



MAJOR'SMOBISIST
MOVING WITH DIGNITY

POWER CHAIR



Liberty 116/118



Liberty 120/122/124

OWNER'S MANUAL

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1. PREFACE AND INTRODUCTION

Please carefully read this owner's manual before using the power chair. Improper use of the power chair could result in harm, injury or traffic accidents. Therefore for maximum pleasure while using the power chair please read this owner's manual.

This owner's manual includes operation instructions for every aspect of the power chair, assembly instructions, as well as instructions for how to deal with possible accidents.

- ♦ The symbols used in this manual are explained below:

Read carefully the notes marked with these symbols:

 Warning	Improper usage could result in serious injury or death
 Attention	Improper usage could lead to injury and/or damage to your power chair.
 Suggestion	Follow these instructions to keep your power chair in a good operating order.

- ♦ This manual includes a copy of repair and maintenance record chart and warranty information. Please keep it in a safe place or in the power.
- ♦ If someone else uses the power chair, please make sure that you provide them with the instruction manual for his or her consideration.
- ♦ As designs change some illustrations and pictures in the manual may not correspond to the power chair that you purchased. We reserve the right to make design modifications.

Our power chair have been designed and manufactured to provide a comfortable and secure yet affordable solution for some mobility requirements.

“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.”

2. SAFETY NOTICE

2.1 BEFORE DRIVING

The user needs to be familiar with the usage and operation of this power chair before driving. Therefore, please always keep the following safety notices in mind.

■ The same traffic rules apply to the use of this power chair as apply to pedestrians

For your safety, please therefore follow the rules that apply to pedestrians.

- ◆ Drive on the pavement, single carriage roads, or pedestrian areas only. Never drive on motorways or dual carriageways.
- ◆ Please do not drive your power chair after consuming alcohol or when you are tired.
- ◆ Please be careful when driving your power chair in low light. It has not been designed for use at night.
- ◆ The power chair may only be used on the pavement or pedestrian areas at 4mph. Use the 4mph switch to ensure you keep within this limit.

■ Practice operating your power chair

Before using the power chair in busy or potentially dangerous areas, familiarize yourself with the operation of your power chair. Please practice in a wide and open area like a park. In order to avoid accidents with your power chair while driving, please bear in mind driving motions, such as accelerating, stopping, turning, reversing, up-and down ramps.

- ◆ Please turn the speed dial to value 1 for your initial practice.
- ◆ Be sure someone accompanies you for safety when driving on the roads for the first time.
- ◆ Only use higher speed setting when you are confident that you can easily operate and control your power chair.

■ The power chair is only to be used by one person at a time

Do not carry passengers on your power chair. (including children)

■ Do not use this power chair to carry or haul goods

- ◆ The maximum weight can be carried, please refer to “MAX LOAD WEIGHT” in “9. SPECIFICATION”

2.2 WHILE DRIVING

■ Please carry out daily inspections. Refer to the section entitled “DAILY CHECKING”

■ Do not move your body out of the power chair while moving

- ◆ Such action may cause you to lose balance and risk injury from falling.
- ◆ Pay attention that your clothes do not tangle in the wheels

2. SAFETY NOTICE

■ Do not use your power chair under the circumstances below.

- ◆ On roads with heavy traffic or roads that are muddy, gravelly, bumpy, narrow, snowed over, ice, or canal towpaths not guarded by any fence or hedge. Keep away from places where you might get the wheels stuck.
- ◆ Do not drive at night or when it is raining, snowing, misty, or windy.
- ◆ Do not drive your power chair in an “S” pattern or make erratic turnings.
- ◆ Do not take the power chair onto escalators.
- ◆ UNDER NO CIRCUMSTANCES SHOULD THE POWER CHAIR BE USED AS A SEAT IN A MOTOR POWERCHAIR (E.G. CARS, BUSES, TRAINS, ETC).

■ About Mobile Phones and other electrical equipment

- ◆ Do not use a mobile phone or other wireless communication devices while driving.
- ◆ Always switch off the power chair and remove the ignition key before using a mobile phone.
- ◆ Do not charge the mobile phone or any other electrical devices from your battery of power chair.

■ Automatic Power Shut Down

In order to avoid accidental battery run down, your power chair is equipped with an automatic power shut down facility. If the power chair is switched on, after remaining undisturbed for a period of thirty minutes it will automatically turn off. When this situation occurs, simply switch your power chair off and back on and it will be ready to use once again.

■ Ramps, inclines and drops

- ◆ Do not drive onto steep ramps greater than the specified gradient. Refer to the section entitled “CLIMBING ANGLE” in “8. SPECIFICATION”
- ◆ Always use a low speed setting when ascending or descending a gradient.
- ◆ Do not drive on roads with large drops or potholes. Refer to the section entitled “MAX. GROUND CLEARANCE” in “8. SPECIFICATION”.
- ◆ Please slow down when driving on roads with inclines.
- ◆ Do not make sudden turns when driving on gravel roads or ramps.
- ◆ Always lean forward when climbing a steep gradient.

■ Starting and Driving

1. Make sure the seat is installed properly.
2. Fold down the armrests so you can rest your arms on them.
3. Check battery indicator to see whether there is enough power for your journey. If you have any doubt about the remaining power, please recharge the batteries before departure.
4. Set the speed dial to a position you feel safe and comfortable with.

2. SAFETY NOTICE

5. Check the joystick lever works correctly.
6. Make sure the electromagnetic brake works correctly.
7. Make sure it is safe around you before you drive on the street. Engage the 4mph switch if you are driving on the pavement.

Warning!

