

# golden **Avenger**



Model GA 531



Model GA 541



YOUR LIFE IN MOTION

401 Bridge Street, Old Forge, PA 18518  
Tel: 800-624-6374 Fax: 570-451-7494  
[www.goldentech.com](http://www.goldentech.com)

Your Avenger™ package should include the following items. If your package arrived without any of the following items, please contact us right away!

- 1) Owners Manual
- 2) Battery Charger
- 3) Batteries (If ordered)
- 4) Seat Arm Rests
- 5) Keys
- 6) Avenger™ Scooter

#### DISCLAIMER

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 Avenger™ scooter. 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.

## CONTENTS

---

I.	Introduction.....	4
II.	Safety.....	6
III.	EMI/RFI.....	9
IV.	Your Golden Avenger™.....	10
V.	Operation.....	12
	Hand Controls	
	Seat Controls	
VI.	Riding Your Avenger™.....	16
	Mounting	
	Basic Driving	
	Control Through Tight Spots	
VII.	Disassembly.....	20
VIII.	Assembly.....	25
IX.	Transporting Your Avenger™.....	27
X.	Diagnostics.....	28
XI.	Care and Maintenance.....	29
	Main Circuit Breaker	
	Wheels and Tires	
	If your Avenger™ does not operate	
	Lubrication	
	Charger and Batteries	
	Battery Maintenance	
	Battery Cable Installation	
	Cleaning your Avenger™	
XII.	Warranty.....	35

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

Please read, understand and follow all of the instructions and suggestions in this manual before you operate your Avenger™ for the first time. The safe use of your new scooter is very important and starts with you. Your new Avenger™ is user-friendly and designed for maximum maneuverability in even the tightest spaces.

If you feel uncomfortable with your new Avenger™ or do not understand the instructions 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 Avenger™, please contact the home health care dealer you purchased this scooter from or contact Golden Technologies 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.

Please fill out and mail the enclosed warranty registration card. We at Golden Technologies Inc, would appreciate hearing about your experience with your new Avenger™ scooter!

Please mail your warranty card to:

Golden Technologies Inc  
Warranty Registration Office  
401 Bridge Street  
Old Forge, PA 18518

Phone: 570-451-7477  
Fax: 570-451-7494

**Stop by our website 24 hours a day!!!**

[www.goldentech.com](http://www.goldentech.com)

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

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

#### BEFORE GETTING ON YOUR AVENGER™

- Check to be certain that the power is turned off. See “Operation” section in this manual. This will eliminate the possibility of accidentally activating the thumb lever controls and causing injury to you or to others.
- Check to be certain that your Avenger™ brake handle is in the engaged position. See the “Disassembly” section in this manual.
- Flip up the armrests.



**WARNING: WHEN GETTING ON OR OFF YOUR AVENGER™, DO NOT PUT MOST OR ALL OF YOUR WEIGHT ON THE EDGE OF THE DECK. DOING SO MAY CAUSE THE SCOOTER TO TIP.**

#### GETTING ON YOUR AVENGER™

- Position the seat for safe and easy mounting. See: “Operation” section.
- Carefully place one foot on the approximate center of the deck and seat yourself comfortably and securely on the seat.
- Fasten the lap belt, if your scooter is so equipped.
- Flip down the armrests.

#### GETTING OFF YOUR AVENGER™

- Make certain that the power is turned off and key is removed!
- Flip up the armrest.
- Unfasten the lap belt, if your scooter is so equipped.
- Carefully place one foot on the ground, transfer your weight to that leg, and slowly come to a standing position.
- Step away from the scooter.

#### MAXIMUM WEIGHT

Your Avenger™ has been rated to a maximum payload ( includes operator and any other carry on baggage ) of 500 pounds. Exceeding the maximum weight rating will void the warranty.



**WARNING: EXCEEDING THE MAXIMUM WEIGHT RATING MAY ALSO RESULT IN INJURY TO YOURSELF AND TO OTHERS.**

## SAFETY

### DRIVING ON AN INCLINE

- For maximum stability, lean forward in your Avenger™ seat while proceeding up ramps, slopes, curbs, or any low rise.
- 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 Avenger™ 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 a slope whose gradient is greater than recommended. See “Specifications” section.



**WARNING: IF, WHILE YOU ARE DRIVING DOWN A SLOPE, YOUR SCOOTER STARTS TO MOVE FASTER THAN YOU FEEL IS SAFE, RELEASE THE THUMB LEVER AND ALLOW YOUR AVENGER™ TO COME TO A STOP. WHEN YOU FEEL THAT YOU AGAIN HAVE CONTROL OF YOUR SCOOTER, PUSH THE THUMB LEVER FORWARD AND CONTINUE SAFELY DOWN THE REMAINDER OF THE SLOPE.**

### DRIVING DOWN AN INCLINE

- Whenever it is safely possible, drive forward down any ramp, low rise, or incline.

Golden Technologies Inc. does not recommend that you drive your scooter in reverse down any incline, ramp, curb, or low rise. Backing down any slope may create a very hazardous situation.

If it is necessary to back down a slope follow one of two procedures.

## SAFETY

Note: When using either of the following procedures to back down a slope, Golden Technologies strongly advises that you have the assistance of another person.

### Procedure 1

1. Set the key switch to the "Off" position. See "Operation" section.
2. Dismount your Avenger™.
3. Put your scooter in the freewheel mode. See "Disassembly" section.
4. While standing alongside the scooter, carefully manually maneuver it down the slope.
5. When you have reached a level surface at the bottom of the slope, position the free-wheel lever in the engaged position. See "Disassembly" section.
6. Carefully remount your Avenger™ and resume normal operation.



