical therapist, etc.). ROVI® Mobility is not responsible for the inappropriate selection of a power wheelchair model, its features, or improper fitting of the wheelchair.

Symbols

Safety symbols and key words are used in this manual and apply to hazards or unsafe practices that could result in personal injury or property damage.



DANGER

Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

Caution indicates a potentially hazardous situation which, if not avoided, may result in property damage, minor injury, or both.



IMPORTANT!

Indicates important information regarding the operation of your power wheelchair or a hazardous situation that could result in damage to property if not avoided, or both.

Safety Warnings!



IMPORTANT! PRIOR to operating your ROVI power wheelchair, please carefully read through ALL safety warning and information provided. Being safe in a wheelchair requires anticipating potential problems, using common sense, proper maintenance of equipment, and communicating with your caregiver and/ or your service provider.



WARNING! Risk of Death, Injury or Damage

DO NOT use this device or any supplemental equipment without first completely reading and understanding these instructions and any additional documentation such as user manuals, service manuals or instruction sheets supplied with this device or any supplemental equipment.

If you are unable to understand any of the warnings, cautions or instructions contained in this manual, contact your healthcare professional or service provider before attempting to use this device.

Setup and Adjustment



DANGER! Improper setup and adjustment of this product may cause erratic behavior of the wheelchair, resulting in death, serious injury or damage.

For maximum safety, a qualified technician must perform the initial setup and adjustment of this wheelchair. Incorrect settings could cause serious injury to the user, bystanders, the wheelchair, or the surrounding property.

Performance adjustments must only be made by qualified technicians or professionals of the healthcare field that are conversant with the programming procedures and the

end users capabilities

After the wheelchair has been set-up or adjusted, ALWAYS check to make sure that the wheelchair performs to the specifications entered during the set-up procedure. If the wheelchair does not perform to specifications, turn off the wheelchair immediately and re-enter set-up specifications. Repeat this procedure until the wheelchair performs to specifications.

Guidelines When Driving Your Power Wheelchair

Wheelchair Drive Program



WARNING! Changes to the wheelchair drive program can adversely affect the driving characteristics of the wheelchair and may result in serious injury or damage.

It is the Service Provider's responsibility to select a suitable wheelchair drive program, and to ensure that appropriate and safe operating limits are established for the end user. Changes to the drive program (maximum acceleration and deceleration of the wheelchair) must only be carried out by qualified service technicians. Unauthorized adjustments beyond safe operating limits may cause serious injury or damage.

Outdoor Driving Surfaces



WARNING! Driving your power wheelchair in rough or unstable terrain may result in damage or serious injury

DO NOT operate the wheelchair on rough or unstable terrain. This would include, but is not limited to areas of rock, gravel, sand, mulch, mud, uneven pavement, roots and similar conditions. **AVOID** traveling in tall grass that may can become entangled in the running gear.

DO NOT use your power wheelchair on or near railroad tracks or crossings

DO NOT use your power wheelchair in fresh or salt water

DO NOT use your power wheelchair near the edge of a stream, lake or ocean.

Use caution when operating the wheelchair outdoors at night or in areas with poor lighting;

ALWAYS be aware of surroundings & conditions that might affect the ability to operate the wheelchair.

Public Streets and Roadways



DANGER! Driving your power wheelchair near motor vehicles may result in damage, serious injury or death.

ALWAYS be aware of motor vehicles when using the wheelchair;

Driving on public streets or roadways is a very dangerous place for a power wheelchair and should be avoided. Outdoor travel should be limited to sidewalks and paths whenever possible; Use extreme caution when crossing a busy street. ALWAYS obey traffic signals (street lights and crosswalks), and ensure all traffic has stopped before proceeding across the street.

Curbs and Sidewalks



WARNING! Risk of Damage or Injury when traveling over curbs or sidewalks

DO NOT attempt to negotiate a curb with a height above 3" (80mm). When approaching a curb or sidewalk it is preferable to look for a curb cut-out or driveway;

When approaching a curb, return the seating to its upright position, and ALWAYS drive your power wheelchair straight up the curb (not on an angle). This greatly reduces the possibility of tipping;

ALWAYS reduce speed and proceed with caution when negotiating a curb (see also-

Guidelines When Traveling on Inclines).

Stairs and Escalators



WARNING! Never use your power chair to negotiate stairs or escalators.

Power chairs are not designed to travel up or down stairs or escalators. Always use an elevator. Use extreme caution if it is necessary to move an unoccupied power chair up or down stairs. It is recommended that 2 attendants perform the task and that the seat, batteries and any accessories be removed before attempting the task. Use proper lifting techniques and use only solid, non-removable frame components to lift the chair

Cornering Information



WARNING! High cornering speeds and sharp steering angles may cause a loss of traction and/or a loss of stability which can result in damage, serious injury or death

DO NOT make sudden direction changes at high speed. When cornering sharply, reduce your speed and maintain a stable center of gravity (or allow the wheelchair to come to a full stop before changing direction).

ALWAYS shift your weight in the direction you are turning. Shifting your body weight in the opposite direction of the turn may cause the inside drive wheel to lose traction

Alcohol and Medications



DANGER! Risk of Damage, Serious Injury or Death if the wheelchair is operated when judgment or ability is impaired

NEVER operate your wheelchair under the influence of medication or alcohol or other

substances that impair judgment.

Changing medications may affect your ability to operate the wheelchair. Discuss the ability to operate the wheelchair with a healthcare professional when changing medications.

DO NOT operate the wheelchair under conditions where judgment or function may be impaired. This may include, but is not limited to lack of sleep or poor vision.

Inclement Weather Precautions



CAUTION! Operating the wheelchair in rain, snow, mist or dampness may cause the wheelchair to malfunction electrically and mechanically, may cause the wheelchair to prematurely rust or may damage the upholstery.

ALWAYS maintain and store your power chair in a dry and clean condition.

If your wheelchair is exposed to significant water/moisture, thoroughly dry the power chair before storing or charging the batteries;

DO NOT leave wheelchair in a rain or snow storm of any kind;

DO NOT use wheelchair in a shower;

DO NOT leave wheelchair in a damp area for any length of time;

Check to ensure that the battery covers are secured in place;

Check that joystick boot is **NOT** torn or cracked where water can enter. If the joystick boot becomes torn or cracked, replace **IMMEDIATELY**

Check that all electrical connections are secured and inspect for signs of corrosion.

Replace any damaged electronics **IMMEDIATELY**



CAUTION! Prolonged exposure to hot or cold conditions may affect the temperature of upholstered and non-upholstered items on the power chair, possibly resulting in skin irritation.

Exercise caution when using your power chair in extremely hot or cold conditions or when

exposing your power chair to direct sunlight for prolonged periods of time.

Braking Information



WARNING! Risk of damage or injury if the wheelchair is switched off while driving at full speed

To brake or stop in an emergency, simply release the joystick to bring the wheelchair to a full stop;

DO NOT attempt to stop the wheelchair by turning off power to the joystick (On/Off button) or by disconnecting a cable.

Braking or stopping distance is increased and traction is reduced when traveling at high speed.



WARNING! Not wearing your postural belt could result in serious injury or death.

ALWAYS wear your postural belt when you are occupying the wheelchair. Your postural belt helps reduce the possibility of a fall from the wheelchair.

The postural belt is a positioning strap only; it is NOT designed for use as a safety device to withstand high stress loads such as the safety belts used in automobiles or aircraft.

Stability Warnings



WARNING! Moving the seating system from the factory setting may reduce driver control, wheelchair stability, traction and increase caster wear resulting in serious injury or damage.

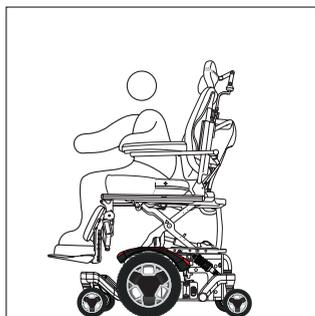
Move the seating system ONLY when necessary to fit the wheelchair to the user;

If the seating system must be moved, ALWAYS inspect the wheelchair to ensure the front

rigging DOES NOT interfere with the front casters;

If the seating system must be moved, **ALWAYS** inspect to ensure the wheelchair **DOES NOT** easily tip forward or backward.

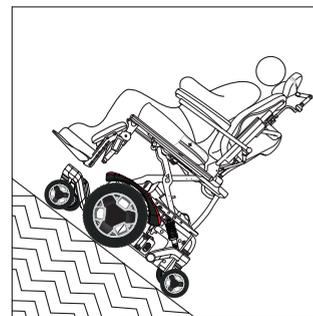
Usage Warnings!



