

# LiteRider<sup>®</sup> GOLDEN ENVY



**Owner's Manual  
Rear Wheel Drive Power Chair  
Model GP162**



Thank you for purchasing your *LiteRider Envy*™. We are honored you have chosen Golden Technologies for your mobility needs.

*LiteRider Envy* (Model GP162)  
Standard Packing List:  
1 Owner's Manual  
Base with Under-the-Seat Basket  
1 Battery Pack  
1 Seat  
2 Seat Arms  
1 Safety Flag  
1 Joystick Control  
1 Battery Charger  
Seat Post Nut and Bolt

## FOR YOUR RECORDS

Please fill in your *LiteRider Envy* information below. This information will be useful in the event that you ever need to contact Golden Technologies, Inc. concerning your power chair.

### Your *LiteRider Envy*

Model \_\_\_\_\_ Serial Number \_\_\_\_\_

Date of Purchase \_\_\_\_\_ Body Color \_\_\_\_\_

Options \_\_\_\_\_

### Your Golden representative or provider

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

**Please remember to fill in and return your warranty registration card.**

### Tools Required:

The following tools will allow you to make all comfort adjustments to your power chair.

- Socket/Wrenches - 17mm, 14mm, 10mm, and 8mm
- Allen Wrenches - 8mm, 5mm, and 4mm



### DISCLAIMER

We ask that you read this manual completely before operating your new *LiteRider Envy*. Golden Technologies, Inc. is not and cannot be held responsible for any damage or injury incurred due to improper or unsafe use of the *Golden LiteRider Envy*. Golden Technologies, Inc. specifically disclaims responsibility for any bodily injury or property damage that may occur during any use that does not comply with applicable federal, state, or local laws or ordinances.

**Intended Use:** The intended use of the LiteRider Envy power wheelchair is to provide mobility to adults, limited to a sitting position and have the capability to operate a simple hand control.

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# I. INTRODUCTION

Congratulations on the purchase of your new *LiteRider Envy*. The *LiteRider Envy*, combines cutting edge technology with attractive designs that are also highly functional in today's world. We at Golden Technologies, Inc. know that you have chosen a power chair that will give you years of dependable operation and also will enhance the quality of your life by providing you with the mobility to experience an active daily lifestyle.

Even though your new *LiteRider Envy* is both user-friendly and designed for maximum maneuverability in even the tightest spaces, we ask that you please read, understand and follow all of the instructions and suggestions in this manual before you operate your power chair for the first time. The safe use of your new power chair is very important to us.

If you feel that you do not understand the instructions and suggestions presented in this owner's manual, or if, for any reason, you do not feel capable of performing the activities necessary to assemble, disassemble, operate, or maintain your *LiteRider Envy*, please contact your local Golden Technologies, Inc. provider or call Golden Technologies, Inc. Technical Support Services at (800) 624-6374.

Golden Technologies, Inc. cannot be held responsible for personal injury or property damage resulting from the unsafe or the improper use of any of our personal mobility products. Also, Golden Technologies, Inc. cannot be held responsible for personal injury or property damage resulting from attempts to follow instructions, suggestions, and guidelines presented in this owner's manual.

Our Research and Development Department, our Quality Control Department, and our Engineering Department have used the latest product specifications and the latest product design information to manufacture your *LiteRider Envy*. Golden Technologies, Inc. reserves the right to implement changes into our product lines when those changes become desirable or necessary. If changes are implemented into our product line, there may be minor differences between the product you purchased and the illustrations and instructions in this owner's manual.

Please fill out and mail the enclosed warranty registration card. Registration is also available @ [www.goldentech.com](http://www.goldentech.com). We at Golden Technologies, Inc. would appreciate hearing about the dependability of your *LiteRider Envy* and about the convenience of mobility it has provided for you. We would also appreciate hearing about the service you received from your local Golden Technologies, Inc. provider or representative.

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For more information about our products and services or to send us your comments, please visit our website at [www.goldentech.com](http://www.goldentech.com)

# I. INTRODUCTION

## ACCESSORIES for the *LiteRider Envy*

A variety of accessories are available for your Golden *LiteRider Envy*. Please contact your Authorized Golden Technologies Provider for more information or to order.

- Cane Holder Tube
- Walker Holder
- Deluxe Pack N' Go
- Oxygen Tank Holder
- Crutch Holder
- Seat Belt
- Cup Holder
- Safety Flag
- Quad Cane Holder
- Power Chair Cover

\*Some accessories require a mounting bracket or mounting clips. Please check with your provider to find out if the accessory you would like to order requires a mounting bracket or mounting clips.

### Safety Guidelines

The symbols below are used in the owner's manual and/or on the product to identify warnings and to notify you of important safety information. Make sure you read and understand them completely.



**WARNING!** Indicate(s) a hazardous situation which, if not avoided, could result in death or serious injury. This icon is represented as a black symbol on a yellow triangle with a black border.



**MANDATORY!** Failure to perform mandatory actions can cause personal injury and/or equipment damage. This icon is represented as a white symbol on a blue dot with a white border.



**PROHIBITED!** Indicate(s) an action(s) that should not be performed under any circumstance. Failure to adhere can cause personal injury and/or equipment damage. This icon is represented as a black symbol with a red circle and red slash.

### Safety Symbols

The symbols below identify warnings, mandatory actions, and prohibited actions. They can be found in the owner's manual and/or on the product. Make sure you understand all safety labels before operating the product. Do not remove safety labels from the product.



Read and follow the owner's manual!



Explosive conditions exist!



Indoor use only!



Use only AGM or Gel-Cell batteries!



Avoid transmitters!



Hot surface!



Pinch/Crush Hazard!



Do not place into trash!



Electrical hazard!



Corrosive chemicals inside battery!



Recycle



Do not use personal electronic devices!

## II. SAFETY

Your Golden *LiteRider Envy* is a battery-operated vehicle. Please exercise caution and consideration when you are operating it. Driving your *LiteRider Envy* carefully and thoughtfully will help ensure your personal safety and the safety of other people.



**MANDATORY!** Read and follow the owner's manual before operating your power chair.

### **NOTICE**

Before learning to operate your *LiteRider Envy*, have your Golden Technologies, Inc. representative determine if it is advisable for you to practice getting on and off your power chair and operating it in the presence of an attendant.

#### **BEFORE getting on your *LiteRider Envy***

- Check to be certain that the power is turned OFF. See "Operation" section on pages 21-27. This will eliminate the possibility of accidentally activating the joystick and causing injury to you or to others.
- Check to be certain that your *LiteRider Envy* is not in the freewheel mode. See the "Operation" section on pages 21-27.
- Flip up the armrests.
- Flip up the footrest.

#### **Getting ON your *LiteRider Envy***

- Carefully seat yourself comfortably and securely on the seat.
- Flip down the footrest.
- Flip down the armrests.
- Fasten the seat belt if your chair is equipped with one.

#### **Getting OFF your *LiteRider Envy***

- Make certain that the power is turned off.
- Unfasten the seat belt if your chair is equipped with one.
- Flip up the armrests.
- Flip up the footrest.
- Carefully stand and step away from the chair.

#### **MAXIMUM WEIGHT**

Your *LiteRider Envy* has been rated to a maximum payload (passenger and anything else being carried on the power chair) of **300 pounds**. Exceeding the maximum weight rating will void your warranty.



**WARNING**

**Exceeding the maximum weight capacity will void your warranty and may result in injury to yourself and/or others.**

## II. SAFETY

### DRIVING ON AN INCLINE

- Drive with **caution** when attempting to negotiate any incline, even handicap access ramps.
- Try to keep your *LiteRider Envy* **moving** when climbing an incline. If you do come to a stop, restart and accelerate slowly and carefully.



