Cirrus Plus EC Power

Click here to view detailed product information and pricing. Call 800-397-5899 to order today!

OWNERS MANUAL & INSTRUCTIONS

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MEDICAL DESIGN & MANUFACTURING
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Back Upholstery
Armrest
Controller
Batteries
Rear Wheel Set
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Caster & Fork
Footrests

BEFORE ATTEMPTING TO NEGOTIATE A RAMP THE FOLLOWING BASIC SAFETY RULES SHOULD BE CONSIDERED

1. Surface of the ramp: Is it too slippery?
2. Degree of incline: Is it too steep to attempt alone?
3. Length of ramp: Is it too long for your endurance?
4. Obstacles: Are there any obstacles on the ramp that would necessitate an attendant's assistance?

ASSISTANCE IS ALWAYS RECOMMENDED WHEN GOING UP OR DOWN STEEP INCLINES.

In order to prevent loss of steering control, or the possibility of tipping over backwards, an attendant is recommended when going up inclines greater than 6°.

If it becomes necessary to stop when going up an incline, special care must be taken to avoid abrupt or sudden forward movement when you resume operating the chair to avoid tipping the chair backwards.

Always keep the chair under control when going down a ramp or incline. Speed should be controlled at all times.

When operating your Cirrus Plus EC Wheelchair and an obstacle is being approached, care should be taken to prevent the chair from becoming unstable.

UNPACKING & ASSEMBLY

UNPACKING

After removing your Cirrus Plus EC Wheelchair from the carton please check that you have been supplied with the following main parts as standard specification.

1. The main frame with Motors /gearboxes and front castors attached
2. Front rigging with swing away footrests (Fig. 1)
3. Rear drive wheels (Fig. 2)
4. Anti-tip wheel (Fig. 3)
5. 2 Batteries (Rechargeable sealed lead-acid battery) U1 35 Amp (Seperate Boxes)
6. Battery Tray (Fig. 4)
7. Battery Charger 4 amps
8. Controller P.G. VSI SO (Fig. 15)
9. Motors: 24VDC (Fig. 2)

ASSEMBLY

Assemble the main parts mentioned as per the following procedure and check the assembly for normal operation.

1. Mount the swing away footrests.
2. Drive wheels, motor / gearbox assemblies / Anti-tip wheels are pre-installed.

Fig. 1

Fig. 2

Fig. 3

AFTER FOLLOWING ALL THE STEPS IN GENERAL OPERATION PROCEED WITH THE FOLLOWING.

1. There are two batteries. Attach the wiring loom to each battery making sure that the correct polarity is observed. Red wire attach on positive pole (also the red color). Black wire attach on negative pole (also the black color). Connect the power cables (located at front right side)to the appropriate plugs and ensure that the power cables are clear of obstacles when replacing the battery box lid. Tighten the battery box-securing strap. (Fig. 15)

2. Place batteries into battery boxes. Insert the battery box with the external power connection towards the front of the chair.

3. Slide the power control module into the mounting bracket under the armrest and secure it into position. Your control module can be mounted either on the left or right hand side of the chair.

4. Ensure that all the power connections are correctly fitted.

Fig. 4. Step 1

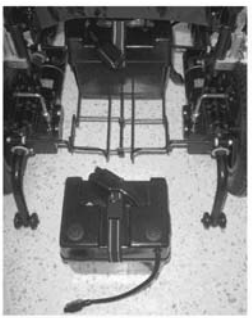

Fig. 5. Step 2

Fig. 5. Step 3

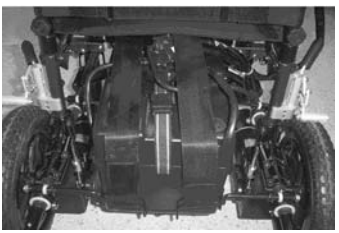

Fig. 6. Step 4

GENERAL OPERATION

1. Hold the two armrests with your hands.

2. Extend the armrests outwards.

3.Push down on the seat rails to ensure the seat opens fully and locks into the receivers on the wheelchair side frames.

