

LSC Services ( Mobility Rental ) Phone :- 07905 013221 or 01241 875825  
or E-Mail :- [Mobility@Lovat.Biz](mailto:Mobility@Lovat.Biz)

# **LSC Services ( Mobility Rental )** **USERS MANUAL for the** ***KARELMA***



## **DRIVING AND SAFETY WARNINGS**

The *Karelma* electric vehicle is designed for both road and pavement usage. **WHEN DRIVING ON THE PAVEMENT ENSURE THAT YOUR SPEED SWITCH IS SET ON 50%. THE MAXIMUM SPEED FOR PAVEMENT USAGE IS 4 MPH (6.5 KPH). DO NOT SET YOUR KEYPAD SPEED TO 100% AS YOU WILL THEN EXCEED THIS SPEED.** For clarification of the regulations please read the statutory instrument 1988 No 2268. This is available from the Department of Transport or your local Road Safety Officer. Please ensure that you are fully conversant with these regulations.

### ***Important Driving Instructions***

- A. DO NOT SWITCH ON THE VEHICLE when getting on or dismounting from the vehicle. Insert the key switch only whilst seated – remove the key switch before standing or dismounting.
- B. **WHEN MAKING A TIGHT TURN – ENSURE YOUR MAXIMUM SPEED SETTING IS ON 50%.** When turning sharply it is important to **SLOW DOWN** – especially **DOWNHILL**. This will avoid the chances of your vehicle tipping over and causing possible injury.
- C. When going up and down lowered kerbs **ENSURE THE VEHICLE APPROACHES HEAD ON** and slow down whilst going up or down the kerb. Do not attempt to go down the kerb at an angle – this will cause the vehicle to tilt and may result in an accident.
- D. If you drive your vehicle at night **MAKE SURE YOUR LIGHTS ARE SWITCHED ON** and that you wear light clothing – preferably with reflective armbands. Also ensure your batteries are fully charged before riding in poor light or at night. Your lights when used decrease the overall range of your vehicle. Do not use your lights in daytime.
- E. Now you have your vehicle make sure the **SEAT HEIGHT** is adjusted for comfortable seating and that your **STEERING COLUMN** is adjusted for comfortable reach while riding.
- F. **BATTERIES AND CHARGER.** Always ensure your batteries are fully charged before setting out on a long journey. **ALWAYS CONNECT THE CHARGER TO YOUR VEHICLE BEFORE PLUGGING YOUR CHARGER INTO THE MAINS SUPPLY.**
- G. Make sure your tyres are fully inflated. 30Psi. 2Bar (max50psi) . You can do this with a bicycle pump – never attempt to inflate the tyres at a garage forecourt. Your tyres are pneumatic and are fitted with tubes. These can easily be repaired in the event of a puncture.
- H. Before setting off ensure the motor switches at the back of your vehicle are switched to the **ON** position. This will engage the motor – brakes. The **OFF** position allows the vehicle to be moved in a free wheel mode. If the horn sounds when you depress the accelerator lever STOP and check the brake levers are set to **ON**.
- I. Your vehicle is designed for easy transportation – however please ensure you are familiar with the above steps when assembling your vehicle for use.
- J. Your vehicle is intended for use by one person only up to 20 stone\280 lbs\128 Kgs. Do not use the vehicle if your weight is in excess of this. Other vehicles in the **KARELMA** range would be more suitable.

- K. **ALWAYS MAKE SURE YOU CAN SEE AROUND YOU BEFORE MOVING OFF.**  
Be aware of other pedestrians and only use your horn in an emergency.
- L. This vehicle is not intended for use by persons with bad vision or by persons who cannot use the controls competently.