- ◆ Do not set in the freewheel mode when driving on a gradient.
- ◆ Always re-engage the anti-freewheel device before use. Fail to do so may result in injury.
- ◆ To protect your safety, the power will automatically cut off and electromagnetic brake system will activate while driving down a steep gradient. This will limit the speed to a safe level. Turn the power on again to re-start your power chair .
- ◆ Always use the safety belt.
- ◆ Always keep the foot on the leg rest while driving.
- ◆ **Maximum User Weight Limit**
Refer to section entitled “MAX. LOAD WEIGHT” in “ 8. SPECIFICATION “. Overloading past the weight limit may lead to damage of your power chair or cause it to malfunction and will endanger your own safety. The warranty does not cover this type of damage.

Attention

1. Avoid putting all of your weight on the footrest. This may cause the power chair to tip which may result in injury.
2. Do not turn the power switch to OFF while driving as this will lead to an emergency stop and possible risk of accident and injury.
3. Do not set to the highest speeds while driving indoors.
4. Do not adjust the speed dial while driving, a sudden change in speed may cause danger to you and others, and may cause damage to your power chair .
5. Do not place magnetic devices near the area of the controller as this could affect the safe operation of your power chair .
6. While reversing the power chair , beware of people or objects behind you.

■ **Stopping**

- ◆ Release the joystick control lever completely. The power chair will naturally brake and stop.
- ◆ Press the power button to (OFF).

■ **Driving on the pavement**

- ◆ Ensure the 4mph limit switch is set to the slowest setting when using the power chair on the pavement.

2. SAFETY NOTICE

- ♦ This will limit the power chair to a maximum speed of 4mph. It is an offence to travel at more than 4mph on the pavement.
- ♦ The limit switch can be set to the fastest setting for use on the road or on the private ground.

Attention: When climbing an incline do not zigzag or drive at an angle up the face of the of the incline.

Always drive your power chair straight up the incline. This greatly reduces the possibility of a tip or a fall. Always exercise extreme caution when negotiating an incline.

Never travel up or down an incline that can be potentially hazardous (for example, areas covered with snow ice , or cut grass).

■ Inclines and uneven terrain

When climbing an incline, try to keep your power chair moving. If you must stop, start up again slowly, and then accelerate cautiously . When driving down an incline ,do so slowly and in the forward direction only. If your power chair starts to move faster than you anticipated or desired it would, allow the chair to come to a complete stop by releasing the joystick. Push the joystick slightly forward and continue traveling slowly down the incline.

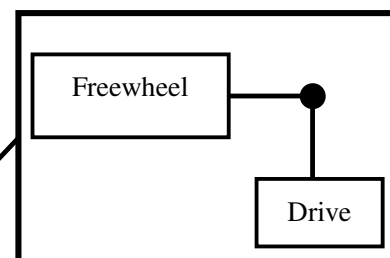
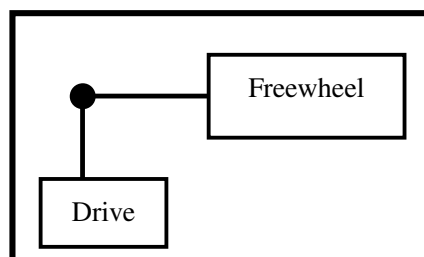
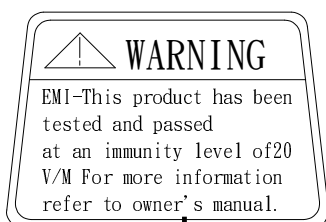
■ Maximum recommended incline

Our has performed extensive incline testing the power chair. Our results show that the maximum incline your Mambo can safety climb is five degrees at maximum weight capacity. Five degrees is the angle of most handicap access ramps. Any attempt to climb a steppers slop may put your power chair in an unstable position.

2. SAFETY NOTICE

■ Labeling

Please carefully read all the labeling on the power chair before drive it. For your future reminding, do not remove them.



3. EMI

This portion of the content will provide the user with basic information that describes the problems with EMI, known sources of EMI, protective measures either to lessen the possibility or exposure or to minimize the degree of exposure, and suggested action should unexpected or erratic movement occur.

Attention: It is very important that you read this information regarding the possible effects of electromagnetic interference on your **Mambo** power chair.

■ ELECTROMAGNETIC INTERFERENCE (EMI) FROM RADIO WAVE SOURCES

Powered power chair may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones. The interference (from radio wave sources) can cause the powered power chair to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the powered wheelchair's control system. The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each powered power chair can resist EMI up to a certain intensity. This is called its "immunity level". The higher the immunity level, the greater the protection. At this time, current technology is capable of achieving at least a 20 V/m immunity level, which would provide useful protection from the more common sources of radiated EMI. This powered power chair model as shipped, with no further modification, has an immunity level of 20 V/m without any accessories.

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

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

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

Attention: Some cellular telephones and similar transmit signal 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 power chair.
3. Long-range transmitters and transceivers, such as commercial broadcast transmitter (radio and TV broadcast antenna towers) and amateur (HAM) radios.

3. EMI

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

■ **POWERED POWER CHAIR ELECTROMAGNETIC INTERFERENCE (EMI)**

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

■ **WARNINGS**

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

1. Do not operate hand-held transceivers-receivers, such as citizens band (CB) radios, or turn ON personal communication devices, such as cellular phones, while the powered power chair is turned ON;
2. Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them;
3. If unintended movement or brake release occurs, turn the powered power chair OFF as soon as it is safe;
4. Be aware that adding accessories or components, or modifying the powered power chair , may make it more susceptible to EMI (Note: There is no easy way to evaluated their effect on the overall immunity of the powered power chair).
5. Report all incidents of unintended movement or brake release to the powered power chair manufacturer, and note whether there is a source of EMI nearby,

