



S146 User Manual

Please ensure manual is read and fully understood before using the scooter.

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Introduction

Congratulations on your purchase of the Roma Medical scooter. This scooter incorporates the latest innovative designs having articulation front wheels.

The Roma Medical scooter can be used in confined spaces both indoor and out. Direct drive rear transaxles and electro magnetic brakes give a safe and efficient ride. The Roma Medical scooter is designed for those persons with limited mobility.

Intended use.

The Roma Medical S146 was carefully designed for indoor or outdoor use in pedestrian areas by a single individual with limited mobility up to a maximum weight of 136kg(21st). The acute manoeuvrability prohibits the use by persons who are severely physically impaired or those who have balance difficulties. Your assessor/healthcare professional will determine the suitability of the scooter for each individuals intended use.

Note: Persons with lower body amputations should not use this device unless evaluated with artificial limbs fitted, as stability may be compromised due to an irregular centre of gravity.

FEATURE GUIDE S-146



- | | |
|--------------------------|----------------------------------|
| 1. Tiller | 8. Drive wheel |
| 2. Control panel | 9. Seat pivot lever |
| 3. Wig-wag control lever | 10. Rug |
| 4. Removable seat | 11. Front bumper |
| 5. Armrest assembly | 12. Head light & indicator |
| 6. Rear wheel | 13. Tiller angle adjustment knob |
| 7. Basket | 14. Seat position adjuster |

Safety Advice



DO:

- Read this manual carefully before using your scooter
- Turn the power off when transferring to and from the scooter
- Select a slow speed when going down gradients (max 10°) or over uneven ground
- Keep your feet on the scooter whilst driving
- Ensure the seat is in a fixed position facing forwards before driving
- Ensure the batteries are fully charged before your journey
- Avoid rough or soft terrain and long grass wherever possible
- Be aware of other road users and pedestrians
- Turn the power off when not in use
- Follow the maintenance guide to ensure safe operation of the scooter
- Always remove the keys if leaving the scooter unattended.

Unauthorised persons/children may use the scooter resulting in injury.



DO NOT:

- Carry passengers
- Exceed inclines over 10°
- Traverse inclines
- Attempt inclines if the surface is slippery
- Turn sharply at full speed as this may affect stability
- Use the scooter in high wind if a canopy is fitted (winds exceeding 38mph / 61kmph)
- Exit or enter the scooter unless the power is switched off
- Switch off the power whilst driving - this will cause the scooter to stop abruptly
- Use the scooter where you cannot safely or legally walk
- Attempt to climb kerbs except drop down kerbs not greater than 50mm
- Use the scooter if under the influence of alcohol or any medication
- Use a mobile phone whilst driving
- Attempt to negotiate steps or escalators
- Sit on the scooter if being transported in a vehicle
- Attempt to tow any other devices

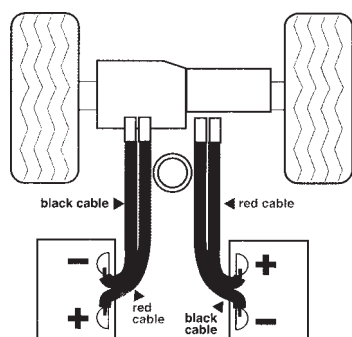
- Exceed the stated weight limit
- Connect any other devices to the batteries as this could cause permanent damage and void your warranty
- Use any other charger other than those supplied by Roma Medical
- Travel through water or over soft terrain (mud, sand etc.)
- Travel on the road except when crossing between pavements
- Lift the scooter by the shroud assembly or any plastic part
- Sharply shift your centre of gravity as this could make the scooter unstable

Every care has been taken to ensure that your scooter will give you safe, reliable service provided you adhere to the advice given above.



Caution! Never leave the scooter unattended whilst in freewheel mode as it will roll away down an incline. *Freewheel* mode should only be used in an emergency to move the scooter due to power failure. NEVER move the scooter in this mode whilst it is occupied.

Batteries



Your scooter is equipped with maintenance free, sealed lead acid batteries. These batteries require no maintenance other than ensuring that they are properly charged. If other batteries are used, check with your battery supplier for proper battery care and maintenance instructions.

Your scooter comes supplied with two battery cables. Attach the red wire of the first cable to the (+) terminal of the first battery. Attach the black wire of the first cable to the (-) terminal of the first battery. Repeat this procedure for the second battery.

Charging the batteries

Note: because your batteries may only have a partial charge when you first receive your scooter, you may not experience full riding time until you have fully charged them. Your scooter is equipped with a battery charger. Charging your batteries as specified below will ensure maximum life, power and range.

