merits
www.meritsusa.com

# Owner's Manual

Power Wheelchair P335 / P335N

# Table of Contents

Welcome aboard your new power wheelchair, and thank you for choosing our product. Please read this manual carefully, and follow all instructions before attempting to operate your power wheelchair for the first time. If there is anything in this manual that you do not understand, or if you require additional assistance for setting up your power wheelchair, please contact your local dealer.

This latest model is designed for specific practical user needs, combining solid, rugged construction, and modern high-tech electronics, to enhance safety and performance.

With a state-of-the-art, programmable electronic control system, your power wheelchair can be programmed and adjusted within a given range of its performance characteristics, to suit your individual needs. The controller is set up at the factory to give the powerbase wheelchair nominal operating performance characteristics.

After becoming familiar with the basic operation of the power wheelchair, you may wish to customize the settings to fit your own personal preferences. A wide range of customization options can be adjusted such as acceleration, deceleration, maximum speed, turning speed, safety controls, better maneuverability of the joystick, and so on. Contact your local dealer for advice on additional equipment you may need.

Having your power wheelchair checked regularly by your local dealer is the best way to ensure smooth operation, and safety.

This manual provides users practical tips and information on safety issues, operation, and maintenance. Please read it very carefully to ensure your maximum enjoyment and to fully benefit from your independence and mobility.

Whenever special advice or attention is needed, please do not hesitate to contact your local dealer, who has the tools and know-how to provide expert servicing for your power wheelchair.

Your satisfaction and opinions are highly valued by both your local dealer and our company. Please be sure to fill out the enclosed guarantee form, and return it to your local dealer. The information is necessary for providing you with the best service, and to be sure all of your needs are met.

## Indications For Use

The Merits Power wheelchair is to provide indoor and outdoor mobility to persons limited to a seating position that are capable of operating a power wheelchair.

**⚠Cautions** Federal law restricts this device to sale by or on the order of a physician. For applicable countries.

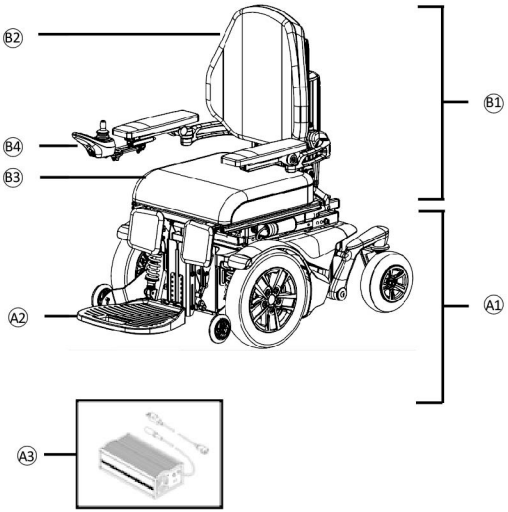
## Quantity of Contents

The quantity of contents are as following:
Base Unit Package

| Item | Component | Quantity |
|---|---|---|
| A1 | Power Base | 1 |
| A2 | Footplate | 1 |
| A3 | Charger | 1 |

Seating System Package

| Item | Component | Quantity |
|---|---|---|
| B1 | Seat | 1 |
| B2 | Back Cushion | 1 |
| B3 | Seat Cushion | 1 |
| B4 | Joystick | 1 |



## Device Description

Merits Power wheelchair is battery powered, front wheel motor driving and is controlled by the controller. The user interface is a joystick. The Power wheelchair is powered by two batteries. The batteries are charged by a off-board charger connected with 3-pin XLR to the charging socket on the joystick. The chair frame is a welded steel construction and includes two front drive wheels with drive units (including motor, gear box and brake), batteries and rear pivoting casters. Depending on user needs, the joystick motor control is mounted to the left or right armrest. When the user activates the joystick, the controller receives a signal to release the brakes. With the brakes released, the wheelchair is allowed to move in the direction the joystick is actuated. When the user releases the joystick, the chair slows to a stop and the brakes are automatically re-engaged . The solenoid electromechanical brakes allow the user to stop by letting go of the joystick.

The upholstery of the device complies with ISO 7176-16:2012 Resistance to ignition of postural support devices.

The device can be operated on dry, level surfaces composed of concrete, blacktop, or asphalt under normal driving conditions.

**Failure to follow these instructions may result in damage to the powerbase wheelchair or serious injury.**

## Practice Before Operating

Find an open area such as a park and have an assistant to help you practice until you have confidence operating this vehicle.

Make sure that the power is off before transfering to or from the seat. Set the speed control button according to your driving ability.

**We recommend that you keep the speed control at the slowest position until you are familiar with the driving characteristics of this power wheelchair**

## Refer to Controller System Operation manual

VR2

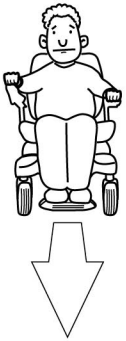
R-NET LED

R-NET LCD

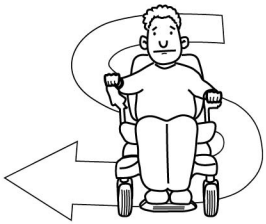
## Getting familiar with this powered wheelchair

### ⚠ SAFETY WARNING

**YOUR AUTHORIZED DEALER, PROVIDER, THERAPIST(S), AND/OR OTHER HEALTHCARE PROFESSIONALS ARE RESPONSIBLE FOR DETERMINING YOUR REQUIREMENT FOR A SEAT BELT FOR SAFE OPERATION OF YOUR MOBILITY DEVICE.**
**REQUIRING A SEAT BELT TO SAFELY OPERATE YOUR MOBILITY PRODUCT, MAKE SURE IT IS FASTENED SECURELY IN ORDER TO REDUCE THE POSSIBILITY OF A FALL FROM THE MOBILITY PRODUCT.**



**First, practice moving forward.**
**Be sure to set the speed to the lowest setting.**



**After becoming familiar with moving forward, practice making "S" turns.**

**Once you are familiar with "S" turns, practice moving in reverse. Note that at any speed control setting, the vehicle moves more slowly in reverse than forward**

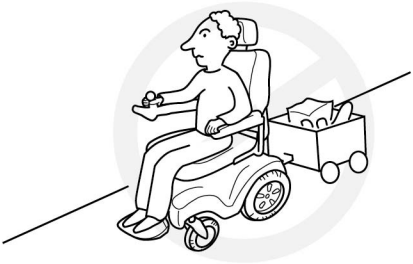
## Safety Considerations

DO NOT do any of the following

**NO!**
**Do not carry any passengers**

**NO!**
**Do not drive across a slope**

**NO!**
**Do not drink and drive**
**Consult your physician to determine if your medications impair your ability to control this vehicle**



**NO!**
**Do not tow a trailer**

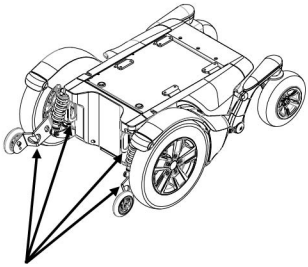
**NO!**
**Do not turn on or use hand-held personal communication devices such as citizens band(CB) radios and cellular phones**

## ■ Motor Vehicle Transport

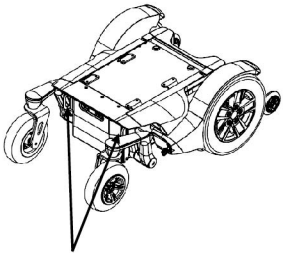
### ⚠ Cautions

The Merits Powered Wheelchair has not been tested for use as a seat in a motor vehicle. Therefore, it should NEVER be used as a seat in a motor vehicle, as serious injury or death may occur as a result.