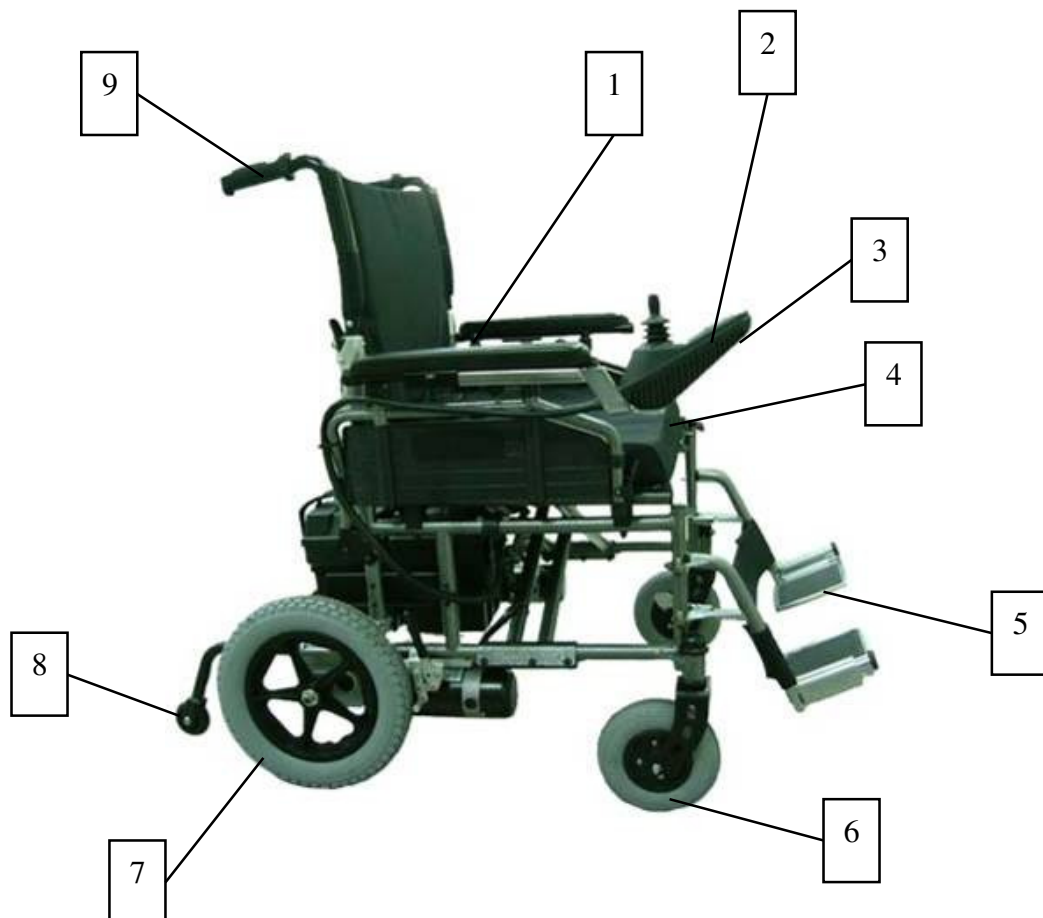
■ **IMPORTANT INFORMATION**

1. 20 Volts per meter (V/m) is a generally achievable and useful immunity level against EMI (the higher the level, the greater the protection);
2. This product has an immunity level of 20 V/m without any accessories and connected to it.

4. PARTS INTRODUCTION

PARTS DESCRIPTION

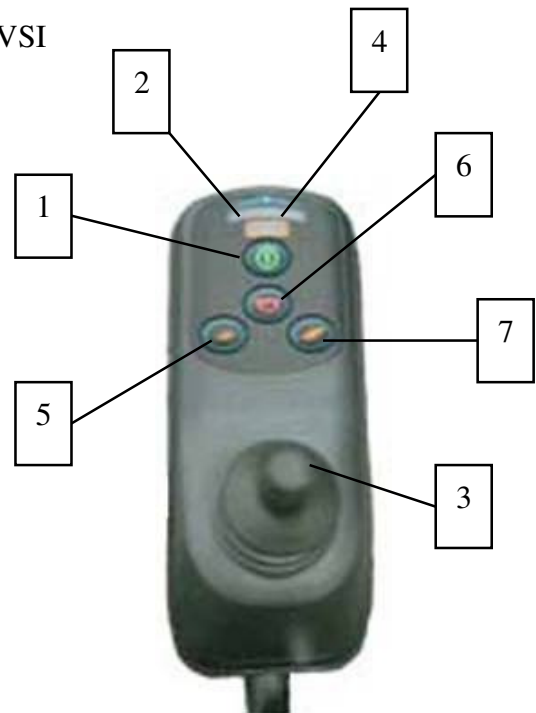
1. Armrest (height adjustable and flips up for transferring)
2. Joystick Controller
3. Charging Port
4. Seat
5. Standard Swing Away Leg rest (Elevating Leg Rest Optional)
6. Front Castor
7. Rear Drive Wheel
8. Anti-tip Wheel
9. Push Handle (foldable for compact storage and transportation)



5. OPERATION

JOYSTICK AND CONTROLLER

Your Mambo is operated by your joystick and controller. The Mambo is currently available with one of two controller options: P&G VSI



VSI Series CONTROL FUNCTIONS

- | | |
|--------------------------------------|------------------|
| 1. ON/OFF Button | 2. Battery Gauge |
| 3. Joystick | |
| 4. Maximum Speed / Profile Indicator | |
| 5. Speed / Profile Decrease Button | 6. Horn Button |
| 7. Speed / Profile Increase Button | |

■ HOW TO OPERATE YOUR POWER CHAIR

◆ ON/OFF Button

The ON/OFF button applies power to the control system electronics, which in turn supply power to the power chair's motor. Do not use the ON/OFF button to stop the power chair unless there is an emergency.

Attention:

If you do, you may shorten the life of the power chair drive components.