## 2. **PREPARING YOUR VEHICLE FOR USE**

### A. *Adjusting the Steering Column*

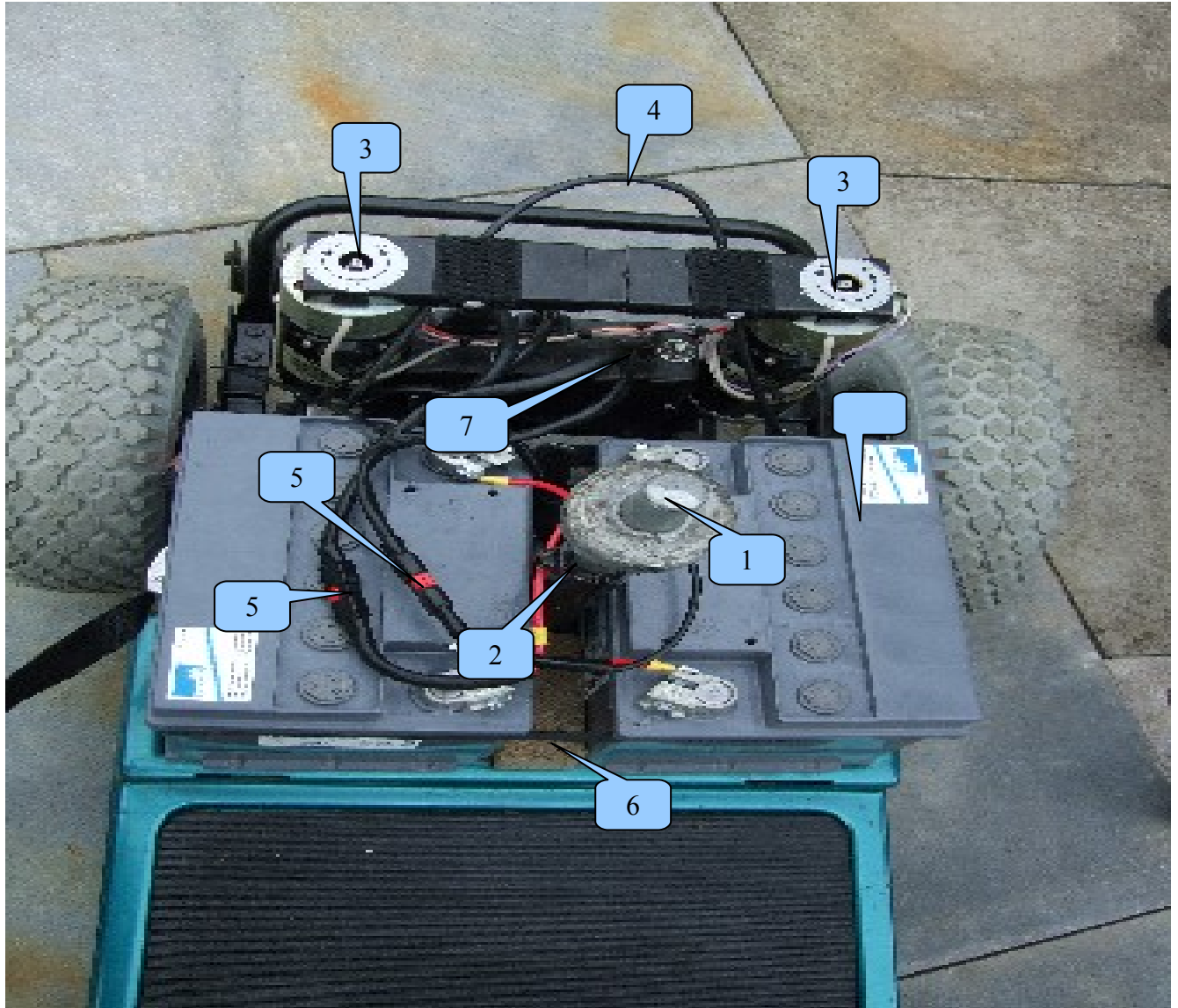


**PLEASE NOTE:** Many scooter are fitted with our new Steering column assembly. April '99.

To lock the steering column/Tiller into position **first loosen the ratchet and pull completely upright until you hear the two silver buttons click into place.** Then lower the tiller to desired angle/position and fasten with the Ratchet Handle with red button. Tighten the ratchet.

To release the tiller, depress the two silver buttons on the under side of the assembly and loosen the ratchet and the tiller will lie flat for loading. To raise the tiller again and re-position, pull upright locate the desired position and then tighten the ratchet.

**B. Under the Battery Cover**



1. Seat Height Post
2. Seat Height Adjusting Bolt
3. Mechanical Brake On/Off Switches (Use Key)
4. K3/K34/K38 Chassis Separation Cable
5. Battery Connector Plugs (Black and Red)
6. Battery Securing Bar and Bolt
7. Connector Electrical (Remove when Separating Chassis)

### C. *Fitting the Batteries*

Your vehicle is provided with innovative battery sockets which can be easily fitted either by yourself or by your dealer. Once your batteries are fitted with the sockets – then the batteries sit in the metal tray under the seat plastic housing. These battery sockets also house the safety cut-out. The battery sockets from the vehicle can then be plugged into the sockets on the batteries. These cannot be mixed up or connected the wrong way round – either plug can be fitted to either socket.