Before transporting the power wheelchair, switch off the joystick controller and lock the brake. A power wheelchair must be tightly secured to the floor of a transportation vehicle before departing. Use the securement points at the front and at the back of the wheelchair as well as the anchoring points in the transportation vehicle. A trained and experienced driver must be present to perform the lifting and anchoring of the wheelchair and ensure owner and wheelchair safety.



Front Securement Points



Rear Securement Points

## Warnings

- **WARNING!** No alterations or substitutions should be made to the power wheelchair securement points or to the structural frame components without prior consent from your authorized provider.
- **WARNING!** Belt restraints must not be held away from the body by power wheelchair components such as armrests or wheels.
- **WARNING!** Belt restraints should make full contact with the shoulder and chest and pelvic restraints should be positioned low across the front of the body near the junction of the thigh and pelvis.
- **WARNING!** The buckle of belt restraint systems should not be located near power wheelchair components that may come in contact with the buckle release button in the event of a vehicle accident or collision.
- **WARNING!** The power wheelchair should be inspected by a representative of the manufacturer before reuse following involvement in any type of vehicle collision.
- **WARNING!** For your safety, please read the owner's manual before operating this product. Before reading through the owner's manual, please do not operate the product.
- **WARNING!** For your safety, when you operate the product or before you operate the product, if you find any problem, please stop operating the product immediately and contact with the dealer for solving the problem.
- **WARNING!** For your safety, the user should be comply with the following condition for operating the product:
  1. Spirits in good condition, can clearly distinguish the surroundings condition and physical function are normal to operate the powered wheelchair.
  2. After drinking or eating of alcoholic beverages or food, do not operate the product.
  3. Before operating the powered wheelchair, do not take medicine which might affect sanity or mental state.
- **WARNING!** For your own safety, Visually Impaired person do not operate this product.
- **WARNING!** Do not operate the product with depleted batteries since the occupant could be stranded.
- **WARNING!** If the surface of the products components (such as shroud, seat, armrest, joystick handles, etc.) are exposed to the sun , this may cause high temperature on the part surface, the high temperatures may cause dange rs. Please use the product, when the surface is cool down.

## Warnings

- **DO NOT** use an escalator to move a power wheelchair between floors. Serious bodily injury may occur.
- **DO NOT** lean over the top of the back upholstery to reach objects from behind as this may cause the power wheelchair to tip over.
- **DO NOT** shift your weight or sitting position toward the direction you are reaching as the power wheelchair may tip over backwards or sideways.
- **DO NOT** stand on the frame of the power wheelchair.
- ALWAYS use caution when transferring in or out of the power wheelchair. Every precaution should be taken to reduce the transfer distance. Also be certain the unit's brakes are engaged and the unit is powered off to prevent the wheels from moving.
- **DO NOT** operate the power wheelchair with depleted batteries since the occupant could be stranded. The remaining distance is less than 1km when the battery gage flashes slowly.

## Cautions

- Riding over curbs or obstacles can cause tipping and serious bodily harm. If you have any doubt that you can safely cross any curb or obstacle, ALWAYS ASK FOR HELP. Be aware of your riding skills and personal limi -tations. Develop new skills only with the help of a companion.
- The power wheelchair is not designed for weight training and is unsafe for use a seat while weight training. Weight training from the power wheel-chair substan-tially changes the stability of the power wheelchair and may cause tipping.

## EMC

This vehicle has an immunity level of 20 v/m which should protect it from Electromagnetic Interference(EMI) from radio wave sources. The rapid development of electronics, especially in the area of communications, has saturated our environment with electromagnetic (radio) waves that are emitted by television, radio and communication signals. These EM waves are invisible and their strength increases as one approaches the source. All electrical conductors act as antennas to the EM signals and, to varying degrees, all power wheelchairs and power scooters are susceptible to electromagnetic interference (EMI). This interference could result in abnormal, unintentional movement and/or erratic control of the vehicle.

Power wheelchairs and electric power scooters (in this text, both will be referred to as power wheelchairs) may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy 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 wheelchair to release its brakes, move by itself or move in unintended directions. It can also permanently damage the power wheelchair's control system. The intensity of the EM energy can be measured in volts per meter(V/m). Each power wheelchair can resist EMI up to a certain intensity. This is called the "immunity level." The higher the immunity level, the greater the protection. At this time, current technology is capable of providing at least 20 v/m of immunity level which would provide useful protection against common sources of radiated EMI.
Following the warnings listed below should reduce the chance of unintended brake release or power wheelchair movement that could result in serious injury:

1) Do not turn on hand-held personal communucation devices such as citizens band (CB) radios and cellular phones while the power wheelchair 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 wheelchair off as soon as it is safe.

4) Be aware that adding accessories or components, or modifying the power wheelchair, may make it more susceptible to interference from radio wave sources. (Note: there is no easy way to evaluate their effect on the overall immunity of the power wheelchair).

5) Report all incidents of unintended movement or brake release to the power wheelchair manufacturer, and note whether there is a radio wave source nearby.

Warning: The wheelchair might disturb the operation of devices in its environment that emit electromagnetic fields (e.g. alarm systems of shops, automatic doors)

**TURN OFF YOUR POWER WHEELCHAIR AS SOON AS POSSIBLE WHEN EXPERIENCING ANY OF THE FOLLOWING:**

1. Unintentional motions.
2. Unintended or uncontrollable direction.
3. Unexpected brake release.

The power wheelchairs should have an immunity level of at least 20 V/m, which provide a reasonable degree of protection against the more common sources of EMI. The higher the level, the greater the protection.

**Instructions regarding EMC**

1. The power wheelchair is in compliance with EN 60601-1-2.
2. The power wheelchair should not be used adjacent to or stacked with other equip ment.
3. The power wheelchair is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies building used for domestic purpose.
4. Mobile RF communications equipment (transmitters) can affect the Bath Lift. Howev er, the user can help prevent electromagnetic interferences by maintaining.

## Driving Outdoors

When you are on the road, please pay attention to the following:

**NO!**

**Do not drive in traffic.**

**NO!**

**Do not drive beside a river, port, or lake without a fence or railing.**

**NO!**

**If possible, do not drive during the rain.**

**NO!**

**If possible, do not drive during or on snow.**

**NO!**

**Do not drive off-road or on any uneven surfaced roads.**

**NO!**

**If possible, do not drive at night.**

# DO!

**Make sure that there are no obstacles behind you when in reverse.**

We recommend to set up the speed at the lowest setting for reversing.

# NO!

**Do not make sudden stops, weave erratically, or make sharp turns.**

# DO!

**Keep your arms on or inside the armrests and feet on the footrest at all times.**


# NO!

**Do not attempt to climb curbs greater that 2.4”(6cm).**


# NO!

**Do not attempt to cross over a gap greater that 3"(7.5cm).**

## ■ Driving on Various Terrains

Driving on hills is more dangerous than on level surfaces. If you fail to heed these warnings, a fall, tip-over or loss of control may occur and cause severe injury to the vehicle user or others.


# NO!

**Do not attempt to climb a hill greater than 7.5°**

**(Refer to specification on page 19.)**


# NO!

**Do not reverse while driving up a hill.**

Forward only. If you reverse while moving up a hill, it may cause the vehicle to tip over.

**(Refer to specification on page 19.)**

# NO!

**Do not attempt to drive across a sloping surface greater that 3˚**

Driving across a slope greater than 3˚ is very dangerous and may cause the vehicle to tip over.