**WARNING: WHEN YOUR SCOOTER IS IN FREEWHEEL MODE, THE BRAKE IS RELEASED. THE WEIGHT OF THE SCOOTER ON A SLOPE MAY CAUSE YOU TO LOSE CONTROL OF THE SCOOTER. IF YOU DO NOT FEEL CAPABLE OF MANUALLY CONTROLLING YOUR SCOOTER DOWN THE SLOPE, REQUEST ASSISTANCE OR DO NOT ATTEMPT TO USE THIS PROCEDURE.**

### Procedure 2

1. Set the key switch to the "Off" Position. See "Operation" section.
2. Dismount your Avenger™
3. Set the key switch to the "On" position. See "Operation" section.
4. While standing alongside your scooter, carefully operate the controls at the lowest speed setting. See "Operations" section.
5. Slowly and carefully back your scooter down the incline.
6. When you have reached a level surface at the bottom of the slope, position the free-wheel lever in the engaged position. Carefully remount your Avenger™ and resume normal operation.

### 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 Avenger™. Also check with your physician concerning your physical ability to operate a scooter.



**WARNING: DO NOT CONNECT OR ALLOW ANYONE EXCEPT AN AUTHORIZED GOLDEN TECHNOLOGIES REPRESENTATIVE TO CONNECT ANY ELECTRICAL OR MECHANICAL DEVICE TO YOUR AVENGER. UNAUTHORIZED ACCESSORIES WILL VOID THE WARRANTY AND MAY CAUSE INJURY.**

*Please use your Golden Avenger™ scooter often and allow it to expand the horizons of your daily life. But as with all things, especially motor operated vehicles, observing a few rules and safety considerations will help ensure safe scooter operation. So please follow the rules below.*

*Note: Please remember that while on your Golden Avenger™, you are a motorized pedestrian. You must observe and obey all pedestrian rules and regulations for the locale in which you are riding.*

## **SAFETY**

### **RULES FOR USE AND OTHER SAFETY CONSIDERATIONS**

- Read completely and understand this owner's manual before assembling, operating, transporting, or disassembling your Golden Avenger™.
- Always operate your Golden Avenger™ with thought, care and safety.
- Do not attempt to use your Avenger™ on an escalator. Always use in an elevator.
- Do not carry passengers under any circumstances.
- Do not mount or dismount your Golden Avenger™ unless the brake is engaged.
- Make certain that the key switch is set to "off" before mounting or dismounting your scooter.
- Do not back your Golden Avenger™ down an incline or across an uneven surface.
- Do not turn your scooter suddenly at full speed.
- Make certain that the seat is locked in the forward position before operating your Avenger™.
- Always come to a full stop before changing direction from forward to reverse or from reverse to forward.
- Do not operate your Avenger™ where you could not safely or legally walk.
- Do not climb ramps or curbs that exceed your scooter's capacity.
- Always approach curbs and inclines straight on.
- Be aware of and careful near mechanical pinch points (for example, when mating the rear carriage to the front frame, especially when assembling and disassembling your scooter. See Assembly/Disassembly section.
- Never sit on your Avenger™ when it is being transported.
- When your Avenger™ is being transported, make certain that it is securely fastened down with an approved tie-down system.
- Do not operate your vehicle if it is not functioning properly.
- Use caution when driving on soft or uneven surfaces such as grass and gravel.
- Also use caution on decks where there is no railing.
- Never drive on the roadway, except when you must cross the street.
- Do not attempt to drive your Avenger™ up or down a step or curb that is higher than three inches.
- Never back up or down a step or curb.
- Never operate your Avenger™ while you are under the influence of alcohol or any other controlled substance.



**WARNING: TURNING TOO SHARPLY AROUND A CORNER CAN CAUSE THE SCOOTER TO TIP. AVOID THIS DANGER AT ALL TIMES BY STEERING A WIDE ARC AROUND CORNERS AND OBSTACLES. ALSO, TO AVOID THE RISK OF TIPPING, REDUCE SPEED BEFORE NEGOTIATING ANY TURNS.**



## **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 (AM radios), wireless computers 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 AVENGER™**

All electrically powered vehicles, including scooters are susceptible to EMI / RFI. This interference could result in abnormal, or unintended movement of your Golden Avenger™.

 **WARNING: UNINTENDED MOVEMENT OR BRAKE RELEASE COULD CAUSE AN ACCIDENT OR INJURY.**

The FDA has determined that each make and model of scooter can resist EMI / RFI to a certain level. The higher the level of resistance, 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 resistance to EMI/RFI, which would provide useful protection against common sources of interference. The resistance level of the Golden Avenger™ is not known.

### **EMI / RFI RECOMMENDATIONS**

- Do not turn on or use hand-held personal electronic communication devices such as cellular phones, walkie-talkies, or CB radios while your scooter is turned on.
- Be aware of any nearby transmitters (radio, television, microwave, etc.) on your intended route and avoid operation your of scooter close to any of those transmitters.
- Turn off the power if your Avenger™ is going to be in a stationary position for any length of time.
- Be aware that adding accessories or components or modifying your scooter may make it more susceptible to EMI / RFI.
- If unintended movement or brake release occurs, turn your scooter 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 SCOOTER AS SOON AS IT IS SAFELY POSSIBLE IF UNINTENDED OR UNCONTROLLABLE MOTION OCCURS OR IF UNINTENDED BRAKE RELEASE OCCURS.**

# SCOOTER INSTRUCTIONS



## FOR YOUR RECORDS:

Please fill in your Avenger™ information below. This information will be useful in the event that you ever need to contact Golden Technologies concerning your scooter.

