Compass™

Owner's Manual

Compass™

Center-Wheel Drive Power Chair

GP600 SS/GP601 SS
GP600 CC/GP601 CC

GOLDEN technologies

YOUR LIFE IN MOTION

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

FOR YOUR RECORDS

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

Your *Compass* ™

Model _____ Serial Number _____

Date of Purchase _____ Body Color _____

Options _____

Your Golden Technologies, Inc. representative or dealer

Name _____

Company _____

Address _____

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

CONTENTS

INTRODUCTION

Congratulations on the purchase of your new *Compass*™ power chair. The Center-wheel drive *Compass*™ combines cutting-edge technology with an attractive design that is 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 *Compass*™ 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 *Compass*™ 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 *Compass*™ please contact your local Golden Technologies, Inc. representative 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 broad range of health and personal mobility products. 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 produce this owner's manual. 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 on page 32. We at Golden Technologies, Inc. would appreciate hearing about the dependability of your *Compass*™ 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. representative.

Golden Technologies, Inc.
401 Bridge Street
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Phone: (570) 451-7477
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SAFETY

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

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

BEFORE GETTING ON YOUR *Compass*™

- Check to be certain that the power is turned off. See "Operation" on pages 22-27. This will eliminate the possibility of accidentally activating the joystick and causing injury to yourself or to others.
- Check to be certain that your *Compass*™ is not in freewheel mode. See the "Operation" section on pages 22-27.
- Flip up the armrests.
- If your chair is equipped with leg rests, move them to the sides.
- If your chair is equipped with a footrest, flip it to the "up" position.

GETTING ON YOUR *Compass*™

- While being careful not to entangle yourself in the leg rests or the footrest, seat yourself comfortably and securely on the seat.
- Adjust the leg rests or flip down the footrest.
- Flip down or replace the armrests.
- Fasten the lap belt, if your chair is so equipped.

GETTING OFF YOUR *Compass*™

- Make certain that the power is turned off.
- Unfasten the lap belt, if your chair is so equipped.
- Flip up the armrests.
- Flip up the footrest, or move the leg rests to the sides.
- While being careful not to entangle yourself in the leg rests or the footrest, carefully stand and step away from the chair.

MAXIMUM WEIGHT

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

WARNING

Exceeding the maximum weight rating may result in injury to yourself and to others. This will also void your warranty.

SAFETY

DRIVING ON AN INCLINE

- Drive with caution when attempting to negotiate any incline, even handicap access ramps.
- **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.
- Try to keep your *Compass*™ moving when climbing an incline. If you do come to a stop, restart and accelerate slowly and carefully.
- **Do not** try to descend or climb an incline that is greater than the maximum incline stated in the specifications section of this manual.

WARNING

If, while you are driving down a slope, your chair starts to move faster than you feel is safe, gently release the joystick and allow your *Compass*™ to come to a stop. When you feel that you again have control of your power chair, adjust the speed control to a lower setting then push the joystick 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 *Compass*™.

WARNING

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

SAFETY

- **Do not** attempt to use your *Compass*™ on an escalator. Always use an elevator.
- **Do not** carry passengers on your power chair.
- **Do not** operate your *Compass*™ 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.
- **Never** drive your *Compass*™ 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 *Compass*™ 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.
- **Never** place your power chair into freewheel mode without a trained assistant present.
- **Do not** sit on your power chair when it is freewheel mode without the presence of a trained assistant.
- **Do not** modify your power chair in any way that is not authorized by Golden Technologies.
- **Do not** disassemble the tire. If disassembly is required, have your authorized Golden Compass dealer perform any necessary maintenance or repair.
- **Do not attempt to** inflate the tires of your Golden *Compass*™. Your Golden *Compass*™ is equipped with foam-filled flat free tires that do not require inflation.

SAFETY

Please be sure to follow this important warning when transferring onto or off of the Golden Compass power wheelchair:

WARNING

NEVER TRANSFER ONTO 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.

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 *Compass*™

All electrically powered vehicles, including power chairs are susceptible to EMI/RFI. This interference could result in abnormal, unintended movement of a power wheelchair.

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.

Based on that determination, the FDA has written to the manufacturers of power wheelchairs and asked them to test their new products to be certain that they provide a reasonable degree of immunity to EMI/RFI. The FDA suggests that power chairs should have an immunity level of 20 V/m.

The immunity level of the *Compass*™ is unknown.

EMI/RFI RECOMMENDATIONS

- Do not turn on or use hand-held personal electronic communication devices such as cellular phones, walkie-talkies, and 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 operating your chair close to any of those transmitters.
- Turn off the power if your *Compass*™ 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 representative or to Golden Technologies, Inc. at (800) 624-6374.