# NO!

**Do not drive over soft, uneven or unprotected surfaces such as grass, gravel and decks.**

# DO!

**Use low speed while driving down hill.**

When braking while moving down hill, the wheelchair will take longer to come to a complete stop.

# NO!

**Do not get on and off on a hill.**

Always stop on the level surface to get in and get out of the vehicle.

# YES!

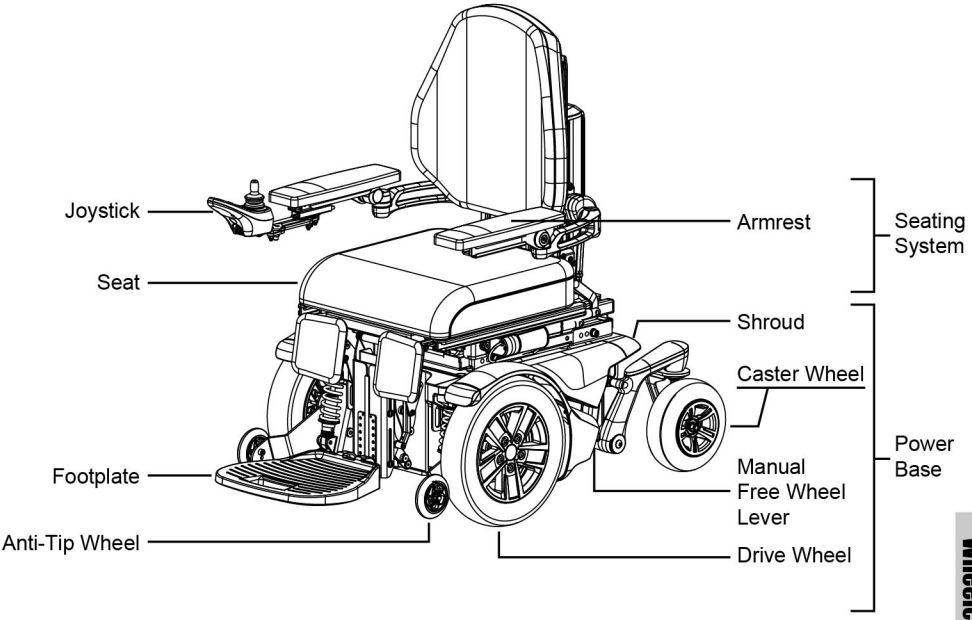
Always climb or descend gradients perpendicular to the slope or ramp.

## ⚠ Warnings

- **WARNING!** YOUR AUTHORIZED DEALER, PROVIDER, THERAPIST(S), AND/OR OTHER HEALTHCARE PROFESSIONALS ARE RESPONSIBLE FOR DETERMINING YOUR REQUIREMENT FOR A SEAT BELT FOR SAFE OPERATION OF YOUR MOBILITY DEVICE.
  WARNING! YOU REQUIRE A SEAT BELT TO SAFELY OPERATE YOUR MOBILITY PRODUCT. MAKE SURE IT IS FASTENED SECURELY IN ORDER TO REDUCE THE POSSIBITY OF A FALL FROM THE MOBILITY PRODUCT.
- **WARNING!** NEVER ATTEMPT TO GET ONTO OR OFF OF YOUR MOBILITY PRODUCT WITHOUT FIRST ENSURING THE UNIT IS POWERED OFF.
- **WARNING!** IF YOUR POWER CHAIR IS EQUIPPED WITH A POWER ELEVATING SEAT FUNCTION, PLEASE ENSURE THAT YOUR SEAT IS IN THE LOWEST POSITION BEFORE TRAVELLING A SLOPED INCLINE. DO NOT USE THIS LIFT FUNCTION WHILE TRAVELING UP/DOWN THE SLOPE.
- **WARNING!** WHEN TRAVELING UP OR DOWN AN INCLINE, DRIVE YOUR POWER CHAIR SLOWLY TO ENSURE A SAFELY CONTROLLED ASCENT OR DESCENT

## ■ Feature Diagram

In this section, we will acquaint you with the many features of your power wheelchair and how they work. Upon receipt of your power wheelchair, inspect it for any damage. Your power wheelchair consists of the following components.



## Power Wheelchair Specifications

| Model No. | P335 (Rehab seat) | P335N |
|---|---|---|
| Length (base) | 101cm / 39.6” | 101cm / 39.6” |
| Width (base) | 63cm / 24.7” | 57cm / 22.4” |
| Seat Width | 36cm-56cm / 14”-22” | 36cm-56cm / 14”-22” |
| Seat Height (from ground) | 44-49cm / 17.5”-19.5” | 44-49cm / 17.5”-19.5” |
| Speed | Up to 9.6km/h / 6mph | UP to 8.4km/h / 5.25mph |
| Range up to | 100kg: 30km / 19mile<br>136kg: 20km / 12.5mile (60AH) | 19.28km / 12.05mile (50AH) |
| Weight Capacity | 136kg / 300lbs | 136kg / 300lbs |
| Base Weight | 66.7kg / 147lbs | 65kg / 143lbs |
| Seat Weight | 55.4kg / 122lbs | 55.4kg / 122lbs |
| Motor | DC 24V,222W(rating) | DC 24V,222W(rating) |
| Brake | Intelligent ,regenerative, electromagnetic brakes | Intelligent,regenerative, electromagnetic brakes |
| Controller | 120A | 90A |
| Battery | 60AH × 2pcs | 50AH x 2pcs |
| Charger | 5A/6A/8A/10A off-board | 5A/6A/8A/10A off-board |
| Gradient | 7.5° | 7.5° |
| Caster Wheel | 9” Foam Filled Tire | 9”Foam Filled Tire |
| Drive Wheel | 14” Foam Filled Tire | 14” Foam Filled Tire |
| Recommended Storage and Shipping Temperature | Dry(15%~95% Non-Condensing), Well ventilated -20°C~60°C (-4°F~140°F) Without batteries | Dry(15%~95% Non-Condensing), Well ventilated -20°C~60°C (-4°F~140°F) Without batteries |

## Terminology

**Joystick:** The device used to "move" the power wheelchair.

**Controller:** Receives input from the joystick and instructs motor direction.

**Armrests:** Where arms can rest during time spent on power wheelchair.

**Footrest:** Where feet rest during time spent on the power wheelchair.

**Drive Wheel:** The wheels that move the power wheelchair. These are the main wheels.

**Caster Wheel:** The rear wheels.

**Controller Harness :** Cable connecting the joystick to the controller.

**Anti-Tip Wheel:** The wheels in front of the drive wheel.

**Manual Free Wheel Lever:** For convenience, your power wheelchair is equipped with free wheel levers. These levers allow you to disengage the drive motors and maneuver the chair manually.

**Type B applied parts:** seat, armrest, foot plate, joystick module.

**Classification:** Internal powered equipment by 24 VDC, Class II in charging mode.
Mains connection of battery charger: 100-120 VAC, 50/60 Hz.

**Braking information:** 1) Running brake: Your electrical wheelchair is equipped with electromagnetic and regenerative brakes. Uses electricity to rapidly slow the wheelchair when the joystick return to the center/stop position and act as a parking brake.

2) Parking brake: when joystick on center position act a electromagnetic brake. In freewheel mode an assistant has to operate the parking brake by engaging the drive system again. No battery power is necessary for this function.

> **WARNING: DO NOT** use the power wheelchair without the presence of an attendant while the drive motors are disengaged! DO NOT disengage the drive motors when your power wheelchair is on an incline as the chair could roll down on its own, causing injury!