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

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

Options \_\_\_\_\_

Your Golden representative or dealer

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

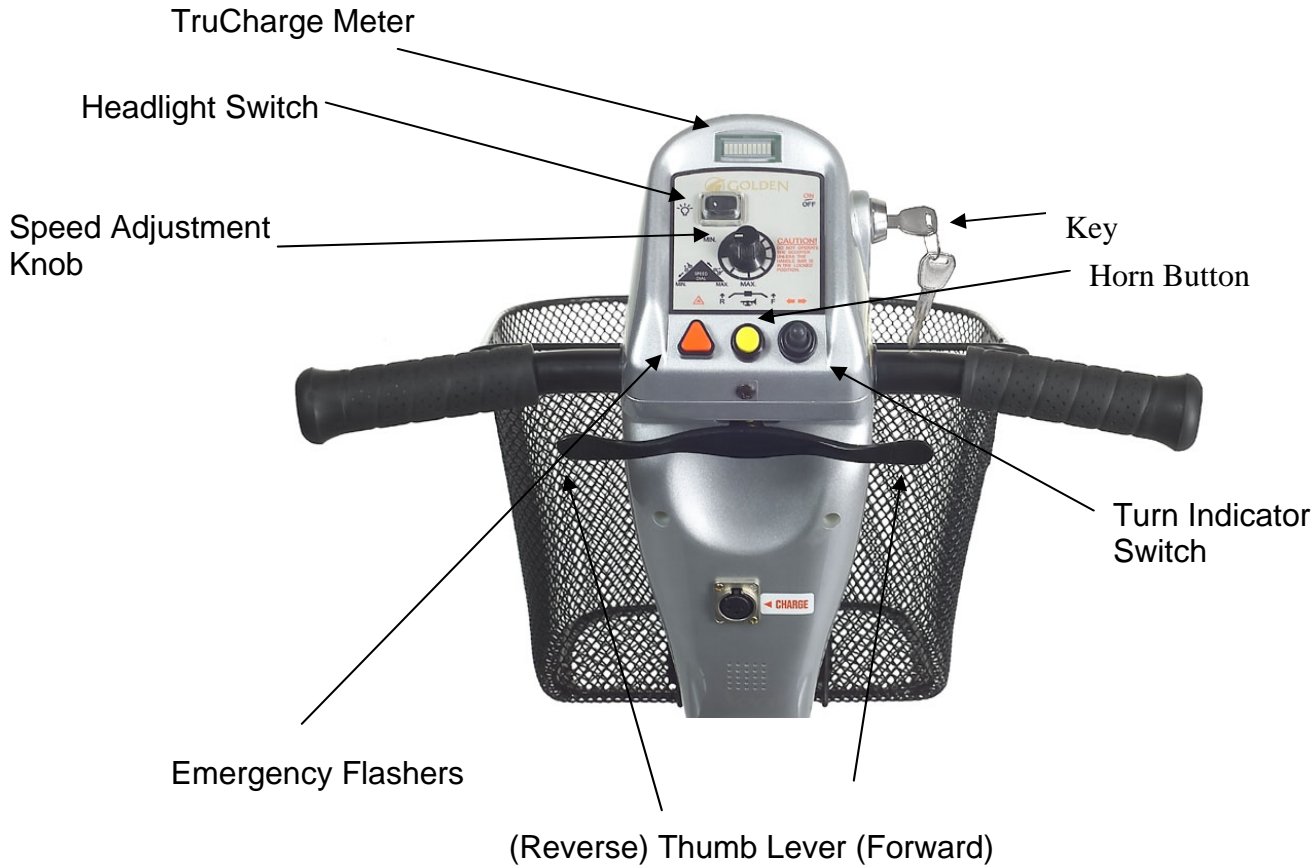
\_\_\_\_\_

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

## TECHNICAL SPECIFICATIONS INFORMATION

Specification Name	Three-wheel model	Four-wheel model
Length	51.5"	57.5"
Width	24.5"	24.5"
Tires	Pneumatic	Pneumatic
Front	10"x3.5"	13"x4"
Rear	13"x4"	13"x4"
Weight Capacity	500 pounds	500 pounds
Maximum Speed	7.5 mph	7.5 mph
Ground Clearance	5"	4.5"
Operating Range	10-15 miles	10-15 miles
Turning Radius	41"	48"
Batteries (2)	12 VDC – 55AH Nf22	12 VDC – 55Ah Nf22
Weight		
Seat	62.5 pounds	62.5 pounds
Seat w/o arms	pounds	pounds
Front half	45.5 pounds	70 pounds
Rear half	54.4 pounds	58.4 pounds
Freewheel mode	Yes	Yes
Maximum incline	8 degrees	8 degrees
Electronic speed control	Yes	Yes
Brakes	Electro-mechanical	Electro-mechanical
Charger	Off board 5 amp	Off board 5 amp
Rear wheel drive	Sealed transaxle, motor 24 VDC 4-pole	Sealed transaxle, motor 24 VDC 4-pole
Controller	110 amp programmable P/G EGIS	110 amp/programmable P/G EGIS
Flashers/Turn indicators	Rear flashers/turn indicators	Forward and rear flashers/turn indicators
Warranty – Motor / Electronics	2 Years	2 Years
Electronics warranty excludes batteries		
Warranty – Frame	Limited Lifetime	Limited Lifetime

## AVENGER™ OPERATION



### Hand Controls

#### Speed Adjustment Dial

The speed adjustment dial allows you to pre-select the maximum top speed of your Golden Avenger™.