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.**

SPECIFICATIONS

	GP600 SS	GP600 CC	GP601 SS	GP 601 CC
Weight				
Base	88 lbs	88 lbs	88 lbs	88 lbs
Seat Arms	14 lbs	14 lbs	14 lbs	14 lbs
Seat (18 X 18 Solid Pan Seat)	30 lbs		30 lbs	
Seat (18 X 18 Captain's Chair Seat)		32 lbs		32 lbs
Batteries (each) 2 needed to operate Compass	U1 - 24 lbs NF22 - 39 lbs	U1 - 24 lbs NF22 - 39 lbs	U1 - 24 lbs NF22 - 39 lbs	U1 - 24 lbs NF22 - 39 lbs
Total Weight with U1 Batteries	182 lbs	184 lbs	182 lbs	184 lbs
Total Weight with NF22 Batteries	212 lbs	214 lbs	212 lbs	214 lbs
Dimensions				
Length	38 1/2"	38 1/2"	38 1/2"	38 1/2"
Width (outside of tires)	24 1/2"	24 1/2"	24 1/2"	24 1/2"
Maximum Incline	6 degrees	6 degrees	6 degrees	6 degrees
Maximum Speed	5 mph	5 mph	5 mph	5 mph
Maximum Load Capacity	300 lbs	300 lbs	300 lbs	300 lbs
Turning Radius	19 "	19 "	19 "	19 "
Wheel Sizes				
Drive Wheels (2)	10" X 3.5"	10" X 3.5"	10" X 3.5"	10" X 3.5"
Casters (4)	6" X 2"	6" X 2"	6" X 2"	6" X 2"
Maximum Seat Back Angle	115 degrees	115 degrees	115 degrees	115 degrees
Armrest Width (Adjustable)	Width of Seat +6"	Width of Seat +6"	Width of Seat +6"	Width of Seat +6"
Armrest Height (Adjustable) (Measured from seat cushion)	8", 9". & 10"	8", 9". & 10"	8", 9". & 10"	8", 9". & 10"
Seat Heights (Ground to Top of Seat)				
Minimum Seat Height (U1 Batteries)	18"	18"	18"	18"
(NF22 Batteries)	20"	20"	20"	20"
Maximum Seat Height (U1 Batteries)	23"	23"	23"	23"
(NF22 Batteries)	23"	23"	23"	23"
Seat Back Heights (Ground to Top of Headrest)				
Headrest Not Extended (Solid Pan or Captain's Chair)*	37" - 41"	37" - 41"	37" - 41"	37" - 41"
Headrest Extended (Solid Pan or Captain's Chair)*	42" - 46"	42" - 46"	42" - 46"	42" - 46"
Without Headrest (Solid Pan or Captain's Chair)*	30" - 34"	30" - 34"	30" - 34"	30" - 34"
Note: Add 2 inches to lowest seat back height lowest position when usning NF22 batteries.				
Footrest (Adjustable Height) (Measured from top of footrest to ground)	5", 5 5/8", 6 1/4", 6 7/8", 7 1/2"	5", 5 5/8", 6 1/4", 6 7/8", 7 1/2"	5", 5 5/8", 6 1/4", 6 7/8", 7 1/2"	5", 5 5/8", 6 1/4", 6 7/8", 7 1/2"
Footrest (Adjustable Angle)	-4 degrees to 17 degrees	-4 degrees to 17 degrees	-4 degrees to 17 degrees	-4 degrees to 17 degrees
Controller - Programmable	Dynamic A-Series 50 Amp	Dynamic A-Series 50 Amp	Dynamic A-Series 50 Amp	Dynamic A-Series 50 Amp
Charger - Off Board	110 VAC 60 Hz, 5 Amp	110 VAC 60 Hz, 5 Amp	110 VAC 60 Hz, 5 Amp	110 VAC 60 Hz, 5 Amp
Battery Types (recommended)	(2) U1 or (2) NF22	(2) U1 or (2) NF22	(2) U1 or (2) NF22	(2) U1 or (2) NF22
Shroud Colors (all models)	Candy Apple Red, Artic Blue, Hunter Green or Onyx			

Note: Golden Technologies reserves the right to alter or change any specification without prior notice.

ASSEMBLY

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

NOTE: 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. Frame with power module, controller cable & connectors for battery cables
2. Battery box cover (Two – one for U1 batteries, one for NF22 batteries)
3. Seat assembly
4. Joystick
5. Batteries (Two – U1 or NF22)

Joystick

Batteries

ASSEMBLY

JOYSTICK INSTALLATION

1. Position the joystick on the joystick bracket. Match the holes in the joystick with the holes in the bracket. See figure 1.
2. Insert the 4 Allen-head screws with lock washers through the bracket and into the holes in the joystick.
3. Use an Allen wrench to tighten the screws.
4. Connect the joystick cable to the controller cable. See figure 2.
5. Use the provided Velcro® tie-wraps and under arm clip to secure the controller cable to the armrest bracket.