Do not reach outward or backward while in an elevated position.



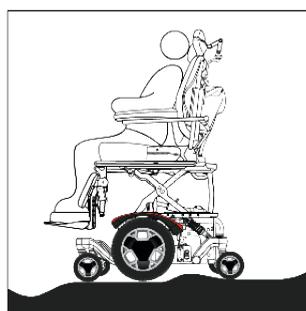
Avoid placing hands in pinch point areas.



Do not drive while elevated on an incline.



Do not drive with anyone else sitting or standing on your power chair.



Do not drive on uneven surfaces while in an elevated position.



DANGER! Missing attaching hardware could cause instability resulting in death, serious injury or damage.

Ensure all attaching hardware is present and tightened securely.



WARNING! The stability of the wheelchair can be adversely affected by additional weight that shifts the center of gravity

DO NOT use the power wheelchair to transport more than one person (including children or pets). Carrying passengers on your power chair may affect the center of gravity, resulting in a tip or a fall;

DO NOT carry heavy objects on your lap while operating the wheelchair.



WARNING! Improper body positioning such as reaching, bending or transferring in the wheelchair could compromise wheelchair stability resulting in serious injury or damage.

Your wheelchair has been designed to remain upright and stable during normal daily activities. To ensure that proper balance and wheelchair stability is maintained:

ALWAYS determine and establish your particular safety limits by practicing bending, reaching and transferring activities in the presence of a qualified healthcare professional before attempting active use of the wheelchair.

DO NOT shift your weight or sitting position beyond the center of gravity.

DO NOT lean forward out of the wheelchair any further than the length of the armrests.

DO NOT attempt to reach objects if you have to move forward in the seat or pick them up from the floor by reaching down between your knees.

ALWAYS wear your postural belt when you are occupying the wheelchair. Your postural belt helps reduce the possibility of a fall from the wheelchair.

When driving, **ALWAYS** shift your weight in the direction you are turning. Shifting your weight in the opposite direction of the turn may cause the inside drive wheel to lose traction, and may compromise the stability of the wheelchair.

DO NOT stand on the wheelchair frame/footplates/foot platform.

DO NOT lean over the top of the back of the wheelchair.



WARNING! Loss of traction or stability on rough or unstable terrain may cause injury, damage or death.

Use care when operating the wheelchair on rough or unstable terrain. This would include but is not limited to areas of rock, mulch, mud, uneven pavement, roots and similar conditions;

Be aware of your surroundings and conditions that might affect stability and the ability to operate the wheelchair.



DANGER! Driving while on an incline could cause a loss of stability resulting in death or serious injury.

ALWAYS take extra precautions when traveling up or down an incline. To ensure your wheelchair stability is not compromised, ROVI recommends a maximum safe incline/slope angle of 7.5° (13.2%) for the standard ROVI Captain Seat. (If your wheelchair is configured with the optional Motion Concepts Power Positioning System, the maximum recommended safe incline/slope angle is 6° (10%) (with the wheelchair in the full upright and fully lowered position). (See also- Guidelines When Traveling on Inclines)

Guidelines When Traveling on Inclines



DANGER! Failure to observe these warnings when travelling on an incline may result in tipping, serious injury or death.

If the power chair must climb up or down a ramp or incline which exceeds the maximum recommended safe slope, **ALWAYS** have an attendant present to monitor and assist the process for safety.

ALWAYS wear your postural belt when climbing up or down a ramp or incline. Your postural belt reduces the possibility of a fall from the wheelchair, and should be worn whenever the wheelchair is occupied.

NEVER place your power wheelchair in freewheel mode on any type of incline, especially while seated on the wheelchair, or standing next to it.

ALWAYS exercise extreme caution when traveling on an incline; **DO NOT** zigzag, make sudden direction changes or drive at an angle up the face of the incline. Return your seating system to an upright driving position, and **ALWAYS** drive your power wheelchair straight up the incline; This greatly reduces the possibility of tipping.

NEVER travel down an incline or ramp backwards. Doing so may cause the power wheelchair to tip.



DANGER! Traveling on inclines with wet, slippery, icy or oily surfaces could cause a loss of traction resulting in serious injury or death.

Loss of traction on ramps and inclines can occur for a variety of reasons including; water, ramp material, surface conditions, steepness or grade etc. Lighter weight users may be at an increased risk for loss of traction. As such, when using on ramps or inclines

ALWAYS reduce speed and proceed with caution.

DO NOT travel on inclines with wet, slippery, icy or oily surfaces. This may include, but is not limited to, wet leaves, cut grass and certain painted or otherwise treated wood surfaces.



DANGER! Braking hard and/or sudden stops while on inclines could cause loss of stability resulting in serious injury or death.

While on inclines, **ALWAYS** travel at a reduced, constant speed to maintain stability. Traveling down ramps at high speeds will reduce traction and increase stopping distance

DO NOT brake hard and avoid sudden stops while traveling on an incline. If stopping becomes necessary while on an incline, release the joystick and allow the wheelchair to come to a full stop. Then proceed at a slower speed.



WARNING! When transferring a power wheelchair on a ramp to/from a vehicle for transport, adhere to the following guidelines:

It is always better to transfer the power chair to/from a vehicle without the occupant seated in it. If the power wheelchair needs to be loaded/unloaded on a ramp together with its driver, ensure that the ramp does not exceed the maximum recommended safe slope. If the power wheelchair needs to be loaded/unloaded on a ramp which exceeds the maximum safe slope, or if the wheelchair must be tilted or reclined to enter/exit the vehicle,

ALWAYS have an attendant present to safely monitor and assist the transfer process. As an alternative, a platform lift may be used. Ensure that the total weight of the power wheelchair does not exceed the maximum permissible weight for the platform lift or winch being used.

Transferring Guidelines



WARNING! Failure to turn off power to the wheelchair and/or failure to engage the motor locks could cause the wheelchair to move during transfer activities which may result in serious injury.

Before transferring in or out of your wheelchair, **ALWAYS** turn the wheelchair power off; **NEVER** transfer with the power turned on.

ALWAYS ensure both motor locks or freewheel hubs are engaged to prevent the wheels from moving



WARNING! Improper transfer techniques may cause serious injury or damage. **DO NOT** use armrests for load bearing support when performing transfers in or out of the wheelchair.

To prevent the risk of personal injury and/or damage to the armrests, transfers should be performed in the presence of an attendant whenever possible;

ALWAYS reduce the gap between the transfer surface and the wheelchair seat to the minimum distance needed to perform transfer;

Align the casters parallel to the drive wheels to improve stability during transfer;

NEVER use footplates/platforms as a support during forward transfers. When transferring in or out of the wheelchair seat, ensure that footplates/foot platforms are in a flipped up or back to provide the necessary clearance.

General Safety Guidelines



WARNING! Unauthorized wheelchair modifications or the use of unapproved accessories may result in serious injury or damage.

DO NOT modify your power wheelchair in any way not authorized by your Service Provider; **DO NOT** use accessories that have not been tested or approved for your ROVI power chair. Approved accessories must be installed by your authorized service provider, or a qualified technician.



WARNING! Continued use of the wheelchair with damaged parts could lead to the device malfunctioning, causing death, serious injury or damage.

Check all device components and carton for damage and test components before use. In case of damage or if the wheelchair is not working properly, stop using the wheelchair and contact a qualified technician or service provider for repair.



DANGER! Use of incorrect or improper replacement (service) parts may cause death, serious injury, or damage.

Replacement parts **MUST** match original ROVI parts;

ALWAYS provide the wheelchair serial number to assist in ordering the correct replacement parts.



WARNING! Hardware that is loosely secured could cause loss of stability resulting in serious injury or damage.

After ANY adjustments, repair or service and before use, make sure that all attaching hardware is tightened securely.



WARNING! Loss of power due to loose electrical connections could cause the wheelchair to suddenly stop resulting in serious injury or damage.

ALWAYS ensure that all electrical connections are tightly connected so they don't vibrate loose.



WARNING! Risk of injury by moving parts and pinch points.

ALWAYS be aware of your surroundings, to avoid personal injury and injury to other individuals from moving parts on the power wheelchair; Be mindful of potential pinch points. Keep hands, fingers or limbs clear of any moving/sliding mechanisms or parts on the power wheelchair. Use caution when operating your wheelchair, especially around children and pets.



WARNING! Risk of damage or serious injury if wheelchair is accidentally set into motion

ALWAYS switch the wheelchair power off before you get in, get out or handle unwieldy objects;

ALWAYS turn power off on the wheelchair when around pets and/or children to prevent unintended activation/movement.

