
Rascal 600F / 600T Scooter

Owners Manual & Service Record



Rascal 600F



Rascal 600T

ELECTRIC MOBILITY EURO

Rascal

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Rascal 600T

Rascal 600F

Electric Mobility Euro Ltd has designed this pair of powerful, durable scooters for a frequent outdoor use. So long as they are maintained and operated in accordance with this manual they should last for many years, and provide you with freedom and independence.

Please read this manual thoroughly before using your scooter. If you have any doubts about warnings or instructions, ask your dealer for an explanation.

If you think the scooter may be damaged, do not drive it but contact your dealer for advice.

We suggest that you keep this manual in a safe place. It contains essential information on the operation of the scooter and includes the maintenance records.

Notice

All Electric Mobility Vehicles are sold through authorised dealers. Make sure your dealer demonstrates all the features of the product prior to, or when, it is delivered.



Warning!

This manual contains important safety notices. Please take time to read and understand them. Ignoring them may endanger you or others.

Contents

Dealer information	4
Features and layout	4
Safety Information EMI	5/6
Intended use	5
Controls – Dashboard	7
Controls – Driving controls	8
Freewheel Device	8
Brakes	9
Seat and armrest adjustment	9
Swivel seat	9
Tiller adjustment	10
Clock	10
Seat height adjustment	11
Driving the vehicle	12
Driving the vehicle – Hazards	13
Transporting your scooter	14
Dismantling your scooter	14
Battery charging	15
Troubleshooting guide	16
Status light diagnostics	16
User maintenance	17
Additional safety information	17
Frequently asked questions	18
Additional information	18
Servicing and maintenance	19
Engineers checklist	19
Guarantee & Warranty	20
Technical information regarding EMI	20
Technical specification	21/22
Returns – Dealer information	23
Service log	24
Brochure request	25
Warranty Card – dealer information	25

Dealer Information

**This is your contact number
for service and support**

Dealer Stamp

Nithsdale Wheelchairs

Telephone:

Email:

Product Model Number

Serial Number

Date of Purchase

Owner

For product information see serial number plate located on the underside of the scooter frame (front and rear).

Manufacturer

ELECTRIC MOBILITY EURO

Electric Mobility Euro Limited

Canal Way, Ilminster, Somerset TA19 9DL

Company Registration in England No. 2419231

Features and Layout

Photo shows 600F model scooter. The 600T is a 3 wheel version. See the technical specification for differences.



Intended use of the vehicle

This vehicle is designed for use by adults with a disability (up to the maximum recommended weight) who require a robust comfortable pavement scooter that is ideal for shopping and other visits.

The scooter is intended for use in shopping areas and trips on reasonably paved areas. It is also capable of manoeuvring on uneven surfaces and on grassy areas unless they are slippery. Rutted tracks, and rough fields should be avoided.

The 600 series has been designed to mount kerbs and small obstacles up to the maximum stated in the technical specification table. By law the 600 T and F model scooters are limited to 4 m.p.h. for pavement use and are not suitable for road use.

Users could endanger themselves and others if they are not capable of driving their scooter safely. Dealers will advise on the most suitable vehicle from the Rascal range, but it is up to users to ensure that they have the manual dexterity to drive the vehicle, adequate sight and hearing to perceive danger in time, and can at all times operate the scooter safely in the expected conditions. If in doubt we suggest you consult a healthcare professional or your nearest dealer for advice on the most suitable scooter for your particular condition. Users should regularly assess their ability to operate their vehicle safely.

Safety Information

Read this manual thoroughly before driving or operating the vehicle.

This handbook is applicable to the 600T and 600F Models.

If you have any doubt about the content of this manual phone your dealer to resolve the problem. Please read this manual, and ensure your scooter is serviced regularly.



Within this manual there are important safety notices. They are clearly marked with the sign (left) Make sure that you understand all these notices. If you have any doubt, contact your dealer.



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Safety Information

General Warnings

- Warning !** The operation of scooters can endanger the life of the driver or third parties. Any driver should always be fully capable of operating this vehicle safely.
- Warning !** Sitting for long periods may increase the chance of thromboses or pressure sores. Users prone to such conditions are advised to take medical advice.
- Warning !** The 600 series scooters have been designed and tested for a maximum carrying capacity of up to 32 stone or 450 lbs or 204 kgs. This weight should **never** be exceeded.
- Warning !** Front Basket. The basket mounted on the front has a weight limit of 10 lbs or 5 kgs. Do not exceed this as it could affect steering. Do not carry or attach anything to the handlebars or controls as this could affect the driving safety.
- Warning !** Passengers, even children, should never be carried.
- Warning !** Electromagnetic interference may affect the driving of this scooter:
- Do not operate devices such as CB radios or mobile phones while the vehicle is switched on.
 - Avoid getting close to transmitter masts, such as television and radio stations.
- If your vehicle ever starts to operate by itself switch it off and report this to your Dealer.
- Warning !** The operation of any scooter may affect sensitive electronic circuits such as alarm systems or automatic doors in shops.

Driving

- Warning ! Freewheel device** Before getting on the scooter, always check that the freewheel lever is in the "Drive" (down) Position (see page 8). When the lever is in the Freewheel position there is **no** braking and the scooter could run down a slope and cause injury or even death.

NEVER SIT ON THE SCOOTER WHEN IN FREEWHEEL.