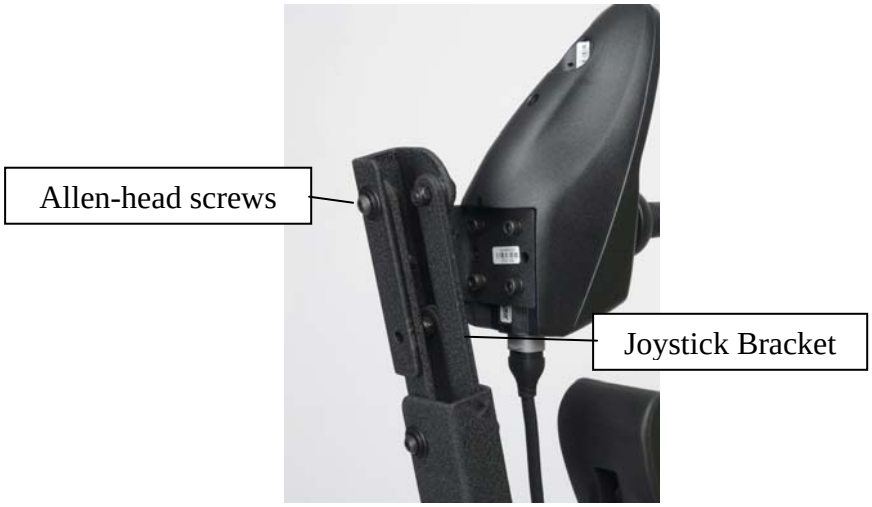


Figure 1

Figure 2

ASSEMBLY

SEAT REMOVAL/INSTALLATION

Note: The seat assembly weighs about 48 pounds. Please ask for help if you do not feel capable of safely lifting that much weight. Removal of arms will significantly reduce the weight of seat.

REMOVAL

1. Disconnect the controller cable from the joystick. "Unclip" from arm and remove Velcro® tie-wraps.
See figure 2 on page 11.
2. Lift the front and rear seat lock handles and slide the seat until all (4) of the seat guides are out of the receivers.

INSTALLATION

The seat can be installed from either side of the power chair.

1. To install the seat, align the seat guides (front and rear) with the seat receivers (front and rear).
2. Slide the seat towards the center of the power chair until the seat locks securely in place. The front and rear locks must engage.
3. Reconnect the controller cable to the joystick cable.

WARNING **BE SURE THE SEAT IS CORRECTLY INSTALLED AND LOCKED BEFORE OPERATING YOUR POWER CHAIR**.

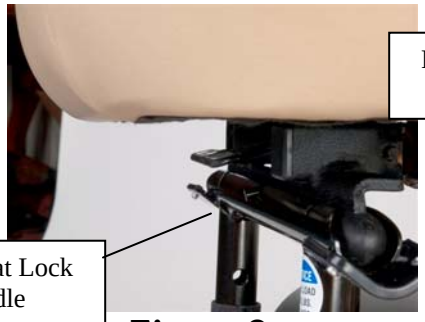


Figure 3

Figure 4

Figure 5

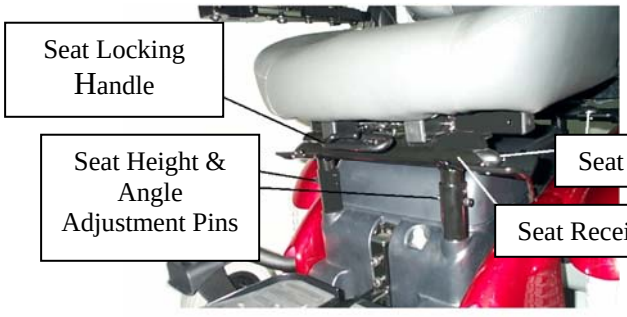


Figure 6

ASSEMBLY

Accessing the batteries

After removing the seat, locate the (2) "Battery Box Cover Locks".

Depress both locks and lift the cover.

Note: On the inside of the battery box cover there is a battery connection diagram.

ASSEMBLY

BATTERY INSTALLATION

Note: The batteries weigh 24 to 39 pounds each (depending on type). Please ask for help if you do not feel capable of safely lifting that much weight.