#### WARNING

- **Always** climb or descend a gradient by driving straight up or straight down the face of the slope.
- **Do not** traverse or drive across the face of a gradient.
- **Do not** attempt to negotiate an incline that is covered with snow, ice, cut or wet grass, leaves, or any other potentially hazardous material.
- **Do not** back down an incline.
- **Do not** try to descend or climb a slope whose gradient is greater than the recommended maximum incline of **6 degrees**.



#### WARNING

**If, while you are driving down a slope, your power chair starts to move faster than you feel is safe, release the joystick lever and allow your *LiteRider Envy* to come to a stop. When you feel that you again have control of your power chair, push the joystick lever forward and continue safely down the remainder of the slope.**

### MEDICATION

Always check with your physician to determine if any of the medications you are taking may affect your judgment and/or your ability to operate your *LiteRider Envy*. Also check with your physician concerning your physical ability to operate a power chair.

## II. SAFETY

### SAFETY RULES



#### WARNING

- **Do not** attempt to use your *LiteRider Envy* on an escalator. Always use an elevator.
- **Do not** carry passengers on your power chair.
- **Do not** operate your *LiteRider Envy*, if it is not functioning properly.
- Use **caution** when driving on soft or uneven surfaces such as grass, gravel and on decks where there is no railing.
- **Never** drive on the roadway, except when you must cross the street.
- **Always** cross streets at intersections and use the most direct route, making sure that your path is clear and that you are visible to motor traffic.
- It is **not recommended** to drive your *LiteRider Envy*, up or down a step or curb that is higher than 1-1/2 inches.
- **Never** back up or down a step or curb.
- **Never** operate your *LiteRider Envy*, while you are under the influence of alcohol.
- **Do not** operate or store your power chair where it will be exposed to rain, snow, mist and below-freezing temperatures.
- **Do not** operate your power chair on slippery, icy or salted surfaces.
- **Never** sit on your power chair when it is in freewheel mode and on an incline or decline.
- **Do not** modify your power chair in any way that is not authorized by Golden Technologies, Inc.
- **Do not** disassemble the tire. If disassembly is required, have your authorized Golden Technologies provider perform any necessary maintenance or repair.
- **Do not** attempt to inflate the tires of your *LiteRider Envy*. Your power chair is equipped with foam-filled flat free tires that do not require inflation.
- **Never** sit on your *LiteRider Envy* when it is being transported.
- **Always** fasten down your *LiteRider Envy* securely with an approved tie-down system while transporting your power chair.
- Use **caution** when operating your *LiteRider Envy* while wearing long baggie clothing or clothing with loose belts, which could become entangled in the wheels of the power chair.
- **Always** keep your feet firmly on the footplate surface when operating your *LiteRider Envy* to eliminate any potential of your feet becoming entangled in the wheels of the power chair.



## II. SAFETY

Please be sure to follow these important safety warnings.



**WARNING**

**Never transfer on or off of this power wheelchair using the seat backrest for support during transfer. The seat back may fold down and may cause you to lose your balance and could result in personal INJURY.**

Do not modify your power chair in any way that is not authorized by Golden Technologies, Inc.



**WARNING**

**Do not connect or allow anyone except an authorized Golden Technologies representative to connect any electrical or mechanical device to your LiteRider Envy. Unauthorized accessories will void the warranty and may cause injury.**

Please be sure to follow this important warning if you encounter a problem with your mobility device.



**WARNING**

**Should you encounter a problem with the operation of your mobility device such as a mechanical or electrical problem immediately stop using the product. Disconnect the batteries then contact the provider from whom you purchased your mobility device for evaluation of the problem and repair if needed.**

### III. EMI/RFI

The rapid development of electronics, especially in the area of communications, has saturated our environment with electromagnetic (radio) waves that are emitted by television transmitters, cellular phones, citizen's band radios (CBs) amateur radios (HAM radios), wireless computer links, microwave transmitters, paging transmitters, etc. These electromagnetic (EM) waves are invisible and increase in strength the closer one gets to the source of transmission. When these energy waves act upon electrical devices and cause them to malfunction or to function in an erratic or uncontrolled manner, they are referred to as Electromagnetic Interference (EMI) or Radio Frequency Interference (RFI).

#### **EMI/RFI AND YOUR *LiteRider Envy***

All electrically powered vehicles, including power chairs are susceptible to EMI/RFI. This interference could result in abnormal or unintended movement of your Golden *LiteRider Envy*.



**WARNING**

**Unintended movement or brake release could cause an accident or injury.**

The FDA has determined that each make and model of power chair can resist EMI/RFI to a certain level. The higher the level of immunity, the greater the degree of protection from EMI/RFI measured in volts per meter (V/m). The FDA has also determined that current technology is capable of providing 20 V/m of immunity to EMI/RFI, which would provide useful protection against common sources of interference. This product has been tested and has passed an immunity level of 20 V/m.

#### **EMI/RFI RECOMMENDATIONS**



**PROHIBITED!** Do not turn on or use hand-held personal electronic communication devices such as cellular phones, walkie-talkies, or CB radios while your power chair is turned on.

- Be aware of any nearby transmitters (radio, television, microwave, etc.) on your intended route and avoid operation your of power chair close to any of those transmitters.
- Turn off the power if your *LiteRider Envy* is going to be in a stationary position for any length of time.
- Be aware that adding accessories or components or modifying your power chair may make it more susceptible to EMI/RFI.
- If unintended movement or brake release occurs, turn your power chair off as soon as it is safe to do so.
- Report all incidents of unintended movement or brake failure to your Golden Technologies representative or to Golden Technologies.



**WARNING**

**Turn off your power chair as soon as it is safely possible if unintended or uncontrollable motion occurs or if unintended brake release occurs.**

## IV. ASSEMBLY

Your *LiteRider Envy* is shipped partially disassembled in order to maximize the protection of all its parts during the shipping process. Please follow the instructions below to quickly and easily assemble the power chair for your use.

### **NOTICE**

You will need only basic tools. If you do not have the required tools, or if you do not feel capable of safely assembling your power chair, please contact your local Golden Technologies, Inc. representative.

### **Main Components**

1. Base
2. Battery Pack
3. Seat Assembly
4. Arm Assembly
5. Joystick
6. Under-the-Seat Basket
7. Foot Plate
8. Caster Wheel
9. Drive Wheel
10. Anti-Tip Wheel



**Figure 1**

## IV. ASSEMBLY

Before operating or assembling your *LiteRider Envy*, be sure to remove the two battery deactivate blocks located under the battery pack. Your *LiteRider Envy* will not power up or operate without completing this step.

1. Remove the battery pack by pulling up on the handle and remove the two battery deactivate blocks. See figure 2.



*Figure 2*

2. Gently lower the battery pack back onto the frame. See figure 2.



**WARNING**

**Be sure the joystick cable is securely attached to the unit and that the cable is not able to trail on the ground or become entangled on any surrounding objects while the unit is in use.**



**WARNING**

**The *LiteRider Envy* battery pack weighs 27 pounds. The standard (17 x 16) seat with arms weighs 23 pounds. Removal of arms will reduce the weight of the seat. Please ask for help if you do not feel capable of safely lifting that much weight.**

## IV. ASSEMBLY

### Seat Installation

1. Fold the seat back down.
2. Grasp the seat firmly on each side, lift the seat and align the seat pin with the hole in the seat post receiver. See figure 3.



*Figure 3*

3. Insert the seat into the seat post.
4. Push down on the seat to lock into place. Move the seat from side to side to make sure it is locked into place.