- Warning ! Damage** Before driving off check the scooter for damage, particularly that which might affect the steering.
- Warning ! Battery Charge** Before driving off always check the battery indicator. If you are in any doubt, ensure the battery is fully charged before starting on a journey.
- Warning ! Slopes** On steep slopes the scooter could topple over. Always try to avoid crossing a slope. If you have to cross a slope, take great care to avoid tipping. Never make sharp turns on slopes. Never drive on slippery or icy slopes. Never back down a slope as your scooter could tip over backwards. If you are not comfortable with the hill gradient, consider an alternative route.
- Warning ! Kerbs** Never climb or descend a kerb greater than that in the Technical Specification. Try to avoid mounting or descending kerbs wherever possible, but if you have to always tackle a kerb head on.
- Warning ! Transferring on and off** Do not attempt to transfer on or off the scooter if on a slope. Always make sure it is on stable and level ground. Ensure the vehicle is switched off before you transfer.
- Warning ! Speed** Turning at maximum speed might cause the scooter to topple over. Always slow down for turns.
- Warning ! Stopping** If the scooter stops suddenly when turning, the scooter might topple. Try not to brake when turning.

Warning ! Leaning Over. Do not lean sideways as this could cause the scooter to topple.

Warning ! Escalators. Never drive this scooter onto an escalator as this could cause toppling and severe injury.

Warning ! Roads. The 600 series scooters are not for use on roads, apart from crossing roads at designated places.

Warning ! This vehicle is not suitable for use as a seat for an occupant when in a motor vehicle.

Warning ! If the vehicle is left out in the sun, surfaces could become extremely hot. Always try to park the vehicle in the shade.

Controls - Dashboard

Before driving your vehicle it is important to familiarise yourself with the controls. Do not attempt to drive the vehicle before reading the rest of this Handbook.



Dashboard Description

- 1. Battery Indicator:** This instrument shows the level of charge in the batteries. When in the green area the batteries are fully charged. When in the yellow area the batteries need recharging and when in the red area the batteries urgently need recharging. Note: When the vehicle is climbing a steep incline or starting off, the level may drop momentarily; this is normal.
- 2. Speed Control Dial:** This controls the top speed of your scooter. It is located on the dashboard below and to the right of the battery indicator. When the dial is turned anticlockwise to the left, this is its slowest speed. As the dial is turned to the right the speed will increase to a maximum, which is the highest speed. Set the speed before you move off. Try not to adjust when the vehicle is moving.
- 3. Light Switch:** When the ignition key switch is on, the head and tail lights can be switched on using the 3-position switch on the bottom right hand of the dashboard. In the upper position, both head main beam and tail lights are on, in the lower position only the tail lights and front “dipped” beam is on. In the centre position all lights are off.
- 4. Ignition Switch:** The ignition key switches power to the vehicle. Remember to remove key **when not in use**. Do not leave the ignition or lights on when not in use, especially when charging the vehicle.

5. **Horn:** Press the button on the bottom left hand or bottom right side and the horn will sound. Release and the horn will cease.
6. **Indicators:** Even when the ignition key switch is off, the indicator left or right can be selected using the rocker switch above the key switch.
7. **Hazard Warning Switch:** Above the indicators is a triangular hazard-warning switch for selecting the hazard warning lights. This will operate whether the ignition key is on or off.
8. **Seatlift Switch.** If seatlift accessory is fitted, this switch enables the seat to be raised or lowered. See page 11 for instruction on how this is operated.
9. **Status light.** (see page 16).

Controls - Driving Controls

Finger control - To operate, turn on the ignition. Pull the right hand lever towards you and the machine moves forward. The more you pull the lever the faster the scooter goes. To brake, release the lever. Again the faster the lever is released the quicker you will stop. To reverse, pull the left hand lever towards you. Do **not** pull both levers at once.



Freewheel Device

When the vehicle is switched off the brakes are automatically engaged. This is called "Failsafe Braking". Also, if the batteries are flat, the brakes are applied. There may be occasions where you may wish to move the vehicle without power. To do this there is a Freewheel Device fitted. The Freewheel device allows the vehicle to be pushed without power. To activate, first locate the lever. It is located below the cover on the right hand side of the rear of the vehicle when standing behind it.

- Make sure the ignition is switched off.
- Move the lever up. The vehicle can now be pushed in "Freewheel".
- Move the lever down to engage "drive". The vehicle is now braked. This is the normal operating position.
- **IF YOU ARE NOT COMPLETELY SURE OF THIS FEATURE CONTACT YOUR DEALER BEFORE OPERATING THE SCOOTER.**

Pull the lever **UP** to the upper "freewheel" position to enable the vehicle to be moved without power. Braking is disabled. **NEVER** sit on the vehicle with the lever in this position.

Push the lever **DOWN** to the lower "drive" position. This is the normal operating position. The brakes are enabled, and the vehicle can only operate with the lever in this position.



Brakes

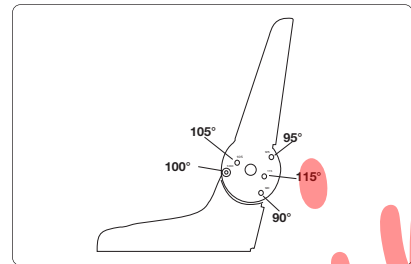
There are 2 braking systems. The first works with the accelerator. When the accelerator is released the scooter will automatically brake and bring the scooter to a stop. When the scooter stops the primary brake will engage. This will stop the vehicle rolling forward or backward. When you start the handbrake will automatically disengage. If the battery should go flat the brakes automatically engage. Note that even when freewheel is selected, a secondary braking system is applied automatically to limit the maximum speed. You may notice this system when moving the scooter in freewheel, and is known as “regenerative braking”.