Figure 7

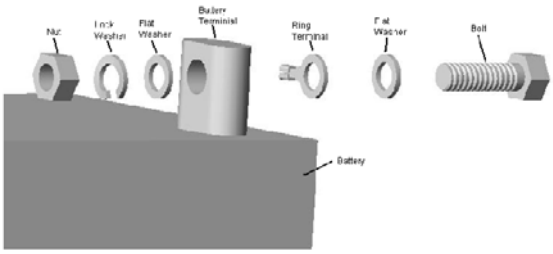


Figure 8

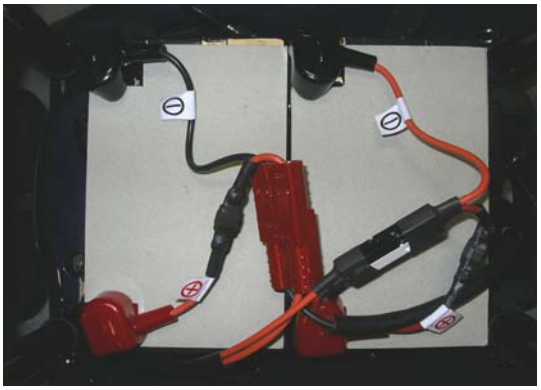


Figure 9a

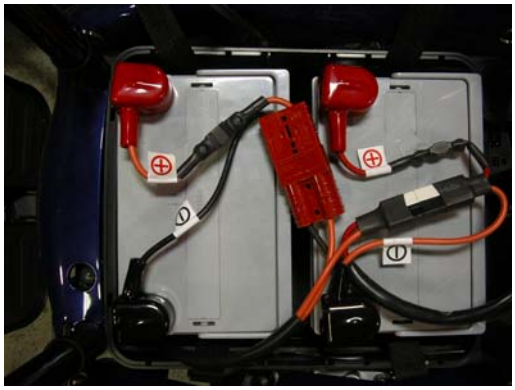


Figure 9b

1. Place the batteries in the battery box. Be certain to position the terminals on each battery toward the front of the unit as shown in Figure 7. Secure the batteries in place using the hook and loop straps.
2. Use the screws, washers, and nuts provided to connect the positive (red booted) connector of each cable to the positive (+) terminal of each battery. See figure 8.
3. Use the screws, washers, and nuts provided to connect the negative (black booted) connector of each cable to the negative (-) terminal of each battery.
4. Connect the connectors of each battery cable to the corresponding connector on the main wire harness. See figure 9a for NF22, figure 9b for U-1.
5. Cover the battery terminals with the protective caps provided. See figure 9a for NF22, figure 9b for U-1.

COMFORT SETTINGS

You may be spending a great deal of time on your *Compass*™. 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. Headrest height
3. Backrest angle
4. Footrest angle
5. Footrest height
6. Joystick bracket length
7. Seat Angle

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

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

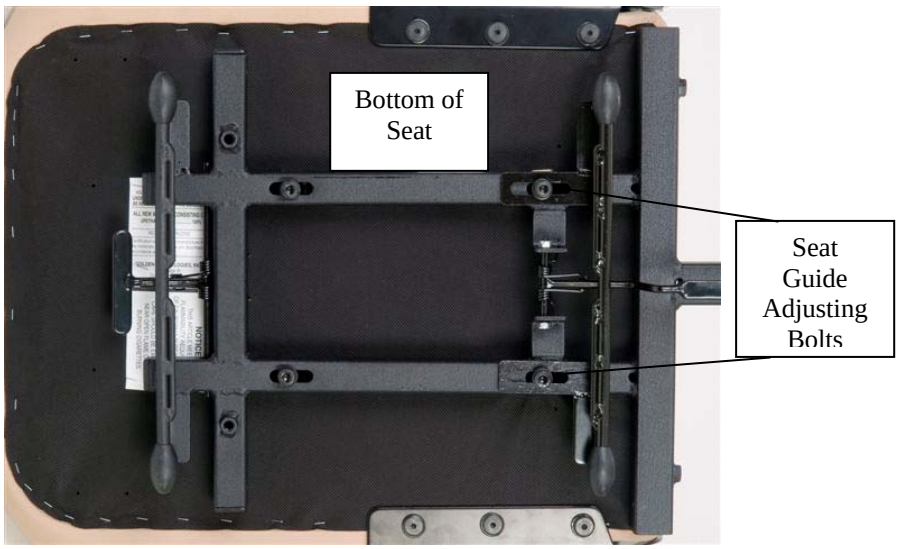
Seat height adjustment

The seat frame is a 4-post design that is adjustable in height and seating angle. Adjustment is made by removing ball detent pins, raising or lowering seat posts to desired height/angle and re-installing the ball detent pins.