To engage or disengage the drive motors:

1. Pull the freewheel levers upward to engage the drive motors.
2. Push the freewheel levers downward to disengage the drive motors.

Note: It is important to remember that when the powerbase wheelchair is in the freewheel mode, the braking system is disengaged.

## Initial Assembly

Your power wheelchair may require some assembly either before initial use or after transportation. It may also require disassembly to make some comfort adjustments. (Fig A1) details those parts of the power wheelchair that are designed to be disassembled and assembled by an end user or by a qualified caregiver before using the product or making comfort adjustments.

| Item | Name |
|---|---|
| A01 | SCREW., M8*16L |
| A02 | SPRING WASHER, M8 |
| A03 | WASHER,φ16*φ8*2.0t(BZ) |
| B01 | SCREW, M6*30L |
| C01 | SCREW, M6*12 |
| C02 | SPRING WASHER,M6 |
| C03 | SCREW, M6*10L |
| C04 | SCREW, M8*16L |
| D01 | PIN, φ7.8 |

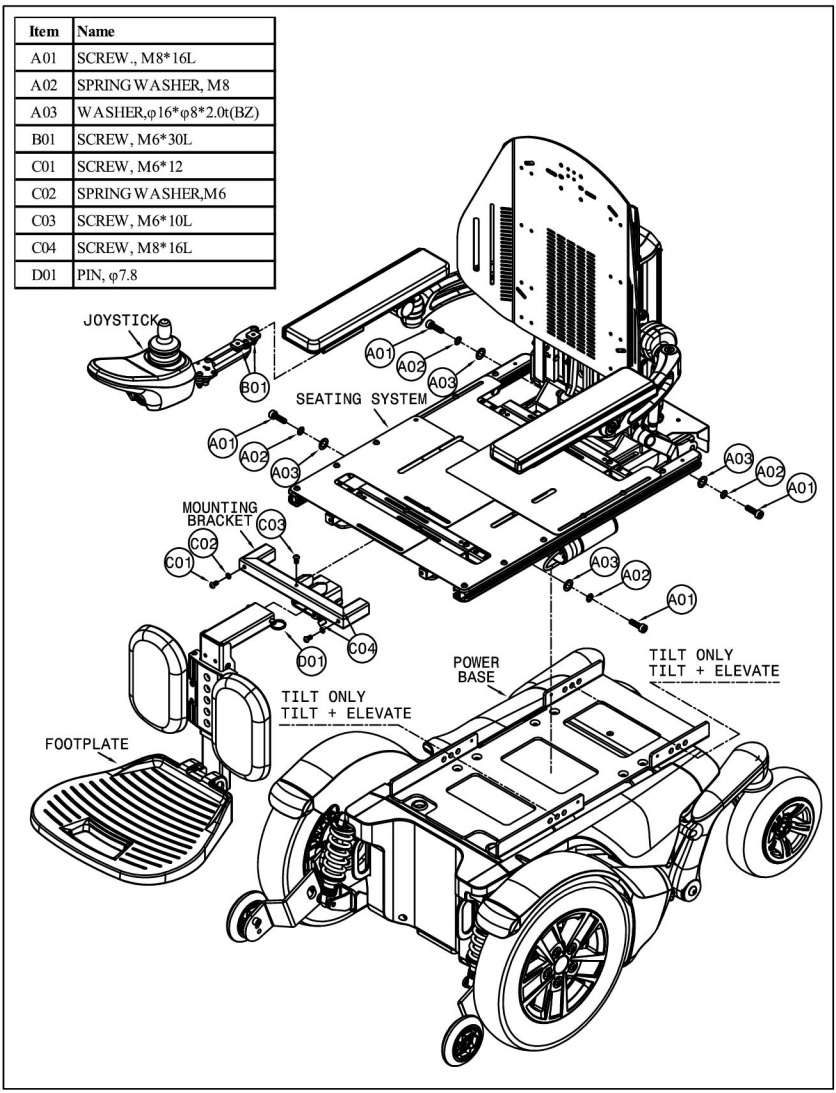



Fig A1

## ■ Comfort Adjustments

After becoming familiar with your power wheelchair's operation, you may find the need to make some adjustments to improve comfort.

### Seat height setup

(1) Use an Allen key to loosen eight screws <AG5> and remove the mount plate <AG4>. (Fig A2)
(2) Use an Allen key to loosen eight screws <AG3> and remove eight spring washers<AG2>. (Fig A2)
(3) Adjust four seat supporting plate <AG1> to desired position.
- For a Seat Depth between 14" and 16", the Seat Height options (excluding cushion) range from 18" (#2) to 19.5" (#5).
- For a Seat Depth between 18" and 22", the Seat Height options (excluding cushion) range from 17.5" (#1) to 19.5" (#5).

(4) Reverse the above processes the reassemble the parts. (Fig A2)

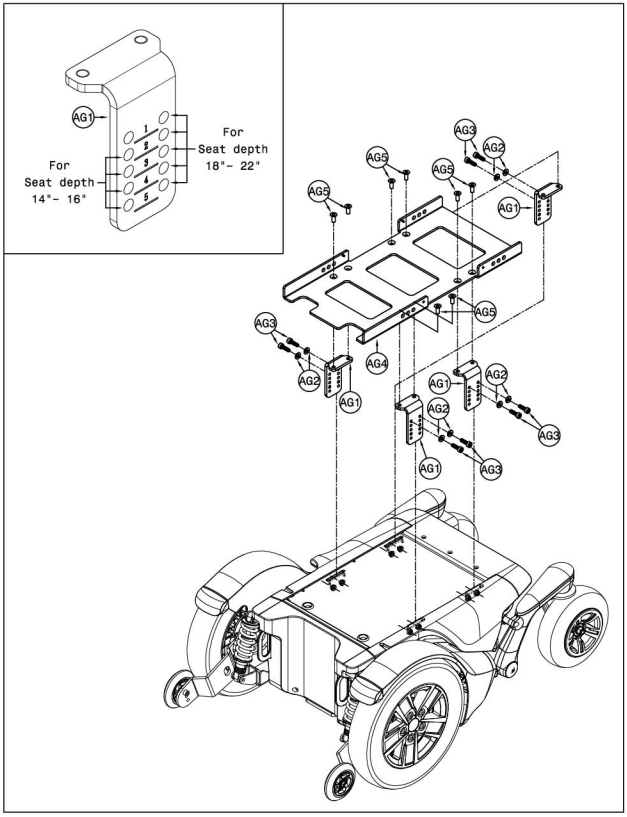



Fig A2

## Battery Removal:

(1) Turn off the power.
(2) Make sure that the power wheelchair is in drive mode.
(3) Remove the rear cover by squeezing the release handles. (Fig A3)
(4) Lifting the rear cover up and away from the power base. (Fig A4)
(5) Disconnect the quick release battery connectors. (Fig A5)
(6) Remove the batteries. (Fig A6)

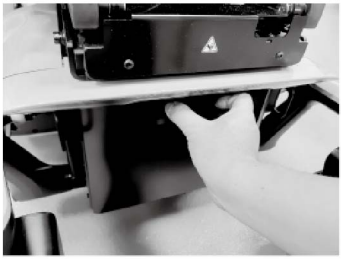


Fig A3

Fig A4

Fig A5

Fig A6

## Manual Free Wheel Lever:

The power wheelchair has a manual free wheel lever on each parking brake. Manual free wheel levers enable you to disengage parking brake and maneuver the chair manually.