Once the batteries are sitting in the tray then place the clamping plate onto the battery post with the rubber pads down and lock securely into position using the butterfly nut provided. The clamp stops the batteries being dislodged over rough ground.

Before fitting the plastic battery cover make sure the other connector – which is for the rear lights and indicators is securely connected.

Re fit the plastic cove by carefully passing it over the seat post and onto the two locating pins on top of the plastic. Then push and locate the front metal connector into the locating hole and turn the locking catch trough 90 degrees to secure.

### D. *Fitting and Adjusting the Seat*

The seat is easily fitted by locating the seat stem from the chassis into the hole \ socket underneath the seat. TO LOCATE PROPERLY THE SEAT LEGVER ON THE LEFT SIDE OF THE SEAT NEEDS TO BE HELD TO THE SIDE. This will ensure the seat fits snugly and securely. Once the seat is located and you have checked it is secure, sit on the seat and ensure that it is comfortable and at the right height. If the seat is too high or too low then remove the seat and the plastic battery cover. Remove the bolt. Move the seat stem up or down to suit your requirements – refit the bolt, tightening securely – refit the plastic battery cover and refit the seat.

The seat can also be adjusted in 3 positions backwards and forwards – this is easier than adjusting the chassis to suit your height. This can be done by removing the seat – turning it upside down and re-locating the central casting into any one of the three positions available. Make sure that this casting is re-fitted tightly before fitting back onto your vehicle. This operation should be carried out by your dealer on delivery.



The lever on the left hand side of the seat allows the seat to be rotated through 360 degrees and release it to allow removal.

The mechanism locks in four positions every 90 degrees. Remember when moving the seat that the lever has to be held sideways to release the seat mechanism, while to remove the seat the seat must not be in a locked position but must be released and turned

slightly prior to lifting or the lever held to the side while lifting.