### **NOTICE**

To rotate your seat, push down on the seat rotation lever and rotate the seat to the desired position. Release the handle to lock the seat in position.



**WARNING** Be sure the seat is correctly installed and locked before operating your power chair.

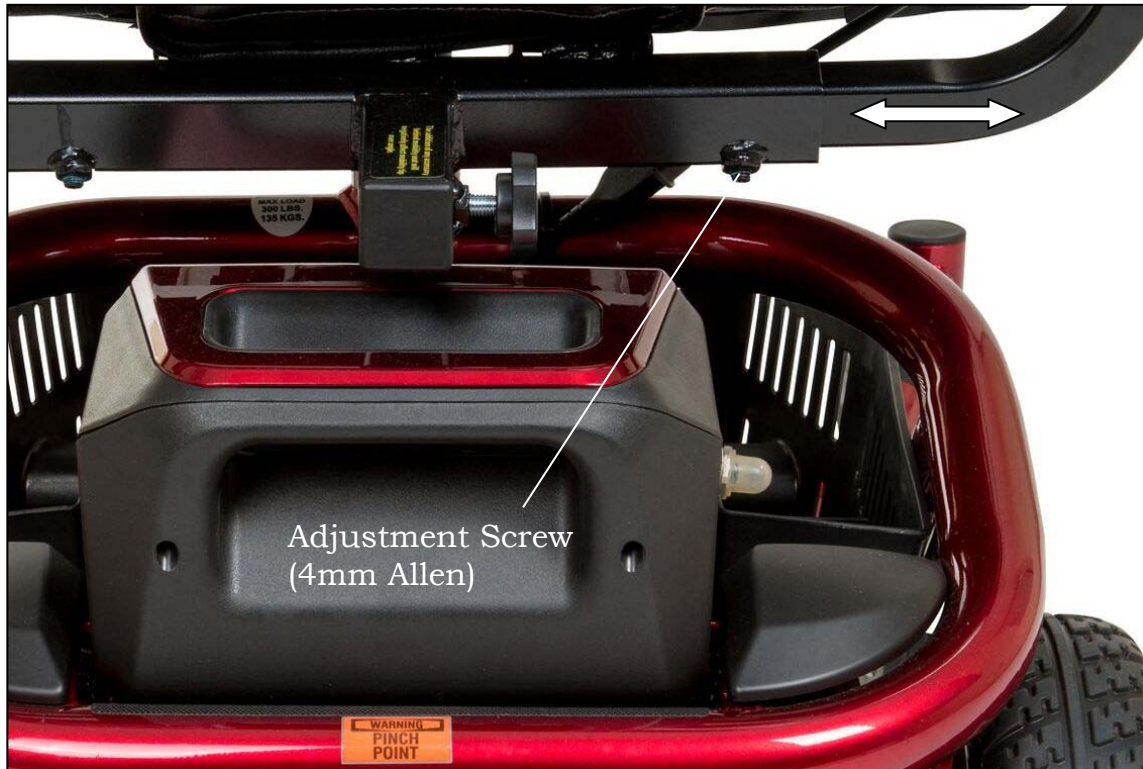


**WARNING** Never pull on the arms or use them as a handle to move the power chair as they could inadvertently pull out of the receiver bar causing injury.

## IV. ASSEMBLY

### Arm Installation

1. Loosen the arm width adjustment screw from the arm receiver tube at the bottom rear of the seat frame with a 4mm Allen wrench. See figure 4.
2. Insert the arm into the arm receiver tube, so that the arm pad faces toward the front of the unit.



**Figure 4**

3. Adjust the width of the arm.
4. Tighten the arm width adjustment screw to secure the arm in place.
5. Repeat steps 1 – 4 for the opposite side.

### Seat Belt Installation (Optional Equipment)

1. Use a 4mm Allen wrench to remove the arm width adjustment screw from the arm receiver tube at the bottom rear of the seat frame. See figure 4.
2. Insert one of the screws provided with the seat belt through one of the seat belt anchors, reinsert the screw into the receiver tube, and tighten to secure.
3. Repeat steps 1 and 2 for the opposite side of the seat belt.

## IV. ASSEMBLY

### Joystick Installation

1. Loosen the joystick bracket adjustment screw located under the armrest. See figure 5.
2. Insert the joystick mounting tube into the joystick bracket under the armrest.
3. Attach the joystick cable to the joystick.
4. Adjust the position of the joystick to a comfortable spot.
5. Tighten the joystick adjustment screw to secure the joystick.
6. Insert the joystick cable into the clip on the side of the joystick bracket.



*Figure 5*

**NOTICE** The joystick may be installed on the left or right arm according to your preference.



**WARNING** Be sure the joystick cable is securely attached to the unit and that the cable is not able to trail on the ground or become entangled on any surrounding objects while the unit is in use.

## V. DISASSEMBLY and BATTERY REPLACEMENT

To disassemble your *LiteRider Envy*, follow the instructions listed below.



**WARNING**

**Make certain that the controller power is turned off and that the chair is NOT in freewheel mode before attempting to perform disassembly.**

### Disassembly

1. Fold the seat back down. *Note: Seat arms can be removed to reduce weight.*
2. Grasp the seat firmly on each side, and lift up to remove.
3. Remove the battery pack by pulling up on the handle. See figure 2 on page 12.
4. Grasp the frame and locking handle; lift the handle to unlock, and lift the frame up and off the drive train. See figure 6. *Note: To reassemble the power chair, simply reverse the process.*



**Figure 6**



**GP162 Shown Disassembled**

### Battery Replacement

Should your batteries need replacement; please contact your Golden Technologies representative. Battery replacement requires disassembly of the battery pack and must be performed by a qualified technician.



**MANDATORY!** Use only AGM or GEL-cell batteries.



Battery Pack



**WARNING**

**The battery pack weighs 27 pounds on the *LiteRider Envy*. Please get help if you do not feel capable of safely lifting that much weight.**



## VI. COMFORT SETTINGS

You may be spending a great deal of time on your *LiteRider Envy*. To provide you with the maximum seating comfort, Golden Technologies, Inc. has designed this power chair to incorporate the following adjustments for operator comfort.

### COMFORT SETTINGS

1. Seat Height
2. Arm Width
3. Armrest Angle
4. Footrest Angle
5. Footrest Height
6. Joystick Bracket Length
7. Joystick Position



#### WARNING

**Make certain that the power to your *LiteRider Envy* is turned off before making any adjustments, to eliminate the risk of the joystick being accidentally bumped and activating the power chair.**

### Seat Height Adjustment

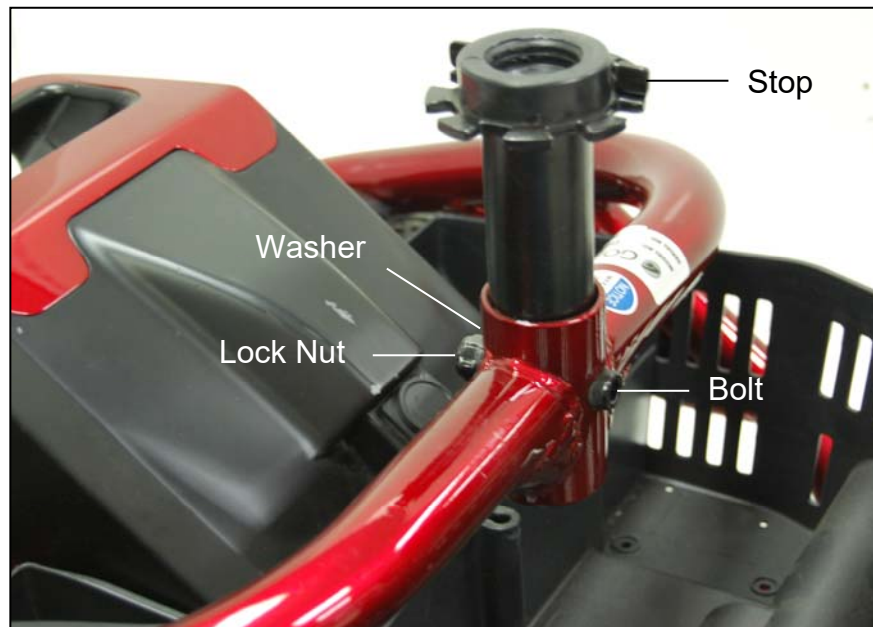
The seat is a center post design that is easily adjusted for height. See figure 7. To adjust the height to a comfortable level:

1. Remove the seat.
2. Place a 17mm wrench on the lock nut, and insert an 8mm Allen wrench into the bolt.
3. Loosen and remove the bolt, washer and lock nut, noting their placement.
4. Set the seat post to one of the two adjustment positions.

