



# Vapor X75

Instruction Booklet



Code: MS03073



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Thank you and congratulations on purchasing your new Abilize Mobility Scooter.

It is designed to provide you with transportation ability indoors and outdoors.

We pride ourselves on providing saççççproducts. Our goal is to ensure your complete satisfaction. We sincerely hope you enjoy your Abilize Mobility Scooter.

Please read and observe all warnings and instructions provided in owner's manual before you operate the various functions of this scooter. Also, please retain this booklet for future reference.

## **IF YOU HAVE ANY QUESTIONS, YOU CAN CONTACT:**

### **UK Authorised Dealer**

CareCo UK Ltd  
Hubert Road  
Brentwood  
Essex  
CM14 4JE

Tel: (+44) 01277 237001

Email: [CS@careco.co.uk](mailto:CS@careco.co.uk)

### **Information of European Representation**

EMERGO EUROPE  
Molenstraat 15  
2513 BH, The Hague  
The Netherlands

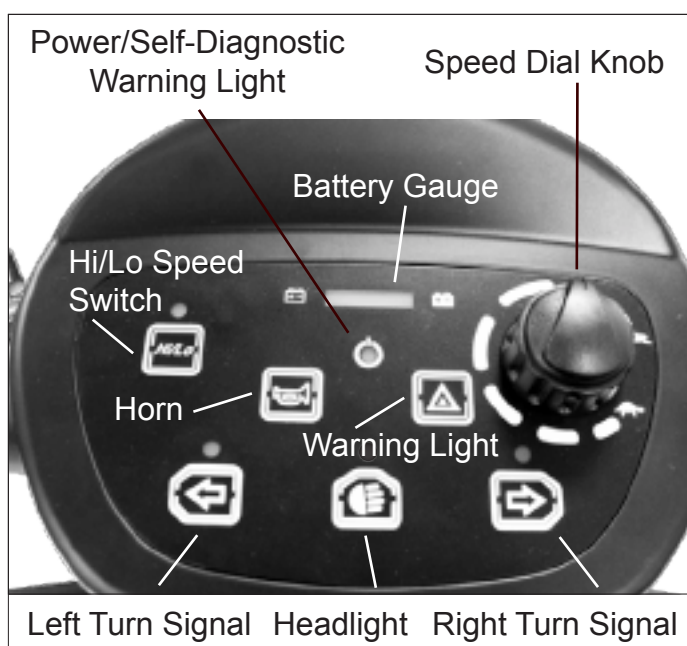
- Only one person at a time can ride the Scooter.
- Maximum load is 181 kg / 400 lbs pounds.
- Turn key off before getting on or off.
- Always drive carefully and be aware of others using the same area.
- Always use pedestrian crossings wherever possible. Take extreme care when crossing roads.
- Do not drive on a slope exceeding 10 degrees, and take extreme care when turning on a slope.
- Do not use full power when turning a sharp corner.
- Take great care and drive in low speed when backing up, riding downhill or on an uneven surface, and climbing a curb.
- Please use the lowest speed when driving through a descending road or uneven terrain. If the speed is too fast, leave your hand off the handle bar, let the scooter stop. Make sure you are safe and start again.
- The weight capacity limit can be different depending on ramp degree.
- A slow speed must always be used when ascending, descending or traversing a slope or incline and also on uneven terrain, ramps and soft or loose surfaces, such as gravel or grass.
- To prevent any danger, do not turn around at high speed while ascending or descending a ramp.
- Scooter may not operate well in high humidity.
- Do not leave the powered scooter in a rain storm of any kind.
- Direct exposure to rain or dampness will cause the scooter to malfunction electrically and mechanically; may cause the powered scooter to prematurely rust.
- Never put scooter in neutral when staying on a slope.
- Follow traffic laws when riding outside.
- When the scooter is on moving transport vehicles, do not sit or stay on scooter.