Warning! If the freewheel device is in “freewheel” the braking is disabled. Never select the freewheel device if the scooter is on a slope or could be pushed onto a slope.



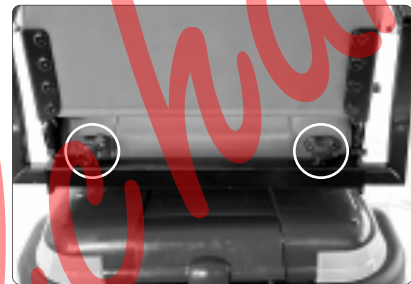
Seat Adjustment

The seat back can be positioned in either one of 5 positions by moving the bolts on the left and right hand side of the seat. Remove the bolts using the supplied wrench and allen key. Adjust the seat back to the most comfortable position. Re-position the bolts and tighten in the desired position. Make sure that both sides are in the same position.



Armrest Adjustment

When getting seated on the scooter lift the armrest up. When riding always have the armrest in the down position. Beware pinch points as the armrests are lowered. If you require more room in the width of the seat undo the black knobs as shown. Slide the armrests in or out to suit. Tighten both knobs to clamp. (shown). To ensure that the user is sitting centrally, the armrests should always be adjusted to be equidistant from the centre of the seat.



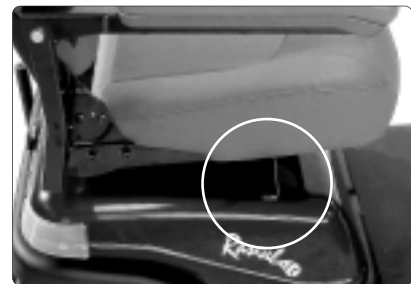
Warning! Always check the knobs are tight before driving the scooter.



Swivel seat

This allows easier access to the seat

- 1. To operate,** locate the release lever under the seat.
- 2. Pull the lever up** and the seat will release allowing it to rotate.
- 3. Release the lever** and the seat will lock automatically.



Warning! Do not use this device if the vehicle is on a slope. Always check the seat is locked in the forward position before driving the vehicle.



Tiller Head Adjustment

The tiller head angle adjustment allows the handlebar/dashboard assembly to be rotated to provide a comfortable riding position. To adjust the tiller head lift to an upright position. By adjusting the screw below the tiller head the angle of the tiller head can be changed. This is done with the allen key supplied. When the tiller head is lowered it will be in its new position.



Tiller Adjustment

The tiller adjustment lever allows you to alter the angle of the tiller to suit your driving style or to fold the tiller down for transporting.

- 1. Locate the lever** at the base of the tiller.
- 2. With one hand holding the tiller** rotate the lever anti-clockwise.
- 3. The tiller is now free to move.** Move the tiller to the desired position and tighten lever by rotating it firmly clockwise.



Warning! Before driving, always check that the tiller is secure and locked

Dashboard Clock

Your Rascal 600 Series Scooter comes with a removable, battery-powered, quartz clock that mounts directly in the dashboard of the scooter. This clock is shipped separately to allow you to set it to your local time before installing in the dashboard. Instructions are provided below to set the correct time and install it in the dash.

Setting the Clock

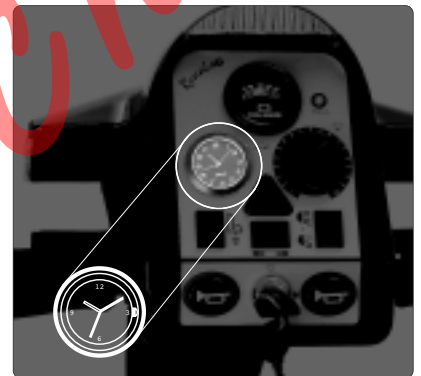
Locate the bag containing keys, clock, and other items shipped separately with the scooter. Unwrap the clock from its protective packing. If clock includes a small, plastic collar around stem, remove collar and push stem "in" to start clock. Set clock to your local time by pulling stem out and turning to adjust hour/minute hands. Push stem in to start clock.

Installing the Clock

When you have set the clock to your correct, local time, you can install it in the dashboard of your Rascal scooter. Install the clock into the location adjacent to the Speed Control Dial. The rubber gasket around the clock face is sufficient to secure the clock in place. Make sure the "12" faces "up."

Replacing the Battery

Remove the clock from the dash, and pry open the case and insert the new battery, type SR626SW or UCC 377 or Ray-O-Vac RW 329. Remember to install the battery with the +ive outwards.



Seat Post Height Adjustment

The seat height can be adjusted as follows:

1. **Remove the seat** by pulling the seat swivel lever and lifting the seat off the seat post.
2. **Unscrew the nut and bolt** and remove from the tube. Try and avoid touching the top of the post as it has serrations which could cut your hand.
3. **Position the seat post tube** to your desired height and align the holes.
4. **Replace the bolt** and secure by tightening the nut.
5. **Replace the seat** by holding the release lever, and inserting the seat onto the seat post assembly.
6. **Ensure that the seat is fully engaged** and that it rotates and locks correctly.