◆ Battery Gauge

The battery gauge shows you that the power chair is switched on. It also indicates the operating status of the power chair.

◆ Joystick

The primary function of the joystick is control the speed and direction of the power chair. The further you push the joystick from the center position the faster the power chair will move. When you release the joystick the brakes are automatically applied.

◆ Maximum Speed / Profile Indicator

This is a gauge that shows the maximum speed setting of the power chair.

There are five speed settings-step 1 is the lowest speed and step 5 is the highest speed.

5. OPERATION

Attention:

We recommend that the first few times you operate your power chair you turn the speed and response adjustment knob to the slowest setting until you become familiar with you new power chair.

♦ Speed / Profile Decrease Button

This button decreases the maximum speed setting or , if the control system is programmed for drive profile operation, selects a lower drive profile.

♦ Horn Button

Press either button to sound the horn.

♦ Speed / Profile Increase Button

This button increases the maximum speed setting or , if the control system is programmed for drive profile operation, selects a lower drive profile.

Attention:

This feature is disabled is default and, if required, must be enabled by programming.

Suggestion

1. You should recharge the batteries after each time the power chair is used to ensure maximum range. The batteries should be charged up at least once a week even if the power chair is not used.
2. After charging or replacing a new battery, drive the power chair for 2-3 minutes to make sure the battery capacity is sufficient.
3. In wintertime, the battery may respond more slowly and the battery range may be reduced.
4. When driving on a gradient, the battery indicator light might move up and down. This is a normal phenomenon so please do not worry.
5. Even if the battery is used properly, it is natural for the battery's capacity to reduce with time, which results in reduced battery range compared to a brand new battery. Therefore, when you find the battery's range is about only 50% of the range when the batteries were new, it is time to replace the batteries. Please see your dealer about replacement batteries. If you continue to use the old battery when it should be replaced, it could lead to a rapid decline in performance.
6. The battery range will be reduced when driving frequently on a slope or rough terrain, as this leads to greater consumption of power.
7. The batteries have a six-month warranty covering manufacturing defects. This warranty does not cover faults due to incorrect battery recharging.

5. OPERATION

■ BRAKING

Electro-magnetic brake: Release the speed control lever completely, and the electromagnetic brake will be activated automatically, and the power chair will stop.

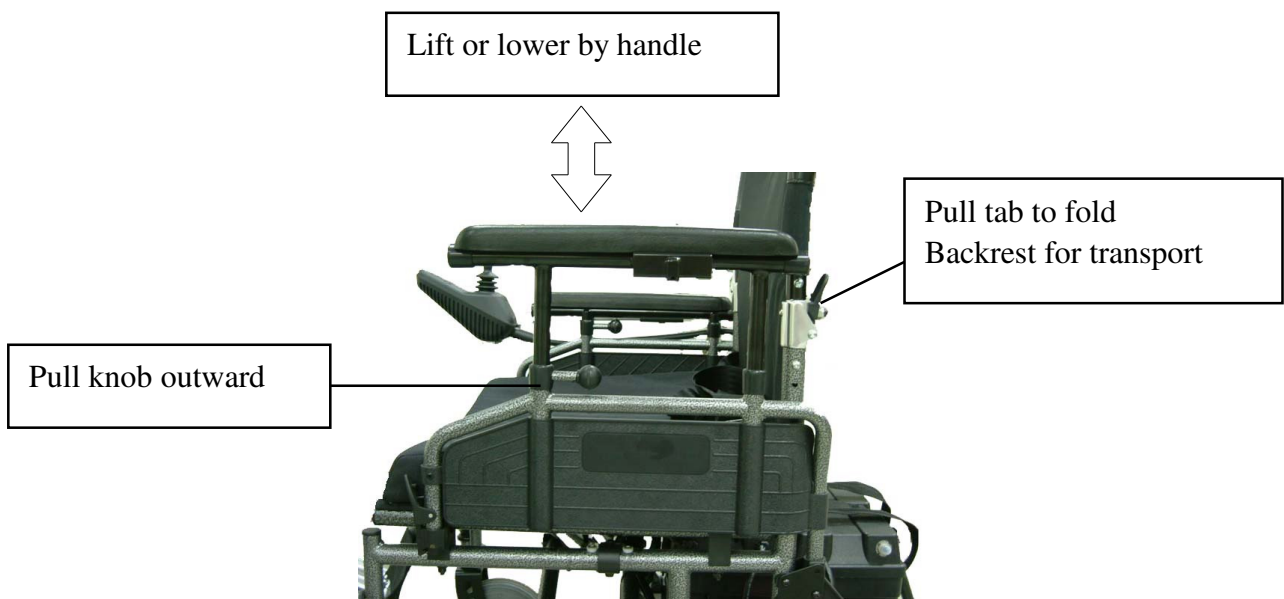
■ ARMRESTS

You can transfer either forwards, left or right from the chair. The armrests are hinged in the back and can up out of the way for transfer. Press “levers” at front of armrest bar to release armrest.



■ TO ADJUST THE ARMREST HEIGHT

The armrests are height adjustable and can flip up out of the way for side transfers. To adjust the height ,simply pull the knob outward and lift armrest up or down to your comfort .The adjustments are in 1” increments.



5. OPERATION

■ SWING-AWAY, DETACHABLE LEG RESTS

The swing away leg rests are detachable. To remove the leg rest, remove the Velcro strap, push silver inward, swing leg rest outward and lift up.



■ HOW TO SET FREEWHEEL MODE

The drive/freewheel mechanism is situated to the rear of the power chair at the motors. These levers will allow you to disengage the drive mechanism and have the power chair in freewheel mode. Always leave the chair in drive mode, the free wheel facility is there only to allow the chair to be pushed manually when the need arises.