## Identification of Parts

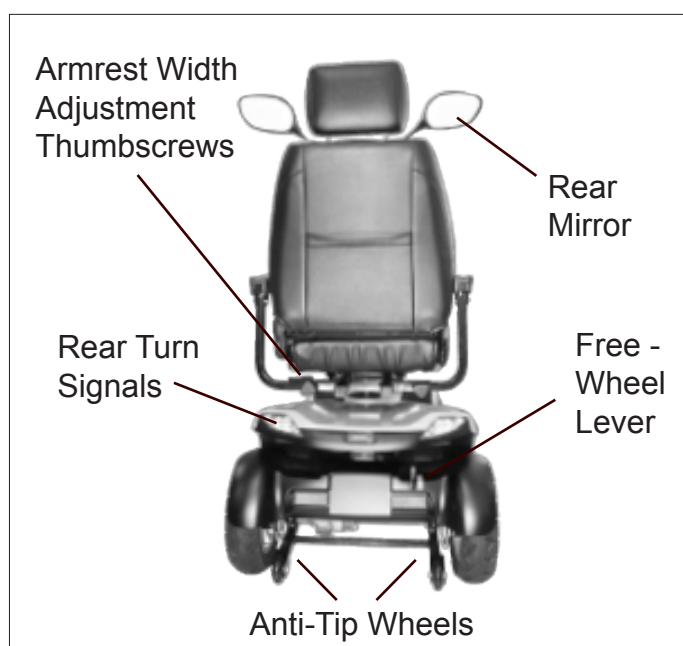
Before attempting to drive this scooter on your own, it is important that you familiarize yourself with the controls and how to operate them.



**Figure 1 - Front View**



**Figure 2 - Top Control Panel**



**Figure 3 - Back View**

**Function of Parts:**

**Main Key Switch**

- By turning the key clockwise to ON to turn on the power
- By turning the key anticlockwise to OFF to turn off the power



**Speed Dial Knob**

The rabbit icon indicates fast or high speed. The turtle icon indicates slow or low speed. By turning this you control total speed transferred to thumb controls.

**CAUTION: Do not set the speed at maximum when operating the scooter. Adjust the speed at maximum when inclining a slope, and adjust to minimum speed when declining a slope.**

**Horn Button**

Pressing down the button to sound buzzer.

**Battery Gauge**

The LEDs represents an approximation of battery capacity. If the charge is full, all LEDs are lit. When only red and orange LEDs are lit, the batteries are consuming and should be charged soon. When only red LEDs are lit, charge the batteries immediately.

**CAUTION: Check battery's capacity before driving, and ensure they are charged when at low power.**

**Hi/Lo Button**

High & Low Speed Switch allows speed to be changed from the normal maximum to half for pavement and indoor use. Light means activated Hi/Lo speed.

**Panel Controls**



Press down to activate left turn signal.



Press down to activate headlight.



Press down to activate right turn signal.



Press down to activate warning light.

## Identification of Parts

### Battery Gauge:

#### Capacity Display

LED	D1	D2	D3	D4	D5	D6	D7	Battery Capacity%
7	☆	☆	☆	☆	☆	☆	☆	>80
6	☆	☆	☆	☆	☆	☆		<80
5	☆	☆	☆	☆	☆			<65
4	☆	☆	☆	☆				<50
3	☆	☆	☆					<35
2	☆	☆						<25
1	☆							<20

D1/D2 : Red LED

D3/D4 : Amber LED

D5/D6/D7 : Green LED

#### Operation Characteristic

LED blocks will only decrease gradually during driving.

#### Usage Condition

1. When turn off power
2. When charging, function will shut off.

#### Low Voltage Warning Sound:

##### Operation Characteristic

Warning sound will signal, when battery capacity's lower than 25%, after turn on the power, 2 short "Beep" sounds will signal 3 times (Beep Beep - Beep Beep - Beep Beep).

##### Remark

Can be set as on or off.

#### Warning sound (on/off) setting:

##### Operation Characteristic

Sound of turn signal, stop, low voltage, reversing can be set as on or off.