**WARNING! Do not use the power wheelchair while the drive motors are disengaged! Do not disengage the drive motors when the power wheelchair is on an incline, as the unit could roll on its own, causing injury!**

To engage or disengage the drive motors:
1. Locate the lever in tront of each motor.
2. Pull the two levers upward to engage the drive motors. (Fig B1)
3. Push the two levers downward to disengage the drive motors. (Fig B2)

If a lever is difficult to move in either direction, slightly rock the power wheelchair back and forth. The lever should then move to the desired position.

**WARNING! It is important to remember that when your power wheelchair is in freewheel mode, the braking system is disengaged.**

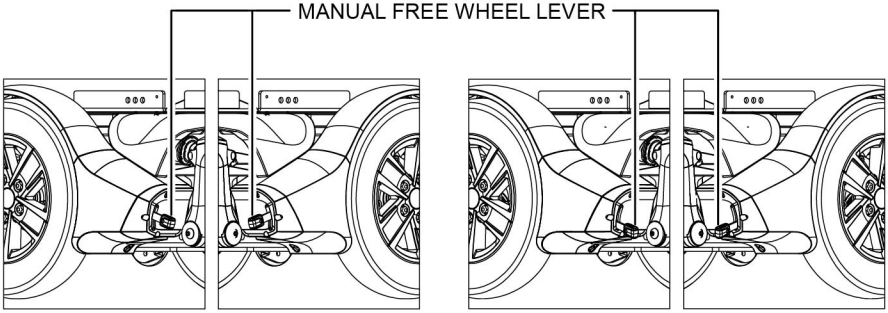



Fig B1. Drive Mode (Drive Engaged)

Fig B2. Free wheel Mode (Drive Disengaged)

## Batteries and Charging

Your Power Wheelchair uses two long-lasting, 12-volt batteries. These batteries are sealed, maintenance free, deep-cycle batteries. Since they are sealed, there is no need to check the electrolyte (fluid) level. Deep-cycle batteries are designed to handle a deep discharge. Though they are similar in appearance to automotive batteries, they are not interchangeable. Automotive batteries are not designed to handle a long, deep discharge, and are also unsafe for use in power wheelchairs.

**WARNING!** Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.

**BATTERY BREAK-IN**

To break in your power wheelchair new batteries for maximum efficiency:

1. Fully recharge any new battery prior to initial use. This will bring the battery up to about 90% of its peak performance level.
2. Run your power wheelchair about the house. Move slowly at first, and do not stray too far until you become accustomed to the controls and break in the batteries.
3. Give the batteries another full charge of 8 to10 hours and operate the power wheelchair again. The batteries should now perform at over 90% of their potential.
4. After four or five charging cycles, the batteries will top off at 100% charge and last for an extended period.

**IMPORTANT INFORMATION ABOUT BATTERIES**

A fully charged deep-cycle battery provides reliable performance and extended battery life. Keep your batteries fully charged whenever possible. Batteries that are regularly discharged, infrequently charged, or stored without a full charge may be permanently damaged, causing unreliable operation and limited battery life.

If you do not use your power wheelchair regularly, we recommend maintaining battery vitality by charging the batteries at least once a week.

**WARNING!** Use only the original battery charger, which was accompanied with your power wheelchair.

Note: If you are storing a power wheelchair for an extended period of time, you may wish to block the unit up off the ground with several boards under the frame. This keeps the tires off the ground to prevent the possibility of flat spots developing.

If you intend to use public transportation while using your power wheelchair, you must contact in advance the transportation provider to determine their specific requirements.

Sealed Lead Acid and Gel Cell batteries are designed for application in wheelchairs and in other mobility vehicles. Generally, Sealed Lead Acid batteries that are marked as "Non-Spill" are safe for all forms of transportation such as aircraft, buses, and trains. We suggest that you contact your transportation provider to determine specific requirements of transportation and packaging.

If you wish to use a freight company to ship the power wheelchair to your final destination, repack the power wheelchair in the original shipping container and ship its batteries in separate boxes.

**Charging Your Batteries**

The battery charger is one of the most important parts of your power wheelchair. Optimize your power wheelchair performance by charging the batteries safely, quickly, and easily.Use only the charger supplied with the vehicle.

**Charging Procedures**

1. Keep charger output plug inserted into the charging socket in the front of the controller before having the charger input plugged into an electrical outlet.
2. Follow the instructions on the front panel of the charger for operating and learn the meanings of the different indicators accordingly.
3. Minimum charging time varies depending on battery condition and discharge level. It is recommended to charge the batteries overnight.

NOTE: The specially designed charger assures that excess power is not consumed regardless of how long it is switched on, and connected to the batteries.

4.Once charging is complete, disconnect the charger from the electrical outlet and then disconnect the charger from the controller socket. Do not leave the charger connected to controller when input power is disconnected.It is dangerous and will jeopardize the power charging to the batteries.

## CARE AND MAINTENANCE

Your power wheelchair requires a minimal amount of care and maintenance. If you do not feel confident in your ability to perform the maintenance listed below, you may schedule inspection and maintenance at your authorized. The following areas require periodic inspection and/or care and maintenance.

**Exterior surfaces**

Main Shroud, rear shroud, and tires can benefit from an occasional application of rubber or vinyl conditioner.

Do not use a rubber or vinyl conditioner on the power wheelchair's vinyl seat or tire tread, as this may cause them to become dangerously slippery.

**Cleaning and disinfection**

● Use a damp cloth and mild, non-abrasive cleanser to clean the plastic and metal parts of your power wheelchair.

Avoid using products that may scratch the surface of your power wheelchair.

● If necessary, clean your product with an approved disinfectant. Make sure the disinfectant is safe for use on your product before application.

● Follow all safety instructions for the proper use of the disinfectant and cleaning agent before applying it to your product. Failure to comply may result in skin irritation or premature deterioration of upholstery and/or scooter finishes.

**Battery terminal connections**

● Make certain that the terminal connections remain tight and uncorroded.

● The batteries must sit flat in the battery wells.

**ABS plastic shrouds**

● The fender LH/RH are formed from durable ABS plastic and are coated with an advanced formula urethane paint.

● A light application of car wax will help the shrouds retain their high gloss.

**Motor brushes**

The motor brushes are housed inside of the motor transaxle/assembly. They should be inspected periodically for wear by your authorized dealer.

AXLE BEARINGS AND THE MOTOR/TRANSAXLE ASSEMBLY

You do not need to lubricate these items, as they are all prefabricated and sealed.

**DAILY CHECKS**

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

● Visually inspect the controller harnesses. Make sure that they are not frayed, cut or have any wire exposed. See your authorized provider if there is a problem with any of these harnesses.

**WEEKLY CHECKS**

● Disconnect and inspect the controller and charger harnesses from the electronics connector housing. Look for corrosion. Contact your local provider if necessary.

● Ensure that all parts of the controller system are securely fastened to your power wheelchair. Do not over tighten any screw.

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

● Check the brakes. This test should be carried out on a level surface with at least three feet of clearance around your power wheelchair.

To check the brakes:

1. Turn on the controller and turn down the speed response adjustment knob.
2. After one second, check the battery gauge. Make sure that it remains on.
3. Slowly push the joystick forward until you hear the electric brakes click.

*Note: The power wheelchair may move when performing this test. Immediately release the joystick. You must be able to hear each electrical brake operating within a few seconds of joystick movement.*

**MONTHLY CHECKS**

● Check that the anti-tip wheels do not rub the ground when you are operating the power wheelchair; adjust them as necessary.

● Check for extreme wear on the anti-tip wheels. Replace them as necessary.

● Check for drive tire wear. See an authorized provider for repair.