***Front/Rear height difference can be 3 inches.**

COMFORT SETTINGS

Adjusting the seat with a front to rear angle



Loosen seat guide adjusting bolts using a 6mm Allen wrench provided in the charger bag and a pair of pliers or a 13mm open end wrench. Place the seat receivers in the lowest position and insert the ball detent pins through the towers and seat receiver legs. Leave the seat guide adjusting bolts loose. Slide the seat into the receivers, adjust seat to the desired height and angle using the (4) detent pins. Leave the seat in the seat receivers and tighten the seat guide adjusting bolts. This process is more easily accomplished with two people. Note: seat receivers must be 2" higher when using NF22 battery cover.

COMFORT SETTINGS

HEADREST HEIGHT ADJUSTMENT

1. Push and then release the clamp on the left post of the headrest while you are pulling up or pushing down on the head rest. See figure 10.
2. The headrest will "click" to a stop in one of the preset positions.
3. Repeat step 1 until the headrest is at the desired height.

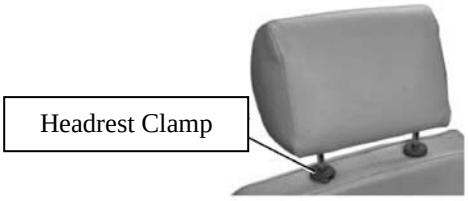


Figure 10

Figure 11

BACKREST ANGLE ADJUSTMENT

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

1. Pull up on the adjustment lever (see figure 11) and push against the backrest until the backrest is in the desired position.

2. Release the lever.

3. To return the backrest to the upright position, pull up on the lever and move the backrest to the desired position.

COMFORT SETTINGS

FOOTREST ANGLE ADJUSTMENT

1. Fold the footrest upward for easy access to the angle adjustment bolt. See figure 12.
2. Use a wrench to turn the adjustment bolt counter-clockwise to increase the footrest angle.
3. Use a wrench to turn the adjustment bolt clockwise to decrease the footrest angle.

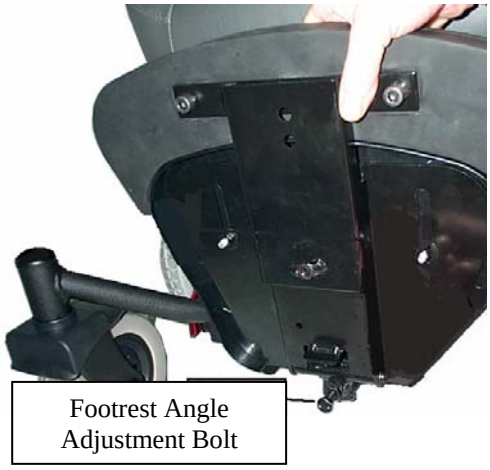


Figure 12

FOOTREST HEIGHT ADJUSTMENT

1. Remove front cover.
2. Use an Allen wrench to remove the bolts indicated in figure 13.
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 13

COMFORT SETTINGS

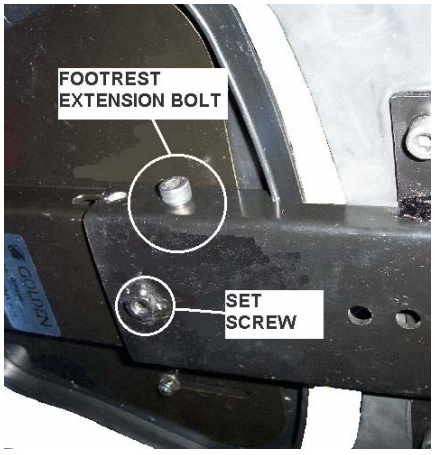
FOOTREST EXTENDING

Refer to the pictures below.

1. Lift the rubber pad from the footrest plate.
2. Loosen the (2) footrest adjustment screws.
3. Slide the footrest plate to the desired position and tighten the adjustment screws.
   NOTE: The maximum extended length is not at the end of the slots.

FOOTREST EXTENSION ADJUSTMENT

1. Place the footrest extension onto the footrest as shown below.
2. Install the footrest extension bolt.
3. Install a lock washer and locknut on the bolt and tighten securely.
4. Tighten the set screw.