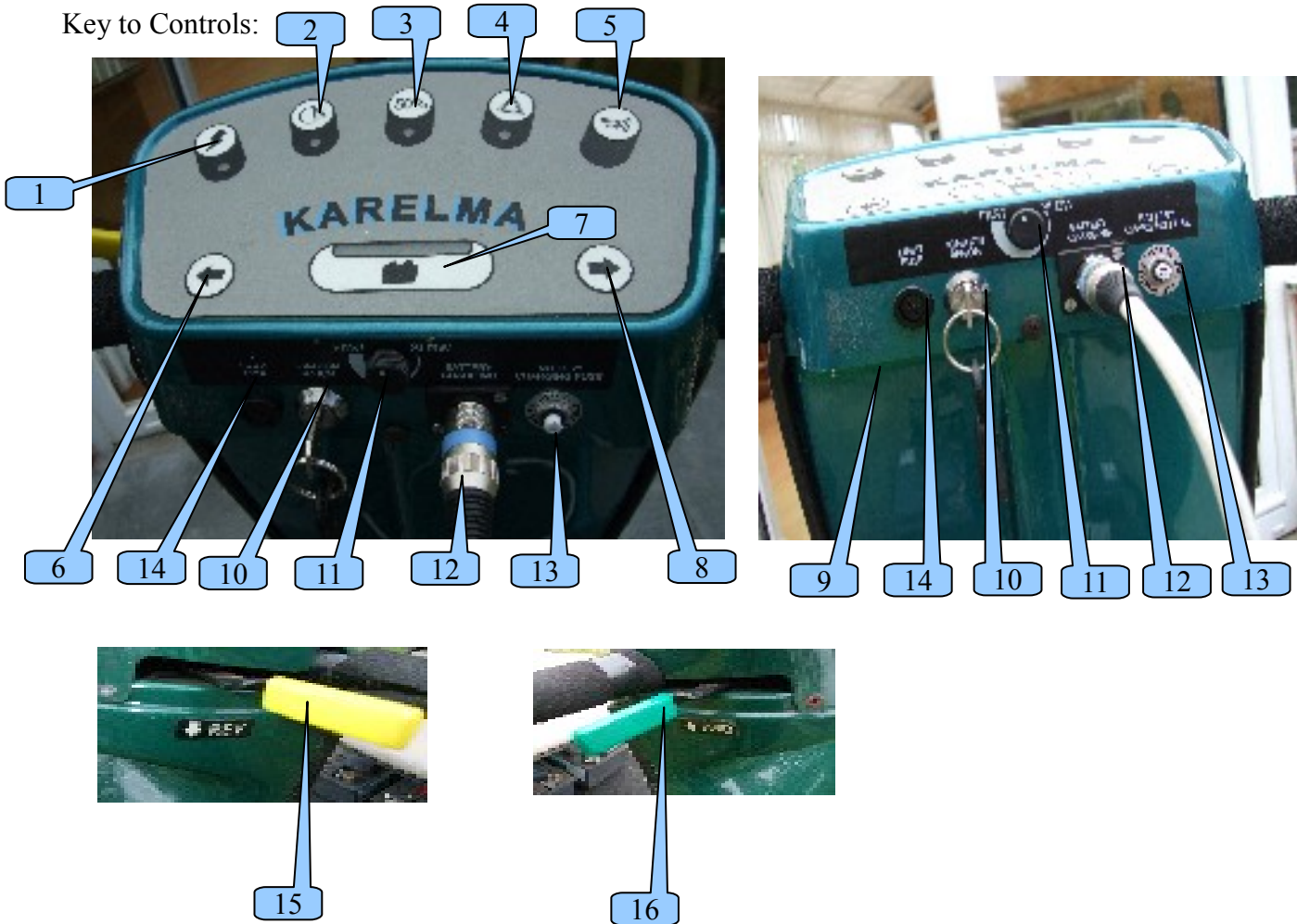
### E. *Fitting the Shopping Basket*

The shopping basket is fitted with two hooked clips which latch onto the bar at the rear of the seat. The basket is easy to remove and to refit.

### 3. CONTROL PANEL AND SWITCHES

#### A. The Control Panel

Key to Controls:



- |                                 |   |
|---------------------------------|---|
| 1. Power Enable Switch          | 9. Red Brake Release Button (Under Panel Head). |
| 2. Headlight Switch             | 10. Ignition Switch                             |
| 3. Half Speed \ Pavement Switch | 11. Variable Speed Controller                   |
| 4. Hazard Warning Light         | 12. Battery Charger Socket                      |
| 5. Horn                         | 13. Battery Charger Fuse                        |
| 6. Indicator Left Switch        | 14. Headlight Fuse                              |
| 7. Battery Level Indicator      | 15. Throttle Reverse Lever                      |
| 8. Indicator Right Switch       | 16. Throttle Forward Lever                      |

## *B Using the Control Panel*

Your vehicle is the most up to date product available. The control panel is easy to use and completely waterproof.

When you insert your ignition key switch the control panel will automatically go through a self-check procedure. You will observe that adjacent to each switch is an indicator light. This light will illuminate when any of the functions are selected. **The vehicle cannot be used until the POWER ENABLE switch is selected which turns off the light.** This switch is marked with a lightening symbol and must be used each time the ignition switch is removed. The vehicle will also automatically select the 50% speed setting for pavement use. When a faster speed is required depress the half-speed switch and the vehicle will be ready for 8 MPH usage. There is an audio \ sound feedback which indicates to you that you have selected a function. Speed adjustment can also be made in either the 100% or the 50% speed setting by using the variable speed controller located in the centre of the control panel next to the ignition switch.

**NOTE: REMEMBER - WHEN SETTING OFF – TO SWITCH OFF THE POWER EVABLEL BUTTON AND REMEMBER THE VEHICLE IS SET TO 50%.**

WHEN THE INDICTOR SWITCHS ARE SELECTED – YOU WILL HEAR A BEEP – THE RELEVANT INDICATOR LIGHTS WILL FLASH AND YOU WILL HEAR A 'CLICKING' SOUND TO TELL YOU THAT AN INDICATOR IS SELECTRED. Once you have made your turn then ensure you switch the indicator OFF. It is often a good idea to use your HAZARD WARNING LIGHTS when crossing the road from pavement to pavement.

ONLY USE YOUR LIGHTS IN POOR LIGHT OR DARKNESS AS UNDUE USAGE USES ENERGY FROM THE BATTERY WHICH REDUCES YOUR VEHICLES'S RANGE.

## *C. Using the Accelerator*

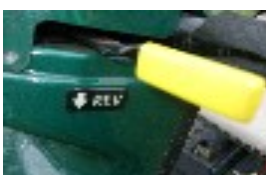
The THROTTLE LEVERS are conveniently located on each side of your handlebars and can be operated either by left or right hands.