Warning

When on a gradient NEVER switch the power chair to the freewheel mode. The electromagnetic brakes will not be applied. This may result in injury.

⚠ Warning

Do not use your power chair while the drive motors are freewheeling unless you are in the presence of an attendant! Do not freewheel the drive motors when your power chair is on an incline. The power chair may roll down on its own causing injury.

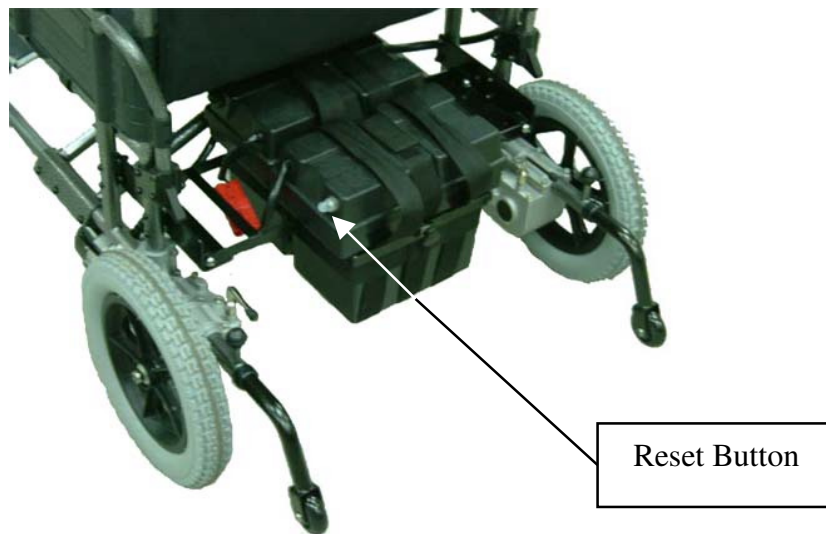
📖 Suggestion

If a level is difficult to move in either direction, rock your Mambo back and forth slightly. The level should then move to the desired position.

5. OPERATION

■ CIRCUIT BREAKER

The circuit breaker is a reset button located on the battery box with 2 connectors. The circuit breaker monitors the electric current drawn from the batteries. It is safety feature built in your power chair for you extra safety. When the batteries and the motors are heavily strained, the circuit breaker will trip to prevent damage to the motors and the electronics. If the circuit breaker trips, waits for approximately one minute and then press the button to reset it. Then turn on the controller power, and continue normal operation. If the circuit breaker continues to trip repeatedly, contact your authorized dealer.



■ REPLACEMENT THE BATTERY

1. Unplug the battery connector that joins the battery boxes together.
2. Lift the battery boxes using the battery strap.
3. Unlock the battery strap and remove the battery box cover.
4. Remove the battery post caps.
5. Unscrew positive terminals (+) one at a time.
6. Unscrew negative terminals (-) one at a time.
7. Remove batteries one at a time.
8. Put the new batteries into the battery boxes.
9. Connect the red line to the positive terminal (+) of a battery while connecting the black line to the negative terminal (-) of the same battery.
10. Close the box properly and carry it with the strap.
11. Apply the same connecting method to both batteries.
12. Put the battery boxes underneath the seat.
13. Connect the two battery connectors.

6. BATTERY CHARGING AND CARE

BATTERUES

- ◆ Your power chair use 12 volt, deep-cycle batteries. These batteries are sealed and maintenance free. Since they are sealed, there is no need to check the electrolyte(fluid)level. Deep-cycle batteries are designed to handle a longer and deeper discharge. Though they are similar in appearance to automotives batteries, they are not interchangeable. Automotives batteries are not designed to handle a long, deep discharge, and also are unsafe for use in powered power hairs.
- ◆ These batteries are maintenance free and there is no need to refill with water.
- ◆ Do not expose the battery to temperatures below 10°C or above 50°C when charging or storing the power hair. Under the above temperature range can cause the battery either to freeze or over heat. This will damage the batteries and shorten their life.

Warning

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

Use proper batteries

- ◆ You power hair operates on two 12 volt batteries.
- ◆ They should be U1 size with a 30~36 ampere hours. Only deep cycle sealed case construction batteries should be used in this device.
- ◆ When you buy a replacement, insist on a deep cycle sealed case. Do not use this device.

CHARGING THE BATTERIES

To charge the batteries using the off-board charger

- ◆ Position your power chair near to a standard wall outlet.
- ◆ Be certain the controller power is turned off .
- ◆ Plug the 3-pin extension cable into the charger.
- ◆ Plug the charger into the wall outlet.
- ◆ We recommended you charge the batteries for 8to 14 hours. When the batteries are fully charged. The orange LED will turn green when charging is complete.(The LED will be lit to orange when beginning charging.)
- ◆ When your power chair batteries are fully charged, you can unplug the power cord from the wall outlet.
- ◆ Disconnect the charger plug from the controller.

6. BATTERY CHARGING AND CARE

Warning

1. Keep away from flammable objects while charging as it may lead to fire or explosion of battery.
2. Do not smoke while charging as the battery may release hydrogen gas. Always charge your battery in a well-ventilated space.
3. Never connect or disconnect the plug or cord with wet hands while charging. Do not connect or disconnect the plug or cord when they are wet, it may lead to electric shock.

Attention - Please follow the rules below to avoid accidents while charging.

1. Please use the WU'S Tech charger only, and recharge the battery to its full capacity every time. You may damage the battery and power chair if you use a charger, which is not to the correct specification.
2. Please charge in a well-ventilated space where it is not directly exposed to the sunlight. Do not charge in surroundings where it is humid or under rainfall and morning dews.
3. Do not charge in temperatures less than -10°C or higher than +50°C as the charger may not work well and the batteries may become damaged.