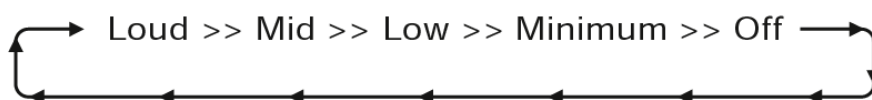
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**Description of Volume Setting Steps**

1. Ensure power is turned off
2. Pressing left and right turn signal buttons simultaneously.
3. Turn on the power.
4. After 2 seconds, LED (D7) flashes to indicate the setting start, if hold on buttons for 10 seconds without releasing (left and right turn signal buttons) will automatically leave setting mode.
5. Pressing volume setting button (As Stop (Warning) light button) to access volume setting mode, by pressing button (Ex: Stop (Warning) light button) to adjust volume.
6. Wait for 10 seconds without action, or pressing left and right turn signal buttons downwards simultaneously for 2 seconds to return to normal operation mode.

Function	Volume Button	Volume Adjustment
Reverse Warning Sound	Head Light Button	<p>Flash</p> <p>Off Minimum Low Mid Loud</p> <p>Except horn volume can not be set as off</p>
Turn Signal Warning Sound	Left or Right Turn Signal Button	
Stop (Warning) Warning Sound	Stop (Warning) Light Button	
Low Voltage Warning Sound	Hi & Lo Button	
Horn Volume	Horn Button	

P.S: Pressing volume button (ex:Stop (Warning) to access volume adjustment mode, the LED displays to volume blocks and the volume (ex:Stop (Warning) Sound signal, press (Stop (Warning) Light button again, the volume and LED will decrease gradually, by pressing button once will increase or decrease one block:



**Examples:**

**Reversing Warning Sound Volume Adjustment**

1. Turn off the power (Key off)
2. Pressing left and right turn signal buttons downwards simultaneously.
3. Turn on the power(Key on) After 2 seconds, LED (D7) flashes (meaning accessed in volume setting mode), Release the buttons within 10 seconds (left and right turn signal buttons).

## Identification of Parts

4. Pressing Head Light button to access Reverse Warning Sound.
5. Pressing Head Light button to adjust volume.
6. After setting, waiting for 10 seconds without action, or pressing left and right turn signal buttons downwards simultaneously for 2 seconds to return to normal operation mode.

### Default

- |   |                                  |                     |
|---|----------------------------------|---------------------|
| 1. Turn Signal Warning Sound=Mid          | 3. Low Voltage Warning Sound=Mid | 5. Horn Volume=Loud |
| 2. Stop (Warning) Light Warning Sound=Mid | 4. Reversing Warning Sound=Mid   |                     |

### Throttle

Pulling right Throttle moves scooter forward. Pulling left Throttle moves the scooter backward. (This can be reversed if required by local dealer.) Releasing both, engages automatic brake. These are also your accelerator. The further you depress them, the faster you go. See Fig 1.  
(Subject to the position of the Rabbit/Turtle control).

**CAUTION: Always ensure that the scooter is switched off before getting on or off the scooter and before removing any items of the scooter.**



### Tiller Angle Adjustment

Pulling the tiller adjustment downwards to adjust tiller's angle and release to lock at a desired comfortable position. See Fig 2.

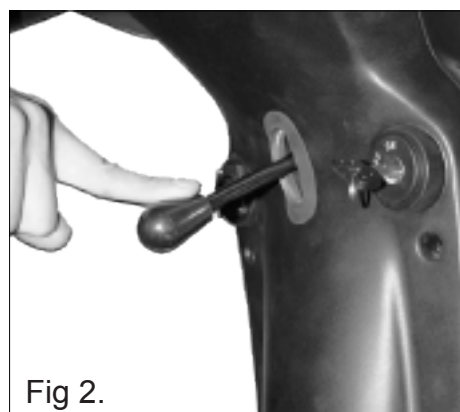
### Seat Swivel Adjustment

Setting at a comfortable angle by pulling lever upwards to rotate seat left and right. See Fig 3.

### Seat fore-aft Adjustment

Setting at a comfortable position by lifting lever upwards to adjust the seat. See Fig 3.