Warning! The seat is heavy. If necessary get assistance to lift the seat. You may prefer to ask your Dealer to adjust your seat height



Electric Seat Height Adjustment

When the seatlift accessory is installed, the seat height can be adjusted electrically. The seatlift rocker switch is on the bottom left hand side of the dash, above the horn (see page 7). To raise and lower the seat:

1. **Push the rocker switch** into the up position
2. **Pull the right finger control lever** towards you to raise the seat
3. **Put the left hand finger control** towards you to lower the seat. Never pull both levers together.
4. **Switch off the electric seat height adjustment** by pushing the rocker switch into the down position.

Warning! For your safety, the scooter will not operate when seatlift is selected. Always ensure that the seatlift switch is in the off position after adjusting the seat height. Never leave it selected.



Driving the Vehicle



Warning! Read this before driving the vehicle!

Whether or not this is your first mobility vehicle, please read these guidelines as all vehicles differ. Failure to do this may cause damage to yourself, a third party or the vehicle.

1. **Before you set out**, do check the weather forecast. We suggest that you make sure you are wearing suitable clothing, whether your journey is long or short.
2. **If you are taking medication** check with your doctor or physician that your ability to control the vehicle will not be impaired and do not drink alcohol and drive.
3. **Only use the vehicle for the purpose it is intended for.** Do not drive through water or on slippery surfaces; do not transport more than one person; do not tow other vehicles or carry excess weight.
4. **Before getting onto your scooter**, check the freewheel lever is **not** in the Freewheel position.
5. **Check the battery charger is disconnected.**
6. **Raise the dash and an armrest to ease your transfer onto the seat.** You can also rotate the seat to ease your entry.



Warning! Do not use the dash as a support as it can easily move causing you to fall.

7. **Check you have adjusted the seat** as instructed in this manual, and it is locked in the forward position and the armrests are down.
8. **Ensure that the dash has been pulled down** into the driving position.
9. **Get comfortable; set the speed control dial to a low setting.**
10. **Make sure the way ahead is clear.**
11. **Switch on the vehicle.** Check the battery level indicator is in the green area.
11. **Pull the right hand lever slowly towards you.** The vehicle will now move off. The more you pull the lever the faster the vehicle will go.
12. **To brake, release the lever.** If you become unsure or feel unsafe release the lever immediately.
13. **As you get accustomed to the power** you can increase the speed.

Driving the vehicle - hazards



Warning! Before driving the scooter you should be aware that, under certain circumstances it could become unstable and tip over. As a Class B Scooter, the maximum safe slope it can negotiate in any direction is defined in the technical specification. Your scooter has been designed to operate on paved, even surfaces and should not be used on rough terrain.

- 1. Getting on and off the vehicle:** When getting on make sure that the vehicle is on level ground, and not in freewheel mode. Ensure that the armrests are secure. When getting off, park on level ground, turn off the ignition and remove the key before leaving your seat. Make sure you get off the vehicle in a safe area.
- 2. Handlebar Position.** Before driving, the handlebars should always be lowered into the driving position. This correctly positions the headlight and ensures all the controls are in the right position for comfortable operation.
- 3. Tiller Position.** Never drive with the tiller in the unlocked position, as injury could result from unintended tiller movement while driving. Do not use the dash as a support as it could move causing you to fall.
- 3. Kerbs and Obstacles:** Do not ride up kerbs or obstructions higher than in the Technical Specification Sheets. Always tackle obstacles head on. The anti-tip rollers at the rear of the scooter may contact the kerb as you descend; this may cause a loud click. This is normal.
- 4. Hills & Slopes: Going Up Hill. Lean forward when going up.** Make sure you have enough speed to climb the slope. **Do not stop or turn the vehicle around.** If you have to turn while climbing an incline, keep going until you reach a level area. If you have to start on an incline, lean forward and apply power slowly – do not start and stop. If you are not comfortable with the hill gradient, consider an alternative route. Try to avoid crossing a slope. If you have to cross a slope, take great care to avoid tipping.

Note: Always check that the battery level is high; going up hill takes a lot of energy. If the level drops too low the vehicle will cut-out leaving you stranded.
- 5. Hills & Slopes: Going Down Hill. Lean back in the seat when going down,** and turn the speed control dial to low. If you are not comfortable with the hill gradient, consider an alternative route.

Always try to avoid crossing a slope. If you have to cross a slope, take great care to avoid tipping. Never make sharp turns on slopes. Always try to drive straight up or down the slope. NEVER BACK DOWN A SLOPE!
- 6. Turning:** Slow down and look in the direction you are travelling – If there is a blind corner sound the horn.
- 7. Bad Weather:** If it is snowing or icy stay at home! Remember that ice, snow and slippery surfaces such as manhole covers, wet grass and drains could affect braking and steering. Use caution at all times.
- 8. Wheels and Tyres:** Repair of tyres or wheels should be by your local dealer. If you are particularly concerned about punctures consult you local dealer for advice on puncture proofing products.

Transporting your Scooter



Warning! Dismantling the scooter involves lifting and handling heavy parts. Weights are given in the Technical Specification; consider if you need help in handling parts before you try to lift them. The 600T and F models can be transported in vans or estate cars using ramps. By lowering the tiller and removing the seat the height can be reduced to make entry into the boot of most large estate cars possible. Contact your dealer for advice on how best to transport your scooter.

Warning! Pinching or Crushing. Be careful to avoid being pinched or having your hands crushed when lifting or handling parts. Wear gloves whenever possible.