These levers are colour coded:

**GREEN - FORWARD**



**YELLOW - REVERSE**



**TO STOP THE VEHICLE QUICKLY AND EFFICIENTLY REMOVE YOUR HANDS COMPLETELY AWAY FROM THE THROTTLE LEVERS.** This action will bring the vehicle smoothly to a halt.

## ***OPERATING AND DRIVING THE VEHICLE.***

### ***A. Climbing Hills***

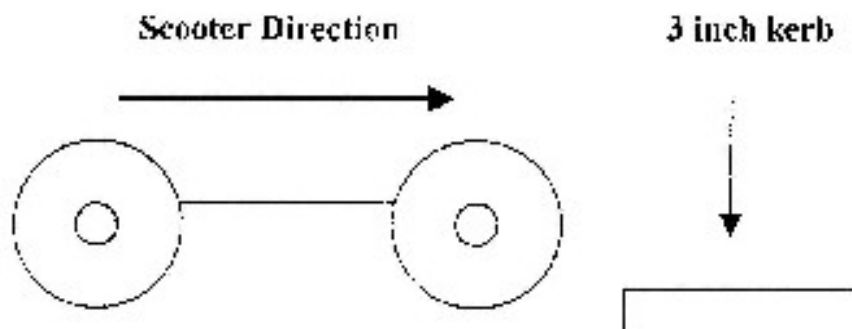


15% or 1 in 6 slope

Your vehicle can cope with most slopes and hills but remember more energy is used when climbing slopes, on turf or in gravel. Remember to go straight up and down hills – **DO NOT TRAVERSE ON A HILLSIDE AS YOUR VEHICLE IS LESS STABLE AND MORE LIKELY TO TIP OVER. DO NOT REVERSE DOWNHILL. DO NOT ATTEMPT TO START YOUR VEHICLE ON A STEEP SLOPE: MOVE TO FLAT GROUND. DO NOT DRIVE YOUR VEHICLE THROUGH DEEP GRAVEL, PUDDLES/MUD.**

### ***B. Climbing Kerbs***

Scooter Direction

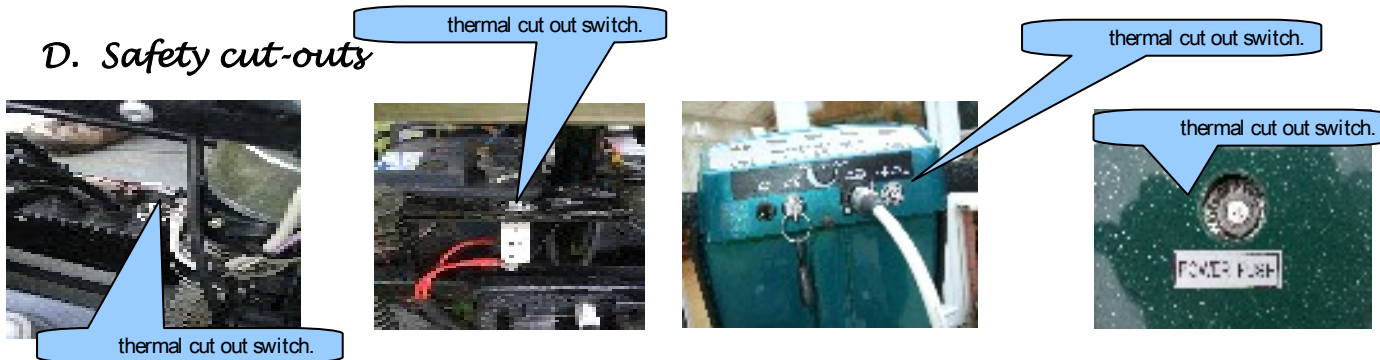


When climbing kerbs, we recommend that there are two ways to effectively and safely undertake this task. If the kerb is between 1 inch and 2 inches high, then approach the kerb from the front and accelerate from a few inches to 1 foot and gently bump up the kerb with the front wheels and do the same with the back wheels. If the kerb is higher than 2 inches then it may be better to approach the kerb from a slight angle and take one wheel at a time using the same procedure. Your vehicle is capable of climbing kerbs of up to 4 inches. Do not undertake kerb climbing from a standing start. Always ensure the vehicle is moving forward.