Suggestion – How to maximize your batteries efficiency and service life

1. Fully recharge your new battery before its first time use.
2. Be sure to charge the battery fully every time. The battery life will be seriously shortened or decayed if the battery is repeatedly used without being fully charged.
3. Always complete the charging until the orange LED light turns green. NEVER stop charging before it is complete.
4. Keep your batteries fully charged whenever possible.
5. If you do not use your power chair for a long time, it should be charged at least every week to keep the battery in a fully usable condition.
6. The ambient temperature will affect charging time. Charging time will be longer in the winter.
7. After charging, do not leave the charger socket plugged in to the power chair, as this will cause a power drain on the power chair and temporarily reduce its range.

7. INSPECTION AND MAINTENANCE

■ INSPECTION

Initial adjustments should be made to suit personal body structure and preference . Thereafter, follow these maintain procedures.

NO.	Item	initially	weekly	monthly	periodically
1	General(Mechanical Troubleshooting) ♦power chair rolls straight(no excessive drag or pull to one side).	○			○
2	Arms ♦Secure but easy to release; adjustment levers engage properly. ♦Adjustable height arms operate and lock securely. ♦Pivot point free of wear and looseness.	○ ○ ○		○	○ ○
3	Seat and back upholstery ♦Inspect for rips or sagging.	○			○
4	Seat ♦Seat secured to the power chair frame ♦Inspect seat release latches	○ ○	○		○
5	Drive wheel ♦Mounting bolts are secure ♦No excessive side movement or binding when lifted and spun when disengaged(free-wheeling)	○ ○			
6	Caster assemblies ♦Bolt are tight. ♦Inspect caster assembly for proper tension by spinning caster assembly; caster assembly should come to a gradual stop. Attention: As with any power chair the wheels and tires should be checked periodically for cracks and wear, and should be replaced.	○ ○		○ ○	
7	Caster assemblies/ wheel ♦Ensure all fasteners are secure.	○	○		
8	Wheels/tires ♦Inspect for flat fasteners are secure. Attention: As with any power chair the wheels and tires should be checked periodically for cracks and wear, and should be replaced.	○	○		
9	Cleaning ♦Clean upholstery and armrests.	○			○

7. INSPECTION AND MAINTENANCE

■ REGULAR CHECKING RECORD

To make sure your power chair is correctly serviced, take it to your dealer for regular maintenance checks. This should be at intervals of six months after the first inspection after one month. Your dealer may charge a fee for this.

YEAR	1	2	3	4	YEAR	1	2	3	4
Service Dates					Service Dates				
Controller					Upholstery				
On/off switch					Seat				
Joystick					Back				
Braking					Armrests				
Recharge point					Electrics				
Batteries					Connections condition				
Levels					Test run				
Connections					Forwards				
Discharge test					Reverse				
Wheels and Tires					stop				
Wear					Left turn				
Pressure					Right turn				
Bearings					Slope test				
Wheel nuts					Over obstacles				
Motors					List items repaired				
Wiring									
Noise									
Connections									
Brake									
Brushes									
Chassis/Footrest									
Condition									
Footrest									

BATTERY, FUSE AND TIRE

■ BATTERY

Refer to the section entitled “ BATTERY CHARGING AND CARE ”

If the battery charger is turned on and no LEDs are lit, check the fuse.

■ FUSE

Suggestion

Ask for help from your dealer to inspect or replace the fuse, since the tiller shroud has to be removed first before you can replace the fuse.

■ TIRES

Since your tires are flat frees, there is no need to ever worry about tire pressure.

7. INSPECTION AND MAINTENANCE

Attention

When conducting maintenance of your power chair, please turn the power switch to OFF and remove the charger cords.

■ UPHOLSTERY

All upholstery can be washed with warm water and mild soap. Some power chair upholstery cleaners produce excellent result as well. Occasionally check the seat and back for sagging, cuts and tears. Replace if necessary. To avoid mildew and rapid deterioration of upholstery parts, do not store your power chair in damp conditions.

Suggestions

1. Do not splash water directly to wash your power chair as this could lead to malfunction of the system electrics.
2. Do not use petrol, solvents or vaporizing solution as these may deform or damage the shrouds.
3. Do not use wax.

■ STORAGE

Make sure the power chair is stored under the following circumstances:

- Make sure the charger is unplug position.
- Make sure the power switch is turned to “OFF”

Suggestion

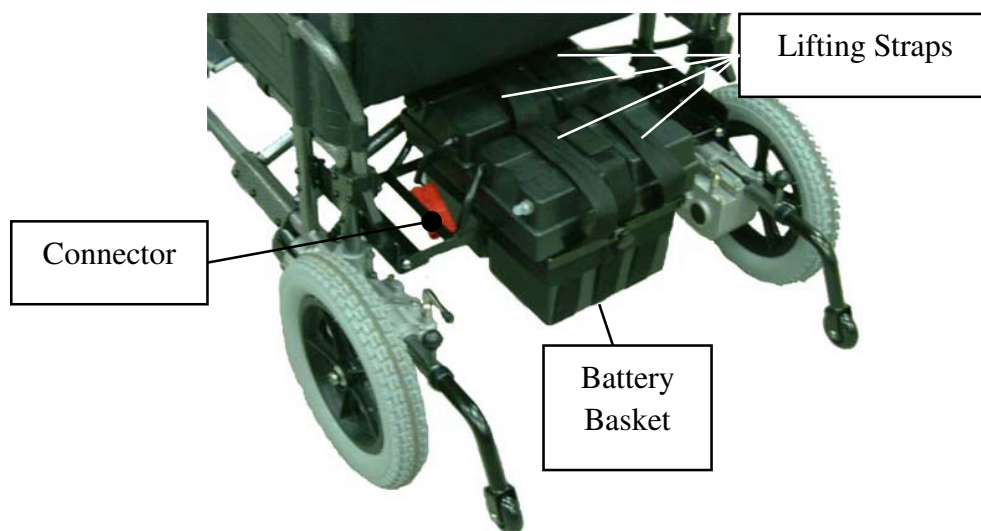
Please store the power chair in a location where it is out of direct sunlight, rain, or dew. When storing for a long time, please charge the battery to full power and then disconnect the battery terminal. For details inquire to your dealer.