4. Swing the footrests around to the front of the chair and ensures that they lock into place.

5. Optional frame rigidity bar can then be put in place on the back of the seat posts.

TO FOLD THE WHEELCHAIR FOR STORAGE OR TRANSPORTATION

1. Fold up the footplates and unlock the levers, which position the footrests. Swing the footplates and leg rests away. Either leave the foot plates in this position (Fig. 8) or remove them completely by lifting each leg rest vertically to clear the front hangers.

2. Remove the Batteries from the Battery tray.

3. Take hold of the middle seat upholstery, one hand at the front and the other at the rear, pull the seat upholstery up.

Fig. 8

SPECIAL FEATURES

FREEWHEEL LEVERS

The Cirrus Plus EC Wheelchair is equipped with two freewheel levers. (Fig. 10) These levers allow you to disengage the drive motors and maneuver the chair manually.

WARNING! DO NOT use your wheelchair while the drive motors are disengaged unless you are in the presence of an attendant! DO NOT disengage the drive motors when your wheelchair is on an incline. The chair could roll down on its own, causing injury!

To engage or disengage the freewheel feature:
1. Turn the freewheel levers outward to disengage the drive motors.

2. Turn the free wheel levers inward, to engage the drive motors.

NOTE: It is important to remember that when your Cirrus Plus EC Wheelchair is in freewheel mode, the braking system is disengaged.

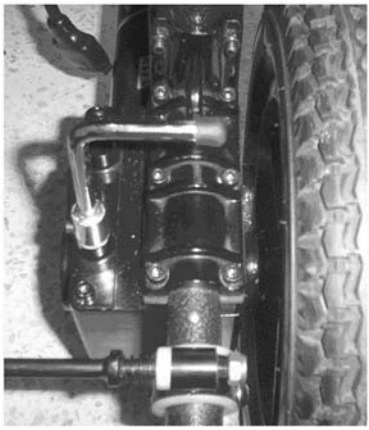

Fig. 10

ARMREST

The height adjustable armrest (Fig. 11) is provided as standard equipment on your wheelchair. Adjustment for the wheelchair is facilitated by a lock pin inserted from the outside of the armrest support at the lower extremity and the top of the armrest post. To activate the ball lock pin simply depress the lever found beside the support tube and remove it from the locating hole.

The controller unit can easily be adjusted to different positions in order to meet user's demand. To adjust it, loosen the knob and move the mounting tube to the desired position then tighten the screws.The armrests can be unlocked and pivoted to the rear of the chair frame to assist in patient transfers.

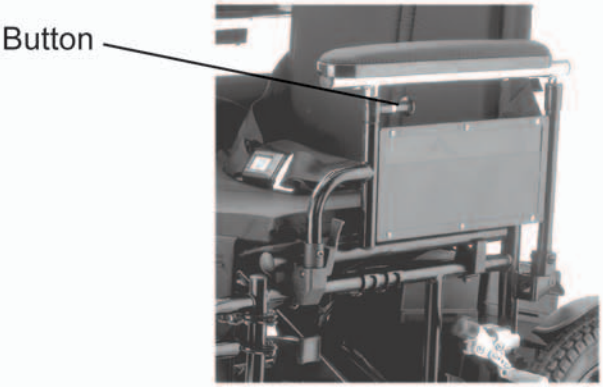

Fig. 11

WARNING!

REPLACE WORN OR TORN FABRIC IMMEDIATELY. FAILURE TO DO SO MAY RESULT IN A FALL AND CAUSE SEVERE INJURY TO YOU.

SEAT

Cirrus Plus EC wheelchairs feature seat upholstery that can be tensioned. While there should be no adjustment necessary upon delivery of your new chair, over time stretch of the upholstery could occur. Contact your dealer for adjustment.