- Turn the dial completely counterclockwise to operate your scooter at the lowest top speed.
- Turn the dial clockwise to increase the operational speed of your scooter.

We recommend that you select a speed setting at which you feel comfortable, safe, and in control of your Avenger™.

#### Key Switch

This switch turns the power of your Avenger™ on and off.

- Insert the key into the key hole and turn clockwise. Notice the TruCharge volt meter/ diagnostics gauge will illuminate. Once illuminated, your scooter is powered On.

**Note:** Always make certain that the key is removed from the key switch before getting on or off your Golden Avenger™.

## **OPERATION**

When the power to your Avenger™ is turned on the TruCharge volt meter/ diagnostics gauge will illuminate. This gauge is used for battery condition and diagnosing operational problems that may arise. See "Diagnostics" section.

### **Horn Button**

Press this button to sound the horn.

### **Thumb Lever Control**

This self-centering lever system controls your Avenger™ speed (up to the maximum speed set by the speed adjustment dial) as well as the forward and reverse direction. This control system is also called the "Wig-wag".

To drive forward:

- Place your hands on the handgrips.
- Use your thumbs to operate the control lever.
- Use your right thumb to press lightly on the "F" ( forward motion) lever to move your scooter forward.
- Increase the pressure applied by your thumb to increase your forward speed.
- To stop your Avenger™, release all pressure on the lever. The lever will automatically return to the center (neutral) position and your scooter will come to a gradual stop.

Note: Always bring your Avenger™ to a full stop before changing direction from forward to reverse, or from reverse to forward.

To drive in reverse:

- Place your hands on the handgrips.
- Use your thumbs to operate the control levers.
- Use your left thumb to press lightly on the "R" (reverse motion) lever to move your scooter in reverse.
- Increase the pressure applied by your thumb to increase your reverse speed.
- To stop your Avenger™, release all pressure on the lever. The lever will automatically return to the center (neutral) position and your scooter will come to a gradual stop.

## OPERATION

### The TruCharge volt meter/ diagnostics gauge.

This meter shows the amount of voltage in your Avenger™ batteries and is also the diagnostics gauge.

- 10 bars lit indicates full battery charge.
- 6 or 7 bars lit, charge your batteries.

Note: Your scooter will automatically turn itself off if the battery output falls to 18 V DC or lower.

### Tiller Adjustment

The tiller on your Avenger™ scooter employs an adjustment lever to provide you with infinite tiller angle settings. To set the tiller to your liking, follow these directions:

- Use one hand to grasp a handgrip.
- Use your other hand to loosen the adjustment lever.
- Position the tiller to a comfortable driving position.
- Tighten adjustment lever.

**NOTE:** The length of your Avenger tiller can be extended by the removal of tiller plastic, removal of 2- 6mm machine screws. The tiller can be lengthened by 3" and the replacement of 1 of the 6mm machine screws. (Picture not shown)



Adjustment  
Lever



**WARNING: BE SURE THE TILLER ADJUSTMENT LEVER IS FULLY TIGHTENED BEFORE OPERATING THE SCOOTER.**

## OPERATION

### SEAT CONTROLS

Armrest Height Adjustments can be made by removing the 2 screws on the back of the armrest and raising to a comfortable position and resetting the screws. The armrest can be raised 3" and by replacing only 1 screw. You can raise the armrest and replace both screws. You will require a 6mm allen wrench for this task.



### Armrest Width Adjustment

To adjust the armrest width:

1. Loosen the (2) 6mm adjustment screws at the rear of each arm. Slide each arm to the desired width and tighten the screws.



### Seat Height Adjustment (Picture Not Shown)

To adjust the seat height: Lift up on seat rotate lever and turn seat either left or right, lift seat straight up. Holding rotate lever in the up position while lifting seat may make this task easier. Remove 17mm machine screw and place seat post at the desired height and re-insert screw.



### Seat Rotation Lever

The seat can be rotated through 360° and locked at any 90° position.

1. Pull up on the seat rotate lever and rotate the seat to the desired position.
2. Release the handle to lock the seat at any 90° position.



**WARNING: DO NOT ATTEMPT TO DRIVE YOUR AVENGER IN ANY SEAT POSITION OTHER THAN FULLY FORWARD.**

### Flip-Up Armrests

Pull up on the end of either armrest to flip it up for easy transfer on and off your Golden Avenger™.

### Seating

The Golden Avenger™ seat is available only in gray vinyl.



## RIDING YOUR AVENGER™

### MOUNTING

Note: For your first driving sessions, make certain that your Golden Avenger™ starts out on a level surface and that you will continue driving on a level surface.

To get on Your Avenger™

1. Stand behind your Avenger™
2. Make certain that the brake handle is in the "Forward" position.
3. Pull up on the seat rotate lever.
  - This lever is normally located on the right-hand side of the seat.
  - Pull the lever up, and position the seat in a comfortable position for seating.
  - Release the lever to lock the seat into one of the four preset locking positions.