When the drive motors are unlocked for manual pushing (freewheel mode), the brake inside the drive motors is deactivated. **NEVER** leave your wheelchair on a gradient with its motors unlocked.

ALWAYS re-engage the motor locks immediately after pushing the wheelchair;

Weight Limitations



IMPORTANT! Your power chair is rated for a maximum weight capacity. Refer to the Specifications Table (Section 03) for the weight capacity limit. Please note that the maximum weight capacity includes the combined weight of the user and any accessories mounted to the power chair.



WARNING! Exceeding the weight capacity may result in serious injury or damage to the wheelchair, and will void your warranty.

The addition of accessories to the power chair may change the overall weight, size and center of gravity of your power chair. When determining your weight limitations, **ALWAYS** take into consideration any additional accessories on the wheelchair;

ALWAYS stay within the specified weight capacity of your power chair;

DO NOT use the power wheelchair to transport more than one person;

ROVI Mobility will not be held responsible for injuries and/or property damage resulting from failure to observe weight limitations.

Motor Vehicle Transportation



IMPORTANT! Failure to comply with the transportation safety warnings provided below, may result in damage, serious injury, or death. Please be certain to read and understand all safety warnings **PRIOR** to transporting your wheelchair. If you have any questions or concerns regarding the safe transportation of your wheelchair in a motor vehicle, please contact your service provider for assistance.

Loading the Wheelchair into a Vehicle



WARNING! When loading a power wheelchair into a vehicle for transport, adhere to the following guidelines, otherwise serious injury or damage may occur. It is always better to transfer the power wheelchair to a vehicle without the occupant seated in it.

If the power wheelchair needs to be loaded up a ramp together with its driver, ensure that the ramp does not exceed the maximum recommended safe slope angle (see also-Guidelines for Traveling on Inclines)

If the power wheelchair needs to be loaded using a ramp which exceeds the maximum safe slope, or if the wheelchair, **ALWAYS** have an attendant present to safely monitor and assist the loading process.

As an alternative, a platform lift may be used. Ensure that the total weight of the power wheelchair does not exceed the maximum permissible weight for the platform lift or winch if you are using.

Transportation Safety Warnings



DANGER! Risk of Damage, Serious Injury, or Death

This wheelchair seating system in combination with the wheelchair base has **NOT** been crash tested and may **NOT** be used as a vehicle seat!

The ROVI A3 power wheelchair has not been tested to the requirements of ISO 7176-19:2001 or ANSI/RESNA WC-19 and may not under any circumstances be used as a vehicle seat or to transport the user in a vehicle.

Using a wheelchair that does not fulfill these criteria as a vehicle seat can lead to the most severe injuries and even death in the event of a traffic accident.



DANGER! When traveling in a motor vehicle you must be properly secured in a motor vehicle seat with safety belts securely fastened. Failure to do so may result in property damage, serious injury or death.

Although your chair may be equipped with a positioning belt, this belt is not designed to provide proper restraint during motor vehicle transport. **DO NOT** sit in your wheelchair while it is in a moving vehicle.



WARNING! Use only approved/designated Transport Brackets to tie-down the wheelchair base during transport otherwise serious injury or damage may occur.

Wheelchair bases **MUST** be equipped with Transport Brackets (**TRBKTS**) for safe transportation in a motor vehicle; Approved tie-downs straps **MUST** be secured at the designated/labelled anchoring points on the Transport Brackets Figure 9 & Figure 10.

NEVER allow any part of the upper seating system to be used as a tie-down point to anchor the wheelchair to the transporting vehicle.



WARNING! When traveling in a motor vehicle the wheelchair must be properly secured using an approved Wheelchair Tie-Down and Occupant Restraint System (**WTORS**) otherwise serious injury or damage may occur.

If you are unable to fasten your electric wheelchair securely in a transport vehicle, we recommend that you do not transport it! Before transporting your wheelchair, make sure the motors are engaged and that the wheelchair power is switched off.

NEVER allow your wheelchair to be lifted by any part of the upper seating system. We strongly recommend securing the wheelchair to the floor of the transporting vehicle. **ALWAYS** anchor the wheelchair in the transport vehicle with it facing the intended direction of travel.

The wheelchair must always be secured in accordance with the wheelchair manufacturer and the Wheelchair Tie-Down and Occupant Restraint System (**WTORS**) operating manual. Always remove and secure any accessory parts fixed to the wheelchair. When applicable, your wheelchair must be placed in its upright position prior to transport.

Anchoring the Wheelchair in a Vehicle

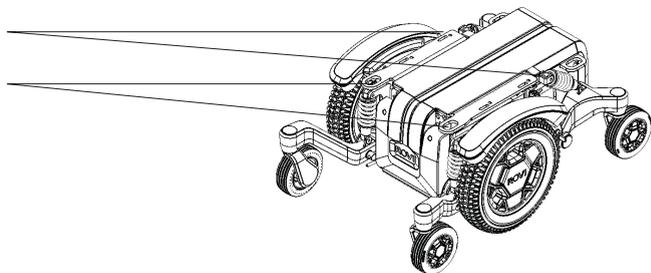
The wheelchair is to be transported only with Wheelchair Tie-down and Occupant Restraint Systems (**WTORS**) that have been installed in accordance with the manufacturer's instructions and SAE J2249. Attach the **WTORS** to the tie-down brackets in accordance with the manufacturer's instructions and SAE J224

NOTE: A copy of SAE J2249 Wheelchair Tie-down and Occupant Restraint Systems (WTORS) for use in Motor Vehicles can be obtained from: SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, (877) 606-7232 or (724) 776-4970

The following diagram indicates the designated anchor points for use with a tie-down system:

Rear Securement Point

Front Securement Point



This symbol (white sticker) on the wheelchair base indicates the approved anchoring point for securement of the wheelchair in a vehicle.

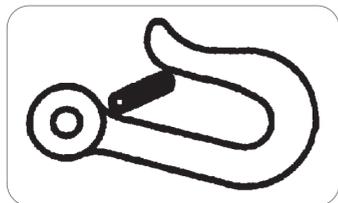


Figure 9



Figure 10

Flammability Warnings

The materials utilized in your ROVI power wheelchair are tested to ensure compliance with applicable Medical Device Flammability Standards (ANSI/RESNA and California Technical Bulletin (CA TB-117)



DANGER! Lighted cigarettes dropped onto an upholstered seating system can cause a fire resulting in damage, serious injury, or death.

Wheelchair occupants are at particular risk of death or serious injury from these fires and resulting fumes because they may not have the ability to move away from the wheelchair.

DO NOT smoke while using this wheelchair.

Always exercise caution near open flames.

Electromagnetic Interference (EMI)



WARNING! It is very important that you read this information regarding the possible effects of electromagnetic interference (EMI) on your power wheelchair.



WARNING! Laboratory tests have shown that electromagnetic interference (EMI) can have an adverse effect on the performance of electrically-powered mobility vehicles.

Tests by the Food and Drug Administration (FDA) have determined that EMI can, under certain conditions, cause power wheelchairs and scooters to move unintentionally and/or erratically, or cause unintended release of the brakes. Stronger EMI sources can also permanently damage the power wheelchair's control system. The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each powered wheelchair can resist EMI up to a certain intensity, or "immunity level." The higher the immunity level is, the greater the protection against EMI. At this time, current technology is capable of achieving at least a 20V/m immunity level, which would provide useful protection from the more common sources of radiated EMI

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WARNING: Although your power wheelchair has been tested to the current standard of 20V/m, care should be taken to avoid electromagnetic sources.

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 talkies;" security, fire, and police transceivers; cellular telephones; and other personal communication devices.



CAUTION: 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.

NOTE: Other types of hand-held devices, such as cordless phones, mobile devices, laptop computers, AM/FM radios, TV sets, CD players, cassette players, and small appliances, such as electric shavers and hair dryers, are currently unlikely to cause problems to your power wheelchair.

EMI radiations from hand-held radio sources (transceivers) are of special concern because they can be brought close to the power wheelchair's control system. As the transceiver nears the control system, EMI energy rapidly becomes more intense. This can be unintentional if someone is not aware of the hazard. Please observe the warnings listed below to prevent possible interference with the control system of the power wheelchair:

Note: Adding accessories and components or modifying the unit may change the susceptibility to EMI.



WARNING: DO NOT operate hand-held transceivers (transmitters and receivers), such as CB radios, or turn ON personal communication devices, such as cellular phones, while the power wheelchair is turned ON.

Report all incidents of unintended movement or braking on your power wheelchair to a ROVI® A3 provider, and note whether there were sources of EMI nearby.