■ FOLDING THE POWER CHAIR

To fold the power chair, it is necessary to remove certain components. Follow these simple guidelines:

1. Park the chair on a level surface.
2. Ensure the wheels are in drive mode.
3. Fold up footplates and/or remove the entire leg rest assemblies.
4. Disconnect the back and red connectors situated under the seat.
5. Carefully pull out the first rear battery out of the basket by using the lifting strap (battery is heavy). Then pull out the battery box by lifting up.
6. Slide second battery forward and follow the same steps as 5. to pull out the second battery box.
7. Remove seat cushion, carefully place hands under the seat bottom and give a sharp pull upward. This will pull the entire frame together.

7. INSPECTION AND MAINTENANCE



8. TROUBLE SHOOTING AND SPECIFICATION

■ TROUBLE SHOOTING

Symptom	Probable cause	Solution
Limited driving distance	<ul style="list-style-type: none"> ♦Batteries not charged long enough. ♦Batteries weak, won't hold charge. 	<ul style="list-style-type: none"> ♦Charge batteries overnight or ensure 10 hours of charge between use times. Make sure setting on charger is correct. ♦Replace batteries
Batteries not charging.	<ul style="list-style-type: none"> ♦Charger not working ♦Battery connections loose. ♦No current at wall outlet. ♦Bad connection on charger, cable, plug or internal wiring problem. 	<ul style="list-style-type: none"> ♦Replace charger. ♦Check all connections. Secure connections. ♦Switch to another wall outlet. ♦Replace charger or internal repairs required. Contact dealer .
Batteries draw excessive current when charging.	<ul style="list-style-type: none"> ♦Battery failure. 	<ul style="list-style-type: none"> ♦Replace batteries
Charge indicator shows low charge level immediately after charging.	<ul style="list-style-type: none"> ♦Batteries weak, won't hold charge. ♦Electrical malfunction. ♦Charger not operating. 	<ul style="list-style-type: none"> ♦Replace batteries ♦Contact dealer ♦Replace batteries
Battery indicator flashes the charge level is low-too soon after being recharged.	<ul style="list-style-type: none"> ♦Have charger checked. ♦Weak batteries. 	<ul style="list-style-type: none"> ♦Service or replace charger. Contact dealer ♦Replace batteries
Wheel chair will not drive	<ul style="list-style-type: none"> ♦Motor release levers disengaged. ♦Batteries require charging. ♦Charger plugged in. ♦Circuit breaker tripped. 	<ul style="list-style-type: none"> ♦Engage motor release levers. ♦Charge batteries. Make sure setting on charger is correct. ♦Unplug charger from wall outlet. ♦Reset breaker. If breaker trips again, it may indicate need for internal repairs.
Motor "chatter "or runs irregularly.	<ul style="list-style-type: none"> ♦Electrical malfunction. 	<ul style="list-style-type: none"> ♦Contact dealer
Joystick erratic or does not respond as respired.	<ul style="list-style-type: none"> ♦Electrical malfunction. ♦Controller programmed improperly. 	<ul style="list-style-type: none"> ♦Contact dealer ♦Contact dealer
Only one (1) rear wheel turns.	<ul style="list-style-type: none"> ♦Electrical malfunction. ♦One (1) motor release lever is engaged. 	<ul style="list-style-type: none"> ♦Contact dealer ♦Disengage motor release lever.
Wheelchair does not respond to commands .Power indication off-even after recharging.	<ul style="list-style-type: none"> ♦Poor battery terminal connection. ♦Electrical malfunction. 	<ul style="list-style-type: none"> ♦Clean terminals. ♦Contact dealer

8. TROUBLE SHOOTING AND SPECIFICATION

SPECIFICATIONS

MODEL ITEM	Liberty 116	Liberty 118	Liberty 120
Dimension (L×W×H mm) (L×W×H inch)	1070×560×990 mm 42.1"×22"×39"	1070×610×990 mm 42.1"×24"×39"	1120×660×990 mm 44"×26"×39"
Weight, with batteries Kg/lbs Without batteries Kg/lbs	67.1hgs / 148.1lbs 41.3kgs / 90.9lbs	67.1hgs / 148.1lbs 41.3kgs / 90.9lbs	67.1hgs / 148.1lbs 41.3kgs / 90.9lbs
Battery	12V 36AH×2		
Motor	180W×2	180W×2	320W×2
Charger	DC24V 5A Off-board		
Caster wheels	8" Foam filled tire×2		
Drive wheels	12-1/2" Foam filled tire ×2		
Driving system	Direct drive the rear wheel		
Brake system	Electromagnetic brakes		
Top speed	6.4 km/hr / 4mph		
Climbing angle	8°		
Cruising range	24-32km/ 15-20miles		
Turning radius (mm/inch)	560mm/22"		
Ground clearance	110mm/4.3"		
Armrests	Adjustable Height		
Max. user weight	113kg /250lbs	113kg / 250lbs	136kg / 300lbs
Controller	P&G VSI 50A		

Remark : The manufacturer reserves the right to modify the specification if necessary. The final specification is subject to the individual power chair you purchase from your dealer.

Note:

Maximum driving distance is based on an ambient temperature of 20°C, at 75 kg driver a brand new fully charged battery by a constant driving speed at 4/5 mph with 70% battery power discharged.