COMFORT SETTINGS

Figure 14

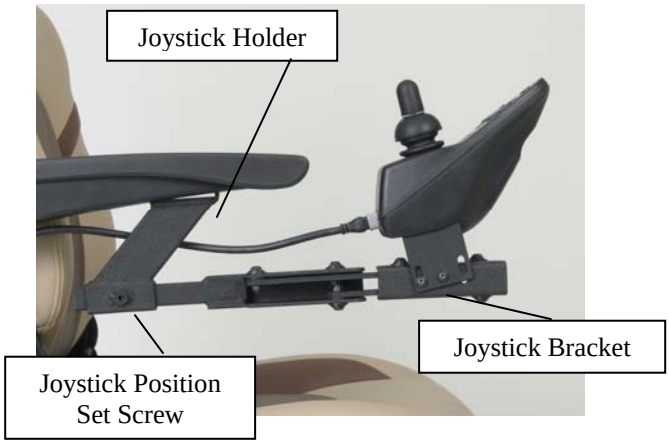


Figure 15

Figure 16

ARMREST HEIGHT ADJUSTMENT

1. Loosen "Armrest Height Adjustment Knob" (Figure 14) until you can pull it outward. Note: The knob is retained in its housing with a spring.
2. While keeping the knob pulled, raise or lower the armrest to the desired position then release the knob. After releasing the knob, you may have to raise or lower the armrest until it aligns with the nearest locking position.
3. Tighten the height adjustment knob.

JOYSTICK BRACKET LENGTH ADJUSTMENT

1. Loosen the setscrew that adjusts the joystick position. See Figure 15.
2. Slide the joystick bracket in or out of the joystick holder to desired position.
3. Tighten the setscrew.

ARMREST WIDTH ADJUSTMENT

1. Loosen the adjustment knobs at the rear of the seat. See Figure 16.
2. Slide the arms in or out.
3. Tighten the adjustment knobs. See Figure 16.

OPERATION

Your *Compass*™ 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 *Compass*™ 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.

A WORD OF CAUTION

Before turning on the power of your *Compass*™, take note of your environment and set your speed control accordingly. (see "The Speed Control Buttons" Figure 17) 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 *Compass*™ described below and follow the instructions to safely operate your power chair.

DRIVING: The Joystick On/Off Switch

Push the on/off button to turn on the power to your *Compass*™. See figure 17.
The 8 LEDs (Light Emitting Diodes) will flash once and a number of LEDs will remain depending on the state of the battery charge.
♦ The LED array, that functions as the battery charge gauge, will light up. See "Battery Charging" on page 28.
Pressing the on/off button again will turn off the power to your *Compass*™.

Figure 17

OPERATION

The Speed Control Buttons

These buttons provide you with a way to control the maximum speed of your *Compass*™.

♦ Press the "turtle" button repeatedly to set your chair's speed to the slowest setting (recommended for indoor operation). Slowest speed is indicated by one (1) lit LED section on the speed indicator scale.

♦ Press the "rabbit" button repeatedly to set your chair's speed to its highest setting. Highest speed is indicated by five (5) lit LED sections on the speed indicator scale.

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

The Joystick

The joystick (see figure 17 on previous page) controls the speed (up to the maximum limit set by the speed control knob) and direction of your power chair.

NOTE: 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.

Pushing the joystick away from the neutral (center) position will move your *Compass*™ 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.

OPERATION

The Joystick Display

The joystick display (see figure 17 on page 22) is a multifunctional visual display. This display provides three types of information.

1. On/Off status
2. Battery charge level
3. Fault diagnostics

1. On/Off Status

When you turn on the power to your *Compass*™, the LED array will light up (see figure 17 on page 22).

- ♦ If the LED array is not lit, the controller and the power chair are not in operating mode.

2. Battery Charge Level

The joystick LED array is composed of six LED's.

- ♦Two red
- ♦Two amber
- ♦Four green

When all eight (8) LEDs are lit continuously, there is a full charge on the batteries. As you use your power chair and the batteries discharge, LEDs in the array will begin to turn off in descending order. A single lit red LED indicates the lowest state of operable charge on the batteries. The batteries should be charged immediately.

NOTE: To ensure a dependable battery charge, we recommend that you charge the chair's batteries overnight. Doing this will prolong the life of the batteries and spare you loss of operational power while you are using your chair normally.

Do not charge the batteries when all 8 LEDs are lit, indicating that the batteries are at full charge. Charging the batteries when they are fully charged will shorten the life of the batteries.

3. Fault Diagnostics

The joystick LED array is also designed to help you diagnose any problems with the electrical components of your power chair. The LED array does this by flashing on and off in a coded sequence.

See the table on the following page to see the list of diagnosable problems and the flash code sequence.

OPERATION/DIAGNOSTICS

For Compass Units with the SHARK Controller

Flash codes indicate the nature of an abnormal condition directly from the SHARK Information Gauge. Without the use of any servicing tools, the condition can be simply diagnosed.

