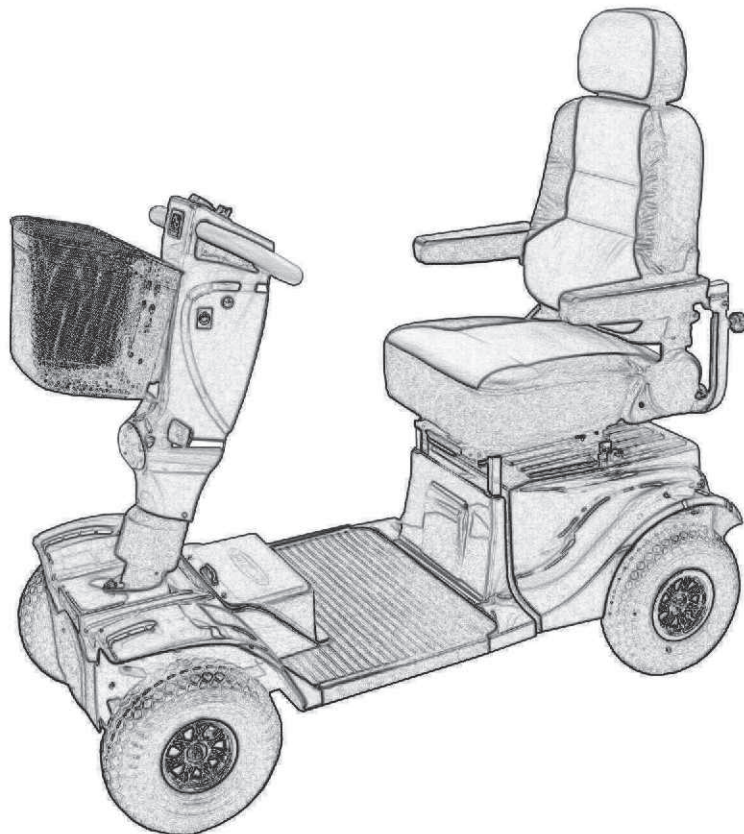
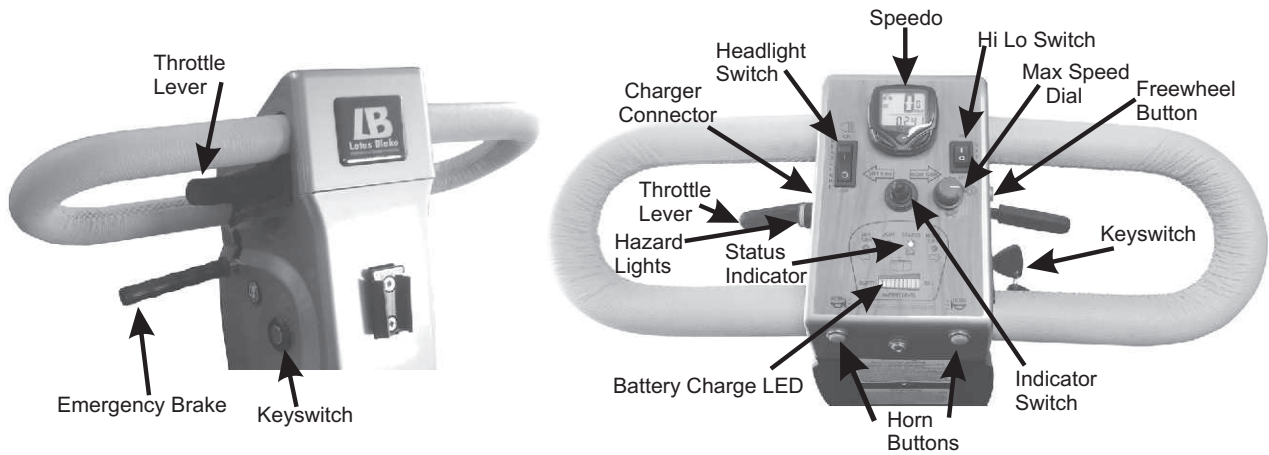


Montana Deluxe

Instruction Booklet



Dash Layout



Keyswitch Insert the key and rotate forward to switch on. If untouched the scooter will standby after 20 minutes.