To transport your scooter you will need to dismantle it. Follow these instructions

1. **Lift the swivel lever to unlock seat** and, using two able people, lift the seat off the chassis.
2. **Raise the tiller head** until it is in the uppermost position.
3. **Rotate the tiller adjustment lever** until the lock is disengaged, and lower tiller to the horizontal position.
4. **Remove basket** by pushing up from below.
5. **Using ramps drive the scooter into the boot of the estate car.** Take great care that the ramps are secure and the scooter is always aligned to the ramps. Ask your dealer for a demonstration.
6. **Secure chassis so it cannot move** when the car is in motion or stops suddenly.
7. **Stow seat** using two persons to load it into the vehicle.

Dismantling Your Scooter

Your scooter can be dismantled further, but you are advised to get guidance from your dealer. The Tiller and the Dash can be removed, and the batteries can be taken out and carefully stowed in the upright position. See the Technical Specification for the weights of the components.



Warning! Always ensure that the battery tie down straps are secure before operating the scooter, or storing the scooter on the rear bumper.

Battery Charging

Warning! When charging batteries NEVER smoke, or do this in a place where there are naked flames such as gas-fired heaters as, under exceptional circumstances, batteries may give off gases which could ignite and explode.

Warning! When charging batteries NEVER connect or disconnect the charger while it is still connected to the mains.



Connection Instructions

When you receive your vehicle the batteries are only partially charged – always fully charge them before use preferably over-night. Correct battery charging prolongs the life of your batteries.

1. **Place your machine in an area that is dry and well ventilated.** Make sure a power point is nearby.
2. **Check the vehicle is switched off and the key removed.**
3. **Check the mains switch is off.** Never connect or disconnect the charger with the mains on.
4. **Undo the battery cover lid and take out the power cord.** Check power cord is undamaged.
5. **Plug the power cord into a thirteen amp earthed plug** and switch on.
6. **Check the ammeter registers greater than 1** to ensure that the vehicle is being charged.
7. **Check the battery indicator on the dash when it reads fully charged** (extreme right of the green area)
8. **Switch off the mains and remove the plug,** return the cable and close the battery cover.
9. **Do not leave the charger plugged in with the power off.** This will gradually discharge your battery.

The batteries are the lifeblood of your vehicle. Their characteristics can change depending on charging, temperature, usage and other factors. Listed below are guidelines to prolong battery life.

Charging your Batteries

1. **After using your vehicle always charge it at the end of the day** even after a short journey.
2. **If you do not use your vehicle for a prolonged period, place it on charge once a week, overnight.**
3. **Always use the correct batteries.**
4. **If the batteries have been flat for a long time (about 2 months) it is recommended you contact your dealer** before charging.
5. **Do not charge the vehicle in the open** – it may rain and the battery charger is not waterproof.
6. **Keep the vehicle in a well-ventilated area** and away from any naked flame.
7. **Do not part charge the batteries.** Allow the charger to complete its cycle.

These items are expensive to replace – it is wise to look after them.

Notice Return your unserviceable batteries to your supplier or ensure they are disposed of in accordance with the environmental regulations applicable at the time.

Warning! If one or both batteries are damaged they could heat up when charging and, in an extreme case, explode.



Troubleshooting Guide

This table is a guide to fault finding. The fault may be a simple fix. If you have any doubts phone your dealer.

Symptom	Solution
<ul style="list-style-type: none"> • Scooter does not move. when power is switched on. Check: Does the battery level indicator work when the ignition is switched on? 	<ul style="list-style-type: none"> • Freewheel is engaged. • Freewheel has been selected while power is on. Ensure freewheel is not selected, switchoff and on. • Batteries flat- check level.
<ul style="list-style-type: none"> • Steering is loose or wobbly when driven. Check: Have you hit a kerb or obstacle hard? Are the handlebars straight when riding in a straight line? 	<ul style="list-style-type: none"> • Check for tyre damage or punctures. • Damaged steering - contact dealer. • Loose seat - contact dealer.
<ul style="list-style-type: none"> • Vehicle behaves erratically when driven. Check: Does the vehicle judder or cut out? 	<ul style="list-style-type: none"> • Possible electronic problems - contact dealer.
<ul style="list-style-type: none"> • Short Range. Check: If the ammeter indicates charging after all night charging it could indicate a defective battery. 	<ul style="list-style-type: none"> • Binding front wheels. • Binding rear wheel - emergency brake. • Switch into freewheel and the vehicle should move easily. If not contact dealer.

Your dealer is there to help you but they can only do this if you give them as much information as possible.

Remember correct information will get the problem fixed quicker and save you money. Phone the dealer and explain exactly what the problem is. Remember small points help the engineer to identify the problem before he calls to fix it.

Use of the Status Light Signals for Diagnostics

Your scooter is fitted with a status light on the top right hand side of the dash. This light flashes to help you to identify a fault. The flash codes (number of consecutive flashes) are listed below:

Flashes	Cause	Action
1	Battery Charge Low	Scooter will drive but recharge the batteries as soon as possible.
2	Battery Voltage Low	Scooter will not operate. Recharge the batteries.
3	Battery Charge High	Scooter will not operate. Unplug charger. Switch scooter on and off.
4	Current Limit Cut-out	Scooter will not operate. Switch scooter off and retry later. If still failed contact dealer.
5	Brake fault	Scooter will not operate. Contact dealer.
6	Finger control pressed at power up	Scooter will not operate. Switch off scooter. Ensure finger control central and switch on.
7	Speed Control Error	Scooter will not operate. Contact dealer.
8	Motor Voltage Error	Scooter will not operate. Contact dealer.
9	Controller Error	Scooter will not operate. Contact dealer.

If the light flashes after you switch the scooter on this indicates a fault. Try and determine the flash code sequence so that you can advise the dealer, if necessary, of the probable fault.