**WARNING: BE SURE YOUR SEAT IS LOCKED IN THE FORWARD POSITION BEFORE OPERATING.**

- Make certain that the seat is positioned for safe and easy mounting.
- Position yourself in the seat.
- Use the seat rotate lever to position the seat in the fully forward direction.
- Fasten your lap belt, if your Avenger™ is so equipped.

### BASIC DRIVING

1. Make certain that you are seated safely and properly on your Avenger™.
2. Turn the speed control dial fully counterclockwise to its slowest setting.

**NOTE:** Reverse movement of the scooter may not occur when the speed control dial is set fully counterclockwise at its slowest setting.

3. Insert the key into the keyhole.
4. Push the key all the way into the key receptacle and turn clockwise to power the scooter.
5. Place your hands on the handgrips.
  - a. If you wish to drive forward, position your right thumb on the right thumb lever and push forward.



- b. If you wish to drive in reverse, position your left thumb on the left thumb lever and push forward.
6. Press against the thumb lever to gently accelerate your Avenger™.
7. Release the lever to allow your Avenger™ to come gently to a full stop.
8. Practice these two basic functions until you feel that you have control of your scooter.

### Steering

Steering your Golden Avenger™ is easy and logical.

1. With both hands on the handgrips of the tiller, turn the tiller to the right to travel to the right.
2. With both hands on the handgrips of the tiller, turn the tiller to the left to travel to the left.
3. Make certain to maintain sufficient clearance when turning your scooter so that the rear wheels will clear any obstacle.



**WARNING: TURNING TOO SHARPLY AROUND A CORNER CAN CAUSE THE SCOOTER TO TIP. AVOID THIS DANGER AT ALL TIMES BY STEERING A WIDE ARC AROUND CORNERS AND OBSTACLES. ALSO, TO AVOID THE RISK OF TIPPING, REDUCE SPEED BEFORE NEGOTIATING ANY TURNS.**

### Steering in a tight spot

If you must steer in a tight spot, such as entering a doorway or when turning around:

1. Bring your Avenger™ to a full stop.
2. Turn the speed control dial to the slowest setting (Fully counter clockwise)
3. Turn the tiller to the direction in which you wish to drive.
4. Press gently on the appropriate thumb lever and slowly turn your Avenger™.

For more information on dealing with obstacles and tight spots, see “Control through Tight Spots” on the next page.

### Steering in Reverse

Backing up your Avenger™ requires attention to what you are doing

1. Use your left thumb to press against the left thumb lever.
2. Turn the tiller to the left to drive in reverse to the left.
3. Turn the tiller to the right to drive in reverse to the right.

Note: Your Avenger™ speed in reverse is fifty percent of the maximum speed set at the speed control dial.

## **RIDING YOUR AVENGER™**

### Control through tight spots

As you use your Avenger™ 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 scooter. 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 scooter 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 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 scooter to do the majority of the work for you.

If the door opens away from you:

1. Use one hand to turn the doorknob or to operate the push bar.
2. Use your other hand to steer the scooter and to gently press on the thumb lever that will move your scooter 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 scooter 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 doorknob or to pull the handle.
2. Keep your grip on the knob or on the handle.
3. Use your other hand to steer your scooter and to gently press the thumb lever that will move your scooter slowly in reverse.
4. Allow the power of your Avenger™ to pull the door completely open.
5. When the door is completely open, stop your scooter.
6. Drive through the doorway while keeping your hand on the door to prevent it from hitting or blocking your scooter.
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 scooters and for other mobility vehicles.

## RIDING YOUR AVENGER™

When proceeding up any ramp, curb, or incline:

- Lean forward in your seat to move your center of gravity forward for maximum stability and safety.

If the ramp has a switchback, good cornering ability is required.

- Maneuver your scooter so that the front wheels take wide swings around the corners of the ramp.
- Doing this will allow your scooter's back wheels to follow a wide arc around the corner, staying clear of obstacles.

If you must stop your scooter while driving up a ramp:

- Starting up again simply requires that you apply gentle and steady forward power (pressure to the right-hand thumb lever).
- Accelerate gently after stopping on any incline.

Driving down a ramp:

- Keep your Avenger™ speed control dial set fully counterclockwise at the slowest speed setting.
- If you must come to a stop, release the thumb control lever slowly and smoothly.



### Curbs

- Always use caution when negotiating any curb.
- Go up or down a curb only at a direct angle.
- Approach and negotiate the curb so that both back wheels of your scooter go over the curb at the same time.
- Never negotiate inclines or curbs by traversing them. Doing so may cause the scooter to tip over.
- Go down a curb slowly to avoid a jarring bump. Use as little power as possible.

### Grass and Gravel

Your Avenger™ performs admirably on grass, gravel, and hills, but you must follow the operational parameters presented in this manual. Refer to the "Safety" section. If you are unsure about any situation, avoid it. Common sense is your best protection.

- Feel free to use your Avenger™ on lawns or in park areas.
- Avoid long or high grass, which may wrap around your scooter's axles.

## **DISASSEMBLY**



Your Avenger™ scooter is designed to be disassembled in order to be transported. When disassembling your Avenger™, please be sure to follow these simple instructions.

Step 1 - Place your scooter on a level surface. You will be disengaging your brake during disassembly; therefore it is very important to assure that your scooter will not roll.



**WARNING: BE SURE YOUR KEY IS OUT OF THE KEY HOLE BEFORE YOU BEGIN DISASSEMBLING YOUR AVENGER™.**

Step 2 - (Optional) Remove the arms from the seat. This will reduce the weight of the seat making it easier to lift.