Throttle Lever As standard use the right forefinger to gently pull back the right side lever to go forward and pull back the left side lever to go in reverse. It is possible to change from Right to left hand forward. Ask your dealer for assistance.

Hi Lo Switch Ideally use Lo for Indoors and the Hi for Outdoors. For going up steep inclines use Hi range.

Max Speed Dial In either Hi or Lo range use this dial to set the maximum speed.

Horn buttons Typically use your left or right thumbs to activate the horn. Will only operate when the keyswitch is on.

Headlight Switch Use this switch to turn on the Headlight. Will only operate when the keyswitch is on.

Indicator Switch Use this switch to operate left or right turn indicators. Switch off after completing a turn.

Freewheel With the keyswitch on push the freewheel button to manually move the scooter. As a safety measure the brake will automatically apply if the push speed exceeds 5 kph.

Charger Connector Connect the charger supplied with the scooter here. When connected the scooter will not drive.

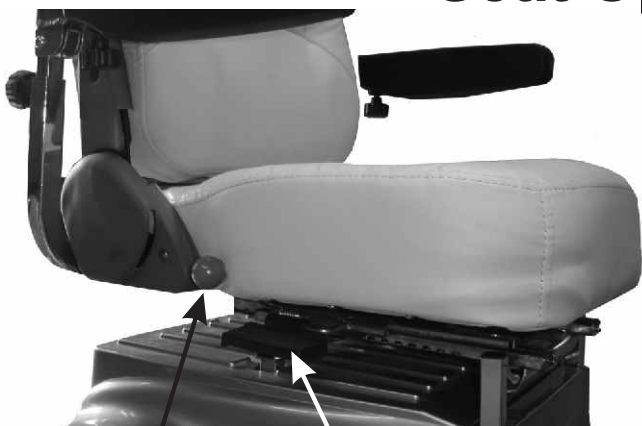
Battery Gauge LEDs Indicates the Battery charge level. 2 red LEDs will always show. 8 Green LEDs indicate strong battery condition. **Do not use these LEDs as an indicator to turn the charger off.**

Status LED On continuously when the keyswitch is on means all is OK. If the LED begins to flash it is likely a fault has developed. Make a note of the sequence of flashes and read trouble shooting guide or report the fault to your dealer for attention. The 3 other LEDs are for the Turn indicators and Headlights.

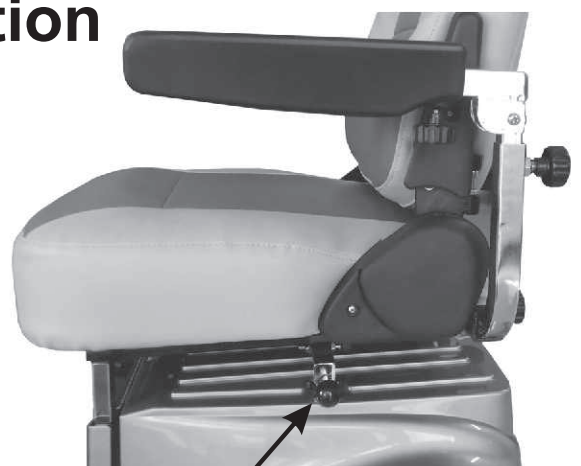
Speedo Gives speed in Kph, trip distance in Km, trip time and time of day.

Emergency Brake Pull lever up to operate.

Seat Operation



Swivel Knob Seat Slider Lever



Dissassembly Pin

This Manual Contains Important Information on the proper maintenance and safe operation of your Esteem scooter.