#### NOTICE

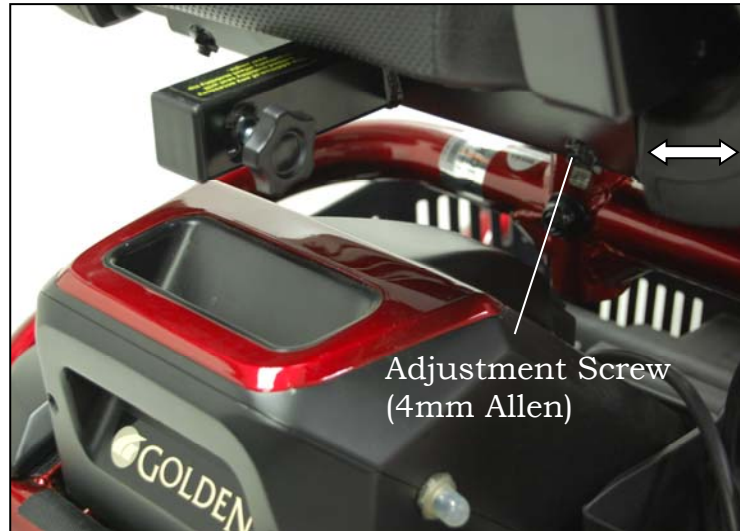
The seat post must be positioned with the stop on the same side as it was set prior to removal.

5. Reinsert the bolt, washer and lock nut in the same order you remove them and tighten securely.



**Figure 7**

## VI. COMFORT SETTINGS

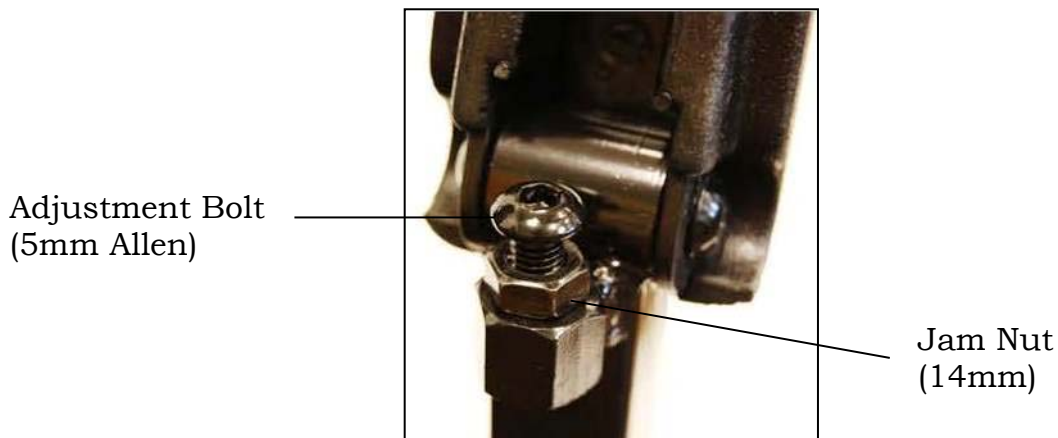


**Figure 8**

### **Arm Width Adjustment**

1. Loosen the adjustment screw at the rear of the seat with a 4mm Allen wrench. See figure 8.
2. Slide the arm in or out to the desired width.
3. Tighten the adjustment screw to secure the arm.
4. Repeat steps 1-3 to adjust the opposite arm.

**Note:** The backrest can be folded down to minimize chair height during transport.



**Figure 9**

### **Armrest Angle Adjustment**

1. Lift armrest up. See figure 9.
2. Turn jam nut clockwise to loosen.
3. Turn the adjustment bolt to raise or lower the armrest-angle. Turning the bolt clockwise will raise the angle. Turning the bolt counter-clockwise will lower the angle. Turn until desired angle is reached.
4. Retighten jam nut by turning it counter-clockwise.
5. Repeat steps 1-4 to adjust the opposite armrest.

## VI. COMFORT SETTINGS

### Footrest Angle Adjustment

1. Fold the footrest upward for easy access to the angle adjustment bolt. See figure 10.
2. Turn the jam nut counter-clockwise with a 17mm wrench to loosen.
3. Use an 8mm Allen wrench to turn the adjustment bolt. Turn the adjustment bolt counter-clockwise to increase the footrest angle. Turn the adjustment bolt clockwise to decrease the footrest angle.
4. When the desired footrest angle is reached, retighten the jam nut.



**Figure 10**

### Footrest Height Adjustment

1. Remove front body shroud by lifting it up and off of the power chair base.
2. Use a 10mm socket and 4mm Allen wrench to remove the bolts indicated in figure 11.
3. Slide the footrest to the desired height.
4. Align the bolt holes in the footrest and the footrest bracket.
5. Install and tighten the bolts.



**Figure 11**

## VI. COMFORT SETTINGS

### Joystick Bracket Length Adjustment

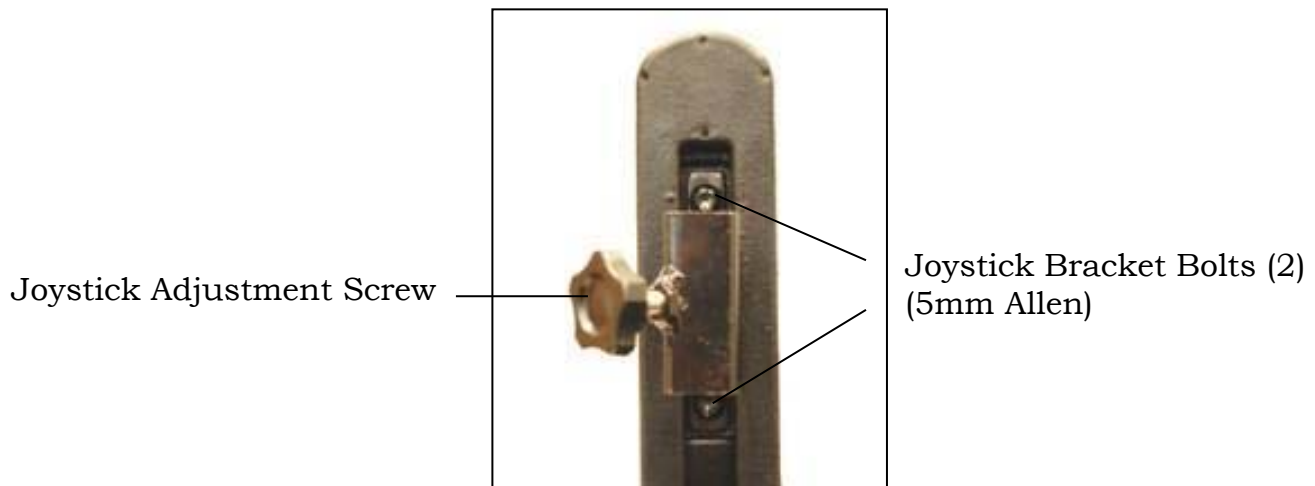
1. Loosen the adjustment knob. See figure 12.
2. Slide the joystick mounting tube in or out to the desired position.
3. Tighten the adjustment knob.