Step 3 - Remove the seat from the scooter – Your seat must be turned to either the left or right position to be removed out of the post. Grip the seat on opposite sides and, with a firm grip, pull the seat straight up to remove.

## DISASSEMBLY

Step 4 - Remove the battery cover – This will give you access to the batteries, wire connections, and the main connection pin.



Step 5 - Unplug the following connections (see photos on the following pages).

1. Unplug the two gray battery connectors.
2. Undo the two Velcro retaining straps and remove batteries.
3. Unplug the large white main cable connector.
4. Unplug the small white charger connector.
5. Unplug the gray rear lights connector.

Step 6 - Remove safety retaining clip from the ball detent pin and pull pin out.

Step 7 - With one hand grab top of seat post, with your other hand grab curved rear frame support member. Lift and separate front half from rear.

NOTE: The 3 wheeler breaks apart in a slightly different way in that the seat post is on the rear frame.

## AVENGER™ ASSEMBLY/DISASSEMBLY

**WARNING: DO NOT SIT ON YOUR AVENGER™ UNLESS BALL DETENT PIN IS INSERTED AND RETAINING CLIP RE-INSTALLED IN BALL DETENT PIN.**

**WARNING: BE CAREFUL NOT TO PINCH YOUR FINGER(S) BETWEEN FRAME HALVES DURING RE-ASSEMBLY.**



Step 5, Number 1:  
Unplug the two gray  
battery connectors.

## **DISASSEMBLY**



Step 5, Number 2:  
Undo the two Velcro retaining straps and remove the batteries.



Step 5, Number 3:  
Unplug the large white main cable connector.



Step 5, Number 4:  
Unplug the small white charger connector.



Step 5, Number 5:  
Unplug the gray rear lights connector.

## DISASSEMBLY



Step 6:  
Remove the safety retaining clip from the ball detent pin and pull the pin out.



Step 7:  
With one hand, grab the top of the seat post, with your other hand grab the curved rear support member. Lift and separate front half from rear.



## **DISASSEMBLY**

Now you are ready to load the scooter into your vehicle. Please note the Avenger will not fit into the trunk of a compact car.



**WARNING: DO NOT SIT ON YOUR AVENGER UNLESS THE BALL DETENT PIN IS INSERTED AND THE RETAINING CLIP IS RE-INSTALLED IN THE BALL DETENT PIN.**

**WARNING: BE CAREFUL NOT TO PINCH YOUR FINGER(S) BETWEEN FRAME HALVES DURING RE-ASSEMBLY.**

**ASSEMBLE IN REVERSE ORDER.**



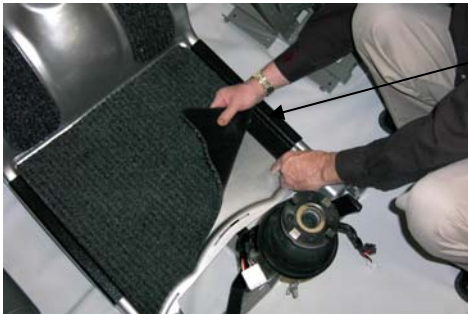
## ASSEMBLING YOUR AVENGER™ Summary Sheet

Before you begin to assemble your Avenger, make certain you have all of the parts in front of you, including the seat with armrests attached, the front component, rear component, and battery pack. Below are instructions with photos of how to assemble your Avenger's frame.



Step 1: Line up the front and rear components.

**WARNING: Watch finger placement! Be careful not to pinch your fingers!**



Look here to find your units serial number.



Step 2:  
Connect the front and rear sections and the components.

**WATCH YOUR FINGERS!!!**

## ASSEMBLING YOUR AVENGER™



Notice how the front component connects easily to the rear component.

Step 3:  
Connect the ball detent pin.  
Make certain the ball detent pin is fully installed and tightened.

### Additional Steps to Re-assembling your Avenger™:

Once you've joined the front and rear components and connected the ball detent pin, you must:

1. Install the battery pack in the proper location.
2. Connect the motor, brake, battery and charger connections.
3. Replace the battery cover.
4. Install the seat.
5. Position the tiller. **WARNING:** Make sure you tighten your tiller to be sure it is locked!
6. Unlock your front wheel lock knob. **WARNING:** If you do not unlock the lock knob, the tiller will not turn. This can lead to a failure to turn when operating your Avenger™.

## **Transporting Your AVENGER™**

**Note:** Avenger™ scooters can be equipped with docking devices for loading into/onto a vehicle by means of mechanical lift or hoist. Golden Technologies does not sell this lifting equipment, however you may contact your local home health care dealer for more information.

To transport your Avenger™

You will want to consider the best way for transportation. Do you own a van? Do you own a SUV? Depending on what type of vehicle you transport the Avenger™ in, you will want to plan where you will store your scooter while driving.

**NOTE: The Avenger will not fit in the trunk of a compact car.**

- Disassemble or fold down the seat and tiller to easily load into your vehicle.
- Do not lift your Avenger™ by its plastic body parts. These parts are not designed to be used as handles. Also, damage to these parts is NOT covered in any warranty.
- Do not use tires or wheels to lift the rear carriage. The carriage may rotate and cause injury or damage.
- Use moving blankets or other forms of padding to protect your Avenger™ during transportation.