● Check the front/rear castors for wear. Replace as necessary.

● Check the front/rear forks for damage or fluttering which indicates that they may need to be adjusted or the bearings may need to be replaced. See an authorized provider for repair.

● Keep your power wheelchair clean and free of foreign material such as hair, food, drink, etc.

**YEARLY CHECKS**

● Take your powerbase wheelchair to an authorized provider for yearly maintenance. This helps to ensure that your power wheelchair is functioning properly and helps prevent future complications.

**Wheel replacement**

If your power wheelchair is equipped with a solid tire insert, either the solid insert or the entire wheel must be replaced depending on the model. Contact your dealer for information regarding replacement wheels for your power wheelchair.

Be sure that the power wheelchair is powered off and the power wheelchair is not in freewheel mode before performing this procedure.

Follow these easy steps for a quick and safe repair for solid tires:

1. Push the ON/Off button to turn off the power.
2. Elevate the side of the power wheelchair of which you are removing the tire. Place wooden blocks under the frame to elevate the power wheelchair.
3. Remove the drive wheel nut and washer from the axle.
4. Pull the wheel off the axle.
5. Slide the new wheel back onto the axle. Make sure that the axle key is in the axle slot. Failure to ensure that the axle key is properly installed into the axle slot when mounting the wheel can result in electronic brake failure, personal injury, and product damage.
6. Reinstall the drive wheel nuts and washers onto the axle and tighten.
Make sure both the nuts and washers are reinstalled and tightened properly.
7. Remove the block from beneath the power wheelchair.

**Wiring harnesses**

● Regularly check all wiring connections.

● Regularly check all wiring insulation, including the charger power cord, for wear or damage.

● Have your authorized dealer repair or replace any damaged connector, connection, or insulation that you find before using your power wheelchair again.

● Even though the power wheelchair has passed the necessary testing requirements for ingress of liquids, you should keep electrical connections away from sources of dampness, including direct exposure to water or bodily fluids and incontinence. Check electrical components frequently for signs of corrosion and replace as necessary.

**Nylon lock nut replacement**

Any nylon insert lock nut removed during the periodic maintenance, assembly, or disassembly of the scooter must be replaced with a new nut. Nylon insert lock nuts should not be reused as it may cause damage to the nylon insert, resulting in a less secure fit. Replacement nylon insert lock nuts are available at local hardware stores or through your dealer.

**Console, charger, and electronic controller module**

- Keep these areas away from moisture.
- Before operating your power wheelchair, allow any of these areas to dry thoroughly if they have been exposed to moisture.

**Battery Fusible Links:**

- If your fusible link on the battery harness is found to have opened contact the manufacturer for a replacement battery harness.
- The link should not be replaced with any substitute material or removed.

**Storing your power wheelchair**

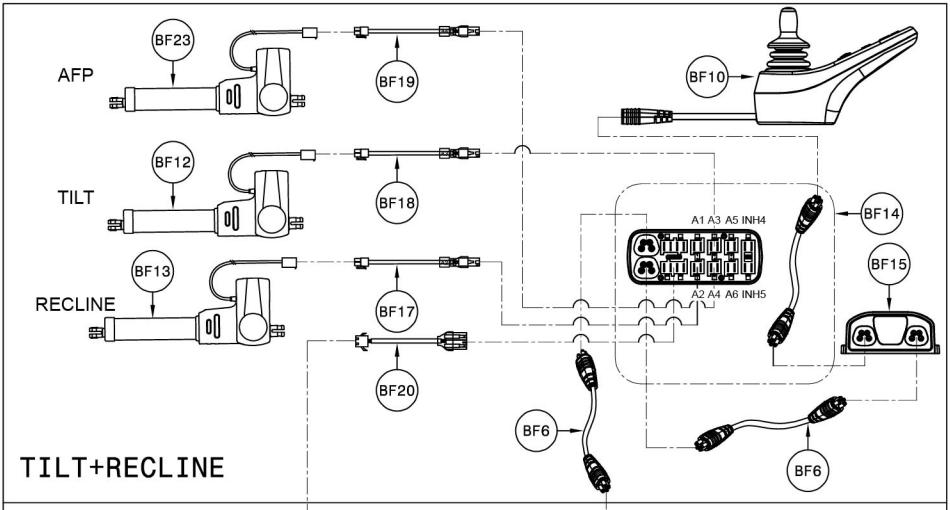
If you plan on not using your power wheelchair for an extended period of time, it is best to:

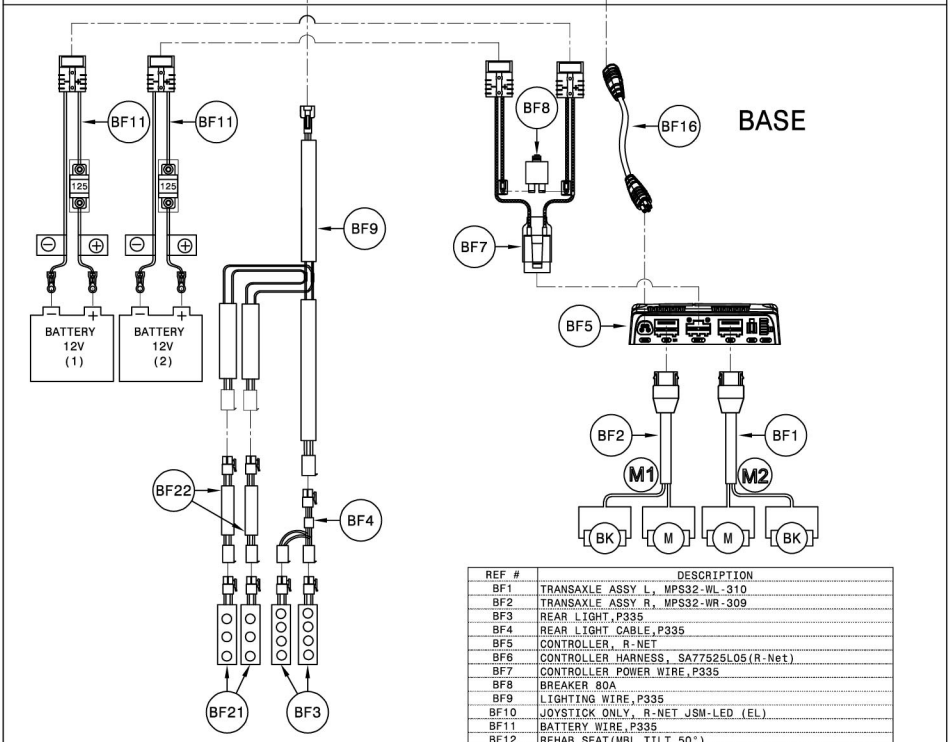
1. Fully charge its batteries prior to storage.
2. Disconnect the batteries from the power wheelchair.
3. Store your power wheelchair in a warm, dry environment.
4. Avoid storing your power wheelchair where it will be exposed to temperature extremes.

Always protect batteries from freezing temperatures and never charge a frozen battery. Charging a frozen battery can result in damage to the battery.