Labels and Warnings

Fig. 2. Securement Points: See “Transportation Safety” for more information.

Fig.3. EMI-RFI: Notes that unit has been tested and passed at an immunity level of 20V/M performance.

Fig. 4. Data Label: Manufacturer, Contact Information, Weight Capacity & Driving Restrictions.

Fig. 5. Read your users manual and familiarize yourself with additional EMI information and warnings.

Fig. 6. Battery connection diagram: Illustrates battery orientation and information on circuit protection devices.

Fig. 7. Freewheel: drive mode = Lever up; freewheel/push mode = Lever down.

Fig. 8. Non-Spillable Battery Type

Fig. 9. Unoccupied Occupant Decal

Fig. 10. Securement Point Decal

Figure 2



Figure 3



Figure 4



Figure 5



Figure 6

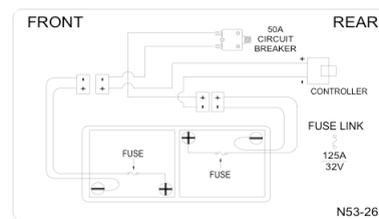


Figure 7



Figure 8



Figure 9



Figure 10



Features and Accessories

Figure 11 Feature Guide for Captain Seat

- 1.) Armrest (adjustable, with selected width, length, angle and height)
- 2.) Joystick
- 3.) Charging Port
- 4.) Seat Height Bracket
- 5.) Footplate (adjustable, with selected length and height)
- 6.) Caster (6 in.)
- 7.) Middle Drive Wheel (with Flat-Free 14 in. tire)
- 8.) Chassis Shroud
- 9.) Backrest (adjustable, with selected angle)
- 10.) Headrest (adjustable, with selected height)



Arm Assemblies

The power wheelchair seat is built for comfort, style, and stability. It may come equipped with a captain seat, which features a reclining back for comfort, flip-up armrests that provide easy side access for transferring onto and off of your ROVI® A3, and a durable long lasting black/gray vinyl seat cover. These optional armrests also have a built-in height adjustment knob that can be used to adjust the arm pad to a comfortable level for the driver (Item A - Figure 12).

Backrest Angle A

The backrest can be adjusted from 94° to 118°. This can be accomplished by pulling up on the backrest adjustment handle (Item B - Figure 12).

Adjustable Footplate

The length and height of the footplate can be adjusted to maximize your comfort and stability. To adjust the height of the footplate, loosen and remove the bolt, adjust to height and replace. To adjust the length of the footplate, loosen the allen bolt on both sides of the base (Item C - Figure 13), adjust the length, and tighten.

Front and Rear Battery Access

Refer to "Battery Access" - Maintenance Section for more information.

Seat Position Adjustment

WARNING: The seat position fore/aft (Forward/Rearward) has been set for optimal stability from the factory. Modifying the seating position to a location other than has been set from the factory could reduce the stability of the powered wheelchair, resulting in serious injury.



CAUTION: The seat height should be adjusted by an authorized ROVI® provider only.

Alternate Seating Options

The ROVI® A3 can accommodate Complex Multifunction Power Rehab Seating configurations that are available from Motion Concepts. For more information regarding Motion Concepts seating and positioning products, please visit www.motionconcepts.com.

Figure 12

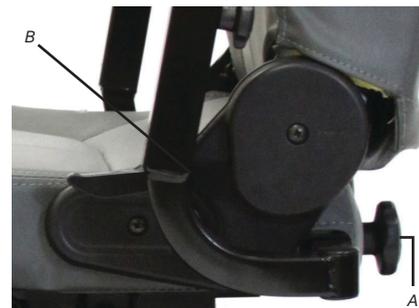


Figure 13



Optional Features

High Speed Motors

The ROVI® A3 can be selected with an optional high speed drivetrain that will reach a maximum speed of 6 mph (9.6km/h). To ensure the best possible experience, in terms of safety and performance, it is important to familiarize yourself with the usage guidelines for the ROVI® A3. Before operating your power wheelchair, please be certain to read through all the safety warnings and performance information provided below, as well as the important operational and safety guidelines provided in your ROVI® A3 Power Wheelchair User Manual.



WARNING! Risk of serious injury or damage

The ROVI® A3 is designed to assist with your individual mobility needs. Operating your power wheelchair in any other way than the purposes described below, or in the ROVI® A3 User Manual, may result in damage to the wheelchair, or injury to the user or a third party.

When using a ROVI® A3 with the High Speed drivetrain package it is important to note changes to the device specifications.

	Speed	Max Slope	Obstacle Climb	Range
Spec Changes	Up to 6 mph (Up to 9.6 km/h)	7.5° (13.2%) Captain Seat 6° (10%) Power Positioning	2.365 in. (60 mm)	Up to 13 miles (21km)

Always wear your postural belt while seated in your power wheelchair. Your postural belt helps reduce the possibility of a fall from the wheelchair.

OnTraxx

Your ROVI® A3 can now be ordered with an optional Drive Enhancement Module known as OnTraxx. The OnTraxx Drive Enhancement Module utilizes a gyroscope to improve straight line driving. This is particularly beneficial when alternative drive controls are selected. The 6 mph (9.6 km/h) High Speed Drivetrain option will include a OnTraxx Drive Enhancement Module as standard equipment to aid in stability and control at higher speeds.

IMPORTANT SAFETY INFORMATION!

Should your OnTraxx Drive Enhancement Module not function properly, your ROVI® A3 will default to 50% of your maximum speed to ensure your safety. If this occurs please contact your Authorized ROVI® / Motion Concepts provider immediately for technical service.



WARNING! Risk of serious injury or damage

Utilizing the OnTraxx Drive Enhancement Module while traveling on public transportation such as Trains or Buses may cause an unsafe driving condition. When utilizing public transportation, it is strongly recommended to select Transportation Mode* which can be found on Drive Profile 6, which does not enable the OnTraxx Drive Enhancement Module.

**If your unit is equipped with an LED Joystick, contact your provider for instructions on how to access Transportation Mode through your ROVI® A3's Joystick.*

Joystick Control Options

There type/model of Joystick Controls available with the ROVI® A3 Power Wheelchair will vary depending on the type of wheelchair base electronics installed. The ROVI® A3 Power Wheelchair comes standard with basic VR2 electronics, and utilizes VR2 model joystick controls (see Figure 14A/14B). When configured with our optional multi-function power positioning system, the ROVI® A3 Power Wheelchair comes equipped with enhanced RNET electronics, and utilizes RNET model joystick controls (see Figure 14a/14b).

VR2 Joystick Controls

The ROVI® A3 Power Wheelchair comes with a 4 Key VR2 Joystick Control (Figure 14A), as standard equipment. The VR2 electronics may also be configured to allow for up to two (2) actuator functions, which will require the 6 Key VR2 Joystick Control (Figure 14B). The VR2 joystick control provides smooth control of speed and direction with 360 degrees of mobility for ease of operation. The joystick is spring-loaded and automatically returns to the upright (neutral position) when released. Push the joystick in a given direction to move

the power wheelchair in that direction. The joystick has proportional drive control – the farther it is pushed from the neutral position, the faster the wheelchair moves. Maximum speed is limited by the speed adjustment buttons (increase and decrease). To slow the wheelchair to a STOP, simply release the joystick (see also VR2 Joystick Control Features- Drive Controls).



Figure 14A



Figure 14B

VR2 Joystick Control Features



On/Off Button

On-Off Button: Use this button to turn the joystick controller (hereinafter referred to as VR2) on and off. **DO NOT** use this button to stop the power wheelchair, except in an emergency. (Item A-Figure 15)



Battery Gauge

Battery Gauge: This is a 10-segment display, located on the face of the VR2. It indicates if the VR2 is switched on and provides the state of charge of the battery. It also indicates any faults in the power wheelchair electrical system. Refer to Table 1 for more details. (Item B-Figure 15)



Horn Button

Horn Button: Press this button to sound the warning horn. (Item C-Figure 15)



Maximum Speed / Profile Indicator

Maximum Speed Indicator: This is a 5-segment display that indicates the maximum speed setting selected (Item D-Figure 15).



Speed / Profile Buttons
Decrease / Increase

Speed Decrease Button: Press this button to decrease the maximum speed (Item E-Figure 15).



Speed / Profile Buttons
Decrease / Increase

Speed Increase Button: Press this button to increase the maximum speed (Item F-Figure 15).



Figure 15

Drive Controls: The joystick (Item G-Figure 15) controls the speed and direction of the power wheelchair. Push the joystick in the direction you wish to travel. The farther you push the joystick from the neutral position, the faster the power wheelchair will travel. Releasing the joystick will automatically engage the brakes and stop the power wheelchair.