Please read this manual thoroughly to become familiar with all operating instructions prior to operation.

Should you have any questions concerning the safe operation or maintenance of your scooter than please contact your local Dealer.

Safety Instructions:

Your Scooter can ideally traverse level, hard paved surfaces as well as grass, gravel, wet and or uneven surfaces.

Remember it is a Pedestrian scooter and you should act as a pedestrian when riding the scooter. Use footpaths and crossings. Never ride your scooter in the traffic. You are required to understand and obey local regulations for the lawful use of this product in public places. Ask your local dealer or Motor transport department for details. Maximum speed limits may apply. Limitations may apply on where and how the scooter can be used. It is the users responsibility to obey local laws and regulations and to operate the scooter in a safe manner.

The user should exercise extra caution when travelling across uneven, wet, steep or loose surfaces.

Do Not operate up or down inclines steeper than 1 in 6 gradient.

Do Not attempt to climb or drive off Kerbs and Gutters or obstacles.

Do Not make sharp turns at high speed or whilst driving on inclines.

Always ensure the scooter is switched OFF before mounting or dismounting.

Always drive straight up or down slopes or inclines. Avoid driving across slopes.

Ensure that the Scooter has been correctly assembled prior to operation.

Ensure that the Steering Tiller and seat are locked in position before operation.

Check local regulations regarding scooters before using

Very Aged or invalid persons should seek advice before using.

Persons heavier than 125kg should use extra caution on uneven terrain

Overloading. Should the scooter become overloaded a heat sensitive circuit breaker will cut out and reset within 90 seconds. This is normal and can occur on long steep uphill runs or similar continuous high current draw situations. Should the circuit breaker continue to cut out during regular use contact your dealer for service.

Charging the Batteries:

It is recommended that the scooter be charged with the scooter key switched on every so often (monthly) or to turn the key switch on before disconnecting the charger to reset the on board computer to the current battery condition. Batteries will and do degrade over time. A few minutes will allow the on board computer to correctly set the BDI lights to the current battery condition. Do not use the Dash BDI LEDS to gauge when the batteries are charged.

Follow these instructions.

The Battery display lights on the scooter dash will reset at 13volts (operational voltage of the battery) This is not fully charged. Full charge of 15 volts is only indicated by the **Green LED** on the charger.

1. Connect the charger to scooter making sure the 3 pins are aligned. The bottom **AMBER** light on the front of the charger will illuminate when connection to the batteries is correct
2. Switch the charger ON using the ON/OFF switch located on the back of the charger. When switched on correctly the top **RED** light on the front of the charger will illuminate indicating the 240volt connection is correct. (**Red** and **Amber** lights will now be on)
3. When the batteries are charged the middle **GREEN** light on the front of the charger will illuminate. (All three lights will now be on) **Leave the charger connected & turned ON until you need to use your scooter.** Over charging is better than undercharging. Panasonic can detect undercharged batteries and will not warrant undercharged batteries.

Charging for longer than 48 hours regularly will greatly assist battery life.

DO NOT cover your charger with anything that will restrict the airflow around and through the charger's vents. It will get warm during operation, this is normal. **DO NOT** allow the charger to get wet. It is an electrical appliance - please treat it as such. Your charger is a 36 volt, two stage battery charger specifically designed for charging sealed lead acid batteries in your scooter. When initially connected and switched on, it will charge in float mode for a short time to read the battery condition and then go to BOOST mode until the batteries have reached optimum voltage then it will automatically change back to FLOAT mode. This is when the middle green light will illuminate and all three lights on the front of the charger will be on. This shows that the charger is now in the float or "trickle" mode and it can be now left ON and connected. This will NOT overcharge the batteries or harm the charger as it is automatically and electronically controlled to ensure that the correct charging rate is maintained. After 7 days if the scooter is not being used for extended periods disconnect the charger. Always store with a full charge.

Batteries: **Panasonic LC-XC1228APT VRLA** sealed lead acid batteries.