User Maintenance

It is important for safety that you carry out the following checks before use.

1. **Visually check the machine** for damage.
2. **Visually check the tyres** for damage and check if they need inflating.
3. **Check the steering moves freely.**
4. **Check that the Tiller adjustment lever is secure and locked.**
5. **Check that the Seat is located correctly** and locked.
6. **Check the armrests are secure** and the knobs are tight.
7. **Batteries should be fully charged.**
8. **Ensure batteries are secured by battery straps.**
9. **Ensure the front basket is secure** (if fitted).
10. **Keep your vehicle clean** by washing with a sponge and soapy water - **never** use a hose.

Important - Possible faults

As you get used to your vehicle you will get a feel for how it behaves. If something feels unusual, for instance the vehicle does not accelerate or brake smoothly; the brakes are not holding on a slope or the steering feels different, contact your dealer immediately and explain to the engineer exactly what the problem is.

Disposal

Contact your dealer for advice before you consider disposing of your scooter. They will be aware of the environmental regulations applicable at the time and will assist you to meet the applicable environmental legislation.

Additional Safety Information

Carrying Weight on the Vehicle

Front Basket

The basket mounted on the front has a weight limit of 10lbs (5kgs). Do not exceed this as it could effect the steering.

Handlebars

Do not carry or attach anything to the handlebars. Anything attached to the handlebars will affect the control of the vehicle.

Floor Area

Do not use the floor area to carry things. They might fall off, or obstruct your movement.

Modifications

Unauthorised modifications could result in injury or permanent damage. Such modifications will invalidate any guarantees.

Other Items

Only fit approved products or accessories.

Child Safety

This product is designed to be operated by adults. Children should not be allowed to tamper with the controls or play on the vehicle. **Do not carry children as passengers.** The product is designed for single person use only. Keep all packaging well away from children. They could be harmed.

Frequently Asked Questions

I want to transport my vehicle in a car.

There are various techniques to loading the vehicle into an estate car. It depends on what type of vehicle you own. Make sure your dealer has demonstrated the easiest way of doing this.

Can I fit weatherproofing such as a canopy ?

Yes, but remember if you alter the vehicle in any way it will void your guarantee. Be aware that enclosed canopies can affect the handling of the vehicle in strong winds.

How long will my batteries last ?

This is a difficult question as it depends on many factors. The life of a battery depends upon the number of cycles the battery goes through, the peak loads and on the conditions of use. Some general advice about battery care:

- Keep them charged, do not let the batteries run completely flat.
- Batteries may not perform as well in very cold weather.
- Change your batteries if you find they are not performing as well as new.

What range can I expect ?

The generally expected range is up to 40 Km or 25 miles. However, range can be affected by many things, such as:

- Temperature. Cold weather can reduce the output of the batteries.
- Type of terrain. Obviously climbing hills takes more energy than driving on the flat.
- Weight of the person.
- The condition and charge of the batteries.
- Faulty or old batteries or a
- Faulty charger

Important Rule: Always use the correct batteries as defined in the technical specification.

How long should I keep my vehicle before I change it?

It is important that the vehicle you have suits your needs and abilities. Your 600T and F model scooter should serve you well for many years but change it if at any time you feel it no longer meets your needs. Consult your Electric Mobility dealer on the condition of your vehicle and remember vehicles of any type become more expensive to maintain the older they get.

Additional Information

Owners Manual: Replacement copies are available from: Electric Mobility Euro Ltd. Canal Way, Ilminster, Somerset, TA19 9DL Telephone: 01460 258100.

If you are visually impaired, please contact the Company to discuss your requirements. However, you should not drive a vehicle in a public place if you cannot see well enough to ensure your own, and others safety. Each vehicle comes with a copy of the BHTA Highway Code. Please make sure you read it. Telephone BHTA on 02077 022 141 for a new copy.

Important note on the BHTA Highway Code: On page 3 of the Code under “Consider Investing in a mobile phone” Read the section of this manual under “Safety Information”. If in doubt contact your dealer. For Information regarding other Electric Mobility products contact your dealer or log on to the Electric Mobility Website www.electricmobility.co.uk

Servicing and Maintenance

1. **This vehicle is designed for minimum maintenance.** However it is recommended that an approved Electric Mobility Dealer services your vehicle at least once a year. If the vehicle is used constantly we recommend a twice-yearly maintenance.
2. **Ensure the engineer stamps this Handbook** on completion for all servicing carried out on this vehicle. Keep all receipts for servicing and repairs with this handbook. This may add value when selling the vehicle.
3. **When the vehicle is due for its annual service make sure you report any concerns you have,** preferably when you book the service (See points to look out for below).
4. **On completion of the service, Always test the vehicle** before the engineer leaves and make sure you are satisfied with the work carried out.

Points to look out for:

- Are there any strange noises from the wheels or does the frame creak when going over rough ground?
- Are the batteries charging up correctly – is the full charge light coming on after charging?
- Is the steering tight or is it loose when turning? Is there any play in the steering?
- Does the seat lock securely in position? Does it squeak when rotated?
- Has anything come loose?
- Does the vehicle perform as well as it did when it was new?
- Are there noises or rattles that were not there before?
- Are there any signs of damage or cracking?

Engineer's Checklist

Servicing is to be carried out by a trained and competent technician familiar with the 600 T and F Models.