The following provides a quick summary of the key joystick drive control functions:

FORWARD – Push and hold the joystick forward.

REVERSE – Pull and hold the joystick backward.

TURN RIGHT – Push and hold the joystick to the right.

TURN LEFT – Push and hold the joystick to the left.

STOP – Release the joystick.

Note: The joystick control can be fitted to suit either right-or left-handed users. Please contact your provider for further assistance.

(OPTIONAL) Actuator Controls:

If your ROVI® A3 Power Wheelchair is equipped with optional power actuators, the VR2 Joystick Control will include two additional seat function buttons (Item H-Figure 13) to allow operation of the available actuator motors. (The ROVI® A3 can support up to a maximum of two actuator motors when equipped with our basic VR2 electronics). The function of these seat function buttons will differ depending on the number of actuators installed on the power wheelchair.

For a Single Actuator Configuration:

1. With the VR2 Joystick powered on, press either seat function button to activate the actuator adjustment. (The LED indicator above the seat function button will light up).
2. Push the joystick forward or backward to adjust the actuator (seat function) to the desired position.
3. Release the joystick to stop the actuator adjustment.

4. Press the activated seat function button to return to Drive Mode (The LED indicator will go out)

For Dual Actuator Configurations:

1. With the VR2 Joystick powered on, press either the left or right seat function button, depending on which actuator you wish to adjust. (The LED indicator above the seat function button will light up).
2. Push the joystick forward or backward to adjust the chosen actuator (seat function) to the desired position.
3. Release the joystick to stop the actuator adjustment.
4. If you wish to adjust the second actuator, press the other seat function button and repeat steps 1- 3 above.
5. To return to Drive Mode, press the activated seat function button (The LED indicator will go out)

RNET Joystick Controls

The R-Net Joystick Control is available as an optional enhanced electronics control system for the ROVI® A3 power wheelchair. The standard R-Net joystick control consists of a 9-key function panel (Figure 16A). The R-Net joystick control may also be upgraded to a full color LCD display with a 10-key function panel (Figure 16B). The R-Net joystick control provides smooth control of speed and direction with 360 degrees of mobility for ease of operation. The joystick is spring-loaded and automatically returns to the upright (neutral position) when released. Push the joystick in a given direction to move the power wheelchair in that direction. The joystick has proportional drive control – the farther it is pushed from the neutral position, the faster the wheelchair moves. Maximum speed is limited by the speed adjustment buttons (increase and decrease). To slow the wheelchair to a STOP, simply release the joystick (see also RNET Joystick Control Features- Drive Controls).



On-Off Button: Use this button to turn the R-Net joystick control on and off. DO NOT use this button to stop the power wheelchair, except in an emergency.



Horn Button: Press this button to sound the warning horn.



Maximum Speed/Profile Button: Use these buttons to increase/decrease the maximum speed, or depending on programming, the maximum drive profile.

Note: The LCD joystick a separate PROFILE button to change/select the Drive Profile.



Maximum Speed Indicator (9-key joystick control): This is a 5-segment display that indicates the maximum speed setting selected.



Mode Button

Mode Button: Use this button to move through the available modes programmed into the wheelchair control (electronics) system.



Battery Gauge

Battery Voltage Indicator (9-key joystick control): This is a 10-segment display that indicates the state of charge of the battery. It also indicates any faults in the power wheelchair electrical system.



Actuator Indicator

Seat Indicator LED (9-key joystick control): If your power wheelchair is equipped with power seat options, this indicator will display the active seat function when in use.



Figure 16A
9-Key RNET Joystick



Figure 16B
10-Key RNET LCD Joystick

Drive Controls: The joystick controls the speed and direction of the power wheelchair. Push the joystick in the direction you wish to travel. The farther you push the joystick from the neutral position, the faster the power wheelchair will travel. Releasing the joystick will automatically engage the brakes and stop the power wheelchair.

The following provides a quick summary of the key joystick drive control functions:

FORWARD – Push and hold the joystick forward.

REVERSE – Pull and hold the joystick backward.

TURN RIGHT – Push and hold the joystick to the right.

TURN LEFT – Push and hold the joystick to the left.

STOP – Release the joystick.

Note: The joystick control can be fitted to suit either right-or left-handed users. Please contact your provider for further assistance.

R-Net LCD Joystick Control (OPTIONAL)

The current status of the wheelchair control system can be understood by observing the various symbols and indicators displayed on the R-Net LCD Joystick screen/display. Some of these symbols and indicators will always display on the screen, while others will appear only under certain conditions.

LCD Display: Standard Symbols and Indicators

Battery Gauge: Provides the state of charge of the battery and alerts the user to battery status.

- Steady: No issues
- Flashing Slowly: Charge the battery as soon as possible
- Stepping Up: Charging in process; drive lockout active.

Speed Indicator: Displays the current maximum speed setting. (Note: The color LCD also has a multi-segment speedometer that displays the current actual speed of the power wheelchair).

Profile Number/Profile Name: Displays the currently selected drive profile number and drive profile name. (Up to 5 drive profiles are available, depending on programming).

Clock: The color LCD can display the current time in either 12- or 24-hour display.

LCD Display: Additional Warnings and Indicators:

In Focus: Alerts the user that a secondary control module currently has control of the power wheelchair (for use with secondary controls such as a dual attendant module).

Speed Limit: When steady, this symbol alerts the user that the speed of the power wheelchair is being limited because of an alternate system (e.g., a raised seat actuator). When flashing, this symbol alerts the user that the power wheelchair is under drive inhibit.

Latched: Displays when the control system is operating under a latched condition.

Restart: This symbol will flash when the control system needs to be restarted.

Fault: Alerts the user to a fault in the control system.

Motor Temperature: Alerts the user that the motors are overheating. The control system will automatically reduce the power to the motors to avoid heat damage in this instance.
Control System Temperature: Alerts the user that the control system is overheating. The control system will automatically reduce power to avoid heat damage in this instance.

Timer: Alerts the user to a change in control system status.

E-Stop: Indicates that an emergency stop switch has been activated or disconnected (for use with optional equipment).

Bluetooth: Indicates that Bluetooth mode has been activated.

Additional Joystick Control Features (VR2 and RNET)

Wheelchair Lighting Option (available for RNET and VR2 Electronics)

The ROVI® A3 power wheelchair may be configured with a lighting option for greater visibility.



Hazard Lights Button and LED: Press this button once to turn on the power wheelchair's hazard (indicator) lights. The LED next to the button will blink in time with the indicator lights. Press the button again to turn off the hazard lights. The LED will go out.



Lights Button and LED: Press this button to turn on the power wheelchair headlights. The lights button LED will light up to indicate that the lights are on. Press the button again to turn off the headlights. The lights button LED will go out.



Left Turn Indicator Button and LED: Press this button to turn on the left indicator light. The LED will blink in time with the indicator light. Press the button again to turn off the left indicator light. The LED will go out.



Right Turn Indicator Button and LED: Press this button to turn on the right indicator light. The LED will blink in time with the indicator light. Press the button again to turn off the right indicator light. The LED will go out.

Charging Port

The charging port (not shown) is located on the underside of the VR2 and R-Net joystick control. Use this port to charge the power wheelchair battery. This is the primary charging port for the ROVI® A3 and should only be used with a qualified ROVI® A3 charger certified by the original manufacturer of the power wheelchair. Do not use this port as a power supply for any other electrical devices other than the USB charger supplied by ROVI® in the owner's package. Failure to follow these instructions will void the warranty of the power wheelchair.

Lock Mode:

The power wheelchair controller may be programmed with a lock mode function to prevent unauthorized use. The locking method is achieved one of two ways, depending on the controller and programming.

To Lock the Power Wheelchair Controller Using the Control Panel (VR2 and R-Net)

1. With the controller powered on, press and hold the on/off button.
2. After 1 second the controller will beep. Release the on/off button.
3. Push the joystick forward until you hear a beep.
4. Push the joystick in reverse until you hear a beep.
5. Release the joystick. There will be a long beep.
6. The control system is now locked.

To Unlock the Power Wheelchair Controller Using the Control Panel (VR2 and R-Net)

1. Press the on/off button to power on the controller. The maximum speed indicator will be rippling up and down.
2. Push the joystick forward until you hear a beep.
3. Push the joystick in reverse until you hear a beep.
4. Release the joystick. There will be a long beep.
5. The control system is now unlocked.

To Lock the Power Wheelchair Controller Using a Key (R-Net only)

1. With the controller powered on, insert and remove the key from the charging port.
2. The control system is now locked.