Fig. 13

FOOTREST

Your Cirrus Plus EC wheelchair comes standard with swing-away detachable footrests and foot-plates, which are height adjustable. To adjust the height, remove the (Fig. 14) securing screws and nuts from each side and slide the extension tube and footplate up or down to the desired height.

WARNING! Never lift the wheelchair by the footrests. These parts are detachable and will not bear the weight of this chair. Lift this chair ONLY by non-detachable parts of the main frame. Never use the footrest to open doors.

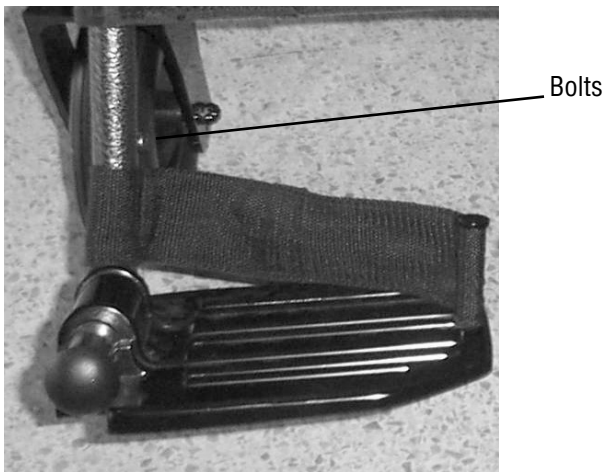

Fig. 14

SAFE DRIVING TECHNIQUES

DRIVING YOUR POWER WHEELCHAIR

BEFORE SITTING IN YOUR CIRRUS PLUS WHEELCHAIR INSURE THAT:

1. The Power wheelchair is switched off.
2. Be certain motor freewheel levers are in the “engaged” position
3. The battery charger is disconnected

After transferring make sure that you are comfortably positioned and that the leg rests and armrests have been adjusted to suit your needs. The position of the joystick should be easy to reach so as to eliminate muscle fatigue during driving.

TO COMMENCE:

1. Set the speed control of the chair to SLOW.
2. Press the “on / off” switch.
3. Push the joystick gently in the direction you whish to travel applying a steady even pressure. The further you push the joystick, the faster the chair will go. The chair will stop when you return the joystick to the neutral or vertical position.
4. Directional control is achieved by gently moving the joystick in the direction you wish to go. Pull back to reverse.
5. The controller can be programmed to give you the best feel for all driving situations and only needs a light touch to respond - Contact your dealer for programming.

IN THE CASE OF AN EMERGENCY AND TO STOP THE CIRRUS PLUS EC WHEELCHAIR FROM MOVING, LET THE JOYSTICK GO AND THE CHAIR WILL COME TO A STOP.

SAFE DRIVING

1. Never drive at a speed greater than your ability to safely control your chair. Remember that wet or loose surfaces need greater care and control.
2. Always turn the chair off and engage the wheel locks when transferring or while the chair is stationary for long periods.
3. Avoid jerky stop/start motions as this will result in excessive current draw from the batteries, increased tire wear and the rapid wearing of the gearbox and motors.
4. Keep your chair clean from sand and salt water.

INDOOR / OUTDOOR DRIVING

When driving indoors keep the level of speed to a minimum to avoid the risk of collision.

For outdoor driving be wary of wet surfaces, loose sand, large curbs and potholes. A little practice will ensure you understand the capabilities of your chair and enable you to overcome the most common obstacles while operating the Cirrus Plus EC Wheelchair.

If operating your chair on the roads please check with your local transportation law enforcement regarding necessary identification and safety devices such as reflectors.

CHAIR OPERATION ON SURFACES THAT REQUIRE SPECIAL CARE

When driving up or down ramps it is recommended that the user:
1. Visually checks to see if the angle of the slope is less than 6°.
2. Checks to see that the ramp surface has GRIP to prevent slippage.
3. Ensures that the ramp surface is correctly in line with the tires and is wide enough to allow the tires to pass freely along the ramp.