**CAUTION: When driving the scooter, set the seat at foremost position to prevent tip over.**



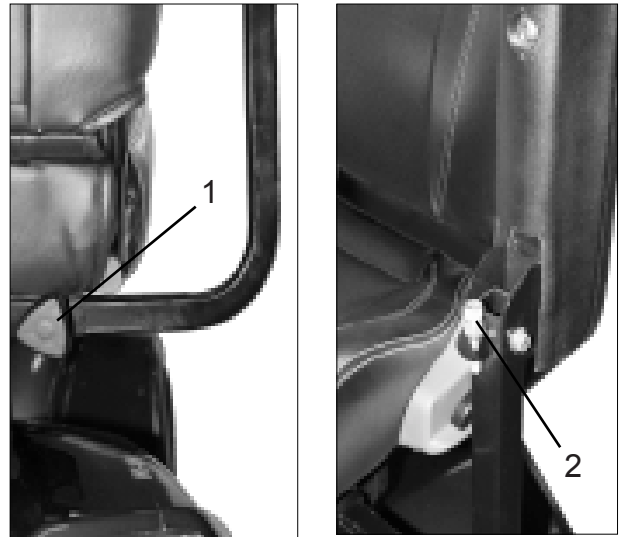
### Armrest Adjustment Thumbscrews

1. Loosen the two thumbscrews to adjust arm width tighten again to lock in at desired position. (1)
2. Adjust the attached screw height, to control armrest's angle. (2)

**CAUTION: Pull the armrest up when get on or off the scooter. Do not hang heavy parts on the armrests may cause the scooter to tip over.**

### Anti-tip wheels

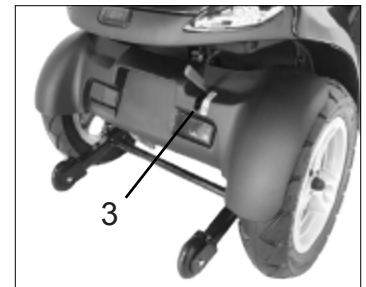
Helps keep scooter from tipping over.



### Free-Wheel Lever

When lever is in N (Neutral) position, scooter can be moved manually without power. When lever is in D (Drive) position, scooter can be driven. Normal position is D. (3)

**CAUTION: Freewheel operation is only recommended on flat surfaces, never on gradients. Never leave your scooter on a gradient with its motors disengaged. Always re-engage the motors immediately after pushing the scooter.**



### Charging the batteries:

Batteries must be charged before using the scooter for the first time and should be recharged after each day use. You will need the scooter and the battery charger.

**CAUTION: Each country may supply different charger. The charging procedure may be different from below. If you require more details, please contact your authorized dealer. Be sure the scooter key is in the OFF position. Do not use extension cord to connect the charger. Do not use other brand charger to charge the scooter.**

1. Insert battery charger cord into the charger connector on the charger output.
2. Plug the other end of the battery charger cable into a standard electrical outlet.
3. Turn the power on. Normally, The LED (Power) Light will turn on when electric current passes.
4. Charging starts. During charging, LED (Charge) will indicate orange light, when it turns to green light, that means well-charged.
5. LED indication

LED(POWER) - GREEN LIGHT ON : Power On.

LED(CHARGE) - ORANGE LIGHT ON : Charging / GREEN LIGHT ON : Fully Charged

### 6. Charger Trouble Shooting

- (A) If LED (POWER) light is off
- Check the input voltage (115V/230V) is the same as you adjust.
  - If light is still off, please check and repair the battery charger.
- (B) If LED (CHARGE) light is off
- Check to see clips connection is correct.
  - If the battery is fully charged, the LED (CHARGE) light will be off.
  - If light is still off, the battery may be defective.
- (C) If ORANGE light can turn to GREEN
- The battery can not be charged. Please check and recover it.
- (D) If ORANGE light turns to GREEN immediately
- Check to see the battery is fully charged, if not, the battery may be defective. Contact your authorised dealer.

**CAUTION: The time needed to recharge will vary depending on the depletion of the batteries. Charging for longer than necessary will not harm the batteries. They can not be overcharged.**

#### Keep in mind these rules:

1. Fully charge batteries at least once a month, or more if you use the scooter regularly. Charge after each trip exceeding 3 kilometers.
2. If storing your scooter for some time (1 month or more), make sure that batteries are fully charged, and on returning, charge them again before using scooter.
3. Batteries will only give maximum performance after scooter has been used, and batteries have been recharged up to 10 times. A bit like breaking in a new car.