These batteries are specifically designed for this use and require no service or maintenance for the life of the battery other than recharging as described in the "Charging the Batteries" section of this booklet. These batteries usually have a reliable service life of 2 to 3 years. Many persons do and have experienced far longer battery life. Persons who use their scooter considerably more than the usual will wear out the batteries quicker. Batteries are a disposable item with this product. Similar batteries work but have been shown to have a much shorter service life.

Operation:

Seat: Locate the seat slider lever with your right hand under your right thigh and slide the seat to the desired position. Locate the swivel knob with the right hand and pull up to swivel

seat. Heavier persons may need to lift the right thigh slightly to fully release the swivel pin. **Do Not pull release the Red seat disassembly pin with your left hand while seated on, or using the scooter.**

High / Low Speed: Set the Hi/Lo Speed switch as desired. Ideally Hi for outdoor use and Lo for indoor use. It is suggested to always use the lo range to start

Setting Maximum Speed: Set the Speed Control Knob to suit the driving conditions. Slower speeds for indoor use and faster speeds for outdoor use. Be aware of local speed limits and use the speedo to adjust the maximum speed for uphill or downhill. If using for the first time it is advised that you should start on the slowest speed setting.

Turn On: Insert the key and rotate to the on position. If left untouched for 20 minutes the scooter will turn off to save power. 2 Red Leds will show. To restart simply turn the key off and then on again.

Forward: Gently depress the control lever with your thumb or pull with your finger as desired, to begin driving, The more you depress or pull, the faster the scooter will go. The maximum speed attained is set by the Speed Control Knob.

Reverse: As above but in the opposite direction. A warning beeper will sound. It is possible to operate the scooter one handed with either left or right hand. Should you have a preference for the controls to operate opposite to the factory setting simply ask your dealer to reverse the polarity.

Stopping: Simply release the control lever and the scooter will come to a smooth stop or to stop faster push the control lever into reverse. Your scooter features 2 automatic braking systems as well as an emergency Electronic stop system. The first gently slows the scooter and the second holds the scooter once stopped. The Electronic brake operates by thrusting the throttle lever into reverse.

Steering: Smoothly turn the control tiller in the direction you want to go. On tight turns it is suggested the speed control be set to the slowest speed before turning the tiller sharply.

Indicators: Flick the indicator switch as required to the left or right to start the indicator flashing. A beep will sound until you flick the indicator switch to the centre position after completing your turn.

Horn: Push the horn buttons as required using right or left hand.

Lights: Push the Headlight switch located on the control panel to turn on the light and push again to switch off. As the lights run from the same battery source as the motor it is best to only use the light when required.

Suspension Settings: The factory setting is good for most persons but should you wish a different setup locate the adjuster knob on each shock absorber and screw up or down to suit. It is possible to have different settings front to rear but the side to side settings should be the same. Heavier persons can benefit from stiffer settings. Too stiff a setting on the front can cause a slight understeer on loose or wet surfaces.

Tyres: factory setting is **220 kpa or 32 psi**. The tyre pressures can be set anywhere between 150 kPa - 22 psi as a minimum and 275 kPa - 40 psi as a maximum. Lower pressure will create a softer ride and higher pressure will improve the performance and range. Never inflate the tyres to a pressure higher than 275 kPa - 40 PSI. *The service dept will set the tyres to the highest setting which will suffice till checked at the next annual service.*

Changing a tyre: Your scooter has lightweight one piece precision alloy wheels as standard. To change the tyre it must be removed over the inside bead of the rim. The inside bead has a recess allowing the tyre bead to fall into and this diameter is much smaller than the outside bead diameter. A small tyre lever or screwdriver and some soapy water will make it easier to remove the tyre. View technical video at www.scootercity.com.au/technical for the correct procedure.