**WARNING: IF YOUR SCOOTER AND ITS COMPONENTS ARE NOT PROPERLY AND SECURELY STOWED, THE SCOOTER OR COMPONENTS MAY SHIFT WHILE DRIVING CAUSING INJURY OR DAMAGE.**

**Note: If you use an outside lift system, be sure to secure your battery cover as it could blow away in high winds. Also, if any electronics are exposed to moisture they may fail.**

## DIAGNOSTICS SYSTEM

### TruCharge Battery Display Diagnostics

NOTE: When the display is down to two (2) bars, the batteries must be charged before driving your Avenger.™

<b>Fault Type</b>	<b>Description</b>	<b>Bars</b>	<b>Self Help Guide</b>
1	Show if reaching low voltage	1 bar	The battery needs charging or there is a bad connection to the battery. Check all connections between the controller and the battery. If the connections are good, try charging the battery.
2	Motor disconnected	2 bars	There is a bad connection to the motor. Check all of the connections between the motor and the controller.
3	Motor wiring fault	3 bars	The motor has a short circuit to a battery connection. Contact your service agent.
4	Parking brake off	4 bars	The freewheel switch or manual brake disengagement mechanism is operated. Check the position of the switch or lever.
5	Not used	5 bars	Not used.
6	Inhibit active	6 bars	The controller is being inhibited from driving; this may be caused because the battery charge is still connected or the seat is not in the proper driving position.
7	Throttle potentiometer fault	7 bars	A throttle fault is indicated. Make sure the throttle is in the rest position before switching on the scooter.
8	Possible controller fault	8 bars	A controller fault has been indicated. Contact your service agent.
9	Solenoid brake fault	9 bars	There is a bad connection to the parking brake. Check all connections between the parking brake and the controller.
10	High battery voltage	10 bars	An excessive voltage has been applied to the controller. This is usually caused by a poor battery connection. Check all connections between the battery and controller.



**WARNING: DO NOT OPERATE THE SCOOTER IF THE BATTERY IS NEARLY DISCHARGED. FAILURE TO COMPLY WITH THIS CONDITION MAY LEAVE THE USER STRANDED IN AN UNSAFE POSITION.**

## CARE AND MAINTENANCE



This is the “LED” light that will flash in the event of a problem.

### Main Circuit Breaker

The 50-amp circuit breaker and exposed reset button are located under the battery cover. The button is visible through the battery cover. If your Avenger™ fails to operate, your main circuit breaker may have tripped.



**WARNING: DO NOT ATTEMPT ELECTRICAL REPAIRS. CONSULT GOLDEN TECHNOLOGIES OR YOUR AUTHORIZED GOLDEN DEALER.**

Possible causes for the main circuit breaker to trip:

- “Run-down” batteries.
- Over exerting the motor.

Possible solutions:

- Recharge your batteries.
- If the problem persists, have an authorized Golden dealer “load test” the batteries to assure they are not damaged.
- If the problem persists, assure your battery charger is operating properly.

### Resetting the Main Circuit Breaker

If the main circuit breaker trips as a result of “run-down” batteries or because of a temporary overload, reset the circuit breaker using the following directions:

1. Wait 5 minutes to allow the motor and electronics board to cool, or return to “normal” operating temperature.
2. Press in on the main circuit breaker reset button.



**WARNING: BE SURE YOU REMOVE THE KEY FROM THE KEY RECEPTACLE BEFORE RESETTING YOUR SCOOTER.**

Circuit Breaker



Found on the rear of the unit next to the freewheel brake release.

**NOTE:** If the main circuit breaker continues to trip, there is an underlying electrical fault that needs professional attention. Please contact your local Golden Technologies Dealer.

**Note:** Do not reset your main circuit breaker repeatedly. You must correct the underlying problem. Failure to correct the problem could cause injury or damage and will void the warranty.

## **CARE AND MAINTENANCE**

### Wheels and Tires

Your Avenger™ scooter is equipped with pneumatic tires with “split-rim” wheels.

**WARNING: NEVER DISASSEMBLE WHEELS UNLESS ALL OF THE AIR HAS BEEN RELEASED THROUGH VALVE STEMS.**



How to change a tire assembly:

1. Remove the center nut.
2. Remove the tire assembly from the scooter
3. Install a new tire assembly onto the axle.
4. Install and tighten the center nut.

NOTE: All tires on your Avenger™ are pneumatic.

### IF YOUR AVENGER™ DOES NOT OPERATE

- Make certain that the brake handle is set to the engaged (forward) position.
- Check the main circuit breaker. If necessary, reset the circuit breaker.
- Make certain that the speed adjustment dial is at the desired setting.
- Be sure that the key is all the way in the key receptacle and the scooter is “ON” (note, the green “LED” light is illuminated)

IF NONE OF THE ABOVE PROCEDURES SOLVE THE PROBLEM, CONTACT YOUR AUTHORIZED GOLDEN TECHNOLOGIES DEALER.

### LUBRICATION

All of the bearings on your Golden Avenger™ are permanently lubricated and sealed.

- No lubrication is required
- Do not lubricate the motor or transaxle.

## CARE AND MAINTENANCE

### Charger and Batteries

The Batterys are under the rear shroud. The charger is located in the pocket on the back of the scooter seat.

To charge the batteries, plug the charger into the tiller and the other end into a standard wall outlet.



#### To Charge the Batteries:

1. Make certain your key is in the "OFF" position.
2. Remove charger from pouch on the back of the seat.
3. Plug the charger AC cord into a working electric outlet and the 3-pin DC plug into the back of the tiller  
Note: A red and amber "LED" light should now illuminate, showing the batteries are charging.
4. When the charging cycle is complete the amber L.E.D. will turn green indicating a complete charge.
5. Unplug and stow the charger into the seat pouch.