Flash Code	**Description**	
1	User Fault	Possible stall timeout or user error. Release the joystick to neutral and try again.
2	Battery Fault	Check the batteries and cabling. Try charging the batteries. Batteries may require replacing.
3	Right Motor Fault	Check the right motor, connections and cabling.
4	Left motor fault	Check the left motor, connections and cabling.
5	Right park brake fault	Check the right park brake, connections and cabling.
6	Left park brake fault	Check the left park brake, connections and cabling.
7	SHARK Control Unit Fault	Check the SHARK Communications Bus connections and wiring. Replace the Control Unit
8	SHARK Power Module Fault	Check SHARK connections and wiring. Replace the Power Module.
9	SHARK Communications Fault	Check SHARK connections and wiring. Replace the SHARK Control Unit.
10	Unknown Fault	Check all connections and wiring. Consult a service agent.

The SHARK modules are not user serviceable. Do not attempt to repair Shark modules.

Note that joystick OONAPU (Out Of Neutral At Power Up) is not a fault. Simply by removing your hand from the joystick and allowing it to return to the neutral position, the fault will immediately clear. If the condition persists after removing your hand, the joystick may be damaged. Consult a Service agent.

OPERATION/DIAGNOSTICS

For Compass Units with the A-SERIES Controller

Flash codes indicate the nature of an abnormal condition directly from the A – Series Information Gauge. Without the use of any servicing tools, the condition can be simply diagnosed.

Flash Code	**Description**	**Recommended Action**
1	User Fault	Possible stall timeout or user error. Release the joystick to neutral and try again.
2	Battery Fault	Check the batteries and cabling. Try charging the batteries. Batteries may require replacing.
3	Right Motor Fault	Check the right motor, connections and cabling.
4	Left motor fault	Check the left motor, connections and cabling.
5	Right park brake fault	Check the right park brake, connections and cabling.
6	Left park brake fault	Check the left park brake, connections and cabling.
7	User Interface Fault	Display PCB Fault Consult a Service Agent
8	Controller Fault	Consult a Service Agent
9	A – Series Bus Communications Fault	Consult a Service Agent

OPERATION

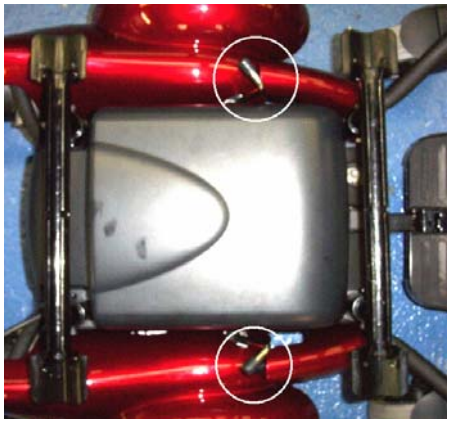


Figure 18

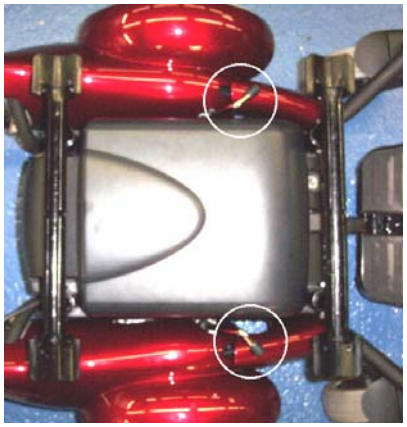


Figure 19

FREEWHEEL MODE

- To disengage the gears and put your power chair in freewheel mode, turn the freewheel levers as shown. See figure 18.
- To re-engage the gears and take your chair out of freewheel mode, turn the levers as shown. See figure 19.

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

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

THERMAL ROLLBACK

Your *Compass*™ 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 *Compass*™. 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.

OPERATION

Figure 20

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 20.

NOTE: 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.

SWING-AWAY DESK ARM
Your *Compass*™ is equipped with a swing-away desk arm that provides you with the convenience of positioning your chair close to a work surface such as a table or desk.

To swing the desk arm simply push on the side of the joystick until the joystick swings to the retracted position. See figures 21, 22, and 23.

Figure 21

Figure 22

Figure 23

BATTERY CHARGING

WARNING You must use only the charger that is supplied with your *Compass*™. 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 fire hazard.

Operational Range

Depending on the use, the terrain, and the driving conditions, the batteries of your *Compass*™ will provide fifteen to twenty miles of operation (with the use of NF22 batteries).

♦ We recommend that you charge the batteries when necessary. Battery charge should be treated similarly to fuel in a car. You would not go on a long trip with fuel low or fill up when almost full.

CHARGING THE BATTERIES

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

1. Position your *Compass*™ close to a standard wall electrical outlet.
2. Turn off the power on the joystick.
3. Remove the charger from the SEAT POCKET. See figure 24.
4. Insert the matching charger plug into the joystick's charging socket that is located at the front of the joystick. See figure 25.
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 when the batteries are fully charged.