**Figure 12**

### Joystick Position

1. Loosen the joystick adjustment screw.
2. Slide the joystick mount forward and remove the joystick.
3. Reposition the joystick and joystick cable to the opposite side of the power chair.
4. Flip up the armrest.
5. Remove the two bolts connecting the joystick bracket to the armrest. See figure 13.



**Figure 13**

6. Place the joystick bracket on the opposite armrest; align the two bolts with the two holes in the armrest, and tighten to secure the bracket to the armrest.
7. Insert the joystick mount into the joystick bracket and adjust to a comfortable position.
8. Tighten the joystick adjustment screw to secure the joystick.

**NOTICE** If you do not feel capable of safely making these adjustments, please contact your local Golden representative.

## VII. OPERATION



**MANDATORY!** Read and follow the owner's manual.

Your *LiteRider Envy* is simple to operate. However, for your safety and the safety of others, Golden Technologies, Inc. recommends that you carefully read and understand the following operating instructions. We also recommend that you practice operating your *LiteRider Envy* in an area free of any obstacles. Once you have gained confidence in your ability to control your power chair, you will more easily be able to operate it in normal daily conditions.

### **CAUTION**

Before turning on the power of your *LiteRider Envy*, take note of your environment and set your speed control accordingly. (See “The Speed Control Buttons” figure 14) For indoor driving, we recommend that you select the lowest speed setting. For outdoor driving, we recommend that you select a speed setting at which you feel comfortable, safe, and in control of your power chair. Familiarize yourself with the features of your *LiteRider Envy* described below and follow the instructions to safely operate your power chair.



**Figure 14**



**WARNING** The surface of the joystick can potentially get hot when it is exposed to strong sunlight for long periods.

## VII. OPERATION

### DRIVING: Joystick Power On/Off Button



Power Off

To turn on the power to your *LiteRider Envy*, press the power button. If the system is healthy, the Status indicator (through the Power Button) will light up green, and the Battery Gauge will display the current battery status.



Power On

To turn off the power to your *LiteRider Envy*, press the power button; the system will power down and the Status indicator will switch off.

### NOTICE

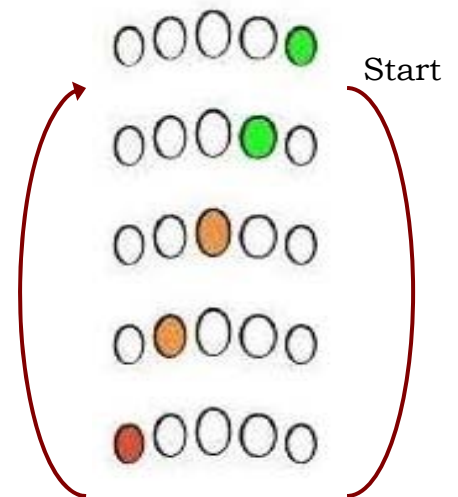
In the unlikely event that the power chair is in a runaway situation, press the power button to perform an EMERGENCY STOP.

### Drive Inhibit Indication

Drive inhibit mode is indicated by the battery gauge with a right-to-left light sequence.

The light sequence starts with the green LED on the right-hand side, and one-by-one, each LED will switch on then off. When the sequence completes at the left-most red LED, it begins again at the right-hand side.

The light sequence continues until the error condition has been cleared.



Drive Inhibit Light Sequence

### OONAPU

OONAPU (“**Out Of Neutral At Power Up**”) is a safety feature that prevents accidental movement of the wheelchair, either when powering up, or when the wheelchair comes out of an inhibit state.

If the LINX LE System is turned on (or comes out of an inhibit state) while the joystick is not in the center position, an OONAPU **warning** is displayed. During an OONAPU warning, the battery gauge LEDs will flash continually to alert the user, and the chair will not drive. If the joystick is returned to the center position within five seconds, the warning will clear and the wheelchair will drive normally.

However, if the joystick remains out of neutral for longer than five seconds, an OONAPU **error** will occur; the error is displayed by the Status indicator flashing red, and the chair will not drive. To clear the error, return the joystick to the neutral position and power the unit off and then on again.

## VII. OPERATION

### The Joystick

The joystick (see figure 14 on page 21) controls the speed (up to the maximum limit set by the speed dial) and direction of your power chair.

Pushing the joystick away from the neutral (center) position will move your *LiteRider Envy* in the direction that the joystick is pushed.

- ◆ The farther forward or backward you push the joystick, the faster your power chair will go.

To operate your power chair, gently push the joystick in the direction in which you want to travel.

- ◆ Gentle operation of the joystick will provide you with smoother changes in speed and direction.
- ◆ Sharp or jerky operation of the joystick will result in quick and drastic changes in direction and speed.

### NOTICE

For your safety, the controller automatically sets the reverse speed, acceleration, and deceleration in proportion to the speed control setting.

### NOTICE

When you are not pushing on the joystick, or when you release the joystick, the joystick will automatically return to the neutral position, the chair will decelerate, as the electromagnetic brakes are applied, and come to a smooth stop.

### Controlling Maximum Speed



**Speed Dial**

The speed dial allows you to limit the maximum speed of the power chair (that is, the speed when the joystick is fully deflected) to suit your preference and environment.

The dial offers 10 discrete steps between the lowest speed (dial set to the left) and the highest speed (dial set to the right).



**Speed Symbol**

As a visual reminder, a speed symbol (shown left) is positioned just above the speed dial to indicate the low and high positions of the speed dial.



**Horn**

The horn button is located below the power button. Press the horn button to sound the horn. The horn will sound for as long as the horn button is pressed.

## VII. OPERATION

### The Battery Gauge

The battery gauge comprises five different LEDs (1 x RED, 2 x AMBER, 2 x GREEN), located above the horn button. The number of LEDs lit depends on the status of the battery, as shown.



Battery Gauge

The battery gauge LEDs are also used to display charging information. Refer to “Battery Charging” on pages 28-29.

### Normal Operation

#### Battery Gauge

#### Battery Level



Fully charged

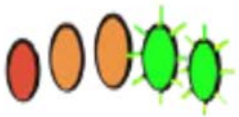


Consider charging the battery



Battery needs charging

### High voltage warning



A high voltage warning is indicated by all LEDs on, and the green LEDs flashing. This occurs when the battery voltage level has risen above the high voltage warning set-point.

### Low voltage warning



A low voltage warning is indicated with the left-most LED flashing. This occurs when the battery voltage level has dropped below its low voltage warning set-point. **Charge the batteries immediately.**

### Cut-off voltage



When the battery voltage drops below the battery cut-off voltage:

The first (red) LED will flash on the battery gauge.

The status indicator (under the power button) will display a flash code 2.

The horn will sound once every 10 seconds.



## VII. OPERATION

### OPERATION/DIAGNOSTICS

#### *For LiteRider Envy Units with the LiNX Controller*



If, when powered up, there is an error with the system, then the status indicator will flash red. The number of flashes will indicate the type of error. These are described in the table below.