To Unlock the Power Wheelchair Controller Using a Key (R-Net only)

1. Press the on/off button to power on the controller. The maximum speed indicator will be rippling up and down. Insert and remove the key from the charging port.
2. The control system is now unlocked.

Sleep Mode

If the control system is left on and not used for more than 10 minutes, it may automatically “go to sleep.” This is recognized by a slow intermittent flash of the battery gauge on the standard VR2 and R-Net joystick controls, and by a “ZZZ” symbol on the R-Net LCD joystick. To reset the control system, simply turn the power to the joystick control off and back on (On/Off Button).

Drive/Freewheel Mode

The drive/freewheel levers (motor locks) are found at the rear of the drive wheel on either side of the power wheelchair (Figure 17). These levers will allow you to disengage the electromagnetic brakes so that you can push the power wheelchair manually.

To place your power wheelchair into Freewheel Mode: Make sure the VR2/R-Net joystick control is powered off, then push both (left & right) drive/freewheel levers down. This will disengage the electromagnetic brakes.

Figure 17
Drive Motor
Lock/Release Lever



To return the power wheelchair to Drive Mode: Pull both levers upward. Press the on/off button to power up the VR2/R-Net joystick control. If the battery gauge on the joystick display is not flashing, proceed to drive your chair as normal. If the battery gauge is flashing, then double check that the drive/free-wheel levers have been engaged fully in the up position.

Main Circuit Breaker

The main circuit breaker is a safety device that will trip to protect the motor and electronics when they are subjected to excessive loads. It is located at the rear (right side) of the unit and can be reset, should a trip occur.

If a circuit breaker trip occurs, allow the power wheelchair to rest for approximately 1 minute before depressing the circuit breaker button. Should frequent circuit breaker trips occur, please contact your ROVI® A3 provider.

Operating Your Power Wheelchair

Please note that it is the responsibility of your Service Provider or Healthcare Professional to ensure the ROVI® A3 power wheelchair is configured properly to meet your specific requirements. The contents of this Owner's Manual are based on the expectation that a mobility device expert has fitted the power chair to the user and has assisted the prescribing healthcare professional in the instruction and safe use of this device.

IMPORTANT! The most important link in the delivery chain is you, the end user. You must be satisfied with the product in terms of function, safety and aesthetics. No sale is complete until you have received thorough training in all aspects of the care and safe use of your ROVI® A3 power wheelchair.

Proper training on safety, operation, and maintenance are essential and can potentially decrease the frequency of power wheelchair breakdowns and accidents.



DANGER! Improper use of this product may cause damage, serious injury or death

DO NOT ignore unanswered questions. If you are unable to understand the warnings, cautions or instructions provided, contact your service provider before attempting to use your power wheelchair.

DO NOT operate your power wheelchair or any optional equipment without first completely reading and understanding all safety warnings and instructions provided in this ROVI A3 Owner's Manual (Section 01- Safety Warnings!), as well as any additional instructional material such as user manuals, service manuals or instruction sheets supplied with this product or optional equipment.



CAUTION! The ROVI® A3 is designed to assist with your individual mobility needs. Any usage outside of the guidelines in this manual may result in damage to the wheelchair, or injury to the user or third party.

First Time Use:

IMPORTANT! Before operating your ROVI® A3 power wheelchair for the first time, you must charge the batteries fully (refer to Battery Charging Instructions). It is recommended to charge your batteries for 12 hours. Charging the batteries completely prior to first time use will increase battery efficiency and battery life.



WARNING! To avoid injury or damage, always practice safe wheelchair operation procedures and techniques in the presence of a qualified attendant or healthcare professional.

When learning to drive, select a slow speed and try to drive the wheelchair as slowly as possible by pushing the joystick forward only slightly;

Before attempting active use of your power wheelchair, establish your particular safety limits, and practice use of your ROVI® A3 power wheelchair on various sloping surfaces in the presence of a qualified attendant.

Before attempting transfers in and out of your wheelchair, consult with your healthcare professional to determine proper transfer techniques based on your abilities and the type of wheelchair seating system.

ROVI® A3 Power Wheelchair Operation

The handling and maneuverability characteristics of mid-wheel drive power wheelchairs are inherently different from rear- or front-wheel drive power wheelchairs. If you have used other types of wheelchairs, handling and maneuverability differences will be most noticeable when traveling over rough terrain or when negotiating ramps and slopes.

To safely handle the ROVI® A3, pay close attention to your surroundings. Scan ahead and look for the best path to take. Are there obstacles in the path or is it smooth and level? If there are obstacles, how will you avoid them? It is important to practice these safety techniques until you are comfortable in maneuvering around frequently encountered obstacles. Now it's time to put into use all that you have learned from your provider training and this ROVI® A3 User Manual.

Daily Safety Reminders:

Prior to each use, inspect the ROVI® A3, making sure it is properly charged, clean and ready for use.

NEVER operate your wheelchair without first fastening your lap belt.

ALWAYS travel on dry level surfaces whenever possible (i.e.; concrete, asphalt, blacktop, tile etc..)

ALWAYS keep loose items or lap covers away from the wheels.

ALWAYS keep your arms on or inside the armrests and feet on the footplate at all times during wheelchair operation.

NEVER use a cell phone, walkie/talkie, laptop, or other radio transmitter while driving your wheelchair.

ALWAYS use optional headlights, reflector tape and/or flashing taillights for visibility at night

ALWAYS Turn off the joystick controller when you have finished using the power wheelchair and immediately charge the battery.

Maintenance

Caring for the ROVI® A3 Power Wheelchair

There are some maintenance procedures that can be performed by the user, if he/she is able. These procedures include equipment inspection, cleaning, and servicing of the power wheelchair. All other maintenance and repair must be performed by a provider with a trained and certified technician.



CAUTION: Please follow the procedures and precautions in this manual carefully. Failure to adhere to these instructions can result in equipment damage or personal injury.

CAUTION: During all work on the power wheelchair and electrical system, make sure the circuit breaker is disconnected (disconnect at least one battery connector).

Inspection

Inspect the power wheelchair on a regular basis, see the Maintenance Chart for periodic inspection criteria. Regular inspection can spot problems before they can cause breakdown or other dangerous issues.



CAUTION: Use only parts and accessories authorized by ROVI® Mobility. Unapproved tires, batteries, and other equipment could make your wheelchair unstable or dangerous. Such use may also void the warranty on the wheelchair.

Lubrication

Most lubricated components on this power wheelchair are designed to be maintenance free and are sealed. Therefore, lubrication IS **NOT** required for these components.

Seat and Frame

Inspect the seat, armrests, cushions, lap belt, and footplate. Inspect the lap belt carefully - it is there for your safety. Make sure it is not fraying or damaged and that it is attached securely to the power wheelchair frame. Inspect the buckle and make sure it locks securely.

Inspect the seat cushions for wear and replace them if necessary. Make sure that the seat is fastened securely to the frame. Look for missing fasteners or sharp edges on any seat hardware.

Check the footplate assembly and make sure there are no broken or missing parts. Make sure that your footplate is adjusted properly according to your requirements.

Wheels and Tires

The wheels and tires should be checked periodically for cracks and wear and replaced if necessary. The condition of the tires depends on how you drive and use your power wheelchair. Because your tires are flat-free tires, there is no need to worry about tire air pressure. Make sure the wheels have no "side-play," wobbling, or flutter when turning. Tighten loose wheel bolts and caster nuts on a regular basis. Inspect caster assemblies for wear and proper tightness by spinning the wheel and observing for free movement or wobble of the wheel. Beware of caster flutter, side-to-side motion, which may occur at high speeds. If the casters flutter, replace them immediately.

Note: Make sure that all four casters are touching the ground appropriately.

It is recommended that the driving axles (inside the drive wheel assembly) and caster assemblies be checked and cleaned occasionally for debris buildup, which will hinder the performance of the unit.

Maintenance Chart

Use the following chart for periodic recommended inspection and adjustments of hardware and electrical parts and systems:

Check	Daily	Weekly	Monthly	Quarterly	Annually
Check batteries	X				
Check tires for proper tread		X			
Check plugs and connectors for proper connections		X			
Check all moving parts for wear			X		
Inspect all nuts, bolts, and fasteners for looseness or wear			X	X	
Inspect upholstery for wear				X	
Make sure drive lockout operates properly				X	
Service by authorized supplier					X

Cleaning

Plastic Shroud Cover: Clean the plastic shroud with mild, soapy water monthly or whenever dust or dirt accumulates on the shroud.

Motors: Clean around the motor area weekly with a slightly damp (not wet) cloth. Wipe off or blow away any dust or dirt on or around the motors. Note: You do not need to grease or oil the power wheelchair mechanisms.