**CAUTION: Please be aware that the travelling range of your mobility scooter is impacted by how fast the batteries are discharged. This will depend on many circumstances, such as ambient temperature, condition of the surface of the road, tyre pressure, weight of the driver, driving environment (inclines etc.) and utilisation of your lighting system if fitted. We recommend that you test your local ride with a family member to ensure a safe journey.**

#### Disassembling your scooter:

##### Disassembling Basket

By lifting the basket upwards.

##### Disassembling Seat

By lifting lever and seat upward.

##### Rear Compartment Cover

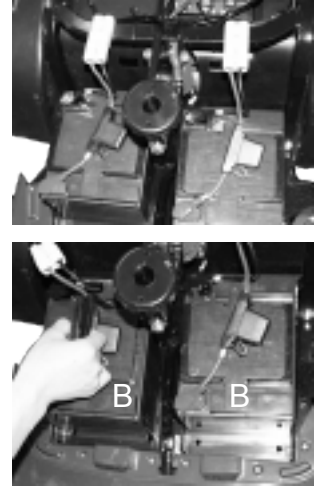
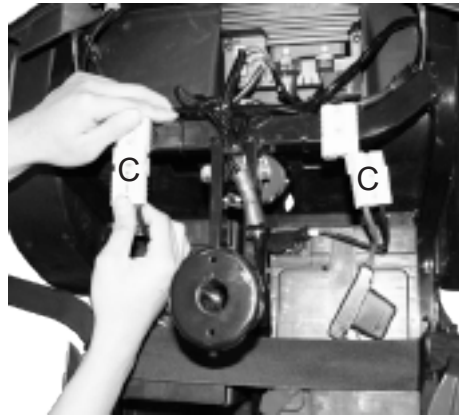
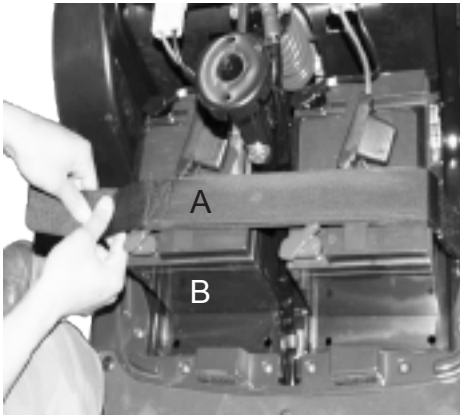
Open the Compartment Cover according to arrow's direction.



### Disassembling Batteries

Tear off battery straps (A) and disconnect battery connectors (C) to remove the batteries (B).

**CAUTION: Be careful when removing batteries, as batteries are heavy. Do not contact battery terminal (- +) with any metals to avoid danger.**



### Assembling your Scooter:

To assemble scooter, you can repeat disassembly directions in reverse. Abbreviated directions are given below.

1. Use the tiller adjustment to move tiller up and out of the way.
2. Place front basket.
3. Place batteries in battery compartment and wire up.
4. Place seat on seat post and lift lever to insert the seat into the seat post, then swivel the seat to lock at a desired position.

### Care and Maintenance:

#### Cleaning your Scooter

If your scooter is dirty, use a damp or lightly soapy cloth to wipe it down. Do not use running water to wash or rinse scooter in order to protect electrical parts. Polish with an automotive liquid polish.

#### Maintaining your Scooter

All maintenance and repair of scooter should be done by an authorized dealer. The following areas required periodic inspection:

- Tire pressure between 30-35 psi.
- All electrical connections are firmly attached.

## Operating your Scooter

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### Operating your Scooter:

You could make the following adjustments to increase your comfort when driving.

- Adjust seat position.
  - Adjust armrest width to comfortable position.
  - Adjust tiller's angle.
1. Before operating your scooter, check the following:
    - i. Free-wheel lever in D.
    - ii. Speed dial knob is at turtle picture.
  2. Sit on scooter and turn on key, Battery Gauge meter should indicate at Full. The Self-Diagnostic Warning Light should not be blinking.
  3. When your hands rest comfortably on handlebars, the Throttle should be within easy reach. The right lever moves scooter forward, the left one moves it backward. When you release both levers, scooter will stop.