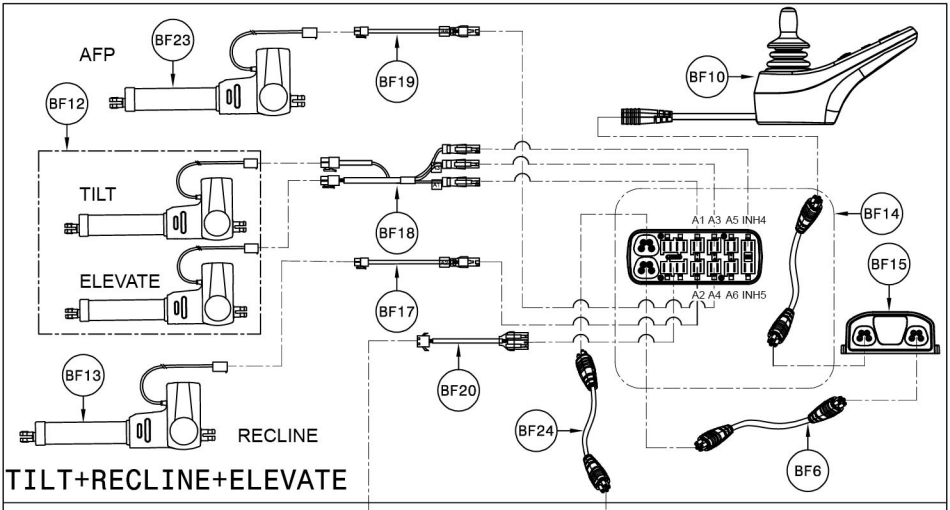
**Recycle**

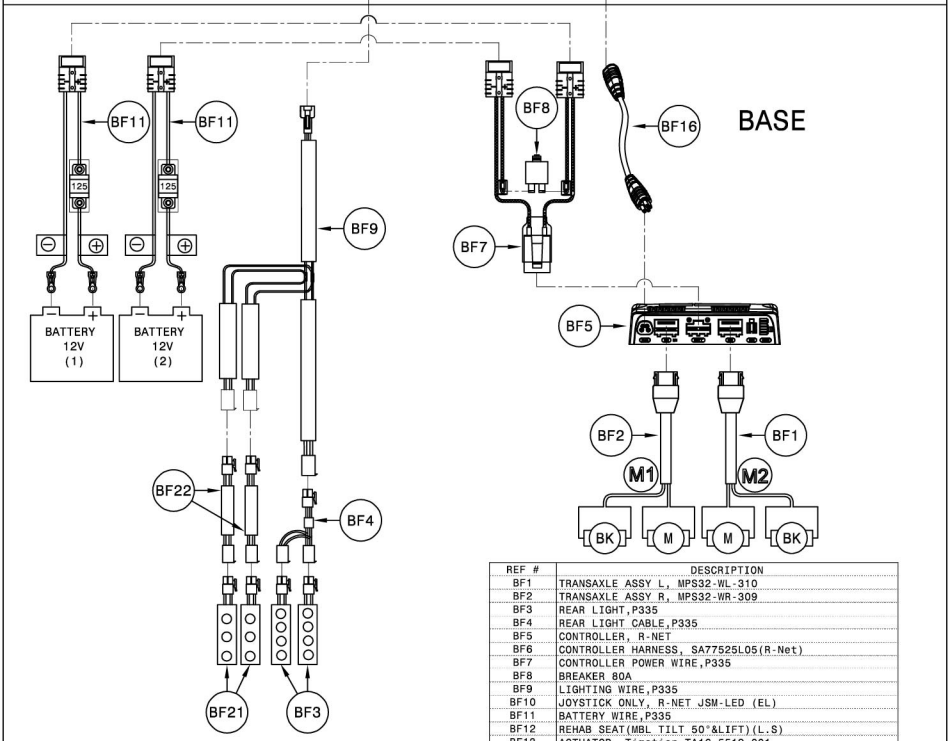
Information on the recycling of used batteries and other parts of the power wheelchair; use only special recycling for the power wheelchair parts, no general disposal (e.g. batteries, electronics)




| REF # | DESCRIPTION |
|---|---|
| BF1 | TRANSAXLE ASSY L, MPS32-WL-310 |
| BF2 | TRANSAXLE ASSY R, MPS32-WR-309 |
| BF3 | REAR LIGHT,P335 |
| BF4 | REAR LIGHT CABLE,P335 |
| BF5 | CONTROLLER, R-NET |
| BF6 | CONTROLLER HARNESS, SA77525L05(R-Net) |
| BF7 | CONTROLLER POWER WIRE,P335 |
| BF8 | BREAKER 80A |
| BF9 | LIGHTING WIRE,P335 |
| BF10 | JOYSTICK ONLY, R-NET JSM-LED (EL) |
| BF11 | BATTERY WIRE,P335 |
| BF12 | REHAB SEAT(MBL TILT 50°) |
| BF13 | ACTUATOR, Timotion TA16-5519-001 |
| BF14 | CONTROLLER, R-NET ISM 6L-1.0M (D50602) |
| BF15 | ANGLE SENSORS/TILT MODULE D51557 |
| BF16 | CONTROLLER SIGNAL WIRE |
| BF17 | ACTUATOR CONNECTING WIRE(A2),P335 RECLINE |
| BF18 | ACTUATOR CONNECTING WIRE(A3),P335 TILT |
| BF19 | ACTUATOR CONNECTING WIRE(A4),P335 POWER FOOTPLATE |
| BF20 | LIGHTING WIRE UPPER,P335 |
| BF21 | CONNECTING WIRE FOR WHITE LED (LED INCLUDED) |
| BF22 | FRONT LIGHT EXTEND WIRE,P335 |
| BF23 | ACTUATOR,POWER FOOTPLATE |