Upholstery: Hand wash seat upholstery and armrests as needed with a soft, damp cloth and mild detergent. Never use an abrasive cleanser or solvent-based cleaners, such as turpentine. Air dry only. Heat from a dryer may damage fabric.

Note: Washing the fabric may decrease the fire retardant properties.

Storage Tips

If you do not plan on using your power wheelchair for an extended period, it is recommended that you fully charge the batteries and then disconnect the battery harness before storage.

Store your power wheelchair in a clean, dry area to prevent corrosion. Before using your power wheelchair, make sure it is in proper working order. Inspect and service all items in the "Maintenance Chart." If you store the power wheelchair for more than 3 months, have it inspected by an authorized ROVI® provider before use.



CAUTION: Never attempt to charge a frozen battery! A cold or frozen battery should be warmed for several days prior to charging.

Batteries and Charging

Before using your power wheelchair for the first-time, you must charge the batteries fully (refer to Battery Charging Instructions). Charging may take up to 12 hours. Charging the batteries completely prior to first time use will enhance battery efficiency and battery life.



Warning! Always charge your power wheelchair in a well ventilated area.

Battery Type

The ROVI® A3 power wheelchair is designed to operate on two 12-volt, Group M34: (47.5 Ah - C/5 Rating) gel-cell, maintenance-free, batteries. The two 12-volt batteries are wired in series to create a 24-volt system. It is like having one large battery. Gel-cell batteries have many advantages over the wet-cell (automotive type) in that you never need to add water. They are sealed to avoid spills and corrosion problems. Using a sealed gel-type battery should allow you to travel on an airplane and other transportation without having to remove the batteries. Gell-cell deep-cycle batteries are designed to be discharged and recharged regularly.

Tips



CAUTION: Always replace the batteries with two identical batteries of the same chemistry, amp-hours, and capacity as a set and at the same time. The ROVI® A3 is designed to accept Group M34 batteries only. Larger battery types will not work on this power wheelchair.

Only sealed non-spillable batteries that meet DOT CFR173.159 (d), IATA Packing Instructions 806, and IATA Provision A67 shall be installed in this wheelchair.

Battery Charging



WARNING: Use only the charger that came with your ROVI® A3. Never use a battery charger made for car batteries.

Note: The ROVI® A3 comes with an 8A charger only.

The average ROVI® user will need to charge the batteries after using approximately 30% of the battery capacity. For extended battery life, it is highly recommended that these guidelines be followed. Keeping the batteries charged extends the life of the batteries.

Note: You cannot overcharge the batteries.

Battery access

It is easy to access the batteries of the ROVI® A3. To remove the batteries for transport or service, simply remove the two thumbscrews located on both the front and rear battery doors. With the battery doors open, disconnect the battery harness from the power wheelchair.

Charger Safety



CAUTION: Never attempt to charge a frozen battery! A cold or frozen battery should be warmed for several days prior to charging.

Familiarize yourself with the safety information below before using the battery charger:

- 1.) Read the battery charger instructions in this manual and in the manual supplied with the charger prior to charging the batteries.
- 2.) Do not remove the grounding prong from the battery charger plug. Removal of the grounding prong could result in an electrical hazard.
- 3.) Plug the charger into a 3-pronged electrical outlet only, or an approved 3-pronged adapter for use with a 2-pronged electrical outlet.
- 4.) Make sure that the electrical outlet being used is not controlled by a wall switch that can be turned off easily.
- 5.) Do not use an extension cord to plug in the charger.
- 6.) Disconnect the charger from the power wheelchair when not charging the batteries.
- 7.) Use only the off-board charger supplied with this unit. Never use an automotive-type battery charger. Contact your supplier if a replacement off-board charger is needed.
- 8.) Inspect the battery charger, wiring, and connections for damage before each use.
- 9.) Do not open the battery charger case.
- 10.) The battery charger is supplied with cooling slots. Do not insert objects through the slots.
- 11.) Make sure that the charger is not in contact with flammable materials at any time.
- 12.) The off-board charger is for indoor use only.

13.) Explosive gases may be generated while charging the batteries. Keep the power wheelchair and battery charger away from sources of ignition, such as flames or sparks, and provide adequate ventilation when charging the batteries.

14.) Do not allow children to play near the power wheelchair while the batteries are charging. Do Not charge the batteries while the power wheelchair is occupied.

Battery Charging Instructions

- 1.) Verify the charger is the 24Vdc 8A charger supplied with the ROVI® A3
- 2.) Plug the charger into the electrical outlet; LEDs indicate when the charger is powered on.
- 3.) Connect the charger to the charging port at the front of the VR2/R-Net joystick controller.
- 4.) Observe the LEDs on the front of the charger for the following indications.

Charger Indicator Lights

- 1.) Blinking Green: Power on; charger in stand-by mode
- 2.) Steady Orange: Battery charging
- 3.) Steady Green: Charging complete

Please refer to the LED indicator descriptions for the charging status on the charger. Batteries that go below a minimum voltage, as a result of not being charged, will not be able to recharge.

Battery/Charging Troubleshooting

Charger Diagnostics

If the charger indicator light goes to green within a few minutes after being plugged in and does not charge the batteries, then the batteries may be over discharged and may require additional service or replacement. Contact your service provider for assistance.

If the charger indicator light goes immediately to green when plugged in to charge, the problem is likely a blown fuse, popped circuit breaker (push reset button), or similar malfunction. Contact your provider for assistance. If the charger does not come on at all when plugged in, check the charger fuse if applicable, then call your provider.

Controller Diagnostics

In the unlikely event that the ROVI® A3 power wheelchair begins to malfunction, the VR2/R-Net will display one of several error codes to help diagnose the problem. Please see Table 1 for more information.

Note: If performing the applicable procedure from Table 1 does not clear the corresponding fault, DO NOT continue use of the power wheelchair. Turn off the power to the joystick controller and consult your service provider immediately.

Table 1

Battery Gauge	Possible Fault
10 Bar Flash	An excessive voltage has been applied to the control system. This is usually caused by a poor battery connection.
9 Bar Flash	The parking brakes have a bad connection. Check the parking brake and motor connections.
8 Bar Flash	A control system fault is indicated. Make sure that all connections are secure.
7 Bar Flash	A joystick fault is indicated. Make sure that the joystick is in the center position before switching on the control system.
6 Bar Flash	Battery charger connected.
5 Bar Flash	Right-hand motor wiring fault.
4 Bar Flash	Right-hand motor disconnected.
3 Bar Flash	Left-hand motor wiring fault.
2 Bar Flash	Left-hand motor disconnected.
1 Bar Flash	Low battery voltage.

Wheelchair Specifications:

Description	ROVI® A3 (888 WNLE)
Base Dimensions (L x W) ¹ *w/o footrest	36.5 in. (927 mm) x 25.75 in (648 mm)
Ground Clearance	2.8 in. (71.1 mm)
Obstacle Climbing	2.365 in. (60 mm)
Max. Recommended Slope (Captain Seat)	7.5° (13.2%)
Max. Recommended Slope (Power Positioning)	6° (10%)
Turning Radius	20.5 in. (521 mm)
Driving Range ²	Up to 13 miles (20.8 km)
Batteries	Group 34 (12vdc, 47.5 Ah - C/5, 60Ah - C/20)
Battery Weight (each)	39 lbs. (each)
Weight Capacity	300 lbs. (136 kg)
Base Weight (w/o Seat or Batteries)	175lbs. (79 kg)
Max. Speed	Up to 6 mph (9.6 km/h)
Motors	4 Pole, 24 Vdc Motors
Controller:	PG Drives VR2 90 A/ R-NET 90 A
Drive Wheels	14 in. (355.6 mm) Solid
Caster Wheels	6 in. (152 mm) Solid

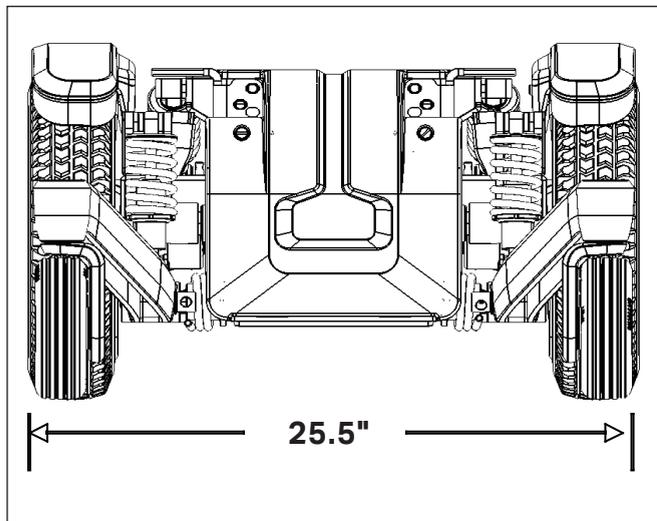
All specifications are subject to change without prior notice. ROVI® reserves the right to make any changes to the unit we deem necessary. All specifications and dimensions are approximate:

¹Note.) Includes the front and rear casters.