#### **Status Indicator**

<b>Flash Code</b>	<b>Description</b>	
1	Remote / joystick error	Check LiNX connections and wiring. Replace the LiNX Control Unit.
2	Network or configuration error	Check LiNX connections and wiring. Replace the LiNX Control Unit.
3	Left motor error	Check the left motor, connections and cabling.
4	Right motor error	Check the right motor, connections and cabling.
5	Left park brake error	Check the left park brake, connections and cabling.
6	Right park brake error	Check the right park brake, connections and cabling.
7	Module error (other than Remote)	Check LiNX connections and wiring. Replace the Power Module.

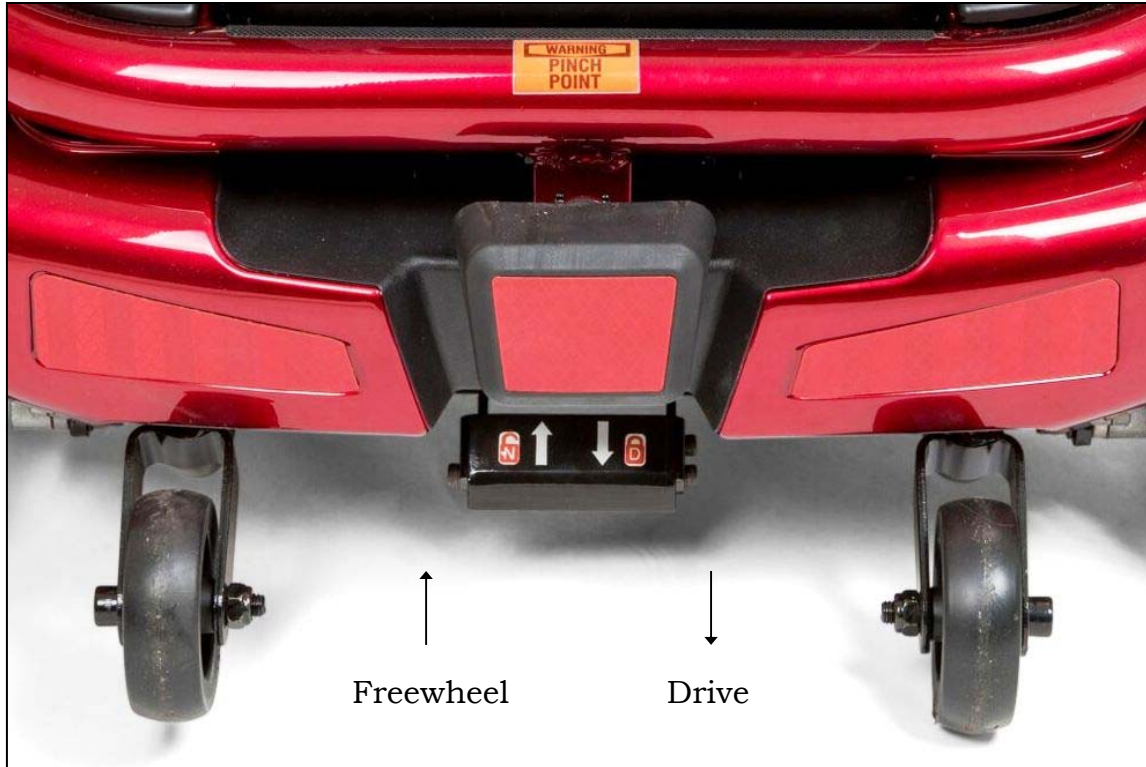
#### **NOTICE**

The LiNX modules are not user serviceable. Do not attempt to repair LiNX modules.

## VII. OPERATION

### **FREEWHEEL MODE**

- ◆ To disengage the brakes and put your power chair in freewheel mode, pull the freewheel lever up. See figure 15.
- ◆ To re-engage the brakes and take your chair out of freewheel mode, push the freewheel lever down. See figure 15.



*Figure 15*



**WARNING** Never put your power chair in freewheel mode when it is on a slope or incline of any type.



**WARNING** Never put your power chair in freewheel mode while you are operating your power chair.

## VII. OPERATION

### THERMAL ROLLBACK

Your *LiteRider Envy* is equipped with a safety system. A microprocessor monitors the operating temperatures of the controller. In the event of excessive heat occurring in the controller, the controller will decrease the speed of your chair. This is done to reduce the load on the electrical system and allow the components to dissipate heat. The controller will automatically set the chair's speed back to full normal when the operating temperature returns to normal levels.

### THE MAIN CIRCUIT BREAKER

The main circuit breaker is another safety feature incorporated into your *LiteRider Envy*. This device monitors the amount of current being drawn from the batteries when the chair is in use. When the motors are heavily strained and too high a current draw is being placed on the batteries, the main circuit breaker will trip and bring your chair to a stop. The main circuit breaker is located under the battery box handle.

### RESET BUTTON

If the main circuit breaker trips, please wait for approximately 1 minute and then push the reset button to reset the main circuit breaker. See figure 16.



**Figure 16**

### **NOTICE**

Usually, the thermal rollback feature is more sensitive than the main circuit breaker. We recommend that you turn off the power to the chair and wait for five minutes when the chair suddenly loses speed or power. Doing so will allow the overheated electrical components to cool to their normal operating temperatures.

## VIII. BATTERY CHARGING



### WARNING

You must use only the charger that is supplied with your *LiteRider Envy*. The use of any other charger on this power chair will void the warranty. Using unauthorized chargers may also result in severe damage to the batteries and/or damage to the chair. Using the wrong charger may also be a hazard.

### OPERATIONAL RANGE

Depending on the use, the terrain, and the driving conditions, the battery pack will provide up to 15.5 miles of operation on your *LiteRider Envy*.



**WARNING!** Corrosive chemicals contained inside battery.  
Explosive battery conditions exist.



**WARNING!** Charger surface can become HOT.  
Electrical hazard!

### BATTERIES AND CHARGING

Battery maintenance is the most important part of maintaining your power chair. Keeping the batteries fully charged helps to extend battery life. Use the following guidelines to help keep your batteries in optimum condition.

**IMPORTANT!** New batteries **MUST** be fully charged prior to the initial use of your power chair.

**Charge new batteries for 12 hours even if the battery gauge already shows a full charge. This is to condition your new batteries for maximum performance.**

- For daily use, keep batteries fully charged. We recommend that you plug in the off-board charger after each use and charge 6-8 hours.

**“For best results please charge your batteries overnight after every use.”**

- If you are not going to use the power chair for more than a week, **fully charge** the batteries and then disconnect them from the power chair. See figure 2 on page 12.

### NOTICE

#### Charging Guidelines Checklist to Maximize Battery Life

- ✓ Use only the automatic off-board charger supplied for all routine charging.
- ✓ Never use an automotive or wet type charger.
- ✓ Avoid deep discharges and never drain the batteries completely.
- ✓ Do not leave batteries in a low state of charge for extended periods. Charge a discharged battery as soon as possible.
- ✓ Fully recharge batteries regularly.
- ✓ Always store batteries fully charged.
- ✓ Check stored batteries once a month and recharge as necessary.

## VIII. BATTERY CHARGING

### CHARGING THE BATTERIES

Your *LiteRider Envy's* charging system is designed for your safety and for your convenience. Follow the steps below to recharge the batteries.