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| BF8 | BREAKER 80A |
| BF9 | LIGHTING WIRE,P335 |
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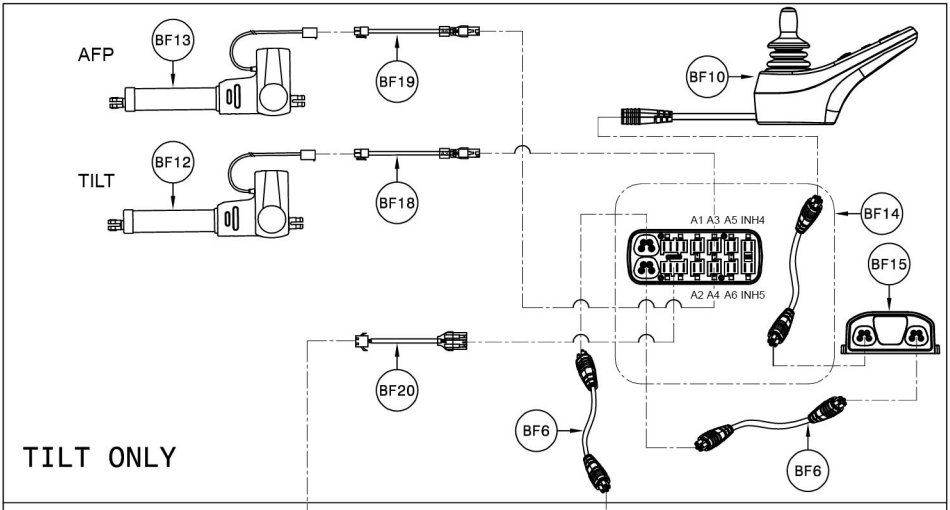
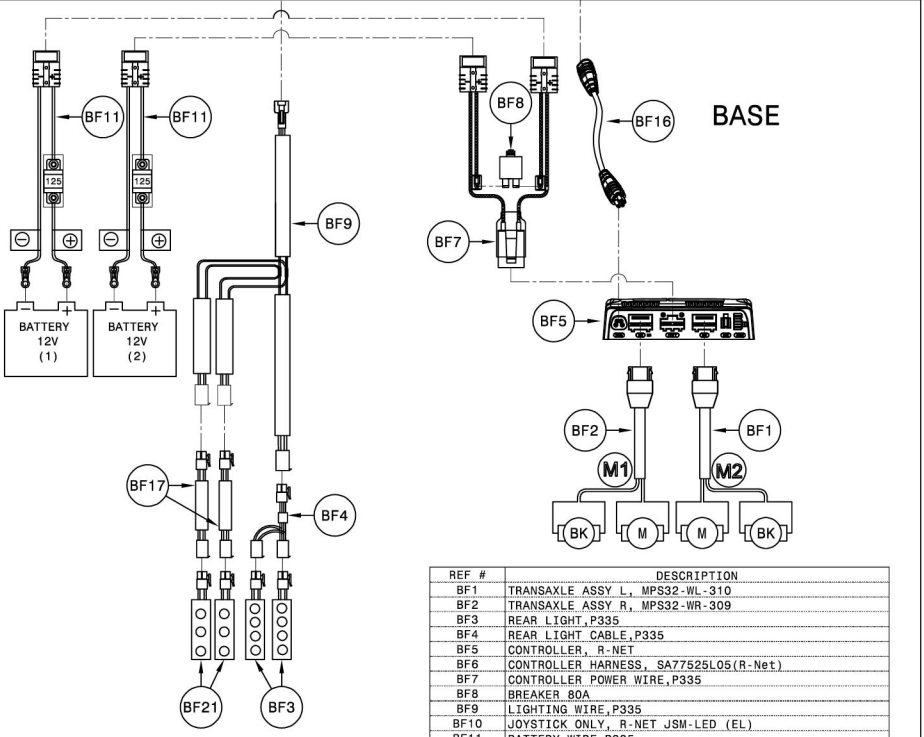
| BF18 | ACTUATOR CONNECTING WIRE(A1)(A3),P335 LIFT/TILT |
| BF19 | ACTUATOR CONNECTING WIRE(A4),P335 POWER FOOTPLATE |
| BF20 | LIGHTING WIRE UPPER,P335 |
| BF21 | CONNECTING WIRE FOR WHITE LED (LED INCLUDED) |
| BF22 | FRONT LIGHT EXTEND WIRE,P335 |
| BF23 | ACTUATOR,POWER FOOTPLATE |
| BF24 | CONTROLLER HARNESS, SA77525L15(R-Net) |

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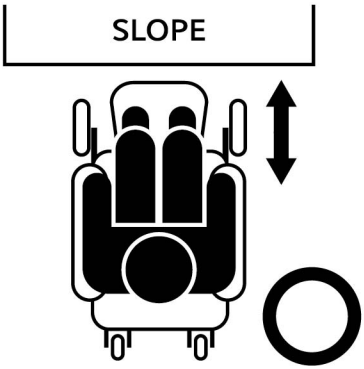
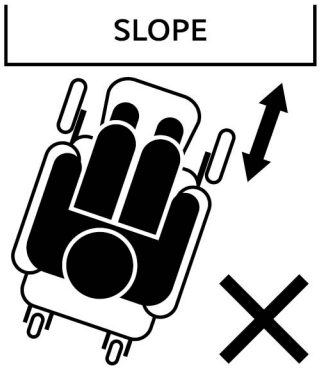
| BF21 | CONNECTING WIRE FOR WHITE LED (LED INCLUDED) |

IEC Symbols

| | |
|---|---|
|  | Direct current |
| **IPX4** | Protect against splashing water |
|  | Attention, consult accompanying document. |
|  | ON/ OFF Button on the controller |
| **6A/24V** | Use DC 24V/6A charger |
|  | **Follow the instructions for use** |
|  | Type B applied part |
|  | Not intended for use as seat in a motor vehicle |
|  | Pinch/Crush points created during assembly |
|  | Do not stand on the footplate |

**WARNING!** Always drive straight up or straight down an incline, ramp, or slope to reduce the possibility of a tip or a fall.



# TROUBLESHOOTING TIPS


Figure 1

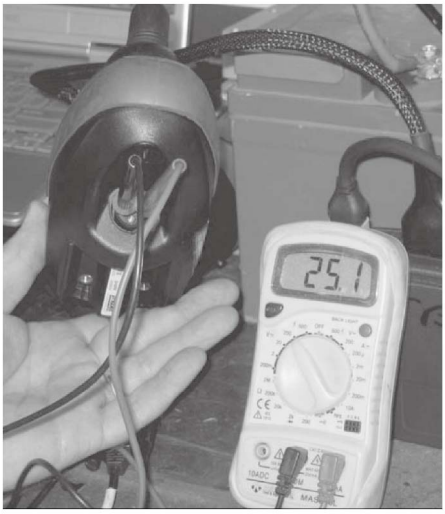



Figure 2

**If your power wheelchair or scooter is not operating properly, please take the following steps prior to calling Technical Support.**

**Load-test Batteries—See Figure 1**

1. Attach Battery Load-tester to battery.
   Observe polarity: Red is Positive—Black is Negative

2. Hold load switch on for 10 seconds. A good reading is 11.2 Volts DC, or in the Green.

Note: A Voltmeter cannot load-test batteries.

**Test Voltage—See Figure 2**

Utilizing a Voltmeter, place meter leads in charging port. The voltage reading should be 25 Volts DC, plus or minus 2 volts.

Note: Batteries are connected in series.

**If the above tests are successful, proceed with the following test.**

1. For power wheelchair, place gearbox levers in Freewheel.

2. Turn on controller and run in all four quadrants.

3. If troubleshooting a scooter, elevate rear wheels and run in Forward and Reverse.

***If any of the above tests fail, contact your local dealer.***

| Disclosure Information (ISO 7176-15:1996) | | | | | |
|---|---|---|---|---|---|
| | Min. | Max. | | Min. | Max. |
| Overall length with legrest | -- | 1200mm/47.2” | Seat plane angle | -- | 6.2° |
| Overall width | -- | 710mm/28” | Effective depth | 356mm/14” | 508mm/20” |
| Folded length | -- | -- | Effective seat width | 356mm/14” | 560mm/22” |
| Folded width | -- | -- | Seat surface height at front edge(w/o cushion) | -- | 450mm/17.7” |
| Folded height | -- | -- | Backrest angle | 85° | 160° |
| Total mass | -- | P335 175.3kg/386.1lbs<br>P335N 168.6kg/371.4lbs | Backrest height (w/o cushion) | -- | 630mm/24.8” |
| Mass of the heaviest part | -- | P335 17.5kg/38.5lbs<br>P335N 15.1kg/33.3lbs | Footrest to seat distance (w/o cushion) | -- | 313mm/12.3” |
| Static stability downhill | 10.0° | 17.5° | Leg to seat angle | -- | 70° |
| Static stability uphill | 9.0° | 12.0° | Armreat to seat distance (w/o cushion) | -- | 283mm/11.1” |
| Static stability sideways | 13.0° | 13.5° | Front location of armrest structure | -- | -- |
| Energy consumption | -- | P335 30km/19mile<br>P335N 25km/15.6mile | Handrim diameter | -- | -- |
| Dynamic stability uphill | -- | 7.5° | Horizontal location of axle | -- | -- |
| Obstacle climbing | -- | 60mm/2.4” | Minimum turning radius | 675mm/26.6” | -- |
| Maximum speed for forward | 9km/h. /5.63mph | 9.6km/h. /6mph | -- | -- | -- |
| Minimum horizontal braking distance from max speed | -- | 1950mm/76.8” | -- | -- | -- |

**WARNING!** The brake distance at the slope might be longer than the minimum brake distance under maximum speed.

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