#### Simple Tips:

- Check the battery connections.
- It may be necessary to have the batteries "load tested" by your dealer.
- It may be necessary to have the charger tested.



## **CARE AND MAINTENANCE**



**WARNING: THE BATTERIES USED ON YOUR SCOOTER HOLD A SUBSTANTIAL AMOUNT OF POWER. SHORTING OF THE TERMINALS CAN RESULT IN BURNS OR OTHER INJURIES AND IN DAMAGE TO THE BATTERIES AND TO THE ELECTRONIC COMPONENTS OF YOUR AVENGER. ALWAYS USE CARE AND CAUTION WHEN HANDLING THE BATTERIES.**

### Battery Charging Information

Note: Your scooter may be equipped with either “GEL”, “Silicone”, or “AGM” batteries. These batteries do NOT have “Memory”. It is not necessary to completely discharge the batteries before charging them.

Note: If you are not going to use your Avenger™ for an extended time, fully charge the batteries before storing your scooter. The batteries can be left unmaintained for up to 6 months if they are first fully charged and kept at room temperature (approximately 72° F).

Note: if you have not used your scooter for more than three days, make certain that you charge the batteries on the night before you are going to use your scooter. This will ensure that you start operating your scooter with a full charge on the batteries.

Note: If you use your scooter during the day, charge the batteries as soon as you are finished using it. The charger is fully automatic. You cannot overcharge the batteries. Following this procedure will prepare your scooter for a full day's service each day.

Note: If you use your scooter sparingly over the course of the day, and have not reduced the charge on the batteries by any great amount, it may not be necessary to charge the batteries every night.

### Battery Maintenance

Gel-cell or AGM deep-cycle batteries are used for operating your Avenger™

- These batteries are maintenance free.
- There is no danger of spillage or leakage, so these batteries are transportable on aircraft, buses, trains, etc.
- By following the procedures set out in this manual, you can expect extended life from your batteries.

## **CARE AND MAINTENANCE**

If the battery terminals become corroded:

- Corrosion can cause a poor electrical connection and operational problems.
- Clean corroded battery terminals with a stiff brush and a solution of baking soda and water.

### CLEANING YOUR AVENGER™

#### Tires

- Clean the tires with ordinary kitchen-type cleaners and a damp cloth.
- Do not use solvents on tires. Solvent can cause the tire material to break down or become too soft.

#### Body

The body (rear shroud, deck shroud) of your scooter is formed ABS plastic and coated with a durable automotive-type finish.

- Clean the body of your scooter as you would clean a car.
- Use cool water mixed with a mild soap to remove dirt and oils.
- Use a non-abrasive car wax on the ABS body parts.
- Buff by hand with a soft cloth.

#### Seat

##### Vinyl Seat:

- A vinyl cleaner may be used.

## Consumer Limited Warranty

### *Scooters*

**Effective June 1, 2008**

**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. This warranty supersedes all previous warranties for all scooter models effective June 1, 2008.**

**The warranty covers the following scooter models:**

- ◆ Buzzaround
- ◆ Companion GC222/223
- ◆ Companion
- ◆ GB106/106XR/106XP3
- ◆ Avenger GA531/541
- ◆ GC322/323/325
- ◆ Liteway GL100
- ◆ Companion GC422

### ***Lifetime Limited Warranty:***

For the life of the scooter, from the date of purchase from an authorized Golden Technologies' dealer, 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
- ◆ Tiller Frame
- ◆ Seat Post
- ◆ Frame Welds
- ◆ Front Fork

### ***Two-Year Warranty:***

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

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

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

For the period of two 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 electronic assemblies found to be defective by an authorized Golden Technologies representative:

- ◆ Electronic Controller
- ◆ Dash Assembly
- ◆ Wire Harness(es)
- ◆ Battery Charger
- ◆ Potentiometer Assembly

**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.**

## Consumer Limited Warranty *Scooters (continued)*

### ***One-Year Limited Warranty:***

For the period of one year 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       |
| ◆ Bushings                 | (excludes tires)    | ◆ Components    |
| ◆ Seat Swivel<br>Mechanism | ◆ Armrests          | (excludes body) |

Items not 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     | ◆ Motor Brushes | ◆ Brake Pads |
| ◆ ABS Plastic Shrouds | ◆ Bulbs/Fuses   | ◆ Upholstery |
| ◆ Armrest Pads        |                 |              |

This warranty also excludes the following:

- ◆ Batteries (Please consult battery manufacturer for any implied warranty)
- ◆ Loss or theft of components (ie: keys, baskets, etc.)
- ◆ 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.

## Scooter Warranty Card

Please mail this document to:

Golden Technologies, Inc.  
Warranty Registration Office  
401 Bridge Street  
Old Forge, PA 18518

Please fill in your Avenger™ information below. This information will be useful in the event that you ever need to contact Golden Technologies concerning your scooter.

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

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

Options \_\_\_\_\_

Your Golden Technologies representative or dealer

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_



I have read and fully understand:

\_\_\_\_\_ My Golden Technologies Avenger owner's manual, including the sections on operating instructions, safety guidelines, maintenance and battery instructions.

\_\_\_\_\_ Golden Technologies Avenger Warranty

\_\_\_\_\_ My Golden Technologies Avenger dealer has instructed me on how to operate my scooter.

Signature \_\_\_\_\_

Telephone (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

golden  
***Avenger***

***Owner's Manual***