**CAUTION: This scooter has automatic braking system. Release the Throttle and brake will stop scooter.**

4. Steer scooter by turning tiller toward the way you want to go.
5. Practice driving where there are obstacle. Start at the slowest speed and drive forward and backward; make some turns. As you get more comfortable, you can increase speed by turning speed dial toward picture of rabbit.
6. If Battery Gauge indicates (+ -), you should plan to recharge batteries very soon.
7. When you are finished riding, turn off the key before getting off.
8. If you are finished riding for the day, immediately recharge batteries. (See 'Charging the Batteries' section).

### Keep in mind these rules:

- Release Throttle and allow scooter to stop completely before changing from forward to reverse, or reverse to forward.
- When turning to corner, swing front wheels widely, so back wheels will turn more tightly.
- Use scooter only where it is safe to walk.
- Drive in low speeds when reversing, riding downhill, over ramp or curb, or on uneven surfaces.

### Other Operating Information:

#### Hill Climbing

You may need to use a higher speed. Turn to lower speed before going downhill.

#### Down Slopes

Proceed with downward slopes slowly, and set speed control in proximity of turtle. The closer speed control is set toward turtle, the slower scooter travels. However, this scooter will not self accelerate down hills due to the automatic braking, taking over should you attempt to drive too fast.

#### Kerb climbing

Approach slowly from right angles to curb. A slight angle is permissible with a 4-wheel scooter. Do not attempt greater than a 7cm curb. If Self-Diagnostic Warning Light starts to blink, identify problem from chart on page 16 and take action. If the scooter breaks down and must be moved, get off scooter, engage Free-Wheeling Lever to N, push scooter slowly to a safe location, and push lever back to D.

**CAUTION: In unlikely event of a panel display error, you need to re-set the display system by cycling the on/off main switch. The display circuitry is independent of the motor control system. A display console error does not affect scooter speed control.**

### Troubleshooting:

On the table opposite are some suggestions about solving problems you may have with your scooter. There is a Self-Diagnostic Warning Light on the Control Panel. To check the Self-Diagnostic Warning Light, turn on the key and count the number of blinks on the Warning Light.

#### Other Problems

Low tire pressure: pump up tires to 30-35 psi.

During charging, light on charger does not change to green: Contact your authorized dealer.

#### Scooter will not move when key is turned on:

1. Check Power Reserve Indicator on control panel, it should be lighting in green, yellow, and red zones.
2. Check Self-Diagnostic Warning Light, it should be steady. If it is flashing, see chart overleaf for problem identification.
3. Check all electrical connections to ensure they are tight.
4. If none of above correct problem, contact your authorized dealer.

Flash	Description	Meaning
1	<b>Battery Low or Low Battery Fault</b>	<p><b>The batteries are running low.</b></p> <ul style="list-style-type: none"> <li>Recharge the batteries for a minimum of 12 hours.</li> </ul>
2	<b>High Battery Fault</b>	<p><b>Battery voltage is too high. This may occur if overcharged &amp;/or traveling down a long slope.</b></p> <ul style="list-style-type: none"> <li>If traveling down a slope, reduce your speed to minimize the amount of regenerative charging.</li> <li>Check the battery and associated connections and wiring.</li> </ul>
3	<b>Current Limit Time-Out</b>	<p><b>The motor has been exceeding its maximum current rating for too long. This may be due to a faulty motor.</b></p> <ul style="list-style-type: none"> <li>Check the motor and associated connections and wiring.</li> <li>Turn the controller off, leave for a few minutes and turn back on again.</li> </ul>
4	<b>Park Brake Fluid</b>	<p><b>Either a park brake release switch is active or the park brake is faulty.</b></p> <ul style="list-style-type: none"> <li>Check the park brake and associated connections and wiring.</li> <li>Ensure any associated switches are in their correct positions.</li> </ul>
5	<b>Throttle OONAPU</b>	<p><b>The Throttle is out of neutral when turning the controller on.</b></p> <ul style="list-style-type: none"> <li>Ensure the throttle is in neutral when turning the controller on.</li> <li>The Throttle may require re-calibration.</li> </ul>
6	<b>Speed Pot Fault</b>	<p><b>The throttle, speed limit pot or their associated wiring may be faulty.</b></p> <ul style="list-style-type: none"> <li>Check the throttle and speed pot and associated connections and wiring.</li> </ul>
7	<b>Motor Voltage Fault</b>	<p><b>The motor or its associated wiring is faulty.</b></p> <ul style="list-style-type: none"> <li>Check the motor and associated connections and wiring.</li> </ul>
8	<b>Other Error</b>	<p><b>The controller may have an internal fault.</b></p> <ul style="list-style-type: none"> <li>Check all connections &amp; wiring.</li> </ul>