## B. Motor Brake Switches.

The MOTOR-BRAKE SWITCHES ARE ONLY USED FOR WHEELING YOUR VEHICLE WHILST YOU ARE DISMOUNTED. The position for driving is ON – which means that the motors are engaged and ready to drive. The OFF position means that the brakes are disengaged and the vehicle horn will sound continuously when the accelerator is used – warning you to engage the motor-brakes. To move your vehicle by hand you must select both motor-brake levers to OFF and press the red button on the handlebars.

## D. Safety cut-outs



On top of ONE battery there is a safety thermal cut out switch. This is normally pressed fully in – however if for any reason your vehicle stops or fails to operate check this cut-out. \you will need to remove the seat and plastic rear cover to do this. The cut-out is only designed to work if the motor in the vehicle is subject to continued use at a very high current or if the vehicle is being asked to go up a slope or kerb that is too steep for the power of the electric motor. **IT IS DESIGNED TO PROTECT BOTH YOU AND THE VEHICLE.**

If this cut-out has popped out then reset the cut out by pushing the button in firmly until it clicks back in and stays in. Try the vehicle again on a flat surface and not against any obstructions.

## E. On \ Off Security Key

Your vehicle is supplied with an ON\OFF security key switch which has two uses. It acts as an ignition key and as an ON|OFF device for the vehicle. When you wish to drive the vehicle first get comfortably seated and then insert your key switch.

## 5. BATTERIES

### A. *Type to be used*

Your vehicle is supplied with DRYFIT – MAINTENANCE FREE BATTERIES. We do not recommend the use of lead \ acid batteries as they are difficult to transport and need constant attention – refilling and can only be re-charged under controlled conditions.

Your vehicle comes complete with 35/40 AMP/HOUR batteries as recommended will eliminate the need to top up with distilled water and ensure safety in transit. Also remember that the battery charger supplied is set up to recharge **DRYFIT / GELL** batteries. Lead Acid batteries have very different charging characteristics and will need a different battery charger. **WE DO NOT RECOMMEND THE USE OF LEAD ACID WE BATTERIES.** When you need to replace your batteries see your supplier and insist upon DRYFIT batteries – these need to be **DEEP CYCLE TRACTION BATTERIES.** We recommend the use of **SONNENSCHNEIN – HAGEN – YUASA – STECO** or a reputable manufacturer.

### b. Charging the Batteries



Your vehicle is fitted with a battery life indicator on the control panel. You should recharge your batteries after every long trip or when you envisage making a long trip. Your battery life indicator will go from GREEN TO – ORANGE TO – RED as your batteries discharge on a journey. When your indicator on the control panel indicates red the

batteries must be recharged.

If after a journey the indicator reads orange, still recharge the batteries before further use. The batteries should be charged on the vehicle using the battery charge socket located on the box under the handlebars. Make sure that you connect the charger to the vehicle **BEFORE** plugging the charger into the mains supply. Your charger when in use should be stood on a flat surface. **NEVER COVER THE CHARGER OR BLOCK THE AIR VENTS IN ANY WAY AS THIS COULD CAUSE A FIRE.** Do not drop or jolt the charger as this could easily cause damage. Once the charger is working then you should not interrupt the charging cycle and only disconnect the charger once the green light on the charger indicates the batteries are fully charged.

### C. *Safety Instructions and General Hints*

Always try and use the charger inside and not outside – never use the charger in rain or snow – avoid getting the charger wet.

Never try and charge batteries which may be frozen – always thaw the batteries out before attempting to recharge them.

Do not use mains extension cables to your charger unless absolutely necessary. If such a cable must be used make sure it is in good order, properly earthed and rated at 220 \ 240 VOLTS – 13 AMPS. **Do NOT** use an alternative charger or a friend's as they may differ from the one supplied and cause damage to the charger or vehicle.

Never disassemble the charger if it is faulty – contact the supplier for a replacement or for authorised repairs.

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Remember the charger is designed to mate with your batteries – to use an alternative charger may be dangerous and could shorten the life of your batteries.

Always stand the charger on a flat hard ventilated surface and NOT on a carpet or on rags or cloth.