1. Position your *LiteRider Envy* close to a standard wall electrical outlet.
2. Turn off the power on the joystick.



**WARNING**

**The charger should not be plugged into the electrical outlet or powered up at this point in the process. Please check before proceeding.**

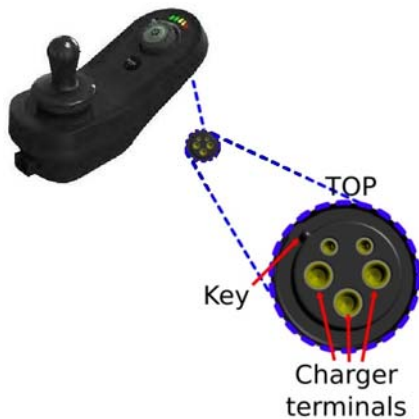
4. Insert the matching charger plug into the joystick's charging socket that is located at the front bottom edge of the joystick or alternatively into the battery pack. See figures 17 and 18.

**IMPORTANT: Failure to align pins before inserting the plug in the correct orientation may damage the joystick and render your wheelchair non-operational.**

5. Insert the plug at the other end of the charger power cord into a standard electrical wall outlet.
6. Disconnect the charger power cord from the wall outlet and from the joystick charging socket or the battery pack for (alternative charging method) when the batteries are fully charged.

### NOTICE

The batteries should be fully charged in approximately eight hours. A full charge is indicated when the battery charger LED is green and the 5 battery gauge LEDs (1 x RED, 2 x AMBER, 2 x GREEN) on the joystick are illuminated.



**Figure 17**



**Figure 18**

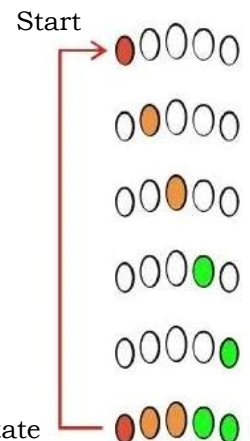
\*Alternate Charging Method

### Battery Charging

The battery gauge will indicate the system is being charged by cycling between a left-to-right light sequence, and then display the approximate battery charge state at the end of the sequence.

Driving is prevented (inhibited) while the system is being charged.

The system does not have to be powered up when charging the battery, however, if it is not powered up, then the battery gauge will not display the charging state/light sequence.



## IX. CARE AND MAINTENANCE

### ROUTINE MAINTENANCE

Your power chair requires a minimal amount of care and maintenance. If you do not feel confident in your ability to perform the maintenance listed below, you can schedule an inspection and maintenance with your provider.

- ✓ Make sure your batteries are fully charged daily. See “Battery Charging”.
- ✓ While turned off, check the joystick control daily for damage, and make sure it returns to the neutral position. If any defects are observed, contact your provider. **Do not attempt to repair it yourself!**
- ✓ Inspect the seating system, armrests, footplate, and front riggings daily for loose hardware, excessive wear, or damage. If any defects are observed, contact your provider.
- ✓ Regularly inspect your power chair’s tires for signs of wear.
- ✓ Regularly inspect all exposed harnessing and connections for wear, damage, and corrosion. Have your provider repair or replace any damaged harness or connector.
- ✓ Keep all the electrical components (charger, joystick control, and electronics) free from moisture. If any of these items do become exposed to moisture, let them dry thoroughly before attempting to operate your power chair again.
- ✓ Periodically check all fasteners for tightness, wear, and corrosion. If any of these are present, turn off the power chair and contact your provider.



#### WARNING

**Be careful of pinch points and sharp metal parts (wear gloves).**

- ✓ All wheel bearings are permanently lubricated and sealed. No additional lubrication is required.

We recommend that you check the following:

**Tire Tread:** Regularly visually inspect the tire tread. If the remaining tread is less than 1/32 of an inch, have your local Golden representative replace the worn tires.

**Joystick and Controller:** Protect the joystick and controller from adverse weather conditions. Moisture will damage the controller and void your power chair’s warranty.

**Cleaning:** Clean the body of your power chair with a damp cloth. Use a cool water mixed with a mild soap to remove dirt and oils. Dry with a clean soft cloth. Buff by hand with a soft cloth.



#### WARNING

**Do not use free-flowing water to clean your *LiteRider Envy*. Water and extreme temperatures are the main elements that can adversely affect your power chair and its performance.**

#### **Water, Rain, Sleet, and Snow**

Water, in any form, will cause electronic malfunction or corrosion of the electrical components, connections, and the chair frame.

#### **Temperature**

- ◆ At extremely low temperatures, the batteries of your power chair may freeze, preventing your *LiteRider Envy* from operating.
- ◆ At extremely high temperatures, your power chair may operate at slower speeds due to the controller’s thermal rollback feature that is designed to prevent damage to the motors and to the other electrical components of the chair.

## **X. RIDING YOUR *LiteRider Envy***

### **Control Through Tight Spots**

As you use your *LiteRider Envy* to increase your mobility, you will undoubtedly encounter some obstacles that will require practice to negotiate smoothly and safely. Below are some common obstacles that you may meet during the daily use of your power chair. Listed with those obstacles are some driving tips that should help you conquer those obstacles. Learn and follow those tips, and with surprising ease you will soon be in control of your power chair as you maneuver it through doors, up and down ramps, up and over curbs, through grass and gravel, and up and down inclines.

#### **Doors**

- Approach any unfamiliar door slowly.
- Notice if the door has a door knob or a push bar.
- Determine if the door opens towards you or away from you.
- Do not try to use your own strength to open the door. Learn to use the power of your power chair to do the majority of the work for you.

#### **If the door opens away from you:**

1. Use one hand to turn the door knob or to operate the push bar.
2. Use your other hand to control the power chair by gently operating the joystick to move your power chair slowly forward.
3. Use your arm to push the door gently open.
4. Drive through the doorway.
5. If it is a self-closing door, it will close behind you.
6. If it is not a self-closing door, stop your power chair when it is clear of the door and use your hand to push the door closed.

#### **If the door opens towards you:**

1. Use one hand to turn the door knob or to pull the handle.
2. Keep your grip on the door knob or on the handle.
3. Use your other hand to control the power chair by gently operating the joystick to move your power chair slowly backward.
4. Allow the power of your *LiteRider Envy* to pull the door completely open.
5. When the door is completely open, stop your power chair.
6. Drive through the doorway while keeping your hand on the door to prevent it from hitting or blocking your power chair.
7. If it is a self-closing door, it will close behind you.
8. If it is not a self-closing door, pull it closed behind you.

### **Ramps**

Because of the American Disabilities Act (ADA), many buildings are fitted with ramps that provide access for power chairs and for other mobility vehicles.



#### **MANDATORY!**

**Please read and thoroughly understand “Safety Rules” and “Driving On An Incline” sections of this manual.**

## XI. TECHNICAL SPECIFICATIONS

Specification	LiteRider Envy
Model Number	GP162
Medicare Code	Not Coded
Weight capacity	300 lbs.
Drive Wheels	Rear
Maximum speed	3.5 mph
Operating Range <sup>1</sup>	15.5 miles
Ground Clearance	2.5 in.
Turning Radius	28.5 in.
Type Batteries	2-22 AH
Colors	Red, Blue, Silver, Green, Yellow, Orange
Freewheel Mode	Yes
Electronic Speed Control	Yes
Electro-Mechanical Brakes	Yes
Charger	Off Board
Controller	40 Amp
Length	36 in.
Width	22.5 in.
Height (ground to top of back of seat)	34.0" – 35.0"
Ground to top of Seat	21.5" – 22.5"
Number of Seat Height Adjustments	2
Size of Increments	1.0 in.
<b>Weight of Unit: (assembled)</b>	123 lbs.
Front Half	37 lbs.
Rear Half	36 lbs.
Seat with Arms	23 lbs.
Batteries	27 lbs./pack
<b>Tires:</b>	Flat Free
Front	N/A
Rear	9 in.
Casters	6 in.
Rear Anti-Tip Wheels	3 in.
<b>Standard Seat:</b>	Stadium Style
Slide Seat	Not Available
Back Height (no headrest)	16"
Width x Depth	17" x 16"
Color	Black Vinyl
<b>Footrest:</b>	Yes
Height adjustable	Yes
Angle adjustable	Yes
<b>Warranty:</b>	
Frame	Five Years
Drive Train	13 Months
Electronics <sup>2</sup>	13 Months
Batteries	13 Months

1. Battery range at 200 lbs., and will vary due to rider weight, drive surface, terrain, and battery type.

2. Electronics warranty excludes batteries.

Literature is current at the time of printing. Golden Technologies reserves the right to make changes to the product or literature at any time.