### Electromagnetic Interference and Warnings:

**CAUTION: It is very important that you read this information regarding the possible effects of Electromagnetic Interference on your motorized scooter.**

Powered wheelchairs and motorized scooters may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones. The interference (from radio wave sources) can cause the motorized scooter to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the motorized scooter control system. The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each motorized scooter can resist EMI up to a certain intensity. This is called its "immunity level." The higher the immunity level, the greater the protection. At this time, current technology is capable of achieving at least a 20 V/m immunity level, which would provide useful protection from the more common sources of radiated EMI. The immunity level of this motorized scooter model is not known.

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

### Other Problems

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

**CAUTION: Some cellular telephones and similar devices transmit signals while they are ON, even when not being used.**

2. Medium-range mobile transceivers, such as those used in police cars, fire trucks, ambulances, and taxis. These usually have the antenna mounted on the outside of the vehicle; and
3. Long-range transmitters and transceivers such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.

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

### Motorised Scooter Electromagnetic Interference

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

### Warnings:

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

1. Do not operate hand-held transceivers (transmitters-receivers), such as citizens band (CB) radios, or turn ON personal communication devices, such as cellular phones, while the motorized scooter is turned ON;
2. Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them;
3. If unintended movement or brake release occurs, turn the motorized scooter OFF as soon as it is safe;
4. Be aware that adding accessories or components, or modifying the motorized scooter, may make it more susceptible to EMI; and

**CAUTION: There is no easy way to evaluate their effect on the overall immunity of the motorized scooter.**

5. Report all incidents of unintended movement or brake release to the distributor listed on the inside front cover of this manual. Note whether there is a source of EMI nearby.

### Important Information:

1. 20 volts per meter (V/m) is a generally achievable and useful immunity level against EMI (as of May 1994). The higher the level, the greater the protection.
2. The immunity level of this product is at least 20/Vm.

Specification	
<b>Overall Length</b>	1440 mm / 57"
<b>Overall Width</b>	680 mm / 27"
<b>Overall Height</b>	1360 mm / 53.5"
<b>Front Wheels</b>	330 mm / 13"
<b>Rear Wheels</b>	330 mm / 13"
<b>Weight W/Batteries</b>	138 kg / 304 lbs
<b>Reversing Width</b>	680 mm
<b>Max. Speed</b>	12.8 kmph / 8 mph
<b>Weight Capacity</b>	181 kg / 400 lbs
<b>Ground Clearance</b>	100 mm / 3.9"
<b>Grade Climbable</b>	10 degree
<b>Curb Climbable</b>	70 mm / 2.8"
<b>Turning Radius</b>	1600 mm / 63"
<b>Suspension</b>	Front & Rear
<b>Brake</b>	Electro-Mechanical
<b>Seat Type</b>	Sliding and Swivel Reclining Captain Seat
<b>Seat Width</b>	520 mm / 20.5"
<b>Motor Size</b>	850W, 5000 r.p.m.
<b>Battery Size</b>	(2) 12V. 75Ah
<b>Battery Weight</b>	52 kg / 115 lbs
<b>Travel Range</b>	42 km / 26.1 Miles
<b>Battery Charger</b>	8A Off Board
<b>Electronics</b>	On / Off Key Switch, Battery Level Indicator, Speed Control Knob