NOTE: The batteries will be fully charged in four to eight hours. A full charge is indicated when the green light on the battery charger side panel turns on and all 8 joystick LEDs are lit when joystick is turned on.

Figure 24

Figure 25

CARE AND MAINTENANCE

Your *Compass*™ is designed to require minimal maintenance. We recommend that you periodically 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.

Motor Brushes: Have your local Golden representative inspect the motor brushes once a year.

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

Battery Terminals: Regularly inspect the condition of the battery terminals. Make certain that they are not corroded. Also check to see that the terminals are securely tightened.

Cleaning: Use only a water-dampened soft cloth to clean the ABS shroud. The shroud has a protective coat that is very easy to maintain.

NOTE: Do not use free-flowing water to clean your *Compass*™. 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 *Compass*™ 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.

DISASSEMBLY

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

SEAT REMOVAL

1. Disconnect the joystick cable from the controller cable.
2. See page 12 to complete the removal.

BATTERY REMOVAL For Transportation

After removing the seat and battery box cover:

1. Disconnect the battery connectors and unfasten battery straps. See figures 7 and 9 on page 14.
2. Use the battery handles to lift the batteries out, one at a time.

Note: The batteries weigh 25 to 39 pounds each (depending on type). Please get help if you do not feel capable of safely lifting that much weight.

For Replacement

After removing the seat and battery box cover:

1. See pages 10 and 11.
2. Disconnect the battery connectors and unfasten battery straps.
3. Use the battery handles to lift the batteries out, one at a time.
4. Remove the protective caps from the battery terminals.
5. Disconnect the positive (+) battery cables from the battery terminals, one at a time.
6. Disconnect the negative (-) battery cables, one at a time.
7. Install new batteries. See BATTERY INSTALLATION on page 14 or see the instructions on the inside of battery box lid and follow the steps.

WARRANTY

LIFETIME WARRANTY:

♦ Power chair frame

Golden Technologies, Inc. will repair the frame with new or refurbished parts, free of charge, in the USA, in the event of defective materials or workmanship.

ONE-YEAR LIMITED WARRANTY

♦ Electronic controller
♦ Drive train components

Golden Technologies, Inc. will repair these products with new or refurbished parts, free of charge, in the USA, for one (1) year from the original date of purchase, in the event of defective materials or workman-ship.

Excluded from the One-Year Limited Warranty is the following item:

♦Motor brushes

WARRANTY EXCLUSIONS

♦ABS plastic shrouds
♦Batteries are warranted by the battery manufacturer
♦Tires and tubes
♦Labor, service calls, shipping and other charges incurred in repair of the product unless specifically authorized by Golden Technologies, Inc.
♦This warranty does not include any labor charges incurred in replacement part installation.

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

This warranty only covers failures due to defects in materials or workmanship which occur during normal use, and does not cover damage that occurs in shipment or failures which are caused by products not supplied by Golden Technologies, Inc., or failures resulting from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, or by anyone other than an authorized Golden Technologies, Inc. Dealer.

This warranty is extended only to the original purchaser. Your original receipt will be necessary as proof of purchase before any warranty performance is rendered. To obtain warranty parts and service, you must have a warranty registration card filed with Golden Technologies, Inc. Contact your Golden *Compass*™ dealer for authorized service.

The warranty period commences on the purchase date from the Seller/Dealer. If the product is rented or otherwise not sold to the consumer, the warranty commences on the invoice date from Golden Technologies, Inc.

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

Golden Technologies, Inc. shall not be liable for incidental or consequential damage resulting from the use of this product or arising out of any breach of this warranty.

GOLDEN *Compass*™ Warranty Registration

Please type or print.

Serial # _____ Date Purchased _____

Owner Name _____

Address _____

City _____ State _____ Zip _____

Failure to return warranty registration card could result in significant delays in obtaining service.

Optional Information (Used for Marketing Information)

Height _____ Weight _____ Age _____

Sex _____ Physical Limitations _____

_____

If you are satisfied with your *Compass*™, let us help other family members and friends. Please fill in the following.

(Please type or print.)

Name _____

Address _____

City _____ State _____ Zip _____

Additional Required Owner Information

Please indicate your understanding of your Golden *Compass*™ by completing the following information.

_____ I have read and fully understand:

_____ My Golden *Compass's* Owner's Manual, especially the sections on operating instructions, safety guidelines, maintenance and battery instructions.*

_____ *Compass*™ Warranty

* Battery Instructions - only sealed lead acid, GEL-cell or AGM 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 Golden *Compass*™ dealer has instructed me on how to operate my power chair.

Signature _____

Telephone (_____) _____

GOLDEN technologies

YOUR LIFE IN MOTION

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