## XII. WARRANTY



### Consumer Limited Warranty *Power Wheelchairs*

Golden Technologies has provided information throughout the owner's manual in regards to proper usage and care of your power wheelchair. Failure to adhere to this information will void the warranty of the power wheelchair, its parts and the batteries supplied by Golden Technologies

The following warranty is granted only to the INITIAL Consumer who has purchased our product and commences on the Date of Purchase by the Consumer from an Authorized Golden Technologies' Provider. The Consumer must have a warranty registration card filed with Golden Technologies to receive service.

The warranty covers the following power wheelchair models unless otherwise noted:

- ◆ LiteRider Envy GP162
- ◆ Alante' GP207
- ◆ Compass HD GP620
- ◆ Alante Sport' GP205
- ◆ Compass Sport GP605

#### *Five-Year Limited Warranty:*

For the period of five years from the date of purchase, in the event of defective materials or workmanship, Golden Technologies will repair or replace at our option any of the following **structural frame components** found to be defective by an authorized Golden Technologies representative:

- ◆ Steel Frame\*
- ◆ Frame Welds\*
- ◆ Seat Post\*

*\*The GP605 is warranted for LIMITED LIFETIME*

#### *Thirteen Month Limited Warranty*

For the period of thirteen months from the date of purchase, in the event of defective materials or workmanship, Golden Technologies will repair or replace at our option any of the following **structural frame components** found to be defective by an authorized Golden Technologies representative:

- ◆ Caster Beam
- ◆ Caster Forks
- ◆ Footrest
- ◆ Anti-Tip Forks
- ◆ Armrests

For the period of thirteen months from the date of purchase, in the event of defective materials or workmanship, Golden Technologies will repair or replace at our option any of the following **drive train components** found to be defective by an authorized Golden Technologies representative:

- ◆ Motor/Gearbox Assembly
- ◆ Brake Assembly (electrical function only)

**Note: An increase in operating noise of the motor/gearbox DOES NOT constitute a defect. With normal wear and tear, operating noise is expected to increase.**

For the period of thirteen months from the date of purchase, in the event of defective materials or workmanship, Golden Technologies will repair or replace at our option any of the following **electronic assemblies** found to be defective by an authorized Golden Technologies representative:

- ◆ Electronic Controller
- ◆ Battery Charger
- ◆ Wire Harness(es) (excludes boot covers)

**Note: While charging batteries, it is normal for the battery charger to heat up. Heat coming from the battery charger DOES NOT constitute a defect.**

For the period of thirteen months from the date of purchase, in the event of defective materials or workmanship, Golden Technologies will repair or replace at our option any of the following **parts** found to be defective by an authorized Golden Technologies representative:

- ◆ Bearings
- ◆ Rubber Components
- ◆ Plastic Components
- ◆ Bushings
- (excludes tires and all wear parts)
- (excludes body & all wear parts)
- ◆ Seat swivel mechanism

#### *Twelve Month Limited Warranty*

For the period of twelve months from the date of purchase, in the event of defective materials or workmanship, Golden Technologies will replace the **batteries supplied by Golden Technologies** if found to be defective by an authorized Golden Technologies representative.

## XII. WARRANTY



### **Consumer Limited Warranty** *Power Wheelchair (continued)*

Items not mentioned or listed are covered at the discretion of Golden Technologies. Any accessories, standard or optional, supplied by Golden Technologies, are covered for a period of one year from the date of purchase with the particular unit.

#### ***Warranty Exclusions:***

Golden Technologies does not provide warranty on any of the following items which may require replacement due to the normal wear and tear of day to day usage:

- ◆ Tires and Tubes
- ◆ ABS Plastic Shrouds
- ◆ Armrest Pads
- ◆ Motor Brushes
- ◆ Bulbs/Fuses
- ◆ Battery Cases
- ◆ Brake Pads
- ◆ Upholstery

This warranty also excludes the following:

- ◆ Loss or theft of components
- ◆ 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.
  - Repairs and/or modifications made to any part without the specific consent of Golden Technologies.
  - Exceeding the specified weight capacity of the unit.
  - Accessories other than those supplied or approved by Golden Technologies.
  - Failure to adhere to the product instructions.
  - Acts of Nature, such as lightning strikes, earthquakes, etc....
  - Circumstances beyond the control of Golden Technologies.
- ◆ **ANY PARTS ALTERED OR REPAIRED BY UNAUTHORIZED PERSON.**

#### ***Warranty Service:***

Warranty Service must be performed by an authorized Golden Technologies representative. Golden Technologies reserves the right to replace warranted part(s) with refurbished or new part(s) at our discretion. All labor charges, service calls, transportation costs or any other charge(s) associated with the installation of any warranted part(s) are the responsibility of the consumer. Warranty is for the replacement of the parts only and does not include freight for the replacement parts. Consumers are not to return any item(s) to Golden Technologies without prior written authorization. Any damages incurred while warranted part(s) are in transport are the sole responsibility of the consumer.

#### **There is no other express warranty.**

Implied warranties, including those of merchantability and fitness for a particular purpose are excluded. Liabilities for consequential damages are excluded.

This warranty gives you specific rights and you may also have other rights which may vary from state to state.

# GOLDEN PRODUCT REGISTRATION

Register Now To Lock In Your Warranty and Receive Important Product Updates

**SAVE TIME - REGISTER ONLINE: [WWW.GOLDENTECH.COM](http://WWW.GOLDENTECH.COM)**

**SERIAL NUMBER**

*Most Lift Chairs Have On Controller Wire or Back Rail of the Metal Frame  
Most Scooters & Powerchairs On Seat Post, Under/On Battery, or Under Carpet*

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**PRODUCT MODEL NUMBER**

*Most Lift Chairs Start with PR (PR401, PR510, etc)  
Most Scooters with G (GA, GB, GC, GL, GR, etc) Most Powerchairs with GP*

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**PURCHASE DATE**

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**FIRST NAME**

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**CITY**

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**STATE / PROVINCE**

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**ZIP / POSTAL CODE**

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**E-MAIL ADDRESS**

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**PROVIDER NAME**

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**PROVIDER'S ADDRESS**

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**STATE / PROVINCE**

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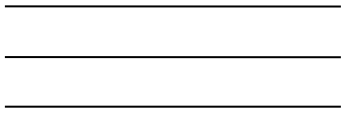
**COUNTRY**

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Product comments:

<p>Rate Provider Experience (Circle One - 1 Bad, 5 Great)</p> <p><b>1 2 3 4 5</b></p>
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Fold Here First



Place  
Stamp  
Here

Golden Technologies  
401 Bridge Street  
Old Forge, PA 18518

Fold Here Second



# LiteRider<sup>®</sup> GOLDEN ENVY



**Model GP162**



401 Bridge Street  
Old Forge, PA 18518  
Tel: 800-624-6374  
Fax: 800-628-5165  
[www.goldentech.com](http://www.goldentech.com)