- Initial diagnostic road test
- Wheel bearings wear and lubricate
- Wheel alignment and tracking
- Wear or damage to tyres or wheels
- Speed dial works correctly
- All Lights and horn function correctly
- Bodywork fixtures
- Frame for damage or cracks
- General corrosion
- Damage to cables, connectors, cable grommets etc.
- Throttle play and adjustment
- Battery box contacts & signs of corrosion
- Correct operation of the battery ammeter
- Steering bearing (adjust as required)
- Tiller adjustment – functioning, wear and damage
- Seat mounting for cracks or damage
- Revolving seat mechanism locates and locks correctly
- Electric seat height adjustment (if fitted) check correct function
- Handlebar alignment
- Motor brush wear
- Motor speed check
- Electromagnetic brake operation
- Freewheel operation
- All operational controls and lights work correctly
- Battery condition and charger operation
- Tighten all nuts & bolts
- Final road test
- Clean vehicle
- Customer road test

Important Note for the Engineer

Enquire if the customer is satisfied with the product. Please report all points good or bad directly to: Electric Mobility +(0)1460 258100 If you have any comments please include them.

Guarantee and Warranty

Lifetime Frame Guarantee

Electric Mobility Euro Ltd guarantees the frame of its vehicles to be free from defect in materials and workmanship under normal use as described in this document for the lifetime of the vehicle. Should a defect in materials or workmanship appear, Electric Mobility Euro Ltd, will repair, or at its option, replace the frame to the original owner.

One Year Limited Warranty

Electric Mobility Euro Ltd warrants its products against defects in material and workmanship for a period of one year, providing the products are properly assembled, operated and maintained in accordance with the vehicle Owners Manual. This limited warranty is limited to the original purchaser. This limited warranty commences on the date of the original retail purchase or original use, whichever occurs first, providing the warranty card is fully and correctly filled out and returned to Electric Mobility Euro Ltd Customer Service Department within 15 days from receipt of product. If a defective part appears within the stated limited warranty period and the purchaser has given Electric Mobility Euro Limited immediate notice the Company will repair the part or at its option replace the part with a similar part. No allowance will be made for repairs to any equipment without the expressed written or verbal approval of Electric Mobility Euro Limited. Any description, specifications, samples, models, bulletins or similar materials used in connection with the sales of Electric Mobility Euro Limited products are for the sole purpose of identifying the equipment and are not to be construed as expressed warranties. This limited warranty applies only to the original purchaser of the equipment and is not transferable. Electric Mobility Euro Ltd shall not be liable for special, indirect or consequential damage. Electric Mobility Euro Ltd's liability on any claim of any kind including negligence for any loss or damage arising out of, connected to, or resulting from the order of the performance thereof the design, manufacture, sale, delivery, resale, direction and instructions, inspection, repair or use of any equipment covered by or furnished by, under this order, shall in no case exceed the price paid by the purchaser for the equipment. This limited warranty does not cover normal maintenance service, or periodic adjustments necessitated by use of wear. Under no circumstances will charges for labour, consequential damage or repair expense be allowed after 30 days from receipt of product.

Technical Information Regarding EMI

Important Technical Information regarding Electromagnetic Interference (EMI)

The intensity of interference from electromagnetic energy is measured in volts per meter (v/m), which refers to the strength of the electrical source (voltage) as it relates to the distance away from the object being considered (in meters). Resistance of a scooter/wheelchair to certain EMI intensity is commonly called its "immunity level". 20 volts/meter is a generally achievable and useful immunity level against interference from radio wave sources (the higher the immunity level, the greater protection).

Your scooter has been tested and found to meet the required immunity level from Electromagnetic Interference (20v/m): the recommended density of interference from electromagnetic energy.



Warning! Even with the immunity level of 20 volts/meter, certain precautions must be followed to ensure your scooter/wheelchair will not be affected by outside electromagnetic sources.

- Do not operate devices such as CB radios or mobile phones while the vehicle is switched on.
 - Avoid getting close to transmitter masts, such as television and radio masts.
 - Note you may experience interference when close to ambulance or fire stations.
- If your vehicle starts to operate by itself switch it off and report this to your Dealer.

Technical Specification - Rascal 600T Scooter

Wheelchair type Class	Class A, B or C	Class B
Department of Transport Class	Class 1 2 or 3	Class 2
Overall dimensions fully assembled	length x width x height mm (in)	1170 (46) x 635 (25) x 980 (38.6)
Dimensions seat removed tiller folded	length x width x height mm (in)	1170 (46) x 635 (25) x 600 (23.6)
Maximum carrying capacity	kg (lb)	204 (450)
Mass (weight) including batteries	kg (lb)	93 (206)
Battery voltage and capacity	volts and ampere hours	12V 40Ah x 2
Mass (weight) of battery (each)	kg (lb)	15.6 (34)
Type of seat		Adjustable armrest and height, backrest and swivel mounting
Mass (weight) of seat	kg (lb)	14 (32)
Mass (weight) of front section	kg (lb)	11 (25)
Mass (weight) of rear section*	kg (lb)	14.2 (31.2)
Mass (weight) of tiller	kg (lb)	3.5 (7.8)
Mass (weight) of gearbox and motor drive train	kg (lb)	19.5 (43.4)
Wheel size	front/rear mm (in)	254 x 76 (10 x 3) / 254 x 76 (10 x 3)
Type of tyres	type	Pneumatic
Tyre pressures normal	front/rear mm (in)	30/30 psi (2 bar)
Tyre pressure maximum - not to be exceeded	front/rear mm (in)	35/35 psi (2.3 bar)
Maximum speed	km/h (m.p.h.)	6.4 (4)
Minimum braking distance from maximum speed	m (ft)	1.6 (5.4)
Range on full charge and flat ground	km (miles)	Up to 40 (25)
The turn-around width	m (ft)	2.6 (8.5)
The maximum safe slope	degrees of slope	10° - Do not exceed the scooter may topple
The maximum climbing ability facing upwards	degrees of slope	14°
Ground clearance	mm (in)	80 (3)
Maximum obstacle climbing ability	mm (in)	50 (2)
Maximum safe descendable kerb height	mm (in)	50 (2)