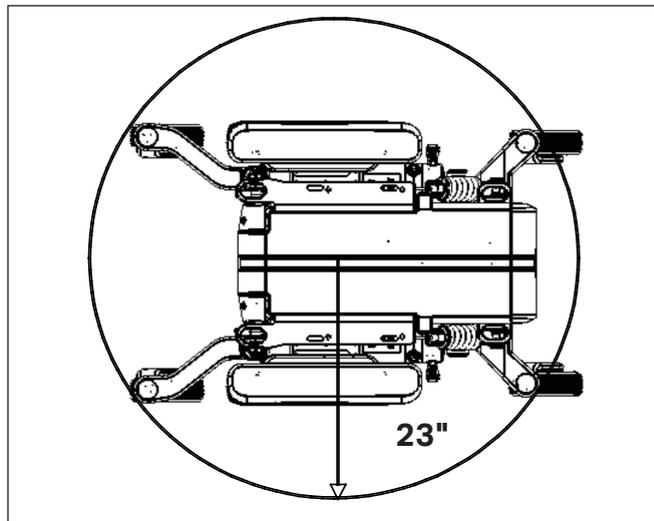
²Note.) Actual driving range and speed may vary due to factors such as weight, type and grade of terrain, battery condition and charge level, type and condition of the drive wheels, and variations in the drive and control systems.

Unit Dimensions:

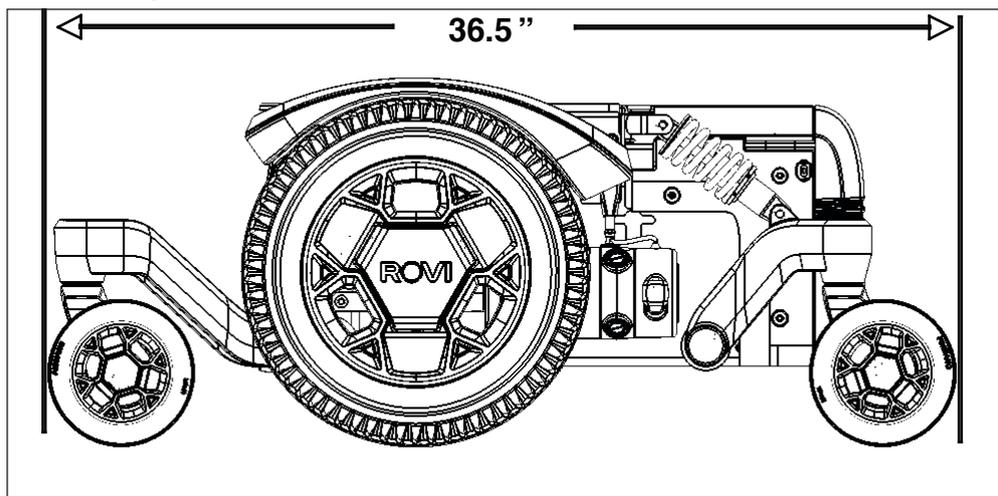
Base Width



Turning Radius



Base Length



Limited Warranty

Frame: 5 Years / **Electronics:** 1 Year / **Drivetrain:** 1 Year

Record Serial number here for future use: _____

ROVI® Mobility (“Distributor”) warrants its power wheelchairs (“products”) against certain defects in materials and workmanship from the date of purchase, subject to certain conditions and exclusions, as defined below. Please take the time to read the following terms and conditions under which the Distributor agrees to provide repair services.

- 1.)** Structural frame components including platform, fork, caster arms, and frame welds are warranted for five (5) years, to the original owner.
- 2.)** To present a claim, Customer shall deliver the defective part for exchange to an authorized ROVI® provider from whom the product was purchased.
- 3.)** This warranty is for the replacement or repair, at the option of ROVI®, of defective parts only and does not cover any labor charges including, but not limited to, charges incurred for shipping, handling, or the installation of replacement parts or additional fees, which may be imposed by the provider or service agent.
- 4.)** All warranty replacement parts are under warranty from the date of purchase of the original “product” and not from the date of part replacement.
- 5.)** The warranty covers the drivetrain (including the gearbox, motor, and brake).
- 6.)** This warranty is valid and enforceable only on “products” purchased in the United States and from an authorized ROVI® provider.
- 7.)** This warranty is applicable only to the customer as an original purchaser of the “product” from an authorized ROVI® provider and shall not apply to any subsequent purchaser, assignee, or other recipient of the powered wheelchair from customer.

8.) No provider or other similar person has any authority to make any warranties or representations concerning ROVI® Mobility products, or to extend this warranty beyond the express terms contained within. Distributor assumes no responsibility for any warranties beyond the express terms contained in the warranty. Customer releases and holds distributor harmless from any claims stemming from any unauthorized representations.

9.) This warranty shall be void if the Customer modifies the "product" in any respect, including, but not limited to, the use of parts other than genuine ROVI® parts.

10.) This warranty does not apply unless the Registration Card is signed, completed, and returned within thirty days (30) from the date of purchase. Distributor reserves the right to dispose of the Registration Card once it is received.

11.) Warranty exceptions:

- A. Gearbox: In cases where there is an increase in the operational noise level, the warranty will not apply.
- B. Motor: If damage occurs to commutator of motor as a result of not replacing motor brushes after heavy wear to brushes. Motor brushes are wear items, and will be warranted for one year.
- C. Brake: Brake pads are wear items and will be warranted for one year.
- D. Maintenance: Annual maintenance schedule must be followed as outlined in the User Manual Section III: Maintenance.

12.) This warranty does not cover batteries or damage caused by battery leakage. The battery warranty is covered by the battery manufacturer. As part of the electronics, the battery charger is only covered for a period of one year from date of purchase of unit.

13.) This warranty does not cover plastic shrouding or covers, seat upholstery, or arm pads as these components are considered wear items.

14.) This warranty does not apply to any injury, loss, defect or malfunction of the "product," or failure to function resulting from any failure to operate or maintain "product" in accordance with the directions contained in the user manual provided by ROVI®; or

any injury, loss, damage, defect or malfunction, or failure to function resulting from any accident, acts of God, alterations in the “product” by anyone other than the distributor, or misuse, unreasonable use, tampering, abuse, acts, omissions, failure, or negligence by anyone other than manufacturer.

15.) Any implied warranty imposed by state consumer law is limited.

16.) Customer represents and agrees that any claims, which it may assert against Distributor, shall be limited to those, which may be asserted under the foregoing warranty.

17.) Distributor makes no warranty, either express or implied, including, but not limited to, any implied warranties of merchantability and fitness for a particular purpose. Distributor expressly disclaims all warranties.

18.) Your exclusive remedy and Distributor’s entire, collective liability in contract, tort or otherwise, under this Agreement is the repair of the defective system or components in accordance with this Agreement. If Distributor is unable to make such repair, your exclusive remedy and Distributor’s entire liability will be the payment of actual damages not to exceed the charge paid by you. Under no circumstances will the Distributor be liable to you or any other person for any damages, including, without limitation, any indirect, incidental, special, or consequential damages. This agreement gives you specific legal rights and you may have other rights that vary from state to state. Some states do not allow the exclusion or limitation of (i) incidental or consequential damages or (ii) implied warranties, so the above exclusions may not apply.

19.) No provider of Distributor and no person other than an officer of Distributor may extend this warranty, nor may they modify it in any respect. No modification or extension is effective unless it is in writing and signed by the President or Vice-President of the Distributor.

Replacement Documents

The most current version of this owner’s manual is available for download at www.rovimobility.com. Should you ever lose or misplace your owner’s manual or any other supplemental information provided with your power wheelchair, please visit the website or contact ROVI® for a replacement.

Notes:

Notes:

For Customer or Technical Support

Motion Concepts USA

700 Ensminger Rd. Suite 112

Tonawanda, NY. 14150

Phone: 1.888.433.6818

Motion Concepts CANADA

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Concord, ON L4K3C1

Phone: 1.888.680.4191

Website: www.motionconcepts.com

ROVI® A3 Serial Numbers

ROVI® Mobility

1338 Storm Parkway Suite D

Torrance CA 90501

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