WARNING!

Use of a non-grounded receptacle could result in an electric shock

Using Off Board Charger

1. Turn off the power on the scooter.
2. Plug the charger cable into an outlet.
3. Plug the charger outlet cable into the charge socket on the scooter.
4. Two lights on the battery charger indicate the following.
 - Red power indicator light constant - power on.
 - Red charging indicator light constant - charging.
 - Green light constant - charging complete.

■ Disassembly of the scooter

This scooter can be separated into six parts, the front frame, rear frame, basket, rear shroud, and the seat. Follow the procedures below to disassemble your scooter and transport it with care.

1. Front Section
2. Rear Section
3. Rear Shroud
4. Seat
5. Basket
6. Battery



■ Disassembly and Assembly of the Scooter



move the tiller to the forward position, pull up on seat release and remove seat.



remove cover.



disconnect the indicator light cable and charger cable.



disconnect both batteries.



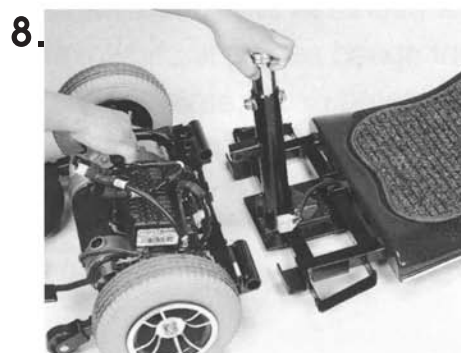
remove both batteries.



disconnect the white connector.



remove the connecting pin.

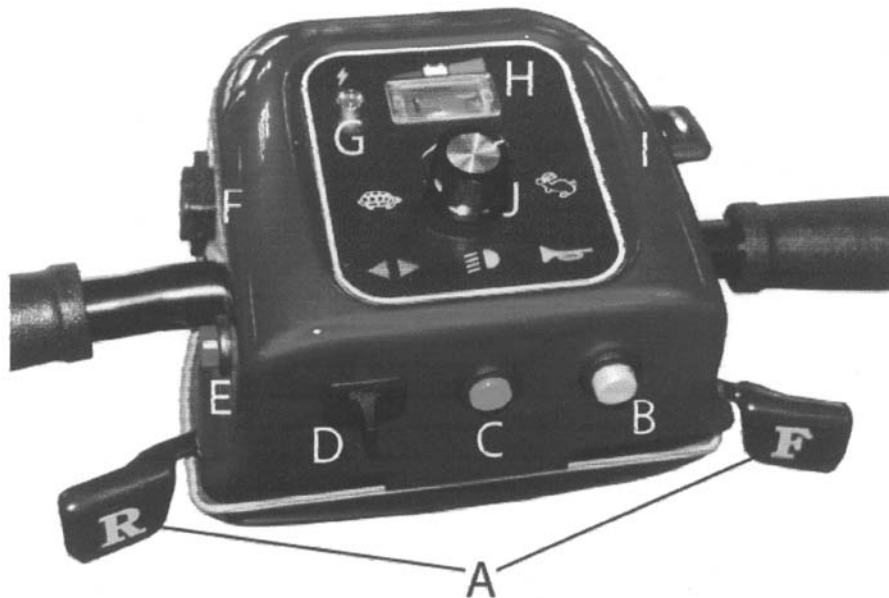


pull the motor section away from the footrest section.

■ Controls

Only drive within your control limitations. Loss of control of your scooter could result in serious injury to yourself or others. If your speed becomes difficult to control, release the speed thumb lever and your scooter will come to a complete stop. Only use the on/off switch to stop your scooter in an emergency.

(NUMBER OF FLASHES)	MEANING	SCOOTER CONDITION	REMARKS
1	Charge battery	DRIVING POSSIBLE	BATTERY VOLTAGE LOWERED TO LESS THAN 23.3V, CHARGE BATTERIES SOON
2	Battery voltage too low	DRIVING NOT POSSIBLE	BATTERY VOLTAGE LOWERED TO LESS THAN 16.5V, CHARGE BATTERIES IMMEDIATELY
3	Battery voltage too high	DRIVING NOT POSSIBLE	BATTERY VOLTAGE INCREASED TO HIGHER THAN 32V. PROBABLY DEFECT CHARGER
4	Current time limit out	DRIVING NOT POSSIBLE	DETECTOR DETECTED SHORTCUT IN THE MOTOR. WARN DEALER
5	brake fault	DRIVING NOT POSSIBLE	CHECK IF FREEWHEEL IS DISCONNECTED
6	Not in neutral at power up	DRIVING NOT POSSIBLE	CONTACT DEALER
7	Speed pot error	DRIVING NOT POSSIBLE	CONTACT DEALER
8	Motor volts error	DRIVING NOT POSSIBLE	CONTACT DEALER
9	Other internal error	DRIVING NOT POSSIBLE	CONTACT DEALER



"A" - These determine the direction of travel. Pressing the "F" side will move the scooter forward, "R" will put the scooter in reverse.