**WHEN YOU NEED TO REPLACE YOUR BATTERIES SPEAK TO YOUR SUPPLIER – ALWAYS INSIST ON DEEP CYCLE DRYFIT BATTERIES – NEVER USE CHEAP CAR BATTERIES.**

#### **D.     *Safety Cut-Out***

Your vehicle is fitted with a safety cut-out switch in the battery charging circuit. This is located on the steering column at the front of the vehicle. Always make sure this is fully depressed or the batteries will not charge. **IN THE EVENT THAT THE SAFETY CUT-OUT CONTINUES TO POP OUT WHEN ATTEMPTING TO CHARGE YOUR BATTERIES – CONTACT LSC Mobility – 07905 013221 or E-Mail :- [Mobility@Lovat.Biz](mailto:Mobility@Lovat.Biz)**

#### **Transporting Your *Karelma***

The *Karelma* is designed to be dismantled but not recommended for transportation in a motor vehicle. If necessity demands then Follow the following steps carefully.

1. Remove the seat and batteries
2. Undo the light connector on the rear plastic.
3. Carefully remove the plug in the metal box.
4. Using the black cable connecting to each side of the chassis, pull to disconnect locating pins. At the same time, push the handlebars forward. The rear chassis will now separate allowing packing into the car. Lower the steering if required.

To assemble, reverse the procedure, making sure the chassis relocates properly and the two connectors are firmly replaced. Ensure that steering column is adjusted and firmly tightened.

## **6. VEHICLE DESCRIPTION**

Your vehicle is constructed of the finest materials and is intended for use for both outside and inside purposes. Avoid where possible usage in very wet weather, however your vehicle is constructed to be used in both Summer and Winter months. The vehicle is constructed of a plastic coated steel chassis and through coated plastic panels. The electronics are all high quality, industry standard components and the product will give long and reliable service.

This vehicle is designed for use on the road or pavement and is therefore a Class 3, four wheel, electrically propelled Scooter.

## **7. MAINTAINING AND ROUTINE SERVICING**

### **General**

Apart from keeping the batteries fully charged there is little maintenance required on your Karelma K34. However:

- Keep a regular check on your tyres for wear and tear and keep them fully inflated (Approximately 25 PSI – 2 BAR)
- Keep your vehicle clean and smart – wash the vehicle down with car shampoo and polish with a regular liquid car wax polish. Wipe the seat clean with a damp cloth.
- Check all wires and connectors every 3 months for tightness.
- Get your supplier to check over the vehicle annually and he will also service your motor and check the motor brushes.
- Check the nuts on the front wheel and rear wheel every 3 months for tightness.
- Never let the batteries stand in a fully discharged condition – this could damage the plates and shorten the life of your batteries.
- Do not regularly run your vehicle until the batteries are totally flat – this will reduce the life of the batteries.
- Remember the batteries will take 8 – 10 charges to run in before giving best efficiency and longest range.
- Remember batteries do not last forever – the life will depend on how many times they are recharged and how they are looked after during the course of their life.

**Karelma (UK) Ltd**  
*Karelma* – Vehicle Guarantee

Your vehicle is guaranteed for a period of 12 months from the date of purchase subject to the following conditions:

1. Any repairs or the replacement of parts must be completed by an authorised dealer or agent.
2. Items not covered by this guarantee are – batteries, tyre tubes, tyres, upholstery, battery charger if not supplied by Karelma (UK) Ltd, motor brushes, brakes (when applicable).
3. This guarantee is not transferable if the vehicle is sold or bequeathed or if the ownership is transferred for whatever reason.
4. If the vehicle requires repairs then it must be taken back to the dealer or agent who supplied it, who will replace or repair parts where necessary. These parts will be replaced free of all charges or labour charges and will be guaranteed along with the guarantee of the vehicle.
5. Where parts are replaced outside of the guarantee – these parts will carry a 3 month guarantee from the date of the repair.

- Under normal circumstances your vehicle will not be covered under its guarantee if:
- The vehicle is damaged as a result of accident damage, neglect or improper use.
- Where non original parts are fitted which may have affected the normal workings of our vehicle.

Where repairs have been carried out by non authorised personnel prior to your dealer or agent being informed.

7. The dealer supplying your product will have technical manuals and be able to supply you with products and servicing.

The above guarantee in no way affects your statutory rights as a consumer. Please keep the following information to hand when calling for your service:

MODEL TYPE .....  
SERIAL NO .....  
DATE PURCHASED .....  
DEALER\AGENT\SUPPLIER .....  
CONTACT..... TEL NO.....

Karelma (UK) Ltd reserves the right to alter without notice any specifications or details outlined in this user manual however all instructions as to the use of your vehicle remain appropriate.

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**WARRANTY SERVICE CHECK LIST.**