If the ramp meets these conditions, it is recommended that the user drives the wheelchair slowly up or down the ramp, ensuring that the chair is driven in the center of the ramp. If possible, have an assistant monitor the chairs' progress, and prevent tipping of the chair by holding the push handles at the back of the seat.

If the ramp does not meet these conditions, it is recommended that alternative methods for climbing and descending be found.

CHAIR RESPONSE

Should the chairs' response not be to your satisfaction, ask your Dealer to adjust the programming to a level at which you are comfortable. This programming can be altered at anytime to either increase the response rates in line with your improved motor skills or to lower the rates to level at which you feel comfortable and in control.

CURBS

It is recommended that before the user attempts to climb or descend a curb that the user visually checks the height of the curb to ensure that it does not exceed 1 1/2" in height.

If the curb height is less than 1 1/2", the user should approach the curb at right angles to the curb line at a slow speed, climb or descend the curb slowly so as to keep the chair under control. If climbing the curb the user may find it easier to reverse the chair up the curb.

If the curb height is greater than 1 1/2", it is not recommended that the user climb or descend the curb. Should there be any doubt an assistant should be called to supervise the operation.

STEEP SLOPES

When the power wheelchair is to be operated up and down steep slopes, it is recommended that the user:
1. Visually checks to see if the angle of the slope is less than 6 degrees.
2. Checks that the slope surface is roughened to prevent slippage.
3. Anti-tippers are in place.

If the slope meets these conditions, it is recommended that the user approaches the slope at a slow speed, keeping the chair under control at all times. It may be preferable to track across the slope so as to decrease the steepness of the descent providing that the surface of the slope is wide enough and suitable to prevent slippage.

If possible, have an assistant monitor the chairs' progress, and prevent tipping by holding the push handles at the back of the chair.

WARNING: If the slope does not meet these conditions it is recommended that the user does not climb or descend the slope.

BATTERIES & CHARGING

When your batteries are fully charged you should have sufficient power to give you all the mobility required in a day - It is important that you understand how your batteries and charger work.

BATTERY MAINTENANCE

If the batteries are the dry cell type there is no maintenance required.

CHARGING THE BATTERIES

1. Batteries should be charged when the battery indicator moves into the yellow light bars in a well ventilated room.
2. DO NOT place the power wheelchair near radiators or open fireplaces while charging.
3. DO NOT smoke or permit open flames in the immediate area.
4. Turn the chair controller power off before charging.
5. It is advisable that the batteries be charged for a minimum of 8 hours or over night to ensure a full return to the batteries storage capacity. The battery charger is an automatic current limiting device and will shut off when the batteries are fully charged.
6. Position the Cirrus Plus EC wheelchair next to a standard wall outlet.
7. Connect the battery charger to a standard wall outlet and switch the charger to the on position.
8. Switch the power button to the on position.

If your wheelchair is fitted with a "unitary" controller (Fig. 15) (i.e. one that has the joystick fitted to the controller), then the battery-charging socket will be on the front of the controller.

Fig. 15

REPLACING THE BATTERIES

CAUTION! - If you have doubts about your ability to lift any components, it is recommended that you seek assistance so as to avoid injury.

1. Turn the power off.
2. Disconnect the battery connection plugs at the side of the battery tray.
3. Release the securing belt holding the battery box.
4. Disconnect the battery connection cables located in the battery box.
5. Lift the rear battery out of the battery box by using the lifting strap.
6. Slide the front battery to the rear of the battery box and remove the battery as in step
7. Undo the terminal lugs, noting the polarity of the lugs. Remove the wiring loom.
8. Repeat step 6 for the other battery.
9. Inspect the terminals on the wiring loom and the lugs on the replacement batteries to make sure they are clean.
10. Connect the terminal lugs on the wiring loom to the new batteries, observing the polarity of the lugs as noted before.
11. Place the new batteries back into the battery box and rejoin the connectors.
12. Replace the battery box lid and secure the retaining belt.
13. Reconnect the power cable.