"B" - Pressing *B* will sound the horn. (Please note that the horn should only be used to warn other persons of your presence and should not be used as a rebuke of any form).

"C" - Pressing "C" will turn on the headlights. Be aware that prolonged use of headlights can reduce the range of the scooter. Simply press again to turn the lights off.

*D" - This switch operates the indicators. Switch to either the left or right as desired. Switch to the central position once the manoeuvre is complete and it is safe to do so.

"E" - Pressing button "E" will operate the hazard warning lights.

"F" - This is the charge socket. Slide the cover to use the socket.

"G" - This is the status indicator. This will light green when the power is switched on. The indicator will also display the diagnostic code should the scooter develop a fault.

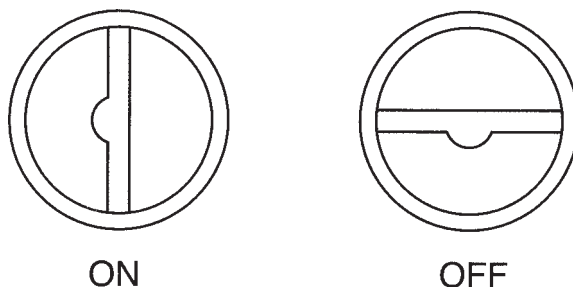
"H" - The gauge gives a guide to the amount of charge in the batteries. The indicator when in the red segment indicates the batteries should be charged as soon as possible. When the indicator is in the highest point of the green segment the batteries are fully charged.

Always fully charge the batteries before driving your scooter and never allow the batteries to become completely drained, this could cause permanent damage to the batteries.

"I" - Turn the keyswitch clockwise to turn the power on, anti-clockwise to switch off. Always switch off the power and remove the keys when leaving the scooter unattended to prevent any unauthorised use.

"J" - The speed control setting is adjustable by turning the black knob in the centre of the tiller head. Turn from the tortoise (slow) to the hare (maximum speed). Start at a slow speed until you are accustomed with the characteristics of your scooter. Do not twist the knob excessively, only turn as far as it stops.

Key switch



When the key is turned to a vertical position, the scooter is ON and ready to drive. When the key is turned to a horizontal position, the scooter is OFF.

Brakes and throttle control lever:

Whenever the speed lever is pushed, the electromagnetic brake will automatically release and your scooter will move. When the speed lever is released, it will return to the neutral position and the scooter will decelerate and come to a complete stop. The parking brake will then engage preventing further movement of your scooter.

Your unit is equipped with a programmable controller that has a high peddle disable feature. This will prevent unexpected acceleration of the scooter, if the speed lever is being pushed at the same time you turn the key 'ON'. To reset the controller, release the speed engage lever and turn the key 'OFF' for a couple of seconds and then turn it back 'ON'.

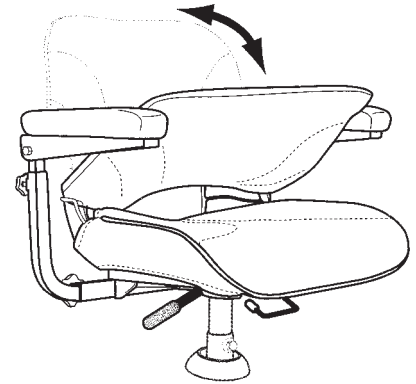


If your scooter ever moves in an unexpected manner, release the thumb lever and turn off the power.

■ Seat adjustment

Backrest angle:

- Fold the backrest down for easy transport.



Seat swivel

The seat swivel lever (located on the side of the seat) allows the seat rotation in 45 degree increments.

You may use this feature to make it easier to transfer in and out of the seat.