* without seat, gearbox and motor drivetrain

Technical Specification - Rascal 600F Scooter

Wheelchair type Class	Class A, B or C	Class B
Department of Transport Class	Class 1 2 or 3	Class 2
Overall dimensions fully assembled	length x width x height mm (in)	1238 (48.75) x 635 (25) x 980 (38.6)
Dimensions seat removed tiller folded	length x width x height mm (in)	1238 (48.75) x 635 (25) x 600 (23.6)
Maximum carrying capacity	kg (lb)	204 (450)
Mass (weight) including batteries	kg (lb)	100 (221)
Battery voltage and capacity	volts and ampere hours	12V 40Ah x 2
Mass (weight) of battery (each)	kg (lb)	15.6 (34)
Type of seat		Adjustable armrest and height, backrest and swivel mounting
Mass (weight) of seat	kg (lb)	14 (32)
Mass (weight) of front section	kg (lb)	18 (40)
Mass (weight) of rear section*	kg (lb)	14.2 (31.2)
Mass (weight) of tiller	kg (lb)	3.5 (7.8)
Mass (weight) of gearbox and motor drive train	kg (lb)	19.5 (43.4)
Wheel size	front/rear mm (in)	254 x 76 (10 x 3) / 254 x 76 (10 x 3)
Type of tyres	type	Pneumatic
Tyre pressures normal	front/rear mm (in)	30/30 psi (2 bar)
Tyre pressure maximum - not to be exceeded	front/rear mm (in)	35/35 psi (2.3 bar)
Maximum speed	km/h (m.p.h.)	6.4 (4)
Minimum braking distance from maximum speed	m (ft)	1.8 (5.8)
Range on full charge and flat ground	km (miles)	Up to 40 (25)
The turn-around width	m (ft)	3.3 (10.8)
The maximum safe slope	degrees of slope	10° - Do not exceed the scooter may topple
The maximum climbing ability facing upwards	degrees of slope	14°
Ground clearance	mm (in)	80 (3)
Maximum obstacle climbing ability	mm (in)	50 (2)
Maximum safe descendable kerb height	mm (in)	50 (2)

* without seat, gearbox and motor drivetrain

Factory Returns Procedures

If a part or the entire product is to be returned, call Electric Mobility Customer Service Centre to obtain a Return Authorisation Number that must be placed on the return package or crate. This number is used to identify the customer, the part and the type of repair. Any part or product received without this number will be returned to the sender at their expense.

In the event that you must return the product, a customer service representative can help you make the necessary arrangements. To help us serve you as quickly as possible have your serial number and your order number ready when you call. When ordering parts, please have your method of payment ready (i.e. credit card number and expiration date, cheque or COD etc.)

Nithsdale
Wheelchairs

Service Log

Notice for the Service Engineer.

Please make sure this part is stamped and dated after each service.

Dealer stamp - 1st Service

Dealer stamp - 2nd Service

Dealer stamp - 3rd Service

Dealer stamp - 4th Service

Dealer stamp - 5th Service

Dealer stamp - 6th Service

Dealer stamp - 7th Service

Dealer stamp - 8th Service

Nithsdale Wheelchairs

Brochure Request

Do you have a friend or colleague that would be interested in an Electric Mobility product?
If so cut out this coupon and send it to the address shown on the back of the manual.

My Dealer's Company name is: _____

Please can I have a free no-obligation home demonstration.

Please send me a brochure of the range of products.

My friend's name is: _____

My friend's address is: _____

County: _____ Postcode: _____

My friend's telephone number is: _____

If you are visually impaired, please contact the Company to discuss your requirements. However, you should not drive a vehicle in a public place if you cannot see well enough to ensure your own, and others safety.

Postage will be paid by: Electric Mobility Euro Ltd., FREEPOST (SWBI 1045), Ilminster, Somerset, TA19 9ZA



Dealer Information - Warranty Card

This section is to be filled out by the Dealer and sent to Electric Mobility Euro Ltd.

Dealer: **Nithsdale Wheelchairs**

Product Description: _____

Serial No.: _____ Invoice No.: _____

Customer Name & Address: _____

County: _____ Postcode: _____

Telephone No.: _____

Date received at Dealers: _____

Postage will be paid by: Electric Mobility Euro Ltd., FREEPOST (SWBI 1045), Ilminster, Somerset, TA19 9ZA



**Electric Mobility Euro Ltd.,
FREEPOST (SWBI 1045),
Ilminster,
Somerset,
TA19 9ZA**

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Somerset,
TA19 9ZA**

Notes

Nithsdale
Wheelchairs

Nithsdale
Wheelchairs

Rascal 600F / 600T Scooters

Manufactured by

**ELECTRIC
MOBILITY** **EURO**

Rascal 

Electric Mobility Euro Limited, Canal Way, Ilminster, Somerset TA19 9DL
Telephone: 01460 258100 www.electricmobility.co.uk

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