For maximum performance it is recommended that you replace both batteries at the same time.

Contact your local Dealer for assistance

BATTERY CONNECTIONS

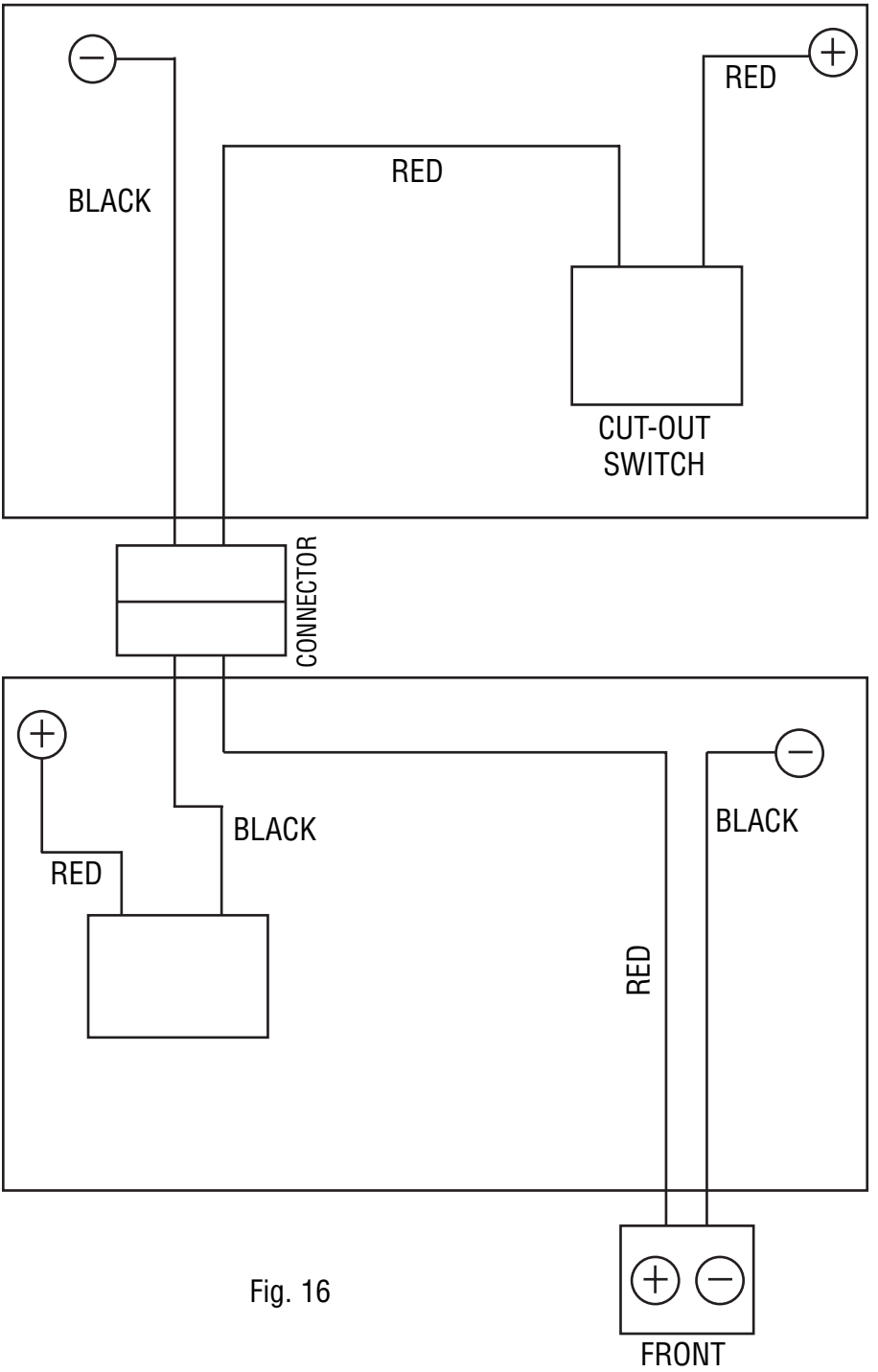

Fig. 16

TIRES

FOLLOW THESE EASY STEPS FOR A QUICK AND SAFE REPAIR:

1. Use a ratchet and socket to remove the drive wheel screw from the center hub of the wheel.
2. Pull the wheel off of the axle.
3. Separate the tire from the rim. (Pneumatic style only)
4. Remove the tire and replace it with a new tire. (Pneumatic style only)
5. Slide the wheel back onto the shaft.
6. Install the drive wheel nut into the center hub and tighten.

MAINTENANCE, CLEANING & FAULT FINDING

An electric wheelchair needs some basic attention to ensure it provides reliable service. We recommend that the user ensure that the power wheelchair is checked regularly for maintenance requirements and receives a thorough annual maintenance check up.

We recommend that the chair have at least one full service from an authorized dealer when needed. If you notice an irregular aspect of your chair, phone your nearest authorized dealer for assistance. They will advise if the chair should be returned for repairs. If the chair is to be returned, they will advise on the availability of replacement units, and the required method of packing and shipping.

ANNUAL MAINTENANCE

We recommend that the chair have at least one full service per year from an authorized Dealer. This helps ensure your power chair is functioning properly and helps prevent future complications. This should include:

1. Checking the tires.
2. Checking the batteries and terminals.
3. Checking the controller programming for the user's needs.
4. Checking the wheelchair frame.
5. Checking the upholstery condition.

REGULAR MAINTENANCE AND CLEANING

1. Avoid knocking or bumping the controller, and the joystick.
2. Avoid prolonged exposure of your power chair to extreme conditions, such as heat, cold, or moisture.
3. Keep the controller and joystick clean.
4. Check all controller connectors are tight and secured properly.
5. Never hose off your power chair or place it in direct contact with water.
6. Keep the upholstery and frame clean by wiping with a soft cloth, particularly after driving through wet, sandy or muddy conditions. Do not use harsh abrasive materials when cleaning. Do not apply liquid cleaners or solvents directly to the controller, battery charger or any electrical connections.

7. Keep wheels free from lint, hair, sand and carpet fibers.
8. Lightly oil axle pin, wheel axles and bearings once every three months.
9. Use only recommended batteries and have batteries changed only by Qualified Dealers.
10. Charge batteries regularly. Make sure the charger lead plugs are engaged properly in the sockets. Do not disconnect by pulling the cord.
11. 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. Do not handle or try to repair it. See authorized dealer if there is any problem.
12. Visually inspect the controller harnesses. Make sure that they are not frayed or cut or have any wires exposed. See authorized dealers if there is a problem with any of these harnesses.
13. Ensure that all parts of the controller system are securely fastened to your Power wheelchair. Do not over tighten any screws.

STORAGE

Your wheelchair should be stored in a dry place free from temperature extremes. When storing, disconnect the batteries from the power chair. See "Batteries and Charging" in this manual. If you fail to store the unit under the above conditions, the frame can rust, and the electronics can be damaged.

FAULT FINDING CHECKLIST

PROBLEM: The controller light flashes
ACTION: If the lamp flashes immediately when the power is switched on and the joystick is engaged, switch the power off, wait a few seconds, then switch on again. Wait for two seconds before engaging the joystick.

PROBLEM: The controller lamp flashes slowly while driving.
ACTION: The slow flashing means that the battery charge level is low and should be placed on charge as soon as possible.

PROBLEM: The controller lamp flashes continuously and the chair will not operate.
ACTION: The continuous flashing of the lamp indicates there may be an electrical problem. Switch the power off, disengage the wheel that clutches and seek assistance. Contact your Dealer and advise of the problem.