- Pull the swivel lever up to unlock and rotate the seat
- Pivot the seat to the position you desire
Release the lever and try to turn the seat back and forth slightly allowing the lever to lock into position



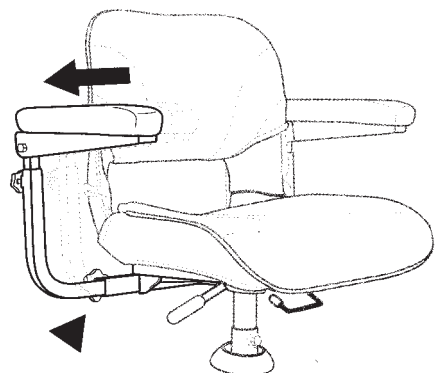
Armrest height:

- Loosen the clamping nut at the rear of the handle
- Turn the bolt in to lower the angle of the armrest to desired angle



Armrest width:

- Locate the width clamping nut (follow the armrest support down to the base of the seat)
- Loosen the clamping nut by turning counterclockwise
- Pull the armrest in or out to reach your desired position
- Tighten the width clamping nut



■ Tiller Angle Adjustment:

The tiller angle adjustment knob allows you to position the tiller closer or further away for better access to the controls.

- Locate the angle adjusting knob located on the right side of the tiller.
- Hold the tiller with one hand and loosen the hand knob by turning anticlockwise with the other hand.
- Adjust the angle of the tiller to a comfortable position.
- Turn the handknob clockwise to tighten, test the tiller is set in position by attempting to push back and for to push backward and forward.



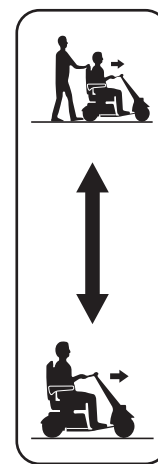
■ Free Wheel Mode

Make sure the free-wheel lever is in the drive (up) position to prevent the scooter from rolling. Never sit in your scooter if it is in "Free wheel" mode.

Manual free-wheel mode:

Your scooter features a "FREE WHEEL" mode for manual operation. To activate manually, turn the key switch OFF and locate the free-wheel lever on the right side of the rear cover. Pull lever to the "FREE WHEEL" position to disengage the brake. Push the lever to the "DRIVE" position to reengage the brake. When the scooter is in manual free-wheel mode, you will have no brakes. You will be unable to operate the scooter. When you wish to push your scooter for a short distance, you may put it into Manual Free-Wheel mode.

free wheel position



drive position

Getting in and out:

Your scooter is designed to make getting in and out of the scooter as easy as possible. Make sure the scooter is on a level surface and the key switch is turned OFF. If necessary, raise the armrest to give you maximum space to transfer in or out of the seat. Once transfer is complete, return the armrest before operating the scooter.



Never operate your scooter without your feet being placed on the scooter platform. Driving your scooter without your feet on the platform could cause serious bodily injury.

Starting to Drive

Getting Started



Note: You must fully charge the batteries prior to first use (see **Batteries and Charging**)

Select an area with plenty of space.

Mount the scooter by either lifting the arm and sliding onto the seat or swivel the seat around to access the scooter. **Ensure the seat is securely locked in the forward facing position before driving.** Adjust the tiller and seat if necessary (see **Adjustments**). **DO NOT use the tiller to fully support you during transfers.**

Moving Off

Turn the key clockwise to turn on the power. Initially set the speed control to a low setting. Push your right thumb lever and the scooter will move forward slowly. The further you push the lever the faster the scooter will travel, but only to the maximum speed that has been selected. Release the lever and the scooter will come to a smooth controlled stop.



Caution! DO NOT switch off the power to stop the scooter as this will cause the transmission to lock and the scooter will come to a sharp stop, which could possibly cause injury. This procedure should only be used in an emergency.

Steering

Steering the scooter is light and easy. Ensure you give obstacles a wide clearance to avoid the rear wheels catching. When steering through limited spaces, turn the tiller in the direction that you wish to go and apply power gently. The scooter can turn very tightly with complete stability at slow speeds.



Caution! NEVER turn sharply at high speeds (when speed is set in the red area on the dial) as it can make the scooter unstable, which could lead to injury.

Reversing

Before reversing ensure the area behind the scooter is free from any obstacles or hazards. Adjust the speed setting to low before you reverse. Press the left thumb lever, and steer wide of all corners and obstacles.

 **Caution!** Do not reverse onto a main thoroughfare.

Ramps / Slopes

The stability of your scooter depends on several factors such as seat height, angle of gradient and the users height and weight. When approaching an incline, do so directly (Fig. 8) and not at an angle (Fig. 9) and avoid making turns where possible.

Fig 8

Right

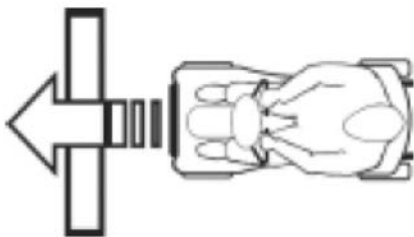


Fig 9

Wrong



Surfaces

Your scooter will perform well over many surfaces. However, avoid long grass, loose gravel, sand and mud and ice.