8. TROUBLE SHOOTING AND SPECIFICATION

SPECIFICATIONS

MODEL ITEM	Liberty 122	Liberty 124
Dimension (L×W×H mm) (L×W×H inch)	1120×710×990 mm 44 1 “×28.3×39“	1120×760×990 mm 44.1“×30“×39“
Weight, with batteries Kg/lbs Without batteries Kg/lbs	69.5kgs/ 154.2lbs 43.7kgs / 96.1lbs	69.5kgs/ 154.2lbs 43.7kgs / 96.1lbs
Battery	12V 36AH×2	
Motor	320W×2	
Charger	DC24V 5A Off-board	
Caster wheels	8“ Foam filled tire×2	
Drive wheels	12-1/2“ Foam filled tire ×2	
Driving system	Direct drive the rear wheel	
Brake system	Electromagnetic brakes	
Top speed	6.4 km/hr / 4mph	
Climbing angle	8°	
Cruising range	24-32km/ 15-20miles	
Turning radius (mm/inch)	560mm/22“	
Ground clearance	110mm/4.3“	
Armrests	Adjustable Height	
Max. user weight	160 /350lbs	182kg / 400lbs
Controller	P&G VSI 50(570)A	

Remark : The manufacturer reserves the right to modify the specification if necessary. The final specification is subject to the individual power chair you purchase from your dealer.

Note:

Maximum driving distance is based on an ambient temperature of 20°C, at 75 kg driver a brand new fully charged battery by a constant driving speed at 4/5 mph with 70% battery power discharged.

8. TROUBLE SHOOTING AND SPECIFICATION

■ Self-Help Guide

If a system trip occurs, you can find out what has happened by counting the Number of bars on the battery gauge that are flashing.

Overleaf is a list of self-help actions. Try to use this list before you contact Your service agent. Go to the number in the list which matches the number Of flashing bars and follow the instructions.

If the problem persists after you made the checks described above contact Your service agent.

1 bar	The battery needs charging or there is a bad Connection to the battery. Check the connections to The battery. If the connections are good, try charging The battery.
2 bars	The left hand motor* has a bad connection. Check the connections to the left hand motor.
3 bars	The left hand motor* has a short circuit to a battery Connection. Contact your service agent.
4 bars	The right hand motor* has a bad connection. Check The connections to the right hand module.
5 bars	The right hand motor* has a short circuit to a battery Connection. Contact your service agent.
6 bars	The wheelchair is being prevented form driving by an External signal. The exact cause will depend on the Type of wheelchair you have, one possibility is the Battery charger is connected.
7 bars	A joystick fault is indicated. Make sure that the joystick is in the center position before switching on The control system.
8 bars	A control system fault is indicated. Make sure that all connections are secure.
9 bars	The parking brakes have a bad connection. Check the Parking brake and motor connections. Make sure the Control system connections are secure
10 bars	An excessive voltage has been applied to the control system. This is usually caused by a poor battery connection. Check the battery connections.

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

9. WARRANTY

WARRANTY

There is a comprehensive twelve-month warranty from the date on which your new power chair is delivered. The warranty covers the power chair for repairs or replacement during this period. For more detail, please see the Warranty Conditions below.

Warranty Conditions:

1. Any work or replacement part installation must be carried out by an authorized our dealer / service agent.
2. To apply the warranty should your power chair require attention please contact the designated service agent listed below.
3. Should any part of the power chair require repair or full or part replacement, as a result of a manufacturing or material defect within twelve months of receiving the power, the work will be carried out free of charge.

a)Frame : 3Years limited warranty

b)Electronic parts : 1Years limited warranty

Note: The warranty is not transferable

4. Any repaired or replaced parts will be covered by this warranty for the balance of the warranty period on the power chair.
5. Parts replaced after the original warranty has expired will be covered by a three months warranty.
6. Consumable items supplied will not generally be covered during the normal warranty period unless such items require repair or replacement clearly as a direct result of a manufacturing or material defect.
Such items include (among others): upholstery, tires and batteries.
7. The above warranty conditions apply to brand new power chair purchased at the full retail price. If you are unsure whether your power chair is covered, check with the service agent.
8. Under normal circumstances, no responsibility will be accepted where the power chair has failed as a direct result of:
 - a) The power chair part not having been maintained in accordance with the manufacturer's recommendations.
 - b) Failure to use the manufacturer's specified parts
 - c) The power chair or part having been damaged due to neglect, accident or improper use
 - d) The power chair or part having been altered from the manufacturer's specifications or repairs having been attempted before the service agent is notified

Please note your local service agent's contact details in the box below. In the event of your power chair requiring attention, contact them and give all relevant details so they can act quickly.

The manufacturer reserves the right to alter without notices any weights, measurements or other technical data shown in this manual. All figures, measurements and capacities shown in this manual are approximate and do not constitute specifications.

WU'S Technology authorized Service Agent

Name	
Address	
Tel	
Postcode	

9. WARRANTY

POWER CHAIR INDIFICATION NUMBER

To ensure the correct after sales service and warranty service support, please write down the power chair indication number that is stuck on the back right-hand side of the frame.



Indication Number

Model	<input type="checkbox"/> Mambo 116 <input type="checkbox"/> Mambo 118 <input type="checkbox"/> Mambo 120 <input type="checkbox"/> Mambo 122 <input type="checkbox"/> Mambo 124		
VIN			
Motor serial #		Controller #	

.....

Warranty Application Form

Name				
Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female			
Date of Birth	Year Month Day			
Address				
Model	<input type="checkbox"/> Liberty 116 <input type="checkbox"/> Liberty 118 <input type="checkbox"/> Liberty 120 <input type="checkbox"/> Liberty 122 <input type="checkbox"/> Liberty 124			
VIN	Power chair :			
	Motor Serial No:		Controller #	
Date of Purchase	Year Month Day			
Purchaser Signature				



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