Cleaning: Use normal Automotive cleaners and polishes similar to a car. If you hose the scooter the electrics may become wet the scooter may not operate or it may operate in an unintended way. Allow up to 72 hours for the electrics to dry out.

Maximum Range: This is an abstract idea in electrical terms as so many factors can and do influence the range you can achieve for your conditions. Factory testing on a 10% duty cycle under test conditions is 48 kilometres. However very few user will experience ideal conditions. Generally due to terrain, battery condition, inclines, weight, temperature, surfaces, gutters and culverts and so forth it is suggested that initially you limit single trips to 50% of the tested range until you are familiar with the performance of the scooter for you and your conditions. Should the scooter stop from low battery voltage you can rest the scooter for an hour or so and the batteries will recover enough voltage to propel the scooter further. Repeat this process if required.

Transporting:

Disassembly:

- *Pull disassembly pin and lift off seat.
- *Remove the battery cover, Remove the batteries.
- *Lift and break the chassis apart at the centre.
- *Fold down the tiller
- *Load components into the car boot. In some cars some components may have to be loaded to the rear seat.

- *To Reassemble reverse the above procedure

Trouble Shooting Chart Lotus Blake ECU 24volts

Code	LCD Display	Explanation	Possible Cause
1.1	Thermal Cutback	over temperature cutback	1. Temperature >92°c 2. Excessive load 3. Extreme enviroment 4. Brake not releasing
1.2	Throttle Fault 1	throttle fault	1. Throttle input wire open or shorted 2. Throttle pot defective 3. Wrong Throttle type selected
1.3	Speed Pot Fault	speed limit pot fault	1. Speed limit pot wire broken 2. Speed limit pot worn or bad
1.4	Low Battery	battery volts too low	1. Battery Voltage below 8.5volts 2. Loose or bad battery terminal
1.5	Over voltage	battery volts too high	1. Battery Voltage >45 volts 2. Charger connected 3. Bad battery terminal
2.1	Main Off Fault	main contactor Off	1. Main contactor failed
2.3	Main Contactor	main contactor faulty	1. Main Contactor Open 2. Main Contactor faulty 3. Brake coil resistance too high
2.4	Main On Fault	main contactor open	1. Main contactor failed to close
3.1	Proc / wiring fault	HPD present <10sec	1. Misadjusted throttle pot 2. Throttle pot bad
3.2	Brake on fault	brake on fault	1. Electromagnetic brake open 2. Electromagnetic brake faulty
3.3	Precharge Fault	precharge fault	1. Low battery voltage 2. Keyswitch & throttle activated
3.4	brake Off fault	brake off fault	1. Electromagnetic brake open 2. Electromagnetic brake faulty
3.5	H.P.D	Throttle disabled fault	1. Throttle used before keyswitch 2. Throttle pot needs adjustment
4.1	Current sense fault	current sense fault	1. Short in motor wiring 2. Controller failure
4.2	HW Failsafe	motor voltage fault	1. Motor voltage incorrect 2. Short in motor or wiring 3. Controller failure
4.3	EEPROM fault	EEPROM failure	1. EEPROM Failure
4.4	Power section fault	power section fault	1. EEPROM failure 2. Short in motor or wiring 3. Controller failure

Warning: Water can cause Electrical short-circuiting.

Never excessively hose or dampen your scooter. Avoid riding in heavy rain. Should the electrics become wet the scooter may stop working or behave erratically until the electrics have dried out.

Warning: Electro-Magnetic Interference. EMI

It is remotely possible that interference from radio and microwaves of many sources can cause the scooter to operate in an unintended way. The scooter may stop or slow, the brake may release or the throttle may activate. If your scooter exhibits an intermittent fault or a fault at a particular location then it is likely you are experiencing EMI. Contact your dealer for advice. Depending on the source of the EMI it may not be possible to prevent EMI interference and the rider should choose an alternate route. EMI is not a warrantable fault.