Maintenance

Cleaning the Scooter

When cleaning the scooter please pay attention to the following points:

- Only use a damp cloth and gentle detergent.
- DO NOT use any abrasive products.
- DO NOT use a hose or pressure washing equipment.
- AVOID water contact with any electrical components.
- DO NOT put the scooter through an automated car wash or similar.

Check List

If your scooter fails to operate, please check the following:

- The unit is switched on.
- All plugs and connections are firmly fixed.
- Battery level shows full charge.
- Freewheeling device is in the drive position
- Circuit breaker has not tripped.

If the freewheel device has been operated with the scooter switched on, the scooter will not operate until the key switch has been turned off and on again.



Note: Should your scooter fail to operate after checking these possible problems, consult your local Roma Medical dealer immediately.

■ Technical Specifications - S146

Model No. S146	
Length:	47"
Width:	22.6"
Seat height (from ground)	16"~19"
Front wheel	10" Pneumatic tire
Rear wheel	10" Pneumatic tire
weight Capacity	300 lbs
Speed	max 4 mph
Range	max 20 miles
Turning Radius	49"
Light	Front and Rear with Indicators
Battery	12V - 34/36AH x 2 (50AH Optional)
Brakes	Intelligent, regenerative and electromagnetic brakes
Anti-tip	2 rear anti-tip wheels
Bumper	Front / Rear
Unit Weight	180 lbs

Further Information



Safety Information Regarding Electromagnetic Interference (EMI)

Scooters and powerchairs are designed to operate under certain conditions. However, radio waves or electromagnetic fields may affect the operation of the scooter. The source of EMI could be radio or television transmitters or portable devices such as mobile phones, portable CB radios etc.

Should any unintentional movement occur turn the scooter off as soon as safely possible.

Solar Energy

During periods of sunny weather, it is possible that surfaces of your scooter may reach high temperatures (as with motor vehicles). Please take precautions if leaving the scooter in direct sunlight for any period of time. Seek shade or cover the seat and hand controls to keep any temperature increases to a minimum.

Health Factors

Suitability for this product has been assessed on the user*s current state of health. It is essential that the user regularly monitor their ability to use the scooter safely.

General Use

Take heed of the information given in this manual regarding safety and the maintenance of your scooter. If adhered to, your scooter should give you years of reliable mobility.

Storage and General Care

We recommend that the scooter is always stored in a dry environment such as a garage or shed to protect the chassis and other components from corrosion. Do not leave the scooter outside during rainstorms. If the scooter is wet, wipe with a dry cloth to ensure there is no ingress of water into the internal components of the scooter.

Product Stability

Scooters and powered wheelchairs are designed to allow the user flexibility of movement in restricted areas. Driving at maximum speed and attempting sharp turns can create a situation where the product becomes unstable. Therefore it is essential that the user pay attention the guidance set out in this manual.

For maximum stability the speed setting should be set up to 50% of the maximum available (halfway between the tortoise and the hare or just entering the red sector on the speed indicator depending on the model.

The main factors affecting stability are:

- Maximum speed setting
- Seat height
- User movement
- User's manoeuvres
- Gradients or slopes

Please keep your speed to a level where you can safely stop without having to make any erratic turns.

Do not load bags etc. on the back of the seat as this will affect the centre of gravity and could increase instability.

Do not lean outside of the 'footprint' of the product, especially whilst moving.

Avoid making turns on gradients or slopes.

Warranty Terms and Conditions

This is to certify that your Roma Medical product is warranted for a period of 12 months from the date of original purchase. This warranty is not transferable.

Should a defect or operating fault arise within this period the Dealer from where the product was originally purchased should be notified immediately. Failure to register the fault may invalidate the warranty.

The Dealer from where the product was purchased is responsible for any warranty repairs.

Roma Medical warrants that if a fault occurs within this period due to faulty workmanship or materials that the product will be repaired (or replaced at the Companys discretion) free of charge.

Any unauthorised modifications will invalidate the warranty.

Parts which are subjected to normal wear and tear, accidental damage, neglect or misuse are excluded from this warranty. Normal wear and tear includes tyres, chassis covers, bulbs, seat coverings etc.

Component parts replaced outside this period carry a six-month warranty. (Standard terms and conditions apply for this period).

Model: _____

Serial No: _____

Purchase Date: _____

Dealer Stamp



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Roma Medical reserve the right to change specifications without prior notice