PROBLEM: The red light on the battery charger fails to illuminate when the power is connected to it.
ACTION: Check that all the leads have been properly connected and the main power is turned on. If this doesn't cause the red light on the charger to illuminate, turn the main power off, disconnect the lead from the main to the battery charger. Contact your Dealer and advise of the problem.

PROBLEM: The chair is difficult to steer.
ACTION: First, check the tires are in proper positions. Second, check to see if both the clutches are engaged correctly.

NOTE:

If you detect that there are problems with the motors, the battery charger, the controller or damage to the power wheelchair frame, it is recommended that you contact the nearest Authorized Service Agent.

If you notice any other irregular aspect of your chair or if it fails to respond after making some of the above inspections, phone your nearest Authorized Service Agent. They will advise if the power wheelchair should be returned for repairs. If the chair is to be returned, they will advise on the availability of replacement units, and the required method of packing and shipping.

LIMITED WARRANTY

One year limited warranty from the date of purchase for any of the parts found below. This warranty does not include "normal" wear to any part of this product.

- Electric motors and battery charger
- Micro processor controller
- Foot rigging
- Armrests
- Cross braces
- Backrest canes

WARRANTY EXCEPTIONS

The commutator of the motor is not warranted if the damage is caused by not replacing the motor brushes after heavy wear to the brushes. Motor brushes are wear items and are not warranted.

The chair side frames are guaranteed for a period of FIVE YEARS from date of purchase.

WARRANTY EXCLUSIONS:

- Batteries
- Tire
- Upholstery and seating
- Repairs and/or modifications made to any part without specific prior Written from DRIVE Medical Design & Manufacturing
- Labor, service calls, shipping, and other charges incurred for repair of the product unless specifically by an authorized dealer.

DAMAGE CAUSED BY:

- Battery fluid spillage or leakage
- Abuse, misuse, accident, or negligence
- Improper operation, maintenance, or storage
- Commercial use, or use other than normal

THIS WARRANTY IS SUBJECT TO THE FOLLOWING CONDITIONS:

• This warranty is extended only to the original purchase.

• The Company will not accept responsibility If the fault was caused by misuse or failure to observe the instructions in the User's Manual.

• If a fault develops, it is the responsibility of the owner to immediately notify the company or the Distributor from whom the chair was purchased.

• All costs associated with the freight of the chair or any faulty components are the responsibility of the owner.

• Labor charge incurred in the installation or repair of the above mentioned parts plus all freight charges are not included in the warranty

• Any parts found to be defective due to faulty workmanship and / or materials may be replaced or repaired at the Company's discretion without charge to the owner of the chair.

• The warranty will be void if any unauthorized repair service or parts alteration has been made.

• The company will not warrant the frame or any parts damaged when the maximum weight limit of 300 lbs is exceeded.

Cirrus Plus EC wheelchair Warranty Registration

Please type or print

Serial#_____Date Purchased___/___/___

Owner Name _____

Address _____

City _____State _____ Zip _____

Additional Required Owner Information

Please indicate your understanding of your Cirrus Plus EC wheelchair by completing the following information.

_____ I have read and fully understand

_____ Owners Manual, especially sections on operating instructions, safety guidelines, maintenance and battery instructions.

_____ Cirrus Plus EC wheelchair Warranty

Battery Instructions-only sealed lead acid or gel cell type batteries should be used. Batteries must also be sealed, deep cycle, and maintenance free or battery will hinder vehicle performance and void the warranty.

_____ My dealer has instructed me on how to operate my Cirrus Plus EC wheelchair.

Signature _____ Dealer Name _____

Telephone (___)_____ Dealer Phone (___)_____

E-mail address _____

Comments _____

_____

_____

_____

FOLD HERE FIRST

Place
Stamp
Here

drive

MEDICAL DESIGN & MANUFACTURING

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Website: www.drivemedical.com