Please regularly visit www.scootercity.com.au (simply google "scootercity" for further technical and user information.

Lotus Blake

Montana

Service Schedule

Service Technicians Note.

Please visit www.scootercity.com.au and view technical pages for online multimedia service manual and contact Scooter City for additional technical advice and parts as required. Phone 07 3255 6565

Time allowance approx. 1.5 hours. Battery's may need 24hr boost charge to be tested correctly. Remedies and repairs may take extra time. Ask your dealer to quote on additional cost repairs.

- | | |
|--|---|
| <input type="checkbox"/> Test and report on Battery condition | <input type="checkbox"/> Tension transaxle bolts. Check rubber mounts |
| <input type="checkbox"/> Interrogate PCB for known faults | <input type="checkbox"/> Lubricate and tension tiller fold down |
| <input type="checkbox"/> Inspect and reset wheel bearing preload | <input type="checkbox"/> Test and reset BDI display |
| <input type="checkbox"/> Test speed pot and centralise control pot | <input type="checkbox"/> Inspect wiring, connectors and keyswitch |
| <input type="checkbox"/> Check and regrease driveshafts as required | <input type="checkbox"/> Check motor brushes and bench test. |
| <input type="checkbox"/> Check and report on tyres. Align front wheels | <input type="checkbox"/> Inspect and refit bump mold as required. |
| <input type="checkbox"/> Inspect and lubricate seat operation | <input type="checkbox"/> Inspect handgrips. Check + clean Bodywork |
| <input type="checkbox"/> Test brake operation. Adjust or replace disc. | <input type="checkbox"/> Road test and report any faults |

12 month service Dealer Stamp Comments Date..... Signed.....	24 month service Dealer Stamp Comments Date..... Signed.....
36 month service Dealer Stamp Comments Date..... Signed.....	48 month service Dealer Stamp Comments Date..... Signed.....
60 month service Dealer Stamp Comments Date..... Signed.....	72 month service Dealer Stamp Comments Date..... Signed.....

Lotus Blake PTY Limited

New Product Warranty

Without limiting your rights at general law or under the trade practices act or under any statute Lotus Blake PTY Limited ("the company") warrants that:

If defects in material or manufacture occur in this product during a period of 12 months from the date of sale to the first owner then Lotus Blake PTY limited will rectify such defects free of charge at its factory.

The company does not accept liability for any item which fails because of normal wear and tear or abuse or un authorised modifications or for any defect arising from this product being operated in a manner for which it was not intended or being overloaded. Commercial operation in any form of this product is expressly excluded from this warranty.

Not all repairs maintenance or adjustments are a result of faulty materials or manufacture. This warranty does not include such items as paint, trim, chrome and other appearance items nor does it include worn or punctured tyres or wheel alignment. Electromagnetic interference is expressly excluded from this warranty

Batteries are not covered under this warranty. Third party batteries would usually be covered by a warranty from the individual battery manufacturer. Batteries at the end of the serviceable life or that may have been incorrectly used or charged or maintained or overloaded might not be warranted. Batteries are a consumable item with this product. Regular replacement may be required. Panasonic can detect if a battery has been undercharged and will not warrant undercharged batteries. Battery warranty if applicable will be 6 months full replacement and 6 months pro rata

It remains the owners responsibility to return the product to Lotus Blake PTY Limited or its appointed dealer before any warranty repairs can be undertaken. This product is intended only for use as an mobility scooter. All other uses are expressly excluded from this warranty. This product is a vehicle and will require regular maintenance. Incorrect maintenance may void this warranty.

Lotus
Blake

Your Lotus Blake Montana scooter is a fantastic product that will give many years of reliable and enjoyable service. The team at Lotus Blake have spent vast resources to continue the development of safer scooters with better drive characteristics. The Latest Montana features the latest and most up to date technologies. Be a proud Montana owner satisfied you have a truly remarkable mobility scooter.

All the best

Team Lotus Blake